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  - DH-121 Creating an accounting point
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  - Balance deviation data
  - DH-610 Notification of balance deviation data
- DH-700 Product and invoice row information maintenance and retrieval
  - DH-710 Product information update
  - DH-720 Product information request
  - DH-730 Invoice row information notification
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  - DH-810 Customer's authorization from a party
  - DH-820 Customer's authorization from customer
  - DH-840 Notification by party of termination of authorization
- DH-900 Party information maintenance
  - DH-910 Notification of party information
  - DH-920 Party information request
- DH-1000 Retrieving data via the data interface
  - DH-1000 Accounting point information retrieval
  - DH-1001 Contractual information retrieval
  - DH-1002 Time series data retrieval
  - DH-1003 Authorization information retrieval
  - DH-1005 Customer information retrieval
  - DH-1006 Market party information retrieval

## DH-110 Customer information maintenance

Customer information in Datahub

Distribution of information by customer and agreement

Customer type and identification

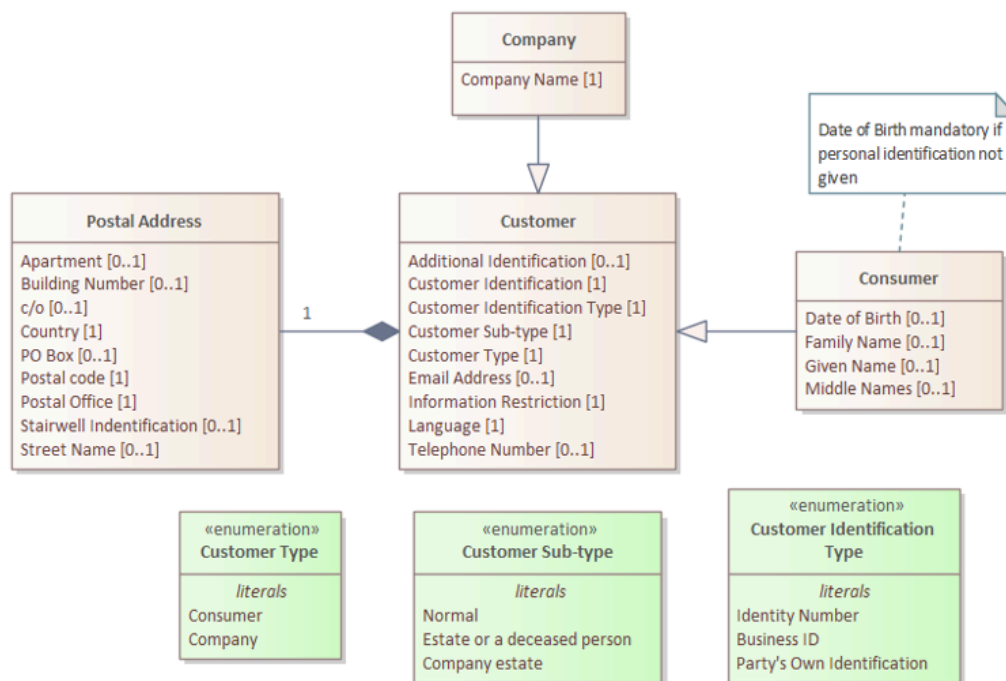
Accuracy and maintenance of customer information

Private customers

Customer information maintenance events

### Customer information in Datahub

Customer information stored in Datahub is outlined in the diagram below.



Customer information class diagram

Customer information maintenance in Datahub operates on the premise that a customer is only created once and then the customer's basic information is distributed among all the market parties with whom the customer has an agreement. The customer's basic information only encompasses the information which, from a market perspective, needs to be updated in a centralized manner and other information is maintained as part of agreement information on a market-party-specific basis.

At a high level, name, identification, contact and postal address information are considered to be customer information. In the case of company customers, the information of the company's head office is used in the customer's contact and postal address information.

Agreement-specific information, on the other hand, consists of invoicing address and contact person information. In the case of company customers, the agreement-specific information indicates the (branch) office to which the agreement applies. A customer note can also be given for an agreement to identify, for example, a department, an office or a municipal department on the agreement. The same customer note can be used to identify the supplementary company name for the agreement for a company customer. The supplementary company name is not its own unique customer in Datahub because it uses the same business ID as the actual company customer to which the supplementary company name belongs. In order to avoid multiple unnecessary updates of data, special attention should be paid to whether information should be maintained as customer or agreement information. Additional instructions on maintaining customer and postal address information can be found in the [Datahub name and address structure guide](#).

#### Distribution of information by customer and agreement

Customer information	Agreement information
Name	Invoicing address
Code	Contact person
Official address (postal address)	Contact person's contact details (telephone number, e-mail address)
Contact details (telephone number, e-mail address)	

#### Customer type and identification

There are two types of customers in Datahub: **consumer and corporate customer**. All legal persons (companies, organisations, public operators) are processed as corporate customers and all natural persons are processed as consumer customers, also called residential customers. Customers are uniquely identified in Datahub using a code which, depending on the type of customer, is either a personal identification code or a business ID number (or VAT code for foreign companies). As such, agreements may only be reported to Datahub if the customer information includes such a code (special situations where a party's own identification is used are described below). If an agreement is made in the names of several customers, the information of all customers and related codes will be reported, whereupon the agreement will be linked to multiple customers in Datahub.

If the matter concerns a **foreign customer** who does not yet possess a Finnish personal identification, the agreement can under special circumstances be reported without an ID, but the customer's date of birth is nevertheless required. In addition, the party's own identification ("other" identification), which is formed of a supplier party identification (GLN identification) and supplier's customer identification, is also reported to Datahub as the customer identification. When a new agreement to the customer is reported the customer's party's own identification created by the supplier is forwarded also to the DSO. Based on this, the supplier and the DSO can later identify the customer in Datahub. If a customer has a foreign personal identification or equivalent, it can be reported to Datahub using the customer's additional information field.

A party that reports such an agreement is under obligation to update the customer's information in Datahub as soon as a personal identification is available. After the update all customer's previous agreements can be found with the new personal identification number. Foreign customers are the only exception which allows for an agreement for a consumer customer to be reported to Datahub without a customer ID. The creation of customers without identification in Datahub will be monitored.

**Private traders** are corporate customers who are personally responsible for their agreements. All private traders get a business ID when they register with the authorities. For private traders, a personal identification for a corporate customer must also be entered. In Datahub, private traders are identified with their business ID and personal identification is provided in the customer's additional identification field. Thus, it is possible to tell the private trader apart from the corresponding consumer customer based on customer identification.

Company customers without a business ID (e.g. certain consulates or road councils) are reported using a party's own identification, which is formed of a supplier party identification (GLN identification) and supplier's customer identification.

Customer has an attribute "Customer sub-type" reserved for handling an **estate of a deceased person**, because the market parties often handle these customers in a different way than other customers. The attribute can be used to improve the processes the parties have for handling estates of deceased persons.

If a company goes bankrupt, it is normal in these situations that the agreement is made with the **bankrupted company** estate when it does not yet have a new company identification. A new agreement can be reported to a company estate without a company identification by giving a customer sub-type company estate and forming a party's own identification for this customer.

## **Accuracy and maintenance of customer information**

Parties are responsible for the accuracy of the customer information that they report to Datahub. Datahub does not carry out internal data validation, such as checking whether a customer's name and business ID correspond to one another. Parties must ensure that a corporate customer's name is reported in its official format as it is on the official register (YTJ). In addition, it must be ensured that the postal address given to a company customer in the customer information corresponds to the address of the company's main office. The address information for separate branch offices must be maintained in the agreement information. Additional instructions on maintaining customer and postal address information can be found in the [Datahub name and address structure guide](#).

A customer is only created in Datahub as part of agreement processes. If a customer in an agreement notification submitted by a party cannot be found in Datahub using an identification, it should be created in Datahub as a new Customer record. If the customer can be found in Datahub using an identification, the agreement to be reported is attached to the existing Customer record. In addition, the customer's information is updated to correspond to the customer information provided. If an agreement with several customers is reported, meaning that the party's agreement notification contains several agreement partners, several Customer records will be linked to the agreement in Datahub.

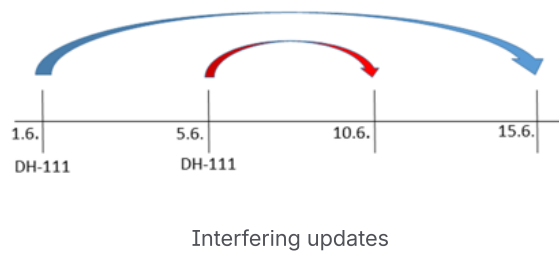
It is generally the supplier's responsibility to update customer data in Datahub. Customer information can be updated by those suppliers who have a valid agreement with the customer. Customer information can be updated as part of agreement processes or using a separate notification. In addition, the DSO or third party can send a customer information update request to Datahub which is then sent to the supplier with the latest agreement with the customer. This supplier then updates the customer information because it is assumed to have the most recent customer information. The supplier can refuse to update the information if it considers the update request to be unfounded or erroneous. The supplier is to respond to the update request by sending a customer information update to Datahub containing either information reported by the DSO/third party (the supplier approves the update request) or customer information found in the supplier's own system (the supplier rejects the update request). If the supplier does not respond to the update request within 2 working days, this is notified in Datahub operators monitoring and the operator will remind the supplier until it responds to the request. A personal identification or a business ID can be added to a customer in an update, but this identification may never be updated. If for some reason the identification would need to be corrected, this is then done by [notifying the Datahub operator](#), who will then do the update.



If the customer information is updated in the supplier's own system but there are no changes to the customer information that is maintained in Datahub, the supplier's system must not send a customer information update event to Datahub. Likewise, a DSO or a third party must send a request to update customer information only if the customer information that is maintained in Datahub has changed. When the changed information is stored in Datahub, Datahub forwards the information to all parties that hold valid (current or future) agreements or valid authorizations with the customer. Datahub checks then to whom the notification is sent according to the rights on the start of occurrence of the change. If an agreement has ended less than 6 weeks ago, updated customer information is also forwarded to the previous supplier of that agreement. In order to prevent reporting and forwarding unnecessary or incorrect information, the parties must ensure that the updated customer information is correct and that the need for updating is based on a confirmed need of the customer. In addition, the update of customer information must not automatically trigger another event, such as the update of the agreement billing address ([DH-321](#)), unless the need to update the information also applies there.

In the event that sales and grid agreements are in different customers' names (the situation for agreements made before the implementation of Datahub and whose data was imported to Datahub via migration), the grid's customer information can be directly updated based on DSO's request if the customer has no sales agreement at all.

It is possible that there are multiple updates to the same customer information during the same time period, because the customer may have agreements with multiple market parties. In case of interfering updates to customer information, Datahub retains the information that was reported latest, because it is expected to contain the latest information. In a situation described in the figure below, if both events update the same piece of customer information, for example the telephone number, the information reported to Datahub on 5.6. that takes effect on 10.6. would still be valid after 15.6., because it was reported later. If interfering customer information updates concern the same customer, but different pieces of information, for example one updates the postal address and the other one the email address, both updates will take effect in Datahub according to their start of occurrences. The aforementioned mode of operation is also applied when different business processes update the information of the same customer. In addition to DH-110 processes, customer's information may be updated by [DH-311](#) new sales agreement process in Datahub.



## Private customers

Datahub allows for the completion of “private” customers’ processes. Private customer means that the customer has a non-disclosure order for personal safety or that the customer has forbidden the disclosure of their information and thus their information may not be disclosed. One can apply for a non-disclosure for personal safety from the local register offices if a person has reason to fear for their own or their family’s safety. Private customer does not refer to a customer who has reported a non-disclosure for direct marketing to a party.

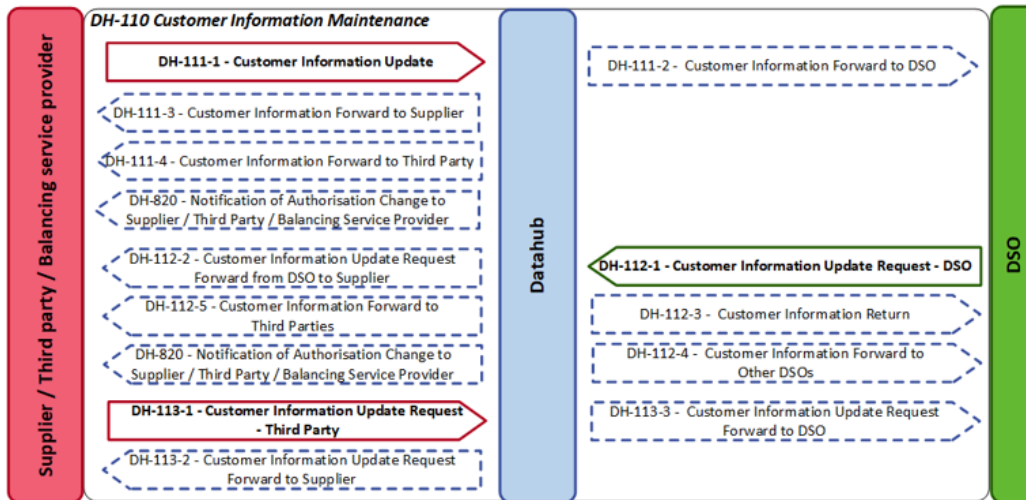
If a customer’s information contains a non-disclosure marking, information is forwarded from the Supplier to the DSO normally during agreement processes. Information about non-disclosure is sent to the DSO along with the customer information linked to the notification of a new agreement.

Private customers cannot issue authorizations to third parties. If a customer who has issued authorizations to third parties is marked as “private”, the existing authorizations are terminated immediately when the notification is received in Datahub. Information about a customer changing to private is forwarded to the customer’s other suppliers and DSOs normally as a customer information update event. DSOs and suppliers may relay the information of these customers through Datahub when these market parties authorize third parties to act on their behalf. In these cases, third parties may not use the customer information of these customers for any other processes than what has been agreed with the market party.

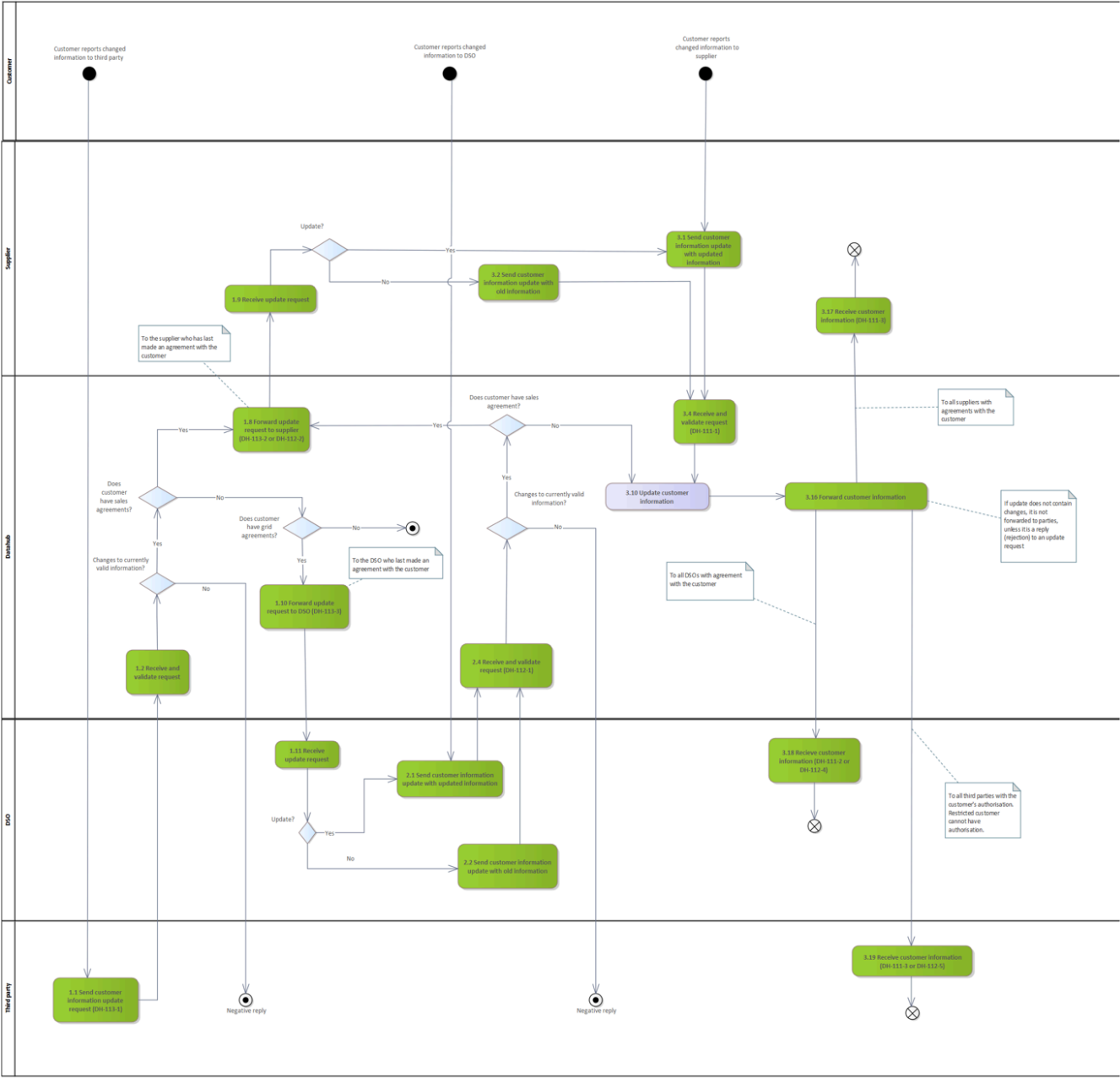
If the customer wants to remove the “private”-marking from his information, this can only be done by the customer himself through the end user interface.



## Customer information maintenance events



DH-110 Process maps



Customer information update process map

## DH-110 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-111 Customer information update – supplier

Event description

Parties

Important considerations for event handling

Time limits

Event processing in Datahub

Information storage

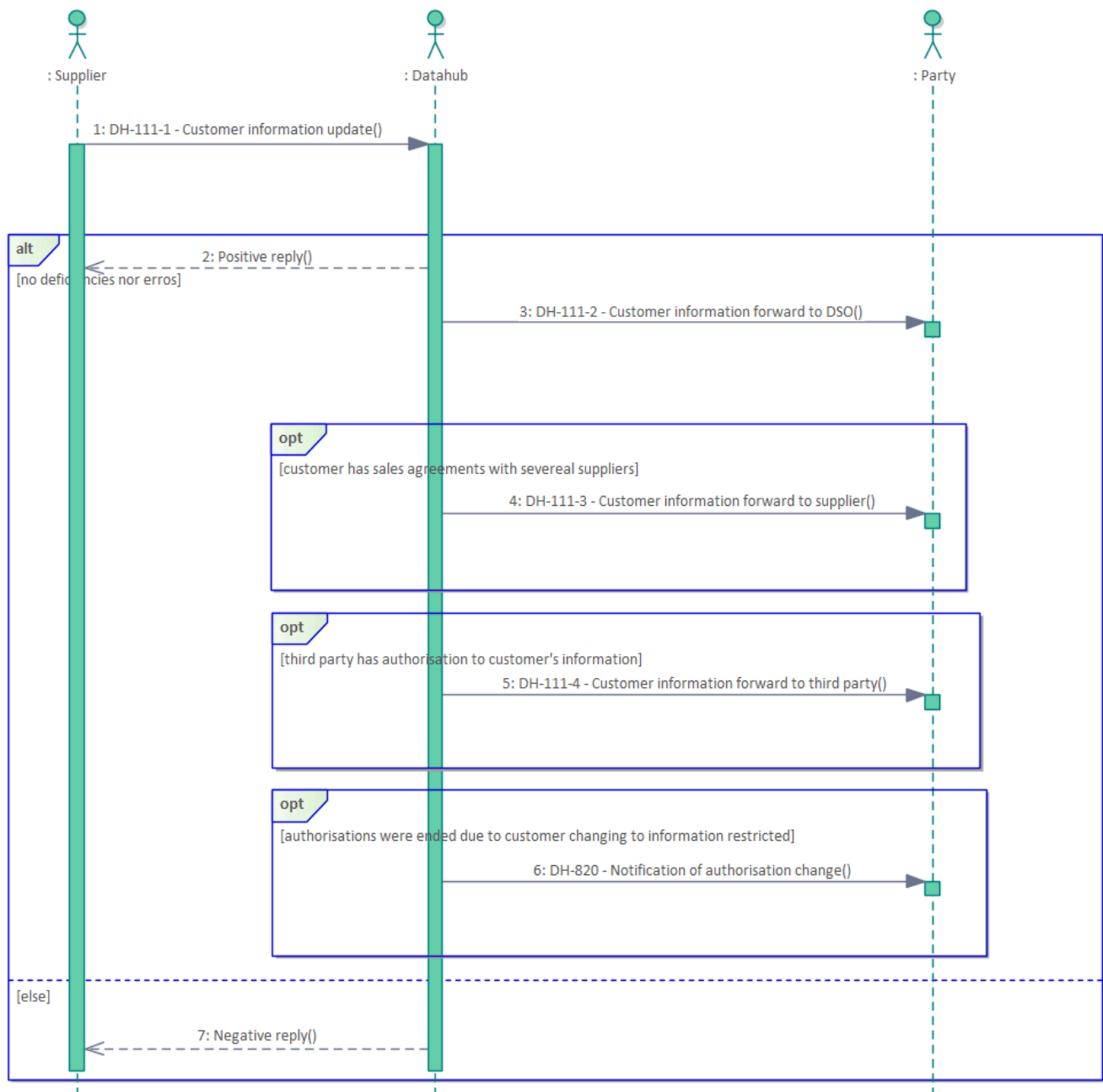
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Customer information update

## Event description

The supplier updates the customer information in Datahub or replies to a customer information update request. As a reply to a customer information update request, current customer information can be reported too. Reporting current information means that the update request is rejected.

The supplier reporting the event must have a sales agreement with the customer that is either valid at the indicated time of the update, will become valid after the indicated update time, or has ended no more than six weeks before the update is reported to Datahub.

## Parties

- Supplier
- Datahub
- DSO
- Third party
- Balancing service provider

## Important considerations for event handling

- A customer information update must not be sent automatically based on any event forwarded to the party by Datahub (excluding customer information update requests DH-112-2 and DH-113-2), such as a customer information update message (DH-311-6) received based on a new sales agreement. An automatic update is allowed only as a response to a customer information update request from another party (DH-112-2/DH-113-2). However, a customer information update request may not be automatically rejected.
- The update must be based on the customer's verified need for an information update.
- Updates to customer information made by a party in their own system must not trigger an update to Datahub if the update does not change the customer information maintained in Datahub.
- The update of customer information must not automatically trigger another event, such as the update of agreement billing address (DH-321), unless the updated information also applies to the agreement.

## Time limits

Effective time of the update	Notes/Exceptions
The customer's updated information is exported to Datahub immediately after being updated in the supplier's system.	
The date the update takes effect may not be in the past and it can be at most 90 days in the future.	Validity periods are for whole days.
When a supplier responds to a customer data update request, the update should be reported within two working days of receiving the request.	Information about customer update is still accepted after this period but there will be intervention in the case of notifications that are sent late on a repetitive basis.

## Event processing in Datahub

Step	Description
Partial update of customer data	<p>When updating customer information, a partial update is used, where only the information entered in the event is updated. Data fields that are not included in the event retain their previous value. If information needs to be deleted from Datahub in the partial update, the data field in question is included in the event empty.</p> <p>For example, if only the customer's e-mail address is reported in addition to the mandatory information in the update of the customer's information, the only optional customer information that is updated is the e-mail address. If the customer already had, for example, a phone number, it remains unchanged.</p>
End of authorizations	If the customer is changed to private, all customer authorizations are ended.

## Information storage

Origin of information	Information stored
Information reported by the party	The customer information reported by the supplier will take effect on the specified effective date. Old information is stored in Datahub. The supplier has the primary responsibility for the accuracy of customer information.
	Datahub stores and forwards the name of a postal locality located in Finland entirely in uppercase letters, even if it is submitted in a different format by the reporting party.
Information processed by Datahub	Any potentially updated authorization information.

## Return of information

Party	Description	Message
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Supplier	Notification of a successful or rejected customer information update.	<a href="#">ACK</a>
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## Forwarding of information

Party	Specification	Description	Message
Supplier	All of the customer's sellers	If the event contains updates to customer information, customer information is forwarded to suppliers who have a valid agreement with the customer at the time of entry into force, or whose agreement ended no more than 6 weeks earlier, or will become effective in the future.	<a href="#">DH-111-3</a>
		If the customer is changed to private, a notification of the change in authorization is sent to those parties whose authorizations were terminated.	
DSO	All of the customer's DSOs	If the update includes changes to customer data, the information is forwarded to DSOs who have a valid or future agreement with the customer at the time of entry into force.	<a href="#">DH-821</a>
	The DSO who requested the update	If the event is a reply to DSO's update request (DH-112), it is forwarded to the DSO in question even if it does not contain any changes to customer information.	<a href="#">DH-111-2</a>
Third party		If the update includes changes to customer information, the information is forwarded to third parties who have a valid authorization from the customer. Note: If the customer is private, the information included in the update is never forwarded to third parties.	<a href="#">DH-111-4</a>
		If the customer is changed to private, a notification of the change in authorization is sent to the parties whose authorizations were terminated.	<a href="#">DH-822</a>
Balancing		If the customer is changed to private, a notification of the change in authorization is sent to the parties	<a href="#">DH-824</a>



service provider		whose authorizations were terminated.	
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## Significant errors and consequences

-  Incorrect customer information is forwarded to all parties that are entitled to the customer information.

Maintaining the correctness of the information is the responsibility of the personal data registrar. Passing on incorrect personal data is a violation of data protection.

Error	Consequence
The customer's postal address is reported incorrectly	Possible mail (incl. invoices) is sent to the wrong address, especially if the agreement does not have a separate invoicing address. This may result in wrong collection actions or a violation of data protection.
The customer's contact information is reported incorrectly	It is impossible to contact the customer as the existing contact information is lost.
The customer's name information is reported incorrectly	Possible mail (incl. invoices) is not delivered or is delivered to a wrong recipient.


## Event cancellation

An update is corrected with a new customer information update. If the update to be cancelled is in the future the cancellation is done with an update with the same start of occurrence. If the update to be cancelled is already valid, customer information can be corrected starting from the current date.

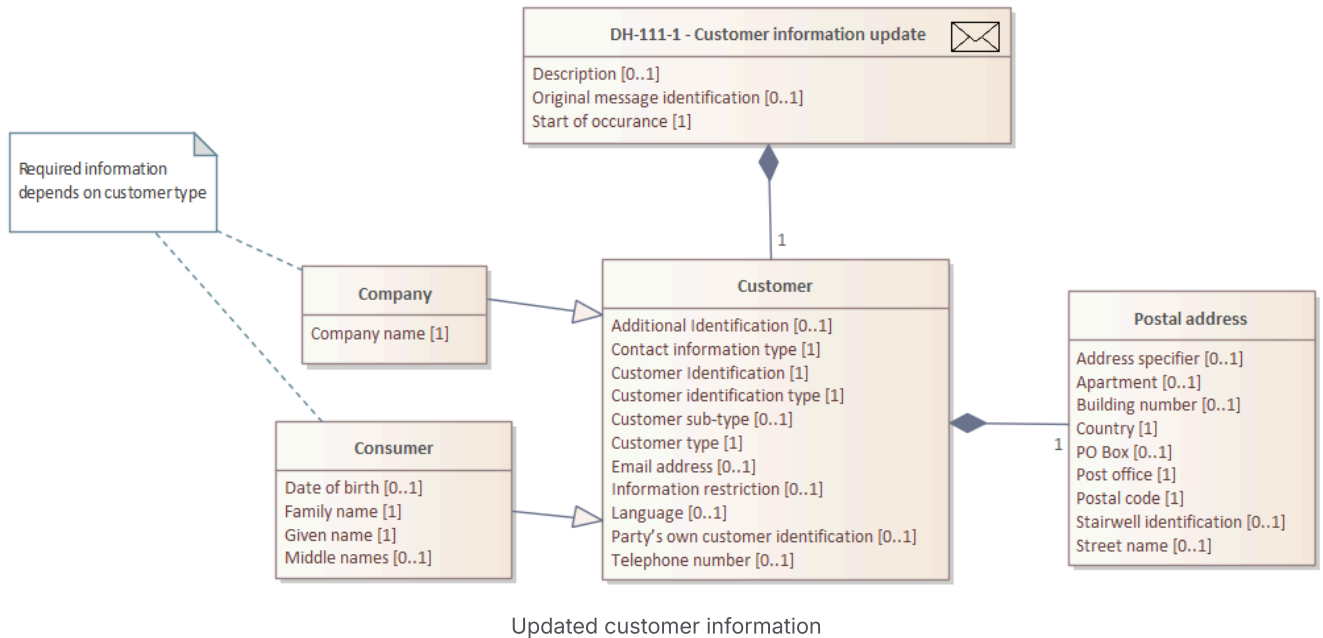
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
A supplier must hold a sales agreement with a customer which is valid at the notified date of an update's entry into force, enters into	EC.AGR.2 19	

force after the notified update date, or has terminated no earlier than 6 weeks before the update is notified to Datahub.		
The customer must be recorded in Datahub.	EC.CUS.1 13	
The customer type cannot be changed.	EC.CUS.1 18	
This event cannot be used to change a customer's status from confidential ("non-disclosure") to non-confidential.	EC.CUS.1 44	
<div>  Please observe that the list is not complete. </div>		

## DH-111-1 Customer information update



Message DH-111-1 is of message type [F01](#).

Message payload includes the following information:

**i** See [Datahub name and address structure guide](#).

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	If message DH-111-1 is a response to event DH-112 or DH-113, the field must contain the identifier of message DH-112-2 or DH-113-2, respectively.	<a href="#">Field usage</a>
Description	2	0..1		

Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If a personal identity code is provided, it must comply with the format requirements for personal identity codes.</p> <p>If a party's own customer identification is used, it must be provided as &lt;notifying supplier's identification&gt;_&lt;customer number&gt; (used as specifying data in a situation in which the personal identity code is not known or business ID does not exist).</p>
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If the customer type is consumer, customer identification type must be either personal identity code or party's own identification. If the customer type is company, customer identification type must be business ID or party's own identification.</p>
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	<p>Company estate only allowed for company customers.</p>
Party's own customer identification	3	0..1		<p>This field can be used only in a situation in which party's own customer identification is updated into a personal ID or business ID. If customer identification type is being updated from party's own identification to personal ID or</p>

				business ID with the update, party's own customer identification is a mandatory field.
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1	Mandatory for a business customer	<p>The company's official name according to the Business Information System Y TJ which can be found in the trade register. In case of an association, the registered name of the association is used.</p> <p>The maximum length of the company name in Datahub is 200 characters. If the name is longer, it is still written according to the official name and the name is truncated after 200 characters.</p>
Given name	3	0..1	Mandatory for a consumer customer	<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).</p>
Middle names	3	0..1		
Family name	3	0..1	Mandatory for a consumer customer	The consumer customer name must not contain numbers.

Date of birth	3	0..1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0..1		If a business customer also needs to have a personal identity code, it is reported in the additional identification field.
Contact information	3	0..2		One telephone number and one e-mail address may be specified for a customer.  If customer's telephone number or email address needs to be removed from Datahub, the contact information element with the type matching the contact information to be removed and the telephone number/email address field empty is sent in the update message.
Contact information type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	4	1..1		<p>The reported telephone number or email address must be in the correct format (see Datahub Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.</p> <p>A phone number must start with a plus '+'.</p>

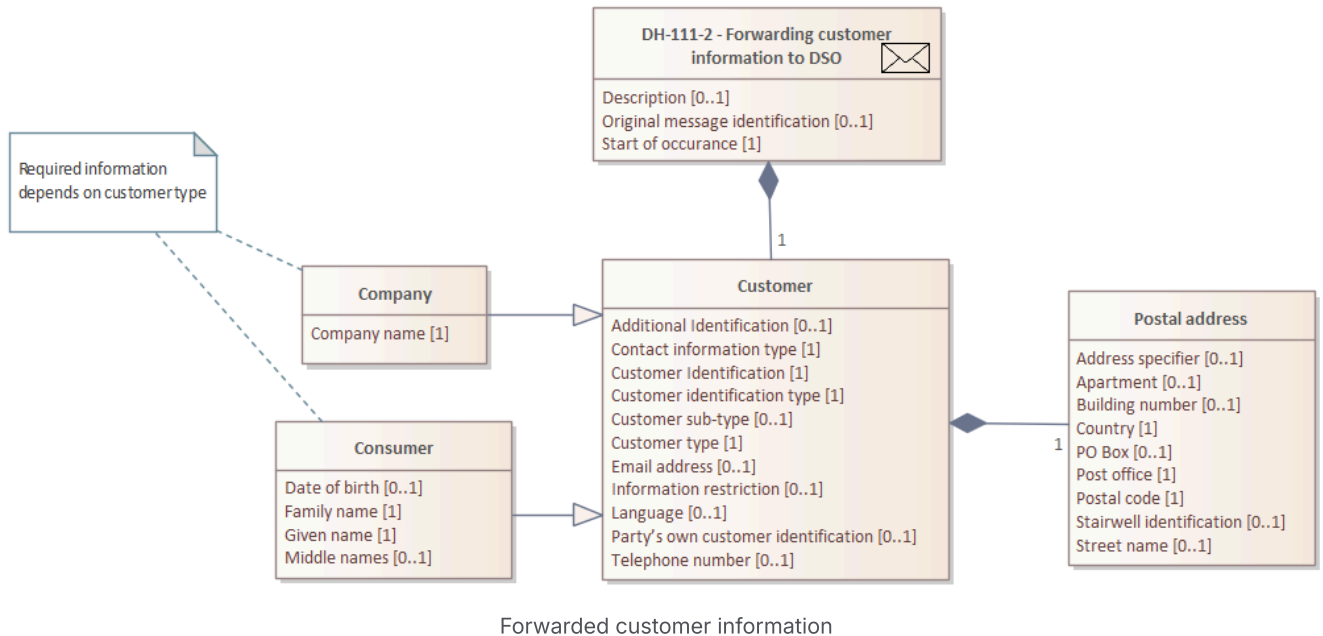
				<p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal address	3	0..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p> <p>If any data needs to be removed from customer information, the field in question will be sent empty.</p> <p>If a Poste Restante address is used, it is entered in the PO Box field.</p> <p>For company customers, the address of the company's main office is used. Addresses for other possible offices are maintained in the agreement information.</p>
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and</li> </ul>

				slash (/) • special characters only are not allowed
Stairwell identification	4	0..1		Rules for the stairwell identification field: • if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase • if only one letter used, it must be in uppercase, if the address is in Finland • spaces are not allowed
Apartment	4	0..1		When the address is in Finland, the apartment field: • may not contain spaces • may not contain uppercase letters • the only special characters allowed are dot (.), hyphen (-) and slash (/) • special characters only are not allowed
Postal code	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 alpha-2 ID is used.	





## DH-111-2 Forwarding customer information to DSO



Message DH-111-2 is of message type [F01](#).

Message payload includes the following information:

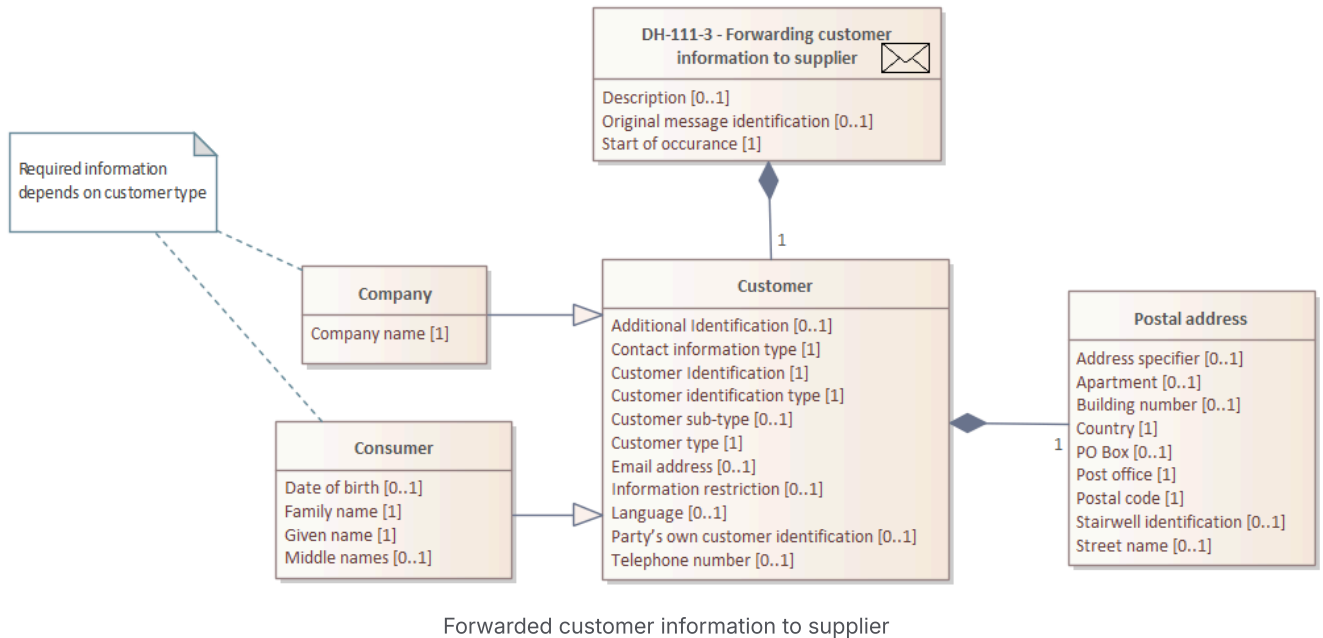
See [Datahub name and address structure guide](#).

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-111-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> </ul>	

			<ul style="list-style-type: none"> <li>• Party's own customer identification</li> </ul>	
Customer identification type	3	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0.1		
Information restriction	3	0.1	Yes/No	
Language	3	0.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0.1	Mandatory for a business customer	
Given name	3	0.1	Mandatory for a consumer customer	
Middle names	3	0.1		
Family name	3	0.1	Mandatory for a consumer customer	
Date of birth	3	0.1	Mandatory for a consumer customer, if no personal identity code has been provided	

			YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-111-3 Forwarding customer information to supplier



Message DH-111-3 is of message type [F01](#).

Message payload includes the following information:

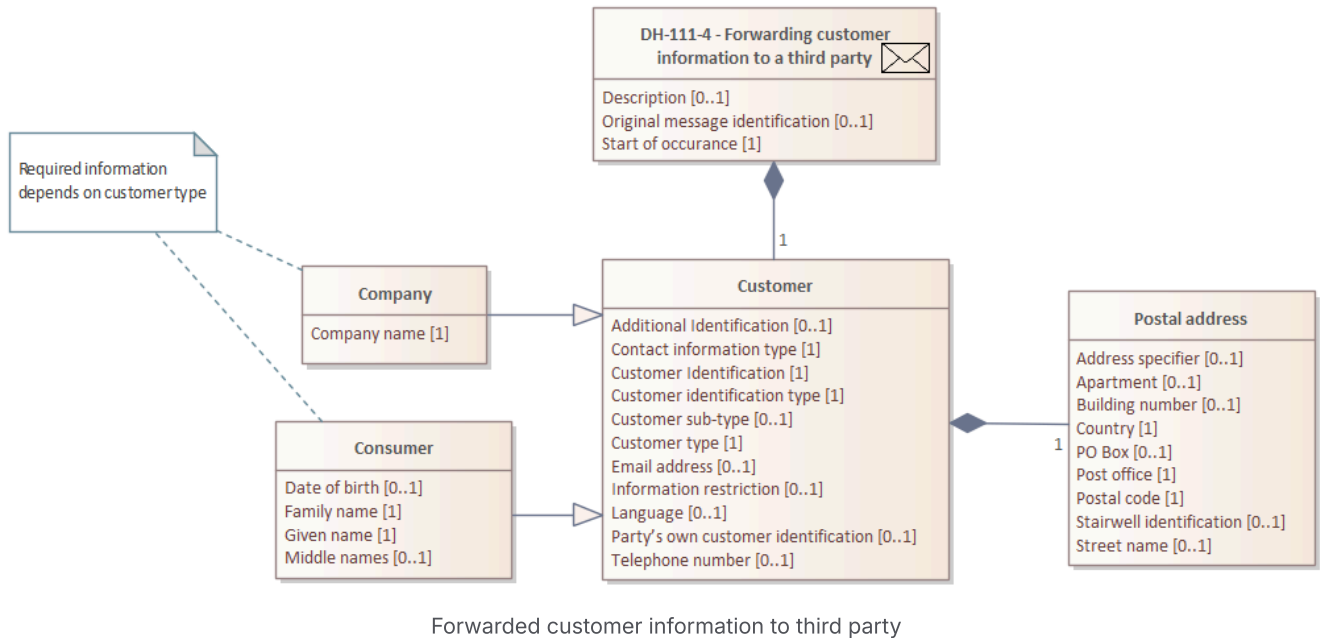
See [Datahub name and address structure guide](#).

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-111-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> </ul>	

			<ul style="list-style-type: none"> <li>• Party's own customer identification</li> </ul>	
Customer identification type	3	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0.1		
Information restriction	3	0.1	Yes/No	
Language	3	0.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0.1	Mandatory for a business customer	
Given name	3	0.1	Mandatory for a consumer customer	
Middle names	3	0.1		
Family name	3	0.1	Mandatory for a consumer customer	
Date of birth	3	0.1	Mandatory for a consumer customer, if no personal identity code has been provided	

			YYYY-MM-DD	
Additional identification	3	0.1		
Contact information	3	0..2		
Contact information type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	1..1		
Email address				
Postal address	3	0.1		
Address specifier	4	0.1	c/o	
Street name	4	0.1		
Building number	4	0.1		
Stairwell identification	4	0.1		
Apartment	4	0.1		
Postal code	4	1..1		
PO Box	4	0.1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-111-4 Forwarding customer information to a third party



Message DH-111-4 is of message type [F01](#).

Message payload includes the following information:

**i** See [Datahub name and address structure guide](#).

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-111-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> </ul>	



			<ul style="list-style-type: none"> <li>• Party's own customer identification</li> </ul>	
Customer identification type	3	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0.1		
Information restriction	3	0.1	Yes/No	
Language	3	0.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0.1	Mandatory for a business customer	
Given name	3	0.1	Mandatory for a consumer customer	
Middle names	3	0.1		
Family name	3	0.1	Mandatory for a consumer customer	
Date of birth	3	0.1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0.1		
Contact information	3	0.2		

Contact information type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-112 Request for customer information update – DSO

Event description

Parties

Important considerations for event handling

Time limits

Event processing in Datahub

Information storage

Return of information

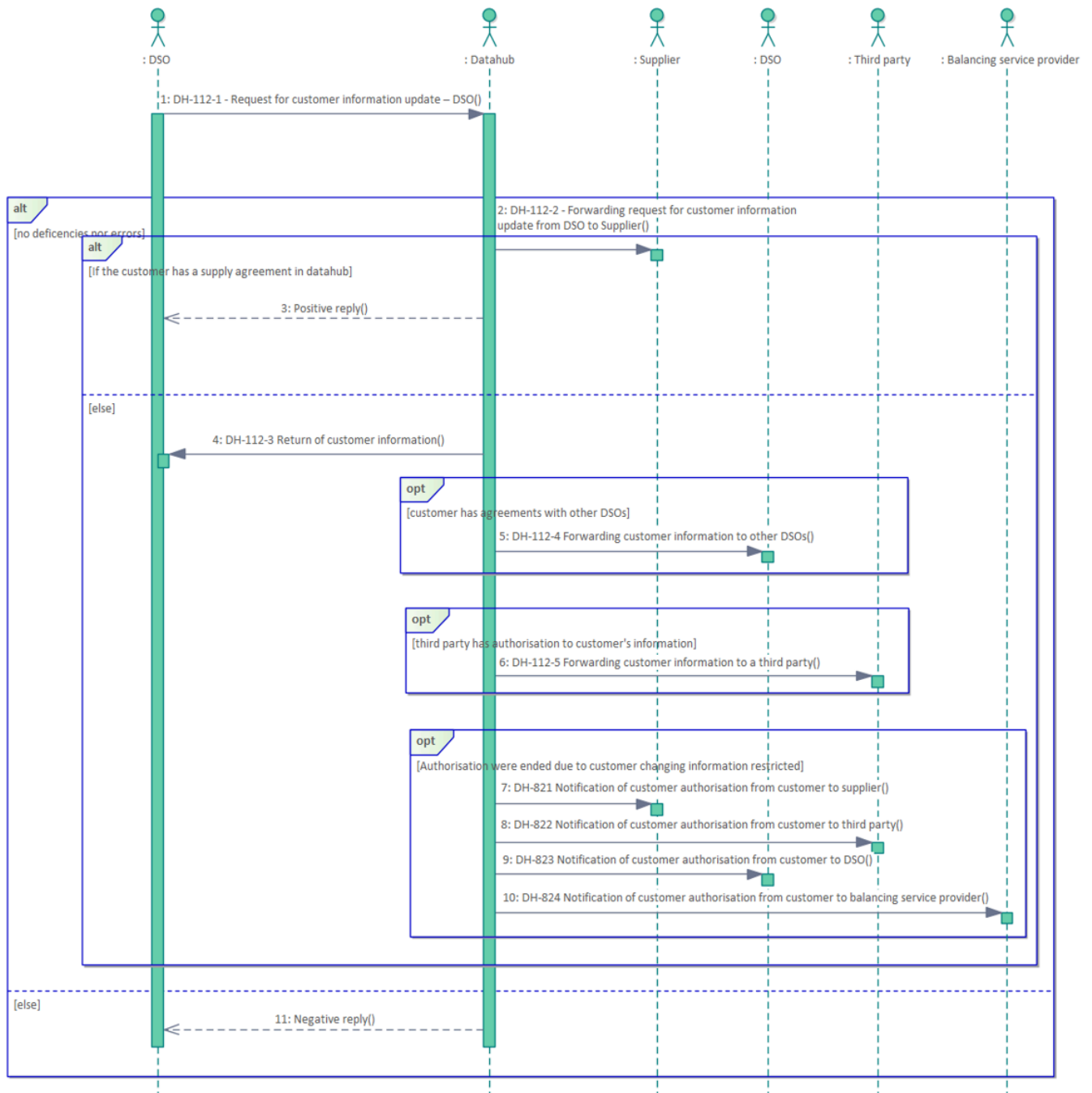
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Request for customer information update – DSO

## Event description

The DSO updates customer information in its own system, which then notifies Datahub about the update request. The update request is forwarded to the supplier who has last created an agreement for the customer. The supplier will make the actual customer information update since they are responsible for the customer information in Datahub. If the customer in question only has a grid agreement in Datahub, the information is updated directly in Datahub on the basis of the DSO's notification.

The DSO notifying the event must have an agreement with the customer that is either valid at the time the update takes effect or will become valid after the update time.

### Parties

- DSO
- Datahub
- Supplier
- Third Party
- Balancing service provider

### Important considerations for event handling

- A customer information update request must not be sent automatically based on any event forwarded to the party by Datahub, such as a notification of a new sales agreement (DH-311-2).
- The update must be based on the customer's verified need for an information update.
- Updates to customer information made by a party in their own system must not trigger an update to Datahub if the update does not change the customer information maintained in Datahub.
- A customer information update request must not automatically trigger another event, such the update agreement billing address (DH-322), unless the updated information also applies to the agreement.

### Time limits

Effective time of the update	Notes/Exceptions
The customer's updated information is reported to Datahub immediately after being updated in the DSO's system.	
The date the change takes effect may not be in the past and it can be at most 90 days in the future.	Validity periods are for whole days.

### Event processing in Datahub

Step	Description
Comparison of stored and reported	Datahub checks whether the information in the update request is the same as the currently valid customer information. If it is, a negative

information	reply is returned, and no further actions are taken. If the request is a response to an update request, unchanged data is also allowed.
Forwarding the update request to the supplier	If the request contains changed data (and is not a response to an update request), Datahub checks whether the customer has a sales agreement (i.e., a supplier with rights to the customer data). If so, Datahub does not store the reported data but forwards it to the supplier who last made an agreement with the customer for approval. If there is no supplier, Datahub updates the data directly based on the notification from the DSO.
Termination of authorizations	If Datahub updates the customer data based on the DSO's notification and the customer becomes private, all of the customer's authorizations are ended.

## Information storage

Origin of information	Information stored
Information reported by the party	Changed customer information and the date of the change if the customer only has a grid agreement. Old information is stored in Datahub.
	Datahub stores and forwards the name of a postal locality located in Finland entirely in uppercase letters, even if it is submitted in a different format by the reporting party.
Information processed by Datahub	Any potentially updated authorization information.

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected customer information update or relay to supplier. If the customer has no sales agreements in Datahub, the update request is returned as a confirmation to the DSO who sent it.	<a href="#">ACK</a> or <a href="#">DH-112-3</a>

## Forwarding of information

Party	Specification	Description	Message
Supplier	Customer's supplier	The update request is forwarded to the supplier that made the most recent agreement with the customer in question. Note: The forwarded information does not indicate where the update request came from.	<a href="#">DH-112-2</a>
	Authorized supplier	If authorizations were terminated based on a notification from the DSO, a notification of the change in authorization is forwarded to the parties whose authorizations were ended.	<a href="#">DH-821</a>
DSO		If the customer has no supplier, the updated customer data is forwarded to any other DSOs who have a valid or future agreement with the customer.	<a href="#">DH-112-4</a>
Third party		If the customer has no supplier, the updated customer information is forwarded to third parties who have authorization to access the customer's information.	<a href="#">DH-112-5</a>
		If authorizations were terminated based on a notification from the DSO, a notification of the change in authorization is forwarded to the parties whose authorizations were ended.	<a href="#">DH-822</a>
Balancing service provider		If authorizations were terminated based on a notification from the DSO, a notification of the change in authorization is forwarded to the parties whose authorizations were ended.	<a href="#">DH-824</a>

## Composite processes

Party	Description	Composite process
Supplier	The customer information update request is forwarded to the supplier who most recently made an agreement with the customer.	<a href="#">DH-112 → DH-111</a>

## Significant errors and consequences

- i** Incorrect customer information is forwarded to all parties that are entitled to the customer information.

Maintaining the correctness of the information is the responsibility of the personal data registrar. Passing on incorrect personal data is a violation of data protection.

Error	Consequence
The customer's postal address is reported incorrectly	Possible mail (incl. invoices) is sent to the wrong address, especially if the agreement does not have a separate invoicing address. This may result in wrong collection actions or a violation of data protection.
The customer's contact information is reported incorrectly	It is impossible to contact the customer as the existing contact information is lost.
The customer's name information is reported incorrectly	Possible mail (incl. invoices) is not delivered or is delivered to a wrong recipient.

## Event cancellation


The cancellation is made with a new update message.

## Validation rules

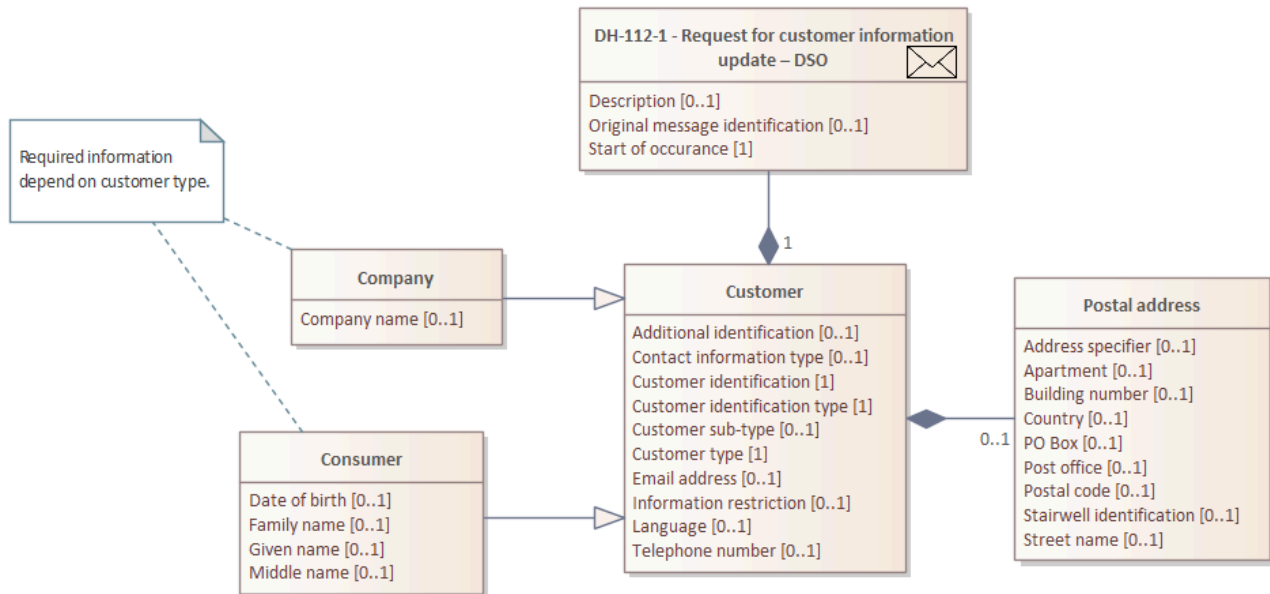
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The distribution system operator must hold an agreement with the customer which is either valid on or after the date the notified update enters into force.	EC.AGR.306	
The customer must be recorded in Datahub.	EC.CUS.113	
The customer type cannot be changed.	EC.CUS.118	
This event cannot be used to change a customer's status from confidential ("non-disclosure") to non-confidential.	EC.CUS.144	



 Please observe that the list is not complete.

## DH-112-1 Request for customer information update – DSO



Information in the customer data update request from the DSO

Message DH-112-1 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	If message DH-112-1 is a response to event DH-113, the field must contain the identifier of message DH-113-3.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		

Customer identification	3	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If a personal identity code is provided, it must comply with the format requirements for personal identity codes.</p> <p>If a party's own customer identification is used, it must be provided as &lt;supplier's identification&gt;_&lt;customer number&gt; (used as specifying data in a situation in which the personal identity code is not known or business ID does not exist).</p>
Customer identification type	3	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If the customer type is consumer, customer identification type must be either personal identity code or party's own identification. If the customer type is company, customer identification type must be business ID or party's own identification.</p>
Customer type	3	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0.1		<p>This field can be used only in a situation in which party's own customer identification is updated into a personal ID or business ID. If customer identification type is being updated from party's own identification to personal ID or</p>

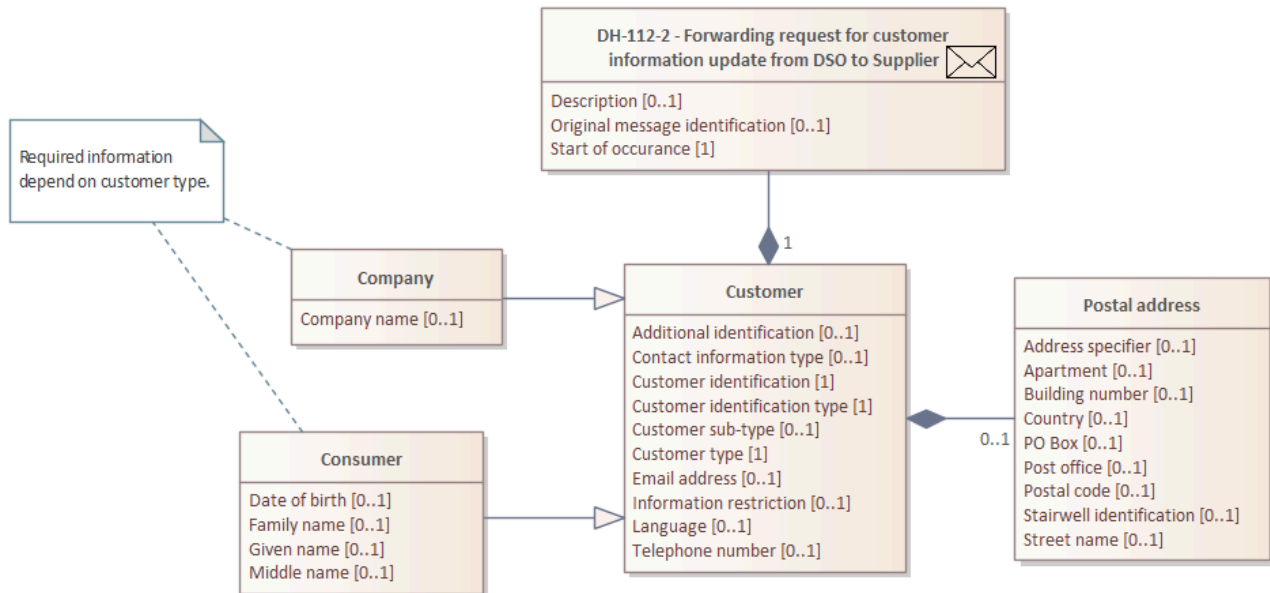
				business ID with the update, party's own customer identification is a mandatory field.
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		<p>The company's official name according to the Business Information System YTJ which can be found in the trade register. In case of an association, the registered name of the association is used.</p> <p>The maximum length of the company name in Datahub is 200 characters. If the name is longer, it is still written according to the official name and the name is truncated after 200 characters.</p>
Given name	3	0..1		<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).</p>
Middle names	3	0..1		
Family name	3	0..1		The consumer customer name must not contain numbers.

Date of birth	3	0..1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0..1		If a business customer also needs to have a personal identity number, that is reported in the additional identification field.
Contact information	3	0..2		One telephone number and one e-mail address may be specified for a customer.
Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	4	0..1		<p>The reported telephone number or email address must be in the correct format (see Datahub Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.</p> <p>A phone number must start with a plus '+'. A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal address	3	0..1		Address information may not contain both PO Box and street address information (street name,

				<p>building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p> <p>If any data needs to be removed from customer information, the field in question will be sent empty.</p>
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: 'as', 'as.', 'bst' or 'bst.', it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> </ul>

				<ul style="list-style-type: none"> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	0..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	0..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	0..1	ISO 31661 alpha-2 ID is used.	

## DH-112-2 Forwarding request for customer information update from DSO to Supplier



Details of the event where a customer data update request is forwarded from the distribution system operator to the supplier

Message DH-112-2 is of message type [F01](#).

Message payload includes the following information:

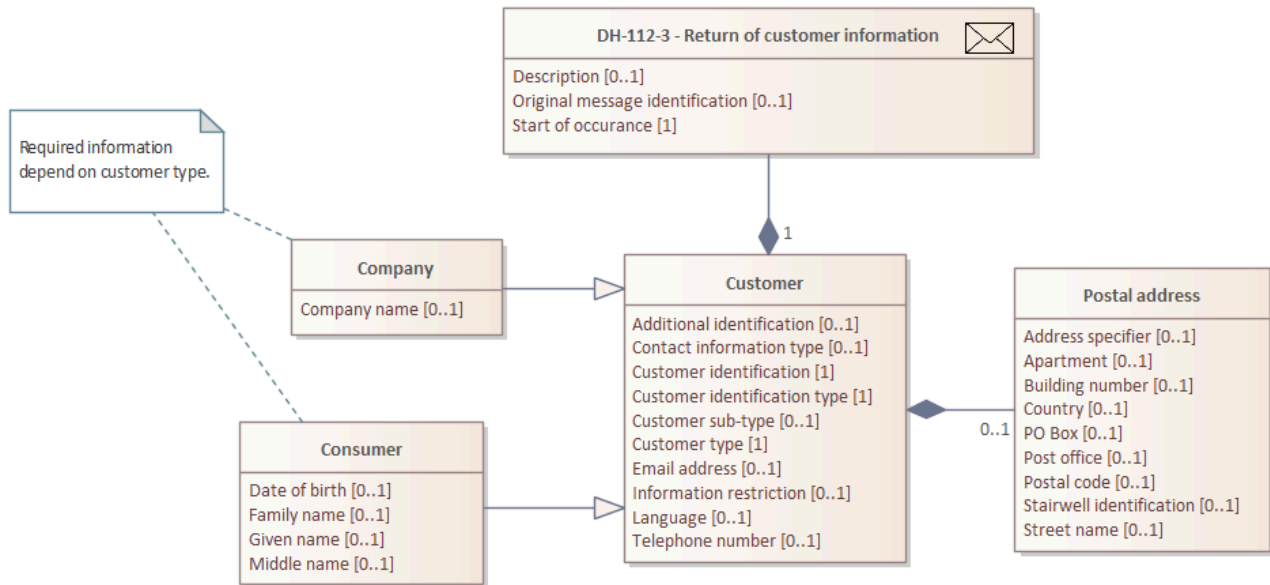
Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0..1	The field contains the DH-112-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1.1		
Customer identification	3	1.1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	



Customer identification type	3	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0.1		
Information restriction	3	0.1	Yes/No	
Language	3	0.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0.1		
Given name	3	0.1		
Middle names	3	0.1		
Family name	3	0.1		
Date of birth	3	0.1	<p>Mandatory for a consumer customer, if no personal identity code has been provided</p> <p>YYYY-MM-DD</p>	
Additional identification	3	0.1		

Contact information	3	0..2		
Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
PO Box	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 alpha-2 ID is used.	

## DH-112-3 Return of customer information



Details of the customer data return

Message DH-112-3 is of message type [F01](#).

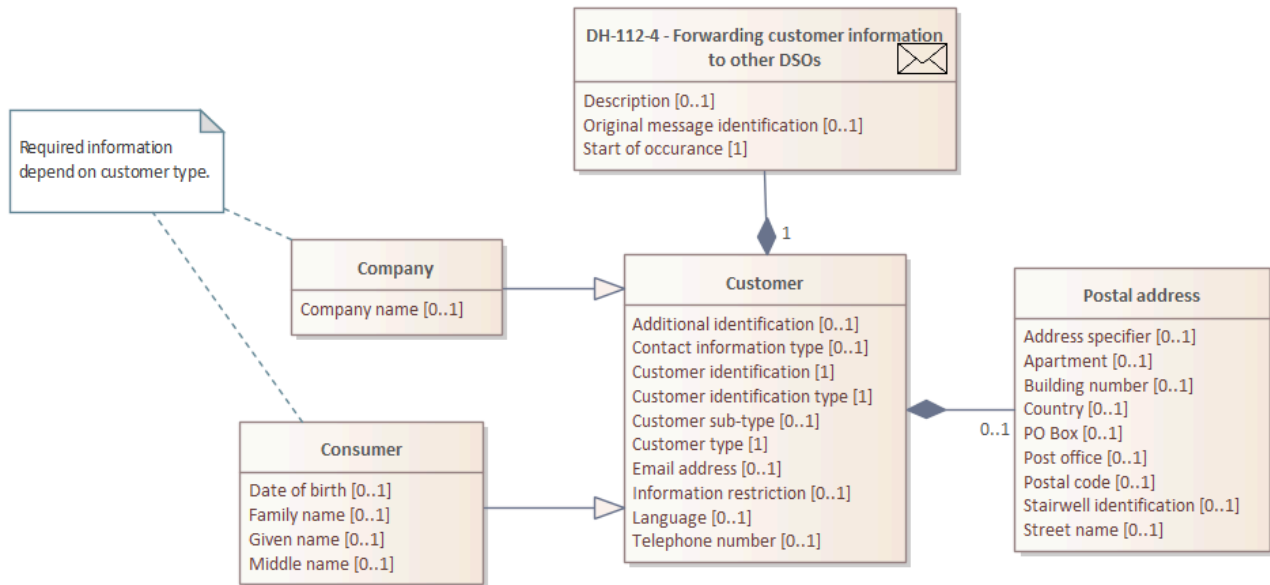
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-112-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	

Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0..1		
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1	<p>Mandatory for a consumer customer, if no personal identity code has been provided</p> <p>YYYY-MM-DD</p>	
Additional identification	3	0..1		

Contact information	3	0..2		
Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
PO Box	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 alpha-2 ID is used.	

## DH-112-4 Forwarding customer information to other DSOs



Details of forwarding customer information to other DSOs

Message DH-112-4 is of message type [F01](#).

Message payload includes the following information:

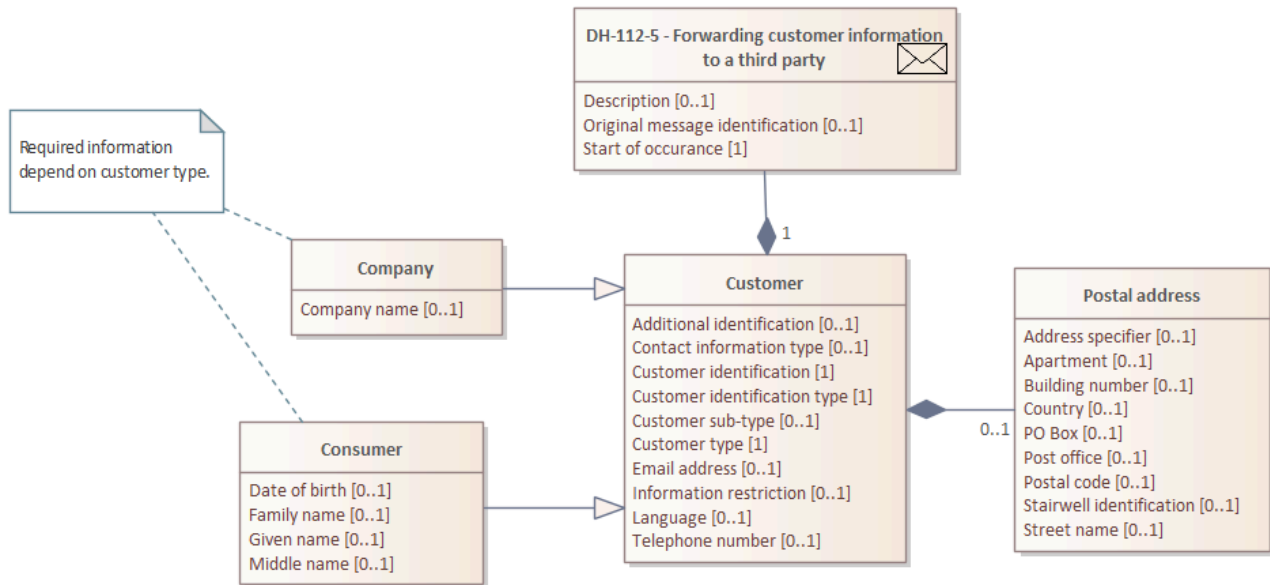
Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-112-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	

Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0..1		
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		

Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
PO Box	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 alpha-2 ID is used.	



## DH-112-5 Forwarding customer information to a third party



Details of forwarding customer information to a third party

Message DH-112-5 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-112-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	

Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Party's own customer identification	3	0..1		
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		

Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
PO Box	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 alpha-2 ID is used.	

## DH-113 Request for customer information update – third party

Event description

Parties

Important considerations for event handling

Time limits

Event processing in Datahub

Return of information

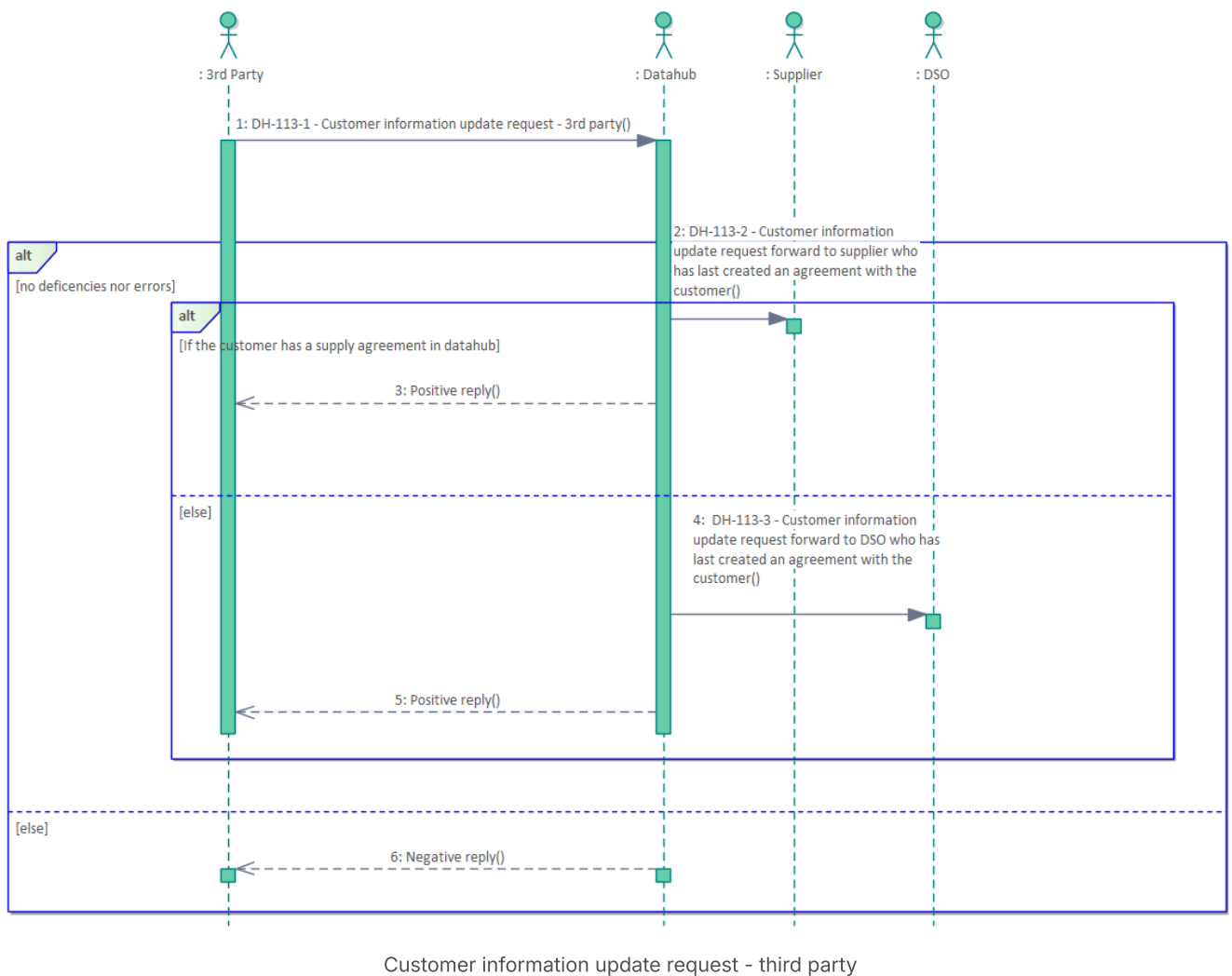
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A third party updates customer information in its own system, which then notifies Datahub about the update request. The update request is forwarded to the supplier who has last created an agreement for the customer. The supplier will make the actual customer information update,

since it is responsible for the customer information in Datahub. If the customer in question only has a grid agreement in Datahub, the update request is forwarded to the DSO who last created an agreement with the customer. The DSO can then update the customer information in Datahub using its own update request (DH-112).

The third party reporting the event must have authorization to access the customer's information at the time the update takes effect.

## Parties

- Third Party
- Datahub
- Supplier
- DSO

## Important considerations for event handling

- A customer information update request must not be sent automatically based on any event forwarded to the party by Datahub, such as a notification of customer information update (DH-111-4).
- The update must be based on the customer's verified need for an information update.
- Updates to customer information made by a party in their own system must not trigger an update to Datahub if the update does not change the customer information maintained in Datahub.

## Time limits

Effective time of the update	Notes/Exceptions
The customer's updated information is reported to Datahub immediately after being updated in the third party's system.	
The date the change takes effect may not be in the past and it can be at most 90 days in the future.	Validity periods are for whole days.

## Event processing in Datahub

Step	Description
------	-------------

Forwarding of the update request to the supplier/distribution system operator	Datahub checks whether the information in the update request is the same as the currently valid customer information. If it is, a negative reply is returned, and no further actions are taken. Otherwise Datahub checks whether the customer has a sales agreement (supplier with the rights to customer information). If it does have an agreement, Datahub forwards the information to the supplier who last created an agreement with the customer. If it does not, Datahub forwards the information to the DSO who last created a grid service agreement with the customer.
Forwarding of the post office name	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.

### Return of information

Party	Description	Message
Third party	Notification of successful or rejected customer information update or forwarding of information.	<a href="#">ACK</a>

### Forwarding of information


Party	Description	Message
Supplier	The update request is relayed to the supplier that made the most recent agreement with the customer in question. Note: The forwarded information does not indicate where the update request came from.	<a href="#">DH-113-2</a>
DSO	If the customer has no sales agreements in Datahub, the update request is relayed to the DSO that made the most recent agreement with the customer in question. Note: The forwarded information shall not indicate where the update request came from.	<a href="#">DH-113-3</a>

### Composite processes

Party	Specification	Description	Composite process
-------	---------------	-------------	-------------------

Supplier	The customer has a supplier	The customer information update request is forwarded to the supplier who most recently made an agreement with the customer.	<a href="#">DH-113 → DH-111</a>
DSO	The customer does not have a supplier	The customer information update request is forwarded to the DSO who most recently made an agreement with the customer.	<a href="#">DH-113 → DH-112</a>

## Significant errors and consequences

-  Incorrect customer information is forwarded to all parties that are entitled to the customer information.

Maintaining the correctness of the information is the responsibility of the personal data registrar. Passing on incorrect personal data is a violation of data protection.

Error	Consequence
The customer's postal address is reported incorrectly	Possible mail (incl. invoices) is sent to the wrong address, especially if the agreement does not have a separate invoicing address. This may result in wrong collection actions or a violation of data protection.
The customer's contact information is reported incorrectly or incompletely	It is impossible to contact the customer as the existing contact information is lost.
The customer's name information is reported incorrectly	Possible mail (incl. invoices) is not delivered or is delivered to a wrong recipient.


## Event cancellation

The cancellation is made with a new update message.

## Validation rules

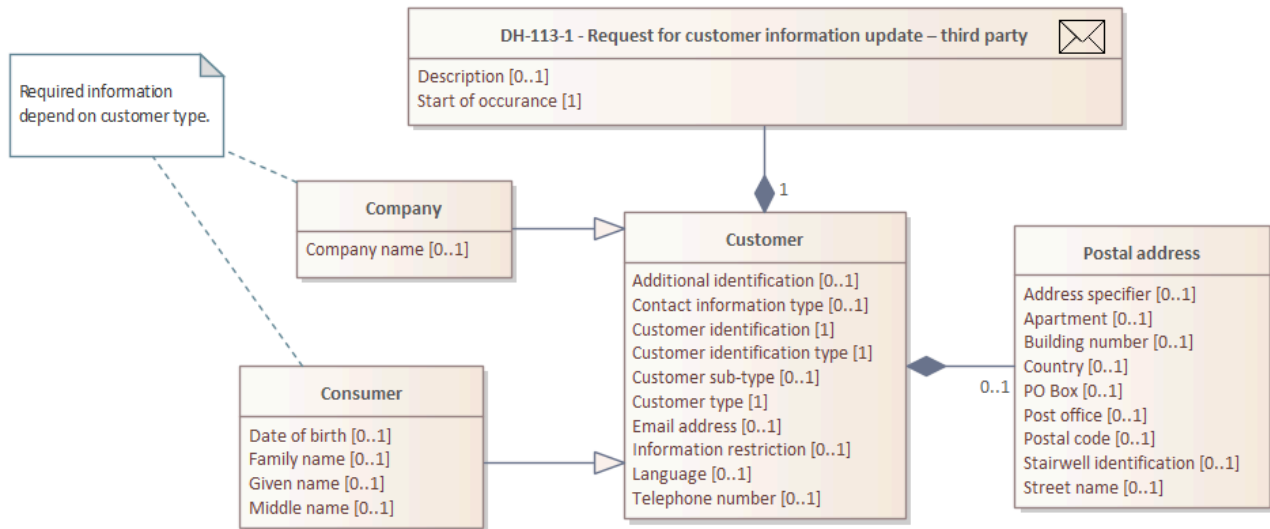
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
------	------------	------

The customer must be recorded in Datahub.	EC.CUS. 113	
The customer type cannot be changed.	EC.CUS. 118	
This event cannot be used to change a customer's status from confidential ("non-disclosure") to non-confidential.	EC.CUS. 144	
On the notification date, the customer must have a valid sales or grid agreement for some accounting point in Datahub.	EC.AGR. 112	
<div>  Please observe that the list is not complete. </div>		



## DH-113-1 Request for customer information update – third party



Details of request for customer information update – third party

Message DH-113-1 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	<p>If a personal identity code is provided, it must comply with the format requirements for personal identity codes.</p> <p>If a party's own customer identification is used, it must be provided as &lt;notifying supplier's</p>

				identification>_<customer number> (used as specifying data in a situation in which the personal identity code is not known or business ID does not exist).
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal ID</li> <li>• Party's own identification</li> </ul>	If the customer type is consumer, customer identification type must be either personal identity code or party's own identification. If the customer type is company, customer identification type must be business ID or party's own identification.
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		<p>The company's official name according to the Business Information System YTJ which can be found in the trade register. In case of an association, the registered name of the association is used.</p> <p>The maximum length of the company name in Datahub is 200</p>

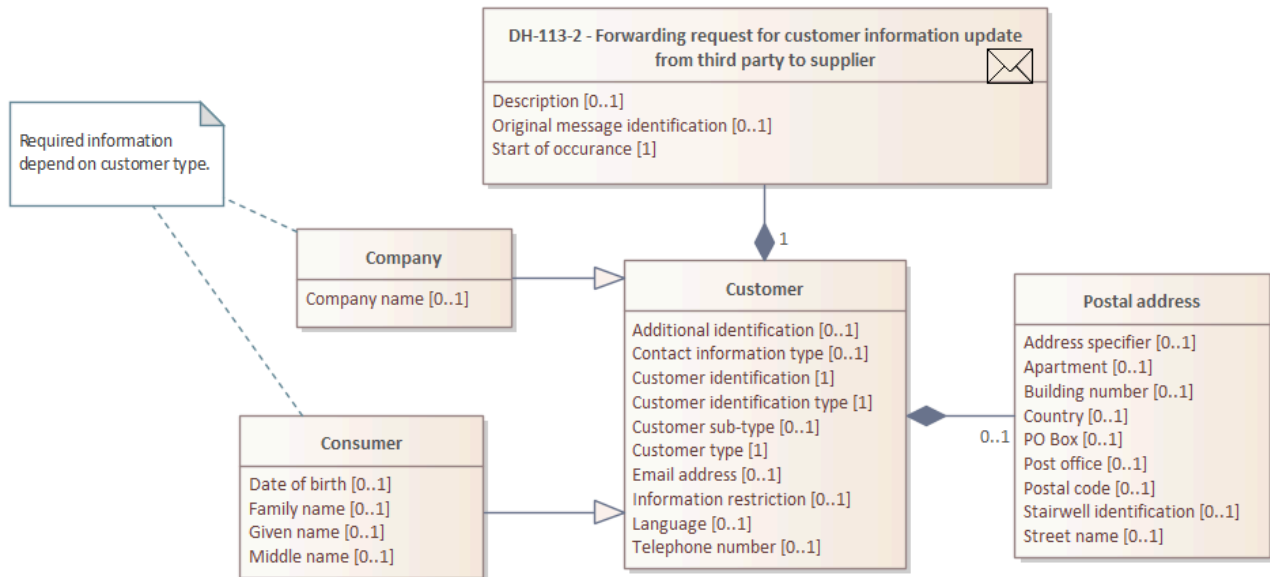
				characters. If the name is longer, it is still written according to the official name and the name is truncated after 200 characters.
Given name	3	0..1		<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).</p>
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1	<p>Mandatory for a consumer customer, if no personal identity code has been provided</p> <p>YYYY-MM-DD</p>	
Additional identification	3	0..1		If a business customer also needs to have a personal identity code, it is reported in the additional identification field.
Contact information	3	0..2		One telephone number and one e-mail address may be specified for a customer.
Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		The reported telephone number or email address must be in the

Email address				<p>correct format (see Datahub Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.</p> <p>A phone number must start with a plus '+'. A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal address	3	0..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If any data needs to be removed from customer information, the field in question will be sent empty.</p>
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-)</li> </ul>

				and slash (/) • special characters only are not allowed
Stairwell identification	4	0..1		Rules for the stairwell identification field: • if the value is one of the following: 'as', 'as.', 'bst' or 'bst.', it must be in lowercase • if only one letter used, it must be in uppercase, if the address is in Finland • spaces are not allowed
Apartment	4	0..1		When the address is in Finland, the apartment field: • may not contain spaces • may not contain uppercase letters • the only special characters allowed are dot (.), hyphen (-) and slash (/) • special characters only are not allowed
Postal code	4	0..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	0..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	0..1	ISO 31661 alpha-2 ID is used.	



## DH-113-2 Forwarding request for customer information update from third party to supplier



Details of forwarding request for customer information update from third party to supplier

Message DH-113-2 is of message type [F01](#).

Message payload includes the following information:

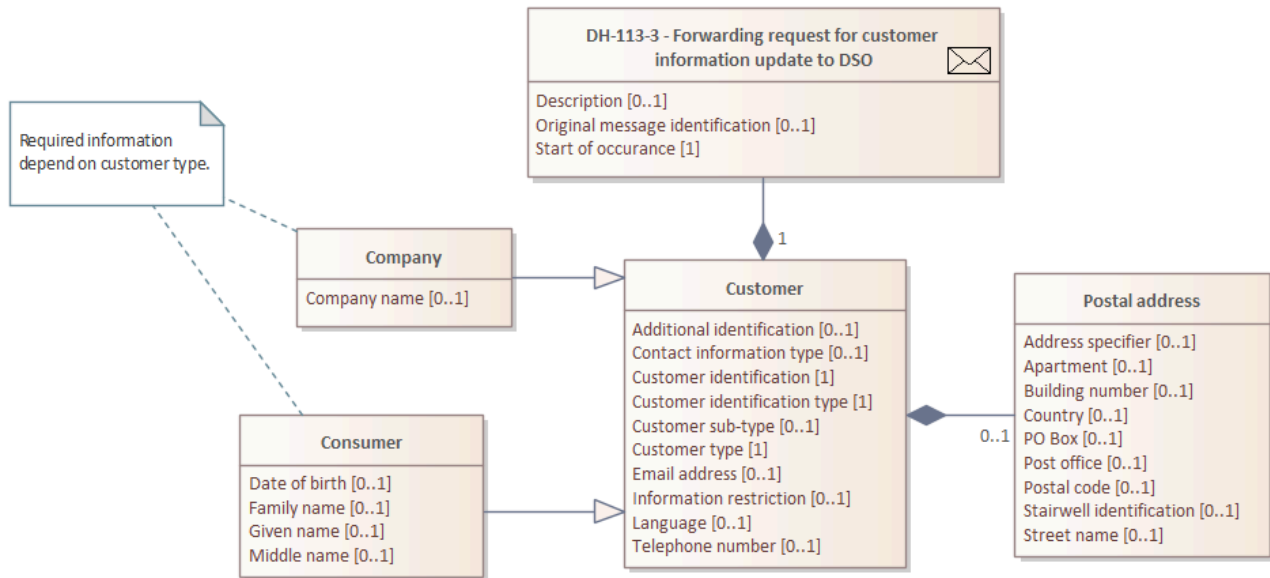
Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-113-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	

Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		



Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
PO Box	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 alpha-2 ID is used.	

## DH-113-3 Forwarding request for customer information update to DSO



Details of forwarding request for customer information update to DSO

Message DH-113-3 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-113-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	

Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Information restriction	3	0..1	Yes/No	
Language	3	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1	Mandatory for a consumer customer, if no personal identity code has been provided  YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	0..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	4	0..1		

Email address				
Postal address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
PO Box	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 alpha-2 ID is used.	

## DH-114 Notification of customer identification update

Event description

Parties

Information storage

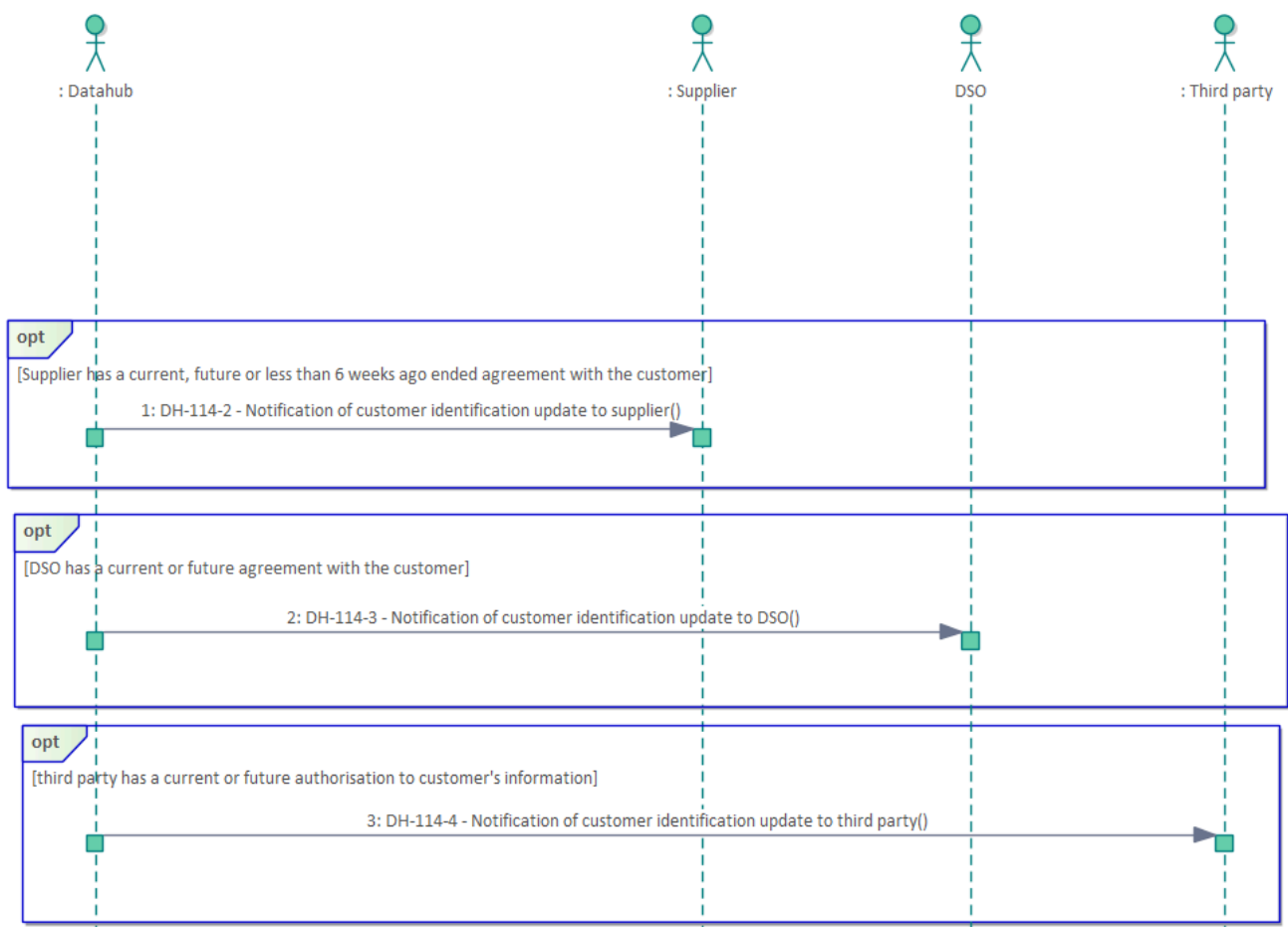
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Customer identification update notification

### Event description

The Datahub operator updates the customer's identifier (personal identity code or business ID) based on a request from the party. Only the customer's identifier is updated in the event, no other customer information is modified.

### Parties

- Supplier

- Datahub
- DSO
- Third Party

### Information storage

Origin of information	Information stored
Information reported by the party	New customer identification.

### Return of information

Party	Description	Message
Datahub	Notification of a successful or rejected customer identifier update to the Datahub operator.	-

### Forwarding of information

Party	Specific action	Description	Message
Supplier		<p>The update notification is sent to suppliers who, at the time of the notification, have a valid, future-dated, or recently expired (within the last 6 weeks) sales agreement with the customer.</p> <p>The notification includes the customer's new and old identifier, the effective time of the change, and the current customer information.</p>	<a href="#">DH-114-2</a>
DSO		<p>The update notification is sent to DSOs who, at the time of the notification, have a valid or future-dated grid agreement with the customer.</p> <p>The notification includes the customer's new and old identifier, the effective time of the change, and the current customer information.</p>	<a href="#">DH-114-3</a>

Third party		<p>The update notification is sent to third parties who, at the time of the notification, have a valid or future-dated authorization to access the customer's information.</p> <p>The notification includes the customer's new and old identifier, the effective time of the change, and the current customer information.</p>	<a href="#">DH-114-4</a>
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## Significant errors and consequences

Error	Consequence
A wrong identification is updated for the customer	<p>The customer cannot access their data in the customer portal.</p> <p>The same customer may exist in Datahub with two different identifications.</p>

## Event cancellation

The cancellation is made with a new update message.

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
<div>  Please observe that the list is not complete. </div>		

## DH-114-2 Notification of customer identification update to supplier

Message DH-114-2 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	1..1	The field contains the DH-114-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	New customer identification	
Customer identification type	3	1..1		
Customer type	3	1..1		
Customer sub-type	3	0..1		
Party's own customer identification	3	0..1	Old customer identification	
Information restriction	3	0..1		
Language	3	0..1		
Company name	3	0..1		



Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	1..1		
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-114-3 Notification of customer identification update to DSO

Message DH-114-3 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	1..1	The field contains the DH-114-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	New customer identification	
Customer identification type	3	1..1		
Customer type	3	1..1		
Customer sub-type	3	0..1		
Party's own customer identification	3	0..1	Old customer identification	
Information restriction	3	0..1		
Language	3	0..1		
Company name	3	0..1		

Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	1..1		
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-114-4 Notification of customer identification update to a third party

Message DH-114-4 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	1..1	The field contains the DH-114-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	New customer identification	
Customer identification type	3	1..1		
Customer type	3	1..1		
Customer sub-type	3	0..1		
Party's own customer identification	3	0..1	Old customer identification	
Information restriction	3	0..1		
Language	3	0..1		
Company name	3	0..1		

Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	1..1		
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-116 Customer merging

Event description

Parties

Time limits

Event processing in Datahub

Information storage

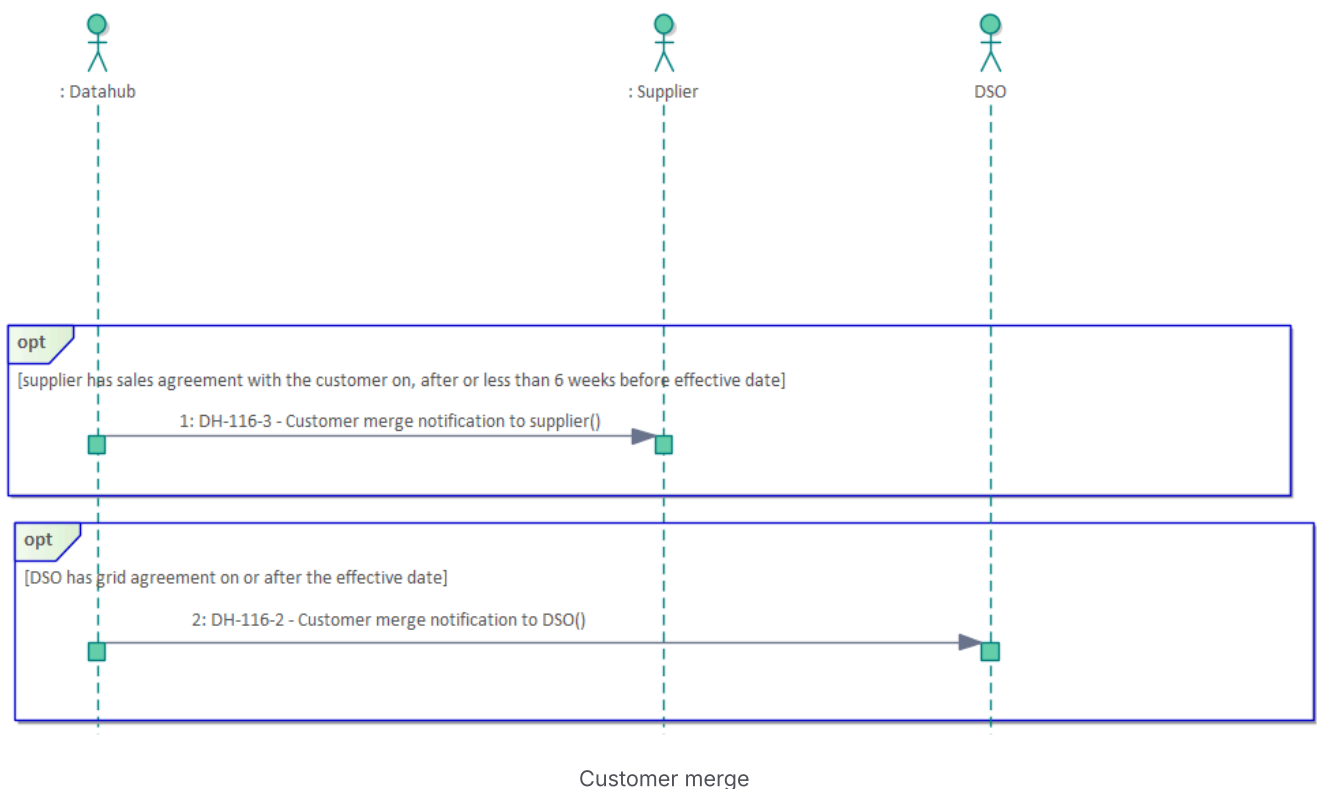
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A customer merge process is initiated when a market party tries to update the customer ID from type “Party’s own identification (AA04)” to “Personal ID (AA03)” or “Business ID (AA01)” and the update is rejected because the reported identification already exists in Datahub. The market party then requests the Datahub operator to update the customer ID (= merge customers). This request is not made in Datahub. The requesting party (supplier or DSO) must have a valid sales or grid agreement with the customer either at the requested update time or later, or (only the supplier) an agreement that ended no more than six weeks earlier.

## Parties

- Datahub
- Supplier
- DSO

## Time limits

Effective time of the update	Notes/Exceptions
The merge is done from the start date of the customer, using the party's own identification.	

## Event processing in Datahub

Step	Description
Transferring/copying agreements to the customer	All agreements of the customer with customer identification type Party's own identification are transferred/copied to the customer with customer identification type Personal identity number/Business ID.
Deactivating the customer	The customer with customer identification type Party's own identification is deactivated after the merge.

## Information storage

Origin of information	Information stored
Information processed by Datahub	Transferred agreements and deactivated customer.

## Return of information

Party	Description	Message
Datahub	Notification of a successful or rejected customer merge to the Datahub operator.	-

## Forwarding of information

Party	Specific ation	Description	Message
Supplier		The notification of the update is sent to suppliers who, at the time of the notification, have a valid sales agreement, a future-dated sales agreement, or a sales agreement that ended no more than six weeks ago with the merged customer (identified by the party's own identifier).	<a href="#">DH-116-3</a>
DSO		The notification of the update is sent to DSOs who, at the time of the notification, have a valid or future-dated network agreement with the merged customer (identified by the party's own identifier).	<a href="#">DH-116-2</a>

### Significant errors and consequences

Error	Consequence
Customer merge is done for wrong customers.	-


### Event cancellation

This process cannot be cancelled.

### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The updated customer is recorded in Datahub and is either residential or business customer type.		
If a residential customer whose identifier is a party's own identifier (AA04) is confidential (non-disclosure) and a customer with a personal identification code is not, the process is interrupted.		





Please observe that the list is not complete.

## DH-116-2 Notification of customer merging to DSO

Message DH-116-2 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	1..1	The field contains the DH-116-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		Information for a customer with a personal identity code or business ID.
Customer identification	3	1..1	Customer identifier for a customer with a personal identity code or business ID.	
Customer identification type	3	1..1		
Customer type	3	1..1		
Customer sub-type	3	0..1		
Party's own customer identification	3	0..1	Customer identifier for a customer using party's own identifier.	
Information restriction	3	0..1		
Language	3	0..1		

Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Additional identification	3	0..1		
Contact information	3	0..2		Information for a customer with a personal identity code or business ID.
Contact information type	4	1..1		
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		Information for a customer with a personal identity code or business ID.
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	



## DH-116-3 Notification of customer merging to supplier

Message DH-116-3 is of message type [F01](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	1..1	The field contains the DH-116-1 message identifier.	<a href="#">Field usage</a>
Description	2	0..1		
Basic customer information	2	1..1		Information for a customer with a personal identity code or business ID.
Customer identification	3	1..1	Customer identifier for a customer with a personal identity code or business ID.	
Customer identification type	3	1..1		
Customer type	3	1..1		
Customer sub-type	3	0..1		
Party's own customer identification	3	0..1	Customer identifier for a customer using party's own identifier.	
Information restriction	3	0..1		

Language	3	0..1		
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Additional identification	3	0..1		
Contact information	3	0..2		Information for a customer with a personal identity code or business ID.
Contact information type	4	1..1		
Telephone number	4	1..1		
Email address				
Postal address	3	0..1		Information for a customer with a personal identity code or business ID.
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		

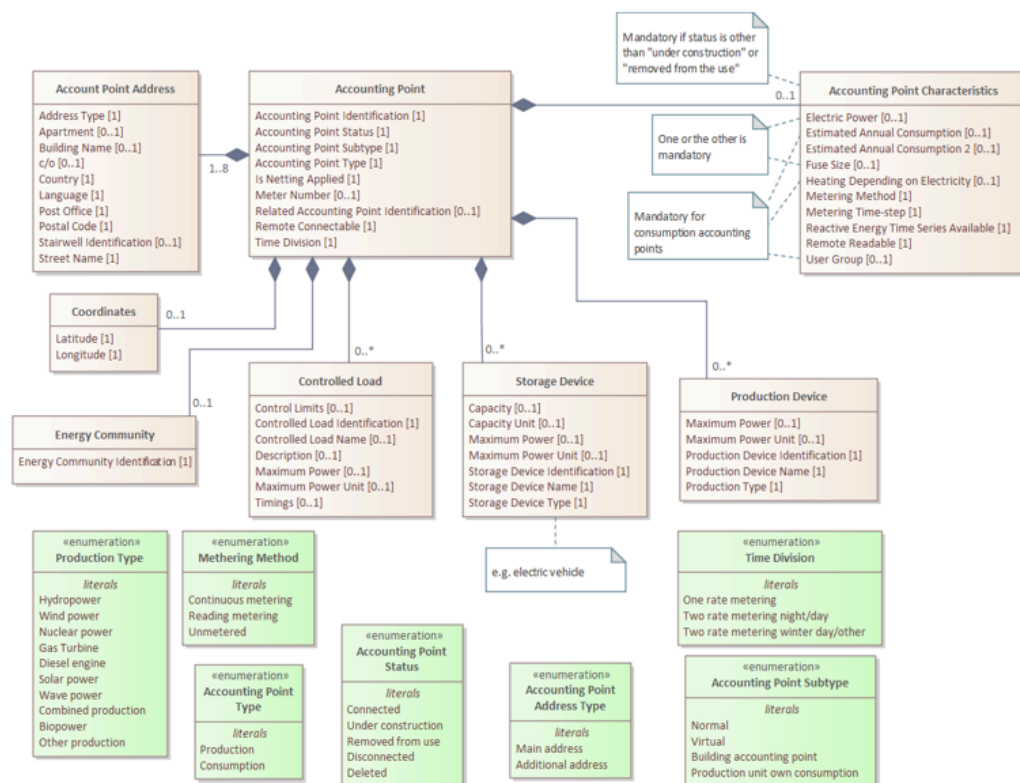
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 alpha-2 ID is used.	

## DH-120 Accounting point information maintenance

Accounting point information in Datahub  
Life cycle of an accounting point  
Time zone  
Reactive energy time series available  
Heating depending on electricity  
Metering time step  
Related accounting points  
Annual consumption estimate  
Accounting point information update request  
Management of temporary accounting points  
Accounting point information maintenance events

### Accounting point information in Datahub

Accounting point information stored in Datahub is outlined in the diagram below.



Class diagram of accounting point information

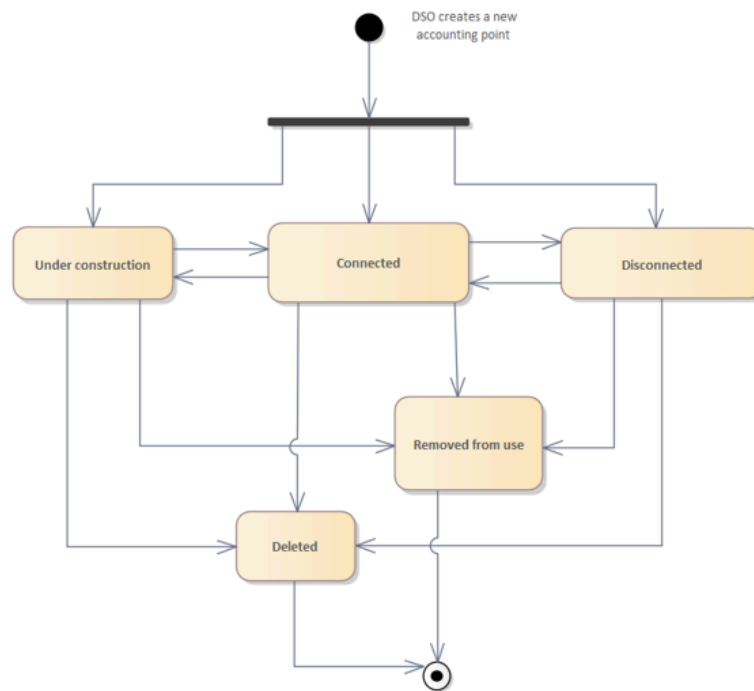
Data for accounting points and – more broadly – for all metering points, is data owned by the DSO. As such, the maintenance of accounting point data in Datahub is the responsibility of the DSO. It is the responsibility of the DSO to create new accounting points, update data and report accounting points as removed from use.



Suppliers and third parties can [retrieve accounting point data](#) from Datahub. Some of the information is only accessible with the customer's [authorization](#).

### Life cycle of an accounting point

The life cycle of an accounting point and its possible statuses throughout its lifetime are set out in the diagram below.



Accounting point status diagram

Accounting points should be created in Datahub as soon as they are established in the DSO's system. Because the agreement information is valid for complete days, accounting point data will also be updated for complete days. Datahub's unique, GS1-system-based GSRN code should be reported for the accounting point.

An accounting point can be located near Finnish borders but not in Finland and still belong to a DSO registered in Datahub. This is why the country information is needed in Datahub.

An accounting point can be created in Datahub while still in the construction phase, whereupon its status will be 'under construction'. This data is meant to inform the supplier that an agreement can be made and reported to Datahub, but for the time being delivery to the site cannot begin. Delivery cannot begin, for example, if the accounting point is new and no meter has been installed yet.

When the accounting point is 'metered' – that is, delivery can begin – the DSO activates the accounting point by updating its status to 'connected' or 'disconnected' depending on whether or not delivery is initiated. Statuses 'connected' or 'disconnected' can only be updated using

[connection and disconnection events](#). A connection of an ‘under-construction’ accounting point affects the start dates of the agreements on the accounting point as described in its [own section](#).

The ‘Deleted’ status is updated using the [accounting point deletion event](#). Other statuses are updated using the [accounting point update event](#).

The DSO can temporarily make the accounting point passive by changing its status to ‘under construction’. This takes place at, e.g., renovated sites, when it is temporarily not possible for delivery to begin at an accounting point. A valid sales agreement is not automatically terminated when an accounting point’s status is changed to ‘under construction’; instead, the supplier must come to an agreement with the customer on the matter as necessary.

When it is possible to begin delivery to an accounting point as normal, its status in Datahub is ‘connected’ or ‘disconnected’. For accounting points with these statuses, agreements can be made and delivery can begin immediately (‘connected’) or as soon as the accounting point is connected (‘disconnected’).

The DSO sets the status of the accounting point to ‘removed from use’ in Datahub when the accounting point is permanently taken out of use, such as when the DSO dismantles a connection. In this case, the DSO reports the termination of the accounting point’s grid agreement to Datahub before reporting the removal of the accounting point, so that the supplier of the accounting point knows to terminate the sales agreement based on the DSO’s grid agreement termination notification. Once an accounting point is reported as removed from use, it is no longer possible to make agreements for that accounting point or return this back to status ‘Connected’. If an accounting point has been removed from use incorrectly and there is still a need to make corrections to it, the DSO can request the Datahub operator to restore the accounting point to active state (status ‘under construction’). After being restored, the accounting point can be used normally in the processes and the DSO can make the necessary updates and, if necessary, remove the accounting point from use again using the existing processes. An accounting point restore done by the Datahub operator does not trigger any notifications to market parties.

Accounting points that are erroneously created in Datahub must be removed from Datahub. In Datahub this is done using the [accounting point deletion event](#). The accounting point ID used for the deleted accounting point cannot be reused when creating a new accounting point. The deleted accounting point remains in the Datahub in status deleted. These accounting points are not visible to other market parties, for example when requesting the accounting point ID. If events have been reported for the accounting point before the error is noticed and these events

are not valid yet, these events must first be cancelled, after which the accounting point should be set to 'removed from use'.

The table below sets out a summary of accounting point statuses during a accounting point's life cycle and their meanings.

Status	Agreements	Delivery start	Status at accounting point
Under construction	Can be made	Cannot begin	Unmetered Connection undergoing maintenance
Connected	Can be made	Can begin	Default – electricity connected
Disconnected	Can be made	Can begin	Default – electricity not connected
Removed from use	Cannot be made	May not begin	Connection cancelled
Deleted	Cannot be made	May not begin	Erroneously reported accounting point deleted before any events reported to it

In addition to the accounting point status, the DSO should also update other data for its accounting points in Datahub (the exception is the accounting point identification, which may never be updated). Data should be updated as soon as it changes in the DSO's own system. Datahub stores accounting point history data – this means that the time of creation or modification for the accounting point data is always saved in Datahub. These times are taken into account in data retrievals in accordance with parties' rights.

Some of the accounting point data reported to Datahub are described in more detail below.

### Time zone

Information on the time zone of the accounting point, which is part of its basic data, provides the supplier with the necessary details when selecting a product for the customer's sales agreement. The time zone reported for the accounting point must correspond to the product of the grid agreement associated with that point.

## **Reactive energy time series available**

The information 'Reactive energy time series available' is not forwarded in accounting point events. Datahub determines this information based on the received metering data.

## **Heating depending on electricity**

The accounting point attribute 'heating depending on electricity' is a factor in determining whether a party has a right to disconnect an accounting during winter (Verkkopalveluehdot VPE 2019 part 9.1.4). The DSO is responsible for maintaining the attribute in Datahub. However, Datahub does not validate supply disconnection requests or notifications based on the attribute.

## **Metering time step**

The Finnish electricity retail market will move from hourly metering to 15-minute metering starting from January 1, 2023. The transition is performed flexibly so that the reporting of hourly metering data is possible during the transition period. The transition period is defined in legislation (Government Decree on supply and metering transitional provision). Due to the transition period, DSO's must manage the time step (hour or 15 minutes) of the metering point (accounting point, production unit or exchange point) on a metering point basis.

The time step used at the accounting point is reported using a separate [time step update event](#). The time step for production units and exchange points is updated via the Datahub user interface. The update also applies for the reactive energy of the metering point. Datahub does not update the metering time step of a possible related accounting point automatically. The DSO will always need to notify the change for each accounting point separately. Often related accounting points are measured with the same meter and the time step is the same. However, suppliers should note that a different time step may occur in related accounting points if the DSO has changed the time step for only one of the accounting points.

The time step can be updated retroactively, but only while the balance window is open (11 days). However, the retroactive update cannot be done if values have already been reported to the accounting point in the previous time step for the time after the update takes effect. If there has been an error, the DSO may request the Datahub operator to perform a retroactive update for the time of the open balance window by service request.

## **Related accounting points**

Consumption and production accounting points can be located in the same physical location, but they are processed in Datahub as separate accounting points. Consumption and production accounting points are separated in Datahub with accounting point type information. The

production accounting points don't need the word "Production" in accounting point address as an identification.

With regard to the functionality of agreement processes, there is need to maintain a more secure manner of linking these accounting points together in addition to address. Linking takes place by reporting the identification code for the production/consumption accounting point with which the consumption/production accounting point is physically located in the same place. This is done using a separate process for [maintaining accounting point relation information](#). Linking between accounting points is two-directional, i.e., both accounting points include the information about the other linked (related) accounting point. Related accounting points are included in [netting calculations](#) if the conditions for netting are met.

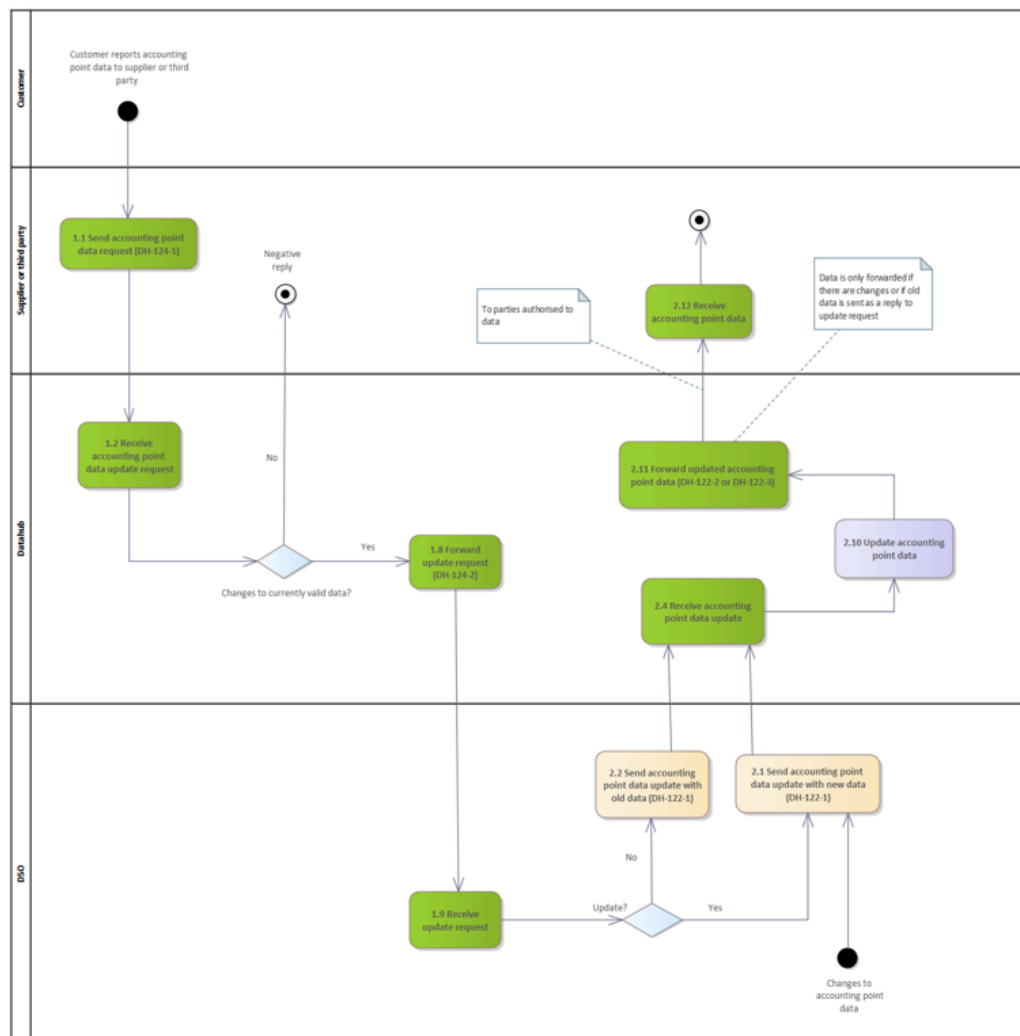
### **Annual consumption estimate**

As part of the update of the accounting point information, the DSO also updates the estimated annual consumption information for the accounting point. The update of the estimated annual consumption is reported mainly in case of a new agreement at the accounting point. If the update is only done for the estimated annual consumption, it is reported with a new reason code Update of 'EAC'. With this reason code the update is done only for the estimated annual consumption information and no other information of the accounting point is saved in Datahub.

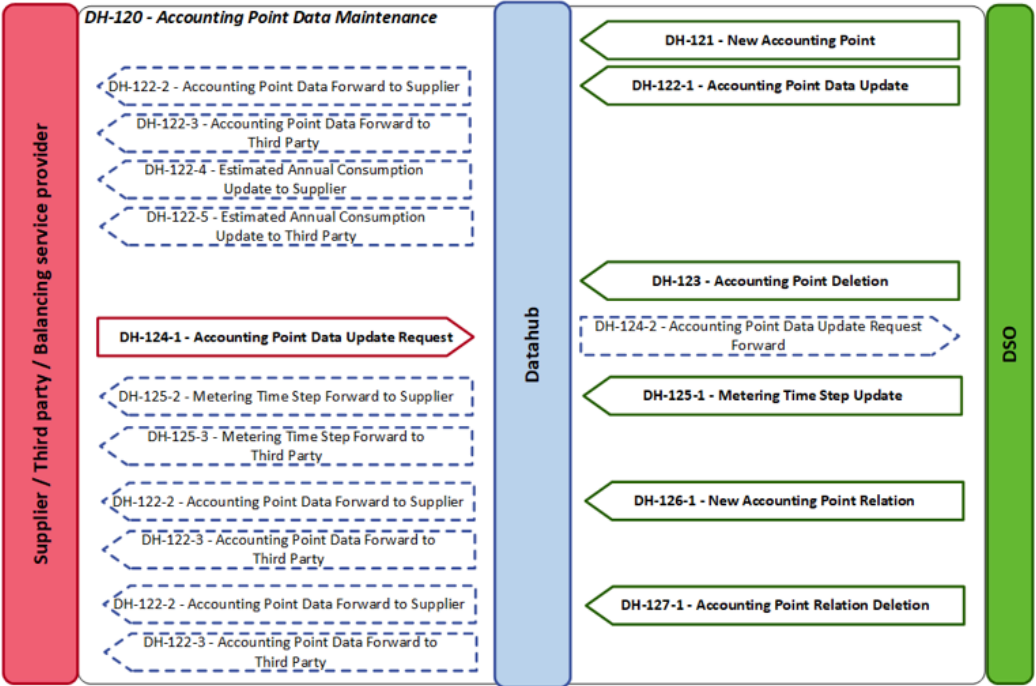
### **Accounting point information update request**

The current supplier, future supplier and third party also have the opportunity to [report changes to accounting point data](#). Accounting point data reported to Datahub by the supplier or third party is not automatically updated in Datahub. Instead, it is forwarded to the DSO which then carries out the update. The DSO is to respond to an update request by sending Datahub the accounting point data update, which includes either data reported by the supplier/third party (the DSO approves the update request), or accounting point data in the grid owner's own system (the DSO rejects the update request). If the DSO rejects the update, then the DSO must also send the reason for the rejection.

The diagram below outlines the process description for an accounting point data update.



Accounting point information maintenance events



## DH-120 Process maps

No content yet.



## DH-120 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-121 Creating an accounting point

Event description

Parties

Time limits

Event processing in Datahub

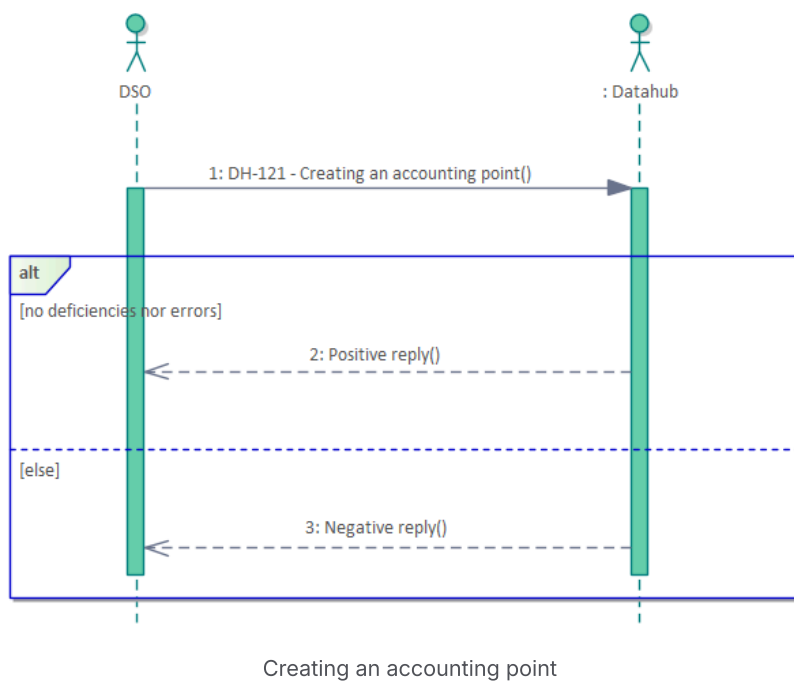
Information storage

Return of information

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A DSO creates a new accounting point in Datahub.

### Parties

- DSO
- Datahub

### Time limits

#### Effective time of the update and its reporting

The new accounting point must be reported as soon as the required information has been stored in the DSO's own system.

Start of occurrence at the earliest 3 years retroactively, at the latest current day at 00:00.

## Event processing in Datahub

Step	Description
Connection capacity of the accounting point	Datahub calculates the connection capacity based on fuse size if connection capacity is not otherwise specified.

## Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored in Datahub.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	Connection capacity, if not specified in the message.

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected creation of an accounting point.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
The address of the accounting point is incorrectly reported or a faulty accounting point is created (for example, the accounting point does not exist)	An agreement is made for the wrong accounting point.

Other accounting point information is incorrectly reported	The supplier makes an agreement with the customer on wrong terms (product/price list is incorrect).
--	---

## Event cancellation

The creation of an accounting point can be cancelled with an accounting point deletion event ([DH-123](#)), provided that no other events have yet been associated with the accounting point.

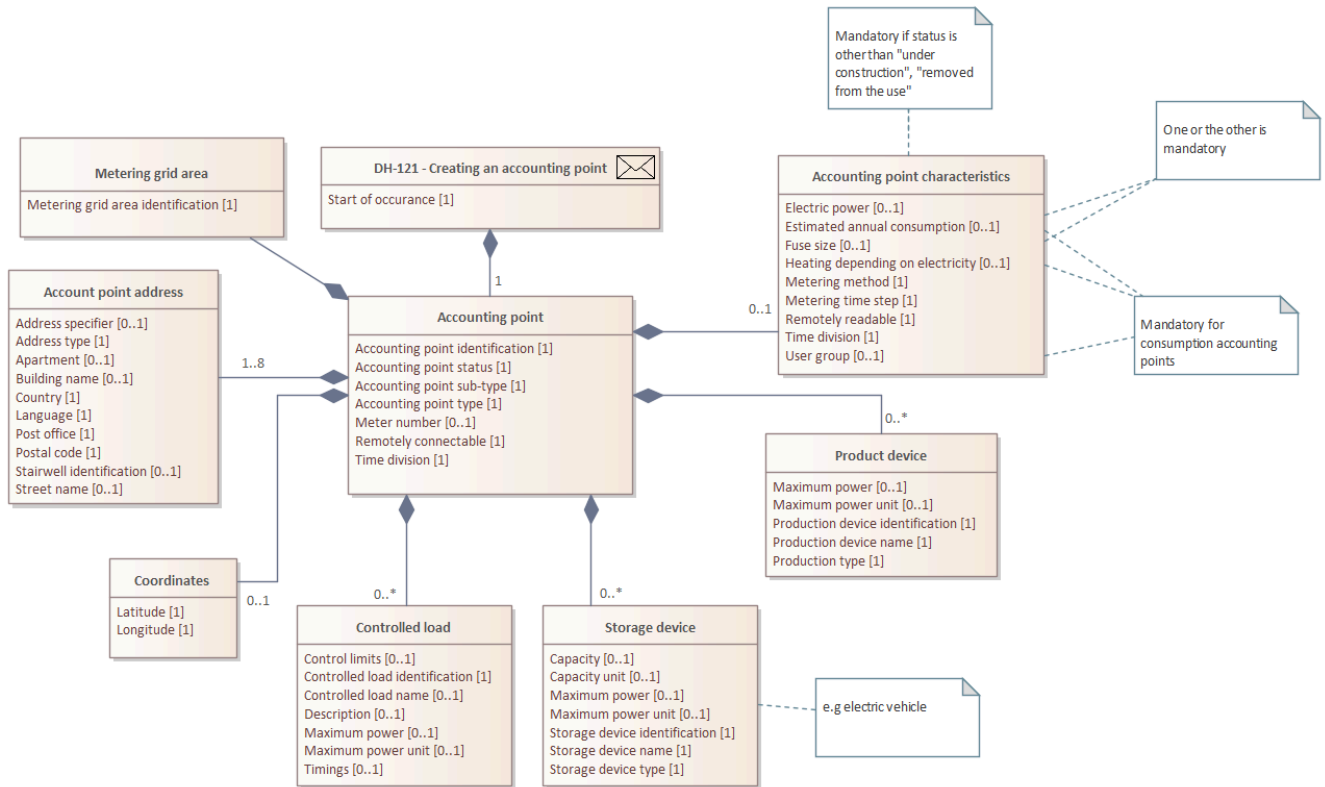
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point ID (GS1) is in the correct format.	EC.MPT.10 1	
The notified time of entry into force of the accounting point is midnight.	EC.MPT.10 7	
The accounting point's code must not already be recorded in Datahub.	EC.MPT.10 0	
The metering grid area must be recorded in the system.	EC.MGA.1 00	
The metering grid area must belong to the reporting distribution system operator.	EC.MPT.10 3	
The accounting point cannot be created with the status 'Removed from use' or 'Deleted'.	EC.MPT.10 2	
If the accounting point sub-type is the production unit's own use, the accounting point type must be 'Consumption'.	EC.MPT.14 8	
If the accounting point type is production, the metering method must be continual metering.	EC.MPT.14 9	
The accounting point's creation event cannot be used to report information about a related accounting point or energy community.	EC.CPF.02 4	



## DH-121 Notification of accounting point creation



Information required to create an accounting point

Message DH-121 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Accounting point status	3	1.1	<ul style="list-style-type: none"> <li>Connected</li> <li>Disconnected</li> </ul>	

			<ul style="list-style-type: none"> <li>• Under construction</li> </ul>	
Accounting point type	3	1.1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> <li>• Virtual</li> </ul>	Accounting point sub-type 'Virtual' is only allowed for a production accounting point.
Remotely connectable	3	1.1	Yes/No	
Time division	3	1.1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0.1	Active metering meter number	Meter number is mandatory if accounting status is not 'Under construction' and metering method is not 'Unmetered'.
Area information	3	1.1		
Metering grid area identification	4	1.1	EIC code is used.	
Accounting point addresses	3	1.8		If apartment information is reported, stairwell identification is mandatory.
Address type	4	1.1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	An accounting point must have exactly one main address.
Street name	4	1.1		The address of an accounting point must always include the street name. If the accounting point has no official street

				address, the name of the nearest street is marked as the street name and the location of the accounting point is specified in the c/o field.
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		The post office and postal code must match. The check is performed only for addresses located in Finland.
Post office	4	1..1		The post office and postal code must match. The check is performed only for addresses located in Finland.
Country	4	1..1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0..1	WGS84 standard is used.	
Latitude	4	1..1		
Longitude	4	1..1		
Accounting point characteristics	3	0..1		Mandatory if the status of the accounting point is not under construction.
Remotely readable	4	1..1	Yes/No	



Metering method	4	1.1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Metering time step	4	1.1		
User group	4	0.1	<p>Classification specified by Statistics Finland is used based on the purpose of electricity consumption.</p> <p>Mandatory for a consumption accounting point.</p>	
Heating depending on electricity	4	0.1	<p>Yes/No</p> <p>Mandatory for a consumption accounting point.</p>	
Fuse size	4	0.1	<p>Format used:</p> <p>&lt;number of cables&gt;x&lt;number of phases&gt;x&lt;amperes&gt;</p> <p>The number of cables is excluded if only one cable is in use.</p> <p>For example, 3x25, 2x3x25</p>	<p>Either fuse size or electric power must be given if accounting point is not in status 'Under construction'. If both are given, Datahub will not compare them and electric power will be used in metering data validation.</p> <p>It is recommended that fuse data is recorded in messages as follows: without dashes, in lower case (x) and without ampere symbols (A, a), e.g., 3x25. If the location has several connection cables, this is entered, e.g., as 2x3x63. The 1x3x63 notation must not be used.</p>
Electric power	4	0.1	Always given in kilowatts.	

Annual consumption estimates	4	0..2		<p>Always given in kilowatt-hours.</p> <p>Mandatory for a consumption accounting point, which is not in status 'Under construction'.</p> <p>Estimated annual consumption 2 can only be reported if estimated annual consumption 1 has also been reported.</p>
Time division	5	1..1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	
Estimated annual consumption	5	1..1		
Controlled load	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than 'Virtual'.</p>
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		
Control limits	4	0..1		
Maximum power	4	0..1		

Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than ‘Virtual’.</p>
Storage device identification	4	1..1		
Storage device name	4	1..1		
Storage device type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p>

				Controlled load can only be reported for an accounting point with sub-type other than 'Virtual'.
Production device identification	4	1..1		
Production device name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		Maximum power is mandatory for a production device.
Maximum power unit	4	0..1		Maximum power unit is mandatory for a production device.

## DH-122 Accounting point information update

Event description

Parties

Important considerations for event handling

Time limits

Event processing in Datahub

Information storage

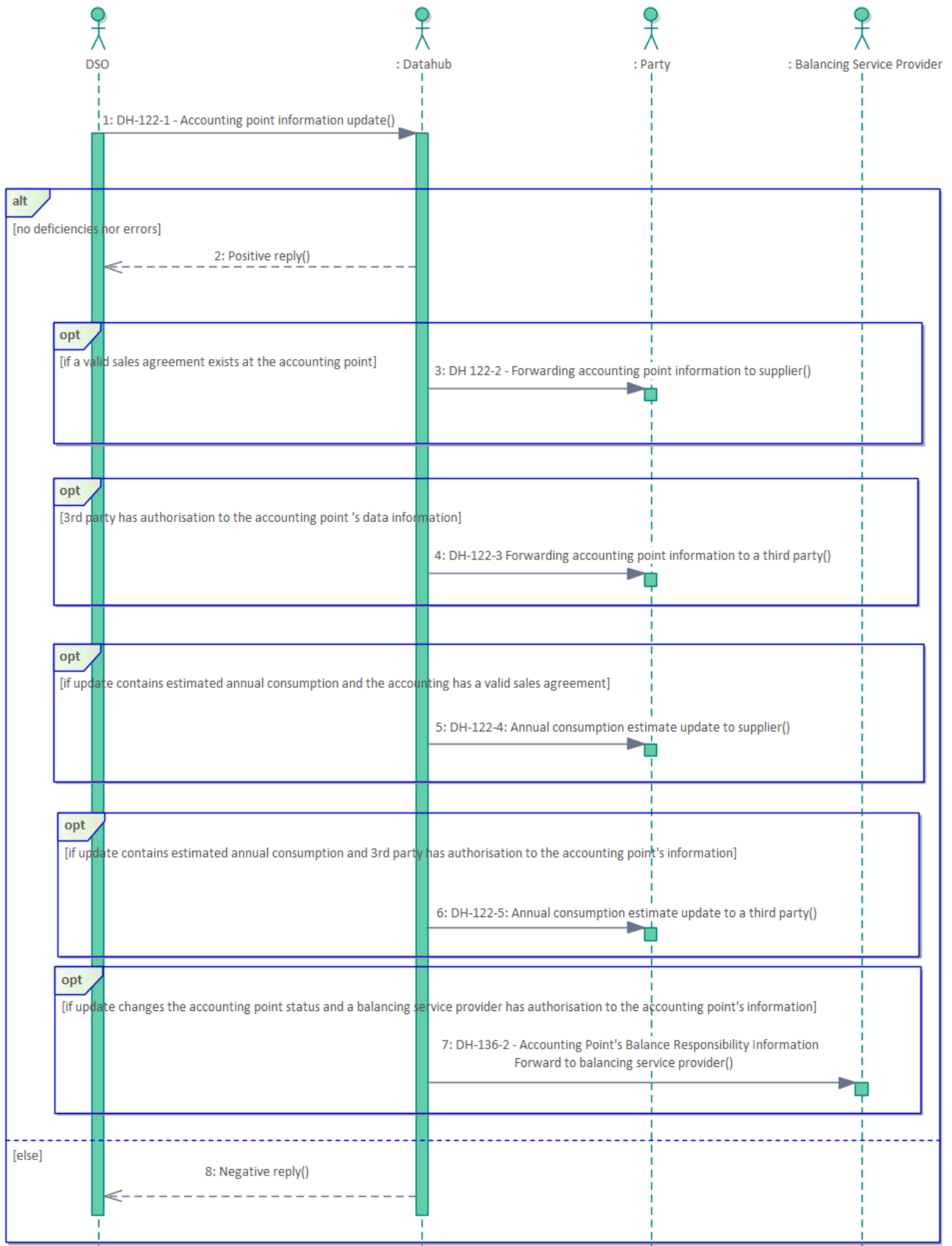
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Accounting point information update

## Event description

The DSO reports an update of accounting point information or estimated annual consumption or replies to an accounting point information update request. The update changes the basic accounting point information and the status of the accounting point. As a reply to [an accounting point information update request](#) current accounting point data can be reported. Reporting current data means that the update request is rejected.

## Parties

- DSO
- Datahub
- Supplier
- Third Party

## Important considerations for event handling

In an update event, all accounting point information must be provided – not only the changed information. If the DSO updates only the annual consumption estimate of the accounting point, the event must be reported using the 'Reason for update' (Update of annual consumption estimate) field.

## Time limits

Effective time of the update	Notes/Exceptions
The information update must be reported as soon as the DSO makes the change in its own system. Start of occurrence of the update is either the current day or maximum 10 years in the past.	
If the accounting point update is done as answer to an update request by another party, the update should be reported in 30 days at the latest.	Information about accounting point update is still accepted after this period but there will be intervention in the case of notifications that are sent late on a repetitive basis.

## Event processing in Datahub

Step	Description
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Connection capacity of the accounting point	Datahub calculates the connection capacity based on fuse size if connection capacity is not otherwise specified.
---	--

## Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored in the database.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	Connection capacity, if not specified in the message.

## Return of information

Party	Description	Message
DSO	Notification of a successful or rejected accounting point update.	<a href="#">ACK</a>

## Forwarding of information

Party	Specification	Description	Message
Supplier	Accounting point's supplier	If the update includes changes to valid information, the information contained in the update will be forwarded to the supplier associated with the accounting point at the effective time of the update.	<a href="#">DH-122-2</a> (Accounting point information update)
		If an accounting point information update is reported retroactively more than 6 weeks after the supplier's agreement has ended, the update will not be forwarded to the supplier even if the	<a href="#">DH-122-4</a> (Annual consumption)



		supplier's agreement would have been valid at the start of occurrence of the update.	estimate update)
	Accounting point's supplier who requested the update	<p>The DSO's response to the supplier's update request. As a response to the supplier's request, the update is forwarded even if it does not contain any changes.</p> <p>If an accounting point information update is reported retroactively more than 6 weeks after the supplier's agreement has ended, the update will not be forwarded to the supplier even if the supplier's agreement would have been valid at the start of occurrence of the update.</p>	<p><a href="#">DH-122-2</a> (Accounting point information update)</p> <p><a href="#">DH-122-4</a> (Annual consumption estimate update)</p>
Third party	Accounting point's third party	If the update includes changes to valid information, the information contained in the update will be forwarded to third parties associated with the accounting point at the effective time of the update, taking into account their rights to the accounting point information.	<p><a href="#">DH-122-3</a> (Accounting point information update)</p> <p><a href="#">DH-122-5</a> (Annual consumption estimate update)</p>
	Accounting point's third party who requested the update	The DSO's response to the third party's update request. As a response to the third party's request, the update is also forwarded even if it does not contain any changes.	<p><a href="#">DH-122-3</a> (Accounting point information update)</p> <p><a href="#">DH-122-5</a> (Annual consumption estimate update)</p>

## Significant errors and consequences

Error	Consequence
Information is reported incorrectly	Suppliers and third parties can make incorrect agreements with a customer. Incorrect meter values in, for example, imbalance settlement or load control.

## Event cancellation


Information is corrected by means of a new update.

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub and is valid on the reported start of occurrence.	EC.MPT.11 5	
The notified time of entry into force of the accounting point is midnight.	EC.MPT.1 07	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.1 20	
The metering grid area must belong to the reporting distribution system operator.	EC.MPT.1 03	
The accounting point is part of the reported metering grid area.	EC.MPT.11 6	
If the accounting point sub-type is the production unit's own use, the accounting point type must be 'Consumption'.	EC.MPT.1 48	
If the accounting point type is production, the metering method must be continual metering.	EC.MPT.1 49	
The accounting point status cannot be updated to change to 'Connected', 'Disconnected' or 'Deleted'. Updates to this status are made using the Connection, Disconnection or Accounting point deletion events.	EC.MPT.11 9	

If the accounting point is being updated to the 'Removed from use' status, the accounting point cannot have agreements in the system which are valid or entering into force on the date of the update's entry into force.	EC.MPT.1 21	
The accounting point's creation event cannot be used to report information about a related accounting point or energy community.	EC.CPF.0 24	
If the accounting point is part of an energy community at or after the moment of the update's entry into force, its status cannot be changed to 'Removed from use' before the accounting point has been removed from the energy community.	EC.MPT.1 74	
If the accounting point has a related accounting point at or after the moment the update enters into force, the status of the accounting point cannot be changed to 'Removed from use'. No validation is conducted if the related accounting point is already of the status 'Removed from use' or 'Deleted'.	EC.MPT.1 81	
If a production accounting point is part of netting calculation at or after the time the update enters into force, not all production devices may be removed from the accounting point.	EC.MPT.1 79	
If a production accounting point is part of netting calculation at or after the time the update enters into force, production devices with an aggregate rated capacity greater than 100 kVA cannot be reported for the accounting point using an update event.	EC.MPT.1 80	
If a production accounting point has a related accounting point at or after the time the update enters into force, but the accounting points are not part of netting calculation, production devices with an aggregate rated capacity of exactly 100 kVA or below cannot be reported for the accounting point using an update event.	EC.MPT.1 80	

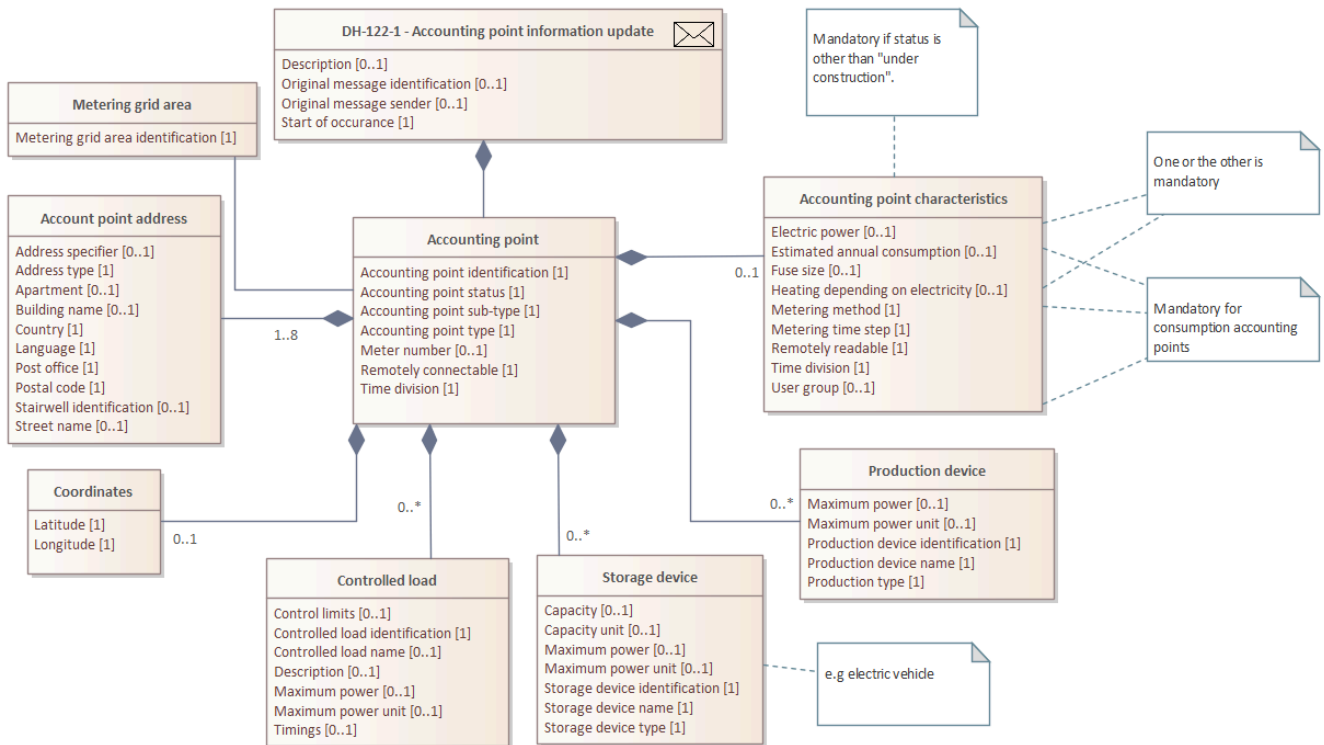
<div> Please observe that the list is not complete.</div>		

## DH-122-1 Accounting point information update

Updating accounting point information

Updating estimate of annual consumption

### Updating accounting point information



Information to be reported during an accounting point update

Message DH-122-1 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Neces sity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0.1	If message DH-122-1 is a response to event DH-124, the field must	<a href="#">Field usage</a>

			contain the identifier of message DH-124-2.	
Original message sender	2	0..1	If message DH-122-1 is a response to event DH-124, the field must contain the sender of message DH-124-2 .	<a href="#">Field usage</a>
Description	2	0..1	Optional reason for update or rejecting an update request	
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Accounting point status	3	1..1	<ul style="list-style-type: none"> <li>• Connected</li> <li>• Disconnected</li> <li>• Under construction</li> </ul>	
Accounting point type	3	1..1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	Information cannot be updated with the event.
Accounting point sub-type	3	1..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> <li>• Virtual</li> </ul>	Accounting sub-type cannot be changed to/from 'Virtual'.
Remotely connectable	3	1..1	Yes/No	
Time division	3	1..1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	

Meter number	3	0..1	Active metering meter number	Meter number is mandatory if accounting status is not 'Under construction' or 'Removed from use' and metering method is not 'Unmetered'.
Area information	3	1..1		Information cannot be updated with the event.
Metering grid area identification	4	1..1	EIC code is used.	
Accounting point addresses	3	1..8		If apartment information is reported, stairwell identification is mandatory.
Address type	4	1..1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	An accounting point must have exactly one main address.
Street name	4	1..1		The address of an accounting point must always include the street name. If the accounting point has no official street address, the name of the nearest street is marked as the street name and the location of the accounting point is specified in the address specifier field.
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		The postal code and post office must match. This check

Post office	4	1.1		is only performed for addresses located in Finland.
Country	4	1.1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0..1	WGS84 standard is used.	
Latitude	4	1.1		
Longitude	4	1.1		
Accounting point characteristics	3	0..1	Mandatory if the status of the accounting point is not under construction or removed from use.	
Remotely readable	4	1.1	Yes/No	
Metering method	4	1.1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Metering time step	4	1.1		
User group	4	0..1	<p>Classification specified by Statistics Finland is used based on the purpose of electricity consumption.</p> <p>Mandatory for a consumption accounting point.</p>	
Heating depending on electricity	4	0..1	Yes/No	



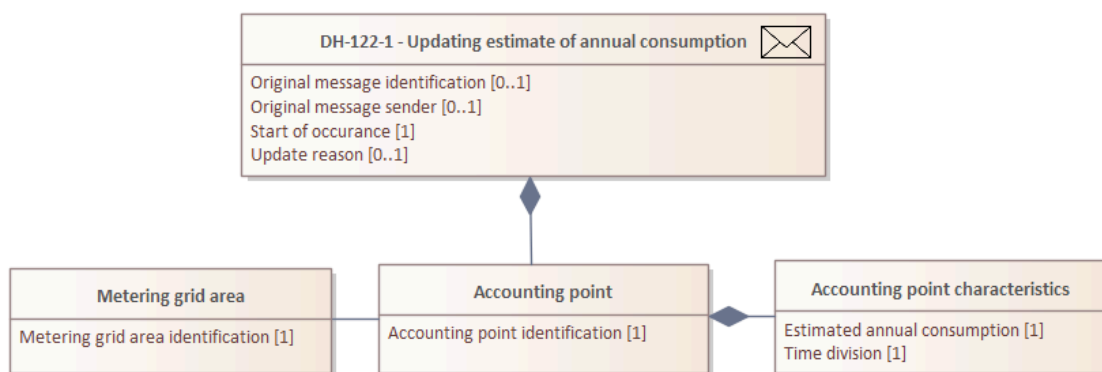
			Mandatory for a consumption accounting point.	
Fuse size	4	0..1	<p>Format used:</p> <p>&lt;number of cables&gt;x&lt;number of phases&gt;x&lt;amperes&gt;</p> <p>The number of cables is excluded if only one cable is in use.</p> <p>For example, 3x25, 2x3x25</p>	<p>Either fuse size or electric power must be given, if accounting point is not in status 'Under construction' or 'Removed from use'. If both are given, Datahub will not compare them and electric power will be used in metering data validation.</p> <p>It is recommended that fuse data is recorded in messages as follows: without dashes, in lower case (x) and without ampere symbols (A, a), e.g., 3x25. If the location has several connection cables, this is entered as, e.g., 2x3x63. The 1x3x63 notation must not be used.</p>
Electric power	4	0..1	Always given in kilowatts	
Annual consumption estimates	4	0..2		<p>Always given in kilowatt-hours.</p> <p>Mandatory for a consumption accounting point, which is not in status 'Under construction'.</p> <p>Estimated annual consumption 2 can only be reported if also estimated annual consumption 1 has been reported.</p>
Time division	5	1..1	Estimated annual consumption 1	

			Estimated annual consumption 2	
Estimated annual consumption	5	1.1		
Controlled load	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than ‘Virtual’.</p>
Controlled load identification	4	1.1		
Controlled load name	4	0.1		
Description	4	0.1		
Timings	4	0.1		
Control limits	4	0.1		
Maximum power	4	0.1		
Maximum power unit	4	0.1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting</p>

				point with sub-type other than 'Virtual'.
Identification	4	1..1		
Name	4	1..1		
Type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than 'Virtual'.</p> <p>Maximum power and maximum power unit are mandatory for a production device.</p>
Identification	4	1..1		
Name	4	1..1		
Production type	4	1..1		

Maximum power	4	0.1		Maximum power is mandatory for a production device.
Maximum power unit	4	0.1		Maximum power unit is mandatory for a production device.

## Updating estimate of annual consumption



Details of updating estimate of annual consumption

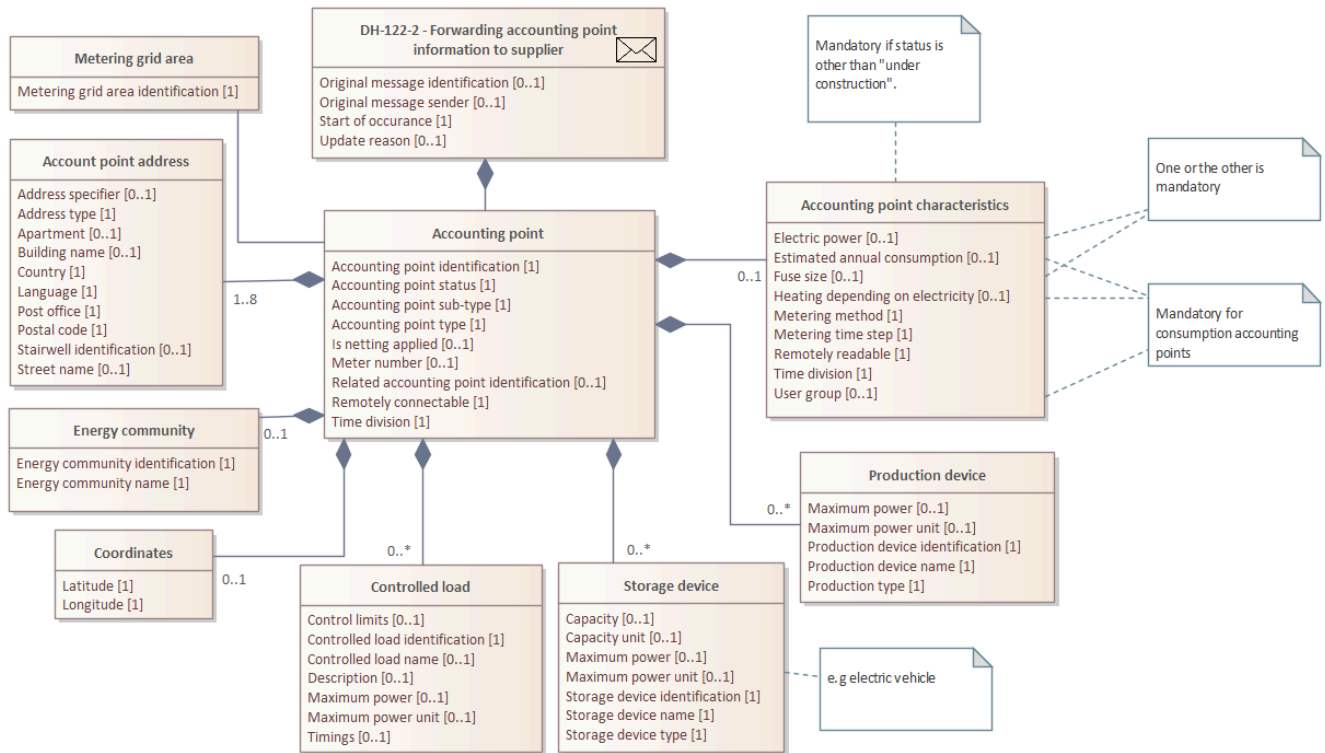
Message DH-122-1 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0..1	If message DH-122-1 is a response to event DH-124, the field must contain the identifier of message DH-124-2.	<a href="#">Field usage</a>
Original message sender	2	0..1	If message DH-122-1 is a response to event DH-124, the field must contain the sender of message DH-124-2.	<a href="#">Field usage</a>

Update reason	2	0.1	Estimated annual consumption update	Used only when the DSO updates the annual consumption estimate exclusively.
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1	EIC code is used.	
Accounting point characteristics	3	1.1		
Annual consumption estimates	4	1.2		<p>Always given in kilowatt-hours.</p> <p>Estimated annual consumption 2 can only be reported if estimated annual consumption 1 has also been reported.</p>
Time division	5	1.1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	
Estimated annual consumption	5	1.1		

## DH-122-2 Forwarding accounting point information to supplier



Information to be forwarded to supplier during an accounting point update

Message DH-122-2 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0..1	The field contains the message identifier DH-122-1, DH-126-1, DH-127-1, DH-141, or DH-142, depending on the original event.	<a href="#">Field usage</a>
Original message sender	2	0..1	The field contains the message identifier DH-122-1, DH-126-1,	<a href="#">Field usage</a>

			DH-127-1, DH-141, or DH-142, depending on the original event.	
Description	2	0..1	Optional reason for update or rejecting an update request.	
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Accounting point status	3	1.1	<ul style="list-style-type: none"> <li>• Connected</li> <li>• Disconnected</li> <li>• Under construction</li> </ul>	
Accounting point type	3	1.1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> <li>• Virtual</li> </ul>	
Remotely connectable	3	1.1	Yes/No	
Time division	3	1.1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0..1	Active metering meter number	
Related accounting point identification	3	0..1	Identifier of the corresponding consumption or production accounting point related to the small-scale production site.	Related accounting point data is maintained using events <a href="#">DH-126</a> and <a href="#">DH-127</a> . This information is not updated as part of the <a href="#">DH-122</a> event, but any existing data is also

				forwarded in connection with the DH-122 event.
Energy community identification	3	0..1		Energy community data is maintained using <a href="#">DH-14x events</a> . This information is not updated as part of the <a href="#">DH-122</a> event, but any existing data is also forwarded in connection with the DH-122 event.
Energy community name	3	0..1		Energy community data is maintained using <a href="#">DH-14x events</a> . This information is not updated as part of the <a href="#">DH-122</a> event, but any existing data is also forwarded in connection with the DH-122 event.
Is netting applied	3	0..1	0=Netting not applied 1=Netting applied	
Area information	3	1..1		
Metering grid area identification	4	1..1	EIC code is used.	
Accounting point addresses	3	1..8		
Address type	4	1..1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		

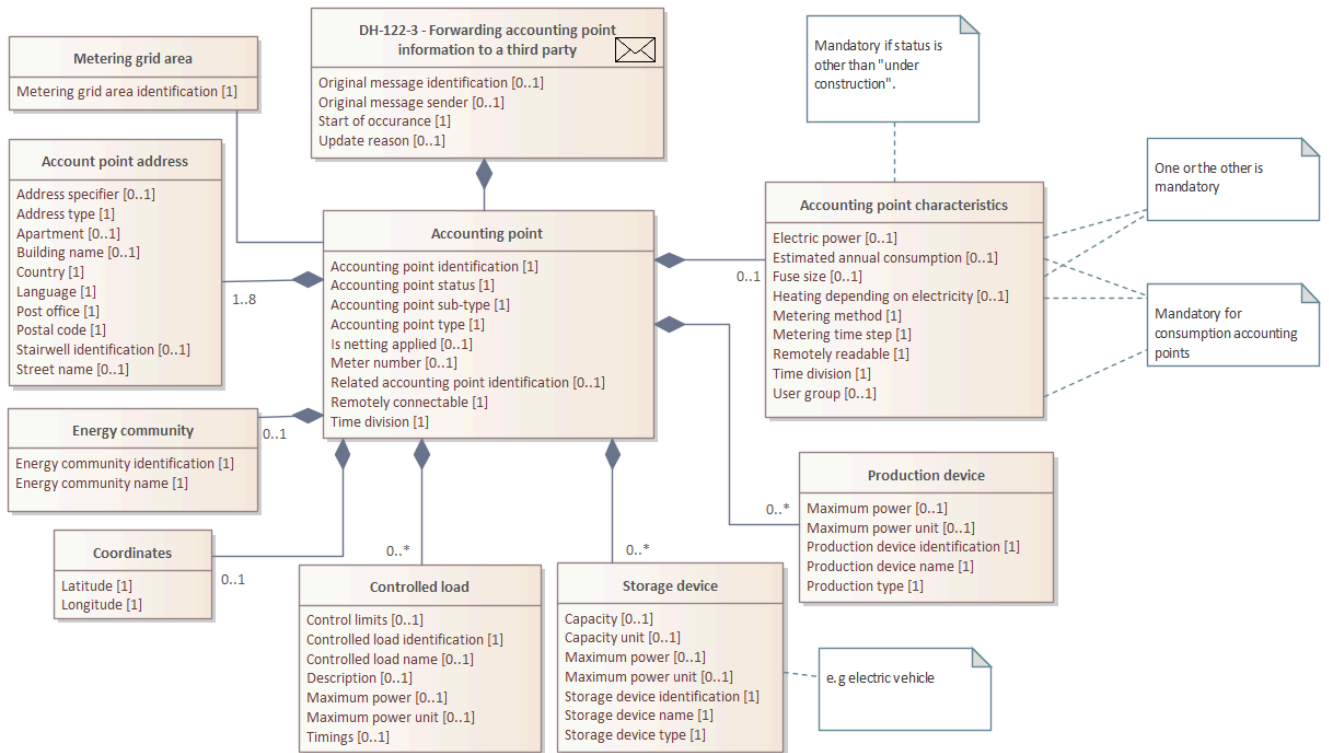


Postal code	4	1..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0..1	WGS84 standard is used.	
Latitude	4	1..1		
Longitude	4	1..1		
Accounting point characteristics	3	0..1	Mandatory if the status of the accounting point is not under construction or removed from use.	
Remotely readable	4	1..1	Yes/No	
Metering method	4	1..1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Metering time step	4	1..1		
User group	4	0..1	<p>Classification specified by Statistics Finland is used based on the purpose of electricity consumption.</p> <p>Mandatory for a consumption accounting point.</p>	
Heating depending on electricity	4	0..1	<p>Yes/No</p> <p>Mandatory for a consumption accounting point.</p>	

Fuse size	4	0..1	<p>Format used:</p> <p>&lt;number of cables&gt;x&lt;number of phases&gt;x&lt;amperes&gt;</p> <p>The number of cables is excluded if only one cable is in use.</p> <p>For example, 3x25, 2x3x25</p>	
Electric power	4	0..1	Always given in kilowatts.	
Annual consumption estimates	4	0..2		
Time division	5	1..1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	
Estimated annual consumption	5	1..1		
Controlled load	3	0..n		
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		
Control limits	4	0..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		

Storage device identification	4	1..1		
Storage device name	4	1..1		
Storage device type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		
Production device identification	4	1..1		
Production device name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1		

## DH-122-3 Forwarding accounting point information to a third party



Information to be forwarded to third party during an accounting point update

Message DH-122-3 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0..1	The field contains the message identifier DH-122-1, DH-126-1, DH-127-1, DH-141, or DH-142, depending on the original event.	<a href="#">Field usage</a>
Original message sender	2	0..1	The field contains the message identifier DH-122-1, DH-126-1,	<a href="#">Field usage</a>

			DH-127-1, DH-141, or DH-142, depending on the original event.	
Description	2	0..1	Optional reason for update or rejecting an update request.	
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Accounting point status	3	1..1	<ul style="list-style-type: none"> <li>• Connected</li> <li>• Disconnected</li> <li>• Under construction</li> </ul>	
Accounting point type	3	1..1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> <li>• Virtual</li> </ul>	
Remotely connectable	3	1..1	Yes/No	
Time division	3	1..1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0..1	Active metering meter number	
Related accounting point identification	3	0..1	Identifier of the corresponding consumption or production accounting point related to the small-scale production site.	Related accounting point data is maintained using events <a href="#">DH-126</a> and <a href="#">DH-127</a> . This information is not updated as part of the <a href="#">DH-122</a> event, but any existing data is also forwarded in

				connection with the DH-122 event.
Energy community identification	3	0..1		Energy community data is maintained using <a href="#">DH-14x events</a> . This information is not updated as part of the <a href="#">DH-122</a> event, but any existing data is also forwarded in connection with the DH-122 event.
Energy community name	3	0..1		Energy community data is maintained using <a href="#">DH-14x events</a> . This information is not updated as part of the <a href="#">DH-122</a> event, but any existing data is also forwarded in connection with the DH-122 event.
Is netting applied	3	0..1	0=Netting not applied 1=Netting applied	
Area information	3	1..1		
Metering grid area identification	4	1..1	EIC code is used.	
Accounting point addresses	3	1..8		
Address type	4	1..1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		

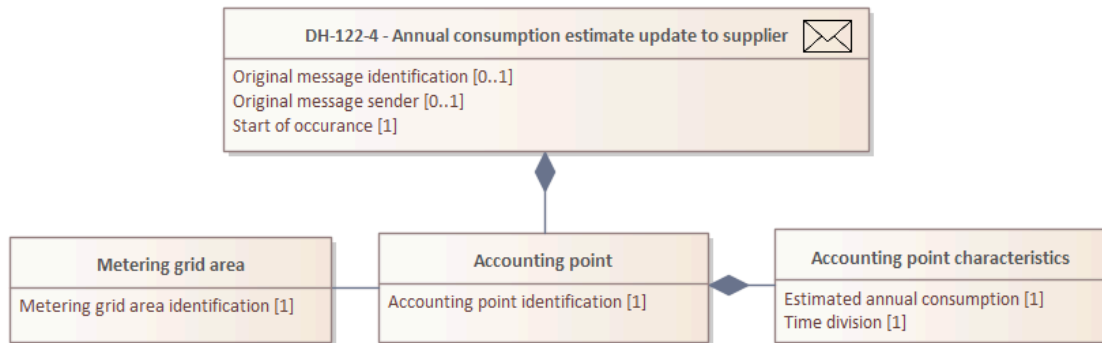
Postal code	4	1.1		
Post office	4	1.1		
Country	4	1.1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0..1	WGS84 standard is used.	
Latitude	4	1.1		
Longitude	4	1.1		
Accounting point characteristics	3	0..1	Mandatory if the status of the accounting point is not under construction or removed from use.	
Remotely readable	4	1.1	Yes/No	
Metering method	4	1.1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Metering time step	4	1.1		
User group	4	0..1	<p>Classification specified by Statistics Finland is used based on the purpose of electricity consumption.</p> <p>Mandatory for a consumption accounting point.</p>	
Heating depending on electricity	4	0..1	<p>Yes/No</p> <p>Mandatory for a consumption accounting point.</p>	

Fuse size	4	0..1	<p>Format used:</p> <p>&lt;number of cables&gt;x&lt;number of phases&gt;x&lt;amperes&gt;</p> <p>The number of cables is excluded if only one cable is in use.</p> <p>For example, 3x25, 2x3x25</p>	
Electric power	4	0..1	Always given in kilowatts	
Annual consumption estimates	4	0..2		
Time division	5	1..1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	
Estimated annual consumption	5	1..1		
Controlled load	3	0..n		
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		
Control limits	4	0..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		



Storage device identification	4	1.1		
Storage device name	4	1.1		
Storage device type	4	1.1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		
Production device identification	4	1.1		
Production device name	4	1.1		
Production type	4	1.1		
Maximum power	4	0..1		
Maximum power unit	4	0..1		

## DH-122-4 Annual consumption estimate update to supplier



Information to be reported and forwarded to supplier during an estimated annual consumption update

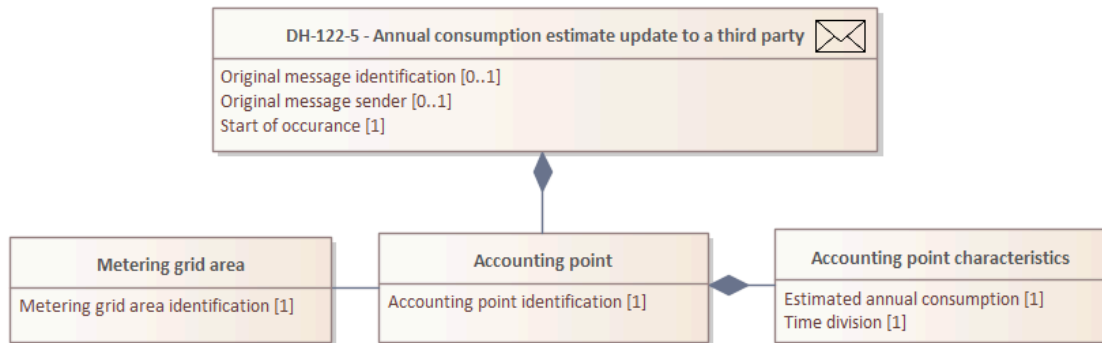
Message DH-122-4 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-122-1 message identifier.	<a href="#">Field usage</a>
Original message sender	2	0..1	The field contains the DH-122-1 message sender.	<a href="#">Field usage</a>
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1	EIC code is used.	

Accounting point characteristics	3	1.1		
Annual consumption estimates	4	1..2		
Time division	5	1.1		
Estimated annual consumption	5	1.1		

## DH-122-5 Annual consumption estimate update to a third party



Information to be reported and forwarded to a third party during an estimated annual consumption update

Message DH-122-5 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-122-1 message identifier.	<a href="#">Field usage</a>
Original message sender	2	0..1	The field contains the DH-122-1 message sender.	<a href="#">Field usage</a>
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1	EIC code is used.	

Accounting point characteristics	3	1.1		
Annual consumption estimates	4	1..2		
Time division	5	1.1		
Estimated annual consumption	5	1.1		

## DH-123 Deleting an accounting point

Event description

Parties

Time limits

Event processing in Datahub

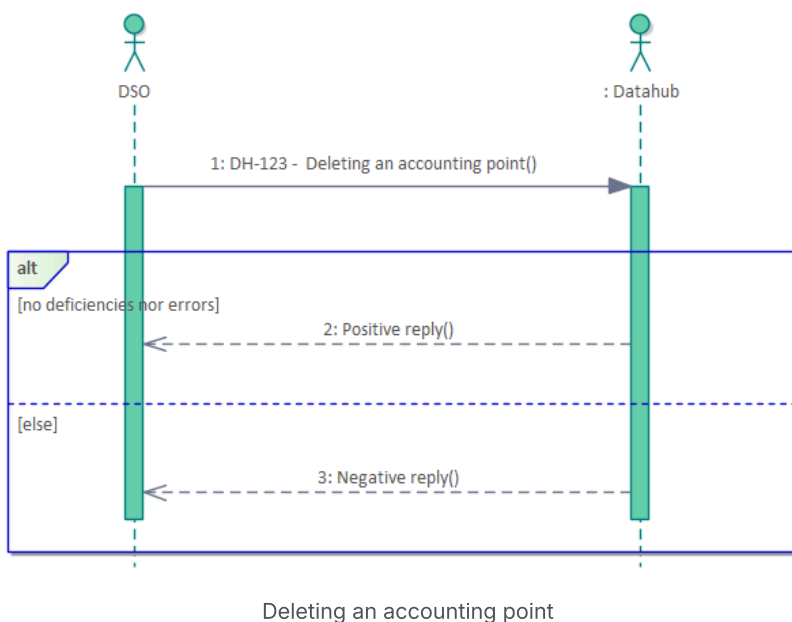
Information storage

Return of information

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A DSO reports the deletion of an accounting point to Datahub.

### Parties

- DSO
- Datahub

### Time limits

#### Effective time of the update

Notification must be made as soon as the DSO deletes the accounting point from their own system.

The time of creating the accounting point must be reported as the start of occurrence.

## Event processing in Datahub

Step	Description
Accounting point status	The accounting point status is updated to 'deleted'.

## Information storage

Origin of information	Information stored
Information processed by Datahub	The accounting point in question is removed from the system.

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected deletion of an accounting point.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
The DSO deletes the wrong accounting point	The supplier will not find the accounting point in Datahub and cannot make an agreement with the customer.

## Event cancellation


The event cannot be cancelled.

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

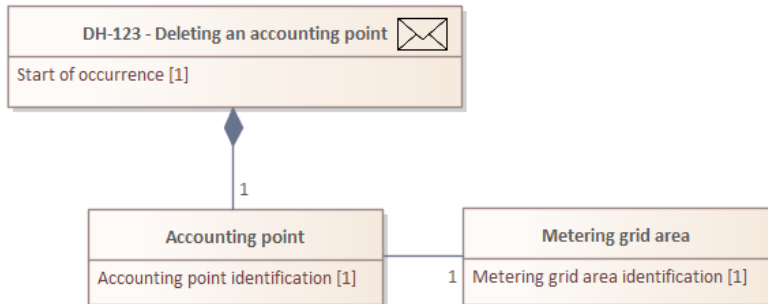
Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.11 5	

The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.12 0	
The metering grid area must be recorded in the system.	EC.MGA.1 00	
The metering grid area must belong to the reporting distribution system operator.	EC.MPT.10 3	
The accounting point is part of the reported metering grid area.	EC.MPT.11 6	
No agreement information at all is linked to the accounting point (including terminated and cancelled agreements).	EC.MPT.12 2	
The accounting point cannot be part of an energy community at or after the time the removal enters into force.	EC.MPT.17 5	
If the accounting point has a related accounting point at or after the moment the update enters into force, the status of the accounting point cannot be changed to 'Removed from use'. No validation is conducted if the related accounting point is already of the status 'Removed from use' or 'Deleted'.	EC.MPT.18 1	

 Please observe that the list is not complete.



## DH-123 Accounting point deletion



Information to be provided when removing an accounting point from use

Message DH-123 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-124 Request for accounting point information update

Event description

Parties

Time limits

Event processing in Datahub

Return of information

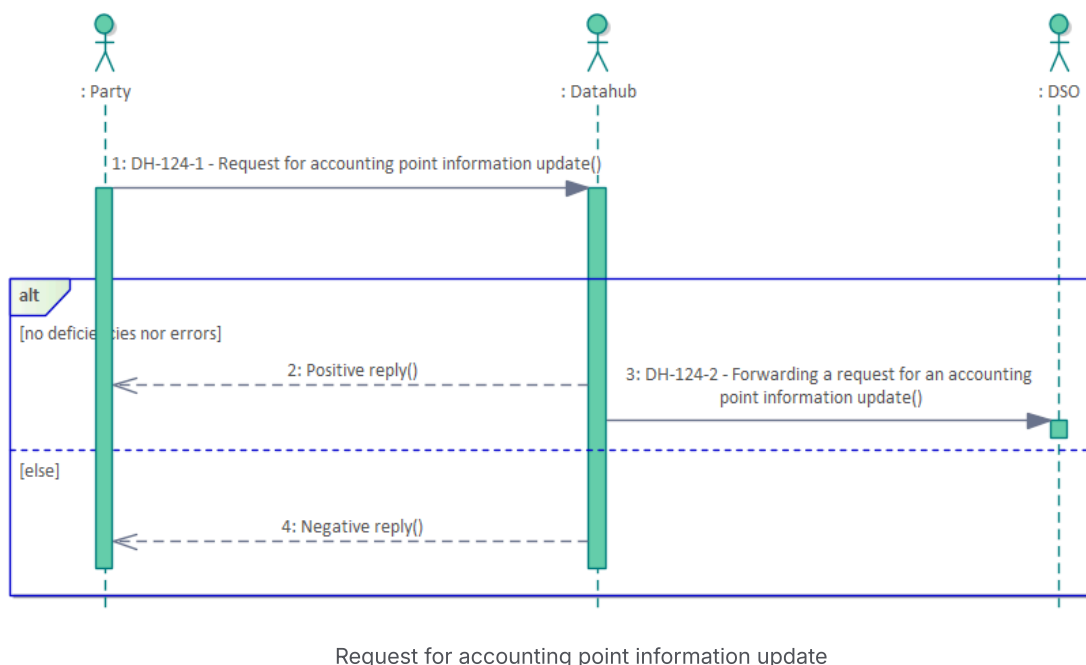
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A supplier or third party sends accounting point changes reported by the customer to the DSO. The DSO decides whether to change this information in its own system and launches the actual information update event on the basis of the supplier's notification. The purpose of this event is to ensure that certain accounting point information is as current as possible.

The supplier reporting the event must have a valid agreement at the accounting point in Datahub at the requested time of change.

The third party reporting the event must have an authorization in Datahub to access the accounting point information at the requested time of change.

## Parties

- Supplier / Third party
- Datahub
- DSO

## Time limits

Effective time of the update
The supplier or third party must submit the request immediately upon becoming aware of the changes.
Start of occurrence of the update request can be maximum 90 days into the future and maximum 10 years in the past.

## Event processing in Datahub

Step	Description
Verification of update request information	Datahub checks whether the information in the update request is the same as the valid accounting point information at the requested start of occurrence. If it is, a negative reply is returned and the request is not forwarded.
Handling of post office name	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.

## Return of information

Party	Description	Message
Supplier or third party	Notification of a successful or rejected forwarding of accounting point data (update request).	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
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DSO	The update request is forwarded to the DSO for the accounting point.	<a href="#">DH-124-2</a>
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## Composite processes

Party	Description	Composite process
DSO	The accounting point information update request is forwarded to the DSO.	<a href="#">DH-124 → DH-122</a>

## Significant errors and consequences

Error	Consequence
The user group is reported incorrectly	Official reporting is incorrect.
The annual use estimate is reported incorrectly	Imbalance settlement calculation contains a large deviation in comparison to actual use at reading metering sites.


## Event cancellation

This event cannot be cancelled.

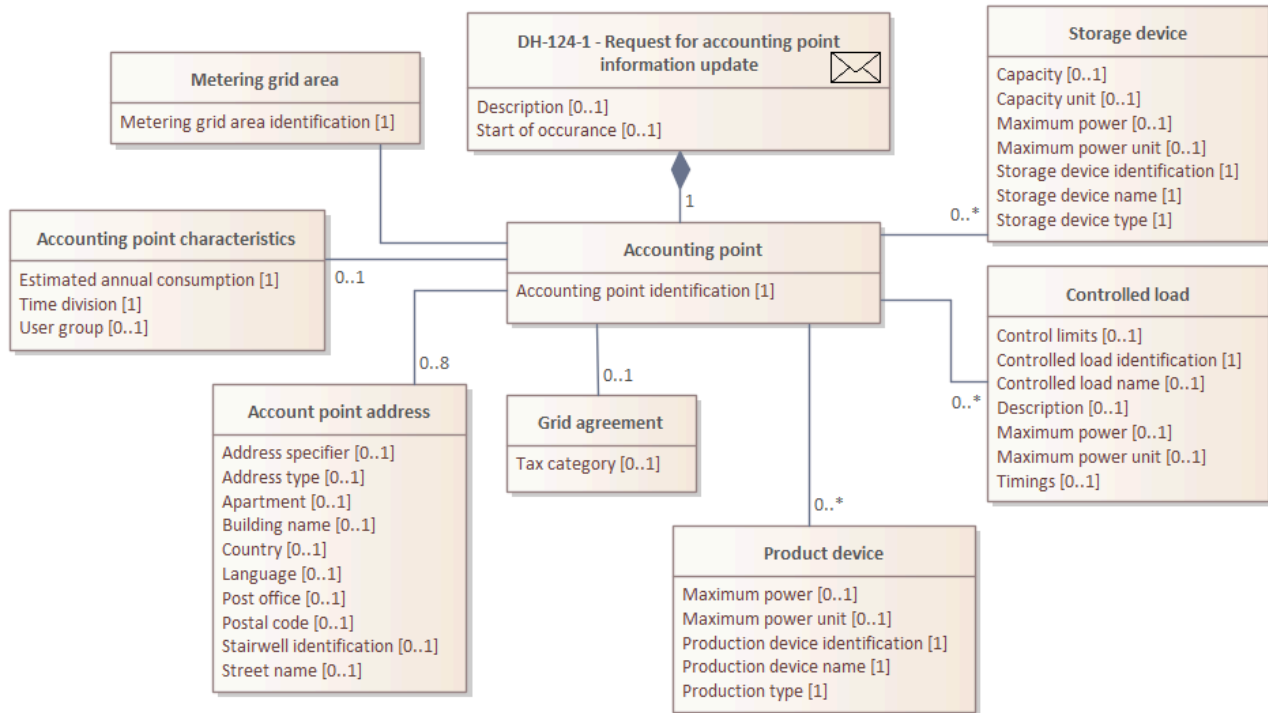
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The notified time of the update is midnight.	EC.MPT.107	
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The accounting point is part of the reported metering grid area.	EC.MPT.116	

 Please observe that the list is not complete.

## DH-124-1 Request for accounting point information update



Accounting point data for which a supplier or third party can report changes to the DSO

Message DH-124-1 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Description	2	0..1		
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Area information	3	1.1		

Metering grid area identification	4	1..1		
Accounting point address	3	0..8		An update request should not be used to request removal of addresses or devices from the accounting point information.
Address type	4	1..1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	An accounting point must have exactly one main address.
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Post office	4	0..1		
Country	4	0..1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Accounting point characteristics	3	0..1		
User group	4	0..1	Classification specified by Statistics Finland is used based on the purpose of electricity consumption.	
Tax category	4	0..1		The tax category is agreement level data and not a characteristic of the accounting point. The tax category is

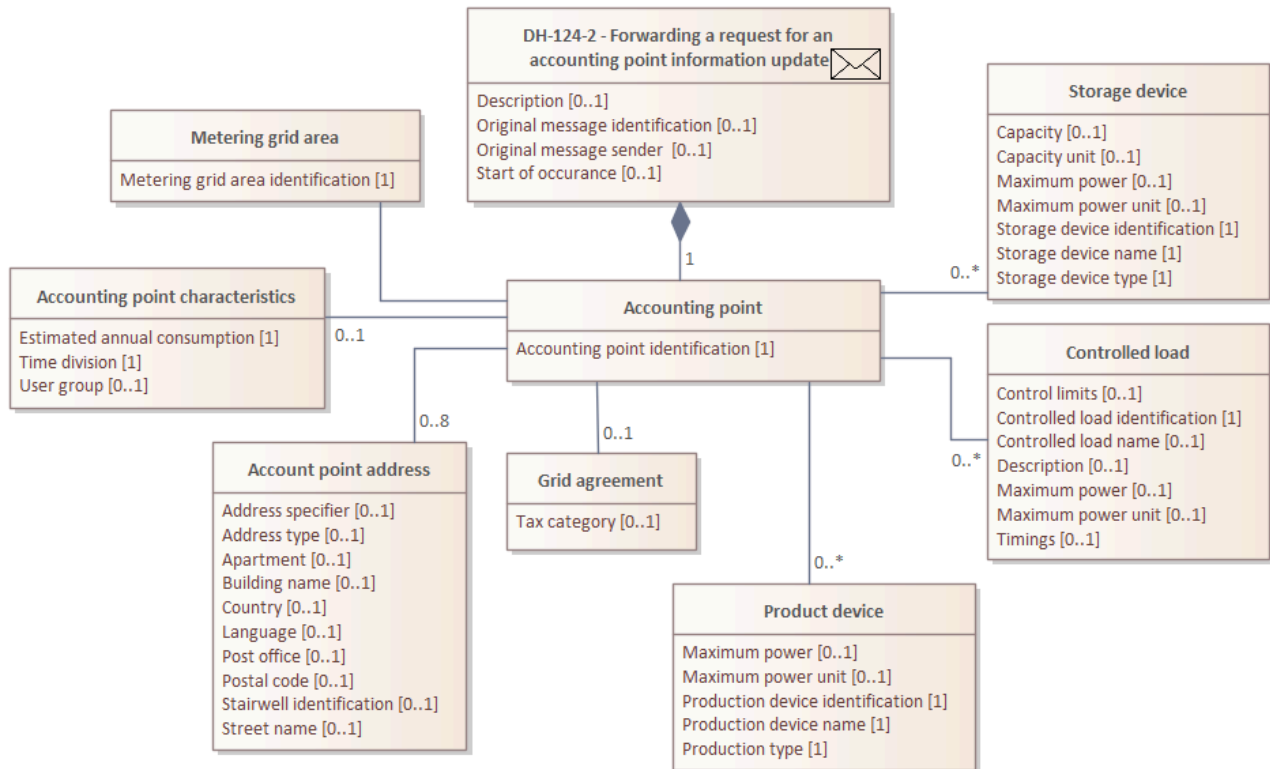
				included in the accounting point update request so that the supplier may request an update of the tax category.
Annual consumption estimates	4	0..2		<p>Always given in kilowatt-hours.</p> <p>Estimated annual consumption 2 can only be reported if estimated annual consumption 1 has also been reported.</p> <p>If an annual consumption estimate is provided, it must not be the same as the one valid at the metering point on the effective date.</p>
Time division	5	1..1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	
Estimated annual consumption	5	1..1		
Controlled load	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than 'Virtual'.</p>
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		



Control limits	4	0..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		<p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than ‘Virtual’.</p>
Storage device identification	4	1..1		
Storage device name	4	1..1		
Storage device type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		An update request should not be used to request removal of addresses or

				<p>devices from the accounting point information.</p> <p>The device identification – accounting point identification combination must be unique in Datahub.</p> <p>Controlled load can only be reported for an accounting point with sub-type other than ‘Virtual’.</p> <p>Maximum power and maximum power unit are mandatory for a production device.</p>
Production device identification	4	1..1		
Production device name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		Maximum power is mandatory for a production device.
Maximum power unit	4	0..1		Maximum power unit is mandatory for a production device.

## DH-124-2 Forwarding a request for an accounting point information update



Details of forwarding a request for an accounting point information update

Message DH-124-2 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0.1	The field contains the DH-124-1 message identifier.	<a href="#">Field usage</a>
Original message sender	2	0.1	The field contains the DH-124-1 message sender.	<a href="#">Field usage</a>
Description	2	0.1		

Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		
Accounting point address	3	0..8		
Address type	4	1.1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	0..1		
Post office	4	0..1		
Country	4	0..1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	0..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Accounting point characteristics	3	0..1		
User group	4	0..1	Classification specified by Statistics Finland is used based on the purpose of electricity consumption.	

Tax category	4	0..1		The tax category is agreement level data and not a characteristic of the accounting point. The tax category is included in the accounting point update request so that the supplier may request an update of the tax category.
Annual consumption estimates	4	0..2		
Time division	5	1..1	Estimated annual consumption 1  Estimated annual consumption 2	
Estimated annual consumption	5	1..1		
Controlled load	3	0..n		
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		
Control limits	4	0..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	

Storage device	3	0..n		
Storage device identification	4	1..1		
Storage device name	4	1..1		
Storage device type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		
Production device identification	4	1..1		
Production device name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1		

## DH-125 Metering time step update

Event description

Parties

Time limits

Information storage

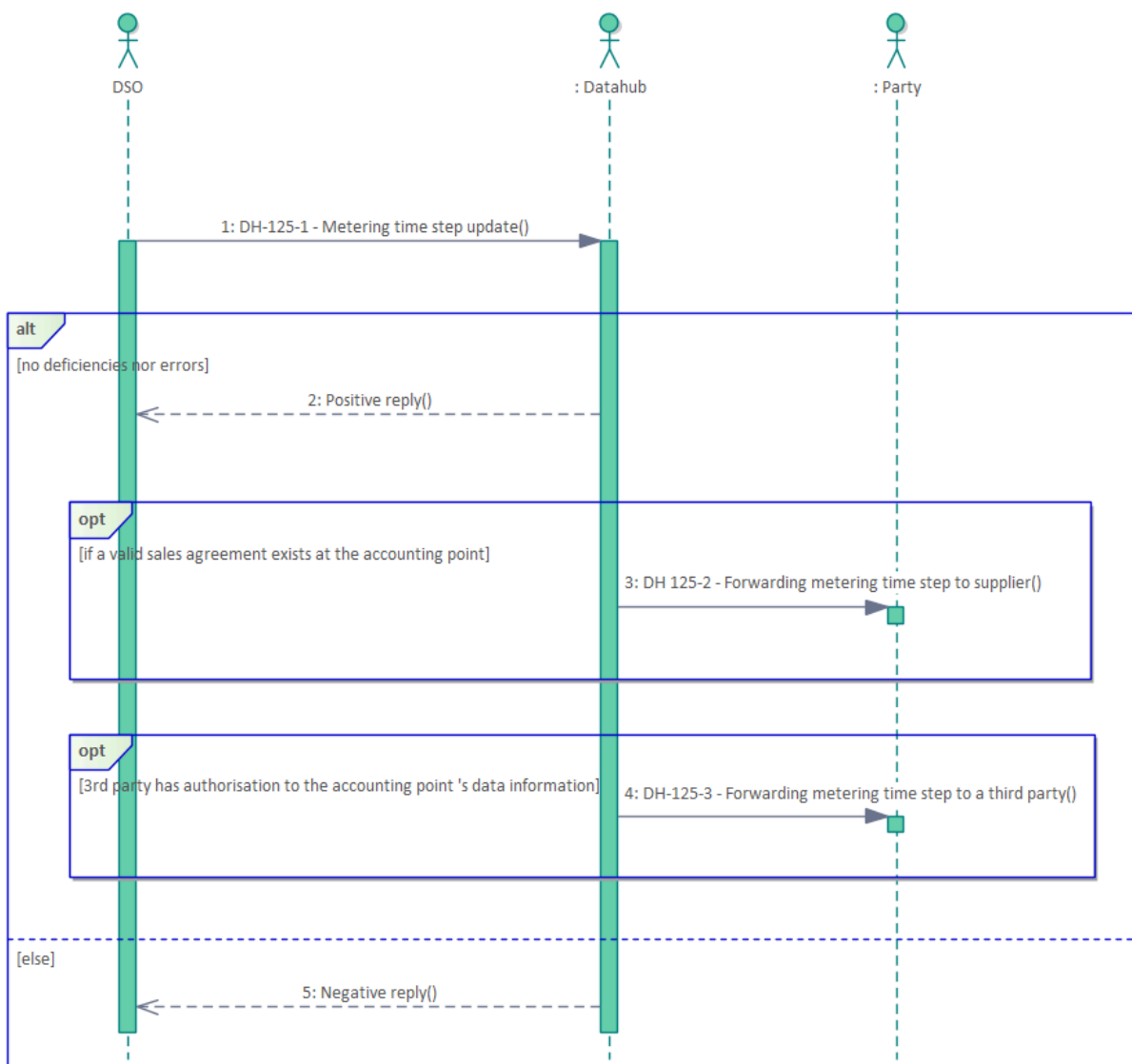
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Metering time step update

### Event description

The DSO reports an update of an accounting point's metering time step.

## Parties

- DSO
- Datahub
- Supplier
- Third Party

## Time limits

Effective time and reporting of the update
The information update must be reported as soon as the DSO makes the change in its own system.
Start of occurrence is either maximum 1 month in the future or maximum 11 days in the past.

## Information storage

Origin of information	Information stored
Information reported by the party	Reported information is stored in Datahub.

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected update of an accounting point's metering time step.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Supplier	The updated information is reported to the supplier associated with the accounting point on the reported start of occurrence.	DH-125-2
Third party	The updated information is reported to the third parties associated with the accounting point, with consideration to the parties' rights to information on the reported start of occurrence.	DH-125-3



## Significant errors and consequences

Error	Consequence
Metering data in different time step already reported for the period affected by the metering time step update.	The DSO can request the Datahub operator to delete metering data for the reported period in exceptional cases.


## Event cancellation

Information is corrected by means of a new update.

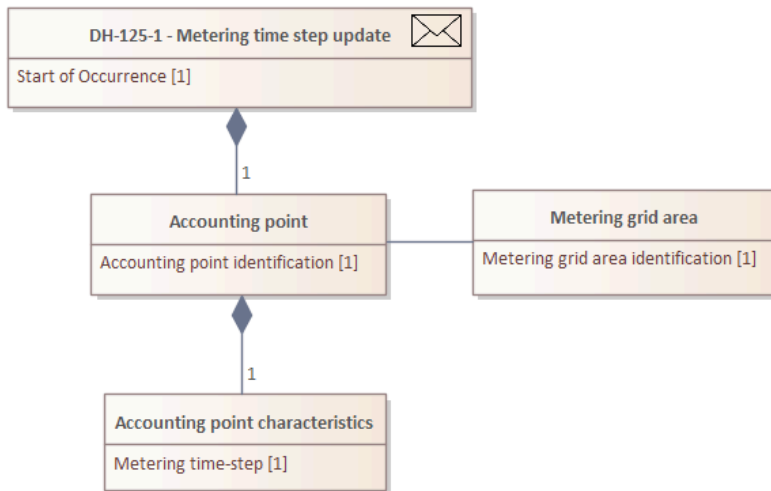
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point must be recorded in Datahub and must be valid when the update enters into force.	EC.MPT.107	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
Metering data cannot be reported for the metering point using the previous time step for the time subsequent to the update's entry into force.	EC.MPT.162	

 Please observe that the list is not complete.

## DH-125-1 Metering time step update



Information to be provided when updating the metering time step

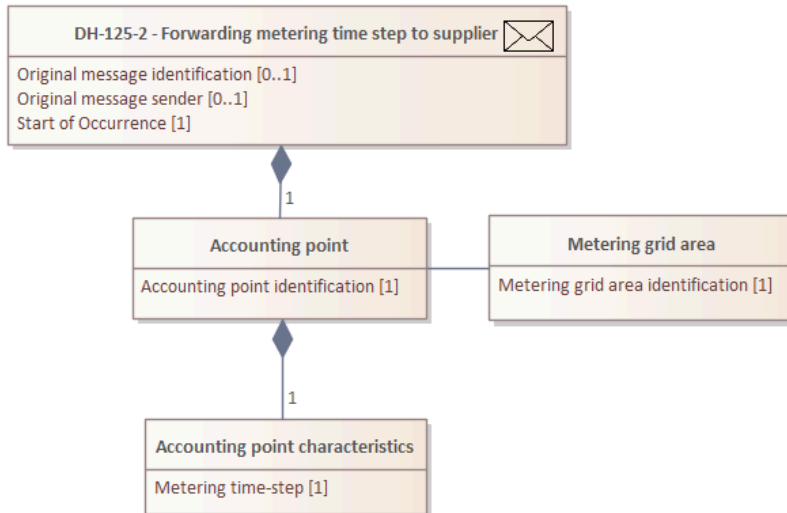
Message DH-125-1 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1	An EIC code is used as the identification for a metering grid area.	
Accounting point characteristics	3	1..1		

Metering time step	4	1.1		
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## DH-125-2 Forwarding metering time step to supplier



Details of forwarding metering time step to supplier

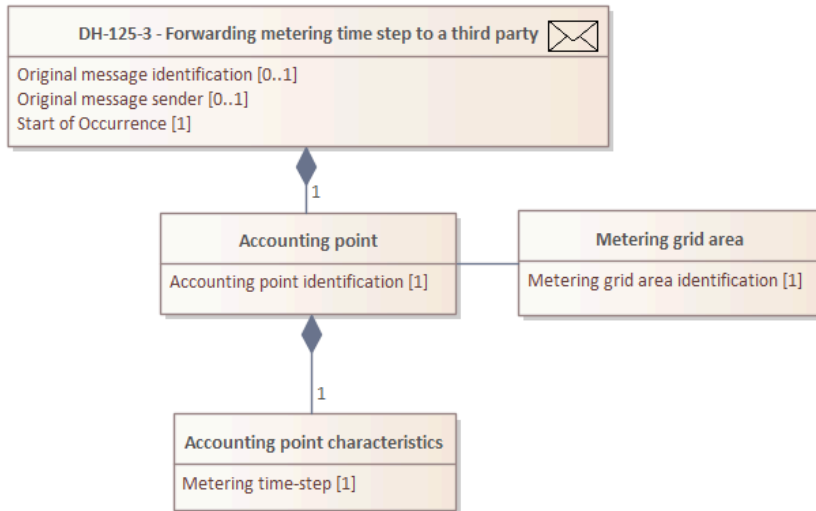
Message DH-125-2 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-125-1 message identifier.	<a href="#">Field usage</a>
Original message sender	2	0..1	The field contains the DH-125-1 message sender.	<a href="#">Field usage</a>
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	3	1..1		

Metering grid area identification	4	1..1	EIC code is used.	
Accounting point characteristics	3	1..1		
Metering time step	4	1..1		

## DH-125-3 Forwarding metering time step to a third party



Details of Forwarding metering time step to a third party

Message DH-125-3 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	The field contains the DH-125-1 message identifier.	<a href="#">Field usage</a>
Original message sender	2	0..1	The field contains the DH-125-1 message sender.	<a href="#">Field usage</a>
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	3	1..1		

Metering grid area identification	4	1..1	EIC code is used.	
Accounting point characteristics	3	1..1		
Metering time step	4	1..1		

## DH-126 Creating an accounting point relation

Event description

Parties

Time limits

Event processing in Datahub

Information storage

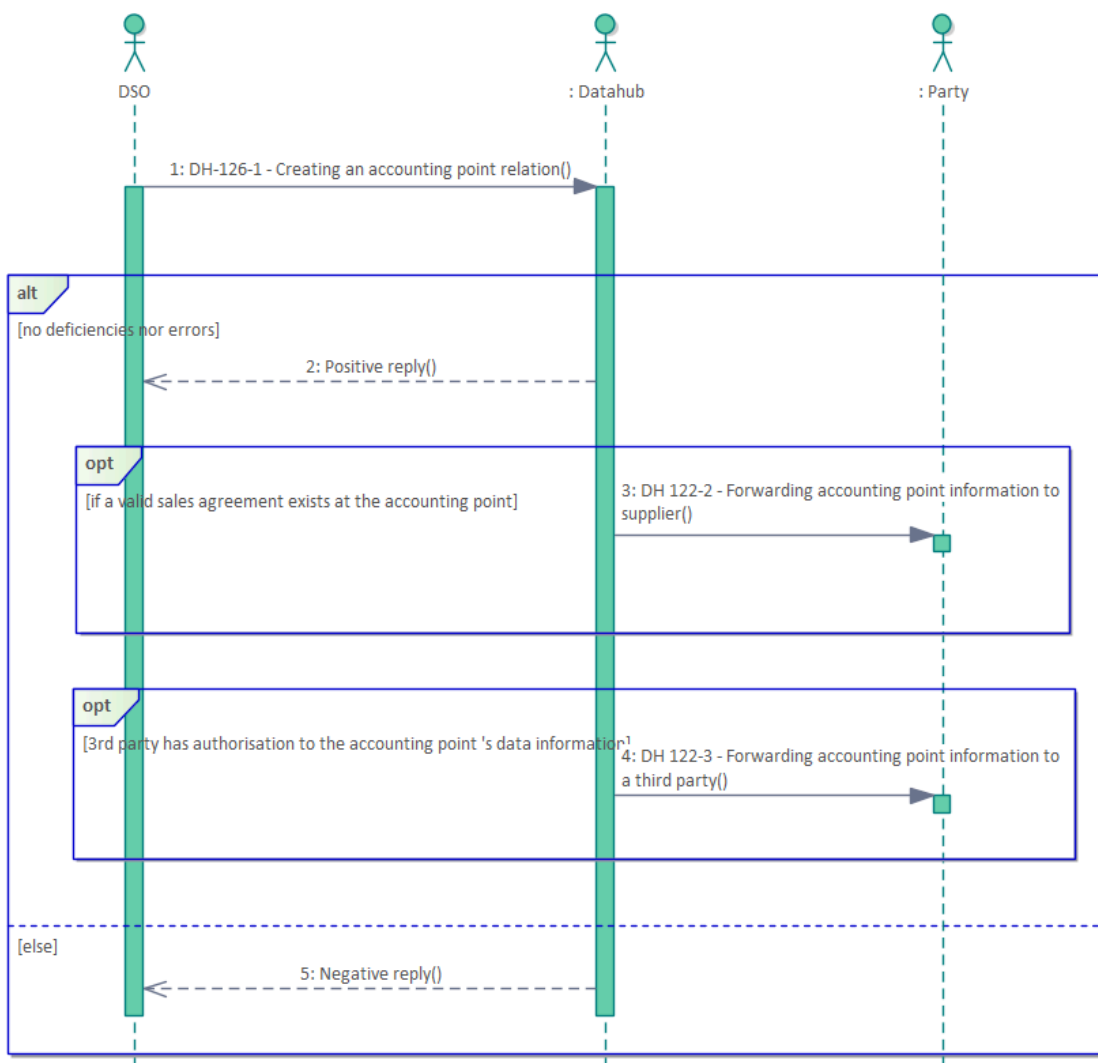
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Creating an accounting point relation

### Event description

The DSO reports a new accounting point relation.



## Parties

- DSO
- Datahub
- Supplier
- Third Party

## Time limits

Effective time of the update	Notes/Exceptions
The information must be reported as soon as the DSO makes the change in its own system.	
Start of occurrence can be 90 days in the past at the earliest or maximum 90 days in the future.	When the change allowing the reporting of related accounting point information retroactively is implemented, retroactive corrections to related accounting point information will be permitted from 1.1.2023, for a separately defined period, after which the normal time limits will be applied. The operator will also have the possibility to allow retroactive corrections in exceptional situations beyond the normal time limits.

## Event processing in Datahub

Step	Description
Participation of accounting points in netting calculation	Datahub takes the accounting points into <a href="#">netting calculations</a> when a relation is reported if the production accounting point has production device(s) with a total maximum power of no more than 100 kVA. If the production accounting point has production device(s) without maximum power information, the accounting points are not taken into netting calculations.
Retroactive netting calculation during correction processes	If related accounting point information is corrected retroactively and the netting situation of the accounting points changes, Datahub will perform the calculations for the accounting points in connection with the update.

## Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored in Datahub.
Information processed by Datahub	Information on the participation of accounting points in netting calculation and, where applicable, the results of netting calculation performed based on the reported event.

## Return of information

Party	Description	Message
DSO	Notification of a successful or rejected creation of an accounting point relation.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Supplier	<p>When the relation information update is reported for the future (i.e., start of occurrence is in the future), the updated accounting point information is reported to the supplier associated with the accounting points on the reported start of occurrence.</p> <p>In case of a retroactive update (i.e., start of occurrence is not in the future), the updated accounting point information is not reported to the supplier. Note: Possible (new) notifications will be added in a later version.</p>	<a href="#">DH-122-2</a>
Third party	<p>When the relation information update is reported for the future (i.e., start of occurrence is in the future), the updated accounting point information is reported to the third parties associated with the accounting points with consideration to the parties' rights to information on the reported start of occurrence.</p> <p>In case of a retroactive update (i.e., start of occurrence is not in the future), the updated accounting point information is not reported to</p>	<a href="#">DH-122-3</a>

	third parties. Note: Possible (new) notifications will be added in a later version.	
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## Significant errors and consequences

Error	Consequence
Information is incorrectly reported	Datahub performs the netting calculations with wrong information.


## Event cancellation

Information is corrected by deleting the accounting point relation ([DH-127](#)) and creating a new one (DH-126).

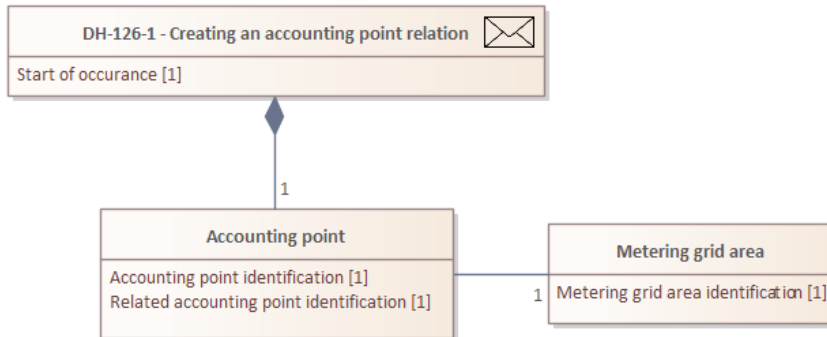
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting points must be recorded in Datahub on the reported date of entry into force.	EC.MPT.108 / EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The metering grid area must belong to the reporting distribution system operator.	EC.MPT.103	
The accounting points must be part of the same reported metering grid area.	EC.MPT.157	
One of the reported accounting point types must be 'Consumption' and the other must be 'Production'.	EC.MPT.136	
The notified accounting points cannot already have related accounting points.	EC.MPT.156	
The reported consumption accounting point cannot be part of an energy community whose surplus allocation method is 'SMB'.	EC.MPT.172	

If both of the reported accounting points are part of an energy community, both must be part of the same energy community.	EC.MPT.177	
<div>  Please observe that the list is not complete. </div>		

## DH-126-1 Creating an accounting point relation



Details of creating an accounting point relation

Message DH-126 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Related accounting point identification	3	1..1	For a small-scale production site, the identifier of the corresponding consumption or production accounting point is provided.	
Area information	3	1..1		
Metering grid area identification	4	1..1	An EIC code is used as the identification for a metering grid area.	



## DH-127 Deleting an accounting point relation

Event description

Parties

Time limits

Event processing in Datahub

Information storage

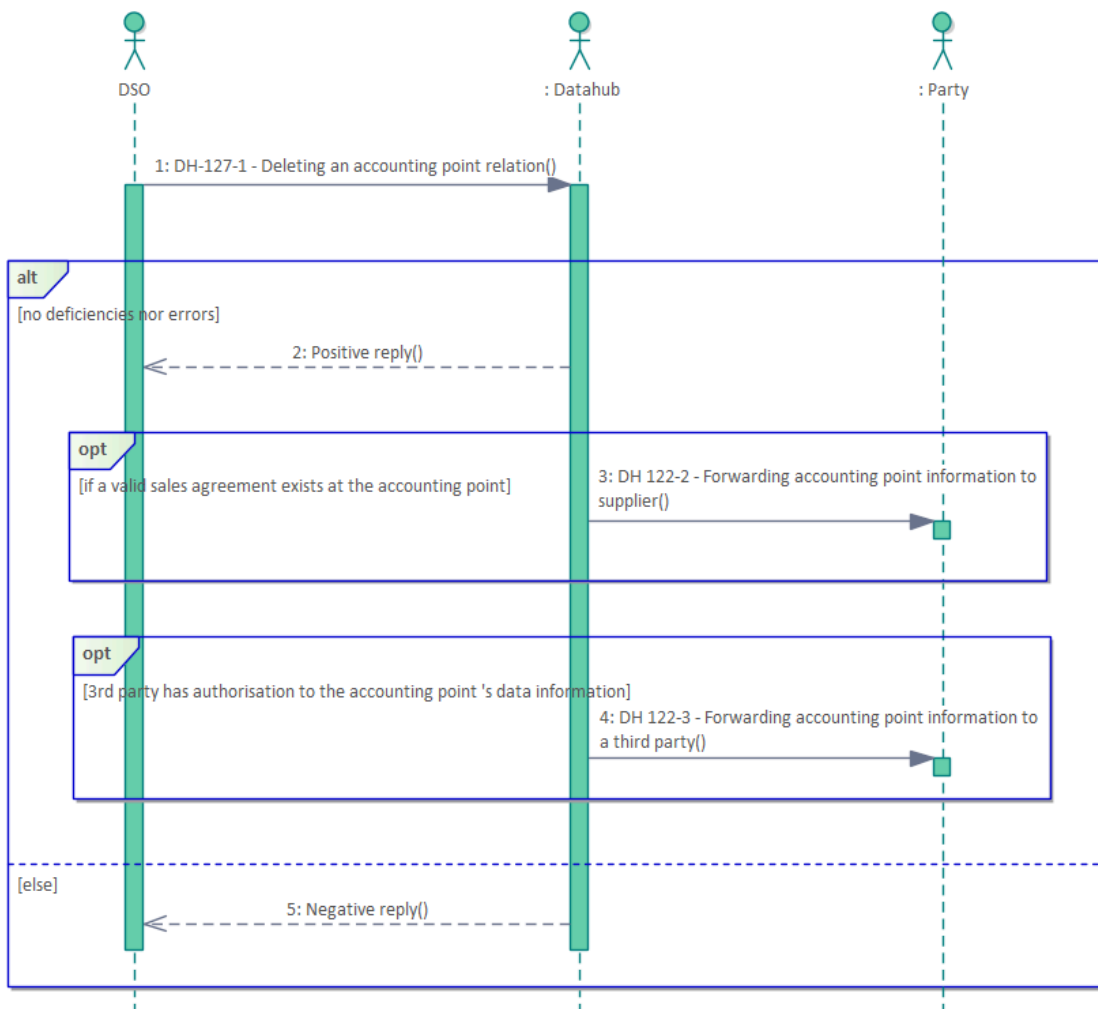
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Deleting an accounting point relation

### Event description

The DSO reports the termination of an accounting point relation.

## Parties

- DSO
- Datahub
- Supplier
- Third Party

## Time limits

Effective time of the update	Notes/Exceptions
The information must be reported as soon as the DSO makes the change in its own system.	
Start of occurrence can be 90 days in past at the earliest or maximum 90 days in the future.	When the change allowing the reporting of related accounting point information retroactively is implemented, retroactive corrections to related accounting point information will be permitted from 1.1.2023, for a separately defined period, after which the normal time limits will be applied. The operator will also have the possibility to allow retroactive corrections in exceptional situations beyond the normal time limits.

## Event processing in Datahub

Step	Description
Removal of accounting points from netting calculation	Datahub removes the accounting points from <a href="#">netting calculations</a> .
Retroactive calculation during correction processes	If related accounting point information is corrected retroactively so that the netting situation of the accounting points changes, Datahub will perform the calculations for the accounting points in connection with the update. See detailed <a href="#">description</a> .

## Information storage

Origin of information	Information stored
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Information reported by the party	All reported information is stored in Datahub.
Information processed by Datahub	Information on the removal of accounting points from netting calculation and, where applicable, the results of calculation performed based on the reported event.

### Return of information

Party	Description	Message
DSO	Notification of a successful or rejected termination of an accounting point relation	<a href="#">ACK</a>

### Forwarding of information

Party	Description	Message
Supplier	<p>When the relation information update is reported for the future (i.e., start of occurrence is in the future), the updated accounting point information is reported to the supplier associated with the accounting points on the reported start of occurrence.</p> <p>In case of a retroactive update (i.e., start of occurrence is not in the future), the updated accounting point information is not reported to the supplier. Note: Possible (new) notifications will be added in a later version.</p>	<a href="#">DH-122-2</a>
Third party	<p>When the relation information update is reported for the future (i.e., start of occurrence is in the future), the updated accounting point information is reported to the third parties associated with the accounting points with consideration to the parties' rights to information on the reported start of occurrence.</p> <p>In case of a retroactive update (i.e., start of occurrence is not in the future), the updated accounting point information is not reported to third parties. Note: Possible (new) notifications will be added in a later version.</p>	<a href="#">DH-122-3</a>

### Significant errors and consequences


Error	Consequence
Information is incorrectly reported	<p>Datahub performs the netting calculations with wrong information.</p> <p>If there is a need to correct the accounting point relation information for an accounting point that has been mistakenly removed from use, the DSO can request the Datahub operator to restore the accounting point back to an active state.</p>

## Event cancellation

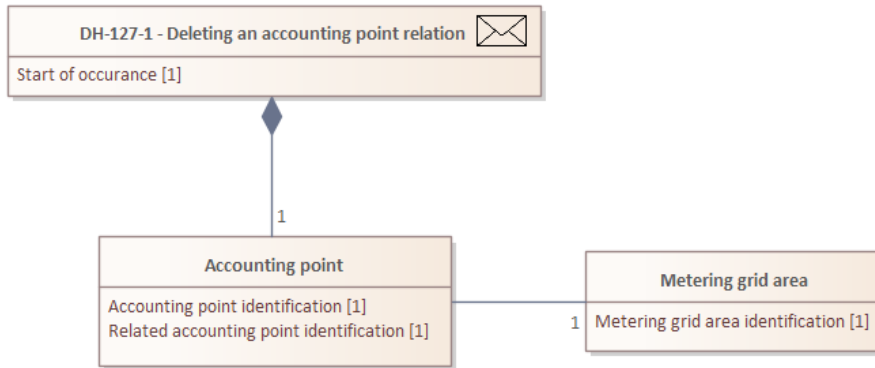
Information is corrected by creating a new accounting point relation ([DH-126](#)).

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting points must exist in Datahub on the effective date of the deleting of relation.	EC.MPT.10 8/ EC.MPT.115	
The metering grid area must belong to the reporting distribution system operator.	EC.MPT.10 3	
The accounting points must be part of the same reported metering grid area.	EC.MPT.15 7	
The reported accounting points must have information about parallelism (related accounting points) at the moment the notification enters into force.	EC.MPT.17 3	
The reported consumption accounting point cannot be part of an energy community whose surplus allocation method is 'SMB'.	EC.MPT.17 2	
<div>  Please observe that the list is not complete. </div>		

## DH-127-1 Deleting an accounting point relation



Details of deleting an accounting point relation

Message DH-127 is of message type [E58](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Related accounting point identification	3	1..1	For a small-scale production site, the identifier of the corresponding consumption or production accounting point is provided.	
Area information	3	1..1		
Metering grid area identification	4	1..1	An EIC code is used as the identification for a metering grid area.	



## DH-130 Customer and accounting point information retrieval

[Accounting point identification request](#)  
[Customer and accounting point information retrieval](#)  
[Customer's accounting point retrieval](#)  
[Customer and accounting point information request events](#)  
[Retrieval and forwarding of accounting point balance responsibility data](#)

Datahub provides a search functionality that, depending on the type of search event used, returns accounting point information, information on customers linked to the accounting point via agreements, the accounting point's agreement status and the accounting point's balance responsibility information according to the rights of the retrieving party.

### Accounting point identification request

To retrieve the identifier and basic information of an accounting point, suppliers and third parties can perform a [search](#) using the accounting point's address or identifier. This does not require an authorization.

### Customer and accounting point information retrieval

Parties' needs regarding the retrieval of customer and accounting point information (events [DH-132](#), [DH-133](#), [DH-134](#) and [DH-135](#)) primarily relate to agreement processes. The search returns the data in accordance with the section [Parties' rights to data](#). The search is outlined in more detail in [agreement processes](#).

When searching for customer and accounting point information, the market party must provide the accounting point identification and, depending on the request event, the customer identification and/or a time period.

A supplier has the right to customer and accounting point information for the duration of the validity period of its own agreement. The supplier has the right to maintain customer data in Datahub from the time that the agreement is reported, throughout its validity period and for another 6 weeks after the agreement has come to an end. A search during the 6-week period after the agreement has ended concerning the same 6-week time period will return current customer information but only the basic accounting point information. The period of 6 weeks is determined based on the supplier's obligation to correct the customer's billing and the Electricity Market Act's requirements on sending final invoices in accordance with the existing operating method. During this 6-week period the supplier is called the "Leaving supplier" in Datahub processes.

In addition to contract-based rights, the supplier may also retrieve customer information and metering point data based on a customer [authorization](#).

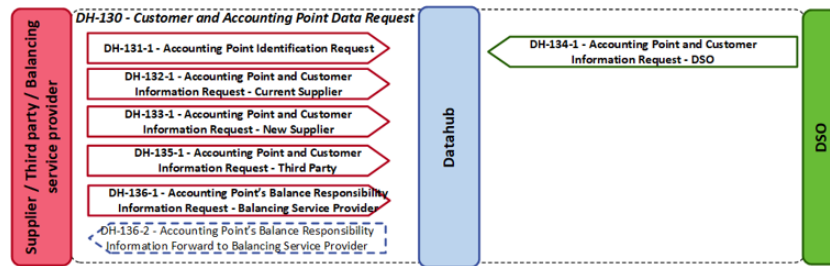
Distribution system operators have the rights to accounting point information in their own metering grid areas and therefore they also have the rights to customer information linked to the accounting points via grid agreements. An accounting point information search carried out by a DSO will always return accounting point information and, if the accounting point has a customer, also customer and grid agreement information from the requested date.

The rights of a third party to accounting point and customer information are based on an authorization issued by the customer.

### Customer's accounting point retrieval

A supplier or third party, authorized by the customer, may retrieve all of the customer's accounting points and their basic information from Datahub. Based on this information, the party may request accounting point-specific authorizations for the customer's accounting points as agreed, without requiring the customer to manually provide the identifiers or details of the accounting points.

## Customer and accounting point information request events



## Retrieval and forwarding of accounting point balance responsibility data

The functionality for [retrieving and forwarding accounting point balance responsibility data](#) enables a balancing service provider to manage the supplier's balance responsibility data for a metering point in their own system immediately when changes occur, based on events reported by the supplier, distribution system operator, or eSett. The balancing service provider must have up-to-date information in order to be able to report their flexibility assets as agreed.

Forwarding of balance responsibility information requires that the customer of the metering point has issued the balancing service provider a valid 'Accounting point balance responsibility data' authorization, which must be valid both at the time of the reported change and for the time period affected by the updated information. Retroactive data is forwarded for a maximum of 60 days.\*

If changes occur in the supplier information for the accounting point's customer (based on customer agreements) due to events initiated by the supplier or distribution system operator (DH-311, DH-331, DH-341, DH-343, DH-351, DH-411, DH-412, DH-421, DH-422, and DH-424), or if the DH-517 event reported by eSett\*\* updates the supplier's balance responsibility information, Datahub forwards the updated information to the balancing service provider as part of the process that triggered the change, provided the effective date of the change is within the last 60 days. If the reported event does not change the accounting point's balance responsibility information, Datahub does not forward any information to the balancing service provider.

The balancing service provider can also retrieve balance responsibility information using event DH-136-1. This search can only be performed for the current date, and Datahub returns all information valid within the last 60\* days and from the time of the search onward.

The [examples](#) illustrate the balance responsibility information forwarded by Datahub to the balancing service provider in various scenarios, both when the provider initiates the search and when Datahub forwards the information as part of another process.

\*60 days depending on the validity of the authorization. The reporting period is shorter if the authorization has not been valid for 60 days at the time of reporting (e.g., if the authorization started 7 days ago, the reporting period begins from -7 days). Note that a retroactively reported change may take effect earlier (even before the authorization became valid). In such cases, the changes are still reported to the balancing service provider if the updated data also applies to the last 60 days/authorization period and the authorization is valid on the date of the reported event (current day).

\*\*The DH-517 event creates and updates supplier balance responsibility information between eSett's NBS system and Datahub.




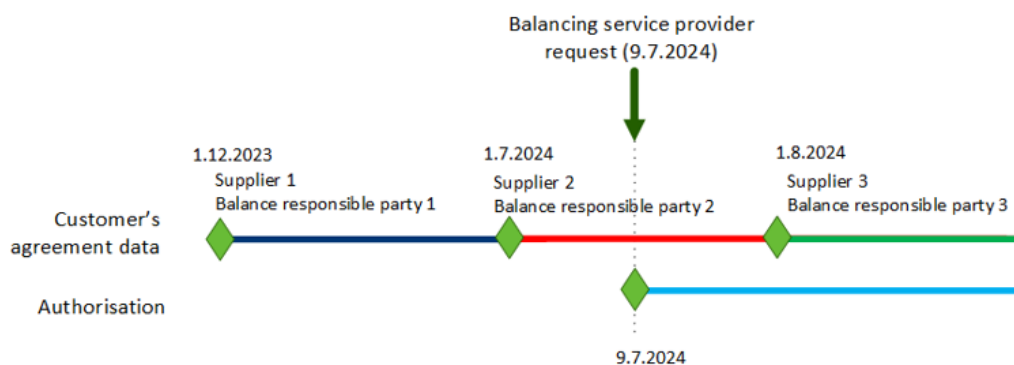
DH-130 Process maps

No content yet.



## DH-130 Examples


 **Example 1:** The DH-136-2 message returned as a response to an accounting point balance responsibility information request (DH-136-1) when the customer that authorized the balancing service provider has several agreements on the accounting point and the information is requested on the day the authorization enters into effect. The information is returned based on the validity of the authorization.

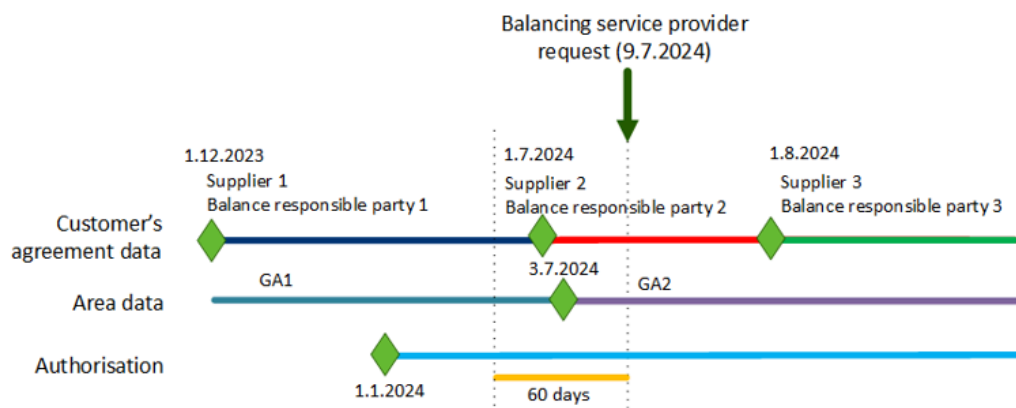


Information field	Level	Necessity	Example
Payload	1	1..1	
Start of Occurrence	2	1..1	9.7.2024
Customer information	2	1..1	
Customer identification	3	1..1	123456-4321
Basic accounting point data	2	1..1	
Accounting point identification	3	1..1	1234567
Accounting point type	3	1..1	AG01

Area information	3	1..n	
Metering grid area identification	4	1..1	GA1-id
Metering grid area name	4	1..1	GA1-name
Area information start date	4	1..1	9.7.2024
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier2-id
Supplier name	4	1..1	Supplier2-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible2-id
Balance responsibility start date	5	1..1	9.7.2024
Balance responsibility end date	5	0..1	1.8.2024
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier3-id
Supplier name	4	1..1	Supplier3-name

Balance responsible information	4	1..n	
Balance responsible identification	4	1.1	Balance responsible3-id
Balance responsibility start date	5	1.1	1.8.2024

 **Example 2:** The DH-136-2 message returned as a response to an accounting point balance responsibility information request (DH-136-1) when the customer that authorized the balancing service provider has several agreements on the accounting point and the request is sent after the authorizations started (the authorization has been valid for more than 60 days). The grid area information of the accounting point has also changed. The information is returned based on the validity of the authorization, taking into account the retroactive information from the past 60 days.



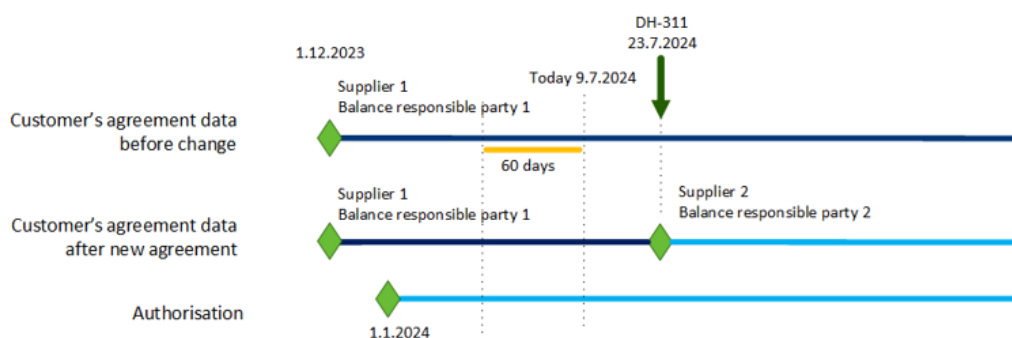
Information field	Level	Necessity	Example
Payload	1	1.1	
Start of Occurrence	2	1.1	9.7.2024

Customer information	2	1..1	
Customer identification	3	1..1	123456-4321
Basic accounting point data	2	1..1	
Accounting point identification	3	1..1	1234567
Accounting point type	3	1..1	AG01
Area information	3	1..n	
Metering grid area identification	4	1..1	GA1-id
Metering grid area name	4	1..1	GA1-name
Area information start date	4	1..1	1.1.2024
Area information end date	4	0..1	3.7.2024
Area information	3	1..n	
Metering grid area identification	4	1..1	GA2-id
Metering grid area name	4	1..1	GA2-name
Area information start date	4	1..1	3.7.2024
Supplier information	3	1..n	

Supplier identification	4	1..1	Supplier1-id
Supplier name	4	1..1	Supplier1-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible1-id
Balance responsibility start date	5	1..1	1.1.2024
Balance responsibility end date	5	0..1	1.7.2024
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier2-id
Supplier name	4	1..1	Supplier2-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible2-id
Balance responsibility start date	5	1..1	1.7.2024
Balance responsibility	5	0..1	1.8.2024

end date			
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier3-id
Supplier name	4	1..1	Supplier3-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible3-id
Balance responsibility start date	5	1..1	1.8.2024

**Example 3:** The DH-136-2 message forwarded to the balancing service provider when a new agreement (DH-311) is reported for the customer that authorized the balancing service provider. The information is forwarded based on the validity of the authorization, taking into account the retrospective information from the past 60 days.

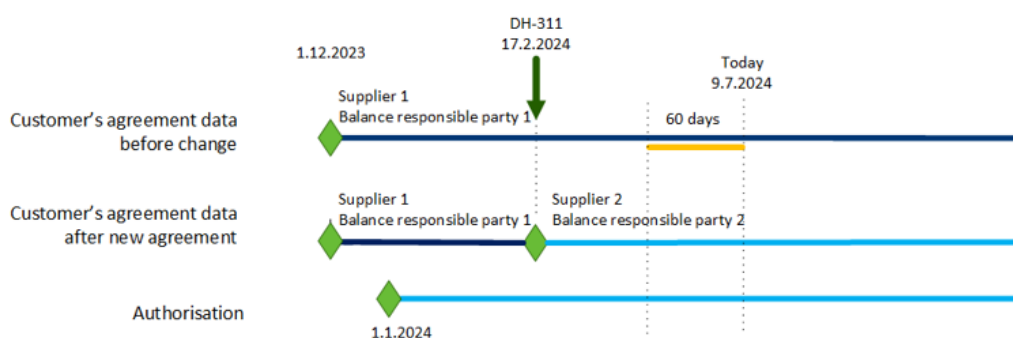


Information field	Level	Necessity	Example
Payload	1	1..1	
Start of Occurrence	2	1..1	23.7.2024

Customer information	2	1..1	
Customer identification	3	1..1	123456-4321
Basic accounting point data	2	1..1	
Accounting point identification	3	1..1	1234567
Accounting point type	3	1..1	AG01
Area information	3	1..n	
Metering grid area identification	4	1..1	GA1-id
Metering grid area name	4	1..1	GA1-name
Area information start date	4	1..1	1.1.2024
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier1-id
Supplier name	4	1..1	Supplier1-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible1-id
Balance responsibility start date	5	1..1	1.1.2024
Balance responsibility end	5	0..1	23.7.2024

date			
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier2-id
Supplier name	4	1..1	Supplier2-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible2-id
Balance responsibility start date	5	1..1	23.7.2024

**Example 4:** The DH-136-2 message forwarded to the balancing service provider when a new agreement (DH-311) is reported retroactively for the customer that authorized the balancing service provider. The information is forwarded based on the validity of the authorization, taking into account retrospective information from the past 60 days.



Information field	Level	Necessity	Example
Payload	1	1..1	
Start of Occurrence	2	1..1	17.2.2024



Customer information	2	1..1	
Customer identification	3	1..1	123456-4321
Basic accounting point data	2	1..1	
Accounting point identification	3	1..1	1234567
Accounting point type	3	1..1	AG01
Area information	3	1..n	
Metering grid area identification	4	1..1	GA1-id
Metering grid area name	4	1..1	GA1-name
Area information start date	4	1..1	1.1.2024
Supplier information	3	1..n	
Supplier identification	4	1..1	Supplier2-id
Supplier name	4	1..1	Supplier2-name
Balance responsible information	4	1..n	
Balance responsible identification	5	1..1	Balanceresponsible2-id

Balance responsibility start date	5	1.1	17.2.2024
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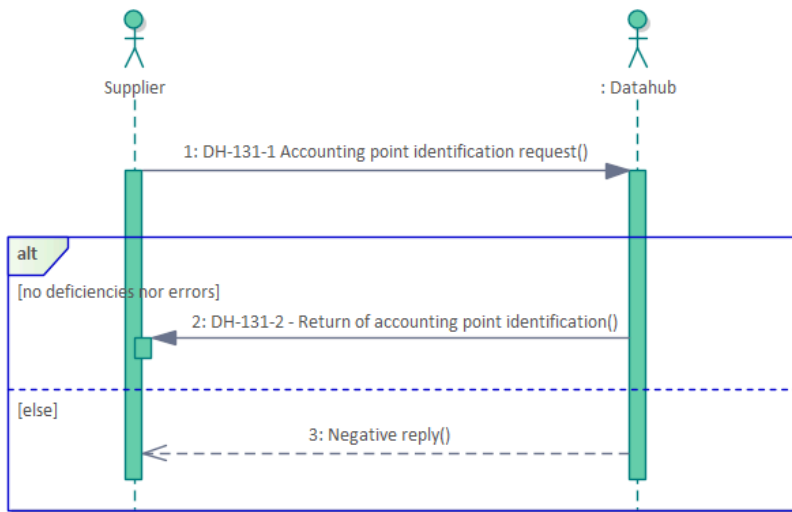
## DH-131 Accounting point identification request

Event description

Parties

Return of information

Validation rules



Accounting point identification request

### Event description

A supplier or third party searches for an accounting point identification using an address. The supplier or third party needs the accounting point identification in order to find more detailed accounting point and customer information in Datahub. The supplier or third party can also retrieve the accounting point information by entering the accounting point ID as search term (if known).

### Parties


- New supplier / Current supplier / Third party
- Datahub

### Return of information

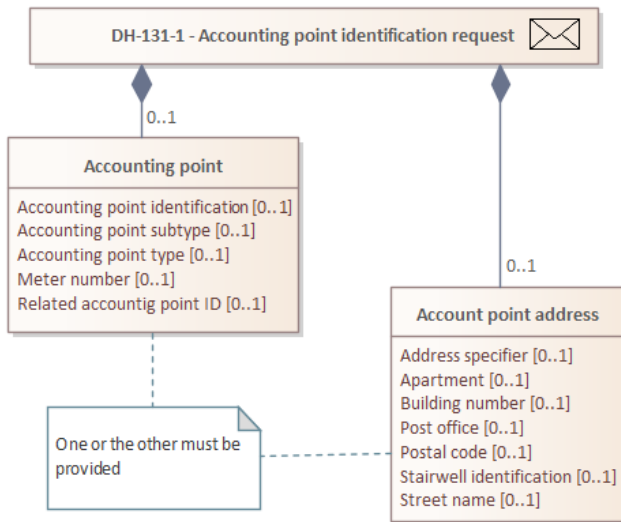
Party	Description	Message
Supplier / Third party	The request retrieves a limited number (max 50) of accounting points found on the basis of the address. Deleted (status deleted) accounting points are not included in the reply.	<a href="#">DH-131-2</a> or <a href="#">ACK</a> (if the search is rejected)

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
There must be at least one accounting point which matches the search terms.	RC.MPT.139	
There may be no more than 50 accounting points which match the search terms.	RC.MPT.140	
 Please observe that the list is not complete.		

## DH-131-1 Accounting point identification request



Information to be provided when requesting an accounting point ID

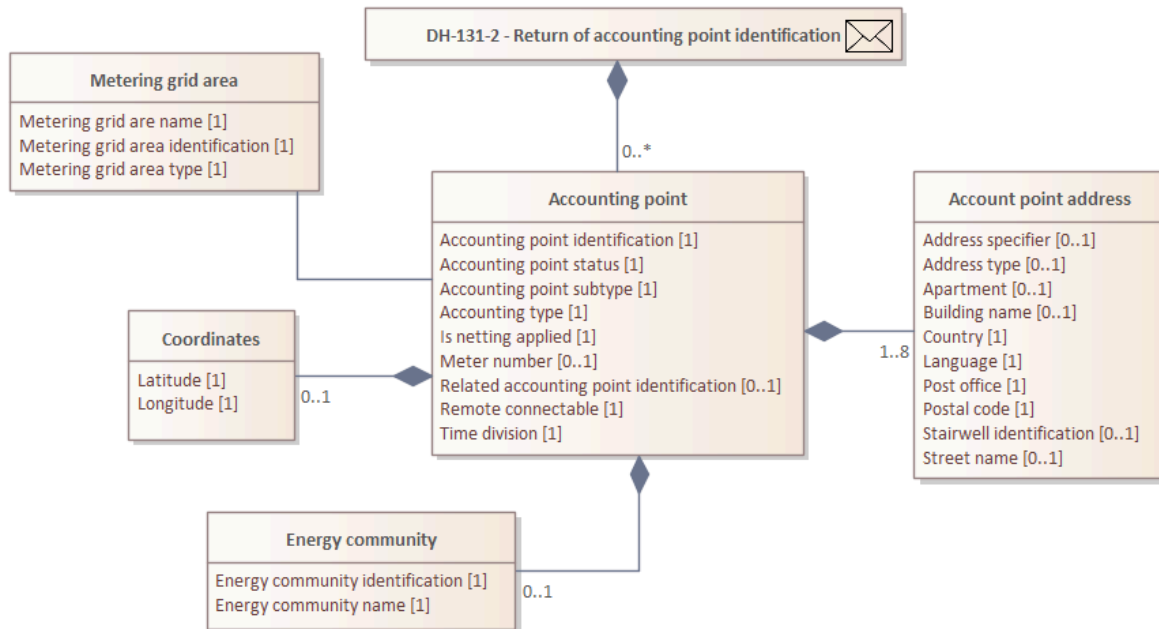
Message DH-131-1 is of message type [F02](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Address specifier	2	0..1		
Street name	2	0..1	Wildcard characters supported in the search term	Either accounting point ID or street name must be given. In addition to the street name, either the postal code or post office must always be given if the search is based on the accounting point address.
Building number	2	0..1	Wildcard characters supported in the search term	

Stairwell identification	2	0..1	Wildcard characters supported in the search term	
Apartment	2	0..1		
Postal code	2	0..1		In addition to the street name, either the postal code or post office must always be given if the search is based on the accounting point address.
Post office	2	0..1		
Meter number	2	0..1	Active metering meter number	
Accounting point identification	2	0..1		Either accounting point ID or street name must be given. In addition to the street name, either the postal code or post office must always be given if the search is based on the accounting point address.
Accounting point type	2	0..1		
Accounting point sub-type	2	0..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> </ul>	
Related accounting point identification	2	0..1		

## DH-131-2 Return of accounting point identification



Information returned when an accounting point identification is requested

Message DH-131-2 is of message type [F20](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Basic accounting point data	2	1..n		
Accounting point identification	3	1..1		
Accounting point status	3	1..1	<ul style="list-style-type: none"> <li>Connected</li> <li>Disconnected</li> <li>Under construction</li> <li>Removed from use</li> </ul>	
Accounting point type	3	1..1	<ul style="list-style-type: none"> <li>Consumption</li> <li>Production</li> </ul>	

Accounting point sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> </ul>	
Remotely connectable	3	1.1	Yes/No	
Time division	3	1.1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0.1	Active metering meter number	
Related accounting point identification	3	0.1		
Energy community identification	3	0.1		The energy community information is returned if the accounting point belongs to an energy community.
Energy community name	3	0.1		
Is netting applied	3	0.1	0=Netting not applied 1=Netting applied	
Area Information	3	1.1		
Metering grid area name	4	1.1		
Metering grid area identification	4	1.1		
Metering grid area type	4	1.1		



Accounting point addresses	3	1.8		
Address type	4	1.1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1.1		
Building number	4	0.1		
Stairwell identification	4	0.1		
Apartment	4	0.1		
Postal code	4	1.1		
Post office	4	1.1		
Country	4	1.1	ISO 31661 ID used.	
Address specifier	4	0.1		
Language	4	1.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0.1		
Latitude	4	1.1		
Longitude	4	1.1		

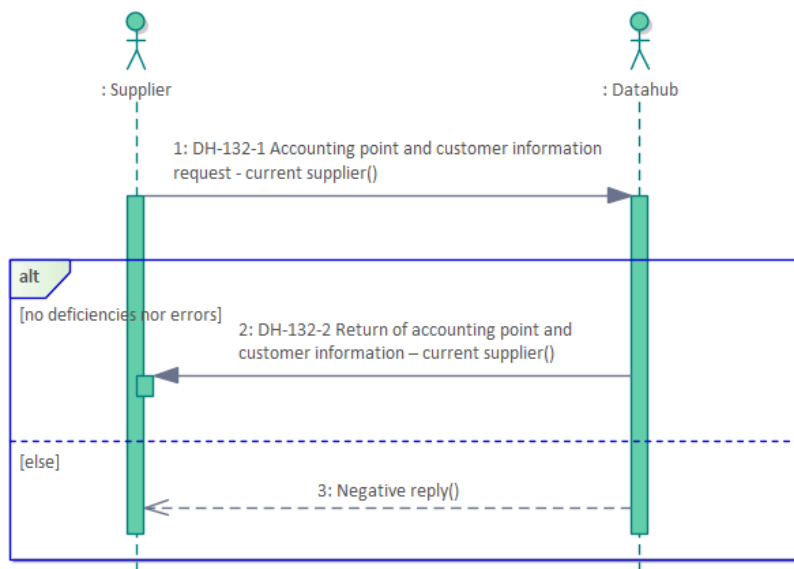
## DH-132 Accounting point and customer information request – current supplier

Event description

Parties

Return of information

Validation rules



Accounting point and customer information request - current supplier

### Event description

A supplier requests accounting point, customer and agreement information for one of its own current, future or previous agreements.

The supplier must have had a valid agreement at the accounting point for the retrieved moment in time to receive full amount of data. If a supplier has a future sales agreement on an accounting point reported to Datahub, it can use this event to retrieve data by using a future date when the agreement will be valid.

The leaving supplier (the previous supplier of the accounting point during the 6-week period following the end of this sales agreement) may use the DH-132 event to retrieve customer information and basic accounting point information during that 6-week period (no other information will be returned). The effective time of the query (i.e., the time for which the data is requested) must also be within that 6-week period.

### Parties


- Current/future/previous supplier
- Datahub

## Return of information

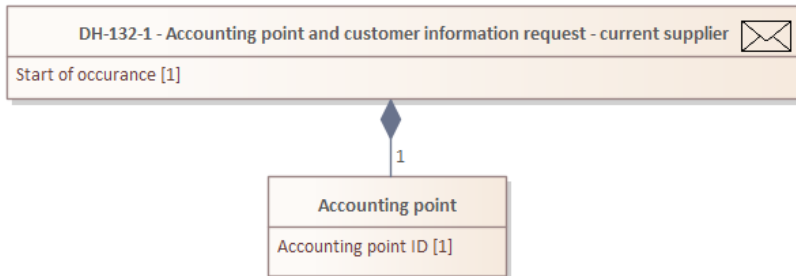
Party	Description	Message
Supplier	The request returns full accounting point information, sales agreement information, customer information related to the sales agreement, grid agreement information (only if the grid agreement corresponding to the sales agreement has been confirmed) and information about the grid service product as they are/were at the requested time.	<a href="#">DH-131-2</a> or <a href="#">ACK</a> (if the request is rejected)

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point must be found in Datahub based on the provided accounting point identification.	EC.MPT.115	
The accounting point is not in status 'Deleted'.	EC.MPT.146	
 Please observe that the list is not complete.		

## DH-132-1 Accounting point and customer information request – current supplier



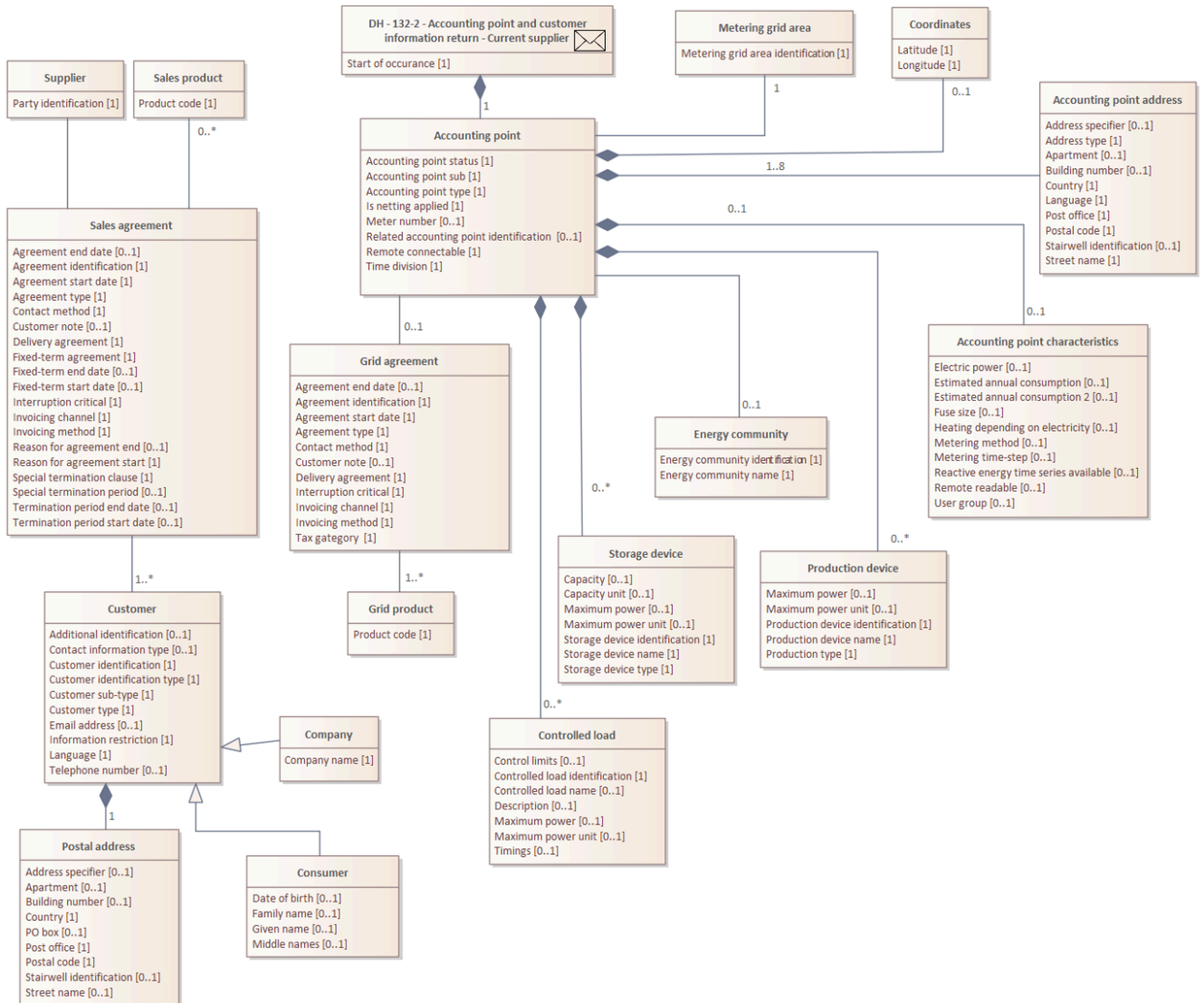
Information to be provided when accounting point and customer information is requested

Message DH-132-1 is of message type [F03](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Accounting point identification	2	1..1		

## DH-132-2 Return of accounting point and customer information – current supplier



Accounting point, customer and agreement information returned to the current supplier

Message DH-132-2 is of message type [F21](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Date for which data is reported.	The information at the time of start of occurrence given in the request is returned if the supplier

				has had a valid agreement at the accounting point at that time.
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Accounting point status	3	1.1	<ul style="list-style-type: none"> <li>• Connected</li> <li>• Disconnected</li> <li>• Under construction</li> <li>• Removed from use</li> </ul>	
Accounting point type	3	1.1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> </ul>	
Remotely connectable	3	1.1		
Time division	3	1.1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0.1	Active metering meter number	
Related accounting point identification	3	0.1		

Energy community identification	3	0.1		The energy community information is returned if the accounting point belongs to an energy community.
Energy community name	3	0.1		
Is netting applied	3	0.1	0=Netting not applied 1=Netting applied	
Area Information	3	1.1		
Metering grid area identification	4	1.1		
Accounting point addresses	3	1..8		
Address type	4	1.1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
Post office	4	1..1		
Country	4	1.1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0.1		Information is not returned to the leaving supplier.
Latitude	4	1.1		

Longitude	4	1.1		
Accounting point characteristics	3	0..1		Information is not returned to the leaving supplier.
Remotely readable	4	1..1	Yes/No	
Metering method	4	1..1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Metering time step	4	1..1		
User group	4	0..1	Classification specified by Statistics Finland is used based on the purpose of electricity consumption.	
Heating depending on electricity	4	0..1	Yes/No	
Fuse size	4	0..1	Format used:  <number of cables>x<number of phases>x<amperes>  The number of cables is excluded if only one cable is in use.  For example, 3x25, 2x3x25	
Electric power	4	0..1	Always given in kilowatts.	
Reactive energy time series	4	0..1		



available				
Annual consumption estimates	4	0..2		Information is not returned to the leaving supplier.
Time division	5	1..1	Estimated annual consumption 1  Estimated annual consumption 2	
Estimated annual consumption	5	1..1		
Controlled load	3	0..n		Information is not returned to the leaving supplier.
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		
Control limits	4	0..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		Information is not returned to the leaving supplier.
Storage device identification	4	1..1		
Storage device name	4	1..1		

Storage device type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		Information is not returned to the leaving supplier.
Identification	4	1..1		
Name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1		
Grid agreement information	3	0..1		In general, an accounting point will have a valid grid agreement when it has a valid sales agreement. A grid agreement may be missing only if a grid agreement has been erroneously ended or cancelled but the sales agreement has not yet been handled accordingly. Grid agreement information is not returned if the grid agreement

				<p>corresponding to the sales agreement has not been confirmed.</p> <p>Information is not returned to the leaving supplier.</p>
Customer note	4	0..1		
Contact method	4	1..1		
Interruption critical	4	1..1		
Invoicing channel	4	1..1		
Invoicing method	4	1..1		
Agreement start date	4	1..1		
Agreement end date	4	0..1		
Agreement type	4	1..1		
Agreement identification	4	1..1		
Delivery agreement	4	1..1		
Tax category	4	1..1		
Grid product data	4	1..n		Information is not returned to the leaving supplier.
Product code	5	1..1	Grid agreement product identification	
Sales agreement information	3	0..1		Information is not returned to the leaving supplier.
Customer note	4	0..1		
Contact method	4	1..1		

Interruption critical	4	1.1		
Invoicing channel	4	1.1		
Invoicing method	4	1.1		
Fixed-term agreement	4	1.1		
Fixed-term start date	4	0.1		
Fixed-term end date	4	0.1		
Special termination period	4	0.1		
Special termination clause	4	1.1		
Reason for agreement start	4	1.1		
Agreement start date	4	1.1		
Reason for agreement end	4	0.1		
Agreement end date	4	0.1		
Agreement type	4	1.1		
Agreement identification	4	1.1		
Delivery agreement	4	1.1		
Notice period	4	0.1		

Termination period start date	5	0..1		
Termination period end date	5	0..1		
Sales product	4	0..n		
Product code	5	1..1		
Supplier information	4	1..1		
Party identification	5	1..1		
Sales agreement customer	2	1..n		
Customer sub-type	3	1..1		
Customer identification	3	1..1		
Customer identification type	3	1..1		
Customer type	3	1..1		
Information restriction	3	1..1		
Language	3	1..1		
Additional identification	3	0..1		
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		

Date of birth	3	0..1		
Contact information	3	0..2		
Contact information type	4	0..1		
Telephone number/Email address	4	0..1		
Postal address	3	1..1		
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO box	4	0..1		
Postal office	4	1..1		
Country	4	1..1		

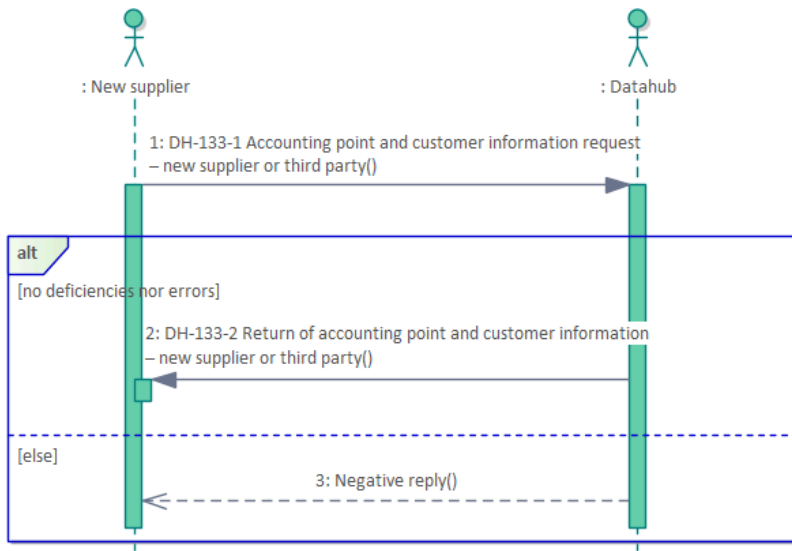
## DH-133 Accounting point and customer information request – new supplier or third party

Event description

Parties

Return of information

Validation rules



Accounting point and customer information request – new supplier or third party

### Event description

A supplier or third party, who needs information for an upcoming agreement and is authorized by the customer, requests information from Datahub about the accounting point, the customer, and the customer's agreement situation at the accounting point. If at least one of the reported customers, who has authorized the market party, has a valid sales agreement on the accounting point, full data is returned. In case of a move-in, none of the customers have an agreement on the accounting point and only limited data is returned.

The new supplier or third party must have an authorization for the accounting point in question from at least one customer reported in the query. A third party's authorization must be of type "Competitive bidding".

### Parties

- Potential supplier / Third party
- Datahub

### Return of information

Party	Description	Message
Supplier / Third party	<p>The request retrieves <b>customer information</b> about the customers that were entered in the request and for whose information the supplier or third party has an authorization in Datahub.</p> <p>The following information about the <b>accounting point</b> is retrieved:</p> <ul style="list-style-type: none"> <li>• the customer does not have an agreement for the accounting point → Basic accounting point information</li> <li>• the customer has an agreement for the accounting point → Full accounting point information</li> </ul> <p>The following information about the <b>agreement situation</b> at the accounting point is retrieved:</p> <ul style="list-style-type: none"> <li>• If an upcoming agreement termination has already been reported for the accounting point, this date is retrieved so that the supplier can agree on starting a new agreement without a disconnection in delivery.</li> <li>• If a new moving in has already been reported for the accounting point, this date is returned so that the supplier can make an agreement only until the moving-in date</li> <li>• Customer information on grid and sales agreement: <ul style="list-style-type: none"> <li>◦ “Agreement with the customer”, if the exactly same customers, who are on the accounting point’s current grid or sales agreement are entered into the search.</li> <li>◦ “No agreement with the customer”, if none of the customers entered into the search has a valid grid or sales agreement on the accounting point.</li> <li>◦ “Agreement partially with the customer”, if at least one but not all customers entered into the search have a valid grid or sales agreement for the accounting point involved.</li> </ul> </li> <li>• If the customer who has authorized the market party has an agreement for the accounting point, in addition to the above, information about fixed-term or a special termination clause for the valid sales agreement is returned. The termination</li> </ul>	<p><a href="#">DH-133-2</a> or <a href="#">ACK</a> (if the request is rejected)</p>




	date of a fixed-term agreement is retrieved if it is a maximum of 90 days from the time of the request.	
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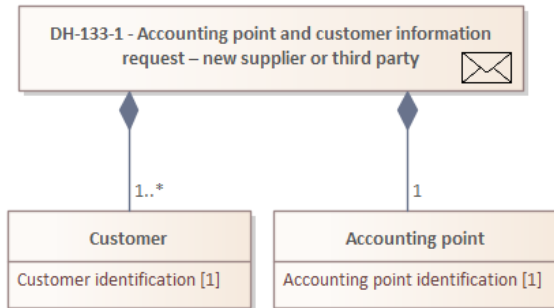
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point must be found in Datahub based on the provided accounting point identification.	EC.MPT.115	
The accounting point is not in status 'Deleted'.	EC.MPT.146	

 Please observe that the list is not complete.

## DH-133-1 Accounting point and customer information request – new supplier or third party



Information to be provided when accounting point and customer information is requested

Message DH-133-1 is of message type [F03](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Accounting point identification	2	1..1		
Customer information	2	1..n		The request contains all customers included in a new agreement.
Customer identification	3	1..1		



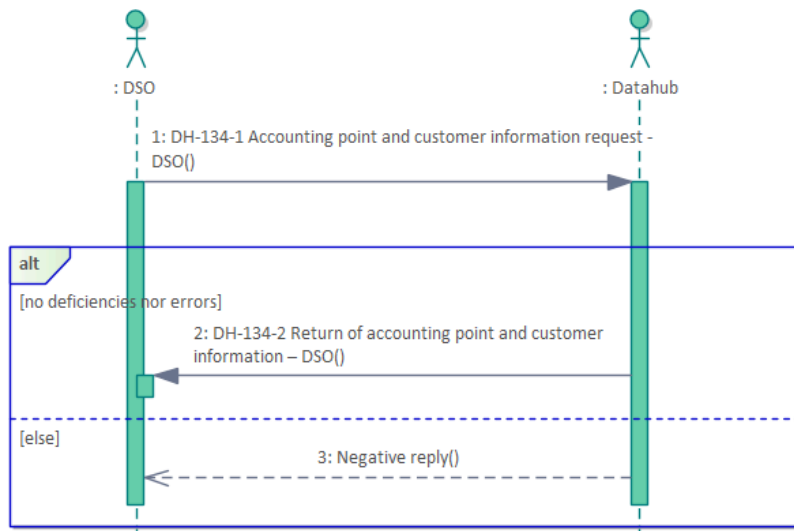
# DH-134 Accounting point and customer information request – DSO

Event description

Parties

Return of information

Validation rules



Accounting point and customer information request - DSO

## Event description

A DSO retrieves accounting point information in order to perform various checks. In addition to accounting point information, the search retrieves information about the accounting point’s customer and agreement.

## Parties


- DSO
- Datahub

## Return of information

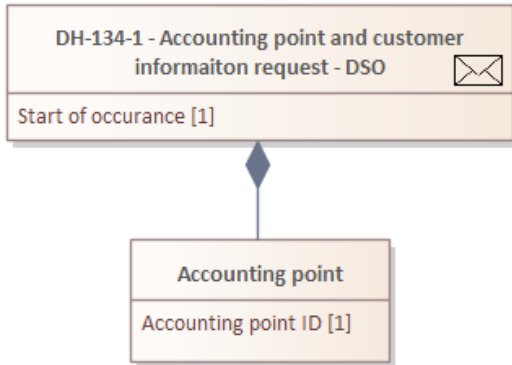
Party	Description	Message
DSO	The request returns accounting point and customer information for the grid agreement, information about the grid agreement, and information about the accounting point supplier and sales products, if the supplier has provided authorization for product data.	<a href="#">DH-134-2</a> or <a href="#">ACK</a> (if the request is rejected)

### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is found in Datahub.	EC.MPT.11 5	
The accounting point status is not “Deleted”.	EC.MPT.14 6	
<div> Please observe that the list is not complete.</div>		

## DH-134-1 Accounting point and customer information request – DSO



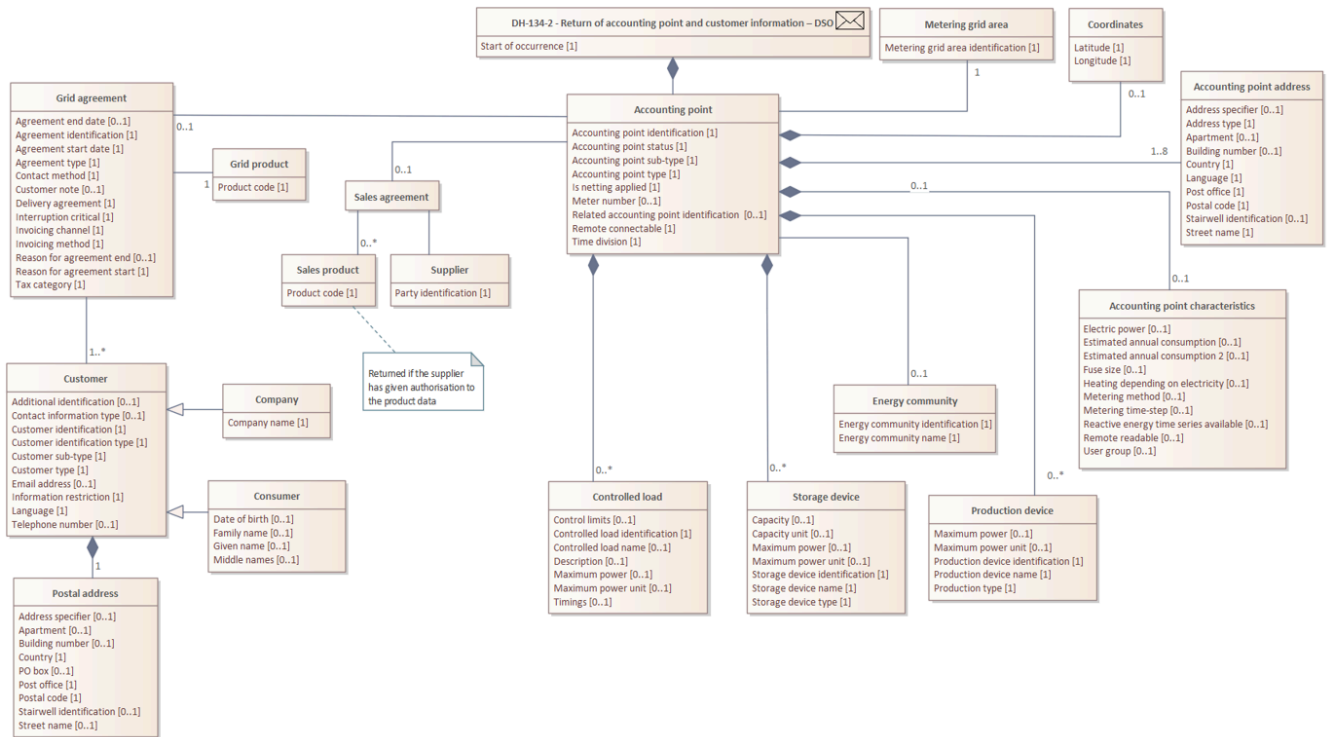
Information to be provided when accounting point and customer information is requested by DSO

Message DH-134-1 is of message type [F03](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Accounting point identification	2	1..1		

## DH-134-2 Return of accounting point and customer information – DSO



Accounting point, customer and agreement information returned to the DSO

Message DH-134-2 is of message type [F21](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Date for which data is reported.	Information is returned according to the time given in the request.
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Accounting point status	3	1.1	<ul style="list-style-type: none"> <li>Connected</li> <li>Disconnected</li> <li>Under construction</li> </ul>	

			<ul style="list-style-type: none"> <li>• Removed from use</li> </ul>	
Accounting point type	3	1.1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> </ul>	
Remotely connectable	3	1.1		
Time division	3	1.1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0.1	Active metering meter number	
Related accounting point identification	3	0.1		
Energy community identification	3	0.1		The energy community information is returned if the accounting point belongs to an energy community.
Energy community name	3	0.1		
Is netting applied	3	0.1	0=Netting not applied 1=Netting applied	
Area information	3	1.1		



Metering grid area identification	4	1.1		
Accounting point addresses	3	1.8		
Address type	4	1.1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1.1		
Building number	4	0.1		
Stairwell identification	4	0.1		
Apartment	4	0.1		
Postal code	4	1.1		
Post office	4	1.1		
Country	4	1.1	ISO 31661 ID used.	
Address specifier	4	0.1		
Language	4	1.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0.1		
Latitude	4	1.1		
Longitude	4	1.1		
Accounting point characteristics	3	0.1		
Remotely readable	4	1.1	Yes/No	
Metering method	4	1.1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	

Metering time step	4	1.1		
User group	4	0.1	Classification specified by Statistics Finland is used based on the purpose of electricity consumption.	
Heating depending on electricity	4	0.1	Yes/No	
Fuse size	4	0.1	<p>Format used:</p> <p>&lt;number of cables&gt;x&lt;number of phases&gt;x&lt;amperes&gt;</p> <p>The number of cables is excluded if only one cable is in use.</p> <p>For example, 3x25, 2x3x25</p>	
Electric power	4	0.1	Always given in kilowatts.	
Reactive energy time series available	4	0.1		
Annual consumption estimates	4	0.2		
Time division	5	1.1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	

Estimated annual consumption	5	1.1		
Controlled load	3	0..n		
Controlled load identification	4	1.1		
Controlled load name	4	0.1		
Description	4	0.1		
Timings	4	0.1		
Control limits	4	0.1		
Maximum power	4	0.1		
Maximum power unit	4	0.1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		
Storage device identification	4	1.1		
Storage device name	4	1.1		
Storage device type	4	1.1		
Capacity	4	0.1		
Capacity unit	4	0.1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0.1		

Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Production device	3	0..n		
Identification	4	1..1		
Name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1		
Grid agreement information	3	0..1		
Customer note	4	0..1		
Contact method	4	1..1		
Interruption critical	4	1..1		
Invoicing channel	4	1..1		
Invoicing method	4	1..1		
Reason for agreement start	4	1..1		
Agreement start date	4	1..1		
Reason for agreement end	4	0..1		
Agreement end date	4	0..1		
Agreement type	4	1..1		

Agreement identification	4	1..1		
Delivery agreement	4	1..1		
Tax category	4	1..1		
Grid product data	4	1..n		
Product code	5	1..1	Grid agreement product identification	
Sales agreement information	3	0..1		
Sales product	4	0..n		Returned if the supplier has authorized the party to access the information.
Product code	5	1..1	Sales agreement product identification	
Supplier information	4	1..1		
Party identification	5	1..1		
Grid agreement customers	2	0..n		
Customer sub-type	3	1..1		
Customer identification	3	1..1		
Customer identification type	3	1..1		
Customer type	3	1..1		
Information restriction	3	1..1		

Language	3	1..1		
Additional identification	3	0..1		
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Contact information	3	0..2		
Contact information type	4	0..1		
Telephone number/Email address	4	0..1		
Postal address	3	1..1		
Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO box	4	0..1		
Postal office	4	1..1		
Country	4	1..1		

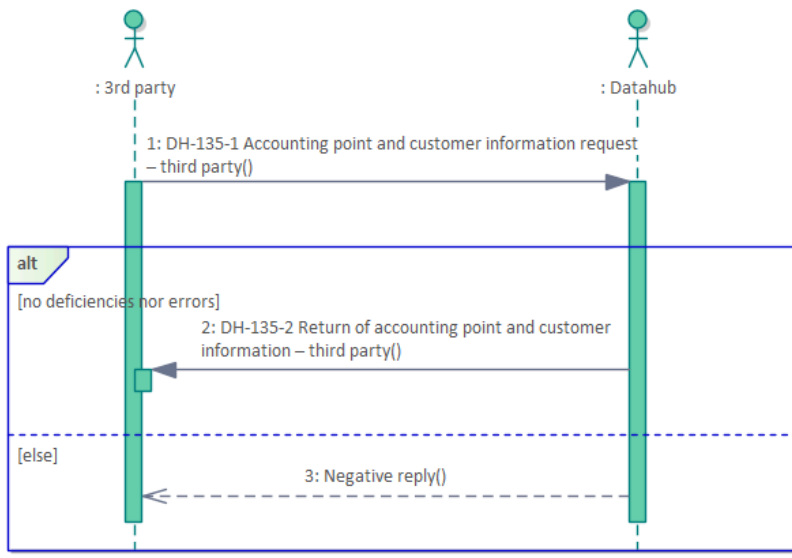
## DH-135 Accounting point and customer information request – third party

Event description

Parties

Return of information

Validation rules



Accounting point and customer information request - third party

### Event description

A third party retrieves accounting point and customer information it is authorized to. The third party must have an authorization for the accounting point from at least one of the requested customers on the requested date.

### Parties


- Third party
- Datahub

### Return of information

Party	Description	Message
Third party	The request returns accounting point and customer information for the accounting point, and information about the grid service product. If more than one customer is linked to the agreement, customer information is only retrieved for reported customers who have issued the party an authorization.	<a href="#">DH-135-2</a> or <a href="#">ACK</a> (if the request is rejected)

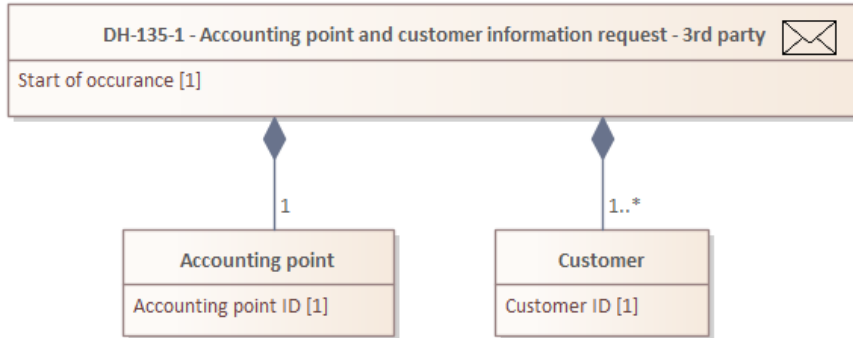
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is found in Datahub.	EC.MPT. 115	
The accounting point status is not “Deleted”.	EC.MPT. 146	
All customers reported in the request must have a valid sales or grid agreement on the accounting point at the requested date.	EC.CUS. 111	
 Please observe that the list is not complete.		



## DH-135-1 Accounting point and customer information request – third party



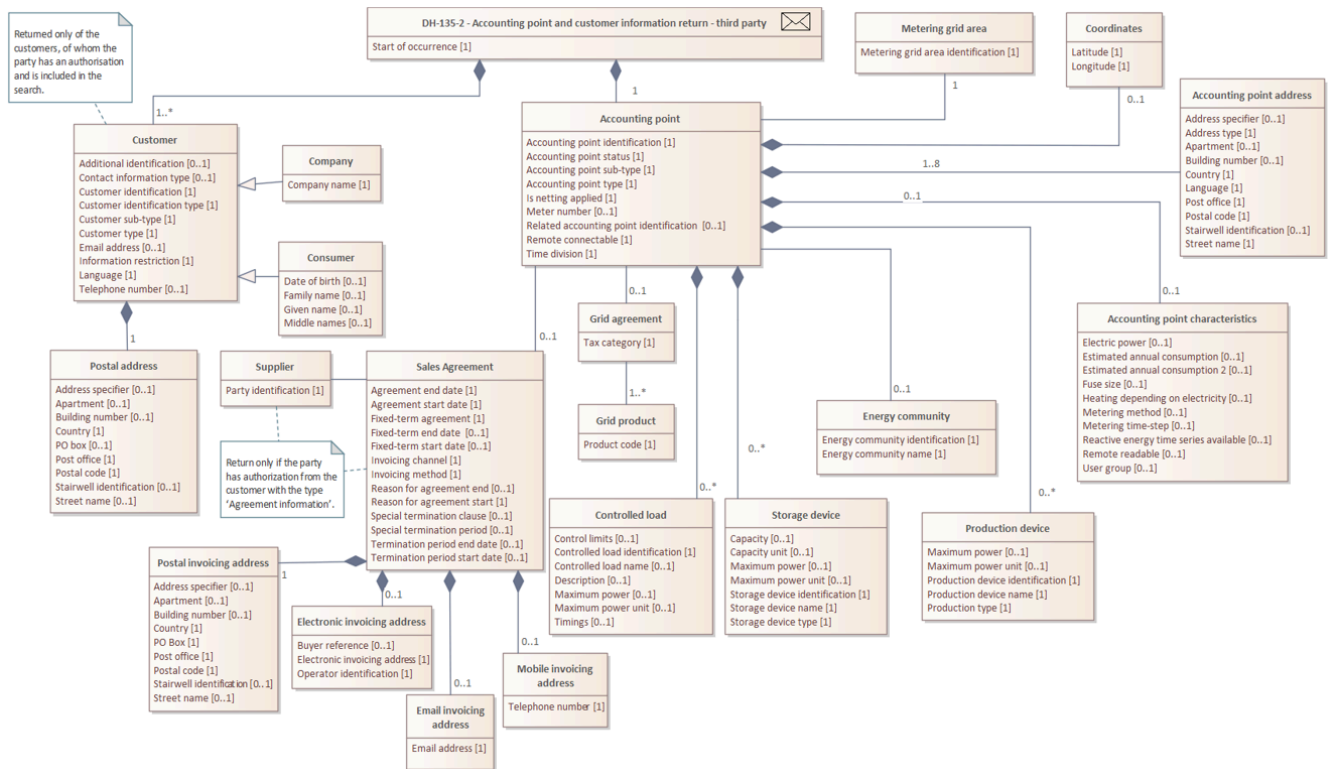
Information to be provided when accounting point and customer information is requested by third party

Message DH-135-1 is of message type [F03](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of Occurrence	2	1.1		
Accounting point identification	2	1.1		
Customer information	2	1..n		
Customer identification	3	1.1		

## DH-135-2 Return of accounting point and customer information – third party



Accounting point and customer information returned to a third party

Message DH-135-2 is of message type [F21](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of Occurrence	2	1.1	Date for which data is reported.	Information is returned according to the time given in the request.
Basic accounting point data	2	1.1		
Accounting point identification	3	1.1		
Accounting point status	3	1.1	<ul style="list-style-type: none"> <li>Connected</li> <li>Disconnected</li> </ul>	

			<ul style="list-style-type: none"> <li>• Under construction</li> <li>• Removed from use</li> </ul>	
Accounting point type	3	1..1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> </ul>	
Remotely connectable	3	1..1		
Time division	3	1..1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0..1	Active metering meter number	
Related accounting point identification	3	0..1		
Energy community identification	3	0..1		The energy community information is returned if the accounting point belongs to an energy community.
Energy community name	3	0..1		
Is netting applied	3	0..1	0=Netting not applied 1=Netting applied	
Area information	3	1..1		
Metering grid area identification	4	1..1		

Accounting point addresses	3	1..8		
Address type	4	1..1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0..1		
Latitude	4	1..1		
Longitude	4	1..1		
Accounting point characteristics	3	0..1		
Remotely readable	4	1..1	Yes/No	
Metering method	4	1..1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Metering time step	4	1..1		

User group	4	0..1	Classification specified by Statistics Finland is used based on the purpose of electricity consumption.	
Heating depending on electricity	4	0..1	Yes/No	
Fuse size	4	0..1	<p>Format used:</p> <p>&lt;number of cables&gt;x&lt;number of phases&gt;x&lt;amperes&gt;</p> <p>The number of cables is excluded if only one cable is in use.</p> <p>For example, 3x25, 2x3x25</p>	
Electric power	4	0..1	Always given in kilowatts.	
Reactive energy time series available	4	0..1		
Annual consumption estimates	4	0..2		
Time division	5	1..1	<p>Estimated annual consumption 1</p> <p>Estimated annual consumption 2</p>	
Estimated annual consumption	5	1..1		

Controlled load	3	0..n		
Controlled load identification	4	1..1		
Controlled load name	4	0..1		
Description	4	0..1		
Timings	4	0..1		
Control limits	4	0..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> <li>• GW</li> </ul>	
Storage device	3	0..n		
Storage device identification	4	1..1		
Storage device name	4	1..1		
Storage device type	4	1..1		
Capacity	4	0..1		
Capacity unit	4	0..1	<ul style="list-style-type: none"> <li>• Wh</li> <li>• kWh</li> <li>• MWh</li> <li>• GWh</li> </ul>	
Maximum power	4	0..1		
Maximum power unit	4	0..1	<ul style="list-style-type: none"> <li>• W</li> <li>• kW</li> <li>• MW</li> </ul>	

			• GW	
Production device	3	0..n		
Identification	4	1..1		
Name	4	1..1		
Production type	4	1..1		
Maximum power	4	0..1		
Maximum power unit	4	0..1		
Grid agreement information	3	0..1		Usually, there is a valid grid agreement at the accounting point. The absence of a grid agreement is only possible if the grid agreement has already been erroneously terminated or cancelled, but the sales agreement has not yet been processed similarly.
Tax category	4	1..1		
Grid product data	4	1..n		
Product code	5	1..1		
Sales agreement information	3	0..1		Returned only if the party has an authorization from the customer of type 'Energy reporting and agreement information'.
Invoicing channel	4	1..1		
Invoicing method	4	1..1		
Fixed-term agreement	4	1..1		
Fixed-term start date	4	0..1		

Fixed-term end date	4	0..1		
Reason for agreement start	4	1..1		
Agreement start date	4	1..1		
Reason for agreement end	4	0..1		
Agreement end date	4	0..1		
Special termination clause	4	1..1		
Special termination time	4	0..1		
Special termination period	4	0..1		
Termination period start date	5	0..1		
Termination period end date	5	0..1		
Supplier information	4	1..1		Returned only if the party has an authorization from the customer of type 'Energy reporting and agreement information'.
Party identification	5	1..1		
Postal invoicing address	4	1..1		Returned only if the party has an authorization from the customer of



				type 'Energy reporting and agreement information'.
Address specifier	5	0..1		
Street name	5	0..1		
Building number	5	0..1		
Stairwell identification	5	0..1		
Apartment	5	0..1		
Postal code	5	1..1		
PO box	5	0..1		
Postal office	5	1..1		
Country	5	1..1		
Electronic invoicing address	3	0..1		Returned only if the party has an authorization from the customer of type 'Energy reporting and agreement information'.
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Other invoicing address				Returned only if the party has an authorization from the customer of type 'Energy reporting and agreement information'.
Type	5	1..1		
Electronic address	5	1..1		

Customer information	2	1..n		Returned only for customers who have issued the third party an authorization and who have been specified in the request.
Customer sub-type	3	1..1		
Customer identification	3	1..1		
Customer identification type	3	1..1		
Customer type	3	1..1		
Information restriction	3	1..1		
Language	3	1..1		
Additional identification	3	0..1		
Company name	3	0..1		
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		
Contact information	3	0..2		
Contact information type	4	0..1		
Telephone number/Email address	4	0..1		
Postal address	3	1..1		

Address specifier	4	0..1		
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO box	4	0..1		
Postal office	4	1..1		
Country	4	1..1		

## DH-136 Accounting point balance responsibility information request and forwarding – balancing service provider

Event description

Parties

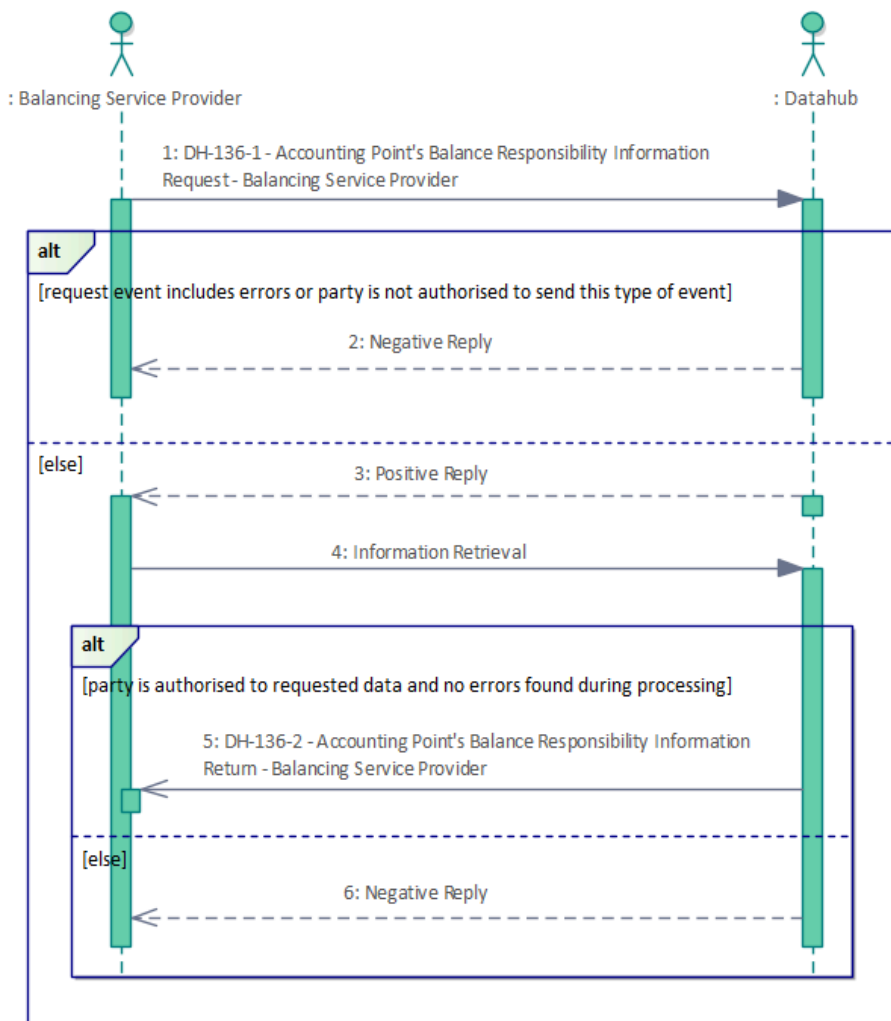
Time limits

Event processing in Datahub

Return of information

Forwarding of information

Validation rules



Accounting point's balance responsibility information request and forwarding - Balancing service provider

### Event description

An authorized balancing service provider retrieves accounting point balance responsibility information, or Datahub forwards updated information triggered by another process to a balancing service provider.

The balancing service provider must have an authorization for the accounting point from at least one of the customers specified in the request at the time indicated in the request. When information is forwarded to the balancing service provider as part of another process, the provider must have an authorization that is valid both on the notification date of the event and during the period to which the updated information applies.

## Parties

- Balancing service provider
- Datahub

## Time limits

Query time and data return/forwarding
The request can only be performed for the current day.

## Event processing in Datahub

Step	Description
Asynchronous response/Forwarding event	The response/forwarding event ( <a href="#">DH-136-2</a> ) is returned asynchronously to the party's message queue.
Data forwarding based on another event	<p>Balance responsibility information is forwarded to the balancing service provider if the supplier information or the supplier's balance responsibility information of a customer who has authorized the provider changes as part of another process.</p> <p>The events that can lead to this information being forwarded include: <a href="#">DH-311</a>, <a href="#">DH-331</a>, <a href="#">DH-341</a>, <a href="#">DH-343</a>, <a href="#">DH-351</a>, <a href="#">DH-411</a>, <a href="#">DH-412</a>, <a href="#">DH-421</a>, <a href="#">DH-422</a>, <a href="#">DH-424</a> and DH-517.</p>

## Return of information

Party	Description	Message
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Balancing service provider	<p>The request returns a limited information set of accounting point, customer, and balance responsibility information valid during the validity of the authorization (with a maximum of 60 days of past data).</p> <p>If more than one customer is linked to the agreement, customer information is only returned for those customers who have authorized the balancing service provider and who are reported in the request. The information is returned as separate messages for each customer (authorization).</p>	<a href="#">DH-136-2</a> or <a href="#">ACK</a> (if the request is rejected)
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## Forwarding of information

Party	Specification	Description	Message
Balancing service provider	Data forwarding as part of another process	<p>The request returns a limited information set of accounting point, customer, and balance responsibility information valid during the validity of the authorization (with a maximum of 60 days of past data).</p> <p>When information is forwarded as part of another process, customer information is forwarded for all customers who have issued the party an authorization. The information is sent as separate messages for each customer (authorization).</p>	<a href="#">DH-136-2</a>

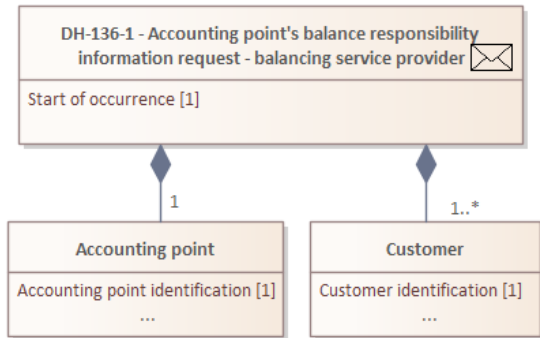
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.1 15	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.1 20	

The date of entry into force in the request must match the current date, and the time of entry into force must be midnight.	EC.MPT.1 89	
A balancing service provider must hold an authorization for the accounting point from at least one of the customers listed in the query at the time specified in the query.	EC.AGR. 402	
All customers in the query must hold valid sales agreements at the accounting point at the time specified in the query.	EC.AGR. 435	
<div>  Please observe that the list is not complete. </div>		

## DH-136-1 Accounting point balance responsibility information request and forwarding – balancing service provider



Information to be provided when accounting point's balance responsibility information is requested by a balancing service provider

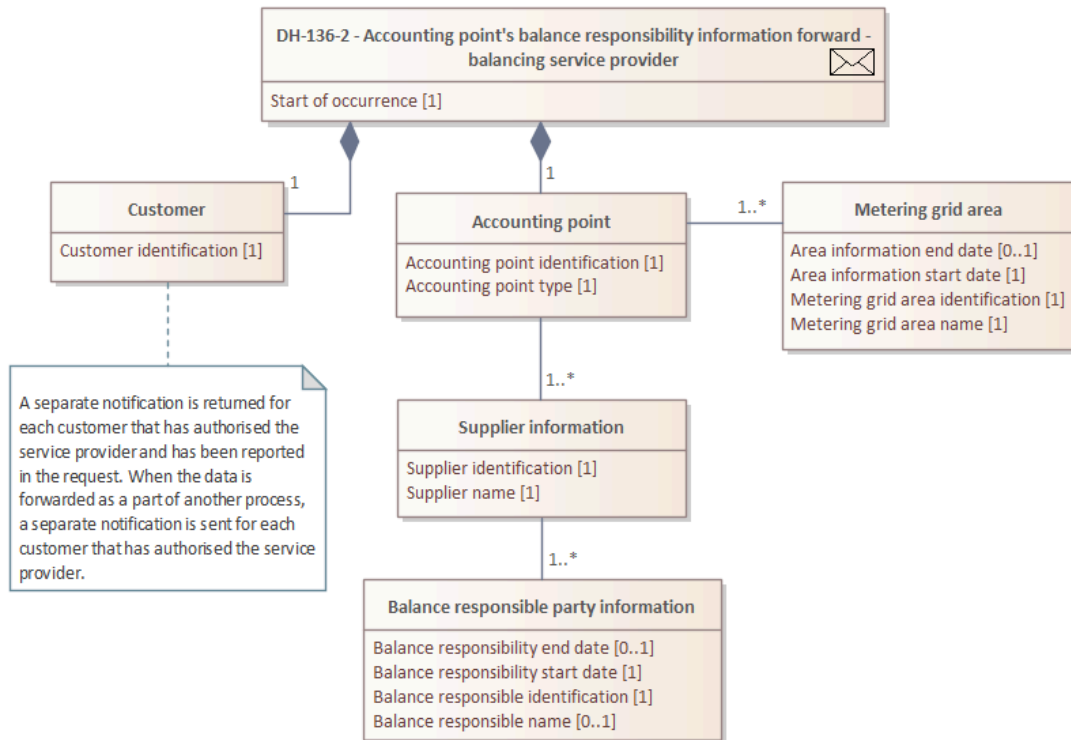
Message DH-136-1 is of message type [F03](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of Occurrence	2	1..1	Requested start of occurrence is at midnight.	
Accounting point identification	2	1..1		
Customer information	2	1..n		
Customer identification	3	1..1		



## DH-136-2 Accounting point balance responsibility information request and forwarding – balancing service provider



Accounting point's balance responsibility information returned to a balancing service provider

Message DH-136-2 is of message type [F28](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Date/time for which data is reported.	Information is returned for the requested time. When a DH-136-2-message is forwarded to a balancing service provider as part of another process, the field has the start of occurrence of the triggering (original) event ( <i>note: this is not always at midnight</i> ). If the start of occurrence of the triggering event is earlier than the start date of the balancing service

				provider's authorization, then the start date of the authorization is used (i.e., the earliest date that can be returned is always the start date of the authorization).
Customer information	2	1..1		
Customer identification	3	1..1		
Basic accounting point data	2	1..1		
Accounting point identification	3	1..1		
Accounting point type	3	1..1		
Area information	3	1..n		The grid area information of the accounting point is forwarded based on the validity period of the 'Accounting point's balance responsibility information' authorization (with a maximum of 60 days of past data).
Metering grid area identification	4	1..1		
Metering grid area name	4	1..1		
Area information start date	4	1..1		The grid area information start date based on the validity of the authorization and a maximum of 60 days of past data. Data that is valid at -60 days is returned with its valid from date (which can be earlier than -60 days), unless the authorization

				starts later than the original valid from date, in which case the start date of the authorization is used (i.e., the earliest date that can be returned is always the start date of the authorization).
Area information end date	4	0..1		This field is used to indicate the date until which the area information is valid for the accounting point (the start date of new grid area information).
Supplier information	3	1..n		The balance responsibility information (combination(s) of a supplier and the supplier's balance responsible party) is forwarded based on the authorizing customer's agreement/agreements that are valid during the validity period of the 'Accounting point's balance responsibility information' authorization (with a maximum of 60 days of past data).
Supplier identification	4	1..1		
Supplier name	4	1..1		
Balance responsible information	4	1..n	Supplier's balance responsible party	The balance responsibility information (combination(s) of a supplier and the supplier's balance responsible party) is forwarded based on the authorizing customer's agreement/agreements that are valid during the validity period of the 'Accounting point's balance responsibility information' authorization (with a maximum of 60 days of past data).

Balance responsible identification	5	1..1		
Balance responsible name	5	0..1		Balance responsible name is currently not available in Datahub. This field is included in the F28 message for future use.
Balance responsibility start date	5	1..1	Date/time for balance responsibility start	The balance responsibility information start date based on the validity of the authorization and a maximum of 60 days of past data.
Balance responsibility end date	5	0..1	Date/time for balance responsibility end	<p>When a supplier or a supplier's balance responsible party changes, this field is used to indicate the date until which the supplier/balance responsible party information is valid on the accounting point (the start date of new balance responsibility information).</p> <p>If a supplier/balance responsibility information is fully cancelled, e.g., in case of a cancelled agreement, the end date is set to correspond to the start date in the forwarded message.</p>

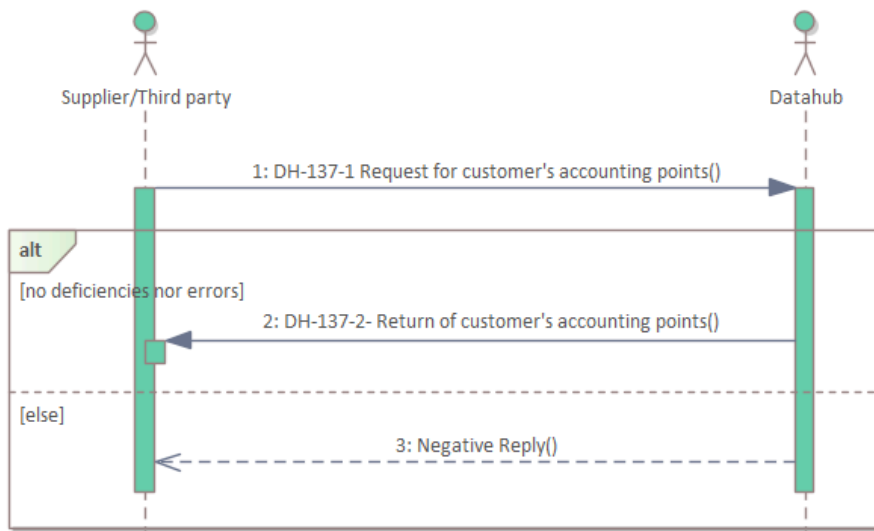
## DH-137 Request for customer's accounting points

Event description

Parties

Return of information

Validation rules



Request for customer's accounting points

### Event description

A supplier or a third party searches for the customer's accounting points using the customer's identifier. The supplier or third party needs the accounting point information in order to request authorizations for the customer's accounting points, in accordance with the agreement made with the customer.

For a valid request, the supplier or third party must have an authorization from the customer of type 'Accounting point search'.

### Parties

- New supplier / third party
- Datahub


### Return of information

Party	Description	Message
Supplier / third party	The request returns basic information for all accounting points where the customer has a valid or future-dated agreement.	<a href="#">DH-137-2</a> or <a href="#">ACK</a> (if the

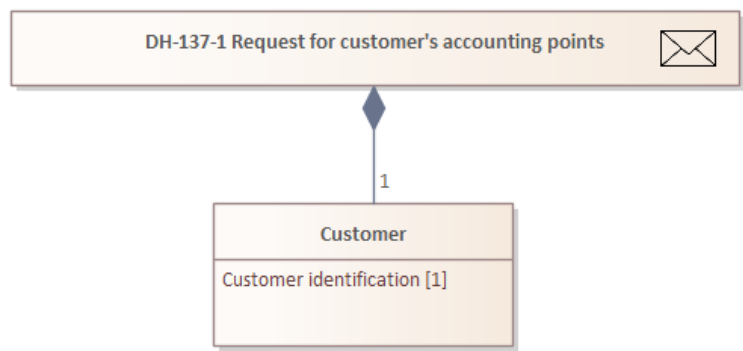
		request is rejected)
--	--	----------------------

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The customer must hold an agreement at one accounting point at least.	EC.MPT.18 8	
<div>  Please observe that the list is not complete.         </div>		

DH-137-1 Request for customer’s accounting points



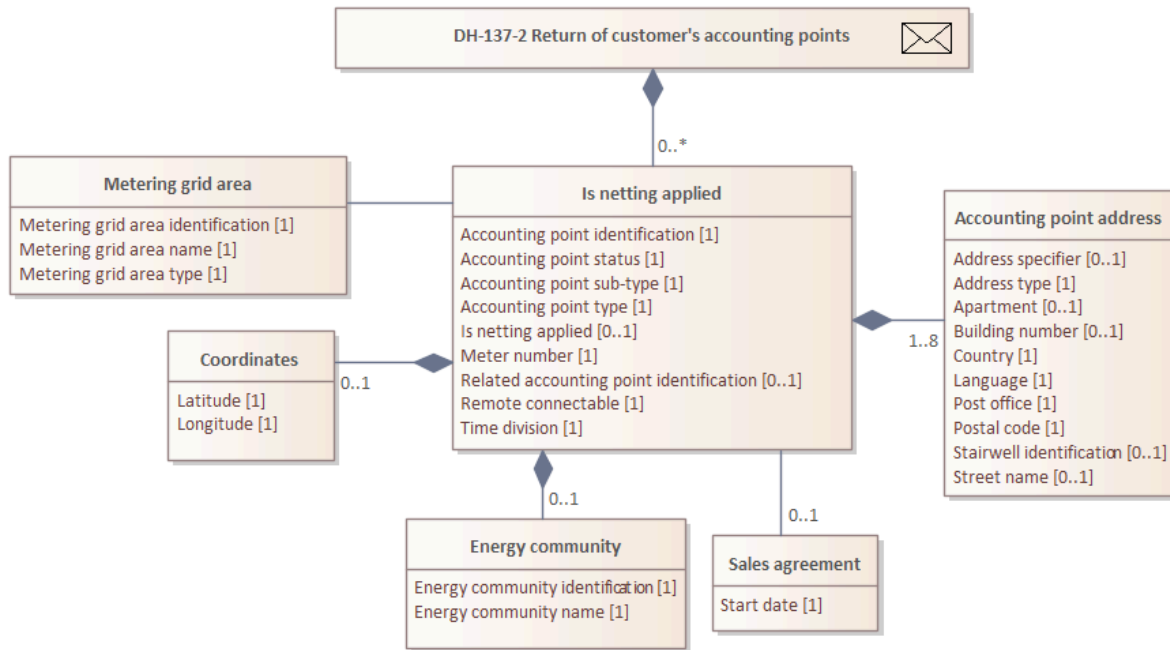
Information to be provided in the request for customer's accounting points

Message DH-137-1 is of message type [F02](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Customer identification	2	1..1		

## DH-137-2 Return of customer's accounting points



Information to be provided in the return for customer's accounting points

Message DH-137-2 is of message type [F20](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Basic accounting point data	2	1..n		
Accounting point identification	3	1.1		
Accounting point status	3	1.1	<ul style="list-style-type: none"> <li>Connected</li> <li>Disconnected</li> <li>Under construction</li> <li>Removed from use</li> </ul>	
Remotely connectable	3	1.1	Yes/No	



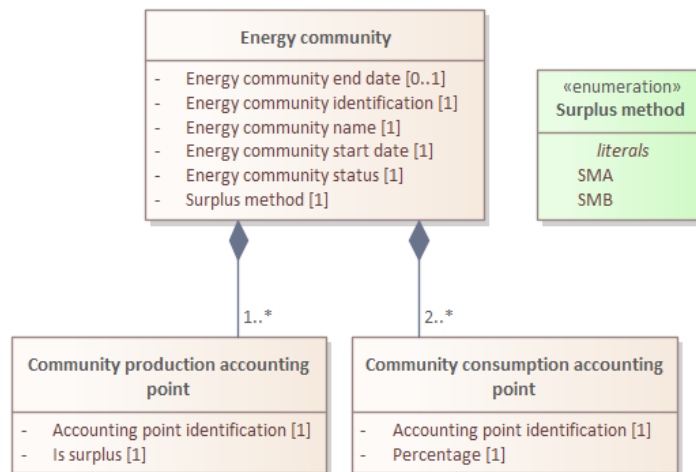
Accounting point type	3	1.1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Accounting point sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Building accounting point</li> <li>• Production unit's own consumption</li> </ul>	
Time division	3	1.1	<ul style="list-style-type: none"> <li>• One rate metering</li> <li>• Two rate metering night/day</li> <li>• Two rate metering winter day/other</li> </ul>	
Meter number	3	0.1	Active metering meter number	The meter number can be used to identify the metering point.
Related accounting point identification	3	0.1		
Energy Community Identification	3	0.1		The energy community information is returned if the accounting point belongs to an energy community.
Energy Community Name	3	0.1		
Is netting applied	3	0.1	0=Netting not applied 1=Netting applied	
Area information	3	1.1		
Metering grid area name	4	1.1		
Metering grid area identification	4	1.1		
Metering grid area type	4	1.1		

Accounting point addresses	3	1..8		
Address type	4	1..1	<ul style="list-style-type: none"> <li>• Main address</li> <li>• Additional address</li> </ul>	
Street name	4	1..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 ID used.	
Address specifier	4	0..1		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• sv</li> </ul>	
Coordinates	3	0..1		
Latitude	4	1..1		
Longitude	4	1..1		
Sales agreement	3	0..1		Returned only when the customer's agreement is set to begin in the future. This allows the party to know from which date it is possible to request an authorization.
Sales agreement start date	4	1..1		

## DH-140 Energy community information maintenance

### Energy community information maintenance events

Energy community information stored in Datahub is outlined in the diagram below.



On December 22, 2020, the Finnish Government approved an amendment to the Government Decree on the settlement and measurement of electricity supplies. Provisions on the local energy community and the group of active customers and their tasks were added to the regulation. Since this regulation that has entered into force, Datahub has been handling processes related to local energy communities and groups of active customers from the beginning of 2023. Both energy communities and groups of active customers are maintained in Datahub using the same energy community processes, and the calculations based on the data reported to Datahub are carried out as [energy community calculations](#). Energy community information in Datahub can be maintained by the DSO in whose metering grid area the energy community exists.

According to the regulation, the energy community is notified to the DSO 14 days before the start of the energy community. The DSO must report the data to Datahub no later than 7 days before the start of the calculations and at the most 90 days in the future.

The energy community is identified in Datahub by the party's own identification. The identification is formed as the party's own identification for the customers (the DSO's GLN identification + the identifier given by the DSO). The community identification must be unique. In addition to the identification, the DSO informs Datahub of the name of the energy community.

In addition to the identification and name, the DSO reports the identifications of the accounting points belonging to the community and the percentages of how much of the produced energy

by the energy community is deducted from the consumption of the accounting points. The percentages of the accounting points belonging to the community must be 100% in total, and the percentage of an individual accounting point cannot be 100%. Percentages may be reported by two decimals. An accounting point can only belong to one community at a time. All accounting points in the energy community must belong to the same metering grid area of the reporting DSO. According to the decree, the accounting points must all use the same connection. Datahub does not have this information about the connection, so the DSO is responsible for the accuracy of this information. An accounting point with a status of 'Removed' or 'Removed from use' cannot be added to an energy community.

The local energy community or group of active customers decides whether surplus energy is allocated to each accounting point within the energy community based on its share ([surplus method SMB](#)) or to the accounting point defined as the surplus accounting point for the whole energy community ([surplus method SMA](#)). This information is provided when the community is created.

If the allocation of the surplus is made on an accounting-point basis (SMB), a small-scale production accounting point, to which the surplus is allocated, must be connected to each consumption accounting point. If a consumption accounting point is not associated with a (real) production accounting point, the DSO must create a so-called virtual accounting point. The DSO must create this virtual small-scale production accounting point before setting up the community. These virtual small-scale production accounting points must have the same kind of agreements as a normal small-scale production accounting points. In the SMB allocation method, the energy community must also be assigned a separate surplus production accounting point, to which the surplus will be allocated for any disconnected accounting points.

If the surplus is allocated to only one production accounting point in the community (SMA), that accounting point must be reported as the surplus accounting point for the energy community.

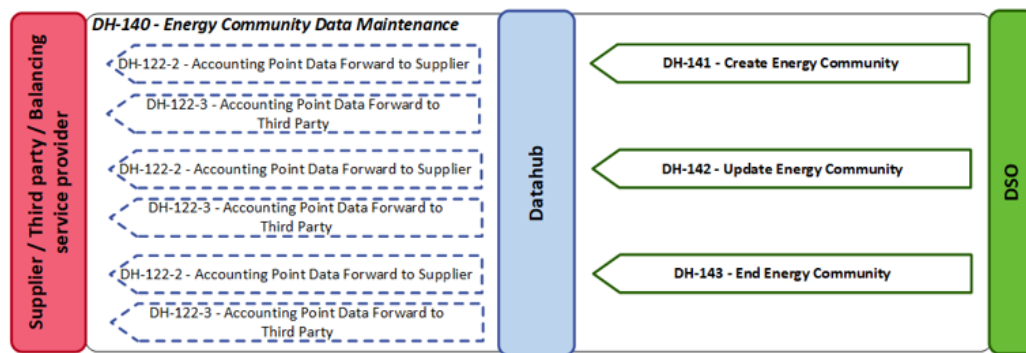
A notification of a new energy community must also be made if the surplus method changes (the surplus method cannot be changed through an update event). In this case, the community with the old surplus method is ended and the new one is reported with the new surplus method. The timelines for notifying a new community must be taken into account.

Information of the accounting points belonging to the community can be changed using the update event. In the update, the percentages of the member accounting points need to be a total of 100%, and the percentage of an individual accounting point cannot be 100%. The DSO must report this update to energy community information to Datahub no later than 7 days before the start of the change and at the most 90 days in the future.

When the energy community terminates its activities, the DSO must also report this to Datahub. The same timelines apply to terminations as for creating an energy community, i.e., the termination must be notified at least 7 days before the end of the community. The termination event removes the energy community information from the member accounting points at the given date.

Datahub notifies the current supplier and potential current third party of the accounting point information update when the accounting point is either added as a new member of an energy community or removed from the community due to an update or termination of the community. The notification includes the identification and the name of the energy community (empty when the accounting point is removed from the community).

### Energy community information maintenance events



DH-140 Process maps

No content yet.

## DH-140 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-141 Creating an energy community

Event description

Parties

Time limits

Event processing in Datahub

Information storage

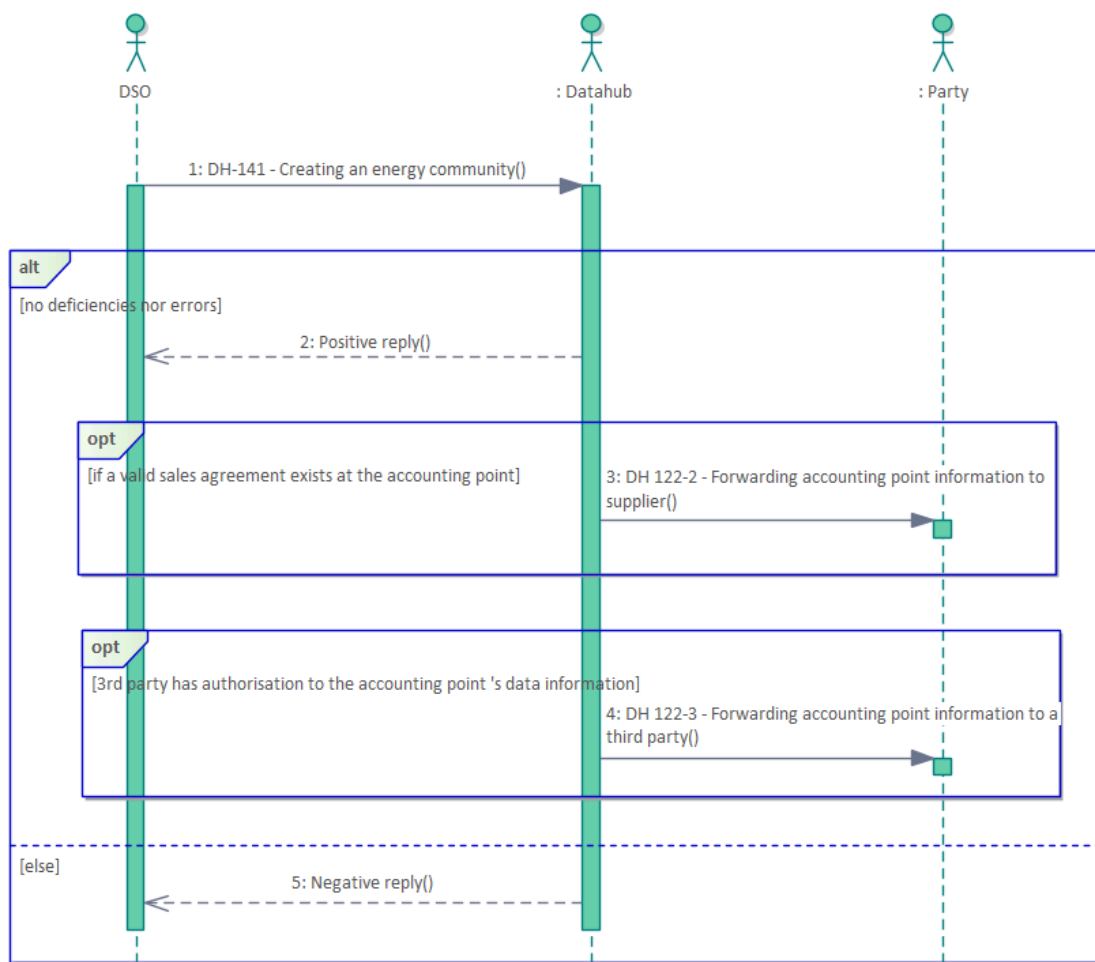
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Creating an energy community

### Event description

A DSO creates a new energy community in Datahub.

### Parties

- DSO



- Datahub
- Supplier
- Third party

### Time limits

Effective time of the update
The energy community has to be reported at least 7 days or maximum 90 days before the start of occurrence of the energy community.

### Event processing in Datahub

Step	Description
The community's participation in energy community calculations	The energy community and the member accounting points are taken into <a href="#">community calculations</a> from the start of occurrence of the community.
Energy community information for member accounting points	The energy community information is updated to the accounting point information.

### Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored in Datahub.
Information processed by Datahub	Information on the participation of the community and its member accounting points in energy community calculations.
	Energy community information for the community's member accounting points.

### Return of information

Party	Description	Message
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DSO	Notification of a successful or rejected creation of an energy community.	<a href="#">ACK</a>
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## Forwarding of information

Party	Description	Message
Supplier	The updated accounting point information is reported to the suppliers associated with the community's accounting points at the effective time of the update as specified.	<a href="#">DH-122-2</a>
Third party	The updated accounting point information is reported to third parties associated with the accounting points at the effective time of the update as specified with consideration to the parties' rights to information on the reported start of occurrence.	<a href="#">DH-122-3</a>

## Significant errors and consequences

Error	Consequence
Wrong accounting points are linked to the energy community	The calculations are based on wrong accounting point information.

## Event cancellation


Information can be corrected by updating the community information or by terminating the energy community.

## Validation rules

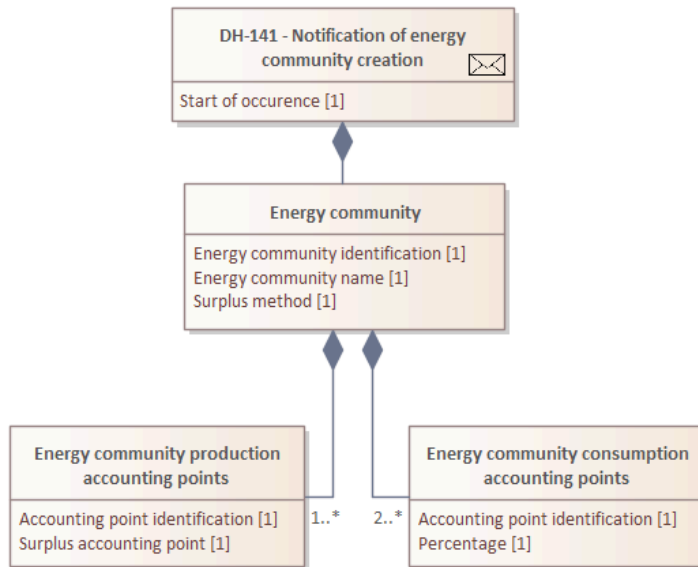
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The energy community's ID must not already be recorded in Datahub.	EC.ECY.100	
The start of the energy community ID must be the GLN code of the reporting distribution system operator.	EC.ECY.101	

The accounting point is recorded in Datahub and is valid on the community start date.	EC.MPT.1 15	
The member consumption accounting point reported to the energy community is not in the 'Removed from use' status or 'Deleted' on the date the community enters into force.	EC.MPT.1 67	
All accounting points in the energy community are part of the same metering grid area.	EC.ECM.1 01	
The metering grid area must be recorded in the system and belong to the reporting distribution system operator.	EC.MPT.1 68	
The member accounting points reported for the energy community cannot already be part of another energy community.	EC.ECM.1 00	
The member accounting points reported for the energy community cannot be in the community twice.	EC.ECY.1 09	
The energy community has at least two member consumption accounting points.	EC.ECM.1 02	
The energy community has at least one member small-scale production accounting point.	EC.ECM.1 02	
One accounting point, the sub-type of which is not 'Virtual', must be reported as the energy community's surplus production accounting point.	EC.ECM.1 03	
If a small-scale production accounting point reported as an energy community member has a related accounting point, that related accounting point cannot be part of another energy community.	EC.ECM.1 05	
If the energy community's surplus calculation method is SMA, the sub-type of no member accounting point reported to any community may be 'Virtual'.	EC.ECY.11 0	
If the surplus calculation method of the reported energy community is SMB, the reported member consumption accounting point must have a related small-scale production accounting point, which must also be reported as a member of the same energy community. (The distribution system operator must, if necessary, create an	EC.MPT.1 69	

accounting point of sub-type 'Virtual' using event DH-121 before creating an energy community.)		
The shares of the member accounting points in the community must add up to 100%.	EC.ECM.1 04	
The share of a single member accounting point cannot be 100%.	EC.CPF.0 43	
<div>  Please observe that the list is not complete. </div>		

## DH-141 Notification of energy community creation



Information to be provided when creating an energy community

Message DH-141 is of message type [F26](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Start of occurrence of the energy community	
Energy community identification	2	1.1		
Energy community name	2	1.1		
Surplus method	2	1.1	SMA = surplus method A SMB = surplus method B	The method by which the energy community distributes the surplus production after the allocation to the members of the community.

				<p>SMA = the surplus is transferred to the dedicated surplus accounting point.</p> <p>SMB = transfer of surplus to community production accounting points (requires virtual production accounting points when needed)</p>
Consumption accounting points	2	2..n		
Accounting point identification	3	1..1		
Percentage	3	1..1		Percentage by accounting point of distribution of energy produced in the community to accounting points in the community.
Small-scale production accounting points	2	1..n		
Accounting point identification	3	1..1		
Is surplus	3	1..1	<p>0 = Not surplus accounting point</p> <p>1 = Is surplus accounting point</p>	Indicates for each accounting point whether it is the surplus accounting point.

## DH-142 Updating an energy community

Event description

Parties

Time limits

Event processing in Datahub

Information storage

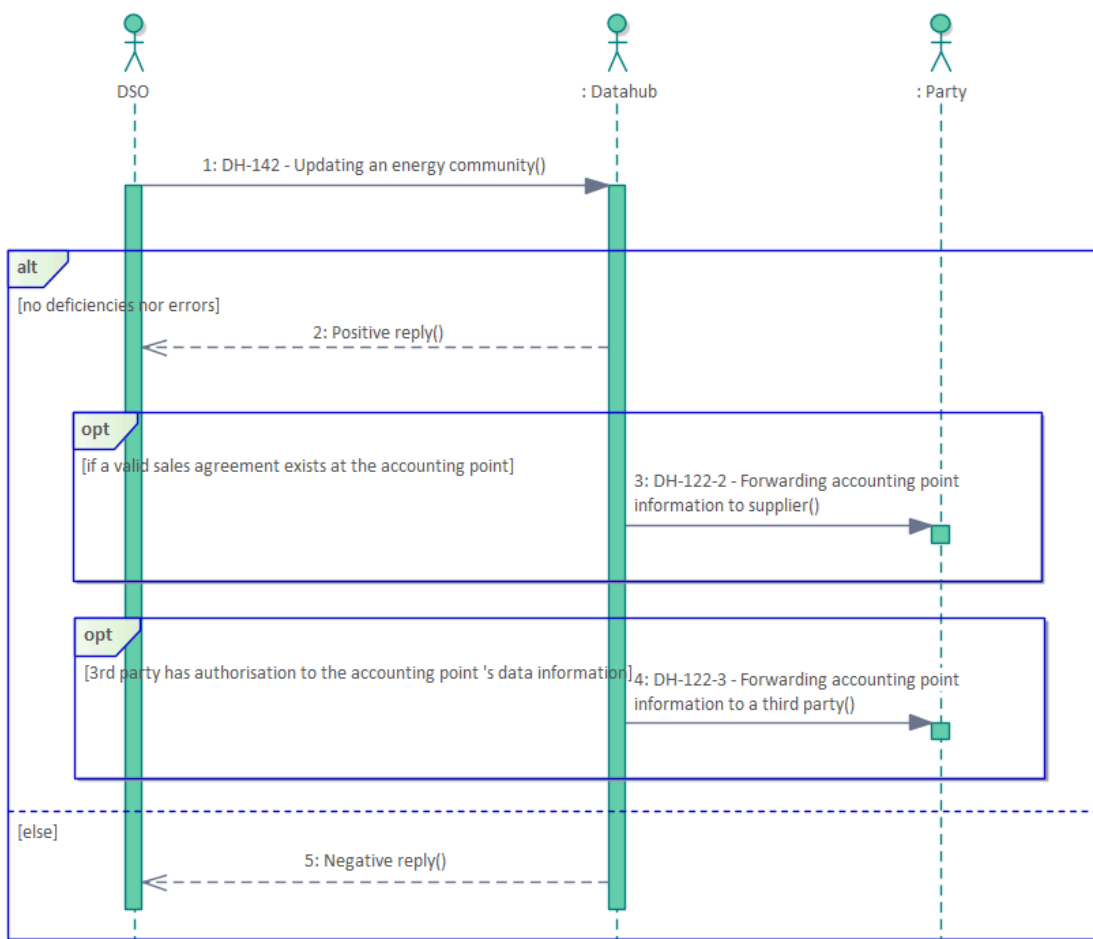
Return of information

Relaying of information

Significant errors and consequences

Event cancellation

Validation rules



Updating an energy community

### Event description

A DSO updates the energy community information.

### Parties

- DSO

- Datahub
- Supplier
- Third Party

## Time limits

Effective time of the update
The energy community update has to be reported at least 7 days and maximum 90 days before the date when the changes take effect.

## Event processing in Datahub

Step	Description
The community's participation in energy community calculations	The energy community and the member accounting points are taken into <a href="#">community calculations</a> from the start of occurrence of the community.
Energy community information for member accounting points	If members are added to or removed from the community, the energy community information is updated in the accounting point information of those members (the community information is either added or removed accordingly).

## Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored in Datahub.
Information processed by Datahub	Information on the participation of the community and its member accounting points in energy community calculations. Energy community information for the community's member accounting points.

## Return of information

Party	Description	Message
-------	-------------	---------



DSO	Notification of a successful or rejected update of energy community.	<a href="#">ACK</a>
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## Relaying of information

Party	Description	Message
Supplier	The updated accounting point information is reported to the suppliers associated with the community's accounting points at the effective time of the update as specified.	<a href="#">DH-122-2</a>
Third party	The updated accounting point information is reported to third parties associated with the accounting points at the effective time of the update as specified with consideration to the parties' rights to information on the reported start of occurrence.	<a href="#">DH-122-3</a>

## Significant errors and consequences

Error	Consequence
Wrong accounting points are linked to the energy community	The calculations are based on wrong accounting point information.

## Event cancellation


Information can be corrected by updating the community information or by terminating the energy community.

## Validation rules

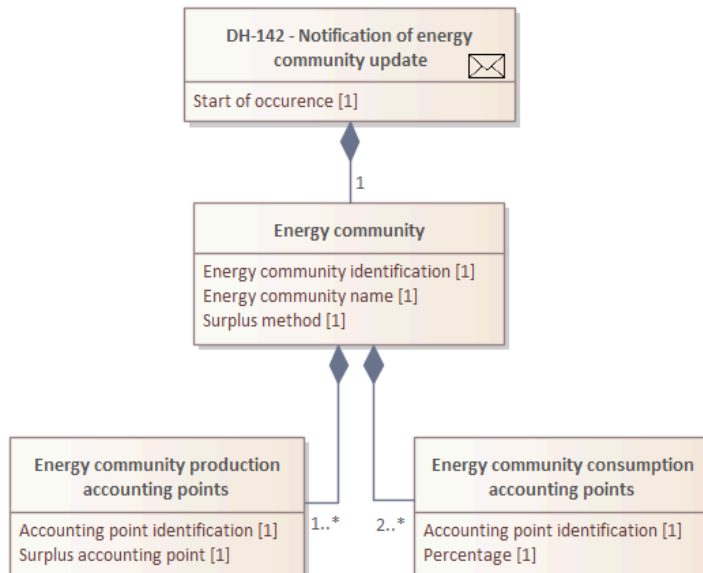
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The energy community must be valid on the update date notified in Datahub.	EC.ECY.10 5	
The energy community belongs to the reporting distribution system operator.	EC.ECY.10 7	

The surplus calculation method cannot be changed with an update event.	EC.ECY.10 8	
The accounting point to be reported to the energy community is recorded in Datahub and is valid on the agreement start date.	EC.MPT.11 5	
The member consumption accounting point reported to the energy community is not in the 'Removed from use' status or 'Deleted' on the date the community enters into force.	EC.MPT.1 67	
All accounting points in the energy community are part of the same metering grid area.	EC.ECM.1 01	
The metering grid area must be recorded in the system and belong to the reporting distribution system operator.	EC.MPT.1 68	
The member accounting points reported for the energy community cannot already be part of another energy community.	EC.ECM.1 00	
The member accounting points reported for the energy community cannot be in the community twice.	EC.ECY.10 9	
The energy community has at least two member consumption accounting points.	EC.ECM.1 02	
The energy community has at least one member small-scale production accounting point.	EC.ECM.1 02	
One accounting point, the sub-type of which is not 'Virtual', must be reported as the energy community's surplus production accounting point.	EC.ECM.1 03	
If a small-scale production accounting point reported as an energy community member has a related accounting point, that related accounting point cannot be part of another energy community.	EC.ECM.1 05	
If the energy community's surplus calculation method is SMA, the sub-type of no member accounting point reported to any community may be 'Virtual'.	EC.ECY.11 0	
If the surplus calculation method of the reported energy community is SMB, the reported member consumption accounting point must have a related small-scale production accounting point, which must	EC.MPT.1 69	

also be reported as a member of the same energy community. (The distribution system operator must, if necessary, create an accounting point of sub-type 'Virtual' using event DH-121 before creating an energy community.)		
The shares of the member accounting points in the community must add up to 100%.	EC.ECM.1 04	
The share of a single member accounting point cannot be 100%.	EC.CPF.0 43	
<div>  Please observe that the list is not complete. </div>		

## DH-142 Notification of energy community update



Information to be provided when updating an energy community

Message DH-142 is of message type [F26](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Start of occurrence of the update of energy community	
Energy community identification	2	1.1		
Energy community name	2	1.1		
Surplus method	2	1.1	SMA = surplus method A SMB = surplus method B	The method by which the energy community distributes the surplus production after the

				<p>allocation to the members of the community.</p> <p>SMA = the surplus is transferred to the dedicated surplus accounting point.</p> <p>SMB = transfer of surplus to community production accounting points (requires virtual production accounting points when needed).</p> <p><b>The surplus calculation method cannot be changed with an update event.</b></p>
Consumption accounting points	2	2..n		
Accounting point identification	3	1..1		
Percentage	3	1..1		Percentage by accounting point of distribution of energy produced in the community to accounting points in the community.
Small-scale production accounting points	2	1..n		
Accounting point identification	3	1..1		
Is surplus	3	1..1	<p>0 = Not surplus accounting point</p> <p>1 = Is surplus accounting point</p>	Indicates for each accounting point whether it is the surplus accounting point. The community has one surplus accounting point.



## DH-143 Terminating an energy community

Event description

Parties

Time limits

Event processing in Datahub

Information storage

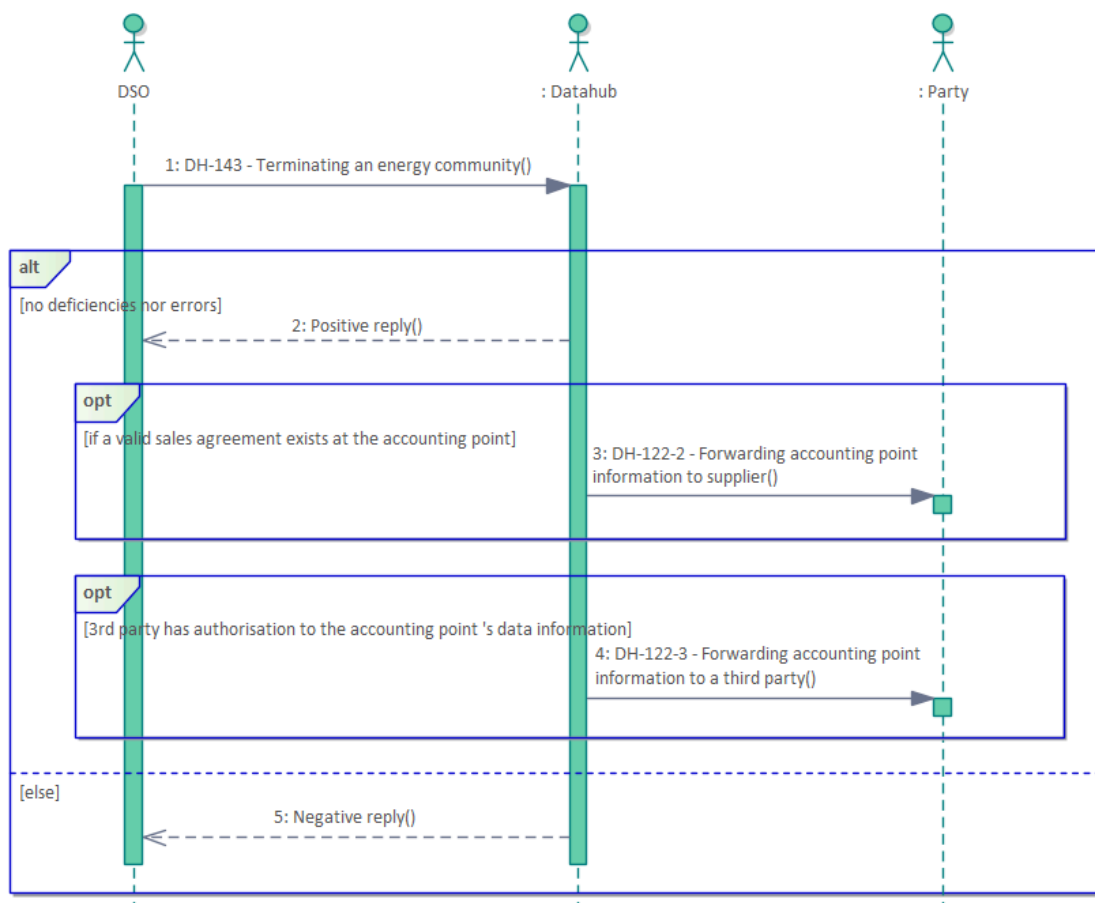
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Terminating an energy community

### Event description

A DSO terminates an energy community.

### Parties

- DSO
- Datahub

- Supplier
- Third Party

### Time limits

Effective time of the update
The termination of an energy community has to be reported at least 7 days and maximum 90 days before the end date.

### Event processing in Datahub

Step	Description
Removal of the community from energy community calculations	The energy community and its member accounting points will be removed from the <a href="#">community calculations</a> from the end date of the energy community.
Removal of energy community information from member accounting points	Energy community information is removed from the member accounting points.

### Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored in Datahub.
Information processed by Datahub	Information on the removal of the community and its member accounting points from energy community calculations.
	Removal of energy community information from the community's member accounting points.

### Return of information

Party	Description	Message
-------	-------------	---------



DSO	Notification of a successful or rejected termination of energy community.	<a href="#">ACK</a>
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## Forwarding of information

Party	Description	Message
Supplier	The updated accounting point information is forwarded to the suppliers associated with the community's accounting points at the effective time of the update as specified.	<a href="#">DH-122-2</a>
Third party	The updated accounting point information is reported to third parties associated with the accounting points at the effective time of the update as specified with consideration to the parties' rights to information on the reported start of occurrence.	<a href="#">DH-122-3</a>

## Significant errors and consequences

Error	Consequence
Community information is terminated incorrectly	Calculations are unnecessarily interrupted.


## Event cancellation

Information can be corrected by creating a new energy community.

## Validation rules

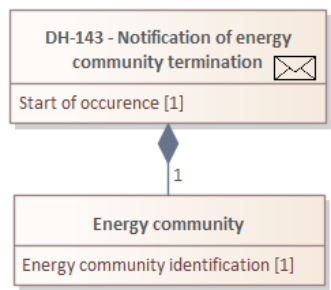
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The energy community must be valid on the end date notified in Datahub.	EC.ECY.10 5	
The energy community belongs to the reporting distribution system operator.	EC.ECY.10 7	



Please observe that the list is not complete.

# DH-143 Notification of energy community termination



Information to be provided when terminating an energy community

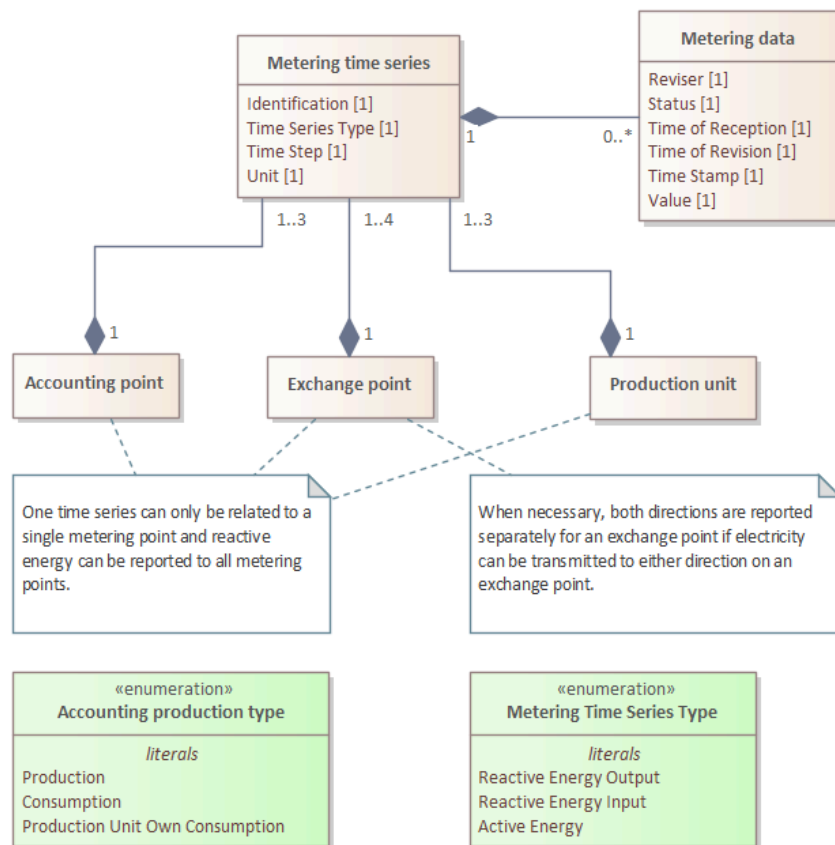
Message DH-143 is of message type [F26](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1	The end date	
Energy community identification	2	1..1		

## DH-200 Metering data processing

Processing reading metering and unmetered sites  
Correction of metering data  
Processing reactive energy data  
Processing exchange point and production unit metering  
Netting and energy community calculation  
Metering data events



Metering data class diagram

The diagram above outlines the data structure of metering data. In Datahub, there are three kinds of metering points: accounting points, exchange points and production units (NBS' Production Unit/PU). Metering data relates to all metering points but a metering time series can only relate to a single metering point. It is possible to report reactive energy input and output measurements for all metering points. It is not possible for an accounting point to have two (active energy) metering time series that are used in billing and imbalance settlement. As an example, in sites where accounting point consumption consists of several metering time series, only one (sum) time series is reported to Datahub.

An exchange point can have one to four metering time series depending on whether electricity can be transmitted in both directions and whether reactive energy of the exchange point is also

forwarded. Each exchange point must include data specifying either the direction of the electricity transmission at the exchange point or specifying that electricity can be transmitted in both directions.

A production unit's own consumption is reported for a consumption accounting point created specifically for that purpose with sub-type production unit's own consumption. For each exchange point a metered data responsible MGA is defined. Metered data responsible MGA refers to the metering grid area that is managed by the metering responsible DSO of the exchange point. The metering responsible DSO reports energy transmitted in different directions at an exchange point (from a metered data responsible MGA to parallel MGA and vice versa) separately using two active energy metering time series, and if needed with two reactive energy metering time series. Metering data does not deal with readings; instead all metering data must be converted into time step energy (= average hourly power for an hourly metering).

Metering values can be reported to Datahub and retrieved from Datahub using the desired unit (Wh, kWh, MWh, GWh or varh, kvarh, Mvarh, Gvarh). Metering data can be delivered with an accuracy of at most 1 Wh. For accounting points at which the fuse size or corresponding electric power is max. 3x63 A, it is recommended to provide metering data with an accuracy of 1 Wh. The minimum requirement is 10 Wh. For accounting points where the fuse size or the corresponding electric power is greater than 3x63 A, the minimum requirement for the accuracy of metering data is 1 kWh. When reporting metering data, attention must be paid to the number of decimal places. For example, kilowatt-hours (kWh) must be reported with at least two and at most three decimal places for an accounting point of max. 3x63 A. When searching for metering data, please specify the units you would like the search to return.

A DSO must report metering data using the time step that is specified in the law and that is used in the imbalance settlement. The Finnish electricity retail market will move from hourly metering to a 15-minute metering with a transition period starting from 1 January 2023. The Nordic countries moved from an hourly settlement to a 15-minute balance settlement (quarterly balance settlement) from 22 May 2023. Because of this, Datahub will support different time steps for metering data (e.g. 15 minutes and 1 hour). Metering data can still be retrieved from Datahub using the desired time step (e.g. 15 minutes, hour, month). If no time step has been submitted for the search, Datahub will return the metering data using the unit provided by the DSO.

Datahub supports the audit-trail function, meaning that all changes made to metering data are recorded in the history data.

The DSO must report metering data timestamp, metering value and metering data status in its metering data report. In addition to these, Datahub maintains information about the edit time,

editor and the reception time for metering data. The time of update is determined based on the time at which Datahub stores the data in its database. The editor attribute keeps track of which process or user has edited the information at the edit time. In general, only the DSO can update metering data with metering data reports. The Datahub operator edits metering data only at the request of the market parties in special error situations, and the edited data will be forwarded to the parties entitled to it. Datahub also registers separately the storage time of the metering data, which can be used to accurately verify afterwards at what time Datahub received the metering data.

Only positive values are processed in Datahub. E.g., consumption and production should always be separately reported. Metering data is processed in accordance with official Finnish time. When moving clocks forwards and backwards to account for daylight saving time, the length of day is either 23 or 25 hours accordingly.

### **Processing reading metering and unmetered sites**

Datahub does not receive or process reading metering readings. The DSO must calculate or otherwise compile reading metering profiles by accounting point and report them to Datahub. In Datahub, profiles should be created according to the type user group 1 reference curve set out in the current metering decree. This procedure requires changes to the content of the metering decree. The profile will be created based on an annual use estimate for the accounting point. There will be a move away from the use of a so-called balancing energy forecast calculated for type user group 2 and the related temperature adjustments which are currently used.

Profiles calculated by DSOs based on an annual consumption estimate are reported to Datahub with status 'Uncertain'. Status 'OK' is used for profiles when the DSO reads the readings from a meter and then, based on the reading, calculates an adjusted profile up to the previous reading time. As such, the same status rules apply to reading metering as for other metering. If a DSO adjusts the status of a profile reported as 'OK', the adjusted metering data must be reported with the status 'Corrected OK'.

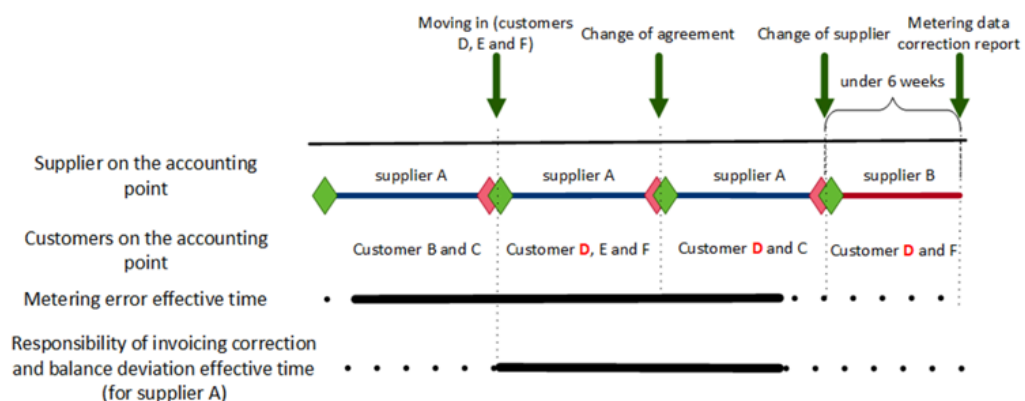
There are some accounting points at which there is no energy metering. These are usually referred to as unmetered accounting points and constant power sites. The DSO must also report metering data in time-series format for these sites. The DSO may compile a profile for an unmetered accounting point in the manner it sees fit, such as reporting the same energy for each time step or by using the aforementioned type user group 1 reference curve. Metering data from an unmetered accounting point is assigned the 'Estimated' status and adjustments are made using the status 'Corrected OK'.

The profiles for reading metering sites and constant power time series are reported in Datahub in the same manner and with the same time limits and validations as for other metering data.

## Correction of metering data

The DSO must correct erroneous metering data in Datahub for the entire time during which the metering data is stored in Datahub (6 years). Corrected metering data is sent to all parties entitled to the data in accordance with their rights. As such, parties can receive corrected metering data for the entire time during which the metering data is stored in Datahub. Corrected time series data for a supplier's agreement period will not be forwarded to the supplier of the accounting point if the supplier's agreement has ended more than six weeks before the data reporting date.

Corrections to metering data may relate to the correction of a customer's billing if the customer has already been billed based on erroneous data. In these cases, [Finnish Energy's guidelines](#) are applied in Datahub: a metering data correction is reported to Datahub when the customer has been notified or an agreement has been reached with the customer about the correction of metering data. Thus the customer's correction invoicing is done, on the part of metering data changes, by the suppliers who on the date of the metering error correction report have a valid agreement or an agreement that has ended at most six weeks ago **from the date of metering data correction report** on the accounting point for which the metering data is corrected. For a supplier change of agreement, i.e., a new agreement by the current accounting point supplier where at least one customer remains the same, does not free the supplier from the responsibility to make corrections. This is described in more detail in the figure below.



Change of agreement and invoicing correction responsibility in metering data correction situation

The DSO is always responsible for invoicing corrections related to its own grid service and related to sales agreements that ended over 6 weeks before the metering data correction report (corrections to customers B and C in the figure above). Metering data corrections are taken into account in correction of balance deviations and the balance deviation is always recorded for the

effective time of metering error when the invoicing correction of sales agreement is the responsibility of the supplier.

### **Processing reactive energy data**

Datahub allows the reporting and retrieval of metering data on reactive energy input from the grid (inductive) and output to the grid (capacitive) to accounting points, production units and exchange points. With regard to reactive energy, Datahub acts solely as a data transmitter. As such, Datahub does not carry out calculations for reactive energy metering data or monitor reports of this data. Only the validation of negative values and status transitions will be carried out for reactive energy metering data, since grid input and output must be reported in their own time series. Reactive energy data is not automatically transmitted to suppliers. An information field will be added to the accounting point, indicating that reactive energy metering data is available for the accounting point. Based on this information, the supplier may order the transmission of reactive energy metering data in the Datahub interface. Information concerning the availability of reactive energy metering data is updated by Datahub depending on whether the DSO has reported new reactive energy metering data in the last month.

### **Processing exchange point and production unit metering**

Exchange point and production unit metering data is required in Datahub in order to calculate a DSO's imbalance settlement. This metering data is reported in the same way as other metering data and metering data can also be corrected outside the balance window. However, balance deviations are not registered based on metering data corrections for exchange points and production units. Instead, possible monetary corrections caused by these corrections will be handled privately between the metering responsible party and its counterpart (another grid owner).

Exchange points and production units have similar connection status information as accounting points have. Grid operator can temporary remove production unit or exchange point from use by changing the connection status to 'under construction'. In this case, no metering data needs to be reported to these metering points.

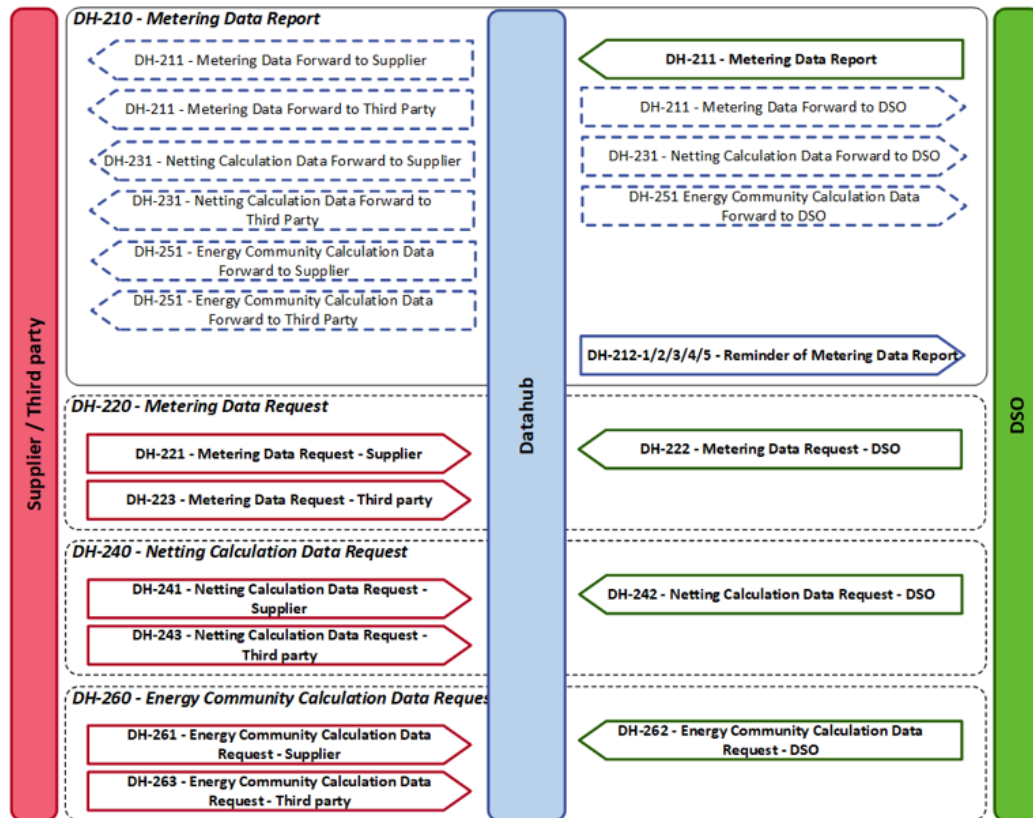
It is the obligation of the metering responsible party of the metering point to report exchange point metering data to Datahub. As such, the transmission system operator and regional grid companies, for example, must report exchange point metering data if the imbalance settlement for the exchange point's other metering grid area is processed in Datahub. The validation and processing of exchange point and production unit metering correspond to the processing of other metering data where applicable.



## Netting and energy community calculation

Datahub performs [netting](#) and [energy community calculations](#) for the metering points included in the calculations, based on the reported metering data.

### Metering data events





DH-210 Process maps

No content yet.

## DH-210 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-211 Reporting metering data

Event description

Parties

Important considerations for event handling

Time limits

Event processing in Datahub

Information storage

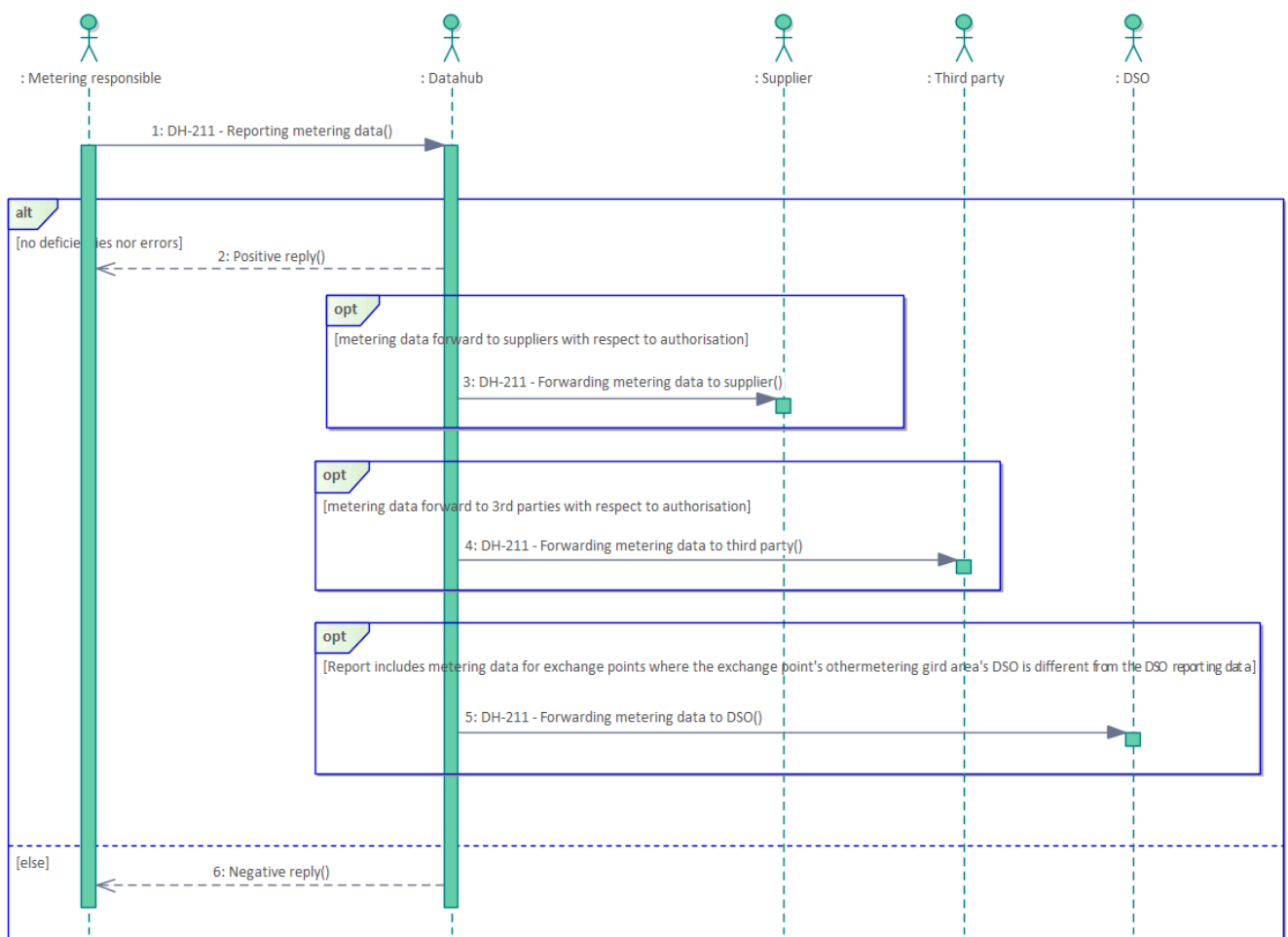
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Reporting metering data

### Event description

A party responsible for metering (the DSO) reports the metering data for a metering point (accounting point, exchange point or production unit) to Datahub.

## Parties

- DSO
- Datahub
- Supplier
- Third party

## Important considerations for event handling

- Only new or updated metering data should be reported to Datahub. Resending large volumes of unchanged time series places unnecessary strain on both Datahub and the party's own systems.
- When a party needs to update values or statuses in previously sent time series or report entirely new metering data, these time series should not include information that already exists in Datahub. Messages containing only updated metering values or statuses from multiple time series can be used instead. Updated values can also be included in a report of new metering data.
- Datahub's validation accepts a time series if it includes any changed value or status. It only rejects a time series when all values and statuses are identical to previously submitted data. Even so, unchanged metering data should still be avoided during updates.

## Time limits

### Reporting metering data

Time limits ([time limits for reporting metering data](#), [status processing](#) and [monitoring of metering data reports](#)) must be observed, but corrections are permitted throughout the storage period for the metering data.

## Event processing in Datahub

Step	Description
Metering point information on reactive power series availability	Datahub updates the value of the 'reactive energy time series available' accounting point attribute to 'yes' if reactive energy is reported for the accounting point and the attribute has the value 'no'.
Netting calculation	Datahub performs the <a href="#">netting calculation</a> based on the metering data reported by the distribution system operator, provided that all metering

	data required for the calculation has been submitted to Datahub. <a href="#">The results of the calculation are forwarded</a> to the parties entitled to the data.
Energy community calculation	Datahub performs the <a href="#">energy community calculation</a> based on the metering data reported by the distribution system operator, provided that all metering data required for the calculation has been submitted to Datahub. <a href="#">The results of the calculation are forwarded</a> to the parties entitled to the data.

## Information storage

Origin of information	Information stored
Information reported by the party	The metering data for the metering points and the the time period from which the data originates.
Information processed by Datahub	Accounting point information on the availability of reactive power series.

## Return of information

Party	Description	Message
DSO	Positive or negative acknowledgement for each transaction. Datahub rejects the message content on a per time series basis. This means that the entire message is not rejected due to a single error; only the time series containing errors are rejected.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Note	Message
Supplier	Metering data that Datahub receives and accepts is forwarded to the suppliers that have the rights to the information. Corrected time series data for a supplier's agreement period will not be forwarded to the	The forwarded message contains two timestamps, when metering data is received in Datahub and when metering data is updated to database in Datahub. Metering data is forwarded using the unit with which	<a href="#">DH-211</a>

	supplier if the supplier's agreement has ended more than six weeks before the data reporting date.	the DSO has reported the metering data to Datahub.	
Third party	Metering data that Datahub receives and accepts is forwarded to third parties that have the rights to the information.	If the DSO reports the metering data for a time interval within which the invoice relevant information changes, Datahub splits the forward message into two transactions covering the periods before and after the time of the change.	
DSO	Metering data for exchange points is forwarded to the DSO of the exchange point's other metering grid area, if it is another party than the party reporting the data.		

## Significant errors and consequences

Possible metering errors and subsequent balance errors are processed in accordance with sections [Correction of metering data](#) and [Management of balance deviation](#).

## Event cancellation


Metering data is corrected by means of a new notification event.

## Validation rules

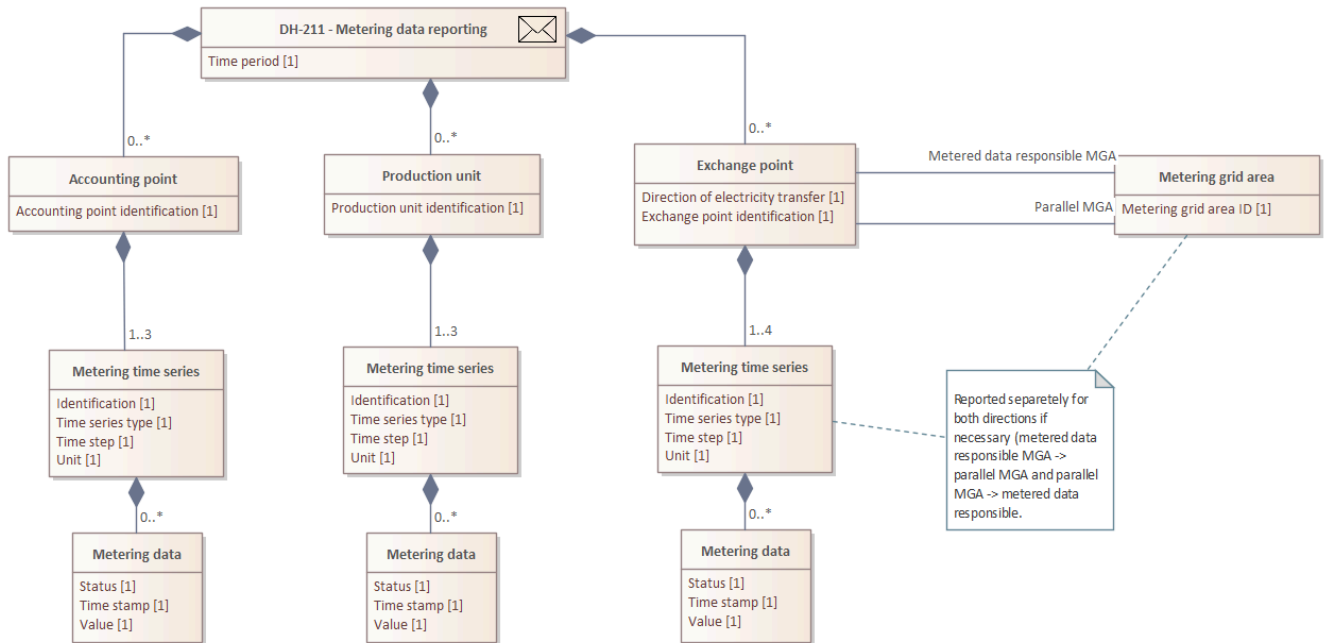
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
A single notification event may contain a maximum of 10,000 metering time series and each metering time series may contain a maximum of 10,000 time-step values.	EC-MDM-PMV-001/ EC-MDM-PMV-002	
The metering point is recorded in the system.	EC-MDM-PTV-005	
The party (distribution system operator or third party) is entitled to provide metering data to the metering grid area.	EC-MDM-PTV-021	



The metering data resolution is the same as the time step reported for the metering point.	EC-MDM-VAL-INTERVAL	
The notified period is not in the future or more than 6 years in the past.	EC-MDM-PTV-018	
The time series contains a value (or 'Value absent' information) for each position in the reporting period.	EC-MDM-PMV-003	
The metering point is not in the 'Under construction' status.	EC-MDM-PTV-006	
The transaction cannot consist of unchanged metering data (status and value) alone.	EC-MDM-VAL-DUPTRANS	
Metering data cannot be replaced with a weaker status.	EC-MDM-VAL-QUAL	
The value cannot be negative.	EC-MDM-VAL-RANGE	
Metering point-specific <a href="#">validation of measurements</a> (not all of these rules are yet included in this table).		
<div>  Please observe that the list is not complete. </div>		

## DH-211 Metering data reporting



Information provided in the DSO's metering data report

Message DH-211 (reporting data) is of message type [E66](#).

Message payload includes the following information:

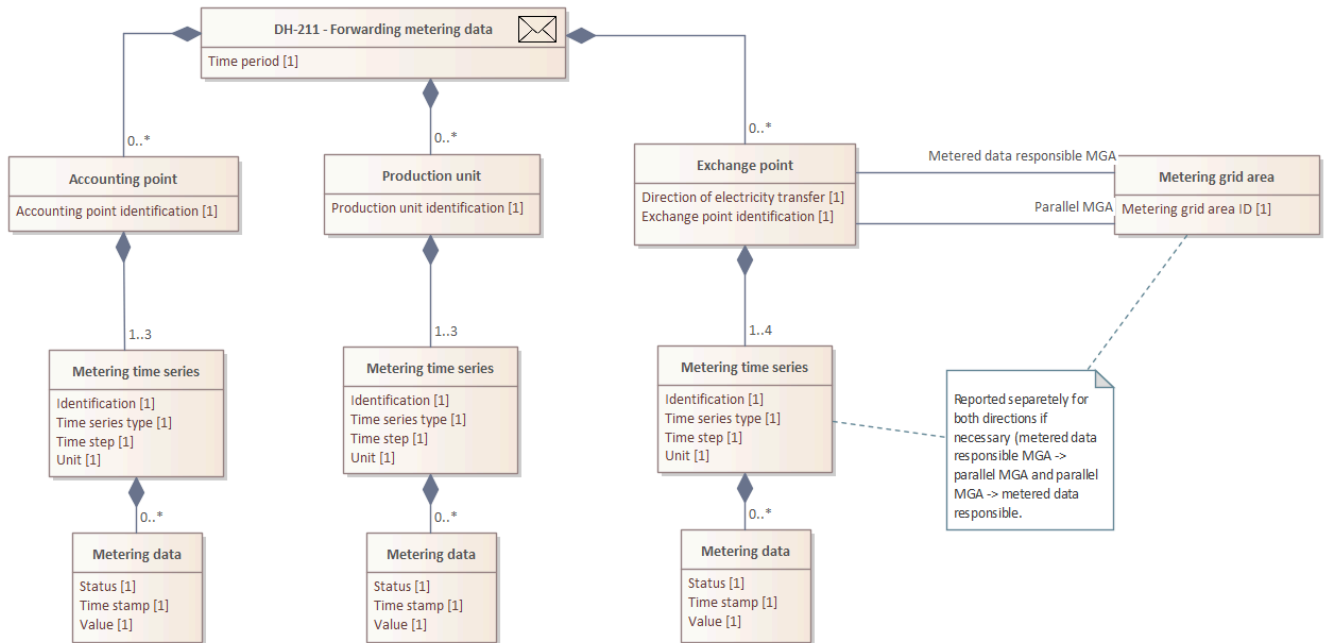
Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		As the metering time series, identification of the reporting system is not always unique, and unique UUID is needed. The identification is used with the acknowledgement message.
Metering time series identification	2	0.1		Time series data is linked to the metering point based on metering point identification. Metering time series identification is the identification used by the reporting

				system and it can be used for handling possible error situations.
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		
Metering time series type	3	1.1	<ul style="list-style-type: none"> <li>• Active energy</li> <li>• Reactive energy output</li> <li>• Reactive energy input</li> <li>• Reactive energy (Exchange points)</li> </ul>	<p>For connection points reactive energy is reported in the same way as active energy, using output and input areas.</p> <p>For other metering points metering time series type reactive energy output and input is used for reporting.</p>
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	<ul style="list-style-type: none"> <li>• Accounting point</li> <li>• Production Unit</li> <li>• Connection point</li> </ul>	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	0.1		Not used for exchange point metering.

Metering grid area identification	3	1..1		
Output area	2	0..1		Only used for exchange point metering.
Output area identification	3	1..1		
Input area	2	0..1		Only used for exchange point metering.
Input area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		In an event, a complete timeline with time series values for the whole reporting period must always be delivered. For each position, either value or value missing data is presented for the reporting period.
Values	3	1..1		Either a value or an 'value missing' indicator must be provided. All values must always be positive. For exchange points, both directions of transfer must be reported separately.
<choice 1>				
Value	4	1..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	<p>Status is presented if other than metered. (136=OK)</p> <p>(Missing) is not presented, only expressed as '<i>value missing</i>' in the field.</p>

				Uncertain
				Estimated
				Corrected OK
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

## DH 211 Forwarding metering data



Message DH-211 (forwarding data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Metering time series identification	2	0.1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		

End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		
Metering time series type	3	1.1	<ul style="list-style-type: none"> <li>• Active energy</li> <li>• Reactive energy output</li> <li>• Reactive energy input</li> <li>• Reactive energy (Exchange points)</li> </ul>	
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	<ul style="list-style-type: none"> <li>• Accounting point</li> <li>• Production Unit</li> <li>• Exchange point</li> </ul>	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	0..1		Not used for exchange point metering.
Metering grid area identification	3	1.1		
Output area	2	0..1		Only used for exchange point metering.
Output area identification	3	1.1		
Input area	2	0..1		Only used for exchange point metering.
Input area identification	3	1.1		

Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				
Value	4	1..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

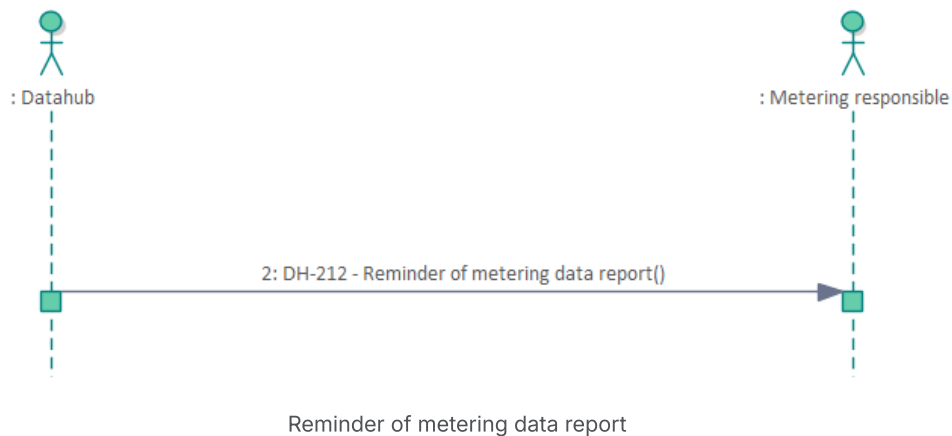


## DH-212 Reminder of metering data report

Event description

Parties

Return of information



### Event description

Datahub [notifies the party responsible for metering data regarding incorrect or unreported metering data](#) (DSO or third party with delegation).

### Parties

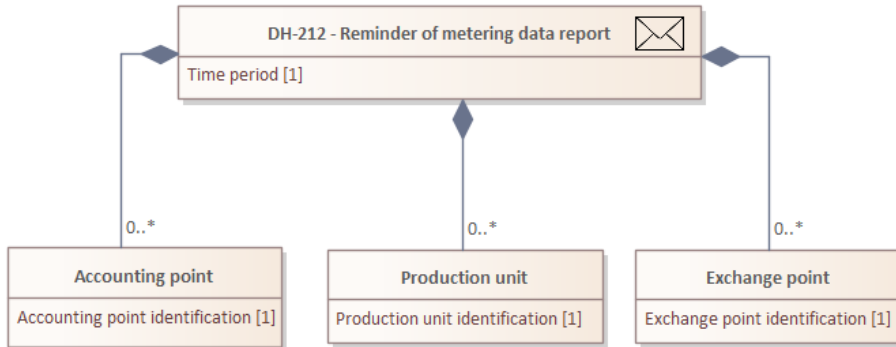
- Datahub
- DSO

### Return of information

Party	Description	Message
DSO or a third party authorized by the DSO	<p>Datahub reports the interval and metering point identification on a time series basis for those metering points for which the metering data is incorrect or deficient. For exchange points, the direction is also reported.</p> <p>The last digit of the message identifier indicates the reason for the notification:</p> <p>DH-212-1: Time series not reported</p> <p>DH-212-2: Deficient status: Missing time series</p> <p>DH-212-3: Deficient status: Uncertain time series</p>	<a href="#">DH-212-x</a>

DH-212-4: Non-zero usage: disconnected
DH-212-5: Non-zero usage: wrong direction (exchange points)

## DH-212-1, DH-212-2, DH-212-3, DH-212-4, DH-212-5 Reminder of metering data report



Information content of the reminder sent to a DSO

Message DH-212-1/2/3/4/5 is of message type [F07](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Metering point identification	2	1.1	Accounting point, production unit or connection point	
Metering grid area identification	2	1.1		
Input area	2	0.1		Only in reminders related to exchange points.
Metering grid area identification	3	1.1		
Output area	2	0.1		Only in reminders related to exchange points.
Metering grid area identification	3	1.1		
Request period	2	1.1	The time period of the first and last missing	Datahub carries out a validation of a certain time period (e.g. an open

			value is given as the time period.	balance window). In that case, a request period may be either a whole open balance window or the period of the first and last missing value.
Start time	3	1..1		
End time	3	1..1		

## DH-220 Metering data request

- [DH-220 Process maps](#)
- [DH-220 Examples](#)
- [DH-221 Metering data request – supplier](#)
- [DH-222 Metering data request – DSO](#)
- [DH-223 Metering data request – third party](#)

## DH-220 Process maps

No content yet.

## DH-220 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-221 Metering data request – supplier

Event description

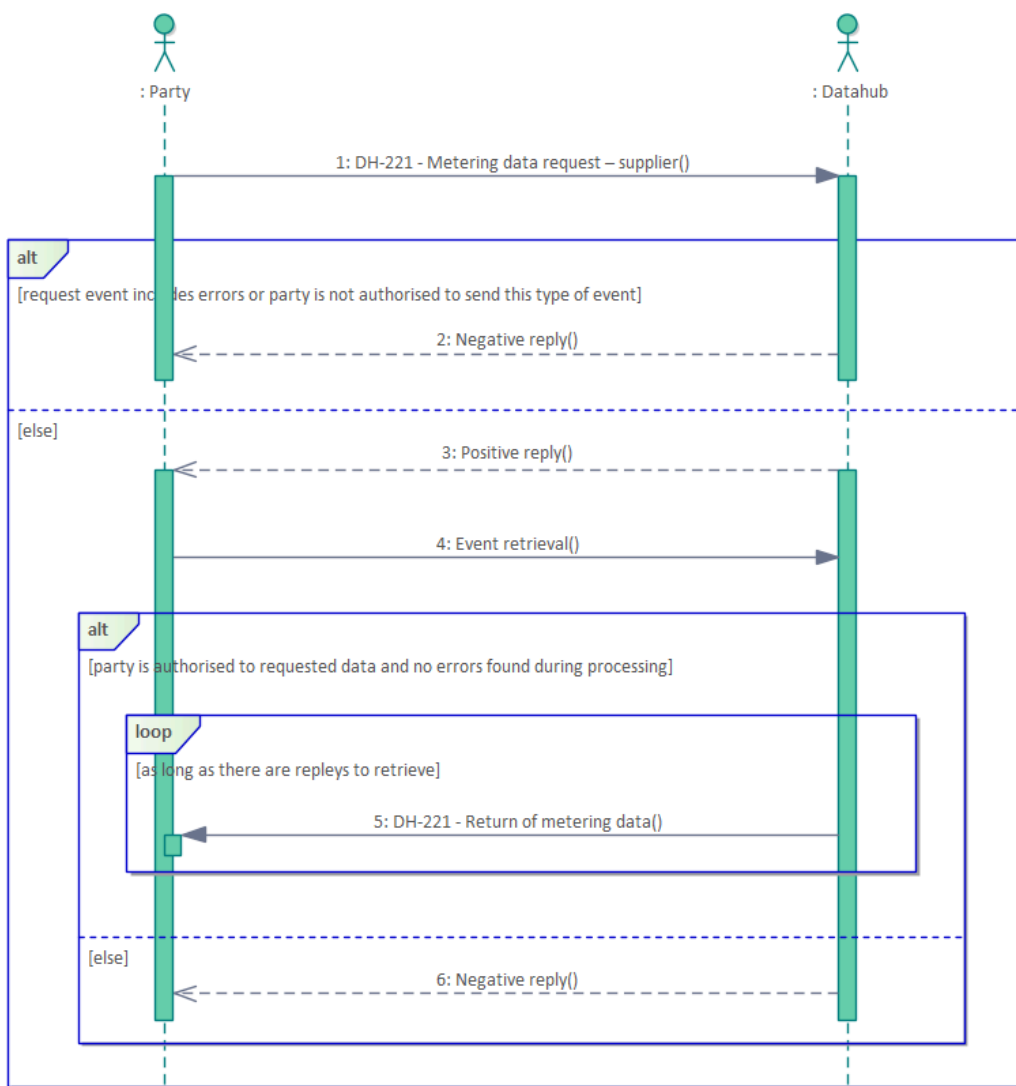
Parties

Important considerations for event handling

Event processing in Datahub

Return of information

Validation rules



Metering data request – supplier

### Event description

A supplier retrieves metering data for which it has [rights](#) from Datahub.

If a supplier requests metering data for an accounting point using the DH-221 process with the supplier process role (DDQ), Datahub will only return data permitted by the agreement situation. If the supplier has an authorization from the customer that entitles it to access metering data for



a longer period, Datahub will not return this data in response to the DH-221 process. If the supplier wishes to retrieve metering data for the period allowed by the authorization, they must use the [DH-223 process](#) and the service provider process role (ESC).

## Parties

- Supplier
- Datahub

## Important considerations for event handling

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

## Event processing in Datahub

Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the supplier. If the time step is not specified, the request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.


## Return of information

Party	Description	Message
Supplier	<p>The metering data for the requested metering points or rejection of the request. Only the metering data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 metering time series and each metering time</p>	<a href="#">DH-221</a> or <a href="#">ACK</a> (if the request is rejected)

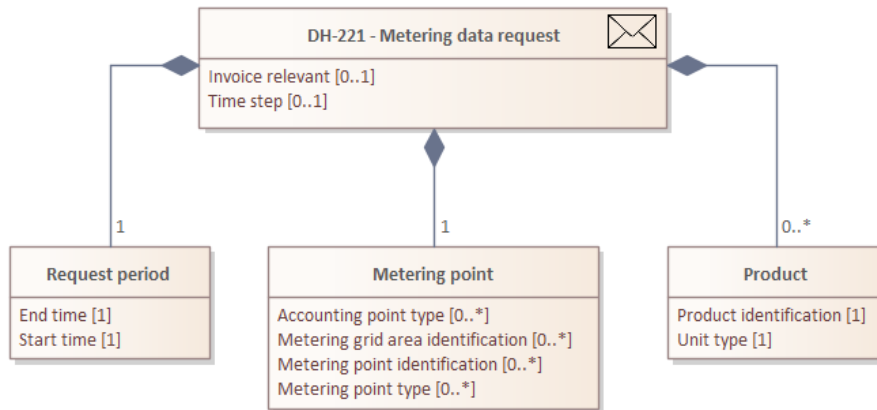
series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.
--

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query unit is an energy unit.	EC-MDM-RMV-001	
The query period is not in the future or more than 6 years in the past.		
<div>  Please observe that the list is not complete.         </div>		

## DH-221 Metering data request (supplier)



Information to be provided for metering data request

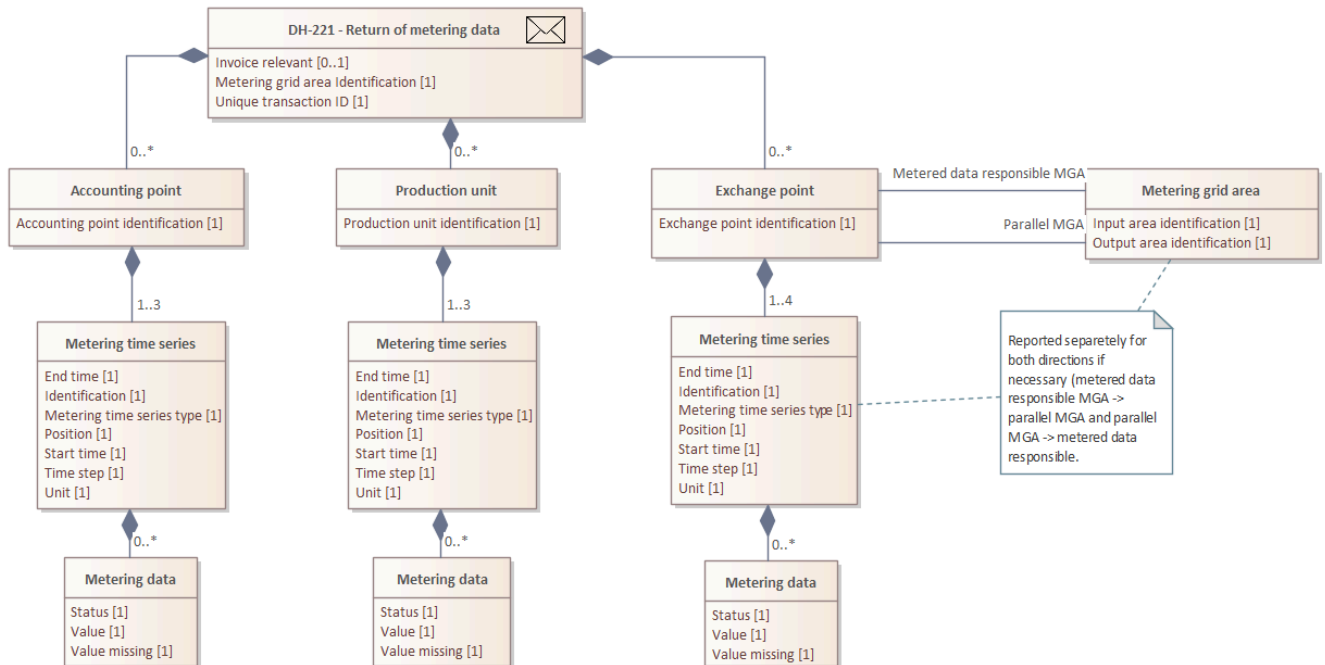
Message DH-221 (metering data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Request period	2	1.1		
Start time	3	1.1		
End time	3	1.1		
Time step	2	0.1		
Invoice relevant	2	0.1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1.1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.
Product	2	0..n		
Product identification	3	1..1		
Unit type	3	1..1		Active and reactive energy meterings may be requested in a specified unit. If no unit is given in the request, the corresponding active or reactive power is not returned. At least one of the units must be given for Datahub to return any data.

## DH-221 Return of metering data (supplier)



Information returned by metering data retrieval

Message DH-221 (return of metering data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0..1		
Request period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last measurement value in the time series – not the start time of the last position.	

Metering type	2	1..1		
Metering time series type	3	1..1	<ul style="list-style-type: none"> <li>• Active energy</li> <li>• Reactive energy output</li> <li>• Reactive energy input</li> <li>• Reactive energy (Exchange points)</li> </ul>	
Unit	3	1..1		
Metering characteristics	2	1..1		
Metering point type	3	1..1	<ul style="list-style-type: none"> <li>• Accounting point</li> <li>• Production Unit</li> <li>• Exchange point</li> </ul>	
Metering point	2	1..1		
Metering point identification	3	1..1		
Area information	2	0..1		
Metering grid area identification	3	1..1		
Input area	2	0..1		
Input area identification	3	1..1		
Output area	2	0..1		
Output area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				

Value	4	0..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-222 Metering data request – DSO

Event description

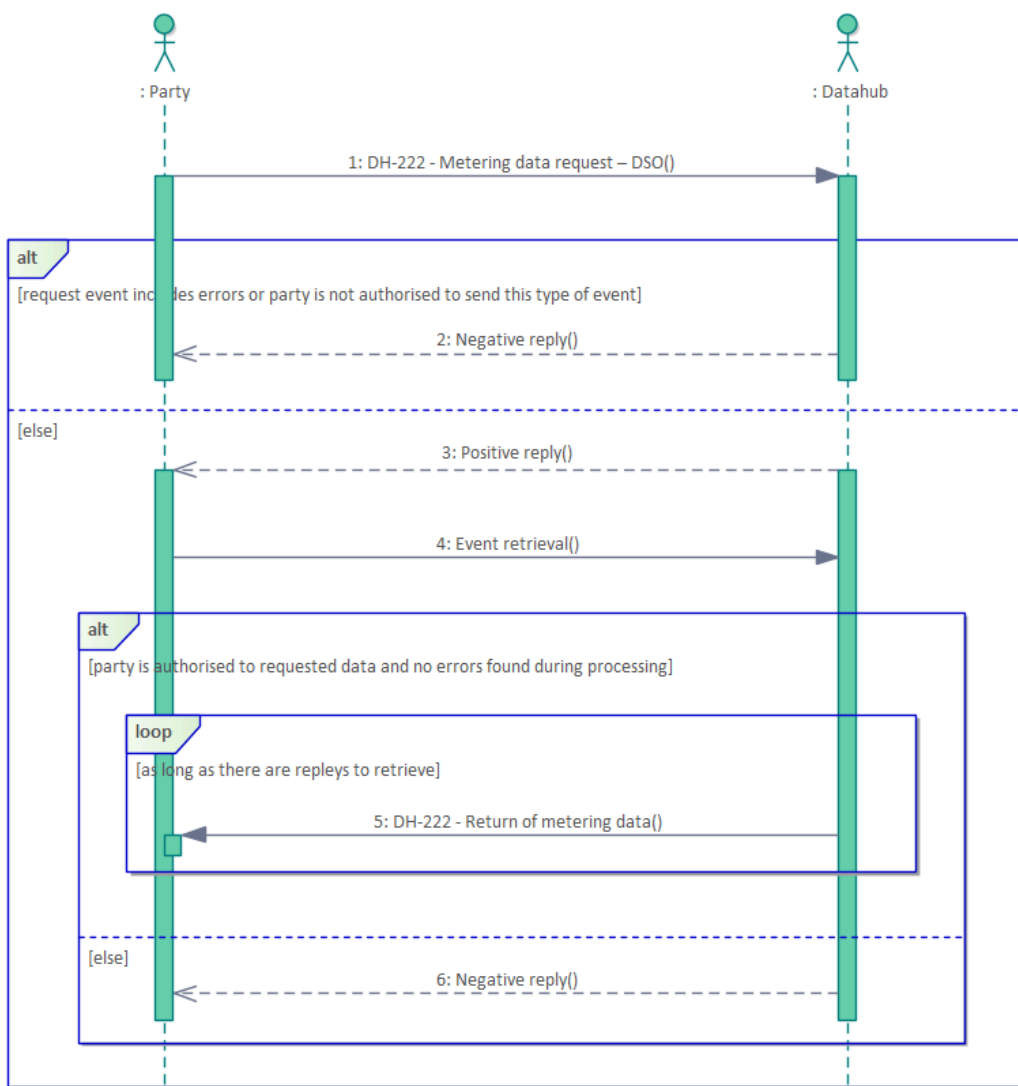
Parties

Important considerations for event handling

Event processing in Datahub

Return of information

Validation rules



Metering data request - DSO

### Event description

A DSO retrieves metering data for which it has [rights](#) from Datahub.

### Parties

- DSO



- Datahub

### Important considerations for event handling

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub


Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the DSO. If the time step is not specified, the request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.

### Return of information

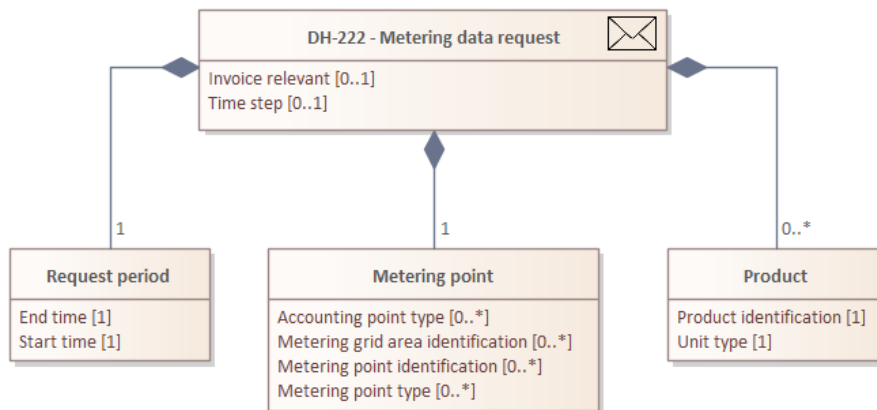
Party	Description	Message
DSO	<p>The metering data for the requested metering points or rejection of the request. Only the metering data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 metering time series and each metering time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-222</a> or <a href="#">ACK</a> (if the search is rejected)

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query unit is an energy unit.	EC-MDM-RMV-001	
The query period is not in the future or more than 6 years in the past.		
<div> Please observe that the list is not complete.</div>		

## DH-222 Metering data request (DSO)



Information to be provided for metering data request

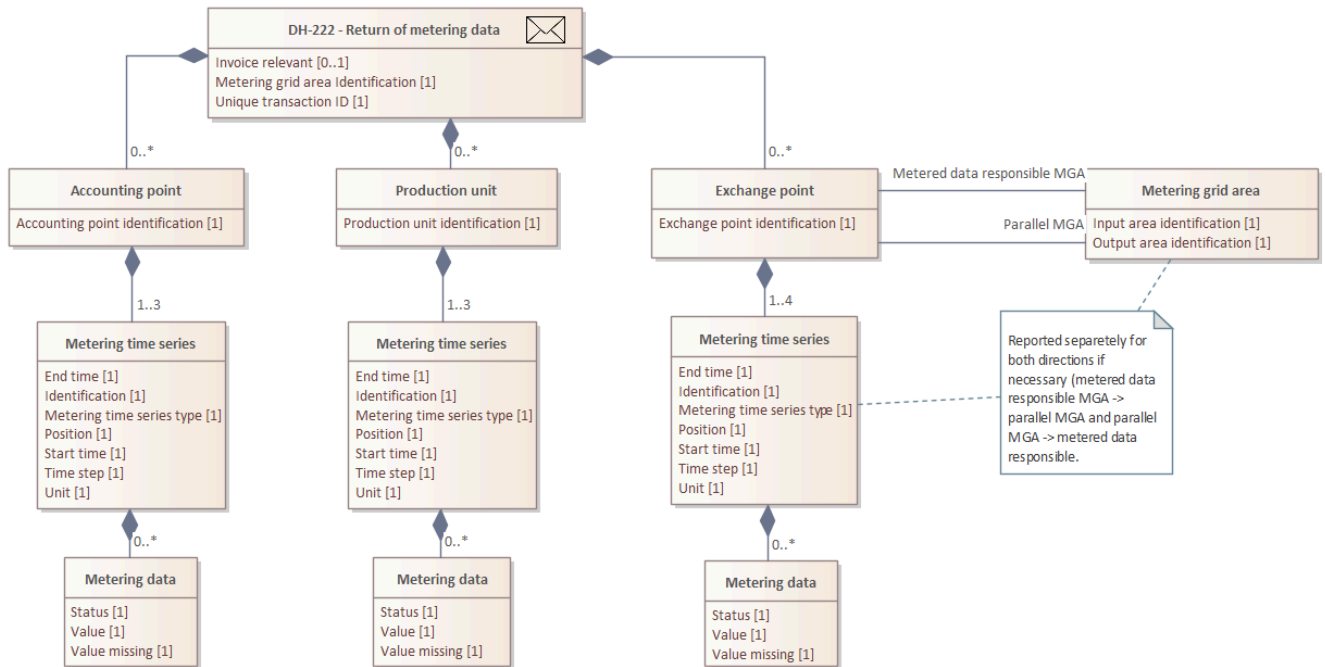
Message DH-222 (metering data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Time step	2	0..1		
Invoice relevant	2	0..1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1..1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.
Product	2	0..n		
Product identification	3	1..1		
Unit type	3	1..1		Active and reactive energy meterings may be retrieved in a specified unit. If no unit is given in the request, the corresponding active or reactive power is not returned. At least one of the units must be given for Datahub to return any data.

## DH-222 Return of metering data (DSO)



Information returned by metering data retrieval

Message DH-222 (return of metering data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0.1		
Request period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last measurement value in the time	

			series – not the start time of the last position.	
Metering type	2	1..1		
Metering time series type	3	1..1	<ul style="list-style-type: none"> <li>• Active energy</li> <li>• Reactive energy output</li> <li>• Reactive energy input</li> <li>• Reactive energy (Exchange points)</li> </ul>	
Unit	3	1..1		
Metering characteristics	2	1..1		
Metering point type	3	1..1	<ul style="list-style-type: none"> <li>• Accounting point</li> <li>• Production Unit</li> <li>• Exchange point</li> </ul>	
Metering point	2	1..1		
Metering point identification	3	1..1		
Area information	2	0..1		
Metering grid area identification	3	1..1		
Input area	2	0..1		
Input area identification	3	1..1		
Output area	2	0..1		
Output area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		

Values	3	1.1		
<choice 1>				
Value	4	0.1		
Status	4	0.1	<ul style="list-style-type: none"> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

## DH-223 Metering data request – third party

Event description

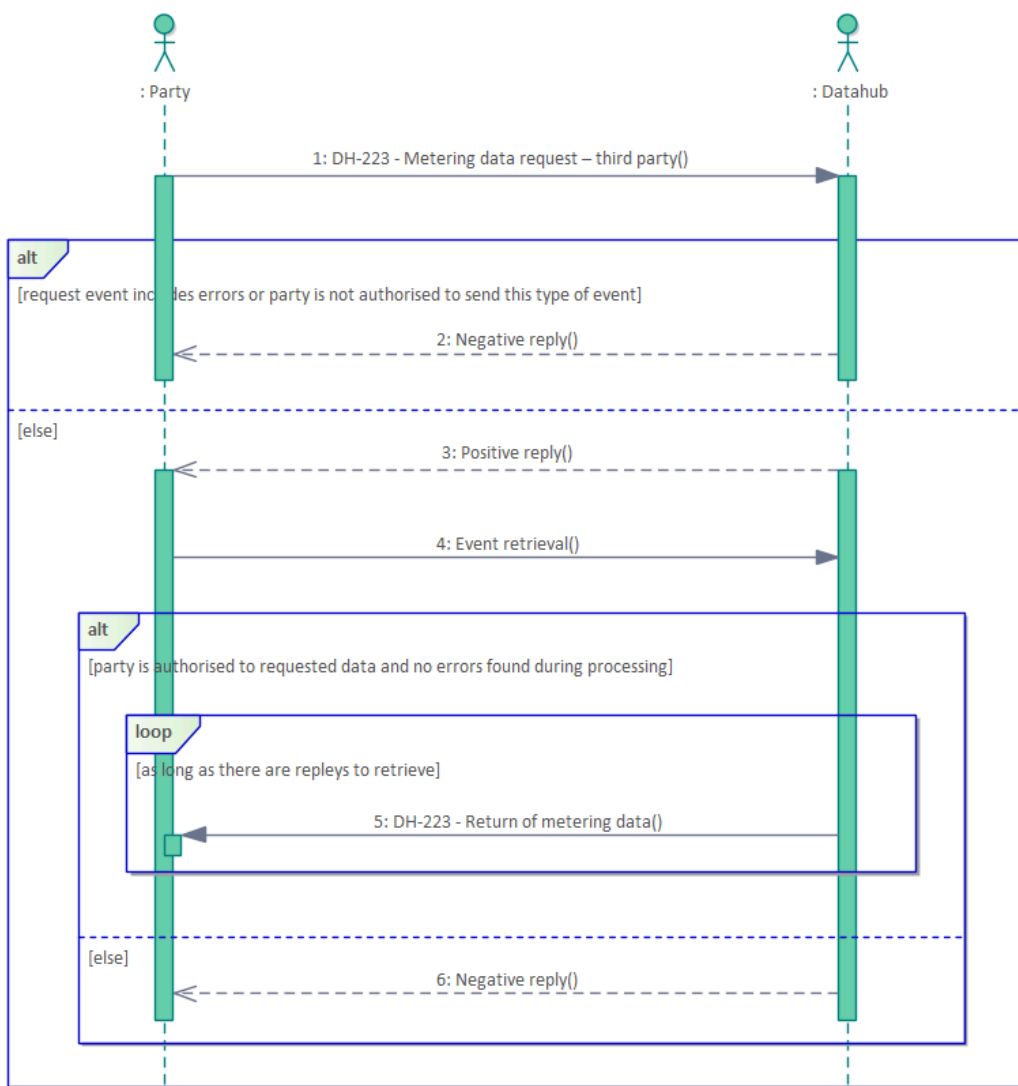
Parties

Important considerations for event handling

Event processing in Datahub

Return of information

Validation rules



Metering data request - third party

### Event description

A third party retrieves metering data for which it has [rights](#) from Datahub.

### Parties

- Third party



- Datahub

### Important considerations for event handling

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub


Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the third party. If the time step is not specified, the request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.

### Return of information

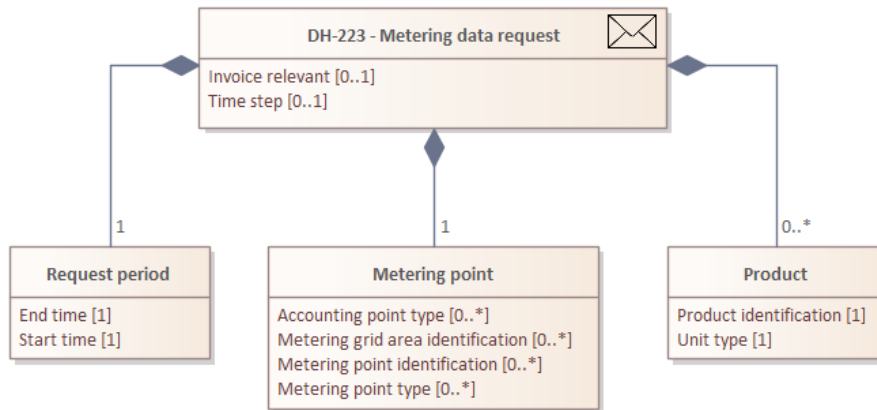
Party	Description	Message
Third party	<p>The metering data for the requested metering points or rejection of the request. Only the metering data for which the party has rights will be returned. Active and/or reactive power is returned based on the units given in the request.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 metering time series and each metering time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-223</a> or <a href="#">ACK</a> (if the request is rejected)

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query unit is an energy unit.	EC-MDM-RMV-001	
The query period is not in the future or more than 6 years in the past.		
<div> Please observe that the list is not complete.</div>		

## DH-223 Metering data request (third party)



Information to be provided for metering data request

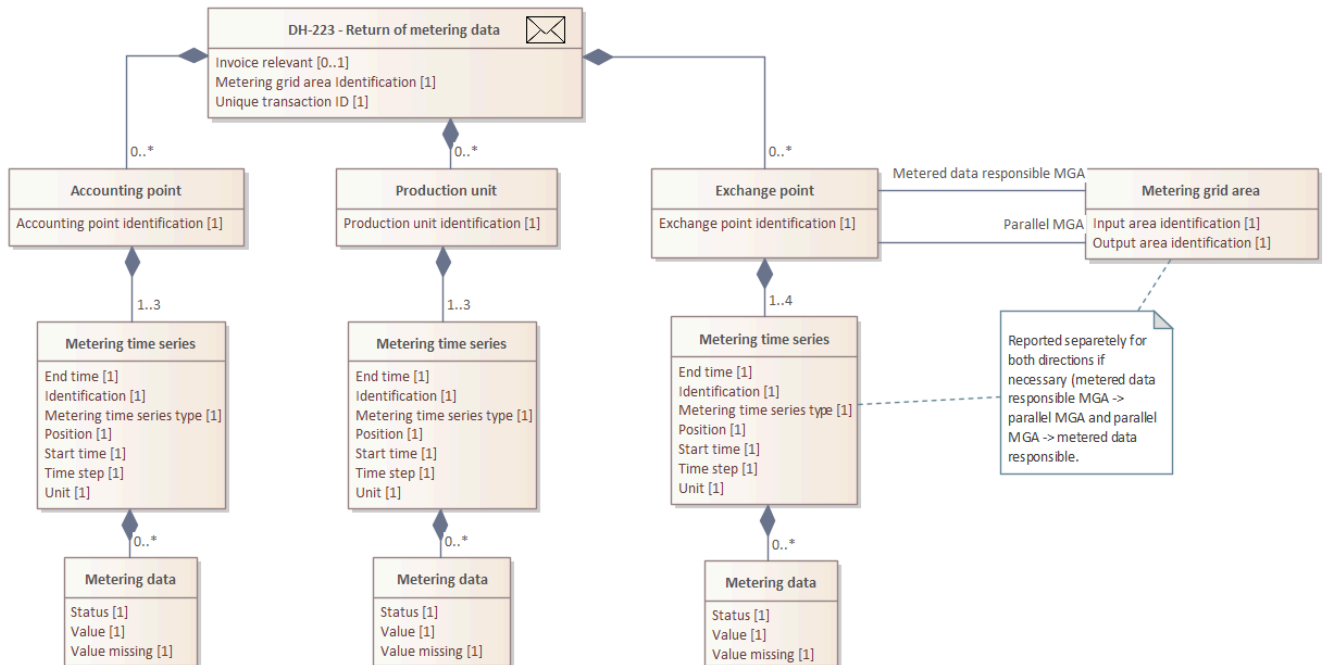
Message DH-223 (metering data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Request period	2	1.1		
Start time	3	1.1		
End time	3	1.1		
Time step	2	0.1		
Invoice relevant	2	0.1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1.1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.
Product	2	0..n		
Product identification	3	1..1		
Unit type	3	1..1		Active and reactive energy meterings may be requested in a specified unit. If no unit is given in the request, the corresponding active or reactive power is not returned. At least one of the units must be given for Datahub to return any data.

## DH-223 Return of metering data (third party)



Information returned by metering data retrieval

Message DH-223 (return of metering data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0..1		
Request period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last measurement value in the time	

			series – not the start time of the last position.	
Metering type	2	1.1		
Metering time series type	3	1.1	<ul style="list-style-type: none"> <li>• Active energy</li> <li>• Reactive energy output</li> <li>• Reactive energy input</li> <li>• Reactive energy (Exchange points)</li> </ul>	
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	<ul style="list-style-type: none"> <li>• Accounting point</li> <li>• Production Unit</li> <li>• Exchange point</li> </ul>	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	0.1		
Metering grid area identification	3	1.1		
Input area	2	0.1		
Input area identification	3	1.1		
Output area	2	0.1		
Output area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		

Values	3	1..1		
<choice 1>				
Value	4	0..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-231 Forwarding netting calculation data report

[Event description](#)

[Parties](#)

[Forwarding of information](#)

### Event description

Datahub performs a [netting calculation](#) based on [metering data](#) reported by the distribution system operator, once all the metering data required for the calculation has been submitted to Datahub. The results of the calculation are then forwarded to the DSO, as well as to suppliers and third parties who [have the rights](#) to the information.

### Parties

- Datahub
- DSO
- Supplier
- Third party

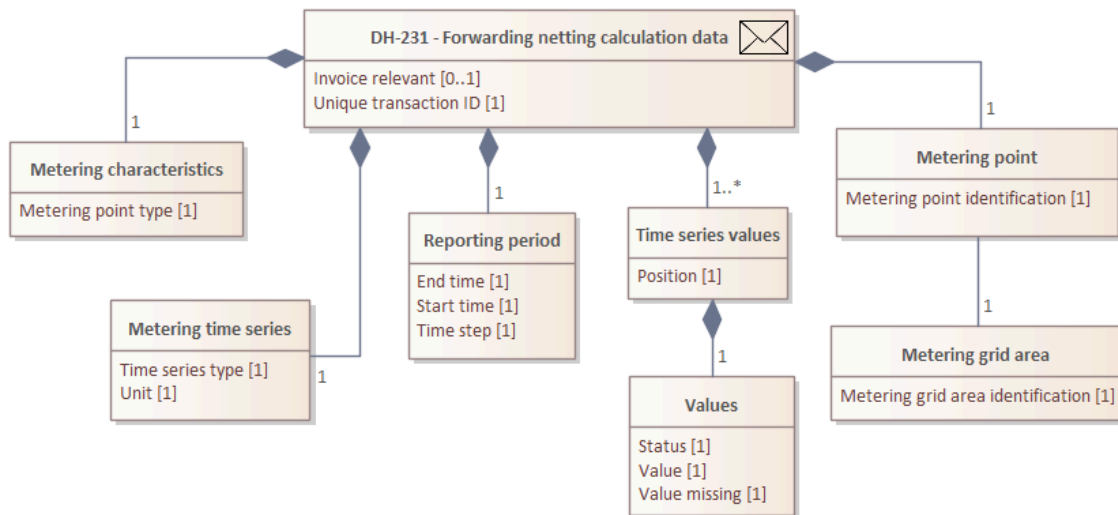
### Forwarding of information

Party	Specification	Description	Message
DSO	The results of the netting calculation are forwarded to the DSO responsible for the accounting point.	The results of the calculation are forwarded in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of calculated data, there may be one or several messages to be forwarded.  If the DSO reports the metering data for a time interval within which the 'invoice relevant' information changes, Datahub splits the forwarded message into two transactions covering the periods before and after the time of the change.	<a href="#">DH-231</a>
Supplier	The results of the netting calculation are forwarded to suppliers who have rights to the calculation results of the accounting point. Corrected time series related to this agreement period are not forwarded to the supplier if the supplier's agreement ended more than six		



	weeks prior to the time of data forwarding.		
Third party	The results of the netting calculation are forwarded to third parties who have rights to the results.		

## DH-231 Forwarding netting calculation data



Information forwarded of netting calculation data

Message DH-231 is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0.1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		

Metering time series type	3	1..1	Active energy	
Unit	3	1..1		
Metering characteristics	2	1..1		
Metering point type	3	1..1	Accounting point	
Metering point	2	1..1		
Metering point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				
Value	4	1..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-240 Netting calculation data request

- [DH-240 Process maps](#)
- [DH-240 Examples](#)
- [DH-241 Netting calculation data request – supplier](#)
- [DH-242 Netting calculation data request – DSO](#)
- [DH-243 Netting calculation data request – third party](#)

# DH-240 Process maps

No content yet.

## DH-240 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-241 Netting calculation data request – supplier

Event description

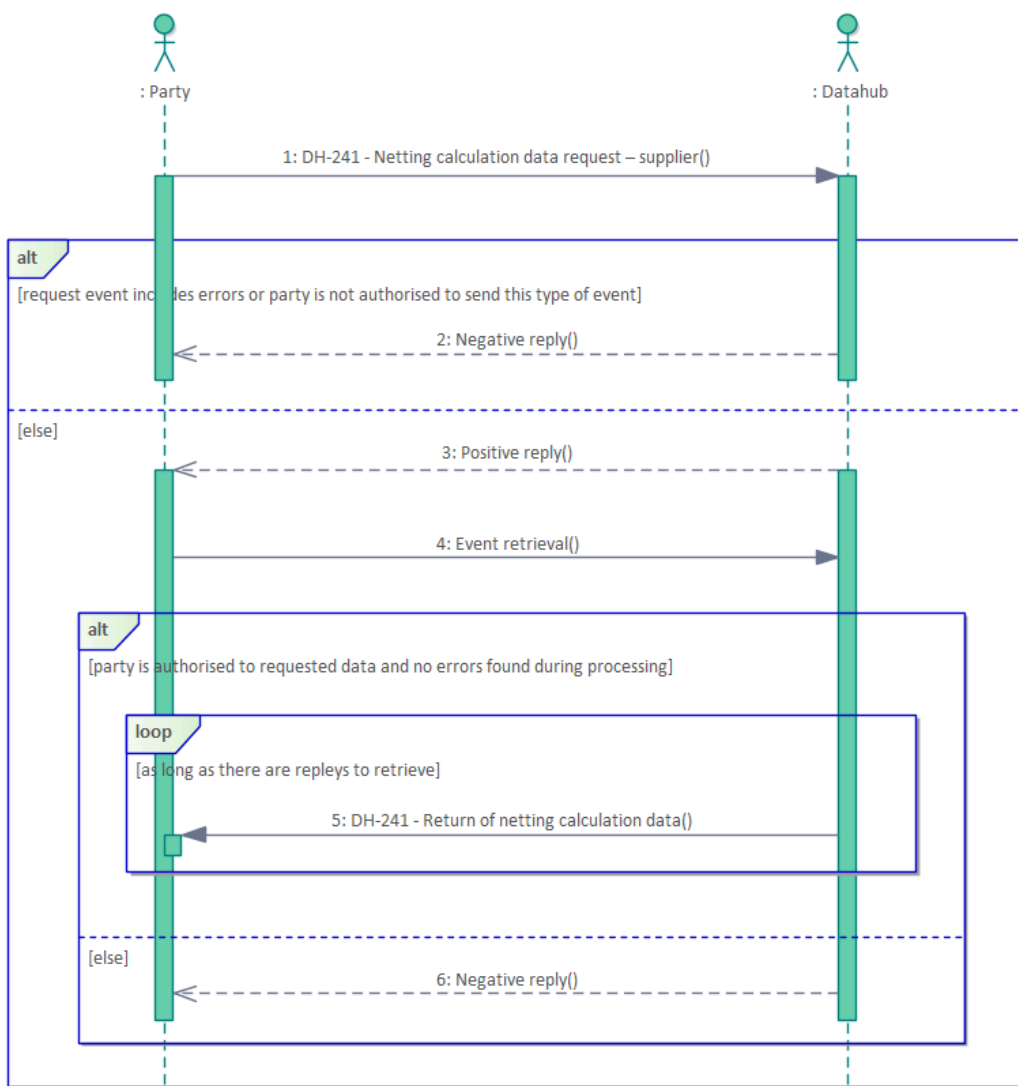
Parties

Considerations in the handling of the event

Event processing in Datahub

Return of information

Validation rules



Netting calculation data request – supplier

### Event description

A supplier retrieves netted data for which it has [rights](#) from Datahub.

### Parties

- Supplier

- Datahub

### Considerations in the handling of the event

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub

Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the supplier. If the time step is not specified, the request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Netted data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and netted data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.


### Return of information

Party	Description	Message
Supplier	<p>The netted data for the requested accounting points or rejection of the request. Only the netted data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-241</a> or <a href="#">ACK</a> (if the request is rejected)

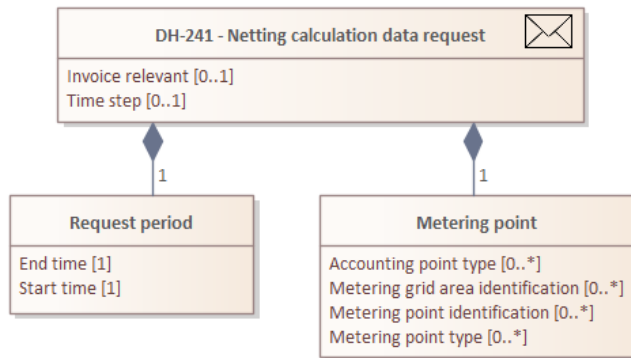
### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.



Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query period is not in the future or more than 6 years in the past.		
<div>  Please observe that the list is not complete. </div>		

## DH-241 Netting calculation data request (supplier)



Details of netting calculation data request

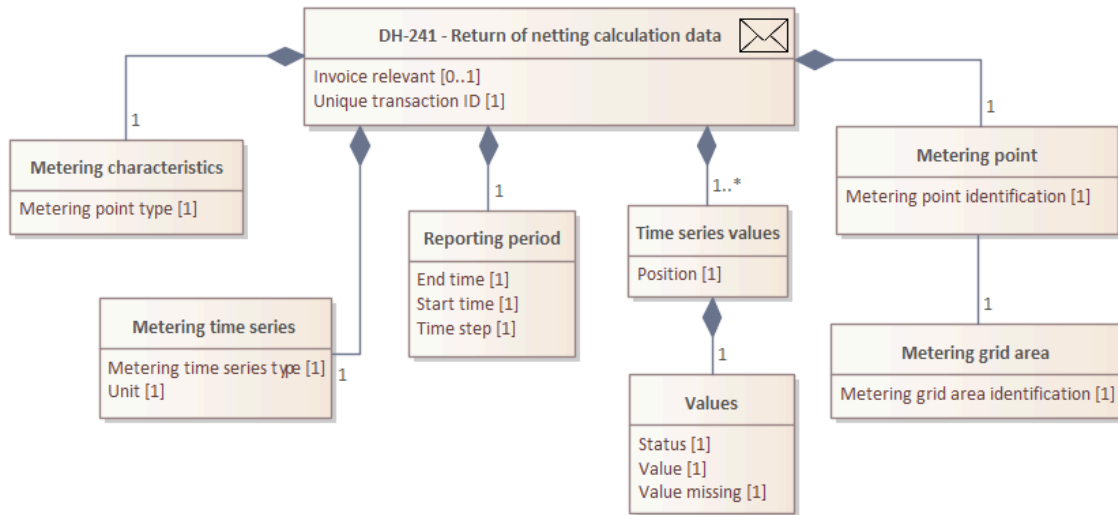
Message DH-241 (netting calculation data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Neces sity	Field content	Note
Payload	1	1..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Time step	2	0..1		
Invoice relevant	2	0..1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1..1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.

## DH-241 Return of netting calculation data (supplier)



Details of the return of netting calculation data

Message DH-241 (return of netting calculation data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0..1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		

Metering time series type	3	1.1	Active energy	
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	Accounting point	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	1.1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

## DH-242 Netting calculation data request – DSO

Event description

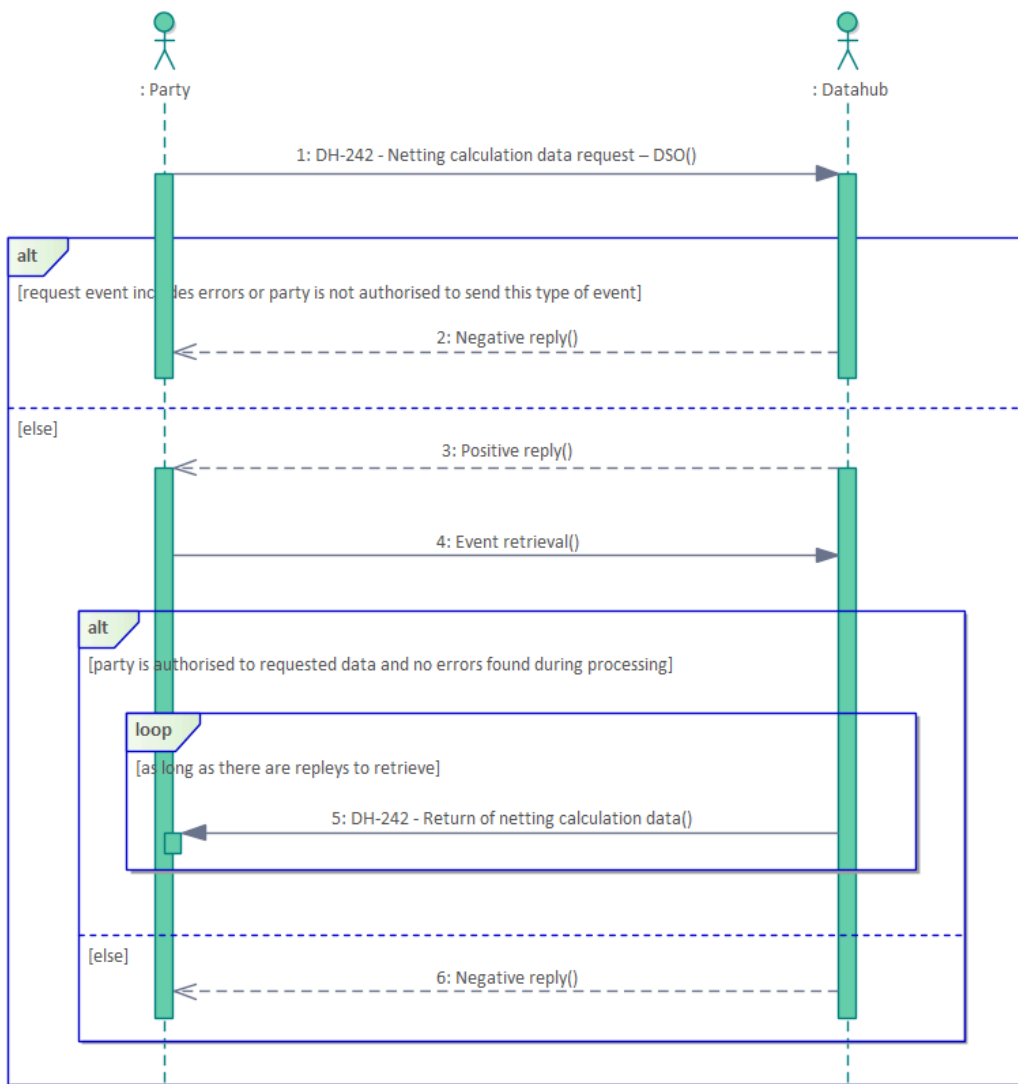
Parties

Considerations in the handling of the event

Event processing in Datahub

Return of information

Validation rules



Netting calculation data request - DSO

### Event description

A DSO retrieves netted data for which it has [rights](#) from Datahub.

### Parties

- DSO

- Datahub

### Considerations in the handling of the event

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub


Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the DSO. If the time step is not specified, request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.

### Return of information

Party	Description	Message
DSO	<p>The netted data for the retrieved accounting points or rejection of retrieval. Only the netted data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-242</a> or <a href="#">ACK</a> (if the request is rejected)

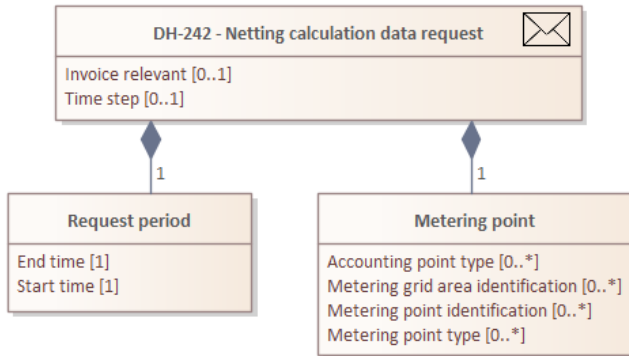
### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query period is not in the future or more than 6 years in the past.		
<div>  Please observe that the list is not complete. </div>		



## DH-242 Netting calculation data request (DSO)



Details of netting calculation data request

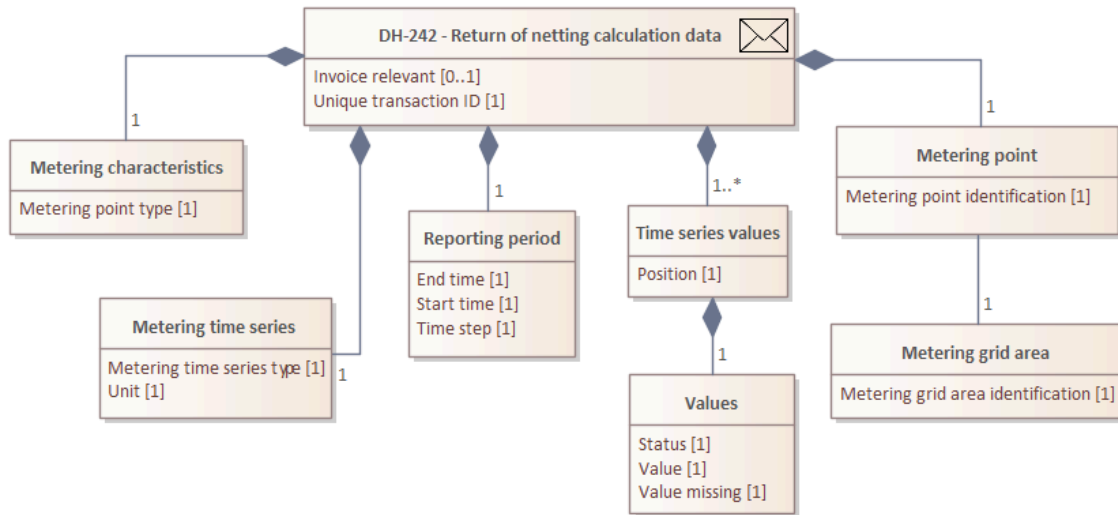
Message DH-242 (netting calculation data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Time step	2	0..1		
Invoice relevant	2	0..1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1..1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.

## DH-242 Return of netting calculation data (DSO)



Details of the return of netting calculation data

Message DH-242 (return of netting calculation data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0..1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		

Metering time series type	3	1.1	Active energy	
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	Accounting point	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	1.1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

## DH-243 Netting calculation data request – third party

Event description

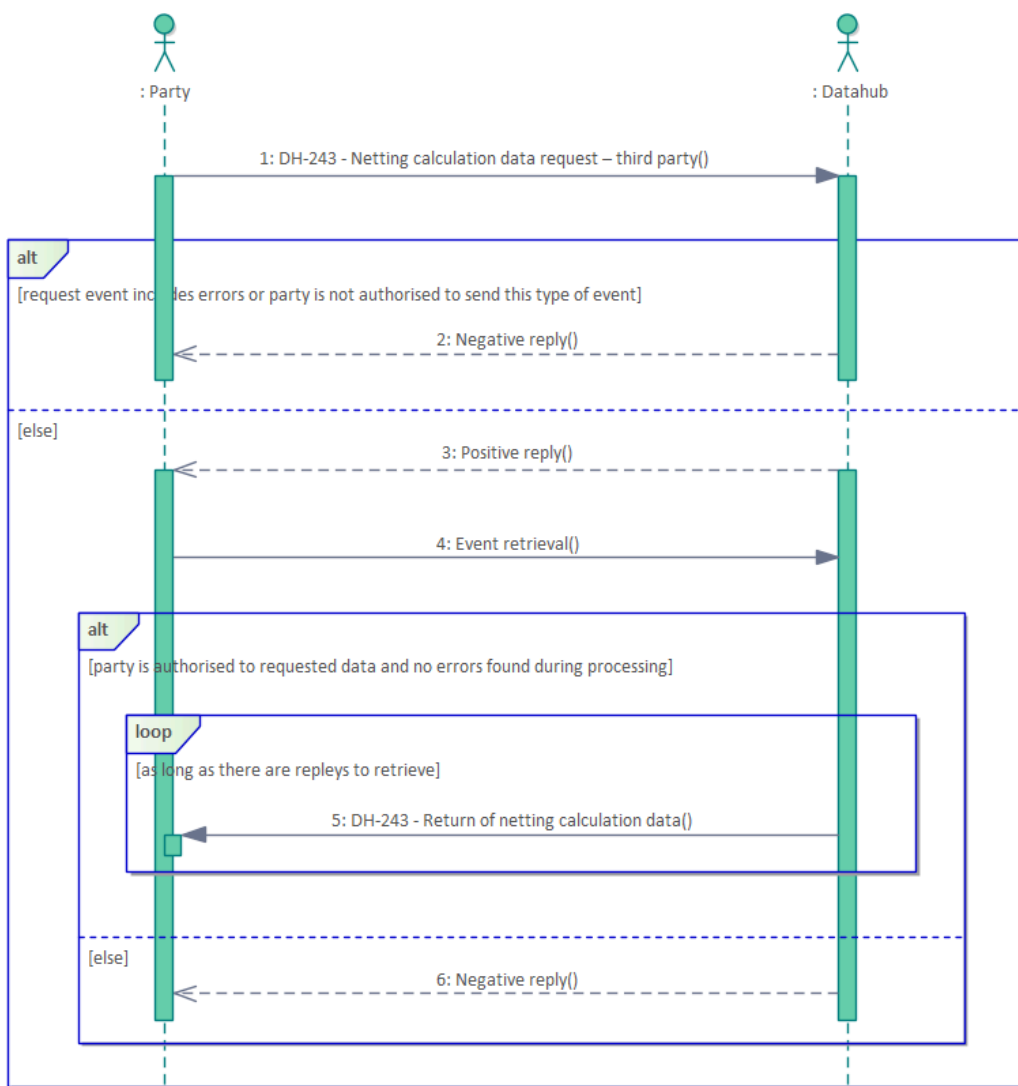
Parties

Considerations in the handling of the event

Event processing in Datahub

Return of information

Validation rules



Netting calculation data request - third party

### Event description

A third party retrieves netted data for which it has [rights](#) from Datahub.

### Parties

- Third party

- Datahub

### Considerations in the handling of the event

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub


Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the third party. If the time step is not specified, request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.

### Return of information

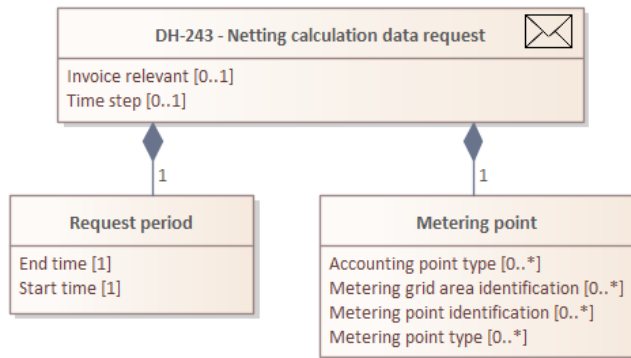
Party	Description	Message
Third party	<p>The netted data for the retrieved accounting points or rejection of retrieval. Only the netted data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 metering time series and each metering time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-243</a> or <a href="#">ACK</a> (if the request is rejected)

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query period is not in the future or more than 6 years in the past.		
<div> Please observe that the list is not complete.</div>		

## DH-243 Netting calculation data request (third party)



Details of netting calculation data request

Message DH-243 (netting calculation data request) is of message type [F08](#).

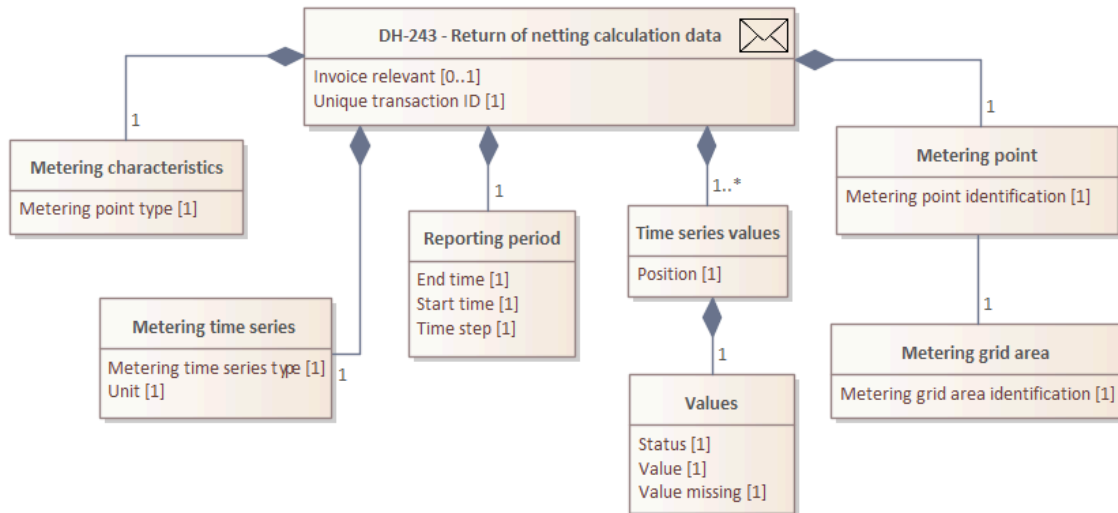
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Time step	2	0..1		
Invoice relevant	2	0..1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1..1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).



Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.

## DH-243 Return of netting calculation data (third party)



Details of the return of netting calculation data

Message DH-243 (return of netting calculation data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0..1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		

Metering time series type	3	1.1	Active energy	
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	Accounting point	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	1.1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

## DH-251 Forwarding energy community calculation data report

[Event description](#)

[Parties](#)

[Relaying of information](#)

### Event description

Datahub performs the [energy community calculation](#) based on the [metering data](#) reported by the distribution system operator, once all the metering data required for the calculation has been submitted to Datahub. The results of the calculation are then forwarded to the DSO, as well as to suppliers and third parties who [have the rights](#) to the information.

### Parties

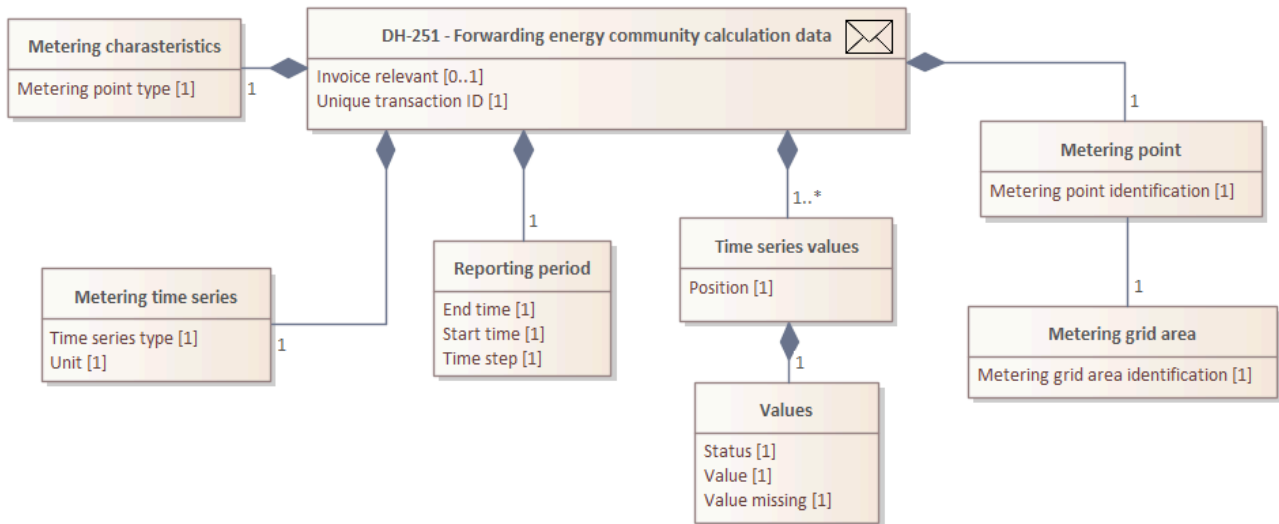
- Datahub
- DSO
- Supplier
- Third party

### Relaying of information

Party	Specification	Description	Message
DSO	The results of the community calculation are forwarded to the DSO responsible for the accounting point.	The results of the calculation are forwarded in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of calculated data, there may be one or several messages to be forwarded.	<a href="#">DH-251</a>
Supplier	The results of the community calculation are forwarded to suppliers who have rights to the calculation results of the accounting point. Corrected time series related to this contract period are not forwarded to the supplier if the supplier's agreement ended more than six weeks prior to the time of data transmission.		

Third party	The results of the community calculation are forwarded to third parties who have rights to the results.		
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## DH-251 Forwarding energy community calculation data



Details of forwarding energy community calculation data

Message DH-251 is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1..1		
Invoice relevant	2	0..1		
Reporting period	2	1..1		
Time step	3	1..1		
Start time	3	1..1		
End time	3	1..1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1..1		

Metering time series type	3	1..1	Active energy	
Unit	3	1..1		
Metering characteristics	2	1..1		
Metering point type	3	1..1	Accounting point	
Metering point	2	1..1		
Metering point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				
Value	4	1..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-260 Energy community calculation data request

- [DH-260 Process maps](#)
- [DH-260 Examples](#)
- [DH-261 Energy community calculation data request – supplier](#)
- [DH-262 Energy community calculation data request – DSO](#)
- [DH-263 Energy community calculation data request – third party](#)



DH-260 Process maps

No content yet.

## DH-260 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-261 Energy community calculation data request – supplier

Event description

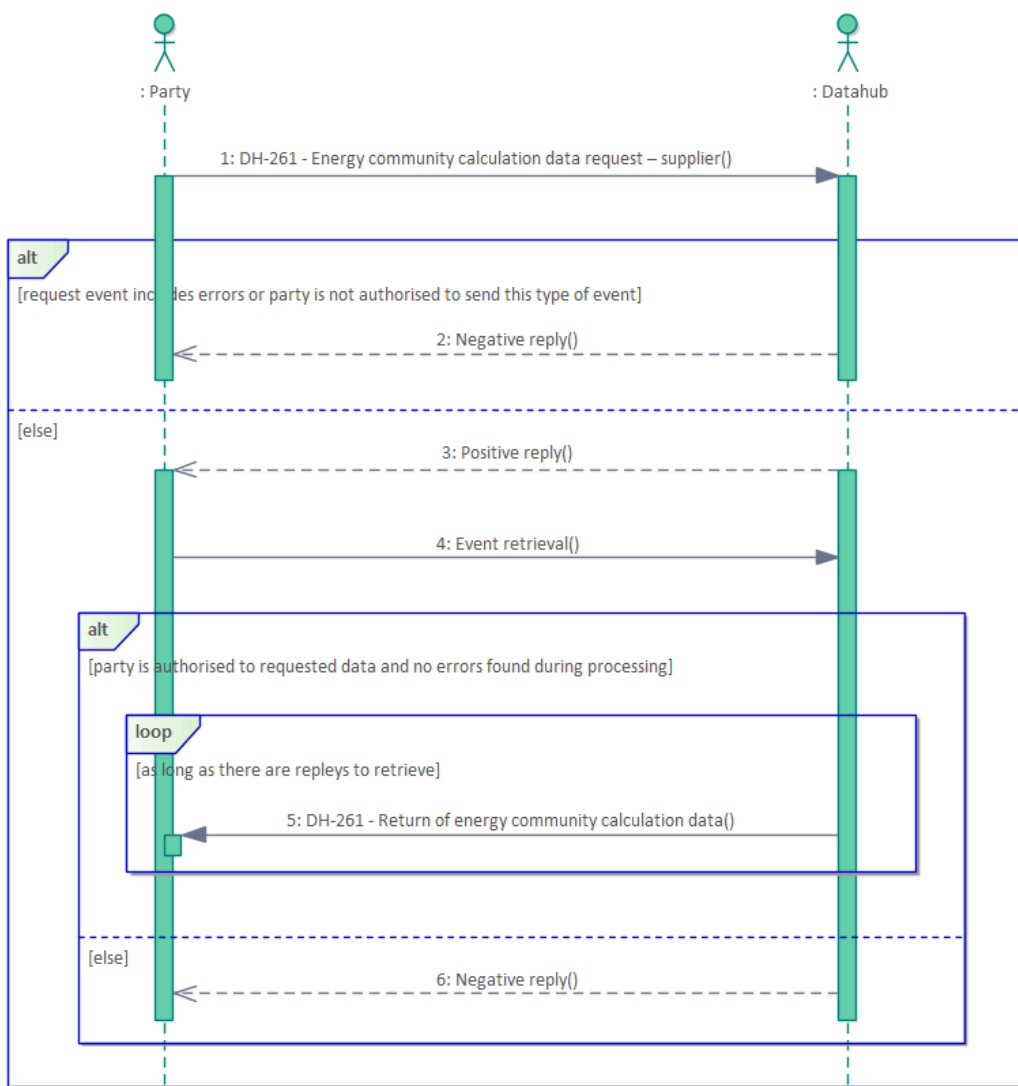
Parties

Considerations in the handling of the event

Event processing in Datahub

Return of information

Validation rules



Energy community calculation data request – supplier

### Event description

A supplier requests energy community data for which it has [rights](#) from Datahub.

### Parties

- Supplier

- Datahub

### Considerations in the handling of the event

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub


Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the supplier. If the time step is not specified, request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.

### Return of information

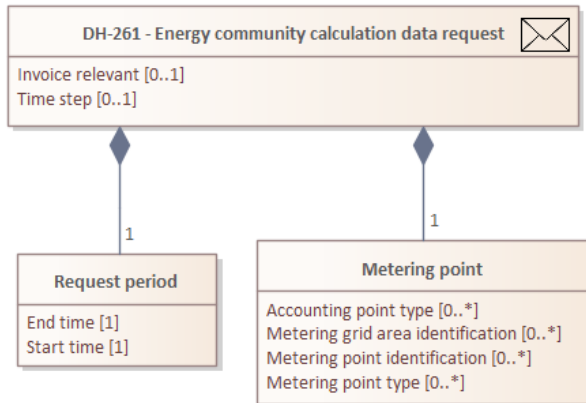
Party	Description	Message
Supplier	<p>The community calculation data for the requested accounting points or rejection of request. Only the community calculation data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-261</a> or <a href="#">ACK</a> (if the request is rejected)

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query period is not in the future or more than 6 years in the past.		
<div> Please observe that the list is not complete.</div>		

## DH-261 Energy community calculation data request (supplier)



Details of energy community calculation data request

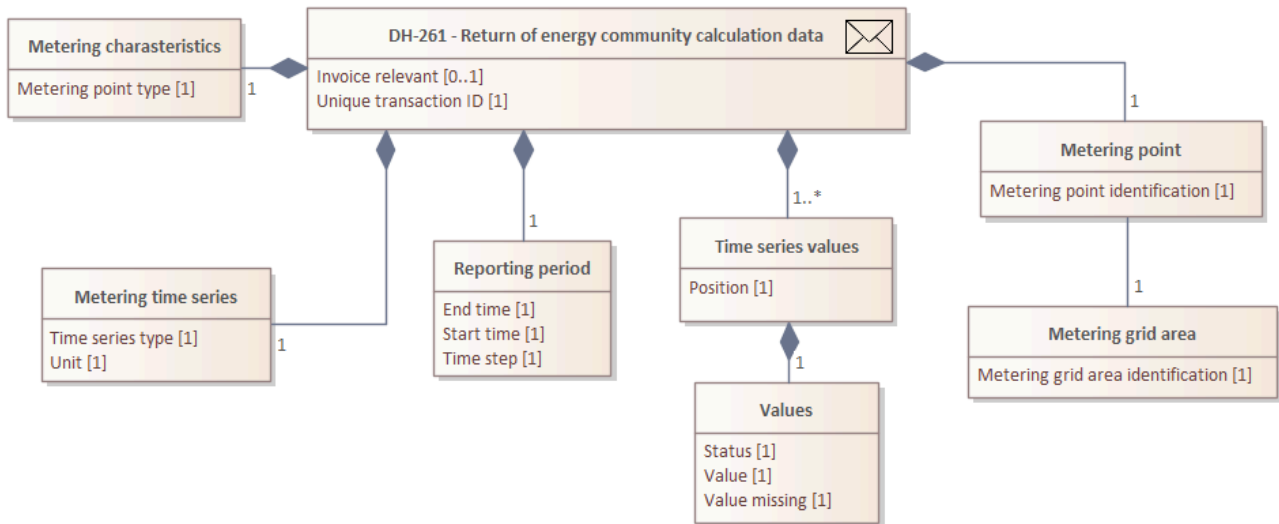
Message DH-261 (energy community calculation data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Request period	2	1.1		
Start time	3	1.1		
End time	3	1.1		
Time step	2	0.1		
Invoice relevant	2	0.1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1.1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.

## DH-261 Return of energy community calculation data (supplier)



Details of the return of energy community calculation data

Message DH-261 (return of energy community calculation data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1..1		
Invoice relevant	2	0..1		
Reporting period	2	1..1		
Time step	3	1..1		
Start time	3	1..1		
End time	3	1..1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1..1		



Metering time series type	3	1..1	Active energy	
Unit	3	1..1		
Metering characteristics	2	1..1		
Metering point type	3	1..1	Accounting point	
Metering point	2	1..1		
Metering point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				
Value	4	1..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-262 Energy community calculation data request – DSO

Event description

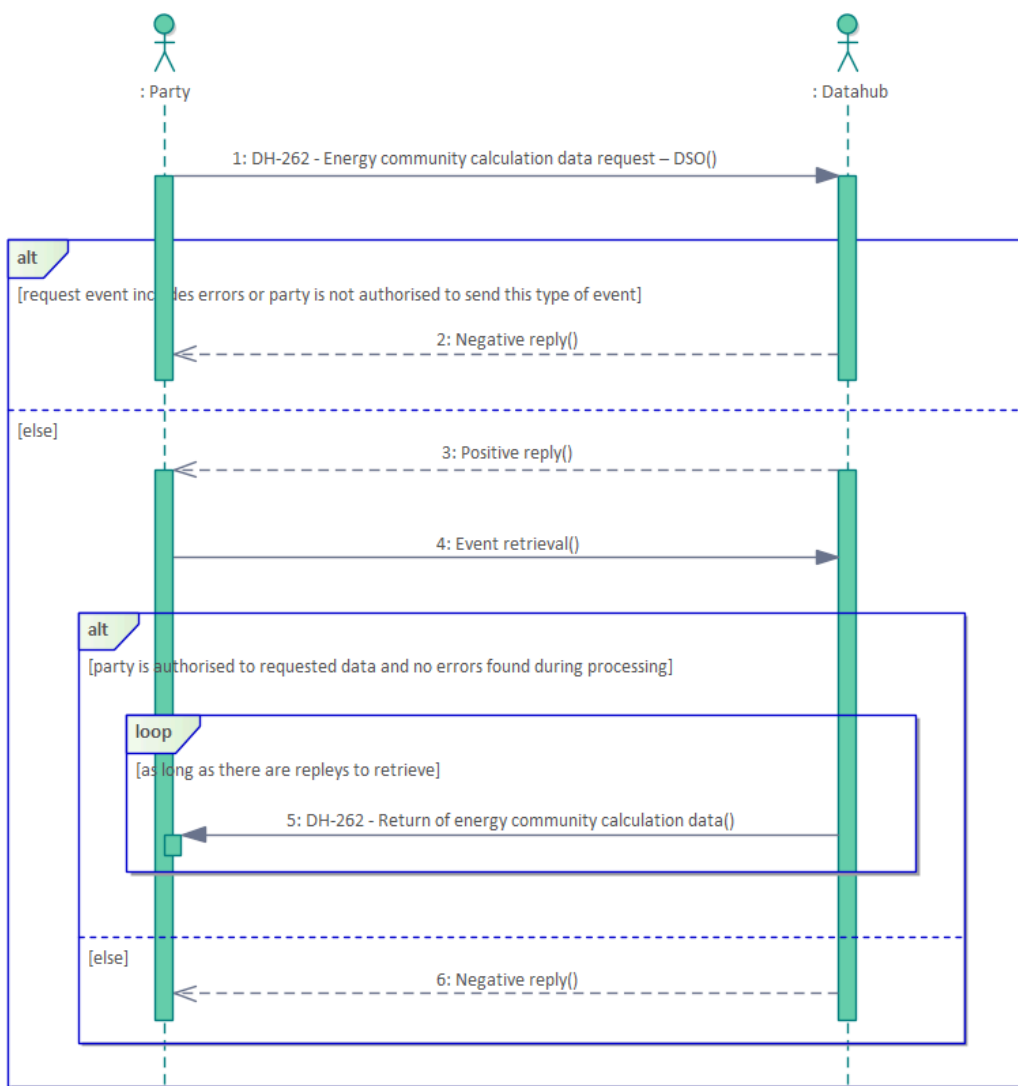
Parties

Considerations in the handling of the event

Event processing in Datahub

Return of information

Validation rules



Energy community calculation data request – DSO

### Event description

A DSO retrieves energy community data for which it has [rights](#) from Datahub.

### Parties

- DSO

- Datahub

### Considerations in the handling of the event

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub


Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the DSO. If the time step is not specified, request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.

### Return of information

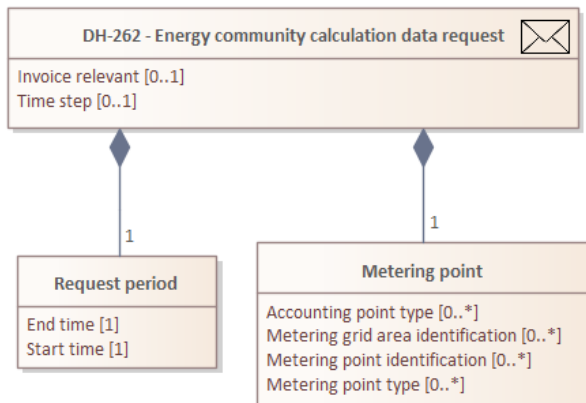
Party	Description	Message
DSO	<p>The community calculation data for the requested accounting points or rejection of request. Only the community calculation data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-262</a> or <a href="#">ACK</a> (if the request is rejected)

### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query period is not in the future or more than 6 years in the past.		
<div>  Please observe that the list is not complete. </div>		

## DH-262 Energy community calculation data request (DSO)



Details of energy community calculation data request

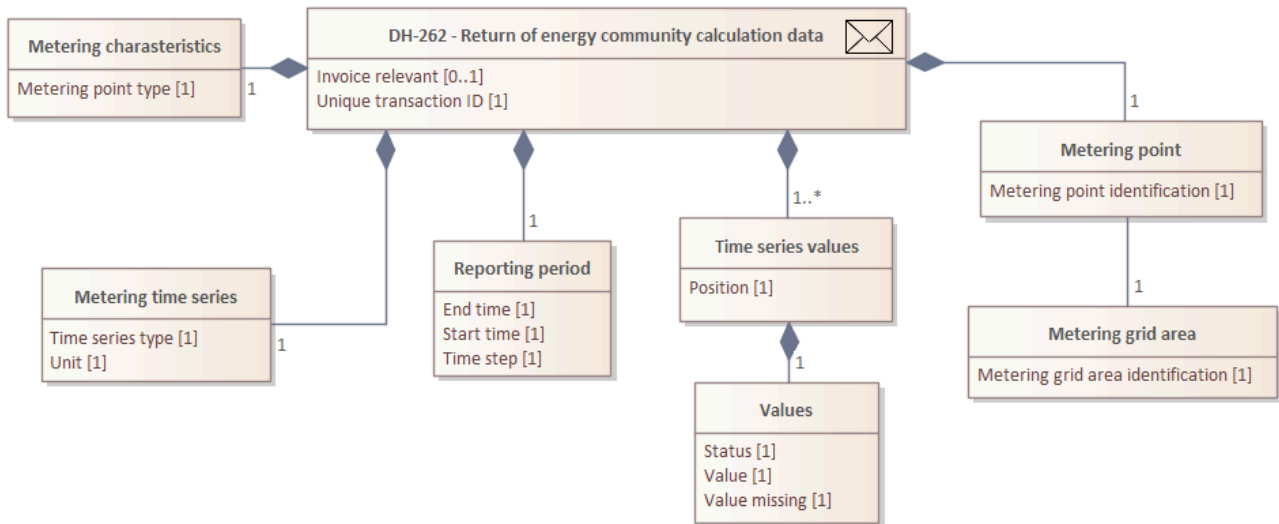
Message DH-262 (energy community calculation data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Time step	2	0..1		
Invoice relevant	2	0..1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1..1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.

## DH-262 Return of energy community calculation data (DSO)



Details of the return of energy community calculation data

Message DH-262 (return of energy community calculation data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Invoice relevant	2	0..1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1.1		

Metering time series type	3	1.1	Active energy	
Unit	3	1.1		
Metering characteristics	2	1.1		
Metering point type	3	1.1	Accounting point	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	1.1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				



## DH-263 Energy community calculation data request – third party

Event description

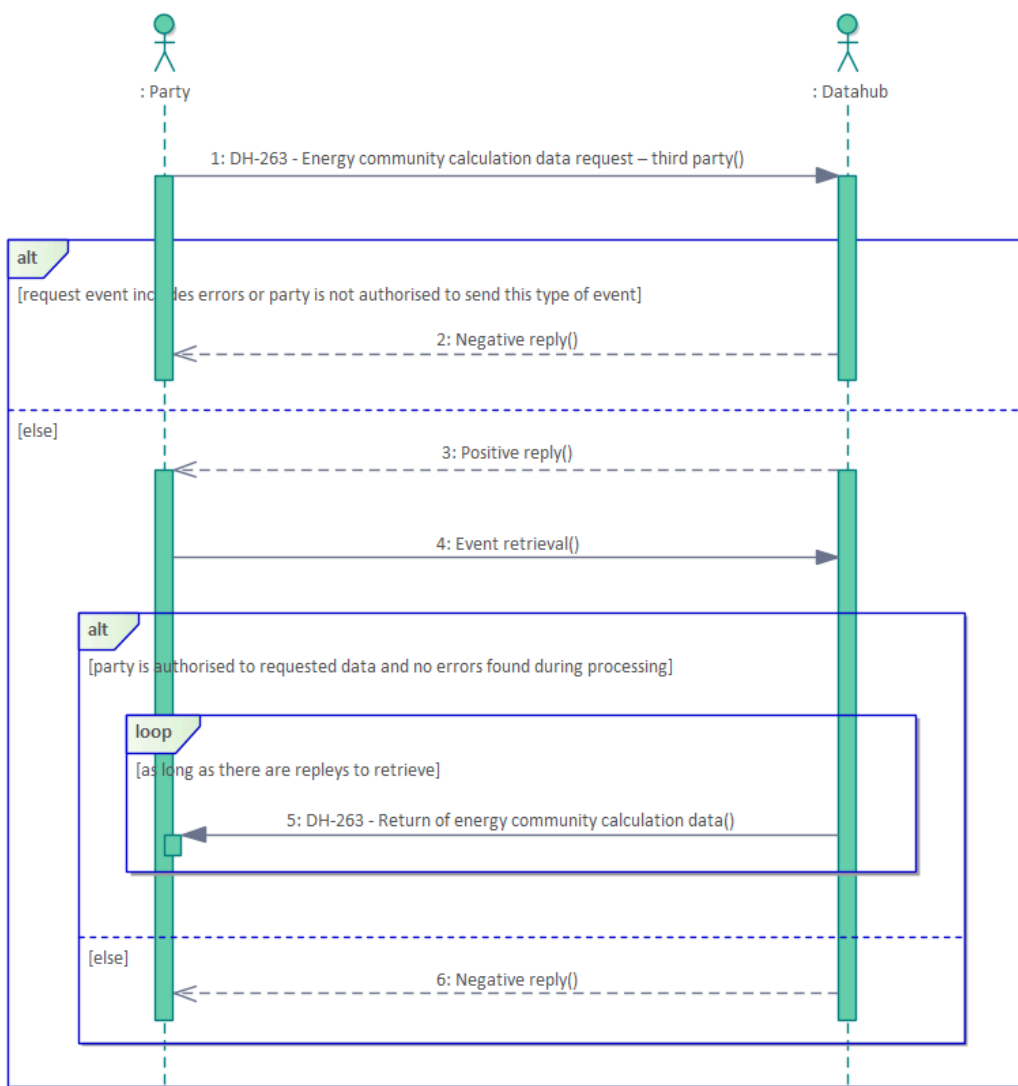
Parties

Important considerations for event handling

Event processing in Datahub

Return of information

Validation rules



Energy community calculation data request – third party

### Event description

A third party requests energy community data for which it has [rights](#) from Datahub.

### Parties

- Third party

- Datahub

### Important considerations for event handling

- If metering data is requested at a higher resolution than the resolution stored in Datahub, the status of the value is set to the weakest status within the time step.
- If time series are requested as sum values and output values have one or more (not all) values with status 'missing', the sum value will have status 'partially missing'.

### Event processing in Datahub

Step	Description
Unit and/or time step conversion	Modification of a unit and/or time step from an internal Datahub unit to a unit and time step requested by the third party. If the time step is not specified, request will return time series in the time step that it is stored in Datahub.
Asynchronous data retrieval	Metering data retrieval is implemented asynchronously due to the large amount of data. Datahub prioritizes synchronous calls over the request, and metering data retrieval is processed in the background. The duration of processing depends on the amount of data retrieved. At the end of processing, the response message is returned asynchronously to the party's message queue.


### Return of information

Party	Description	Message
Third party	<p>The community calculation data for the requested accounting points or rejection of request. Only the community calculation data for which the party has rights will be returned.</p> <p>The results of the request are returned in messages of which each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-263</a> or <a href="#">ACK</a> (if the request is rejected)

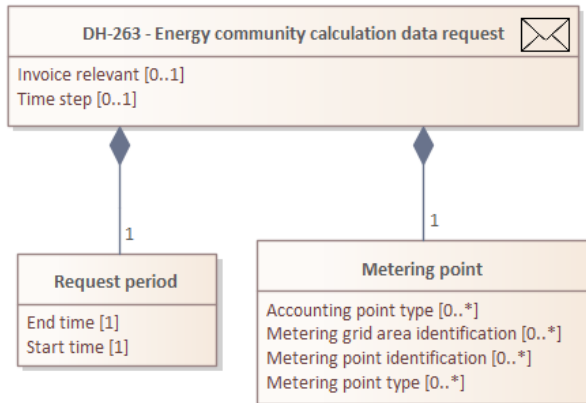
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
When all metering points are part of the query, the query period is at most 7 days.	EC-MDM-RMV-201	
The query period is not in the future or more than 6 years in the past.		

 Please observe that the list is not complete.

## DH-263 Energy community calculation data request (third party)



Details of energy community calculation data request

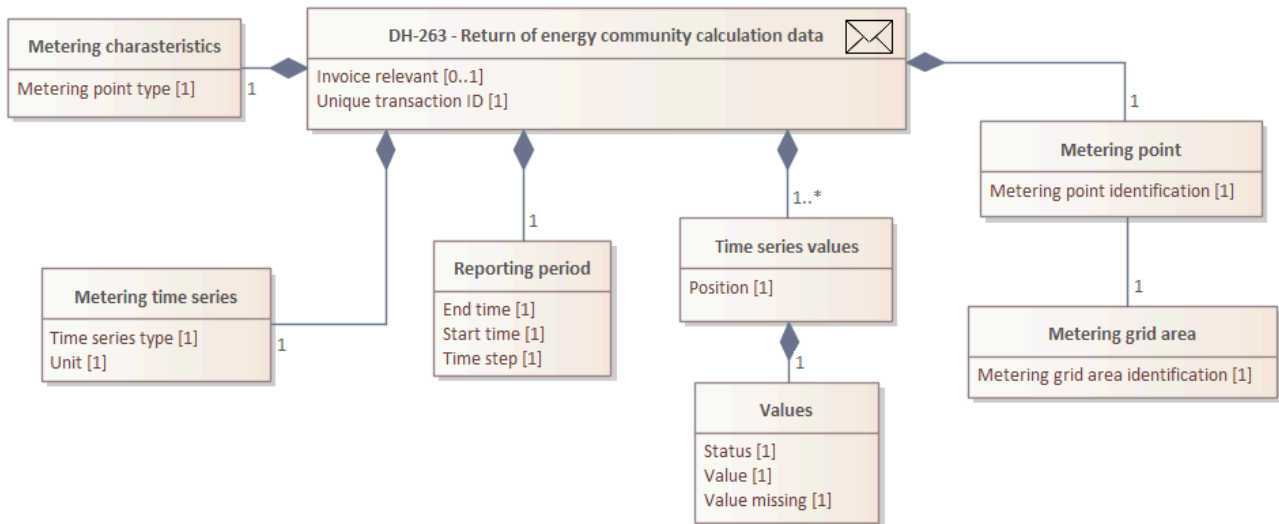
Message DH-263 (energy community calculation data request) is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Neces sity	Field content	Note
Payload	1	1..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Time step	2	0..1		
Invoice relevant	2	0..1		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).
Metering point	2	1..1		
Metering point type	3	0..n		If the 'Invoice relevant' element is used in the request, the request must include the 'Metering point type' element with the value 'F01' (accounting point).

Accounting point type	3	0..n		If no type is given, both consumption and production accounting points' data is returned.
Metering point identification	3	0..n		<p>Either all metering points based on metering grid area or an individual metering point can be requested.</p> <p>If the request is carried out for individual metering points, the recommended maximum number of metering points in one search is 1000.</p>
Metering grid area identification	3	0..n		Either all metering points based on metering grid area or an individual metering point can be requested.

## DH-263 Return of energy community calculation data request (third party)



Details of the return of energy community calculation data

Message DH-263 (return of energy community calculation data) is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1..1		
Invoice relevant	2	0..1		
Reporting period	2	1..1		
Time step	3	1..1		
Start time	3	1..1		
End time	3	1..1	End time of the last interval reported, not the start time of the last interval.	
Metering type	2	1..1		

Metering time series type	3	1..1	Active energy	
Unit	3	1..1		
Metering characteristics	2	1..1		
Metering point type	3	1..1	Accounting point	
Metering point	2	1..1		
Metering point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				
Value	4	1..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Partially missing</li> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## Energy community calculations

[Surplus method SMA](#)

[Surplus method SMB](#)

Energy community calculation calculates the so-called community energy within a 15-minute time step for consumption and production accounting points that belong to the community. Community energy means consumption or production that has been deduced or added a share of the community's production, depending on whether it is a consumption or production accounting point. There are two surplus methods for energy communities: [SMA](#) or [SMB](#).

Datahub performs an energy community calculation in connection with the DSO's [metering data message](#) when all metering data necessary to calculate the results of the energy community members has been submitted to Datahub. The required metering data depends on the member's accounting point. Even if metering data has not been submitted for all members of the community, the calculation is performed for those members whose results do not depend on the missing readings. For example, if readings are missing only from a consumption accounting point within the community, this does not affect the calculation of results for other consumption members, and the calculation is performed for them once the other time-step metering data has been delivered to Datahub.

Information affecting community calculations:

- The surplus method defined for the community (SMA/SMB)
- The dividend of the community production defined for the consumption accounting point (percentage)
- The status of the consumption accounting point
- The netting of the accounting point (based on the related accounting point information)

The following principles are applied to calculations:

- Internal netting of an accounting point is always calculated before community calculation:
  - The consumption of a netted accounting point is fully reduced by the production of a related production accounting point.
  - The possible surplus of the accounting point after the netting is transferred to the total production to be divided within the energy community.
  - Note that this netting principle also applies in situations where the netted production accounting point is defined to be the surplus production accounting point.



- The total production of the energy community is calculated from all of the production accounting points of the energy community, excluding the production that is already deduced from the related accounting point in netting (see previous point).
- The percentage of the whole community production (dividend) defined for the accounting point is deduced from the consumption of the (connected) accounting point belonging to the energy community.
- If the accounting point is disconnected, the share of the community's total production is not subtracted from the consumption. Instead, this share is recorded as part of the community's surplus energy.
- No measurement data is provided for metering points under construction. For such community members, Datahub ensures the necessary readings for calculation (zero/OK).
- The time step of the community calculation results depends on the time step used in balance settlement. Balance settlement was performed on an hourly basis until May 2023, after which it transitioned to a 15-minute time step. During hourly balance settlement, community energy was calculated according to the accounting point's time step. In 15-minute balance settlement, community calculation results are always calculated with 15-minute precision, regardless of the accounting point's metering accuracy or time step.

After the calculation, Datahub forwards the calculated community energy to all market parties that have right to it (DSO's, suppliers and third parties). Market parties can also retrieve community energy data using [retrieval events](#).

### **Surplus method SMA**

In the surplus method SMA, all surplus energy is assigned to the (single) production accounting point defined for the energy community.

In addition to the principles above, the following rules apply:

- All surplus energy is assigned to the surplus production accounting point defined for the energy community.
  - The possible difference between the dividend and the consumption of the accounting point (production > consumption) is assigned to surplus energy.
- The production (netted or measured) of the production accounting point belonging to the energy community, that is not defined as the surplus accounting point, is assigned to be part of the total production of the community that will be shared with the members of the community.

Community energy is calculated for different accounting points as follows:

	Not netted	Netted
<b>Connected consumption accounting point</b>	<i>Measured</i> consumption – dividend	<i>Netted</i> consumption – dividend
<b>Disconnected consumption accounting point</b>	0 or <i>measured</i> consumption (if $\neq 0$ )*	0 or <i>netted</i> consumption (if $\neq 0$ )*
<b>Production accounting point (other than surplus accounting point)</b>	0	0
<b>Surplus production accounting point</b>	Surplus energy	Surplus energy

In the table, the netted consumption/production means the netting performed for related accounting points (between two accounting points).

The calculation result for an accounting point is always 0 or greater (no negative values).

- The consumption for the disconnected accounting points should be zero, but in exceptional cases there might be values.

### Surplus method SMB

In surplus method SMB, the total production of the energy community is divided between all consumption accounting points belonging to the community by dividends defined for each accounting point. Possible surplus per accounting point is assigned to the related production accounting point. In this method, surplus for the community can only come from disconnected consumption accounting points.

The rules below for the production accounting points are also valid for “virtual” production accounting points. In the calculations, the same rules thus apply for normal production accounting points and virtual production accounting points.

In the calculations for surplus method SMB the following rules apply:

- Total community production is divided between all consumption accounting points in the energy community according to their dividend percentages:
  - The production that exceeds the consumption (metered or netted) will be assigned to the related production accounting point.
  - If a consumption accounting point does not have a related production accounting point, the DSO must pre-establish a so-called virtual metering point (see [Energy community information maintenance](#)) and report this as the related accounting point for the consumption member.
- The share of a disconnected accounting point is assigned to the predefined surplus accounting point of the energy community.

Community energy is calculated for different accounting points as follows:

	<b>Not netted***</b>	<b>Netted and the related accounting point is connected</b>	<b>Netted and the related accounting point is disconnected</b>
<b>Connected consumption accounting point</b>	<i>Measured</i> consumption – dividend	<i>Netted</i> consumption – dividend	Not applicable
<b>Disconnected consumption accounting point</b>	0 or <i>measured</i> consumption (if ≠ 0)*	Not applicable	0 or <i>netted</i> consumption (if ≠ 0)*
<b>Production accounting point (other than surplus)</b>	0 or dividend of the related consumption accounting point –	Dividend of the related consumption accounting point	0

<b>accounting point)</b>	<i>measured</i> consumption	<i>– netted</i> consumption	
<b>Surplus production accounting point</b>	Dividend of the related consumption accounting point – <i>measured</i> consumption + the dividends of the disconnected consumption accounting points (=surplus)	Dividend of the related consumption accounting point – <i>netted</i> consumption + the dividends of the disconnected consumption accounting points (=surplus)	The dividends of the disconnected consumption accounting points (=surplus)**

In the table netted consumption/production means the netting performed for related accounting points (between two accounting points).

The calculation result for an accounting point is always 0 or greater (no negative values).

\* The consumption for the disconnected accounting points should be zero, but in exceptional cases there might be values.

\*\* Also includes the dividend of the surplus accounting point's related consumption accounting point.

\*\*\* A consumption accounting point must always have a related accounting point in an SMB energy community (usually a virtual accounting point when not netted).

## Netting calculations

[Netting calculation principles](#)

[Calculation results and invoicing data](#)

[Retroactive corrections to related accounting point data](#)

Accounting point energy netting refers to the netting of metering data from related consumption and (small-scale) production accounting points within a time step (15 minutes). In this case, the difference between consumption and production (more precisely, its absolute value) is recorded for either consumption or production, whichever is greater. Reactive energy is not netted.

Datahub performs a netting calculation in connection with the DSO's [metering data message](#) when the metering data necessary for calculating the results of the netted accounting point pair has been delivered to Datahub. At the end of the calculation, Datahub [delivers the calculation results](#) to all parties that have the rights to receive them.

The table below shows an example of netting for the first four hours of the day.

Time stamp	Metered consumption	Metered production	Netted consumption	Netted production
00:00	1	2	0	1
00:15	2	1	1	0
00:30	2	3	0	1
00:45	1	2	0	1

### Netting calculation principles

The netting calculation is based on the related accounting point information and the maximum power information of the production device of the small-scale production accounting point in Datahub. The netting calculation is performed whenever the related accounting point information is valid, the production accounting point has one or more production devices, and the total sum of the maximum power of the production devices does not exceed 100 kVA (if the conditions for the netting calculation are met, the information 'Is netting applied' is stored for the accounting point). If the production device is not reported or the maximum power exceeds 100 kVA or the production device does not have maximum power information, the accounting point is left out of netting calculations.

The maximum power of the production device of a small-scale production accounting point is converted from the units W, kW, MW, GW reported in the Datahub processing directly to VA, kVA, MVA, GVA. If the DSO is aware of cases where the conversion is not directly available, the DSO must update the power information so that the maximum capacity is correct after the conversion. If the maximum power of the production device changes so that the accounting point should either be included in or removed from the netting calculations, the DSO must first remove the related accounting point information from Datahub, then update the production device information and then add the relation again. This way the changes related to the calculations enter into force.

The execution of the calculation does not depend on other information, such as the state of the accounting point or its agreements. If an accounting point included in the calculation has status 'under construction', no metering data is delivered for that accounting point. In this case, Datahub provides the necessary readings (zero/OK) for the accounting point under construction. The calculation is also performed if both of the related/netted accounting points included in the calculation are under construction.

The time step of the netting calculation results depends on the time step used in the balance settlement. Balance settlement was performed on an hourly basis until May 2023, after which it transitioned to a 15-minute time step. During hourly balance settlement, netting was calculated according to the metering point's time step. In 15-minute balance settlement, netting results are always calculated with 15-minute precision, regardless of the accounting point's metering accuracy or time step.

## **Calculation results and invoicing data**

Market parties must use the netted values of the accounting point in the customer's billing (except in cases where the accounting points belong to an [energy community](#), in which case community calculation values are used). A separate information is maintained in Datahub to indicate which time series of the accounting point (metered energy, netted energy, or community energy) is the so-called "invoice relevant" information. However, this information is not stored as part of the accounting point information but provided to the parties as part of the [DH-211](#), [DH-231](#) and [DH-251](#) forward messages in the 'Invoice relevant' information field. If the DSO reports the metering data for a time interval within which the invoice relevant information changes, Datahub splits the forward messages into two transactions covering the periods before and after the time of the change. Datahub also uses this information for balance settlement calculations (i.e., only the "invoice relevant" time series at the accounting point is used).

At the end of the calculation, Datahub forwards the calculated netted data to all parties entitled to the information (distribution network operators, suppliers and third parties). Market parties can also retrieve netting data separately using [retrieval events](#). If necessary, only the netted time series used for billing can be retrieved with the event.

### **Retroactive corrections to related accounting point data**

If the accounting point relation information is updated retroactively so that the accounting points' netting status changes, Datahub performs the necessary netting and energy community calculations in connection with the update.

When relation information is added retroactively ([DH-126](#)), Datahub performs the calculations (netting and possible energy community calculations) and forwards the results of the calculations as normal to the parties. Datahub also updates the 'Invoice relevant' information ('no') for the accounting point's metered time series in case it was the accounting point's invoice relevant time series before the update (in case of an accounting point belonging to an energy community, the energy community time series is used for invoicing).

When relation information is removed retroactively ([DH-127](#)), Datahub hides the netting time series data that may have already been calculated for the accounting point and updates the 'Invoice relevant' information ('yes') for the accounting point's metering time series (except for accounting points that belong to an energy community, in which case the energy community time series is used for invoicing). Additionally, Datahub performs a possible energy community calculation and forwards the results of calculation results normally to the parties. Hidden netting calculation results are no longer available to the parties and cannot be requested from Datahub.

Datahub does not forward the accounting point's metering data, for which the 'Invoice relevant' information has changed, to the parties. When the DSO reports retroactive corrections to the accounting point relation information, the DSO must notify the parties of the corrections, so that the parties know to request the necessary metering data from Datahub. Notifying the parties is done outside of Datahub. Datahub does not send DH-122-2/3 notifications for retroactive relation information changes i(possible new notifications will be planned for a later version).



## DH-300 Agreement processes

[Sales and grid agreements](#)

[Other types of agreements](#)

[Small-scale production purchase agreements](#)

[Electricity delivery agreements](#)

[Background agreements](#)

[Agreement processes](#)

### Sales and grid agreements

This section outlines the processes relating to accounting point sales and grid agreements. As a rule, whenever a supplier makes a new agreement in its own system, the agreement will be reported to Datahub. The DSO confirms its own agreement in Datahub when necessary, but whenever it does this, it will always be based on the supplier's notification. If the supplier or DSO make changes to the agreement information stored in Datahub, the changes shall be reported to Datahub and Datahub will relay them on to the other party. When the agreement ends, each party terminates its own agreements and the completed agreement termination is sent via Datahub to the other party. It is not possible for an accounting point to have more than a single sales agreement and a single grid agreement valid at any one time, so whenever a new agreement is reported for an accounting point Datahub will automatically terminate the previous agreement and send the information concerning the terminated agreement to the party whose agreement was terminated.

### Other types of agreements

#### Small-scale production purchase agreements

In accordance with existing practices, small-scale production sites are assigned their own accounting points in Datahub, and their own individual processes are initiated. Small-scale production agreements are processed in the same way as traditional consumption accounting point agreements, meaning that there are no differences between agreement processes for small-scale production accounting points and consumption accounting points. In Datahub, agreements linked to a production accounting point are considered to be purchase agreements or small-scale production grid service agreements.

If [a production accounting point is connected to a consumption accounting point](#) and the consumption accounting point's sales agreement is terminated with the reason "moving out", this information will be sent to the DSO and to the purchase agreement's supplier. The linking of consumption and production accounting points also makes it possible for a supplier making a



new agreement to use a preliminary search to find out whether the accounting point is connected to a production accounting point.

#### **Electricity delivery agreements**

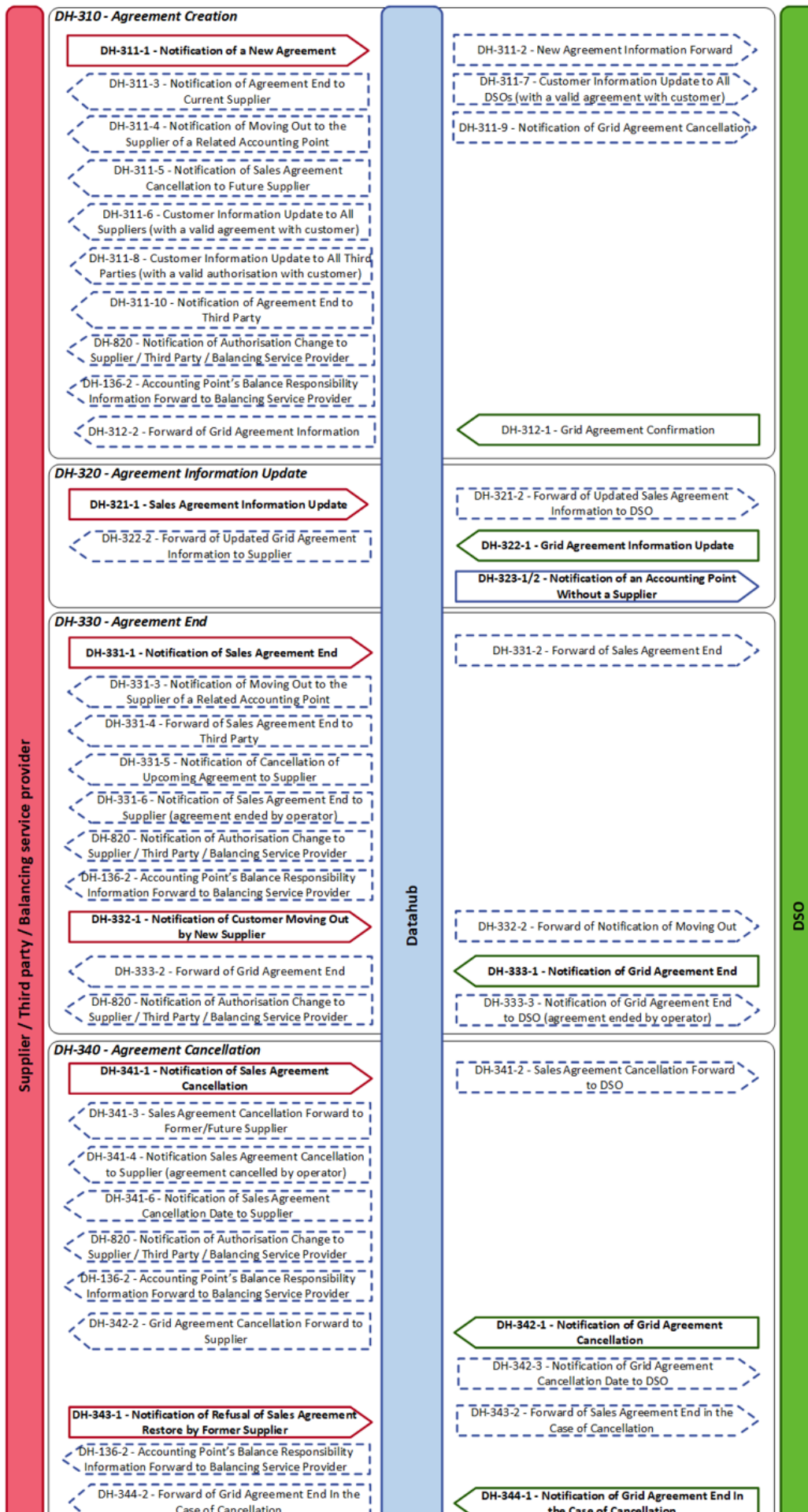
Electricity delivery agreements do not set any special requirements for Datahub. In Datahub, electricity delivery agreements are processed as a separate sales and grid agreement. However, only the supplier with the delivery obligation in the metering grid area can report an electricity delivery agreement. The supplier must inform Datahub if an agreement is an electricity delivery agreement so that the DSO knows not to send grid agreement confirmation to the customer when it receives information about the new agreement from Datahub. Correspondingly, if an electricity delivery agreement is converted into separate agreements, the DSO knows based on this information that it should send a separate grid agreement confirmation to the customer. Information concerning an electricity delivery agreement may also be used to investigate the quantity and relative proportion of such agreements.

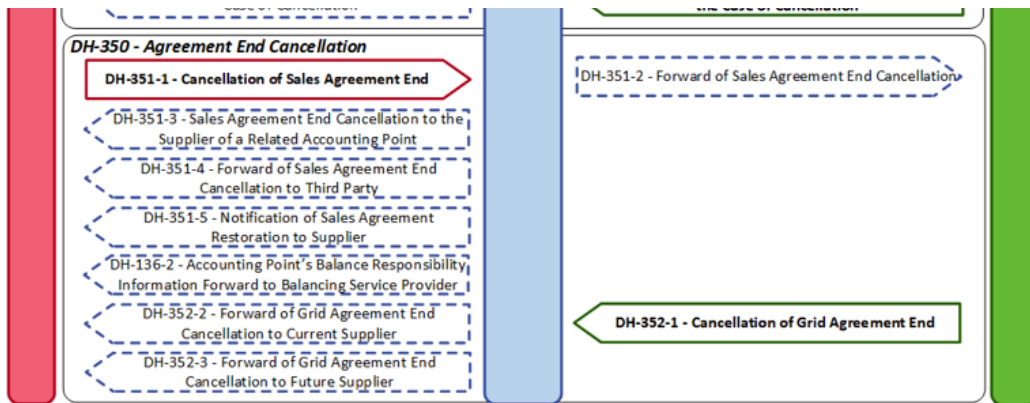
The supplier with delivery obligation has the right to obtain information as to whether the customer comes under the scope of delivery obligation or not in accordance with the obligation to deliver set out in section 21 of the Electricity Market Act. In addition, the supplier with delivery obligation also has the right to receive information, in the form of total energy data, to indicate how much of the customer base covered by the scope of delivery obligation are supplied by other suppliers. Datahub provides this data to the supplier with delivery obligation by report via Datahub's user interface.

#### **Background agreements**

Datahub does not maintain any information on so-called background agreements. When a background agreement is activated in a party's own system, it is reported to Datahub as an ordinary new agreement using standard agreement processes.

**Agreement processes**





## Agreement information

[Sales agreement information](#)

[Grid agreement information](#)

Sales and grid agreement information stored in Datahub includes information on agreement dates, invoicing address information and contact details for contact persons. When parties report agreements to Datahub, the [customer information](#) submitted in the notification is stored in Datahub's Customer entity (or in several, if the agreement has more than one customer), and the agreement is linked to a customer (or customers) and the specified accounting point in Datahub's internal data structure. If the reported customer is not yet present in Datahub, a new customer is created in Datahub. If the customer already exists in Datahub, the customer's information is updated when the new agreement is reported. If the customer information contains updates, the updated customer information is forwarded to all parties that are [entitled to it](#). An agreement is identified in Datahub using the combination of agreement identifier, accounting point identifier and the relevant market party's party identifier.

Agreements entered into Datahub are valid for whole days. The agreement start date is the first day when the agreement is in effect. The agreement end date is the first day when the agreement is no longer in effect. For clarity: the agreement begins at 00.00 on the start of occurrence of the notification of a new sales agreement. The agreement ends on the agreement end date at 00.00. In other words, the day before the agreement end date is the last day when the agreement is in effect.

The agreement information contains invoicing channel information, and the appropriate invoicing address details (including invoicing (postal) address, email invoicing address or e-invoicing address) must be linked to the agreement information. The invoicing address a customer provides when making a new agreement with a supplier is sent from the supplier to the DSO via Datahub. This data does not, however, bind the DSO to the use of the invoicing channel in question if the DSO is unable to provide said channel. The DSO reports the invoicing channel it uses in the agreement to Datahub as part of the grid agreement information.

A customer may also ask the DSO to send invoices to a different address to the one stated on the sales invoice. In such cases, the customer should contact the DSO to change the invoicing address. The DSO will report changes to invoicing addresses to Datahub. Datahub's data model allows for separate invoicing addresses to be used in sales and grid agreements at the same accounting point; that is, invoicing address data is stored on an agreement-specific basis. It is worth noting that current rules prohibit residential customer e-invoicing data from being sent

from one party to another. Nevertheless, it is possible to add a note in the invoicing channel field explaining that the customer wishes to use this particular invoicing channel. Even in cases when the invoicing channel is different from postal invoicing, a postal invoicing address needs to be reported to the agreements to Datahub for debiting purposes.

The agreement information also includes an invoicing method, which specifies whether both the supplier and DSO invoice the customer separately, or whether combined invoicing is carried out by either the supplier or the DSO. Corresponding sales and grid agreement must have the same invoicing method. If a new grid agreement is not created along with a new sales agreement, the DSO updates the grid agreement invoicing method to match the invoicing method of the sales agreement, if needed, or contacts the supplier to ask the supplier to update their sales agreement invoicing method.

It is possible to add contact persons to agreements in addition to the actual customer. The customer is the agreement partner legally responsible for the agreement. Contact persons are persons linked to the agreement and whose contact details are required by the parties for customer service purposes. For example, the recipient of an invoice may be reported as the contact person for an agreement if the recipient differs from the actual customer.

Similarly, contact persons for agreements may vary between sales and grid agreements. The contact person information provided to a supplier by a customer when making a new agreement with the supplier is stored in the sales agreement information and sent to the DSO. The DSO may use this information as the contact person for its own agreement. It is worth noting that parties may have many different kinds of contact persons in their own customer and agreement information, but the contact persons whose information must be exchanged between parties (from the supplier to the DSO or from the DSO to the supplier) are reported to Datahub. At least one contact person must always be reported for business customers. Separate contact persons are only reported for residential customers when necessary, such as if the customer's contact details are insufficient.

If the new agreement concerns the customer moving in or another situation where a connection is required, a telephone number must be provided to ensure a safe connection. If the safe connection confirmation message is to be sent to a different telephone number than the number specified in the customer information, the supplier must provide a separate contact person for the agreement, using type 'Responsible for connections' and providing their telephone number.

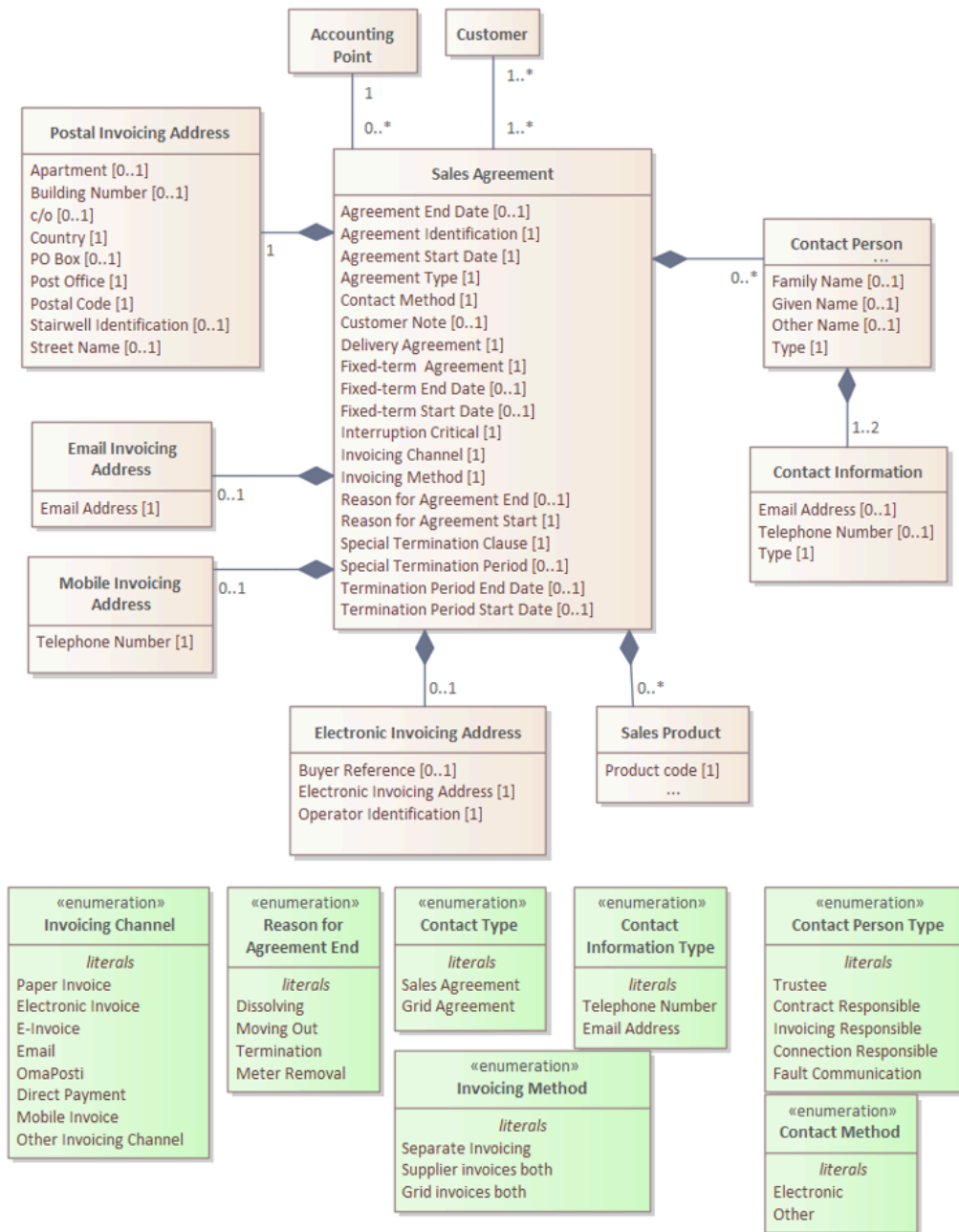
The contact method agreed with the customer must be reported for the agreement. The 'electronic' contact method means that as a rule no letters will be posted to the customer. The contact method is agreement-specific, and the contact method the customer has agreed on

with the supplier is forwarded as information to the DSO. However, the DSO must always expressly agree on the contact method with the customer, even if the supplier has reported that it is using the electronic contact method. If the contact method in the agreement is electronic, then at least one of the customers reported in this agreement needs to have provided an email address that has been reported to Datahub.

The sales and grid agreement information stored in Datahub is set out below in separate diagrams. An accounting point can have several consecutive agreements over time, but only one sales and one grid agreement can be valid at any one time. Agreement information sent in different processes is set out in more detail under each process.



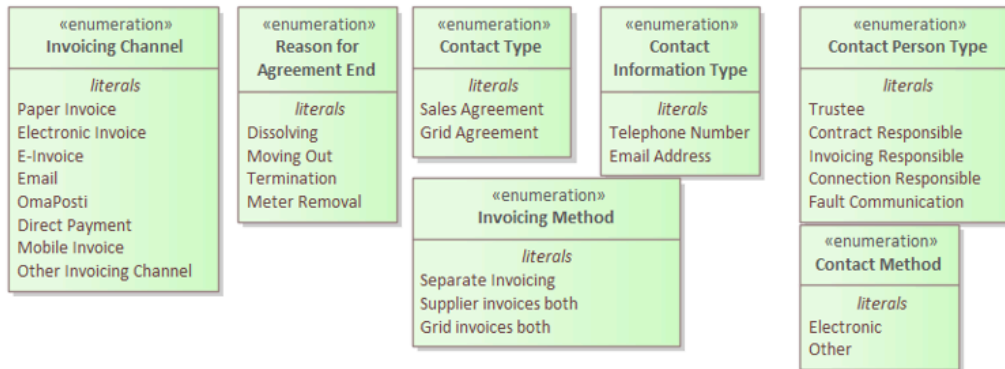
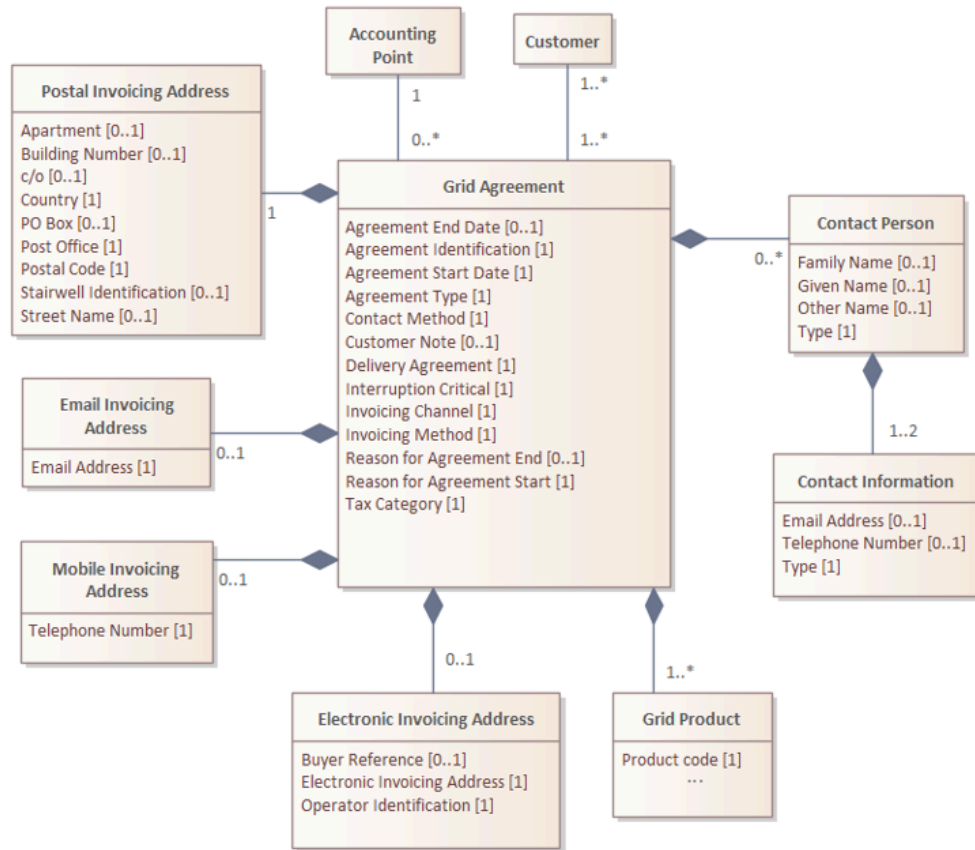
## Sales agreement information



Sales agreement information



## Grid agreement information



Grid agreement information

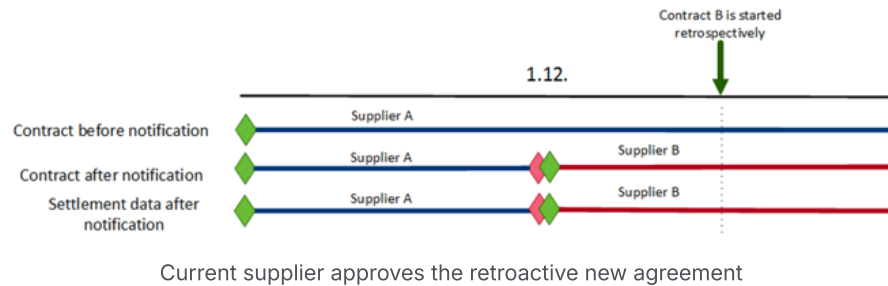
## Retroactive error correction

Retroactive changes to agreement start and end dates may only be made in clear cases of error. As a rule of thumb, retroactive corrections should follow this principle: balance information is determined based on the supplier that made the error, while agreement information is determined based on the party entitled to invoice the customer. The underlying principle is that the supplier responsible for the error is accountable for the balance sheet, even if they do not have the right to invoice the customer.

The supplier reports the retroactive start of a sales agreement using the same notification used to report an upcoming sales agreement ([DH-311](#)). The report of a new retroactive sales agreement progresses like a normal process if there are no other suppliers' agreements valid for the accounting point after the date on which the reported sales agreement begins. In other cases, a sales agreement that begins retrospectively will not progress as a normal process and instead Datahub locks the process and responds with negative confirmation to the notification of a sales agreement which is to begin retrospectively. In order for the processing of the sales agreement to continue, the reporting supplier must manually process the data in Datahub's interface.

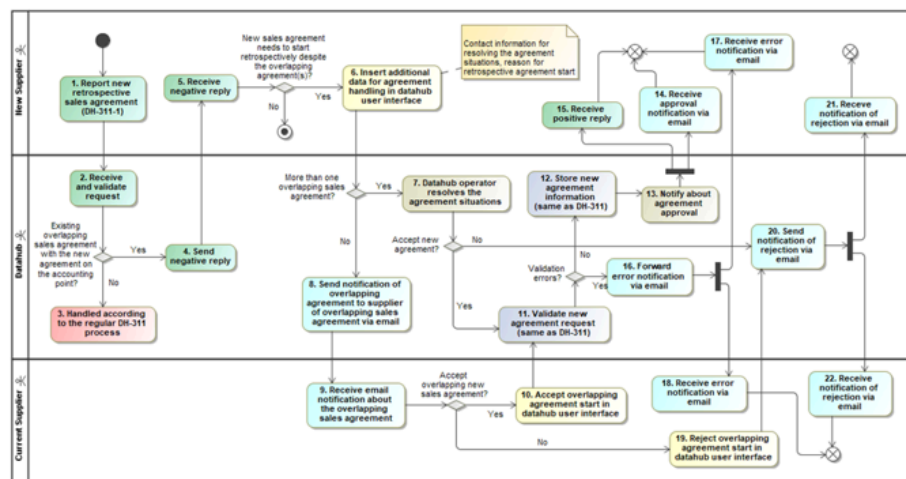
The supplier must provide an explanation in the interface as to why the agreement should begin retroactively and submit the processor's contact details for clarification. After this, Datahub will notify the current supplier of the new supplier's explanation and contact details by e-mail and create a retroactive start approval request for the current supplier in Datahub's interface. The current supplier must approve the retroactive start in the interface in order for processing of the retroactive sales agreement to continue.

If the current supplier approves the retroactive start, the agreement process continues as usual. Upon rejection by the current supplier, negative confirmation will be sent to the new supplier that reported the retroactive agreement. If the current supplier neither approves nor rejects the retroactive start, Datahub will send a reminder to the current supplier after 2 business days and, if necessary, the Datahub operator will contact the current supplier directly. After a retroactive sales agreement has been approved, the agreement and balance data for an accounting point are determined based on the new supplier's notification as shown in the figure below.



If between the start date of an agreement that begins retroactively and the time of reporting there are valid sales agreements from more than one different supplier, the aforementioned procedure cannot be applied. In this case, the Datahub operator will investigate the details of all parties and guide them in resolving the matter amongst themselves. After the parties have come to a decision on a solution, the Datahub operator will make the necessary changes in Datahub.

The following diagram presents the process for handling retroactive new sales agreements.



Retroactive new sales agreement process

Retroactive terminations of agreements are primarily done as a part of retroactive new agreement notifications, when the reported new agreement automatically ends the previous sales agreement. Market parties cannot separately report retroactive agreement endings ([DH-330 events](#)) except in case of meter removal. If a retroactive agreement ending is needed because of an error situation, the market party must contact the Datahub operator, who can end an agreement retroactively. The operator processes performed by the market operator are described in section [The market operator's correction processes](#).

In addition to the aforementioned cases, there may be situations in which there is a need to retroactively change the start or end dates of a previously reported agreement. The principles mentioned above are to be followed in these situations. The start and end dates of agreements cannot be changed using an agreement data update event in Datahub. Instead, the earlier notification must always be [cancelled](#) first, whereupon a new notification should be sent with a

corrected date. If the current supplier has previously notified Datahub of the agreement ending, this end date can be corrected by reporting a new end date with a new agreement end event. In that case, the previous agreement end date must be replaced by the end date of the new notification.

The aforementioned correction procedures should only be used in cases of error. Retroactive changes are monitored, and possible misuse will not be tolerated. If the situation requires an accounting point's balance data to be recorded in a manner other than that specified above, the market party or market parties must contact the Datahub operator, which will make the necessary changes based on a written request. If the new sales agreement is reported retroactively to Datahub in error cases, Datahub will not automatically forward the metering data for that retroactive period. The supplier who has reported the sales agreement gets the metering data from Datahub using a [metering data request event](#).

## DH-310 Reporting new agreements

[Reporting a new sales agreement](#)

[Making a grid agreement](#)

[Rules](#)

[Fixed-term sales agreements](#)

[Exceptional termination clauses](#)

### Reporting a new sales agreement

Information on agreements made with a customer must be reported to Datahub. The supplier always initiates the report of a new agreement to Datahub. This does not, however, prevent the DSO from agreeing on the grid agreement with the customer before the customer has made a sales agreement with a supplier. If the DSO makes a grid agreement before the new sales agreement is reported to Datahub, the DSO must wait for the new sales agreement to be reported to Datahub and only then confirm the grid agreement in Datahub in accordance with the normal process.

As Datahub provides an overview of the agreement and customer status for an accounting point, the supplier does not need to inform Datahub as to whether the matter concerns a customer's change in address, a change of supplier or the renewal of an agreement with the current supplier. Based on the accounting point's customer and agreement information, Datahub will decide which of the above applies and then register the new agreement accordingly.

Datahub will register the reason for making a new agreement depending on whether the customers stated in the new agreement differ from the customers stated in the valid agreements for the accounting point stored in Datahub; that is, whether the customer or customers in the new agreement have sales or grid agreements for the accounting point at the time the agreement is made. If the customers at an accounting point change entirely with regard to both sales and grid agreements, the situation usually concerns a move in or out. In these cases, it is permitted to report the agreement as quickly as on the day in question. An agreement can also be reported for the same day if the accounting point has no supplier or if the current supplier makes a change of agreement according to the table above. In all other cases, a period of 14 days shall be followed, taking the agreements' fixed terms into account. If the supplier reports a new sales agreement for today, then the DSO is allowed to send in the confirmation of the grid agreement retrospectively to correspond the start date of the sales agreement.

The agreement may be reported to Datahub at the earliest 90 days after notification. If the supplier has agreed on a new agreement with the customer to begin later than 90 days, but notifies the agreement to Datahub within the correct time limits, the supplier must observe that

the reason for the agreement start is the same agreed with the customer. If the supplier has agreed with the customer of the 'Change of Supplier' and the reason is returned from Datahub as a 'Move in', the supplier must contact the customer and confirm the situation with the customer.

The following table contains a summary of how Datahub decides the reason for which new agreements are registered. Datahub's assignment of the aforementioned reasons is primarily used for statistical purposes.

Table: Datahub's decision-making concerning the reasons for reported new agreements

#	Situation	Changes at the accounting point	Remains unchanged at the accounting point	Reason
1	Customer moves to the accounting point.	<ul style="list-style-type: none"> <li>• All customers</li> <li>• Sales and grid agreement</li> </ul>	DSO	Moving in
2	The customer makes a new agreement with the current supplier for the existing accounting point.	<ul style="list-style-type: none"> <li>• Sales agreement</li> <li>• (Grid agreement)</li> </ul>	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• All customers</li> </ul>	Change of agreement
3	The customer wishes to change (add/remove/change) parties to an agreement in the event of, e.g., divorce.	<ul style="list-style-type: none"> <li>• At least one customer</li> <li>• Sales agreement</li> <li>• (Grid agreement)</li> </ul>	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• At least one customer</li> </ul>	Change of agreement
4	The customer puts its electricity agreement out to tender and makes	<ul style="list-style-type: none"> <li>• Supplier</li> <li>• Sales agreement</li> </ul>	<ul style="list-style-type: none"> <li>• DSO</li> <li>• All customers</li> </ul>	Change of supplier

	an agreement with a new supplier.	<ul style="list-style-type: none"> <li>• (Grid agreement)</li> </ul>		
5	The customer puts its electricity agreement out to tender and the parties in the new agreement are different from the parties in the existing agreement for the accounting point (added/removed/changed)	<ul style="list-style-type: none"> <li>• Supplier</li> <li>• At least one customer</li> <li>• Sales agreement</li> <li>• (Grid agreement)</li> </ul>	<ul style="list-style-type: none"> <li>• DSO</li> <li>• At least one customer</li> </ul>	Change of supplier

Special cases, such as reporting changes to the estate of a deceased person, depend on how estates are dealt with in the supplier's own processes. If an estate receives a business ID or if an agreement is transferred in the name of beneficiaries (personal identification code), the new agreement for the estate is reported to Datahub and registered as a move in. If the supplier or DSO only changes the customer's information and the agreement continues under the personal identification code of the deceased, the change can be reported as a [customer information update](#). If in this situation a new agreement is made, the new sales agreement is reported to Datahub, where it is registered as a change of agreement. Customers which are estates of deceased persons are separated from other customers using a customer sub-type attribute.

Before a new agreement is reported, the supplier may retrieve the accounting point information from Datahub with an authorization given by the customer. Rights to data are set out in section [Parties' rights to data](#). The purpose of requesting preliminary data is to help the supplier to gain an idea of the kind of accounting point agreement it is possible to make for the customer in question. The accounting point identification and customer(s) identification are entered when requesting preliminary data. In addition to the customer and accounting point data, the supplier will also receive information on the accounting point's agreement status as follows:

- Does the customer have a valid sales agreement for the accounting point or not?
- If the customer has a sales agreement for the accounting point, information will be returned as to whether the customer or customers are exactly the same as the customers which will be



party to the new agreement.

- Whether an existing sales agreement for an accounting point (if there is one) prevents a customer from making a new agreement for the accounting point when the customer remains the same and:
  - The sales agreement is fixed term. In addition, the end date for the fixed term if it is within 90 days from the moment of data retrieval.
  - The sales agreement has an exceptional termination condition.
- If the upcoming ending of an agreement has already been reported for the accounting point, this date will be returned, helping the supplier to agree on the start date of a new agreement without breaks in the supply of electricity.
- If a new agreement has already been reported as due to start at an accounting point, this date will be returned, helping the supplier to make an agreement only for the time before the previously reported agreement (see [example 3](#)).
- Does the customer have a valid grid agreement for the accounting point or not?
- If the customer has a grid agreement for the accounting point, information will be returned as to whether the customer or customers are exactly the same as the customers which will be party to the new agreement.

Out of all possible customer information, the request will only return information for the customer or customers for whom an identification was given. If an agreement has other customers, a request will only return information indicating that the agreement contains other customers, but not the actual information for these customers.

A corresponding validation will also be carried out when a supplier reports a new agreement to Datahub.

Henceforth the term "customer" will also refer to all customers of an agreement whenever there is more than one customer. It is also worth noting that customers and changes in customers at an accounting point are identified in Datahub based on customer identification (personal identification code, business ID, party's own identification), and not purely by name.

### **Making a grid agreement**

Datahub will decide whether a new grid agreement is necessary based on data reported by the supplier and on the accounting point's customer and agreement status at the given time. If the matter concerns a move in, a new grid agreement is always made. If the matter concerns a change in supplier or agreement, a new grid agreement is required in those situations wherein the valid grid agreement for an accounting point is held by a customer that differs from the



customer in the upcoming sales agreement. This practice ensures that, in the future, sales and grid agreements on the accounting point are made for the same customers. Even if the customers of the agreements would match, a new grid agreement is needed if the grid agreement is ending during the new sales agreement or if the grid agreement is pending cancellation based on a sales agreement cancellation reported by a supplier. A new grid agreement is also needed if the "delivery agreement" fields in the agreements do not match. The field in question is checked between the new and existing sales agreements or, if the previous sales agreement is no longer valid but a valid grid agreement is found, the check is done between the new sales agreement and the existing grid agreement. If a new grid agreement is not needed, Datahub will still notify the DSO about the new sales agreement. In these situations, the new supplier will get the information about the accounting point and accounting points grid product by using the accounting point and customer information request event.

If a new grid agreement is required, Datahub will create new grid agreement information based on the supplier's notification with the status 'unconfirmed'. Datahub will inform the DSO of the new grid agreement, which the DSO will confirm with its own notification to Datahub. The unconfirmed grid agreement gets an agreement ID created by Datahub. This agreement ID will be replaced by the DSO with the agreement ID at their own system. The distribution grid owner may already have made an agreement with the customer, whereupon the agreement information is sent at this stage as confirmation to Datahub. Information from the DSO's confirmation is also sent to the supplier, whereupon the supplier is made aware of the necessary grid agreement information, such as product data.

The DSO will connect electricity to the accounting point as necessary on the delivery start date. The supplier does not need to send a separate connection request. Instead, the DSO connects the electricity based on the new agreement notification. The connection is notified via [connection processes](#). If the DSO cannot connect the accounting point when the agreement begins, they report the issue to supplier outside datahub. In the agreement information forwarded to the DSO, the supplier may also provide information on whether the accounting point is interruption critical due to the special needs of the customer who signed the agreement and/or a resident living at the accounting point location. An interruption critical accounting point should not be disconnected in a normal situation, but this information is not used to guide how the DSO manages the disconnection of the accounting point, for example, in a possible power shortage situation.

It is the market parties' responsibility to always check that the customer is of full legal capacity before making an agreement and reporting it to Datahub. Responsibility for checking always lies

with the party which makes the agreement with the customer. A validation which prevents the reporting of a new agreement for an underage customer has been built into Datahub. The DSO has the right to refuse to make a grid agreement with a customer based on a notification from the supplier. In such cases, the DSO notifies Datahub that it will not confirm the grid agreement and provide a reason as to why confirmation could not be given. This information will be sent to the supplier. If the DSO does not confirm the grid agreement, then the supplier needs to cancel the sales agreement that created the grid agreement to be confirmed.

## Rules

In Datahub, an agreement's start date refers to the date from which the supplier has the right to metering data and from which the supplier is responsible for accounting point consumption or production in its own balance sheet. In practice, this date also corresponds to the date from which the supplier has the right to invoice the customer.

Reports of new sales agreements made for the same accounting point on the same or very close dates currently cause a great deal of investigative work. In Datahub, there will be clear rules concerning the terms and time periods for reporting new sales agreements for an accounting point. The rule of thumb is that there cannot simultaneously be two or more valid sales agreements for a single accounting point on the same date. The agreements are always valid for full periods of twenty-four hours, so an agreement comes into effect at 00:00 on its start date and ends at the end of the 24-hour period.

The rules for submitting notifications for the same accounting point are as follows:

1. The start of a new sales agreement can always be reported for the current day if the accounting point has no supplier.
2. Move-in reports should always be submitted no later than on the moving day and no earlier than 90 days before the agreement starts.
3. In change of agreement situations, a new sales agreement can be reported for the current day.
4. In all other cases besides the three aforementioned the new sales agreement must be reported at least 14 days in advance and no earlier than 90 days before the agreement start date.
5. A sales agreement which is successfully reported to Datahub will automatically terminate any sales agreement that is valid on the date on which the new sales agreement comes into effect such that the existing sales agreement terminates one day prior to the entrance into force of the new agreement (this also applies to situations in which the previous customer

has reported that it is moving out at a later date, whereupon the end date is modified to an earlier date).

6. A sales agreement containing a fixed term or exceptional termination condition for an accounting point will, for as long as it is valid, block the new sales agreements reported by a new supplier in which the customer or even one of the customers is the same as for the sales agreement valid for the accounting point.
  - a. Exception: Consumer customer's fixed-term sales agreement does not block a new sales agreement from a new supplier, if the fixed-term period has lasted at least 2 years.
7. A change of all customers at the accounting point (moving in) automatically cancels all new sales agreements at the same accounting point for existing customers due to begin on the same date as the change of customer or at a later date ([example 4](#)).
8. It is not possible to report two new agreements as starting on the same day, and the agreement that is reported later will be rejected ([example 2](#)). One exception is the rule 7 whereby the first new agreement made for a given day for the existing customer will be cancelled if an agreement for the accounting point is reported in which all customers change.
9. Before a previously reported new sales agreement for an accounting point comes into effect, a new sales agreement can be reported for the "in-between" period, but in such cases the end date of the agreement must be reported and cannot be later than the start date of the previously reported agreement ([example 3](#)). Rule 7 is the exception. Datahub stores the agreement termination reason for these as 'Termination'.
10. Agreements may only be reported retroactively in cases of error correction.

All notifications of sales agreements starting, ending or being updated which lead to overlapping sales agreements and which are not separately mentioned above shall be rejected.

A group of active customers can include both consumer customers and company customers. If this group of active customers wants to notify an agreement to the group's small production accounting point by entering all customers of the group into the sales and grid agreement, the rules related to the agreement are treated as they would be for a consumer customer (for example, it is not possible to notify a sales agreement with special termination terms for a group of active customers).

### **Fixed-term sales agreements**

The fixed term of a sales agreement is reported to Datahub by submitting the specific start and end dates of the agreement's fixed term. Note that per Datahub's data model, these differ from the agreement's actual start and end dates. The agreement start date always represents the

actual commencement date, while the agreement end date is only recorded once termination is reported to Datahub or Datahub automatically terminates the agreement.

A fixed-term agreement may be terminated prematurely when a customer relocates from the accounting point. Since Datahub processes agreements by accounting point, even if the supplier and customer agree to continue of a fixed-term agreement at the customer's new accounting point, Datahub treats these as two separate agreements. Consequently, the first agreement can be terminated in Datahub.

In Datahub, a fixed-term agreement prevents suppliers from creating new sales agreements when any customer covered by the existing agreement for an accounting point matches parties in a proposed new agreement. However, customers may negotiate flexible changes to their agreement terms with the current supplier. For instance, customers can modify agreement parties with their existing supplier in cases such as divorce, even with a fixed-term agreement in place. Despite this flexibility, the fixed-term nature of the existing agreement prevents Datahub from accepting a new supplier's agreement. Note that the fixed term does not restrict suppliers from terminating sales agreements through separate termination notifications.

The following table outlines time limits, fixed-term effects and reporting reasons for different agreement reporting scenarios:

#	Situation	Fixed-term effect	Reporting window to Datahub	Reason
1	Customer moves to an accounting point.	No effect on agreement changes	From max. 90 days before the agreement start date until agreement start date	Moving in
2	Customer creates new agreement with current supplier for existing accounting point.	No effect	From max. 90 days before the agreement start date until agreement start date	Change of agreement

3	Customer modifies agreement parties (e.g., due to divorce).	No effect	From max. 90 days before the agreement start date until agreement start date	Change of agreement
4	Customer tenders electricity agreement and selects new supplier.	Prevents new agreement reporting	Max. 90 days and min. 14 days before agreement start date	Change of supplier
5	Customer tenders electricity agreement with different parties than existing agreement for the accounting point.	Prevents new agreement reporting	Max. 90 days and min. 14 days before agreement start date	Change of supplier

Fixed-term agreement processing rules in Datahub:

1. By default, fixed-term agreements continue as valid until further notice unless their end date or renewal is specifically reported to Datahub.
2. Suppliers may report a new agreement for residential customers with fixed-term agreements that have been active for at least two years.
3. When current suppliers wish to terminate a fixed-term agreement and replace it with a new agreement involving some of the same customers, they may directly report the new sales agreement to Datahub.
4. Fixed-term agreement renewals are processed through [agreement update events](#), where suppliers report new fixed term start and end dates that take effect on the specified update date.

### Exceptional termination clauses

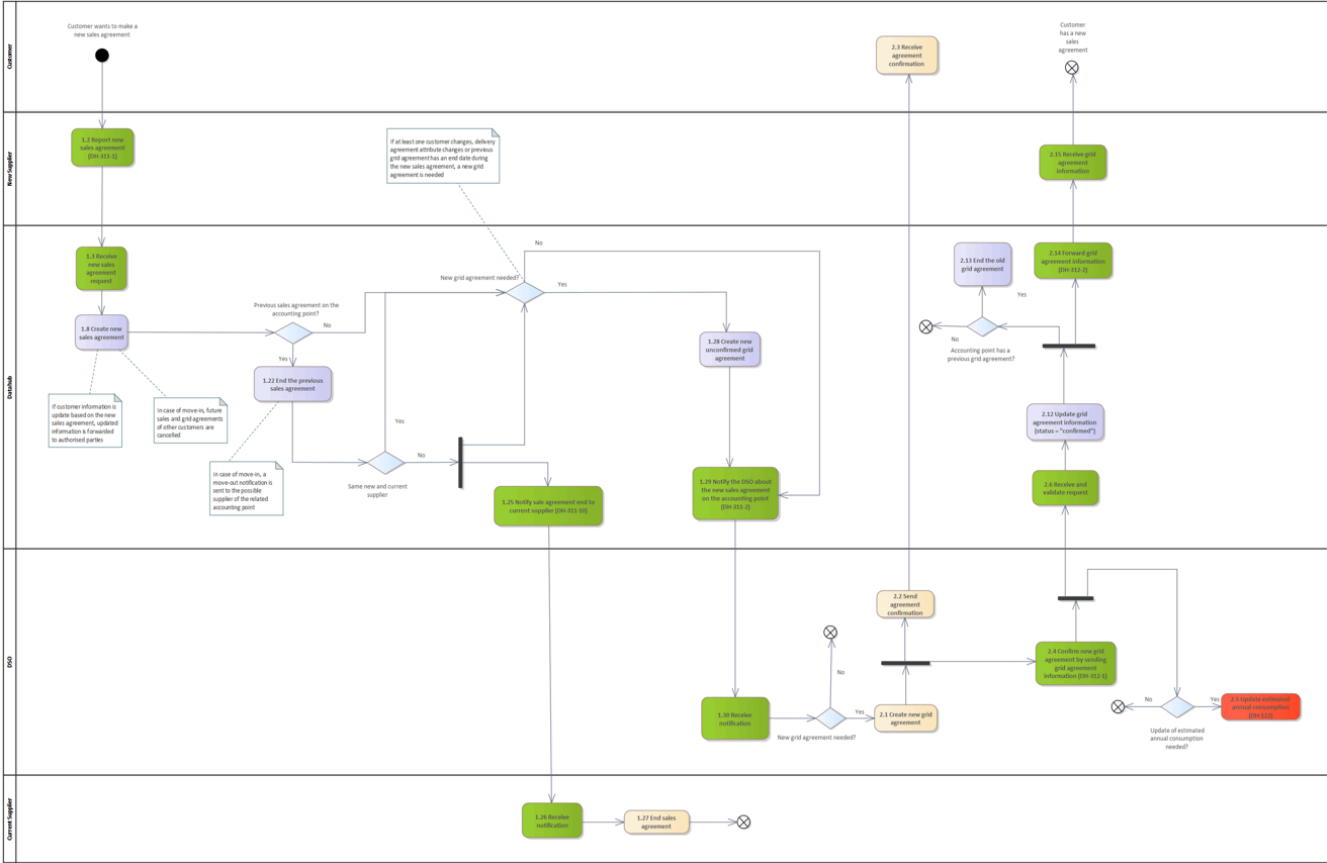
Suppliers may establish exceptional termination clauses for non-residential customer agreements. Per the Datahub data model, sales agreements indicate whether exceptional termination clauses apply. When a customer's notice period differs from the standard 14 days, suppliers must report this exceptional termination clause, specifying either the notice period in

days or the interval during which a new sales agreement may commence. Suppliers must update this data daily as needed.

For example, with an agreement terminable on the 5th of every month, suppliers must continually update the data to reflect the next possible date for a new sales agreement to begin. The reported date or interval must precisely indicate when a new sales agreement can begin – not when the customer has the right to terminate the agreement. When the supplier reports an interval, the first day represents when the agreement can begin, and the last day indicates when it cannot begin. In cases like monthly termination dates, suppliers may report a single date as an interval where the end date is the following day.

Exceptional termination conditions functional similarly to fixed-term sales agreements for the accounting point. Under these conditions, new suppliers receive advance notice of the earliest possible agreement start date, even when if more than 90 days away. However, agreement reporting remains restricted to no earlier than 90 days in advance, regardless of exceptional termination conditions.

DH-310 Process maps




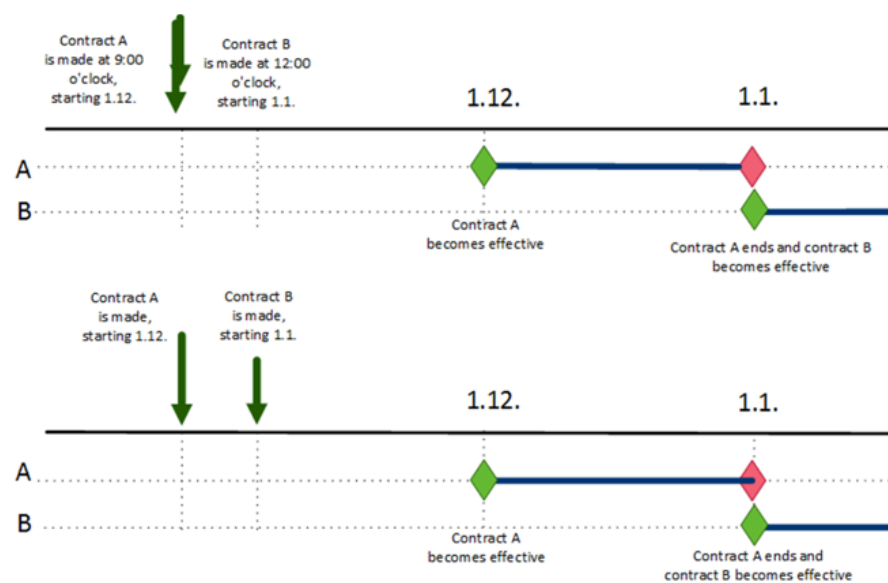
Notification of a new agreement




## DH-310 Examples

The following examples aim to describe how reports of close-proximity or overlapping sales agreements are processed in Datahub to prevent the creation of overlapping agreements.

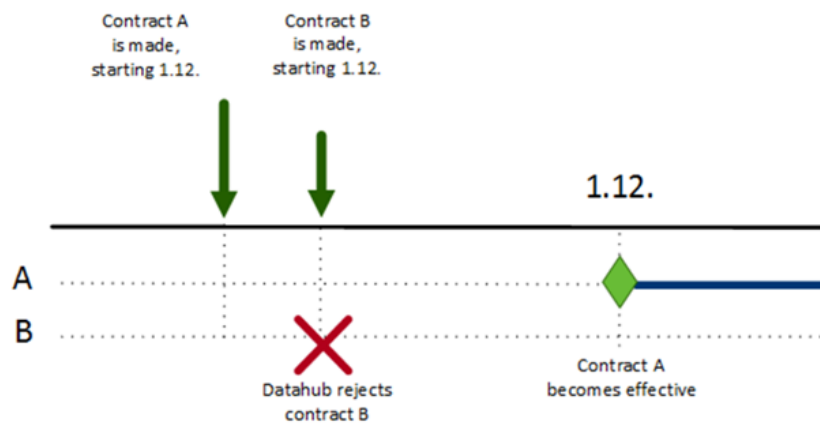
 **Example 1:** Accounting point agreements reported with different start dates come into effect consecutively, regardless of whether the supplier reports them on the same day or on different days.



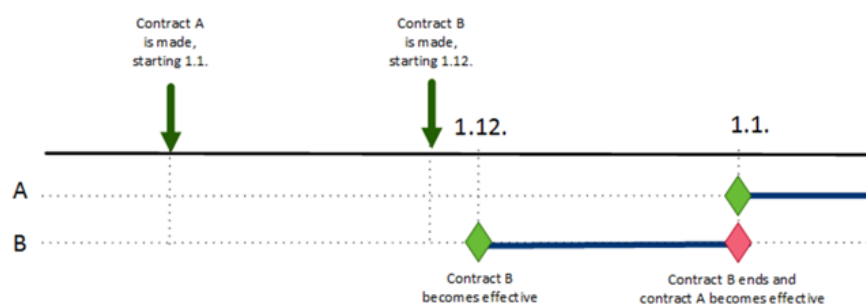
 **Example 2:** An accounting point agreement previously reported with the same start date as a new agreement prevents the new agreement from coming into effect on the same day. Datahub rejects the latter notification (B) from the supplier.





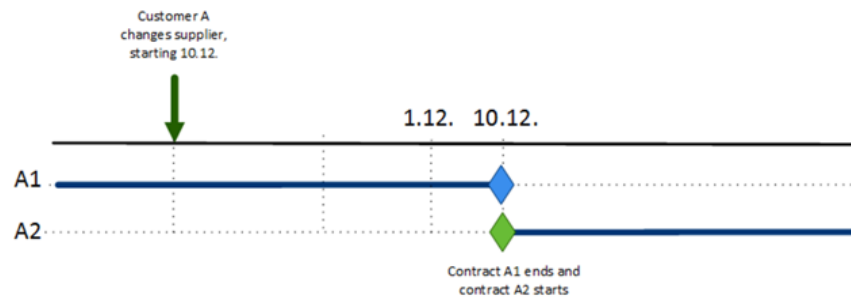


**Example 3:** An upcoming agreement reported for the accounting point prevents the creation of an agreement that would be valid until further notice and would begin before the upcoming agreement. This situation may occur when, e.g., a lessor wishes to renovate an apartment before a new tenant moves in, and the tenant has already made an upcoming agreement for the accounting point. In this case, it is only possible to make agreement (B) for the "in-between" period in Datahub, and the agreement will end before the start date of the earlier agreement (A). The notification for the new agreement (B) must include the agreement end date. The supplier is made aware of agreement A's start date when it requests preliminary accounting point data before reporting a new agreement. The notification informs the supplier of the date on which agreement B must end.

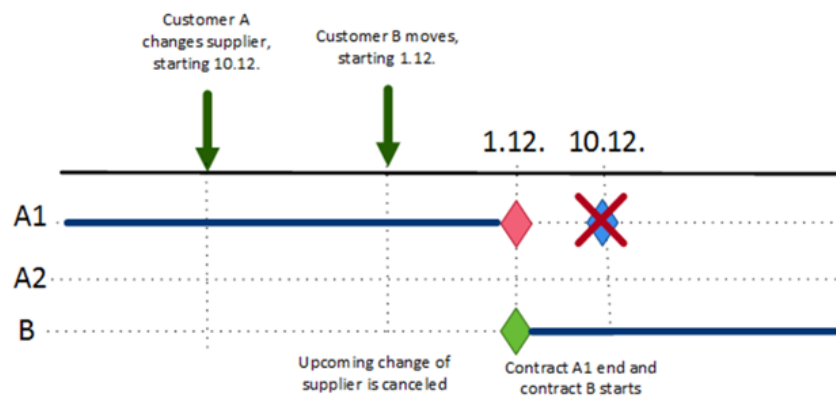


**Example 4:** A reported moving in to an accounting point cancels all previously reported upcoming changes of supplier or agreement.

Situation before agreement B is reported:



Situation after agreement B is reported:



## DH-311 Notification of a new agreement

Event description

Parties

Interrupting events

Time limits

Event processing in Datahub

Information storage

Return of information

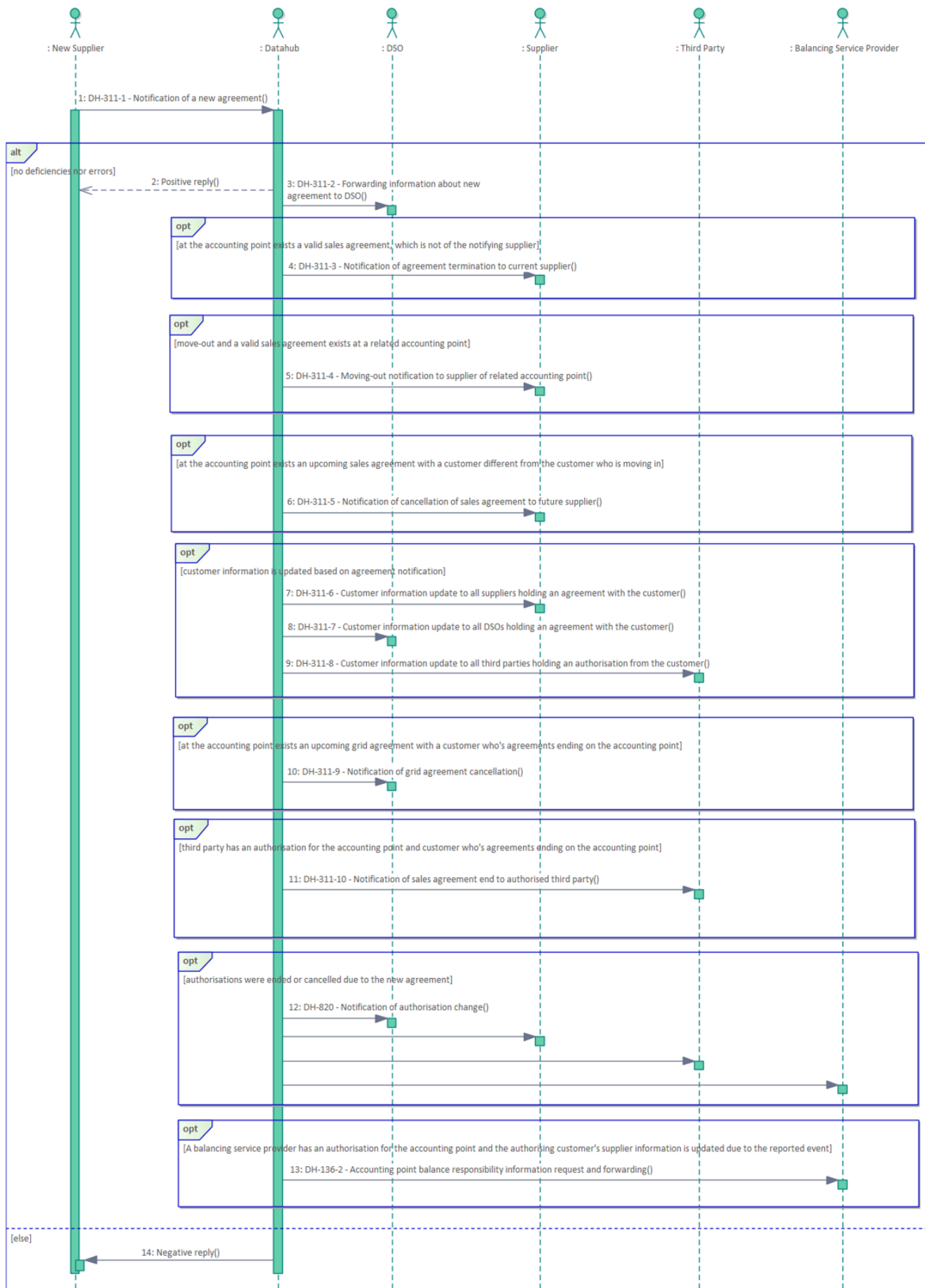
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Notification of a new agreement

## Event description


A supplier reports a new electricity sales agreement, which it has signed with a customer for the customer's accounting point. New grid agreement information is created in Datahub if necessary, and the DSO receives information about the new agreement.

## Parties

- New supplier
- Current supplier
- Datahub
- DSO
- Third party
- Balancing service provider

## Interrupting events

A previously reported electricity sales agreement with the same agreement starting date for the same accounting point. Two new agreements cannot be reported to start on the same day, so the one reported later is rejected. A move-in (all customers change) is an exception that cancels all earlier change of agreement/supplier agreements reported to start on the same day on the same accounting point (if the earlier agreement is a move-in, then another move-in for the same date will be rejected).

 If an agreement is made to start in the future, it is possible to make another sales agreement "in-between" for the time before the earlier made agreement comes into force. In this case the ending date must be entered and it cannot be later than the starting date of the agreement reported earlier. See [DH 310, example 3](#).

## Time limits

Reason	Agreement's start date	Exceptions
Move-in	0–90 days from the notification date	
Supplier switch	14–90 days from the notification date	If the previous contract has already ended, the new contract can begin at the earliest from the end date of the previous one.

Contract switch	0–90 days from the notification date	
Retroactive move-in	Up to 3.5 years retroactively	A contract reported to start retroactively is handled as described on the page <a href="#">Retroactive error correction</a> .
Retroactive supplier switch	Up to 10 years retroactively	
Retroactive contract switch	Up to 3.5 years retroactively	

## Event processing in Datahub

Step	Description
Creating a customer	If the customer for an agreement being reported is not found in Datahub, it is created in Datahub.
Reason for agreement start	The system determines the <a href="#">reason for agreement start</a> .
Terminating a current agreement	<p>Datahub terminates the valid agreement for the current supplier at the accounting point on the day preceding the starting date of the new agreement. The reason of current agreement ending is recorded based on the reason for starting the new agreement.</p> <ul style="list-style-type: none"> <li>• "Moving out" if the reason for new agreement is "Move-in".</li> <li>• "Termination" if the reason for new agreement is "Change of supplier" or "Change of agreement".</li> </ul>
Agreement cancellation	<p>If customers change at an accounting point, all the agreements made for the same date or to the future on the accounting point will be cancelled. See <a href="#">DH 310, example 4</a>.</p> <p>Confirmed or unconfirmed grid agreements that correspond with the cancelled sales agreement will be cancelled too.</p>
Creating a grid agreement	If a new grid agreement is needed, Datahub creates the information for the new grid agreement (starting date same as for the sales agreement, grid

agreement status "unconfirmed"). In conjunction with creating a new grid agreement, Datahub terminates the valid grid agreement on the preceding day.

Rules for conclusion:

- Responsibility for agreements does not change (the same customer or customers are responsible for the new agreement as for the agreement valid at the time of reporting), which is a case of a simple switching of suppliers or a new agreement with the current supplier: *A new grid agreement is not needed.*
- The responsibility for agreements changes (one or more agreement party changes, parties are added or removed): *A new grid agreement is needed in order to make the same customers responsible for the agreements.*
- At the time of notification, the grid agreement is already in the name of the customer making a new agreement, but the sales agreement customer changes: *A new grid agreement is not needed.*
- The sales agreement valid at the time of notification is a delivery agreement and the new sales agreement is not, or vice versa (if there is no valid sales agreement at the time of notification, but a valid grid agreement exists, the same check is done between the new sales agreement and the existing grid agreement): *A new grid agreement is needed.*
- The customers of the reported new sales agreement are the same as the customers of the valid grid agreement, but the grid agreement has an end date during the duration of the new sales agreement: *A new grid agreement is needed.* Datahub ends the previous grid agreement and sends the new one to be confirmed.
- The customers of the reported new sales agreement are the same as the customers of the valid grid agreement but the grid agreement is waiting for a cancellation based on a supplier's cancellation notification: *A new grid agreement is needed.*

Terminating  
authorizations

If there are authorizations on the accounting point that are valid at the start of the new agreement or will become valid during the new agreement, they are terminated for the start of occurrence or cancelled, unless the authorization customer is also a customer of the new agreement. An authorization that will take effect in the future is cancelled by setting the end date to the same as the start date.

	<p>If a customer is reported as information restricted (“non-disclosure”) with the new agreement, all authorizations of that customer on any accounting point are terminated for the start of occurrence of the agreement, or cancelled, if the authorization is not yet valid at agreement start date. The authorization is cancelled by setting the end date to the same as the start date.</p>
<p>Cancelling open connection/disconnection requests</p>	<p>If there are open (i.e., the actual connection or disconnection has not yet been reported) connection or disconnection requests for the accounting point with requested connection/disconnection date on or after the start date of the agreement, those requests are cancelled.</p>

## Information storage

Origin of information	Information stored
Information reported by party	New sales agreement information is created on the basis of the reported information and linked to the accounting point indicated in the notification.
	The customer information contained in the notification is updated in the customer information.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	The reason for agreement start.
	The end date of the current sales agreement and the reason for agreement termination.
	The end date of the current grid agreement and the reason for termination if the customers change.
	Information about the created grid agreement (status=‘unconfirmed’).
	Agreement cancellations, if any.
	Information about the created new customer.
	Updated customer information, if any.



	Updated authorization information, if any.
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## Return of information

Part y	Specific ation	Description	Mess age
Supp lier	Accepted event	Notification of successful or rejected notification. If the notification is successful, the reason for the new agreement registered in Datahub is returned (moving in, switching suppliers, change of agreement).	<a href="#">ACK</a>
	Rejected event	Agreement rejection includes information about the reason for rejection. The fixed-term end date of the current fixed-term agreement is returned if it is no further than 90 days in the future from the date of notification. If the current sales agreement has exceptional termination conditions, the first possible new agreement start date is returned.	

## Forwarding of information

Party	Specificati on	Description	Message
DSO	Accounting point's DSO	Notification of a new sales agreement, including information on whether a new grid agreement is needed.	<a href="#">DH-311-2</a>
		When a new customer is moving in, Datahub notifies the DSO of cancellation of grid agreement, if the upcoming grid agreement is cancelled due to the cancellation of the corresponding sales agreement. The notification should use reason code "Agreement cancelled by customer".	<a href="#">DH-311-9</a>
	Other DSOs	If the notification of a new agreement updates an already existing customer's information in Datahub, the updated information is forwarded to all parties entitled to the information.	<a href="#">DH-311-7</a>
Supplier	Accounting point's	A possible current supplier for the accounting point is notified of the termination of the current sales agreement.	<a href="#">DH-311-3</a>

	current supplier		
	Related accounting point's supplier	A possible current supplier for a related accounting point is notified of the customer moving out. The agreement for the related accounting point is not cancelled automatically. After receiving the notification of the moving out, the supplier for the related accounting point can terminate the agreement if they so wish.	<a href="#">DH-311-4</a>
	Accounting point's future supplier	When a customer is moving in, Datahub sends a notification of sales agreement cancellation to the supplier who has an upcoming agreement with a customer that is not the customer who is moving in. The notification should use reason code "Agreement cancelled by customer".	<a href="#">DH-311-5</a>
	All of the customer's suppliers	If the notification of a new agreement updates an already existing customer's information in Datahub, the updated information is forwarded to all parties entitled to the information.	<a href="#">DH-311-6</a>
		If authorizations have been ended or cancelled due to the new agreement, a notification of authorization change is sent to related market parties.	<a href="#">DH-821</a>
Third party		If the notification of a new agreement updates an already existing customer's information in Datahub, the updated information is forwarded to all parties entitled to the information.	<a href="#">DH-311-8</a>
		Notification of current sales agreement termination is forwarded to those third parties who have an authorization for the accounting point from at least one of the customers of the terminated agreement.	<a href="#">DH-311-10</a>
		If authorizations have been ended or cancelled due to the new agreement, a notification of authorization change is sent to related market parties.	<a href="#">DH-822</a>
Balancing		If the notification of an agreement cancellation changes a customer's supplier information due to the cancelled (or a	<a href="#">DH-136-2</a>

service provider	potentially restored) agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization. If the change is retroactive, the information is forwarded only if its validity overlaps with the validity of the authorization during the last 60 days (counting from the reporting date).
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### Composite processes

Party	Description	Composite process
DSO	If a new grid agreement is required, a pending grid agreement is created for the DSO.	<a href="#">DH-311 → DH-312</a>

### Significant errors and consequences

Error	Consequence
A sales agreement is reported for the wrong accounting point	A customer's current agreement is terminated at the wrong accounting point without cause.
Incorrect customer information is reported	<ul style="list-style-type: none"> <li>• Incorrect customer information is forwarded to all parties entitled to the information.</li> <li>• It is impossible to contact the customer as the existing contact information is lost.</li> <li>• Due to incorrect name or address information, mail (including invoices) is not delivered or is delivered to the wrong recipient. This may result in incorrect debt collection actions or a violation of data protection.</li> </ul>

**i** Maintaining the correctness of the information is the responsibility of the personal data registrar. Passing on incorrect personal data is a violation of data protection.

## Event cancellation

A notification of a new agreement can be cancelled using the event [DH-341](#) before the agreement's start date.


A valid agreement is cancelled using the processes described in [DH-340](#).

## Validation rules

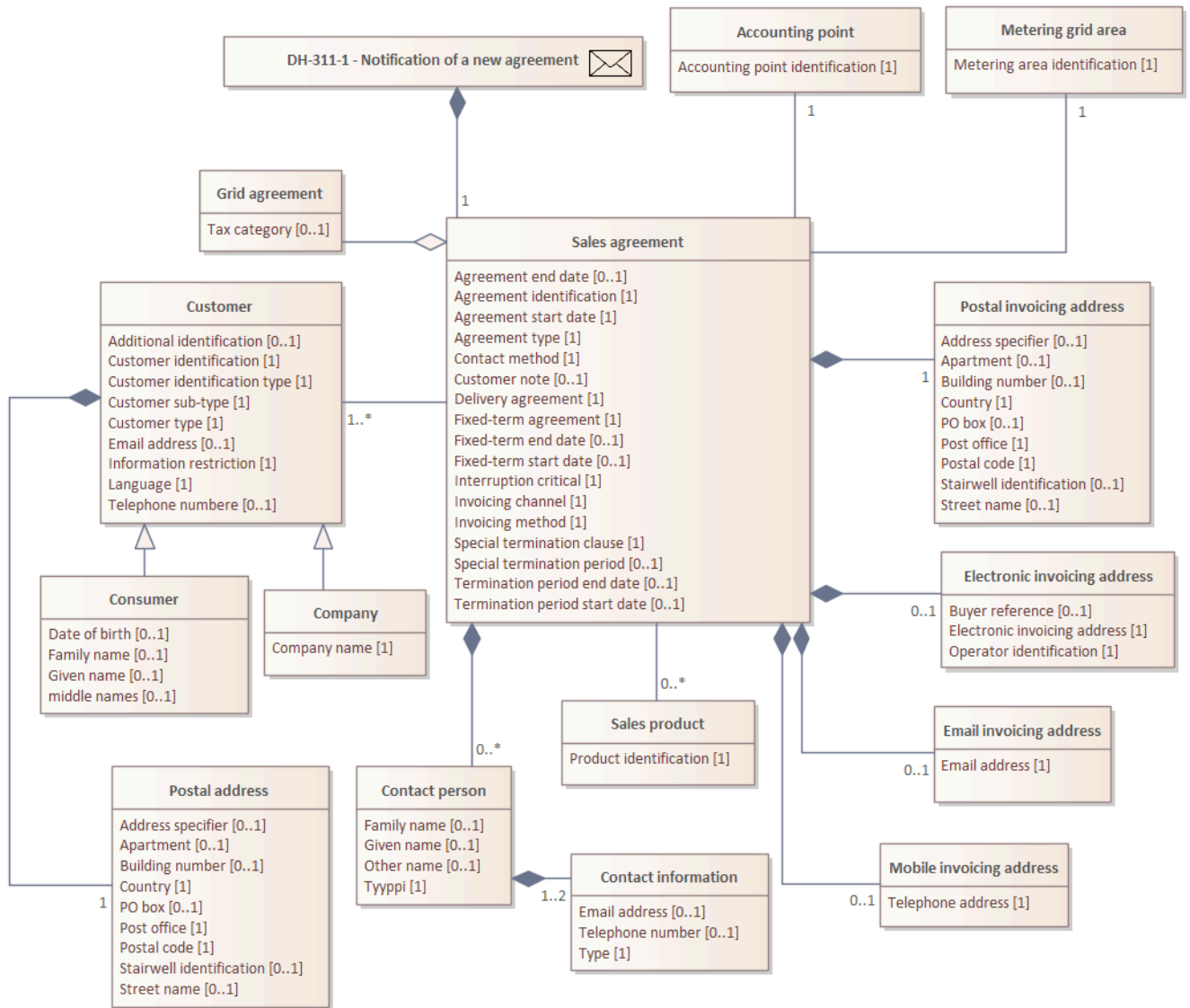
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
A residential customer must be at least 18 years old.	EC.CUS.106	
The date of entry into force of the notified agreement cannot overlap with an agreement beginning in the future.	EC.AGR.233	
Only the supplier with a delivery obligation for the accounting point's metering grid area may report an electricity delivery agreement.	EC.ARG.103	
The accounting point is recorded in Datahub and is valid on the agreement start date.	EC.MPT.115	
The accounting point is part of the notified metering grid area.	EC.MPT.116	
The accounting point must not have the status 'Removed from use' or 'Deleted' on the agreement start date.	EC.MPT.120	If the accounting point has already been removed from use, a new (retroactively beginning) agreement must end by the date of removal from use.

The supplier's balance responsible party has registered the required Supplier-BRP Relationship (RBR) with eSett prior to the agreement notification. The Supplier-BRP structure for the Supplier-metering grid area-consumption/production combination is in force on the start date of the sales agreement.	EC.BAR. 100	
If the termination of a sales agreement is already notified for the accounting point with the reason of 'Meter removal', a new (retroactively beginning) agreement must end by the date the meter is removed.	EC.AGR. 249	
If the termination of a grid agreement corresponding to a new sales agreement has already been notified for the accounting point, the new agreement must end by the termination date of the grid agreement.	EC.AGR. 251	
If a new sales agreement notification also specifies an agreement termination date, the termination date may only be a maximum of 90 days from the notification date.	EC.AGR. 202	
If the reason for beginning a new agreement is a customer's moving into a new residence or changing their agreement, the earliest possible date that can be entered on the new sales agreement is the current date.	EC.AGR. 202	
If the supplier is being changed, the earliest possible start of the new sales agreement is after 14 days, unless the previous sales agreement has already terminated, in which case the new sales agreement may begin no earlier than upon termination of the previous agreement.	EC.AGR. 202	
The notification may be sent no earlier than 90 days before the start date of the reported sales agreement.	EC.AGR. 202	
A change of supplier is not permitted if a residential customer has a valid fixed-term agreement at their	EC.AGR. 209	

accounting point which has been in force for under 2 years.		
A change of supplier is not permitted if a business customer has a valid fixed-term agreement in force at the accounting point.	EC.ARG. 207	
A change of supplier or change of agreement is not permitted if the new agreement is contrary to a business customer's valid special termination terms.	EC.AGD. 204	
<div>  Please observe that the list is not complete. </div>		

## DH-311-1 Notification of a new agreement



Details of the notification of a new agreement

Message DH-311-1 is of message type [F04](#).

Message payload includes the following information:

 See [Datahub name and address structure guide](#).

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		

Start of occurrence	2	1.1	Agreement start date	Agreement start time must be midnight.
End of occurrence	2	0..1	Agreement end date	The possible agreement end date must be after the start date.  The possible agreement end time must be midnight.
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Agreement information	2	1..1		
Customer note	3	0..1		
Contact method	3	1..1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	If the contact method for the agreement is electronic, then at least one of the customers must have an email address reported in the event.
Agreement identification	3	1..1		
Agreement type	3	1..1	Sales agreement	



Delivery agreement	3	1.1	Yes/No	
Fixed-term agreement	3	1.1	Yes/No	
Fixed-term start date	3	0.1	Mandatory for fixed-term sales agreement	<p>This information cannot be reported for an agreement that is not fixed term.</p> <p>"Fixed-term start date" must be the same as "Agreement start date" for the agreement.</p> <p>Start time for a fixed-term agreement must be midnight.</p>
Fixed-term end date	3	0.1	Mandatory for fixed-term sales agreement	<p>This information cannot be reported for an agreement that is not fixed term.</p> <p>"Fixed-term end date" must be the same as or earlier than "Agreement end date" for the agreement.</p> <p>"Fixed-term end date" must be later than "Fixed-term start date".</p> <p>End time for a fixed-term agreement must be midnight.</p>
Invoicing method	3	1.1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	<p>In case of an electricity delivery agreement, the invoicing method should be "Supplier invoices both".</p> <p>If invoicing method is anything else than separate invoicing, the accounting point DSO must allow combined invoicing.</p>
Special termination clause	3	1.1	Yes/No	Special termination clause can only be reported for a company customer's sales agreement.
Special termination period	3	0.1	Special termination period in days	If an agreement has a special termination clause, either the notice period in days or the entire notice period must be specified in the agreement.

				Information cannot be reported if the agreement does not have special termination clause.
Notice period	3	0..1		<p>If an agreement has a special termination clause, either the notice period in days or the entire notice period must be specified in the agreement.</p> <p>Information cannot be reported if the agreement does not have special termination clause.</p> <p>The notice period specifies the time period during which the agreement may be terminated. If a notice period is used, the supplier must ensure that it is updated in the agreement.</p>
Termination period start date	4	0..1		A special termination period's start time must be midnight.
Termination period end date	4	0..1		A special termination period's end time must be after the termination period's start date and at midnight.
Interruption critical	3	1..1	Yes/No	
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoice</li> <li>• E-invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> <li>• Other invoicing channel</li> </ul>	The consumer's e-invoicing address is not reported to Datahub. E-invoice or direct debit may still be marked as the invoicing channel. If so, the postal invoicing address is mandatory.
Tax category	3	0..1	<ul style="list-style-type: none"> <li>• 0</li> <li>• 1</li> </ul>	

			• 2	
Product data	3	0..n		If a product is reported for an agreement, the product must be in Datahub, be valid at the start date of the agreement and belong to the party reporting the agreement.
Product code	4	1..1	Sales agreement product identification	
Contact person	3	0..n		<p>If the customer of the agreement is of type company, at least one contact person must be reported. Contact persons are persons that the parties need in customer service situations, and they may differ between sales and grid agreements.</p> <p>There cannot be multiple contact persons with the same contact person type.</p> <p>For each contact person at least one of the name attributes must be reported.</p> <p>The parties may have their own contact persons, but only those that the party deems necessary to pass on to the other party (from the supplier to the DSO or from the DSO to the supplier) are reported to Datahub.</p>

Contact person type	4	1.1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/E-mail address	5	1..1		<p>A phone number must start with a plus '+'. A phone number may not contain spaces. The country code '+358' may not be followed by the number zero.</p>
Postal invoicing address	3	1..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p>

				If apartment information is reported, stairwell identification is mandatory.
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.

Country	4	1.1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0.1		Mandatory if invoicing channel is electronic invoice.
Buyer reference	4	0.1		
Electronic invoicing address	4	1.1		
Operator identification	4	1.1		
Other invoicing address	3	0.1		Mandatory if invoicing channel is mobile invoice (telephone number must be reported) or email (email address must be reported).
Type	4	1.1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1.1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Supplier information	3	1.1		
Party identification	4	1.1		
Basic customer	3	1..n		

information				
Customer identification	4	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If a personal identity code is provided, it must comply with the format requirements for personal identity codes.</p> <p>If a party's own customer identification is used, it must be provided as &lt;notifying supplier's identification&gt;_&lt;customer number&gt; (used as specifying data in a situation in which the personal identity code is not known or business ID does not exist). Datahub checks that the identification starts with the supplier's identification of notifying supplier.</p>
Customer identification type	4	1.1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If the customer type is consumer, customer identification type must be either personal identity code or party's own identification. If the customer type is company, customer identification type must be business ID or party's own identification.</p>
Customer type	4	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	<p>The customer type for an already existing customer cannot be updated.</p> <p>If the agreement includes both a company customer and a consumer customer, the rules for the consumer customer apply to the agreement.</p>
Customer sub-type	4	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	<p>Company estate only allowed for company customers.</p>
Information restriction	4	1.1	Yes/No	
Language	4	1.1	<ul style="list-style-type: none"> <li>• fi</li> </ul>	

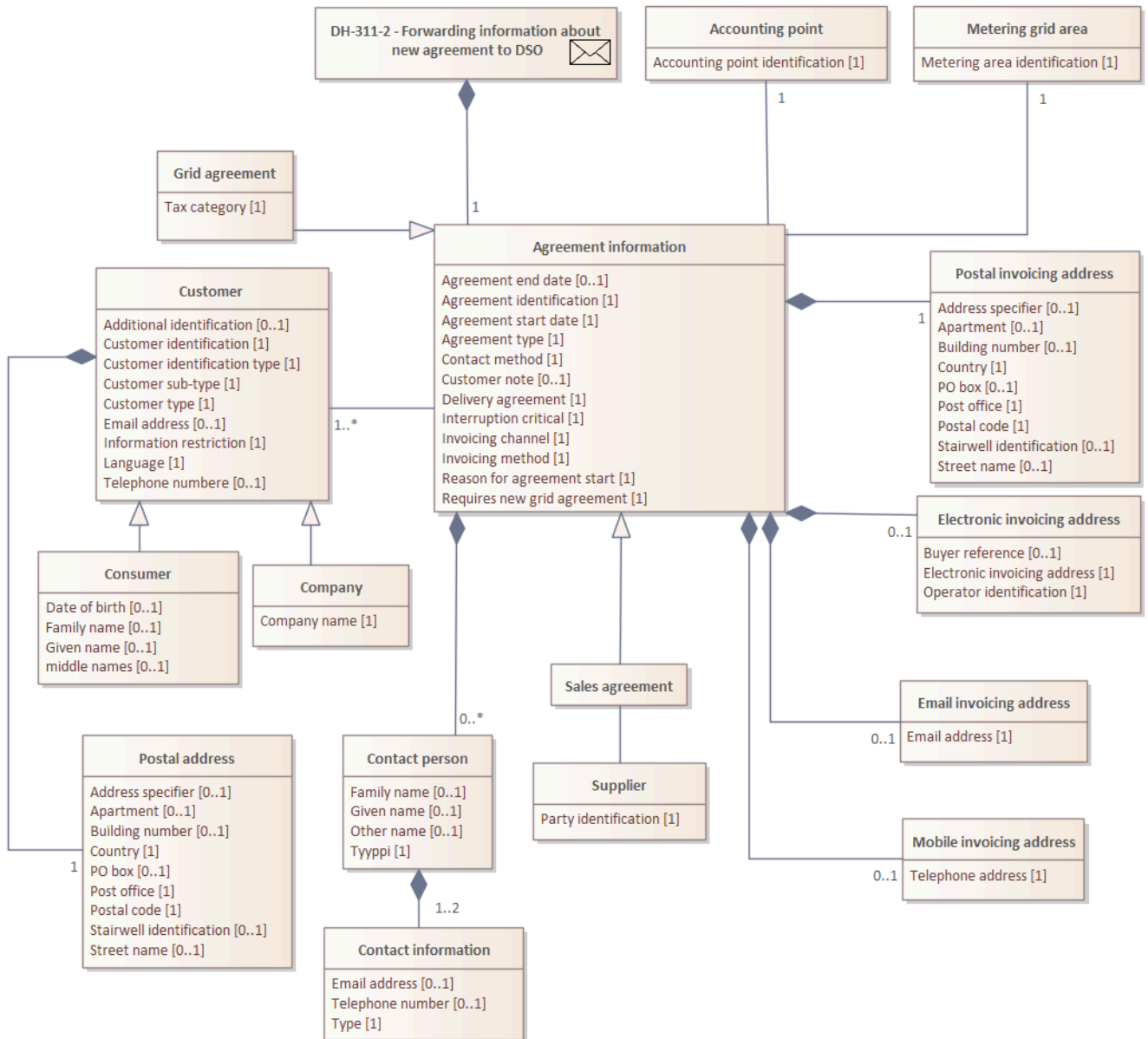
			<ul style="list-style-type: none"> <li>• en</li> <li>• sv</li> </ul>	
Company name	4	0..1	Mandatory for a business customer	
Given name	4	0..1	Mandatory for a consumer customer	<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).</p>
Middle names	4	0..1		<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).</p>
Family name	4	0..1	Mandatory for a consumer customer	The consumer customer name must not contain numbers.
Date of birth	4	0..1	<p>Mandatory for a consumer customer, if no personal identity code has been provided</p> <p>YYYY-MM-DD</p>	
Additional identificatio	4	0..1		If a business customer also needs to have a personal identity code, it is reported in the



n				additional identification field.
Contact information	4	0..2		<p>One telephone number and one e-mail address may be specified for a customer.</p> <p>The reported telephone number or email address must be in the correct format (see Datahub Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.</p>
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal address	4	1..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
Address specifier	5	0..1	c/o	
Street name	5	0..1		
Building number	5	0..1		When the address is in Finland, the building number field:

				<ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	5	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	5	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	5	1..1		<p>The postal code and post office must match. This check is only performed for addresses located in Finland.</p>
PO Box	5	0..1		
Post office	5	1..1		<p>The postal code and post office must match. This check is only performed for addresses located in Finland.</p>
Country	5	1..1	ISO 31661 ID used in accordance with alpha-2	

## DH-311-2 Forwarding information about new agreement to DSO



Details of forwarding information about new agreement to DSO

Message DH-311-2 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		

Start of occurrence	2	1..1		
End of occurrence	2	0..1	Agreement end date	
Original message identification	2	1..1	This field is used for the original DH-311-1 message identification.	<a href="#">Field usage</a>
Original message sender	2	1..1	This field is used for the original DH-311-1 message sender.	<a href="#">Field usage</a>
Requires new grid agreement	2	1..1	Yes/No	
Reason for agreement start	2	1..1	<ul style="list-style-type: none"> <li>• Agreement change</li> <li>• Switching suppliers</li> <li>• Moving in</li> </ul>	
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Agreement information	2	1..1		
Contact method	3	1..1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	
Agreement identification	3	1..1		
Agreement type	3	1..1	Sales agreement	

Delivery agreement	3	1.1	Yes/No	
Invoicing method	3	1.1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	
Interruption critical	3	1.1	Yes/No	
Invoicing channel	3	1.1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> <li>• E-Invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> <li>• Other invoicing channel</li> </ul>	
Tax category	3	0..1	<ul style="list-style-type: none"> <li>• 0</li> <li>• 1</li> <li>• 2</li> </ul>	
Customer note	3	0..1		
Contact person	3	0..n		<p>If the customer of the agreement is of type company, at least one contact person must be reported. Contact persons are persons that the parties need in customer service situations, and they may differ between sales and grid agreements.</p> <p>There cannot be multiple contact persons with the same contact person type.</p>

				<p>For each contact person at least one of the name attributes must be reported.</p> <p>The parties may have their own contact persons, but only those that the party deems necessary to pass on to the other party (from the supplier to the DSO or from the DSO to the supplier) are reported to Datahub.</p>
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>

Postal invoicing address	3	1..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
c/o	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p>

				<ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		Mandatory if invoicing channel is electronic invoice.
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Other invoicing address	3	0..1		Mandatory if invoicing channel is mobile invoice (telephone number must be reported) or email (email address must be reported).
Type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> </ul>	



			• E-mail address	
Electronic address	4	1..1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Supplier information	3	1..1		
Party identification	4	1..1		
Basic customer information	3	1..n		
Customer identification	4	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	<p>If a personal identity code is provided, it must comply with the format requirements for personal identity codes.</p> <p>If a party's own customer identification is used, it must be provided as &lt;notifying supplier's identification&gt;_&lt;customer number&gt; (used as specifying data in a situation in which the personal identity code is not known or business ID does not exist). Datahub checks that the identification starts with the supplier's identification of notifying supplier.</p>
Customer identification type	4	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> </ul>	<p>If the customer type is consumer, customer identification type must be</p>

			<ul style="list-style-type: none"> <li>• Party's own customer identification</li> </ul>	either personal identity code or party's own identification. If the customer type is company, customer identification type must be business ID or party's own identification.
Customer type	4	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	<p>The customer type for an already existing customer cannot be updated.</p> <p>If the agreement includes both a company customer and a consumer customer, the rules for the consumer customer apply to the agreement.</p>
Customer sub-type	4	1..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	Company estate only allowed for company customers.
Information restriction	4	1..1	Yes/No	
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	4	0..1	Mandatory for a business customer	
Given name	4	0..1	Mandatory for a consumer customer	<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first</p>

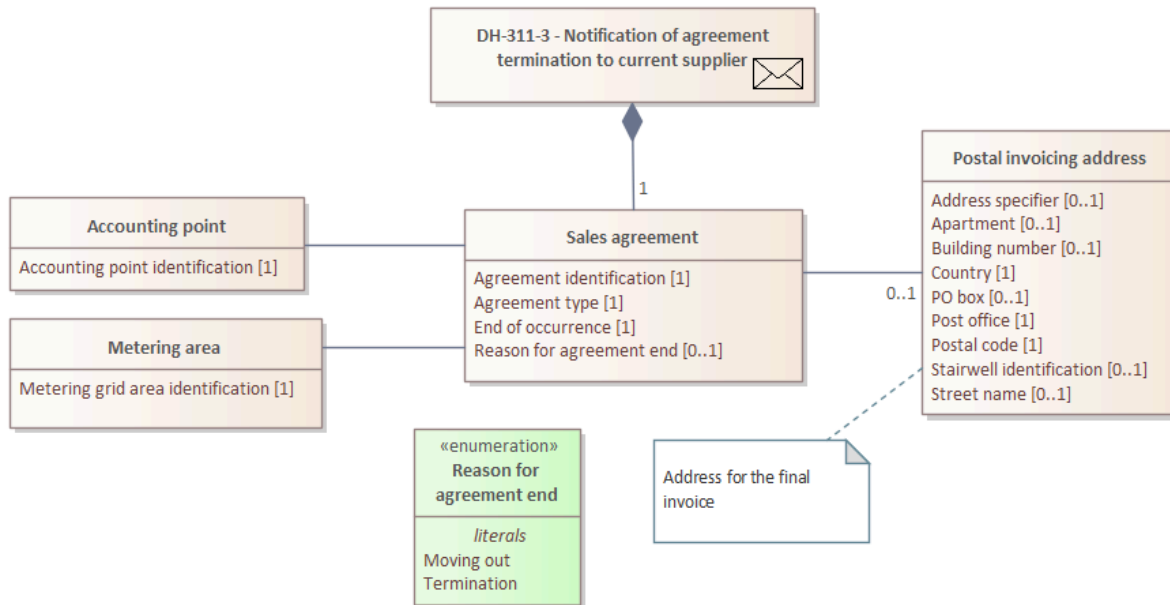
				letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).
Middle names	4	0..1		<p>The consumer customer name must not contain numbers.</p> <p>The first letter of a consumer customer's first and middle name must be in uppercase, and the following letters in lowercase. For multi-part first and middle names, the first letter of each part must be in uppercase, and the following letters in lowercase (e.g., Hanna-Kaisa).</p>
Family name	4	0..1	Mandatory for a consumer customer	The consumer customer name must not contain numbers.
Date of birth	4	0..1	<p>Mandatory for a consumer customer, if no personal identity code has been provided</p> <p>YYYY-MM-DD</p>	
Additional identification	4	0..1		If a business customer also needs to have a personal identity code, it is reported in the additional identification field.
Contact information	4	0..2		<p>One telephone number and one e-mail address may be specified for a customer.</p> <p>The reported telephone number or email address must be in the correct format (see Datahub</p>

				Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal address	4	1..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
Address specifier	5	0..1	c/o	
Street name	5	0..1		
Building number	5	0..1		When the address is in Finland, the building number field:

				<ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	5	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	5	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	5	1..1		<p>The postal code and post office must match. This check is only performed for addresses located in Finland.</p>
PO Box	5	0..1		

Post office	5	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	5	1..1	ISO 31661 ID used in accordance with alpha-2	

## DH-311-3 Notification of agreement termination to current supplier



Details of the notification of agreement termination to current supplier

Message DH-311-3 is of message type [F06](#).

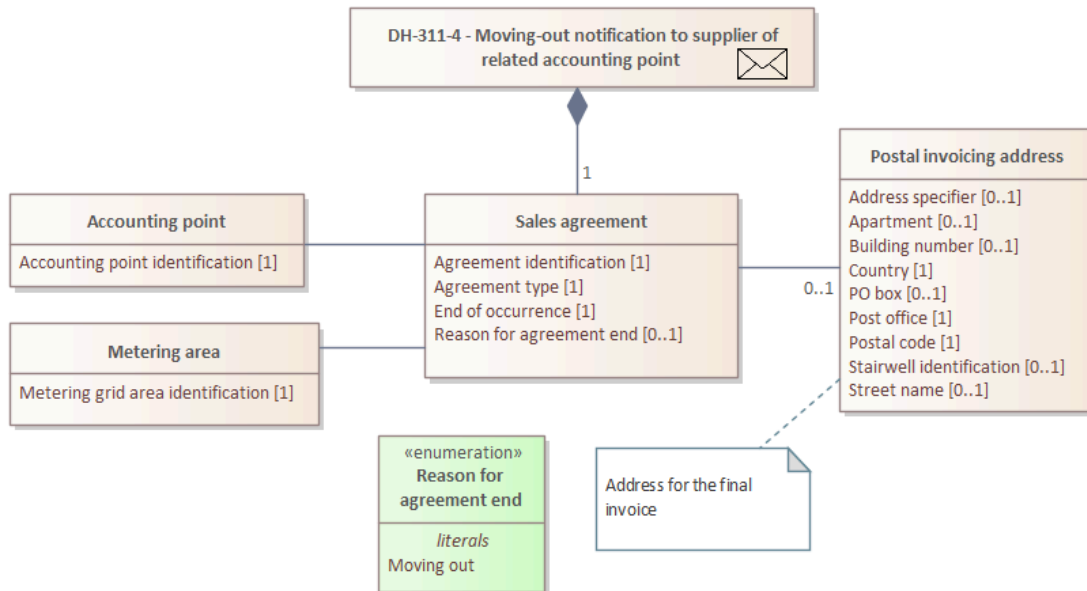
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>Moving out</li> <li>Termination</li> </ul>	
Agreement information	2	1..1		
Agreement identification	3	1..1	The identification for the ending agreement	
Agreement type	3	1..1		

Postal invoicing address	3	1.1	The postal invoicing address for the ending agreement	
Address specifier	4	0.1	c/o	
Street name	4	0.1		
Building number	4	0.1		
Stairwell identification	4	0.1		
Apartment	4	0.1		
Postal code	4	1.1		
PO Box	4	0.1		
Post office	4	1.1		
Country	4	1.1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		



## DH-311-4 Moving-out notification to supplier of related accounting point



Details of moving-out notification to supplier of related accounting point

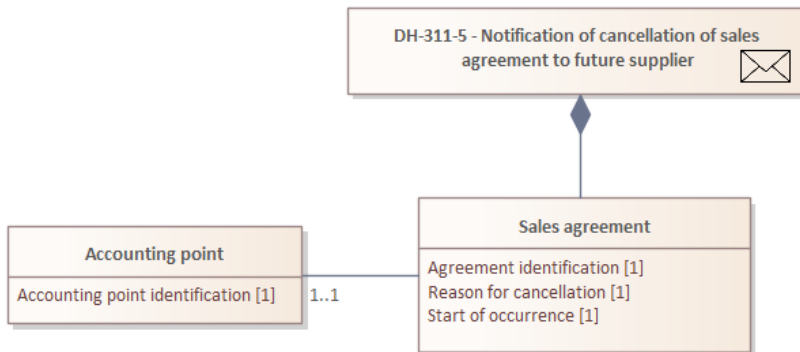
Message DH-311-4 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Reason for agreement end	2	1..1	Moving out	
Agreement information	2	1..1		
Agreement identification	3	1..1		
Agreement type	3	1..1		

Postal invoicing address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1	Identification of the related accounting point (= the accounting point for which the recipient of the notification is the supplier)	
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-311-5 Notification of cancellation of sales agreement to future supplier



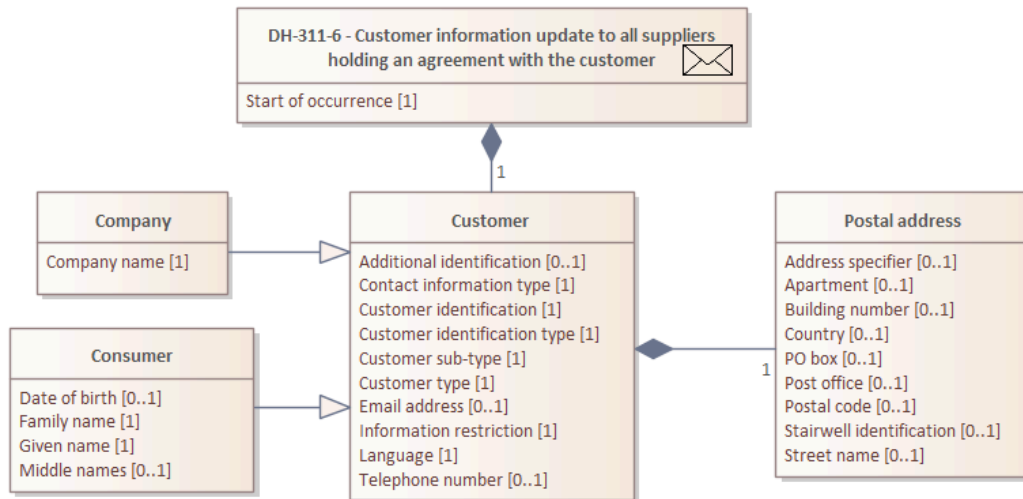
Details of the notification of cancellation of sales agreement to future supplier

Message DH-311-5 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date of cancelled agreement	
Reason for cancellation	2	1..1	<ul style="list-style-type: none"> <li>Agreement cancelled by customer</li> <li>Agreement cancelled by supplier</li> </ul>	
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification of the agreement being cancelled	
Accounting point data	2	1..1		
Accounting point identification	3	1..1		

## DH-311-6 Customer information update to all suppliers holding an agreement with the customer



Details of customer information update to all suppliers holding an agreement with the customer

Message DH-311-6 is of message type [F01](#).

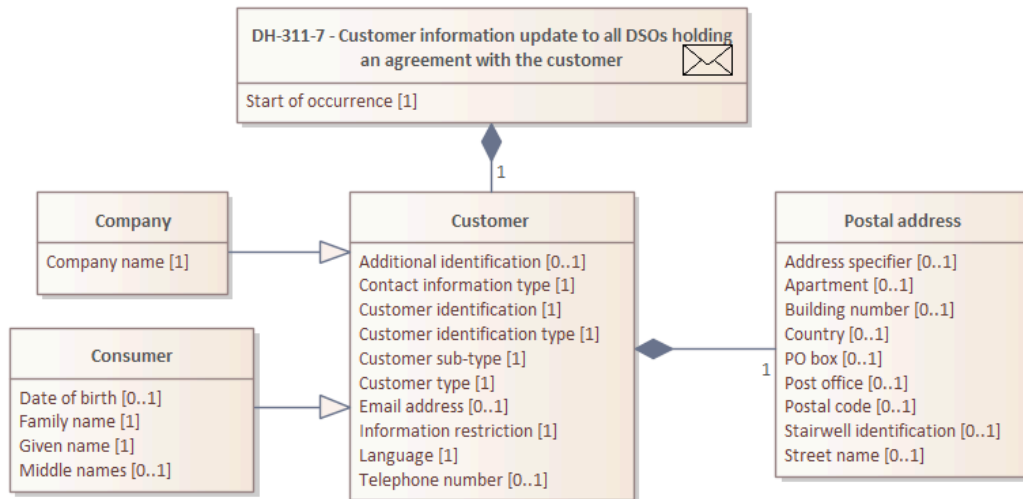
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>Company</li> </ul>	

			<ul style="list-style-type: none"> <li>• Consumer</li> </ul>	
Customer sub-type	3	1..1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Information restriction	3	1..1	Yes/No	
Language	3	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1	Mandatory for a business customer	
Given name	3	0..1	Mandatory for a consumer customer	
Middle names	3	0..1		
Family name	3	0..1	Mandatory for a consumer customer	
Date of birth	3	0..1	YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		

Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 ID used in accordance with alpha-2	

## DH-311-7 Customer information update to all DSOs holding an agreement with the customer



Details of customer information update to all DSOs holding an agreement with the customer

Message DH-311-7 is of message type [F01](#).

Message payload includes the following information:

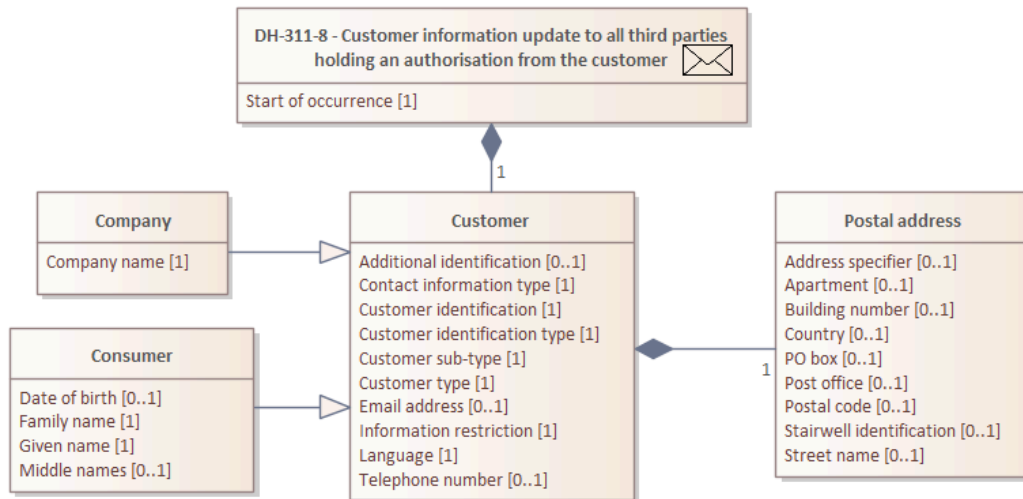
Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>Company</li> <li>Consumer</li> </ul>	
Customer sub-type	3	1..1	<ul style="list-style-type: none"> <li>Normal</li> </ul>	

			<ul style="list-style-type: none"> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Information restriction	3	1..1	Yes/No	
Language	3	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0..1	Mandatory for a business customer	
Given name	3	0..1	Mandatory for a consumer customer	
Middle names	3	0..1		
Family name	3	0..1	Mandatory for a consumer customer	
Date of birth	3	0..1	YYYY-MM-DD	
Additional identification	3	0..1		
Contact information	3	0..2		
Contact information type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		



PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 ID used in accordance with alpha-2	

## DH-311-8 Customer information update to all third parties holding an authorisation from the customer



Details of customer information update to all third parties holding an authorisation from the customer

Message DH-311-8 is of message type [F01](#).

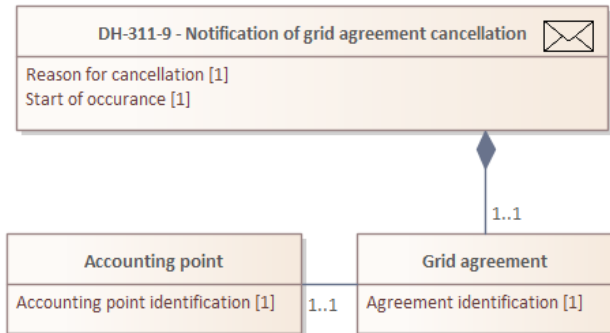
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Basic customer information	2	1..1		
Customer identification	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>Business ID</li> <li>Personal identity code</li> <li>Party's own customer identification</li> </ul>	

Customer type	3	1.1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Customer sub-type	3	1.1	<ul style="list-style-type: none"> <li>• Normal</li> <li>• Estate of a deceased person</li> <li>• Company estate</li> </ul>	
Information restriction	3	1.1	Yes/No	
Language	3	1.1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Company name	3	0.1	Mandatory for a business customer	
Given name	3	0.1	Mandatory for a consumer customer	
Middle names	3	0.1		
Family name	3	0.1	Mandatory for a consumer customer	
Date of birth	3	0.1	YYYY-MM-DD	
Additional identification	3	0.1		
Contact information	3	0..2		
Contact information type	4	1.1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	4	1.1		
Postal address	3	1.1		
Address specifier	4	0.1	c/o	

Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 ID used in accordance with alpha-2	

## DH-311-9 Notification of grid agreement cancellation



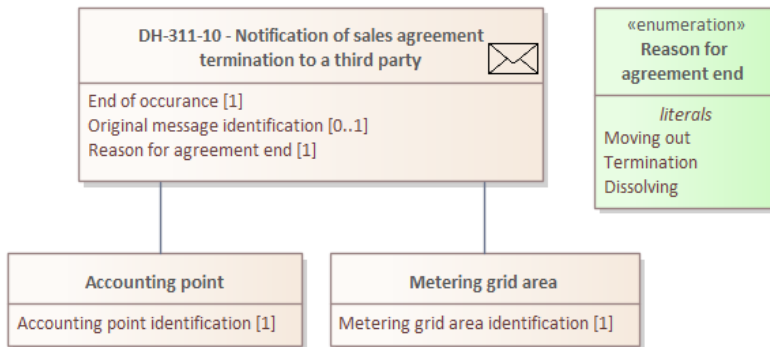
Details of the notification of grid agreement cancellation

Message DH-311-9 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Start date of cancelled agreement	
Reason for cancellation	2	1.1	Agreement cancelled by customer	
Agreement information	2	1.1		
Agreement identification	3	1.1	Identification of the agreement being cancelled	
Accounting point data	2	1.1		
Accounting point identification	3	1.1		

## DH-311-10 Notification of sales agreement termination to a third party



Details of the notification of sales agreement termination to a third party

Message DH-311-10 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	0..1	This field is used for the original DH-311-1 message identification.	<a href="#">Field usage</a>
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> </ul>	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-312 Grid agreement confirmation

Event description

Parties

Interrupting events

Time limits

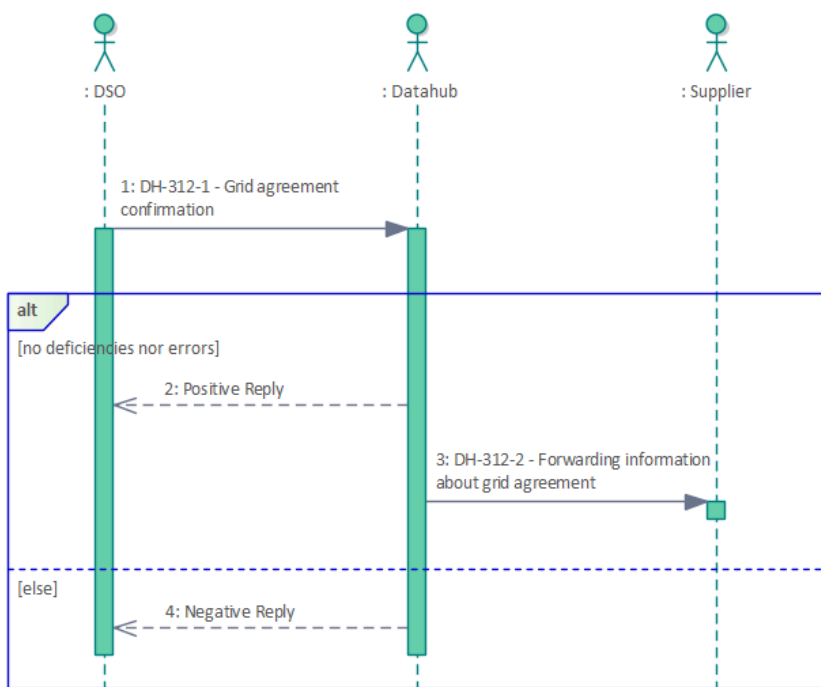
Event processing in Datahub

Information storage

Return of information

Event cancellation

Validation rules



Grid agreement confirmation

### Event description

A DSO confirms a new grid agreement in Datahub or reports that the grid agreement is rejected. Information about the grid agreement is forwarded to the supplier or, alternatively, information that the grid agreement was not confirmed.

### Parties

- DSO
- Datahub
- Current supplier

## Interrupting events

If the sales agreement corresponding to the grid agreement awaiting confirmation has been cancelled before the initiation of the event, the open event for confirming the grid agreement will also be cancelled (which the DSO will be informed of as part of the sales agreement cancellation process).

## Time limits

The DSO must confirm the grid agreement as quickly as possible, in two working days at the most after receiving information of the new agreement.

A grid agreement confirmation is still accepted after this time period, but Datahub will take actions if confirmations are sent late regularly.

## Event processing in Datahub

Step	Description
Terminating a current agreement	Datahub terminates the valid grid agreement for the accounting point on the day preceding the starting date of the new agreement.
Reason for agreement start	The grid agreement's reason for agreement start is the reason already recorded for the sales agreement.

## Information storage

Origin of information	Information stored
Information reported by the party	All information reported is stored in the database.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	The ending date of the current grid agreement.
	Information about the new grid agreement (status='confirmed').

## Return of information



Party	Description	Message
Supplier	Notification of successful or rejected notification	<a href="#">ACK</a>

## Event cancellation


A confirmed grid agreement can be cancelled using event [DH-342](#) prior to the agreement taking effect.

A valid agreement is cancelled using the processes described under [DH-340](#).

## Validation rules

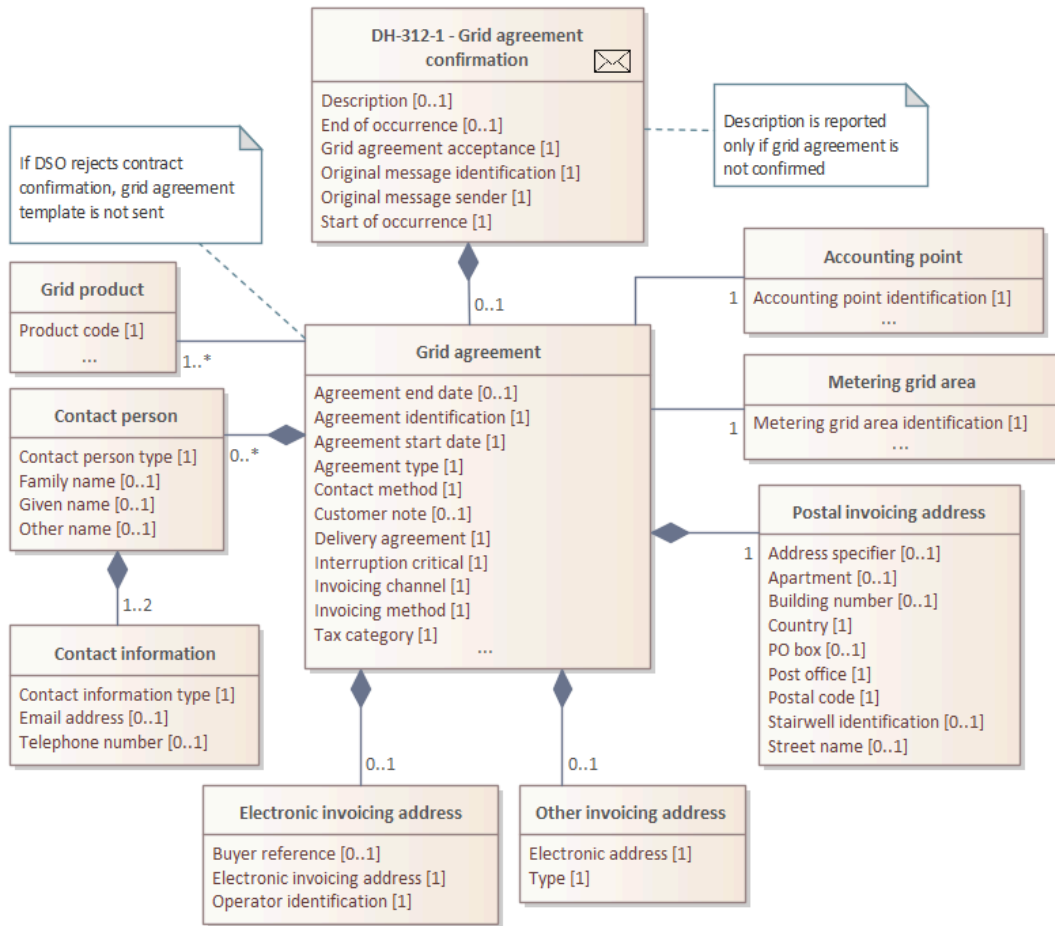
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The metering grid area must be recorded in the system and belong to the reporting distribution system operator.	EC.MPT.16 8	
The grid agreement start date must match the sales agreement's start date.		
The grid agreement cannot be confirmed if there is already a fully or partially overlapping grid agreement in place at the accounting point.		
The accounting point is recorded in Datahub and is valid on the agreement start date.	EC.MPT.11 5	
The accounting point is part of the reported metering grid area.	EC.MPT.11 6	
The accounting point must not have the status 'Removed from use' or 'Deleted' on the agreement start date.	EC.MPT.12 0	If the accounting point has already been removed from use, a new (retroactively beginning) agreement must end by the date of removal from use.

 Please observe that the list is not complete.



## DH-312-1 Grid agreement confirmation



Details of grid agreement confirmation

Message DH-312-1 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
End of occurrence	2	0..1	Agreement end date	
Original message	2	1..1	Message DH-312-1 must contain the	<a href="#">Field usage</a>

identification			message identification for message DH-311-2.	
Original message sender	2	1..1	Message DH-312-1 must contain the message sender for message DH-311-2.	<a href="#">Field usage</a>
Description	2	0..1	Reason for rejection of agreement	Description is mandatory if the grid agreement is rejected.
Grid agreement acceptance	2	1..1	Yes/No	If the DSO does not accept the grid agreement, a rejection message is returned. In that case agreement information is not included in the message.
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Agreement information	2	0..1		Agreement information must be reported if the grid agreement is accepted.
Contact method	3	1..1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	If the contact method of the agreement is electronic, then at least one of the customers must have an email address registered in Datahub.

Agreement identification	3	1.1		
Agreement type	3	1.1	Grid agreement	
Delivery agreement	3	1.1	Yes/No	The value of the "delivery agreement" attribute on the grid agreement must match the "delivery agreement" attribute of the sales agreement in DH-311.
Invoicing method	3	1.1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	If invoicing method is anything else than separate invoicing, the accounting point DSO must allow combined invoicing.
Interruption critical	3	1.1	Yes/No	
Invoicing channel	3	1.1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> <li>• E-Invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> <li>• Other invoicing channel</li> </ul>	
Tax category	3	1.1	<ul style="list-style-type: none"> <li>• 0</li> <li>• 1</li> <li>• 2</li> </ul>	
Product data	3	1..n		
Product code	4	1.1	Grid agreement product ID	
Customer note	3	0..1		

Contact person	3	0..n		<p>If the customer of the agreement is of type company, at least one contact person must be reported. Contact persons are persons that the parties need in customer service situations, and they may differ between sales and grid agreements.</p> <p>There cannot be multiple contact persons with the same contact person type.</p> <p>For each contact person at least one of the name attributes must be reported.</p> <p>The parties may have their own contact persons, but only those that the party deems necessary to pass on to the other party (from the supplier to the DSO or from the DSO to the supplier) are reported to Datahub.</p>
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		

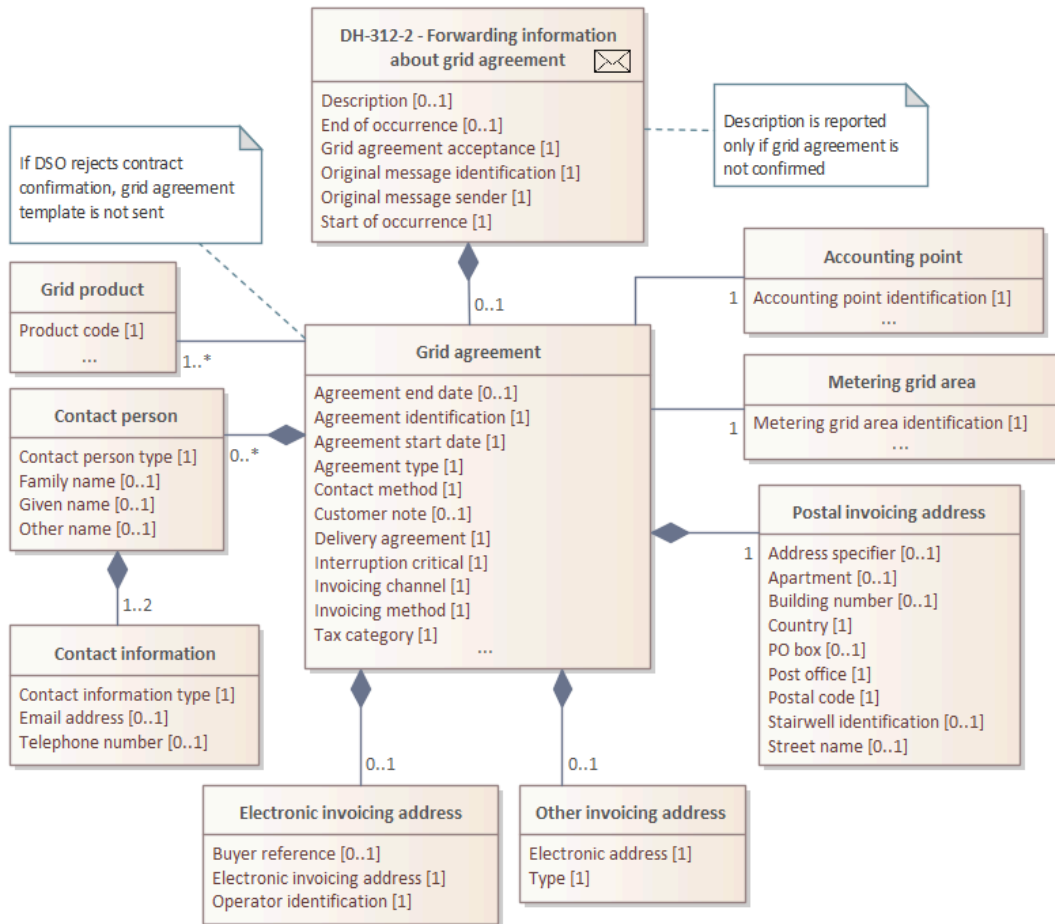
Contact information type	5	1.1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1.1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal invoicing address	3	1.1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
Address specifier	4	0.1	c/o	
Street name	4	0.1		
Building number	4	0.1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0.1		<p>Rules for the stairwell identification field:</p>

				<ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		Mandatory if invoicing channel is electronic invoice.
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		



Operator identification	4	1..1		
Other invoicing address	3	0..1		Mandatory if invoicing channel is mobile invoice (telephone number must be reported) or email (email address must be reported).
Type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1..1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>

## DH-312-2 Forwarding information about grid agreement



Details of forwarding information about grid agreement

Message DH-312-2 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
End of occurrence	2	0.1	Agreement end date	
Original message	2	1.1	Contains the message identification for	<a href="#">Field usage</a>

identification			message DH-311-1.	
Original message sender	2	1..1	Contains the sender of message DH-311-1.	<a href="#">Field usage</a>
Description	2	0..1	Reason for rejection of agreement	
Grid agreement acceptance	2	1..1	Yes/No	If the DSO does not accept the grid agreement, a rejection message is returned. In that case agreement information is not included in the message.
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Agreement information	2	0..1		Agreement information must be reported if the grid agreement is accepted.
Contact method	3	1..1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	
Agreement identification	3	1..1		
Agreement type	3	1..1	Grid agreement	
Delivery agreement	3	1..1	Yes/No	
Invoicing method	3	1..1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	

Interruption critical	3	1..1	Yes/No	
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> <li>• E-Invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> <li>• Other invoicing channel</li> </ul>	
Tax category	3	1..1	<ul style="list-style-type: none"> <li>• 0</li> <li>• 1</li> <li>• 2</li> </ul>	
Product data	3	1..n		
Product code	4	1..1	Grid agreement product ID	
Customer note	3	0..1		
Contact person	3	0..n		
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		

Contact information	4	1..2		
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		
Postal invoicing address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		Mandatory if invoicing channel is electronic invoice.
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		

Operator identification	4	1.1		
Other invoicing address	3	0.1		Mandatory if invoicing channel is mobile invoice (telephone number must be reported) or email (email address must be reported).
Type	4	1.1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1.1		

## DH-320 Reporting changes to agreements

Whenever a party makes changes in its own system to data that will be stored in Datahub, the changes must be reported to Datahub. The agreement to be updated is identified with the combination of agreement identification, market party and accounting point identification. Changes made to agreements are reported to Datahub in accordance with the following rules:

1. It is not possible to add or remove customers from agreements using an update event; instead, a new sales agreement must be reported. It is also not possible to update the agreement's customer information using an agreement update. Customer information is updated using [DH-110 Customer information maintenance](#).
2. It is not possible to change the start and end dates of an agreement using an agreement update. The start or end dates of a sales agreement can only be changed in Datahub before the arrival of the date (that is, not retroactively) by first reporting the [cancellation of the original notification](#) to Datahub and then by [issuing a new notification](#) with the new date.
3. Changing the start and end dates of a sales agreement once delivery has already begun or ended is explained under [Retroactive error correction](#).
4. Both agreements that are valid at the time of sending the update to Datahub and agreements that will become valid in the future can be updated. A sales agreement that has already ended can only be updated if it has ended less than 6 weeks ago. An ended grid agreement can be updated without restrictions.
5. Changes to an agreement's content, wherein a party updates information in an existing agreement, are made using an agreement update event. Changes to the content of an agreement include, e.g., product changes, changes affecting invoicing details, changes to special termination clause or a change to the fixed term of a sales agreement.
6. A sales agreement can be updated from non-fixed-term to fixed-term agreement and vice versa. Fixed-term start and end dates of a fixed-term agreement can be updated. An agreement can also be updated with a new fixed-term period following the earlier one.
7. An agreement cannot be updated from regular to delivery agreement or vice versa. In this case a new sales agreement needs to be reported to Datahub.
8. Updates to agreement information made by a party in their own system must not be sent to Datahub if the update does not change the agreement information maintained in Datahub.
9. An update of agreement information should not automatically trigger another event, such as an update to the customer's postal address, unless that information has also changed.





# DH-320 Process maps

No content yet.

## DH-320 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-321 Updating sales agreement information

Event description

Parties

Important considerations for event handling

Time limits

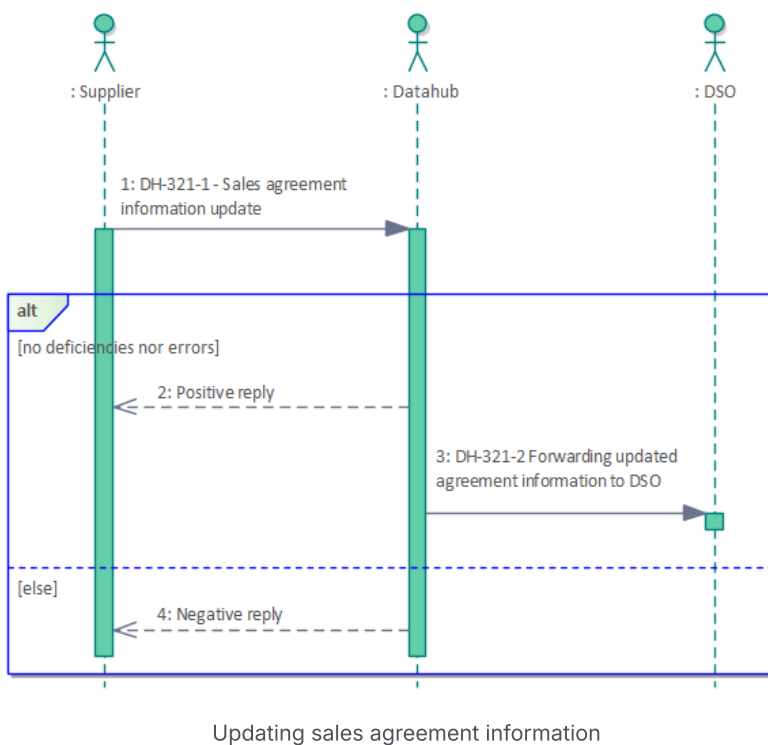
Information storage

Return of information

Forwarding of information

Event cancellation

Validation rules



### Event description

A supplier updates agreement information in Datahub.

### Parties

- Supplier
- Datahub
- DSO

### Important considerations for event handling

1. In an update event, all event data must be provided, not just the changed information.

2. The start and end times of the agreement cannot be changed using this notification. They are corrected by first sending a cancellation and then a new agreement notification.
3. Updating agreement information should not automatically trigger another event, such as an update to the customer's postal address (DH-111), unless that information has also changed.
4. Updates to sales agreement information made by a party in their own system must not be sent to Datahub if the update does not change the agreement information maintained in Datahub.

### Time limits

Agreement type	Effective date of the update	Note
Regular agreement	At most 3 years in the past and at most 90 days in the future.	Both agreements valid at the time of sending the update to Datahub and agreements that will become valid in the future can be updated. An agreement that has already ended can only be updated if it has ended less than 6 weeks ago.
Delivery agreement	At most 10 years in the past and at most 90 days in the future.	

### Information storage

Origin of information	Information stored
Information reported by party	The changed agreement information.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	The post office name in upper case.

### Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information update	<a href="#">ACK</a>

### Forwarding of information

Party	Description	Message
DSO	The updated information is forwarded to the DSO (if desired, the DSO updates the information in its own system). Information concerning fixed-term agreements and special termination clauses is not forwarded. If only attributes that are not forwarded include changes, then no notification to DSO is sent.	<a href="#">DH-321-2</a>


## Event cancellation

Information is corrected by means of a new update.

## Validation rules

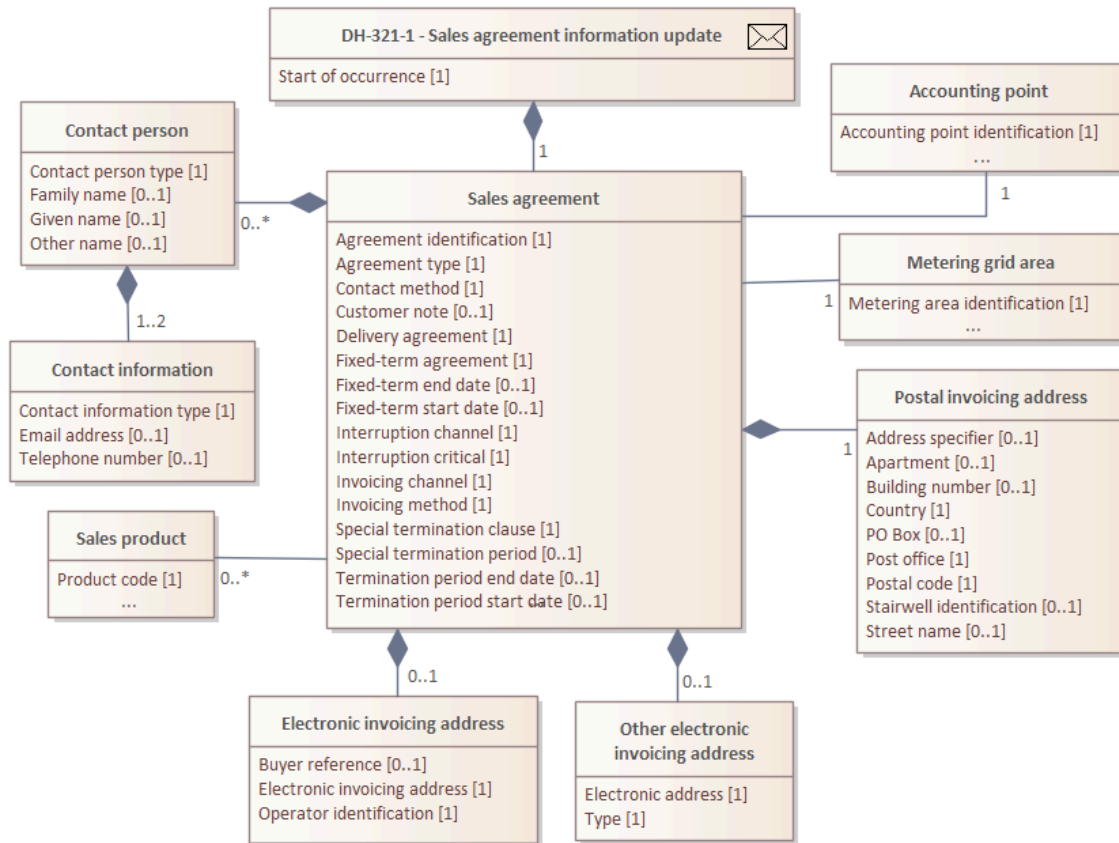
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub and is valid on the agreement start date.	EC.MPT.11 5	
The accounting point is part of the reported metering grid area.	EC.MPT.11 6	
The accounting point must not have the status 'Removed from use' or 'Deleted' on the agreement start date.	EC.MPT.12 0	
The agreement must be available in Datahub, with the reporting supplier as one of the parties.	EC.AGR.11 7	
The agreement must be valid when the update enters into force.	EC.AGR.11 8	
The agreement termination date cannot be updated.	EC.AGR.12 5	
An electricity delivery agreement cannot be updated into an ordinary agreement, and vice versa.	EC.AGR.12 3	

 Please observe that the list is not complete.



## DH-321-1 Sales agreement information update



Details of sales agreement information update

Message DH-321-1 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		Start of occurrence in accordance with the business process specifications.  Agreement start time must be midnight.
Accounting point data	2	1..1		This information is not updated in this event, it is used to identify the agreement to be updated.

Accounting point identification	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Area information	2	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Metering grid area identification	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Agreement information	2	1.1		
Contact method	3	1.1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	If the contact method for the agreement is electronic, then at least one of the customers must have an email address registered in Datahub.
Agreement identification	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Agreement type	3	1.1	Sales agreement	This information is not updated in this event, it is used to identify the agreement to be updated.
Delivery agreement	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Fixed-term agreement	3	1.1	Yes/No	
Fixed-term start date	3	0.1		<p>Fixed-term agreement start time must be midnight.</p> <p>Mandatory, if fixed-term agreement. Not allowed if agreement is not fixed term.</p> <p>"Fixed-term start date" must be the same or later than "Agreement start date".</p>



				<p>"Fixed-term start date" must be earlier than "Agreement end date".</p> <p>"Fixed-term start date" can be at most 3.5 years in the past or 90 days in the future.</p> <p>Updated "Fixed-term start date" must be later than the original "Fixed-term start date".</p> <p>"Fixed-term end date" must be later than "Fixed-term start date".</p> <p>"Fixed-term end date" must be the same or earlier than "Agreement end date".</p> <p>Note: No validations are used for the fixed-term dates if the update does not affect the dates.</p>
Fixed-term end date	3	0..1		<p>Fixed-term agreement end time must be midnight.</p> <p>Mandatory, if fixed-term agreement. Not allowed if agreement is not fixed term.</p> <p>"Fixed-term start date" must be the same or later than "Agreement start date".</p> <p>"Fixed-term start date" must be earlier than "Agreement end date".</p> <p>"Fixed-term start date" can be at most 3.5 years in the past or 90 days in the future.</p> <p>Updated "Fixed-term start date" must be later than the original "Fixed-term start date".</p> <p>"Fixed-term end date" must be later than "Fixed-term start date".</p> <p>"Fixed-term end date" must be the same or earlier than "Agreement end date".</p> <p>Note: No validations are used for the fixed-term dates if the update does not affect the dates.</p>

Invoicing method	3	1..1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	If the invoicing method is not “Separate invoicing”, the DSO for the accounting point must have “Combined invoicing” set to yes.
Special termination clause	3	1..1	Yes/No	<p>If the contact method of the agreement is electronic, then at least one of the customers must have an email address registered in Datahub.</p> <p>Special termination clause can only be reported for a company customer.</p>
Special termination period	3	0..1	Special termination period in days	If an agreement has a special termination clause, either the notice period in days or the entire notice period must be specified in the agreement. The notice period specifies the time period during which the agreement may be terminated. If a notice period is used, the supplier must ensure that it is updated in the agreement.
Notice period	3	0..1		If an agreement has a special termination clause, either the notice period in days or the entire notice period must be specified in the agreement. The notice period specifies the time period during which the agreement may be terminated. If a notice period is used, the supplier must ensure that it is updated in the agreement.
Termination period start date	4	0..1		<p>A special termination period’s start time must be midnight.</p> <p>If an agreement has a special termination clause, either the notice period in days or the entire notice period must be specified in the agreement. The notice period specifies the time period during which the agreement may be terminated. If a</p>

				notice period is used, the supplier must ensure that it is updated in the agreement.
Termination period end date	4	0..1		<p>A special termination period's end time must be after the termination period's start date and at midnight.</p> <p>If an agreement has a special termination clause, either the notice period in days or the entire notice period must be specified in the agreement. The notice period specifies the time period during which the agreement may be terminated. If a notice period is used, the supplier must ensure that it is updated in the agreement.</p>
Interruption critical	3	1..1	Yes/No	
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoice</li> <li>• E-invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> <li>• Other invoicing channel</li> </ul>	
Product data	3	0..n		If a product is reported for an agreement, the product must be in Datahub, be valid at the start date of the agreement and belong to the party reporting the agreement.
Product code	4	1..1		

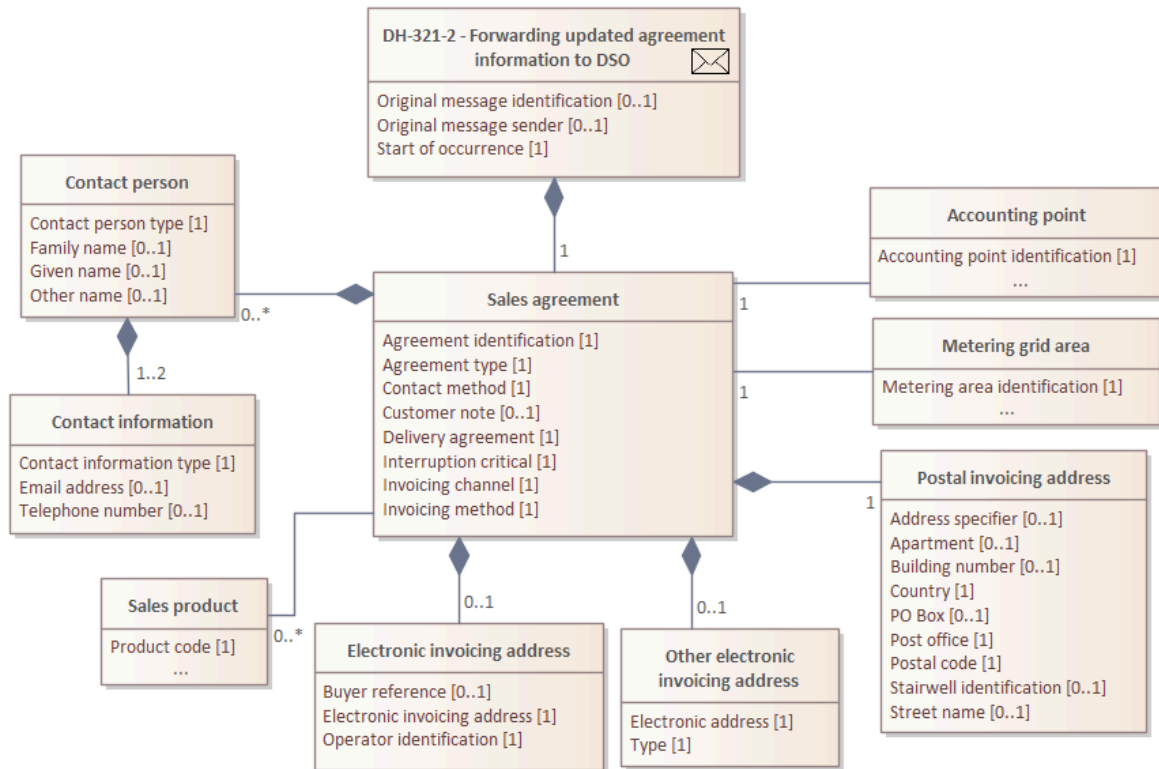
Customer note	3	0..1		
Contact person	3	0..n		<p>If the customer of the agreement is of type company, at least one contact person must be reported. Contact persons are persons that the parties need in customer service situations, and they may differ between sales and grid agreements.</p> <p>There cannot be multiple contact persons with the same contact person type.</p> <p>For each contact person at least one of the name attributes must be reported.</p> <p>The parties may have their own contact persons, but only those that the party deems necessary to pass on to the other party (from the supplier to the DSO or from the DSO to the supplier) are reported to Datahub.</p>
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		

Contact information	4	1..2		The reported telephone number or email address must be in the correct format (see Datahub Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>
Postal invoicing address	3	1..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>

Stairwell identification	4	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		Mandatory if invoicing channel is electronic invoice.
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		

Operator identification	4	1..1		
Other electronic invoicing address	3	0..1		Mandatory if invoicing channel is mobile invoice (telephone number must be reported) or email (email address must be reported).
Type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1..1		<p>A phone number must start with a plus '+'. A phone number may not contain spaces. The country code '+358' may not be followed by the number zero.</p>

## DH-321-2 Forwarding updated agreement information to DSO



Details of forwarding updated agreement information to DSO

Message DH-321-2 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		
Original message identification	2	0.1	Contains the message identification for message DH-321-1.	<a href="#">Field usage</a>
Original message sender	2	0.1	Contains the sender of message DH-321-1.	<a href="#">Field usage</a>



Accounting point data	2	1.1		
Accounting point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Agreement information	2	1.1		
Contact method	3	1.1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	
Agreement identification	3	1.1		
Agreement type	3	1.1	Sales agreement	
Delivery agreement	3	1.1		
Invoicing method	3	1.1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	
Interruption critical	3	1.1	Yes/No	
Invoicing channel	3	1.1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> <li>• E-Invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> </ul>	
Product data	3	0..n		Only forwarded to the DSO if the DSO has an authorisation to

				supplier's product data.
Product code	4	1.1		
Customer note	3	0..1		
Contact person	3	0..n		
Contact person type	4	1.1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Contact information type	5	1.1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1.1		
Postal invoicing address	3	1.1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		

Postal code	4	1.1		
PO Box	4	0..1		
Post office	4	1.1		
Country	4	1.1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1.1		
Operator identification	4	1.1		
Other invoicing address	3	0..1		
Type	4	1.1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1.1		

## DH-322 Updating grid agreement information

Event description

Parties

Important considerations for event handling

Time limits

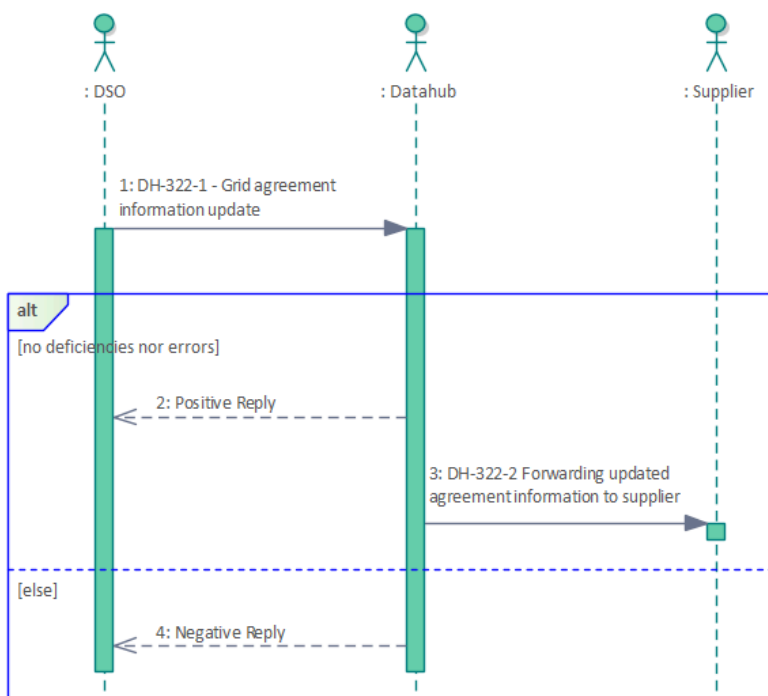
Information storage

Return of information

Forwarding of information

Event cancellation

Validation rules



Updating grid agreement information

### Event description

A DSO updates grid agreement information in Datahub.

### Parties

- DSO
- Datahub
- Supplier

### Important considerations for event handling

1. In an update event, all event data must be provided, not just the changed information.

2. Updating agreement information should not automatically trigger another event, such as an update to the customer's postal address (DH-112), unless that information has also changed.
3. Updates to grid agreement information made by a party in their own system must not be sent to Datahub if the update does not change the agreement information maintained in Datahub.

#### Time limits

Effective date of the update	Note
At most 10 years in the past and at most 90 days in the future.	Both agreements valid at the time of sending the update to Datahub, agreements that will become valid in the future and already terminated agreements can be updated.

#### Information storage

Origin of information	Information stored
Information reported by party	The changed agreement information.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	The post office name in upper case.

#### Return of information

Party	Description	Message
DSO	Notification of successful or rejected information update	<a href="#">ACK</a>

#### Forwarding of information

Party	Description	Message
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Supplier	The updated agreement information is relayed to suppliers whose sales agreement corresponds to the updated grid agreement and is valid at the start of occurrence of the update or after that.	<a href="#">DH-322-2</a>
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## Event cancellation

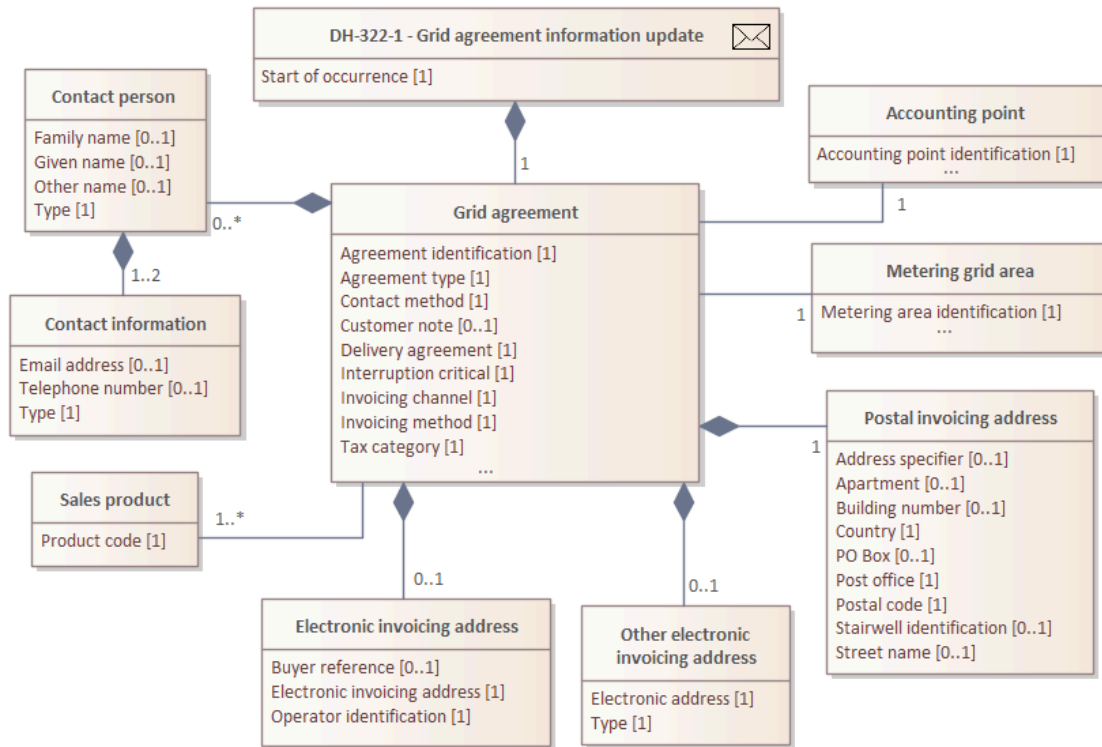
Information is corrected by means of a new update.

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub and is valid on the agreement start date.	EC.MPT.115	
The accounting point is part of the reported metering grid area.	EC.MPT.116	
The accounting point must not have the status 'Removed from use' or 'Deleted' on the agreement start date.	EC.MPT.120	
The agreement must be available in Datahub, with the reporting supplier as one of the parties.	EC.AGR.117	
The agreement must be valid when the update enters into force.	EC.AGR.118	
The agreement termination date cannot be updated.	EC.AGR.125	
An electricity delivery agreement cannot be updated into an ordinary agreement, and vice versa.	EC.AGR.123	
<div>  Please observe that the list is not complete.         </div>		

## DH-322-1 Grid agreement information update



Details of grid agreement information update

Message DH-322-1 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1		Start of occurrence in accordance with the business process specifications.  Agreement start time must be midnight.
Accounting point data	2	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.

Accounting point identification	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Area information	2	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Metering grid area identification	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Agreement information	2	1.1		
Contact method	3	1.1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	If the contact method for the agreement is electronic, then at least one of the customers must have an email address registered in Datahub.
Agreement identification	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Agreement type	3	1.1	Grid agreement	This information is not updated in this event, it is used to identify the agreement to be updated.
Delivery agreement	3	1.1		This information is not updated in this event, it is used to identify the agreement to be updated.
Invoicing method	3	1.1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	If the invoicing method is not “Separate invoicing”, the DSO reporting the information must have “Combined invoicing” set to yes.
Interruption critical	3	1.1	Yes/No	



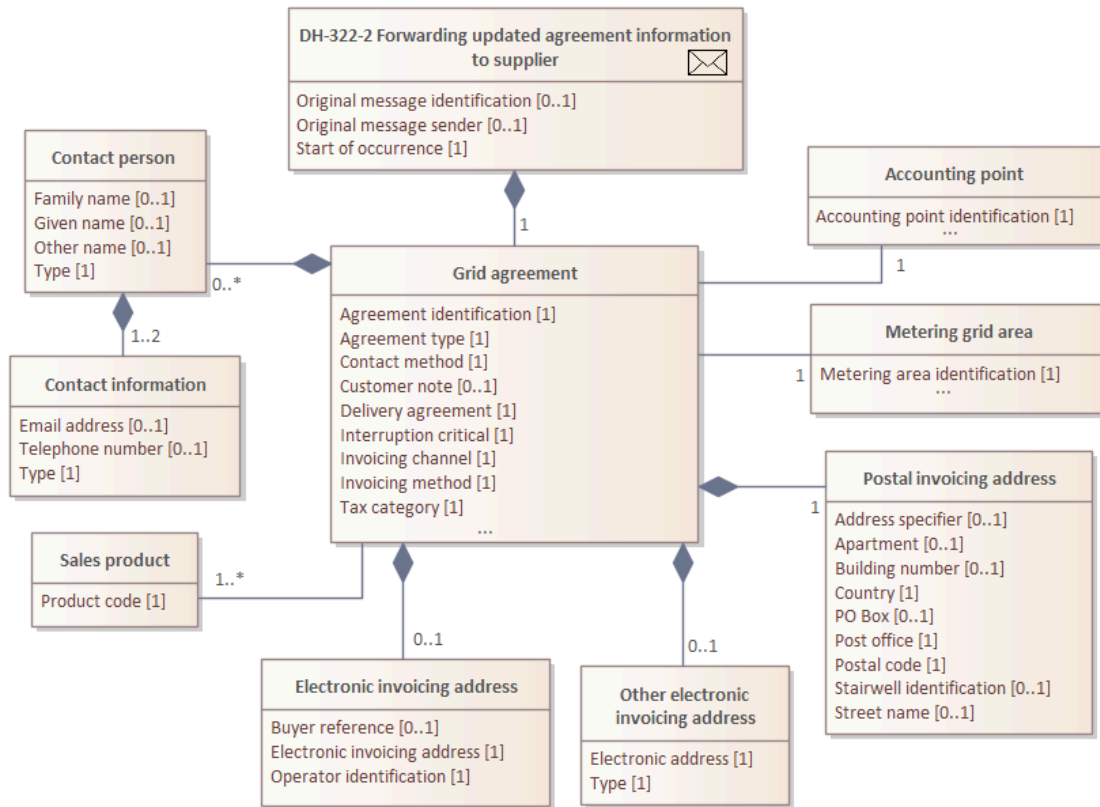
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoice</li> <li>• E-invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> </ul>	
Product data	3	1..n		If a product is reported for an agreement, the product must be in Datahub, be valid at the start date of the agreement and belong to the party reporting the agreement.
Product code	4	1..1		
Customer note	3	0..1		
Tax category	3	1..1		
Contact person	3	0..n		<p>If the customer of the agreement is of type company, at least one contact person must be reported. Contact persons are persons that the parties need in customer service situations, and they may differ between sales and grid agreements.</p> <p>There cannot be multiple contact persons with the same contact person type.</p> <p>For each contact person at least one of the name attributes must be reported.</p> <p>The parties may have their own contact persons, but only those that the party deems necessary to pass on to the other party (from the supplier to the DSO or from the DSO to the supplier) are reported to Datahub.</p>

Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		The reported telephone number or email address must be in the correct format (see Datahub Datastandard). The information must be the customer's actual contact information through which the customer can be reached if necessary. Contact information should be left blank if it is not known.
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		<p>A phone number must start with a plus '+'. A phone number may not contain spaces. The country code '+358' may not be followed by the number zero.</p>
Postal invoicing address	3	1..1		Address information must contain the postal code and either street name and building number or PO Box.

				<p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: "as", "as.", "bst" or "bst.", it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		<p>The postal code and post office must match. This check is only performed for addresses located in Finland.</p>
PO Box	4	0..1		

Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		Mandatory if invoicing channel is electronic invoice.
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Other invoicing address	3	0..1		Mandatory if invoicing channel is mobile invoice (telephone number must be reported) or email (email address must be reported).
Type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1..1		<p>A phone number must start with a plus '+'. A phone number may not contain spaces. The country code '+358' may not be followed by the number zero.</p>

## DH-322-2 Forwarding updated agreement information to supplier



Details of forwarding updated agreement information to supplier

Message DH-322-2 is of message type [F04](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1		
Original message identification	2	0..1	Contains the message identification for message DH-322-1.	<a href="#">Field usage</a>
Original message sender	2	0..1	Contains the sender of message DH-322-1.	<a href="#">Field usage</a>

Accounting point data	2	1.1		
Accounting point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Agreement information	2	1.1		
Contact method	3	1.1	<ul style="list-style-type: none"> <li>• Electronic</li> <li>• Other</li> </ul>	
Agreement identification	3	1.1		
Agreement type	3	1.1	Grid agreement	
Delivery agreement	3	1.1		
Invoicing method	3	1.1	<ul style="list-style-type: none"> <li>• Separate invoicing</li> <li>• Grid invoices both</li> <li>• Supplier invoices both</li> </ul>	
Interruption critical	3	1.1	Yes/No	
Invoicing channel	3	1.1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> <li>• E-Invoice</li> <li>• E-mail</li> <li>• OmaPosti</li> <li>• Direct debit</li> <li>• Mobile invoice</li> </ul>	
Product data	3	1..n		
Product code	4	1.1		

Customer note	3	0..1		
Tax category	3	1..1		
Contact person	3	0..n		
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Trustee</li> <li>• Responsible for agreements</li> <li>• Responsible for invoicing</li> <li>• Responsible for connections</li> <li>• Fault communication</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number/Email address	5	1..1		
Postal invoicing address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		

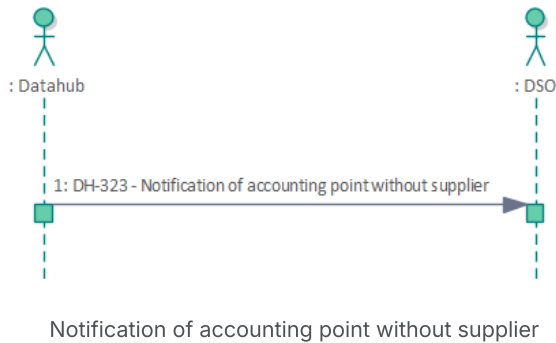
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Other invoicing address	3	0..1		
Type	4	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Electronic address	4	1..1		



## DH-323 Notification of accounting point without supplier

### Event description

#### Parties



### Event description

Datahub notifies the DSO of an accounting point without a supplier. Thus, the DSO can terminate its own agreement and, if desired, disconnect the electricity at the accounting point. The DSO will get a one-time notification (DH-323-1) for an accounting point when the system determines that an accounting point is about to become without supplier in two weeks or sooner. When an accounting point truly is without supplier, a notification (DH-323-2) is sent to the DSO every day.

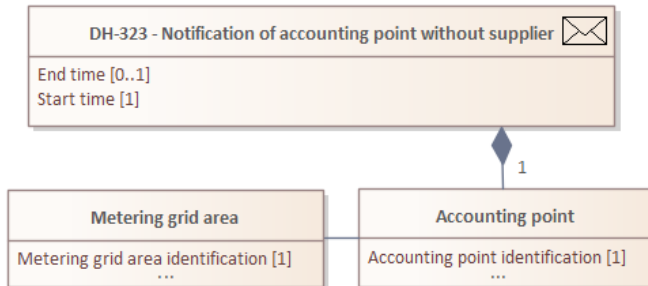
The event starts whenever\* Datahub's internal processing finds an accounting point that does not have a valid sales agreement (technically no settlement information) even though the accounting point status is connected. Datahub's internal processing takes place every day before 12 o'clock.

\*The notification is not sent if the agreement, due to which the accounting point is/will remain without supplier, has been ended with reason 'Delivery ends due to a supplier related reason' or cancelled with reason 'Cancellation due to a supplier related reason'.

### Parties

- Datahub
- DSO

## DH 323-1, DH 323-2 Notification of accounting point without supplier



Details of the notification of accounting point without supplier

Messages DH-321-1/2 is of message type [F05](#).

Message payload includes the following information:

Information field	Level	Necessity
Payload	1	1..1
Accounting point identification	2	1..1
Area information	2	1..1
Metering grid area identification	3	1..1
Time without an agreement	2	1..1
Start time	3	1..1
End time	3	0..1

## DH-330 Reporting an agreement termination

[Separate move-in and move-out reports](#)

[Separate move-out notification as part of the customer's move-in](#)

[The customer disputes a sales agreement](#)

[Accounting points without supplier](#)

The [report of a new sales agreement](#) ends the previous agreement at an accounting point automatically on the day preceding the start of the new agreement. In addition to this it is also possible to report the termination of an agreement to Datahub separately. In these cases, the rule of thumb is that a notification which ends an agreement in Datahub – that is, records the end date of an agreement – is made by the party whose agreement is ending. Datahub will send a notification of the termination of agreement to the other party who will then (in accordance with its own processes) terminate the agreement in its own system and then report this to Datahub using its own termination notification. It is, however, also possible for the supplier of the customer's new accounting point to report the termination of a customer's agreement via Datahub, whereupon the termination notification is sent to the accounting point's DSO which will then end the agreement in Datahub as if the customer had notified the DSO itself that it is moving out.

In a situation where a supplier can no longer operate in the electricity retail market either due to bankruptcy or because the supplier no longer has a balance responsible party, the Datahub operator can terminate all the supplier's agreements using a bulk process. The process sends the DSO a termination notification for each ended agreement with the reason 'Delivery ends due to a supplier related reason'. The event also cancels any future agreements of the supplier in question and sends a cancellation notification to the DSO with the reason 'Cancellation due to a supplier related reason'. The supplier can also report the ending of agreements due to the end of their operation using the normal agreement termination event with the same reason code.

The termination of an agreement is always reported to Datahub using the same termination notification and the reason for termination is given using the reasons set out in the table below.

Reasons for terminating an agreement:

Situation	Reason
A customer moves out from an accounting point.	Moving out (AN01)

<p>The agreement is terminated upon notice of termination given by the customer, or when the supplier terminates the agreement in accordance with what has been agreed with the customer. This reason is also used in situations where a fixed-term agreement is ended and it is not intended to continue as valid until further notice, or where the customer's agreement is terminated in accordance with a notice period longer than 90 days.</p>	<p>Terminating an agreement (AN02)</p>
<p>The supplier or DSO dissolves its agreement due to breach of agreement by the customer (for example, where the end user materially fails to make payments or otherwise materially breaches its contractual obligations).</p>	<p>Dissolving an agreement (AN03)</p>
<p>The DSO terminates the grid agreement retroactively due to meter removal.</p>	<p>Meter removal (AN04)</p>
<p>The supplier terminates the sales agreement due to going out of business or for another supplier related reason, or the Datahub operator terminates all the supplier's agreements with a bulk process. In such cases, Section 102 of the Electricity Market Act applies.</p>	<p>Delivery ends due to a supplier related reason (AN05)</p>

When a supplier receives a notification of grid agreement termination, they must end their own corresponding sales agreement on the same accounting point. When a supplier reports an agreement termination of their own sales agreement to Datahub with reason moving out, the

DSO must end their corresponding grid agreement. If the counterpart is expected to terminate its agreement as well, the notifications of agreement terminations can be reported retroactively. This way the terminations can be reported for the same date. For example, if the supplier terminates the sales agreement today with reason move-out, the DSO can send their own notification with the same move-out date retroactively so that the end dates match. If the termination of the agreement reported to Datahub is expecting the termination notification of the other market party, this is notified within seven days after the notification has been received. Information about cancellations is still accepted after this period, but Datahub will take actions if notifications are sent late repeatedly.

If a new agreement reported for an accounting point has terminated the previous sales or grid agreement, the supplier and the DSO can, if necessary, report a separate termination for the previous agreement for the same day on which it was terminated by the new agreement. This prevents the previous agreement from getting restored in a situation where the new agreement is cancelled.

Rules for terminating agreements at an accounting point:

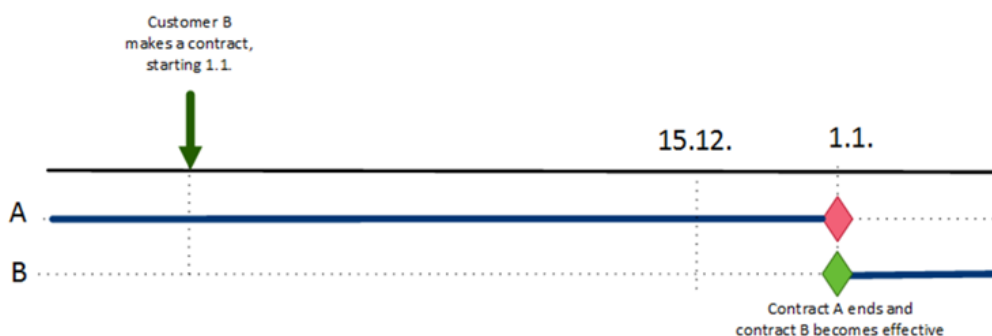
1. When a customer moves out or in the dissolving of an agreement, agreements may be terminated on that day or at a later date.
2. When the reason is termination or delivery ending due to a supplier related reason, the termination of an agreement must be reported no later than 14 days before the date on which the agreement ends.
3. Meter removal can be reported for the current day or at most one month retroactively.
4. The termination of an agreement in any situation may not be reported earlier than 90 days before the date on which the agreement ends.
5. A sales agreement may not be terminated in a way which leaves it valid simultaneously with the upcoming new sales agreement.
6. A customer moving out will automatically cancel all of the customer's upcoming new sales agreements on the same accounting point, if the customers who are moving out are exactly the same as the customers of the upcoming agreement (as in example 4 in section [DH-310 Examples](#)).
7. Agreements may only be terminated or cancelled retroactively in cases of error correction. It is not possible to report separate retroactive agreement endings, except in case of meter removal, but an agreement can end retroactively as a result of a retroactively reported new agreement.

8. Meter removal can be reported for an accounting point only at the instigation of the DSO.

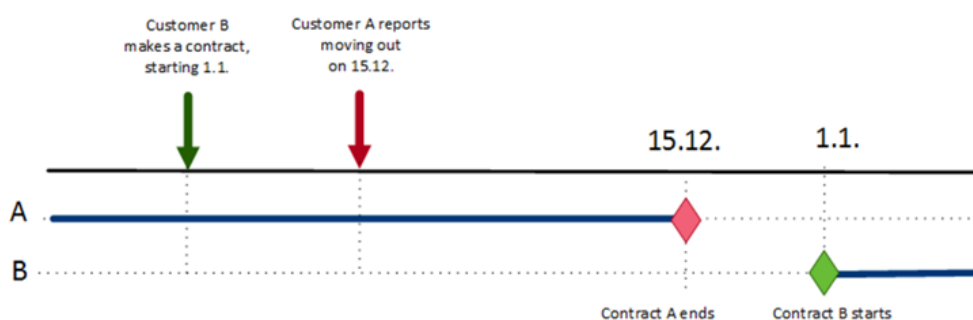
### Separate move-in and move-out reports

A move in reported for an accounting point will terminate any possibly existing sales agreement for the accounting point. After this, the current supplier may, however, report a separate move out no later than the day preceding the move in. If the move out is reported for an earlier date than the earlier reported move in, the agreement's end date will be updated to correspond to the moving out notification. In this case, a period of time not covered by an agreement will remain between the move in reported earlier and the move out reported later. Datahub will notify the DSO of this period. If a separate move out has been reported, the customer that is moving out will not be returned to the current supplier if the new agreement is cancelled.

Situation before move-out notification:



Situation after move-out notification:



### Separate move-out notification as part of the customer's move-in

When a customer moves, the customer can terminate the agreement of the move-out location by reporting it only to the supplier of the move-in location. To allow this, Datahub features an [event](#) allowing the supplier of the move-in location to report the customer's move-out from the move-out location to Datahub. This notification is sent from Datahub to the move-out location's DSO. It is the responsibility of the move-out location's DSO to terminate the grid agreement if needed and report this to Datahub in the same way as if the customer would have notified the

DSO directly about the move-out. As a result of this process, the notification on agreement termination is sent from Datahub to the supplier of the move-out location. In its notification, the supplier of the move-in location must provide identification information of at least one customer, who has an agreement on the move-out accounting point. To be able to report the customer's move-out to Datahub, the supplier first needs to report the customer's new agreement to Datahub. The DSO can contact the customer if the supplier of the move-in location has not reported all of the agreement's customers. New supplier's moving out notification cannot be cancelled in Datahub. If a supplier notices that they have erroneously sent the notification they must contact the DSO in question directly.

### **The customer disputes a sales agreement**

When a customer disputes a new sales agreement and the supplier does not agree to cancel or terminate the agreement, the cancellation or termination of the sales agreement must be made possible via a notification from the DSO for the accounting point. However, no functionality for sending notifications of a dispute and for terminating agreements due to dispute exists in Datahub. These situations have to be handled manually. The DSO provides a written notification of a dispute to the Datahub operator who will then cancel the disputed agreement and send this information to the supplier.

A customer dispute of a future agreement cancels the agreement and the balance information, as well as the cancellation of the agreement by the supplier. In case of retroactive customer dispute, the termination of balance information differs from the previously described cancellations of agreements. In this case, the balance information is also affected by whether the disputed agreement has started inside or outside the balance window and whether the customer had an agreement at the accounting point that has ended due to this now disputed agreement. If the disputed agreement has started within the balance window (notice of dispute – 11 days) and the accounting point has a supplier for whom the agreement is restored, the balance information is normally corrected within the balance window between the previous suppliers. If the disputed agreement has started outside the balance window and there is a supplier at the accounting point to whom the agreement is returned, the supplier of the disputed agreement is responsible for the balance information until the balance window is closed. In situations where there is no old supplier at the accounting point to whom the agreement could be returned, the supplier of the disputed agreement is responsible for the balance information until the accounting point gets a new supplier or the DSO disconnects the electricity.

The dispute of an agreement by the market operator is described in more detail in section [Datahub operator correction processes](#).

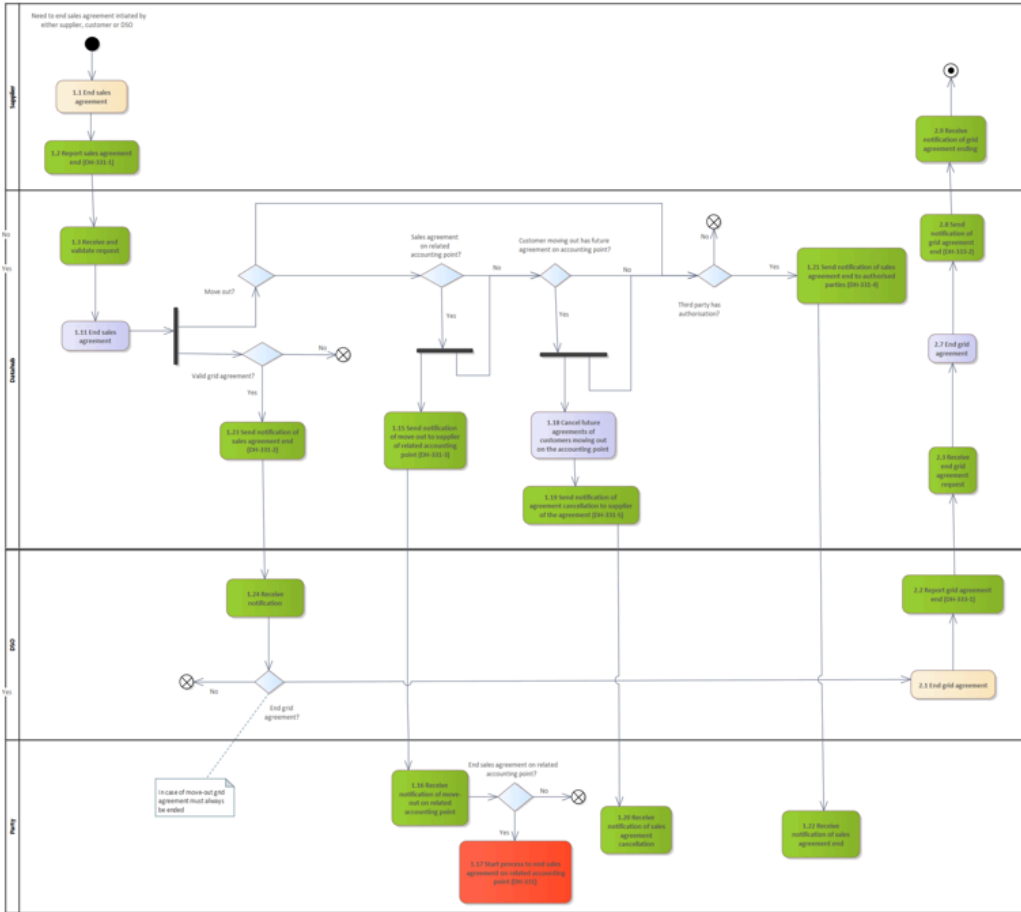
## Accounting points without supplier

Datahub sends a [notification of accounting points without supplier](#) to the distribution system operators, so that the DSO can end their own grid agreement or disconnect the accounting point if they want to. The notifications about accounting point without supplier are sent daily. The notification specifies when the accounting point has been left or will be left without a supplier, and when the period without supplier will end, if there is later sales agreement for the accounting point in Datahub. Datahub sends notifications even for short periods without supplier.

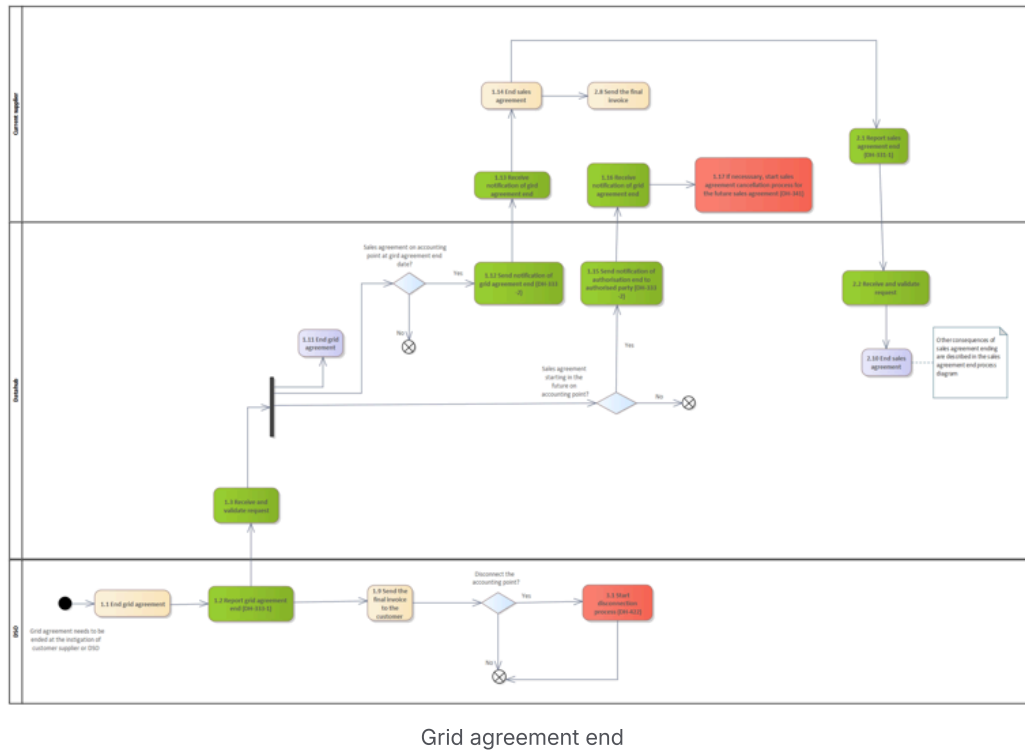
Datahub does not send notifications about accounting points without supplier if the sales agreement for the accounting point has ended with reason 'Delivery ends due to a supplier related reason' or has been cancelled with reason 'Cancellation due to a supplier related reason'.



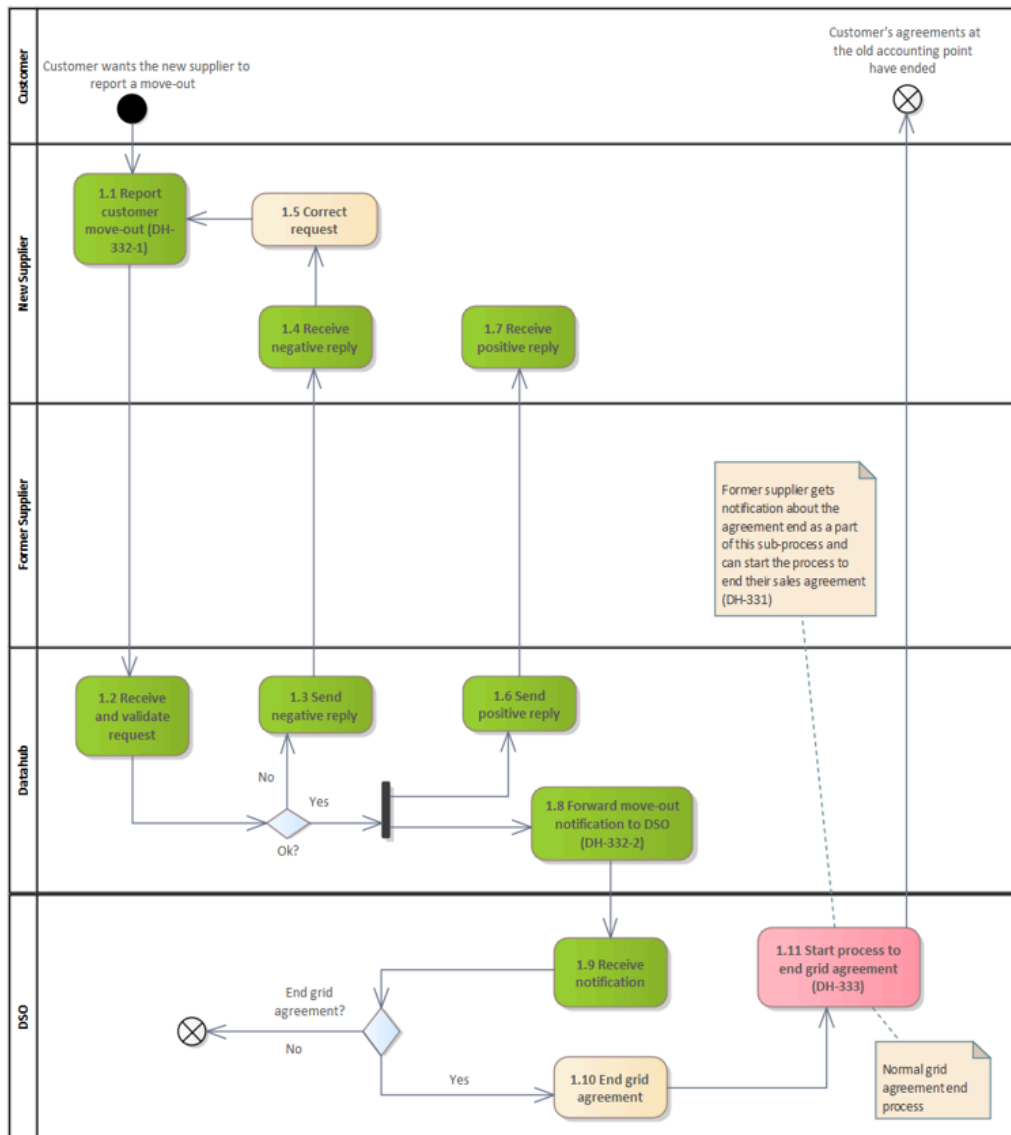
## DH-330 Process maps



Sales agreement end



If the termination is reported for a day on which the agreement has already ended due to a new agreement on the accounting point, the process differs from the usual termination. In this case, the process only registers the reported termination and the possible final invoicing address and notifies the other party (supplier/DSO) of the termination while creating an open transaction for the other party to send in the corresponding termination in case the other party's agreement has also been terminated due to a new contract without a separate termination from the party.



Move out by new supplier

## DH-330 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-331 Notification of sales agreement termination

Event description

Parties

Time limits

Information processing

Information storage

Return of information

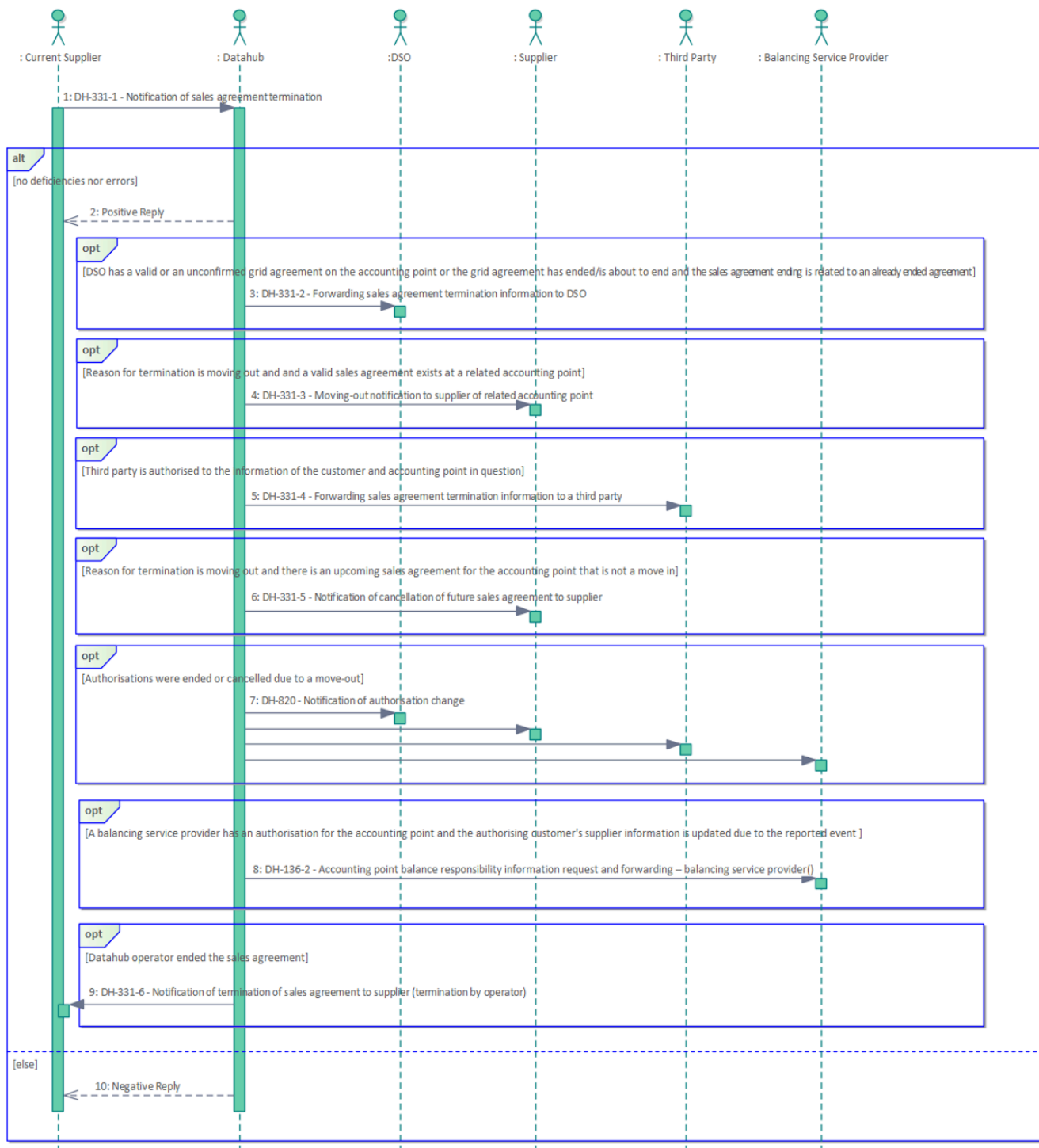
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Notification of sales agreement termination

## Event description

A supplier reports the termination of a sales agreement to Datahub. The Datahub operator may also use the event for terminating a sales agreement.

## Parties

- Supplier
- Datahub

- DSO
- Third party
- Balancing service provider

### Time limits

Reason for termination	Effectiveness of termination	Note
Moving out	At the earliest, the current day. At the latest, 90 days ahead.	<p>If the event is a response to DH-333 grid agreement termination, the sales agreement end date cannot be after the grid agreement end date.</p> <p>In case of meter removal, moving out or dissolving, the end date must match the DSO's end date. In case of moving out or dissolving, the end date can also be in the past, deviating from the normal time limits.</p>
Dissolving	At the earliest, the current day. At the latest, 90 days ahead.	
Meter removal	At the earliest, 90 days in the past. At the latest, the current day.	
Termination	At the earliest, 14 days and at the latest, 90 days ahead.	
Delivery ends due to a supplier related reason	At the earliest, 14 days and at the latest, 90 days ahead.	

### Information processing

Information	Description
Cancellation of future agreements	<p>Customer's move-out automatically cancels all future agreements on the accounting point where the customers are exactly the same as is the ones who are moving out.</p> <p>If the reason for agreement end is 'Termination' or 'Delivery ends due to a supplier related reason' and there already is a new agreement on the accounting point starting after the end date with agreement starting reason</p>

	'Change of agreement' and at least one same customer as the agreement being ended, the future change of agreement is cancelled automatically.
Termination of authorizations	<p>Customer's move-out automatically terminates all authorizations of the moving customers on the accounting point when the agreement ends.</p> <p>Customer's move-out automatically cancels all upcoming authorizations of the moving customers on the accounting point when the agreement ends.</p>
Cancelling open connection/disconnection requests	If there are open (i.e. the actual connection or disconnection has not yet been reported) connection or disconnection requests for the accounting point with requested connection/disconnection date after the agreement end date, those requests are cancelled.
Reporting an ending to an already ended agreement	If the termination is reported for an agreement that has already ended due to a new agreement on the accounting point (DH-311), the process only registers the reported termination and the possible final invoicing address. If the corresponding grid agreement has also ended or is about to end due to a new agreement (DH-312) without a separate termination notification from the DSO, Datahub notifies the DSO of the termination of the sales agreement and the possible final invoicing address and creates an open transaction for a corresponding termination notification from the DSO (DH-333). No other processing is done, and no other parties are notified.

## Information storage

Origin of information	Information stored
Information reported by party	The ending date of the sales agreement, possible final invoicing address and the reason for ending the agreement.
	The final invoicing address is saved as the new postal invoicing address of the agreement that takes effect on the reported agreement end date.
	Datahub stores and forwards the post office name in capital letters even if the reporting party sends it in a different format. This applies only to post offices located in Finland.



Information processed by Datahub	Balance information for the accounting point when retroactively terminated.
	Changes to authorizations, if any.

### Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information update	<a href="#">ACK</a>

### Forwarding of information

Party	Description	Message
DSO	If there is a valid or an unconfirmed grid agreement corresponding to the sales agreement on the accounting point at the end of occurrence, the DSO is notified of the termination of a sales agreement, the possible final invoicing address and the reason for the termination of the agreement. The DSO is also notified of the termination if the grid agreement corresponding to the sales agreement has ended or is about to end due to a new agreement on the accounting point (without a separate ending notification from the DSO) and the termination of the sales agreement was notified to an already terminated agreement. All event data is forwarded to the DSO.	<a href="#">DH-331-2</a>
Supplier for the related accounting point	In case of moving out, a notification of moving out is forwarded to the possible supplier of the related accounting point. Only the reason for agreement termination (moving out), the end date and the original message identification are forwarded from the original message. In addition, the identification of the related accounting point is forwarded. The party identification of the supplier reporting the move-out is not forwarded.	<a href="#">DH-331-3</a>
Third party	Notification of sales agreement termination is reported to third parties who have customer's authorization to the accounting point in question. The notification includes the same information forwarded to the supplier of the related accounting point.	<a href="#">DH-331-4</a>

Future supplier for the accounting point	If reason is moving out, the accounting point supplier is also notified of the cancellation of the upcoming sales agreement if the upcoming agreement is not a move-in.	<a href="#">DH-331-5</a>
Authorized party	If authorizations have been terminated or cancelled due to move-out, a notification of authorization change is sent to related market parties.	<a href="#">DH-820</a>
Supplier for the accounting point	If the Datahub operator has ended a sales agreement, a notification of agreement termination is sent to the supplier of the agreement.	<a href="#">DH-331-6</a>
Balancing service provider	If the notification of an agreement cancellation changes a customer's supplier information due to the cancelled (or a potentially restored) agreement and the customer has issued an "Accounting point's balance responsibility information" authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization. If the change is retroactive, the information is forwarded only if its validity overlaps with the validity of the authorization during the last 60 days (counting from the reporting date).	<a href="#">DH-136-2</a>

### Composite processes

Party	Description	Composite process
DSO	If the sales agreement ends due to moving out, the grid agreement has to end too.	<a href="#">DH-331 → DH-333</a>

### Significant errors and consequences

Error	Consequence
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The wrong agreement is terminated.	The DSO may disconnect electricity at the wrong accounting point and errors have to be corrected.
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## Event cancellation

The notification must be [cancelled](#) on the termination date at the latest.

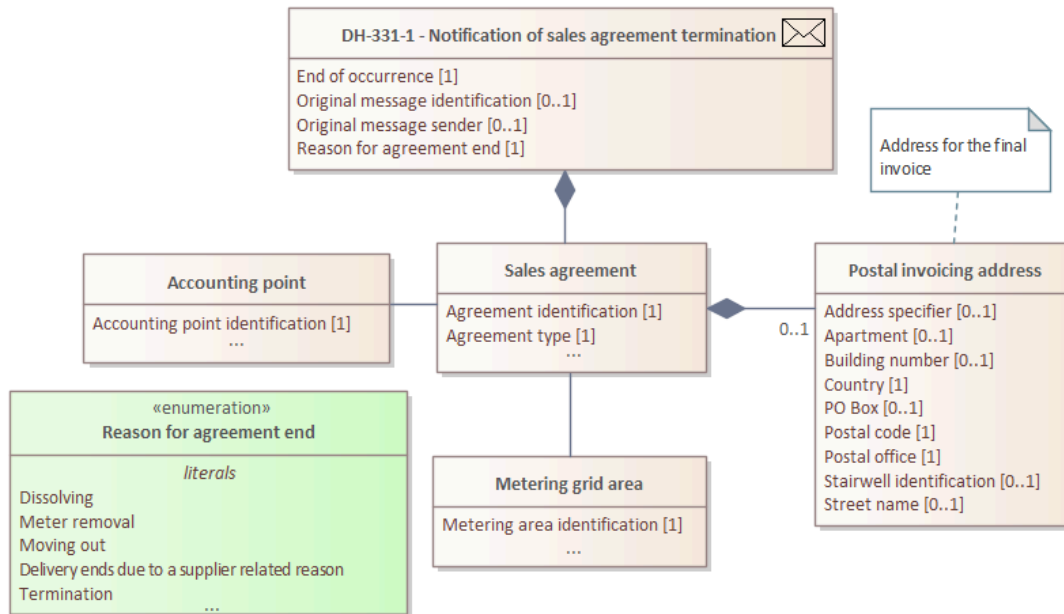
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.1 15	
The accounting point is part of the reported metering grid area.	EC.MPT.1 16	
The accounting point must not have the status 'Removed from use' or 'Deleted'	EC.MPT.1 20	
The supplier must be party to the sales agreement at the notified termination time.	EC.AGR.11 7	
The agreement to be terminated is recorded in Datahub and relates to the notified accounting point on the termination date.	EC.AGR.2 42	
The terminating agreement is valid at the notified termination time or has terminated precisely at the notified termination time due to a new sales agreement (DH-311).	EC.AGR.11 8	
The 'Meter removal' agreement termination reason is only permitted as a response to DH-333, Grid agreement termination, due to a meter removal.	EC.AGR.2 34	

 Please observe that the list is not complete.

## DH-331-1 Notification of sales agreement termination



Details of the notification of sales agreement termination

Message DH-331-1 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		The agreement end time is midnight.
Original message identification	2	0..1	If the sales agreement end follows the ending of the grid agreement, message identification for message DH-333-2 is used. If not, this field is not used in message DH-331-1.	<a href="#">Field usage</a>

Original message sender	2	0..1	If the sales agreement end follows the ending of the grid agreement, message sender for message DH-333-2 is used. If not, this field is not used in message DH-331-1.	<a href="#">Field usage</a>
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Meter removal</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	
Agreement information	2	1..1		
Agreement identification	3	1..1		
Agreement type	3	1..1		
Postal invoicing address	3	0..1		Postal invoicing address is the customer's new address, for example, the address to which the final invoice will be sent.
Address specifier	4	0..1	c/o	
Street name	4	0..1		<p>The postal address must contain a postal code and either a street name or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building</p>

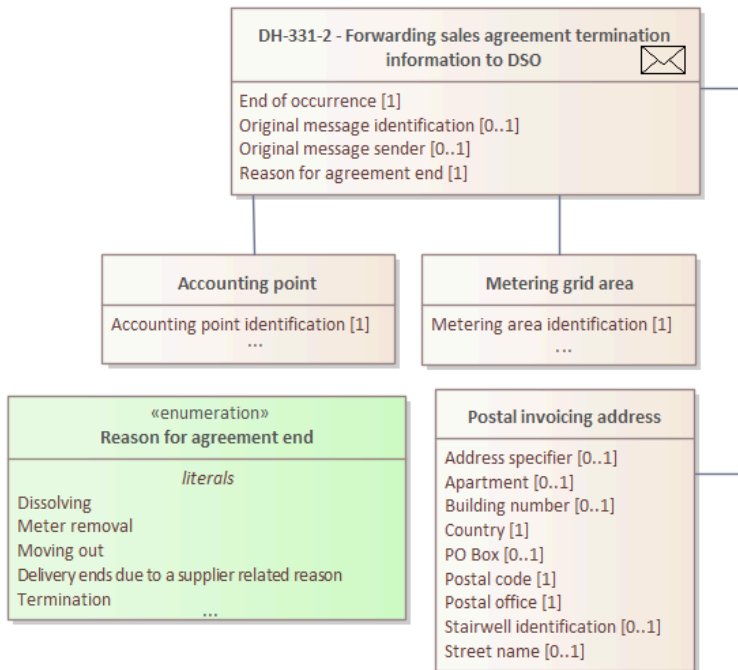
				number, stairwell identification or apartment).
Building number	4	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>Stairwell identification is mandatory if apartment is reported.</p> <p>Rules for the stairwell identification field:</p>

			<ul style="list-style-type: none"> <li>• if the value is one of the following: 'as', 'as.', 'bst' or 'bst.', it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>
Apartment	4	0..1	<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1	<p>The postal code and post office must match. This check is only performed for addresses located in Finland.</p>
PO Box	4	0..1	<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p>

				The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		



## DH-331-2 Forwarding sales agreement termination information to DSO



Details of forwarding sales agreement termination information to DSO

Message DH-331-2 is of message type [F06](#).

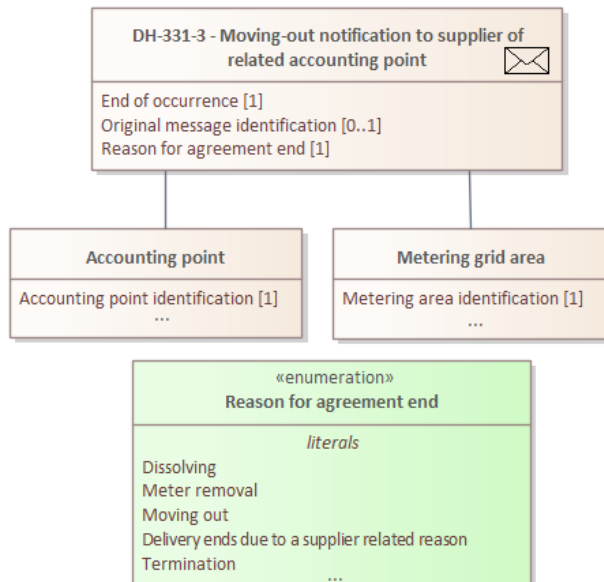
Message payload includes the following information:

Information field	Level	Neces sity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-331-1.	<a href="#">Field usage</a>  When the Datahub operator uses a bulk process to terminate the sales agreements of a supplier who is terminating its operations, this field is not used in the DH-331-2 message forwarded to the DSO.

Original message sender	2	1.1	Contains the message sender for message DH-331-1.	<a href="#">Field usage</a> When the Datahub operator uses a bulk process to terminate the sales agreements of a supplier who is terminating its operations, this field is not used in the DH-331-2 message forwarded to the DSO.
Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Meter removal</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	
Postal invoicing address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	

Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-331-3 Moving-out notification to supplier of related accounting point



Details of moving-out notification to supplier of related accounting point

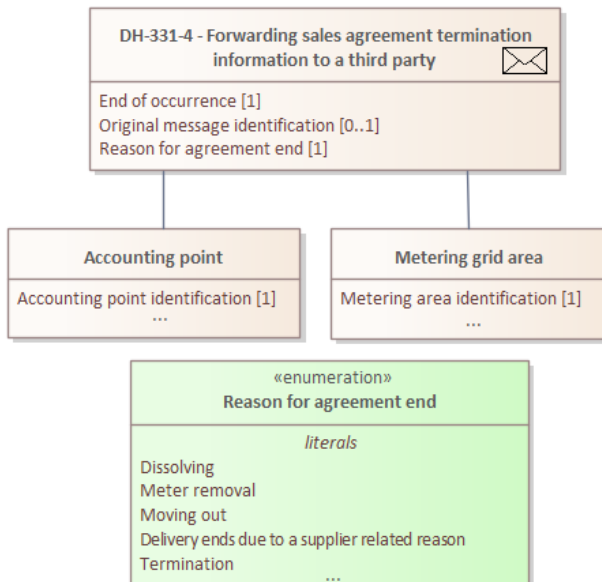
Message DH-331-3 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1		
Original message identification	2	1.1	Contains the message identification for message DH-331-1.	<a href="#">Field usage</a>
Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>Moving out</li> <li>Termination</li> <li>Dissolving</li> <li>Meter removal</li> <li>Delivery ends due to a supplier related</li> </ul>	

			reason	
Accounting point data	3	1.1		
Accounting point identification	4	1.1		The identification for the related accounting point (=the accounting point for which the recipient of this notification is the supplier).
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-331-4 Forwarding sales agreement termination information to a third party



Details of forwarding sales agreement termination  
information to a third party

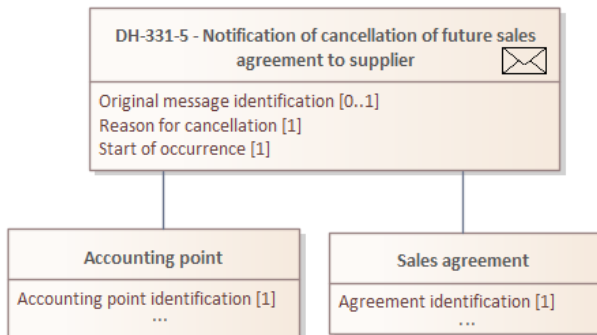
Message DH-331-4 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-331-1.	<a href="#">Field usage</a>
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Meter removal</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	

Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-331-5 Notification of cancellation of future sales agreement to supplier



Details of the notification of cancellation of future sales agreement to supplier

Message DH-331-5 is of message type [F18](#).

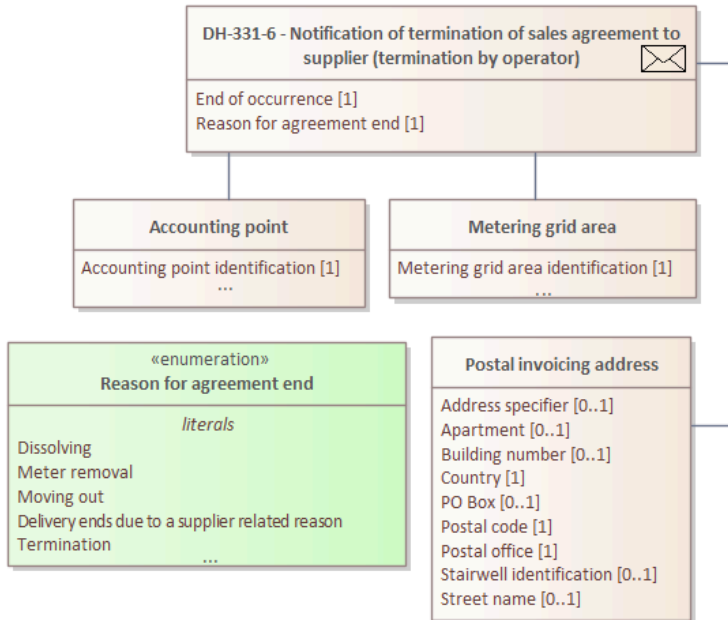
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date for the cancelled agreement	
Original message identification	2	1..1	Contains the message identification for message DH-331-1.	<a href="#">Field usage</a>
Reason for cancellation	2	1..1	Agreement cancelled by customer	
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification for the cancelled agreement, forwarded to the future supplier	
Accounting point data	3	1..1		



Accounting point identification	4	1.1		
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## DH-331-6 Notification of termination of sales agreement to supplier (termination by operator)



Details of notification of termination of sales agreement to supplier (termination by operator)

Message DH-331-6 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1		
Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>Moving out</li> <li>Termination</li> <li>Dissolving</li> <li>Meter removal</li> <li>Delivery ends due to a supplier related reason</li> </ul>	
Postal invoicing address	3	0.1		

Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-332 Move-in location supplier's notification of customer's moving out

Event description

Parties

Time limits

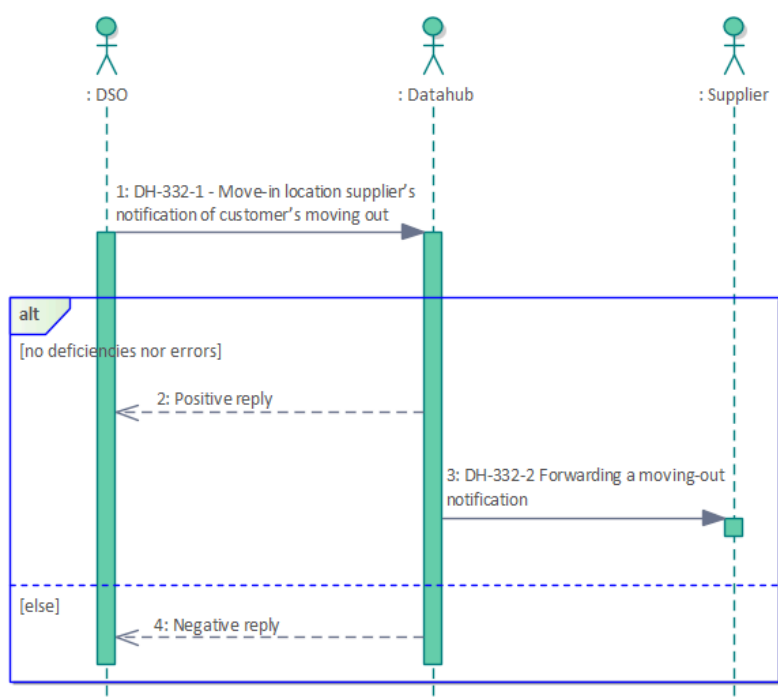
Information storage

Return of information

Forwarding of information

Event cancellation

Validation rules



Move-in location supplier's notification of customer's moving out

### Event description

The new supplier for a customer notifies the DSO of the customer's moving out from the current accounting point.

### Parties

- Supplier
- Datahub
- DSO

### Time limits

#### Effectiveness of termination

At the earliest, the current day, and at the latest, 90 days ahead.

### Information storage

Origin of information	Information stored
Information reported by party	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.

### Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information update	<a href="#">ACK</a>

### Forwarding of information

Part y	Description	Message
DSO	The reported information is forwarded to the DSO for the accounting point, which reports the actual moving out using event <a href="#">DH-333</a> .	<a href="#">DH-332-2</a>

### Event cancellation


The event cannot be cancelled.

### Validation rules

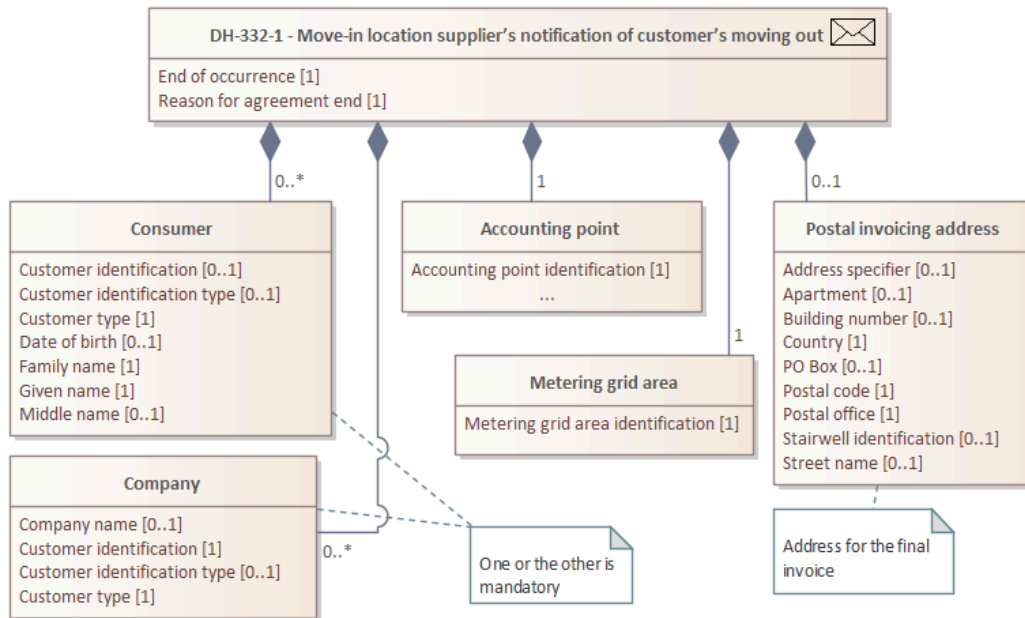
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.11 5	

The accounting point is part of the reported metering grid area.	EC.MPT.11 6	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.12 0	
At least one customer holds a sales or grid agreement for the accounting point on the notified moving out date.		
The supplier holds a sales agreement recorded in Datahub at any accounting point with all reported customers. The sales agreement is either in force at the notification time, or its start date is in the future.		

 Please observe that the list is not complete.

## DH-332-1 Move-in location supplier's notification of customer's moving out



Details of move-in location supplier's notification of customer's moving out

Message DH-332-1 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1	Date of moving out	Agreement end time is midnight.
Reason for agreement end	2	1..1	Moving out	
Postal invoicing address	2	0..1		Postal invoicing address is the customer's new address, for example, the address to which the final invoice will be sent.
Address specifier	3	0..1	c/o	

Street name	3	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p>
Building number	3	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	3	0..1		<p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>Stairwell identification is mandatory if apartment is reported.</p> <p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: 'as', 'as.', 'bst' or 'bst.', it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>

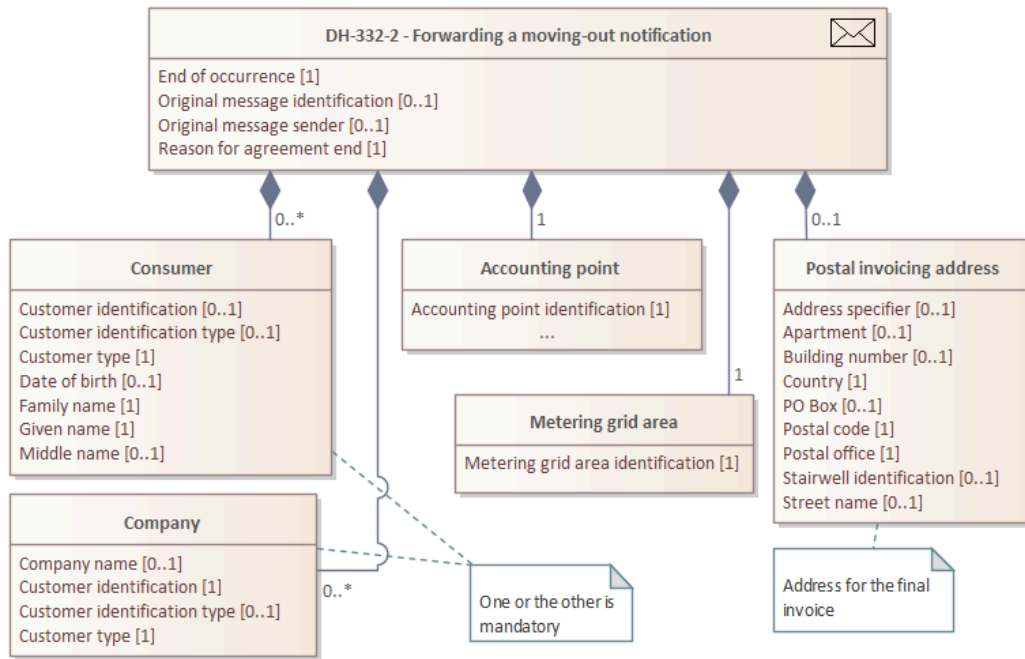


Apartment	3	0..1		<p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>Stairwell identification is mandatory if apartment is reported.</p> <p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	3	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	3	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p>
Post office	3	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	3	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	2	1..1		

Accounting point identification	3	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		
Basic customer information	2	1..n		
Customer identification	3	0..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	Mandatory, if customer identification type is anything other than party's own identification.
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	If customer type is consumer, customer identification type must be either personal ID or party's own identification. If customer type is company, customer identification type must be business ID or party's own identification.
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Company name	3	0..1	Mandatory for a business customer	
Given name	3	0..1		This field is used for identifying the customer if the customer identification (personal identity code) is not given in the message.

				Mandatory for a consumer customer if customer identification type is party's own identification.
Middle names	3	0..1		This field is used for identifying the customer if the customer identification (personal identity code) is not given in the message.
Family name	3	0..1		<p>This field is used for identifying the customer if the customer identification (personal identity code) is not given in the message.</p> <p>Mandatory for a consumer customer if customer identification type is party's own identification.</p>
Date of birth	3	0..1		<p>This field is used for identifying the customer if the customer identification (personal identity code) is not given in the message.</p> <p>Mandatory for a consumer customer if customer identification type is party's own identification.</p>

## DH-332-2 Forwarding a moving-out notification



Details of forwarding a moving-out notification

Message DH-332-2 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1	Date of moving out	
Original message identification	2	0.1	Contains the message identification for message DH-332-1.	<a href="#">Field usage</a>
Original message sender	2	0.1	Contains the message sender for message DH-332-1.	<a href="#">Field usage</a>
Reason for agreement	2	1.1	Moving out	

end				
Postal invoicing address	2	0..1		
Address specifier	3	0..1	c/o	
Street name	3	0..1		
Building number	3	0..1		
Stairwell identification	3	0..1		
Apartment	3	0..1		
Postal code	3	1..1		
PO Box	3	0..1		
Post office	3	1..1		
Country	3	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		
Basic customer information	2	1..n		

Customer identification	3	0..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer identification type	3	1..1	<ul style="list-style-type: none"> <li>• Business ID</li> <li>• Personal identity code</li> <li>• Party's own customer identification</li> </ul>	
Customer type	3	1..1	<ul style="list-style-type: none"> <li>• Company</li> <li>• Consumer</li> </ul>	
Company name	3	0..1	Mandatory for a business customer	
Given name	3	0..1		
Middle names	3	0..1		
Family name	3	0..1		
Date of birth	3	0..1		

## DH-333 Grid agreement termination notification

Event description

Parties

Time limits

Information processing

Information storage

Return of information

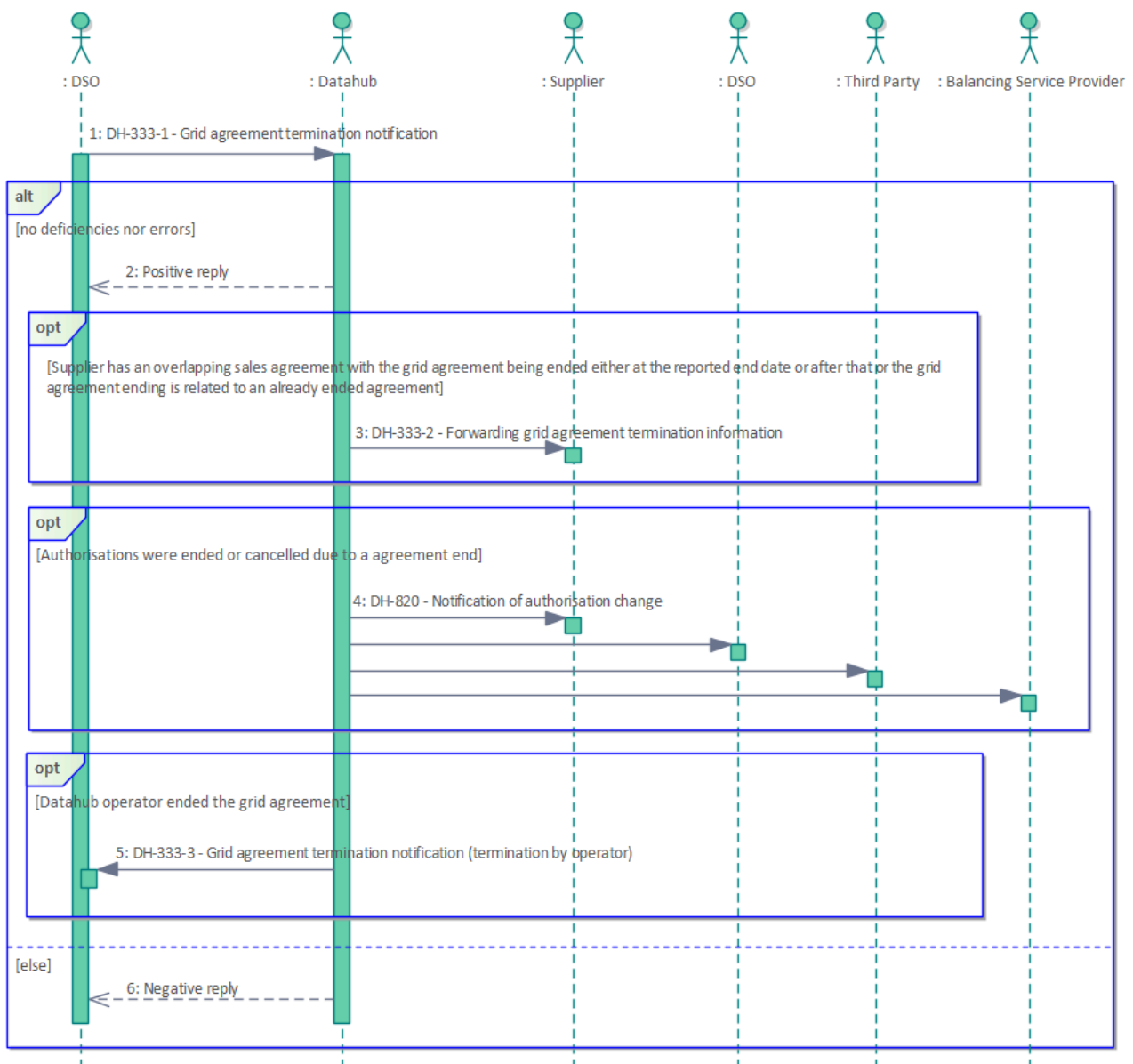
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Grid agreement termination notification

## Event description

A DSO reports the termination of a grid agreement to Datahub. The Datahub operator may also use the event for terminating a grid agreement.

## Parties

- DSO
- Datahub
- Supplier
- Third party
- Balancing service provider

## Time limits

Reason for termination	Effectiveness of termination	Note
Moving out	At the earliest, the current day. At the latest, 90 days ahead.	If the reason is moving out and the event is a response to DH-331 (sales agreement end), the end date of the grid agreement must be the same as the end date of the corresponding sales agreement. In this case, the end date can also be in the past, deviating from the normal time limits.
Dissolving	At the earliest, the current day. At the latest, 90 days ahead.	
Termination	At the earliest, 14 days and at the latest, 90 days ahead.	
Meter removal	At the earliest, 90 days in the past. At the latest, the current day.	

## Information processing

Information	Description
-------------	-------------



Termination and cancellation of authorizations	If there is no new grid agreement starting right after the grid agreement being terminated, all customer authorizations that are valid at end of occurrence or will become valid after that for the accounting point are terminated for the agreement end date or cancelled in case of future authorizations. If there is a new grid agreement starting right after the grid agreement being terminated, customer authorizations that are valid at end of occurrence or will become valid after end of occurrence for the customers that are not customers of the new grid agreement are terminated for the agreement end date or cancelled in case of future authorizations.
Termination of a sales agreement	If the agreement already had a later end date that was reported earlier, the supplier of the corresponding sales agreement is not expected to terminate its sales agreement as a reply to the earlier grid agreement termination, only as a reply to the latest grid agreement termination.
Reporting a termination to an already terminated agreement	If the termination is reported for an agreement that has already ended due to a new agreement on the accounting point (DH-312), the process only registers the reported termination and the possible final invoicing address. If the corresponding sales agreement has also ended due to a new agreement (DH-311) without a separate termination notification from the supplier, Datahub notifies the supplier of the termination of the grid agreement and the possible final invoicing address and creates an open transaction for a corresponding termination notification from the supplier (DH-331). No other processing is done, and no other parties are notified.

## Information storage

Origin of information	Information stored
Information reported by party	The ending date of the grid agreement, possible final invoicing address and the reason for the termination of the agreement. The final invoicing address is saved as the new postal invoicing address of the agreement that takes effect on the reported agreement end date.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.

Information processed by Datahub	Changes to authorizations, if any.
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## Return of information

Party	Description	Message
DSO	Information about a successful event or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Accounting point's current supplier	If a sales agreement corresponding to the grid agreement is valid at the reported end of occurrence, the supplier is notified of the termination of the grid agreement, the possible final invoicing address, and the reason for the termination of the agreement. The supplier is also notified of the termination if the sales agreement corresponding to the grid agreement has ended due to a new agreement on the accounting point (without a separate termination notification from the supplier) and the termination of the grid agreement was notified to an already terminated agreement. All data is forwarded.	<a href="#">DH-333-2</a>
Accounting point's future supplier	If there is a supplier on the accounting point with an agreement starting in the future that corresponds to the grid agreement, the supplier of the future agreement is also notified of the grid agreement termination.	<a href="#">DH-333-2</a>
Authorized parties	If authorizations have been terminated or cancelled due to the grid agreement termination, a notification of authorization change is sent to related market parties.	<a href="#">DH-820</a>
DSO	If the Datahub operator has terminated a grid agreement, a notification of agreement termination is sent to the DSO of the agreement.	<a href="#">DH-333-3</a>

## Composite processes

Party	Description	Composite process
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Supplier	When the grid agreement ends, the sales agreement for the accounting point has to end too.	<a href="#">DH-333 → DH-331</a>
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## Significant errors and consequences

Error	Consequence
The wrong agreement is terminated.	Errors have to be corrected.


## Event cancellation

The notification must be [cancelled](#) on the ending date at the latest.

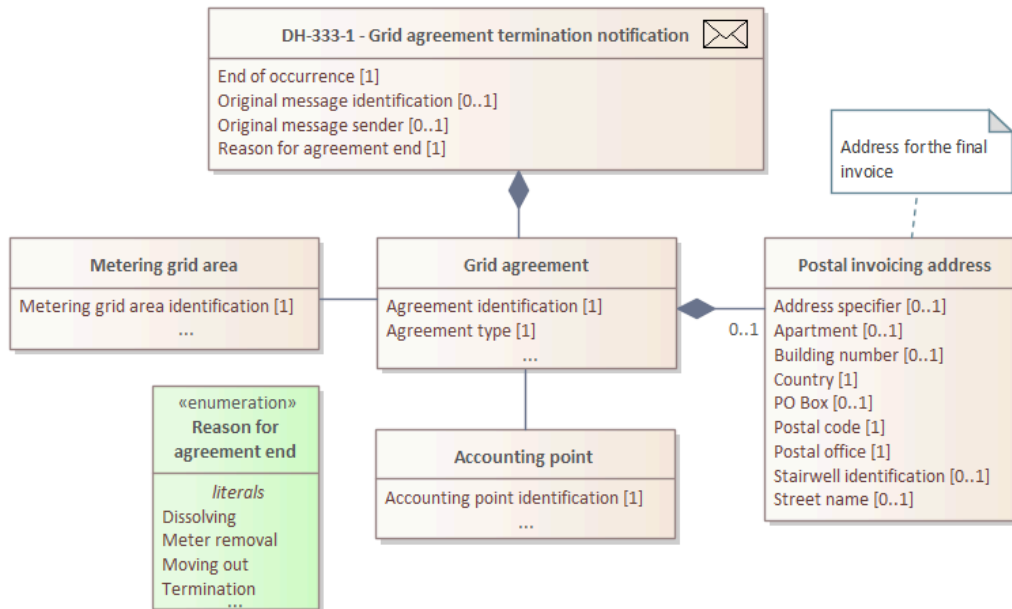
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point is part of the reported metering grid area.	EC.MPT.116	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The terminable agreement is recorded in Datahub under the reported accounting point.	EC.AGR.316	
The terminating agreement is valid at the notified termination time or has terminated precisely at the notified termination time due to a new grid agreement (DH-312).	EC.AGR.118	
If a meter removal has already been notified for the accounting point, no new meter removal may be notified.	EC.AGR.320	

The metering grid area must belong to the reporting distribution system operator.	EC.MPT.10 3	
<div>  Please observe that the list is not complete. </div>		

## DH-333-1 Grid agreement termination notification



Details of grid agreement termination notification

Message DH-333-1 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1		The agreement end time is midnight.
Original message identification	2	0.1	If the grid agreement end follows the ending of the sales agreement, message identification for message DH-331-2 is used. If not, this field is not used in message DH-333-1.	<a href="#">Field usage</a>
Original message sender	2	0.1	If the grid agreement end follows the ending of	<a href="#">Field usage</a>

			the sales agreement, message sender for message DH-331-2 is used. If not, this field is not used in message DH-333-1.	
Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Meter removal</li> </ul>	
Agreement information	2	1.1		
Agreement identification	3	1.1		
Agreement type	3	1.1	Grid agreement	
Postal invoicing address	3	0.1		Postal invoicing address is the customer's new address, for example, the address to which the final invoice will be sent.
Address specifier	4	0.1	c/o	
Street name	4	0.1		<p>The postal address must contain a postal code and either a street name or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p>
Building number	4	0.1		The postal address must contain a postal code and either a street name and a building number, or a PO Box.

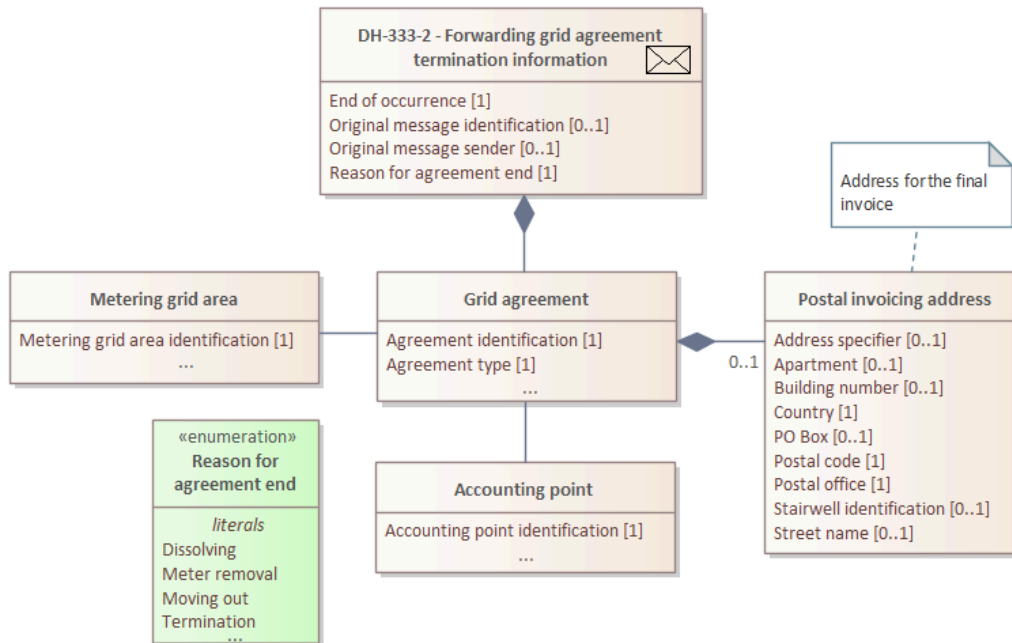
				<p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>Stairwell identification is mandatory if apartment is reported.</p> <p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: 'as', 'as.', 'bst' or 'bst.', it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>

Apartment	4	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p> <p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		<p>The postal code and post office must match. This check is only performed for addresses located in Finland.</p>
PO Box	4	0..1		<p>The postal address must contain a postal code and either a street name and a building number, or a PO Box.</p> <p>The address information may not contain both PO Box and street information (street name, building number, stairwell identification or apartment).</p>
Post office	4	1..1		<p>The postal code and post office must match. This check is only</p>



				performed for addresses located in Finland.
Country	4	1.1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-333-2 Forwarding grid agreement termination information



Details of forwarding grid agreement termination information

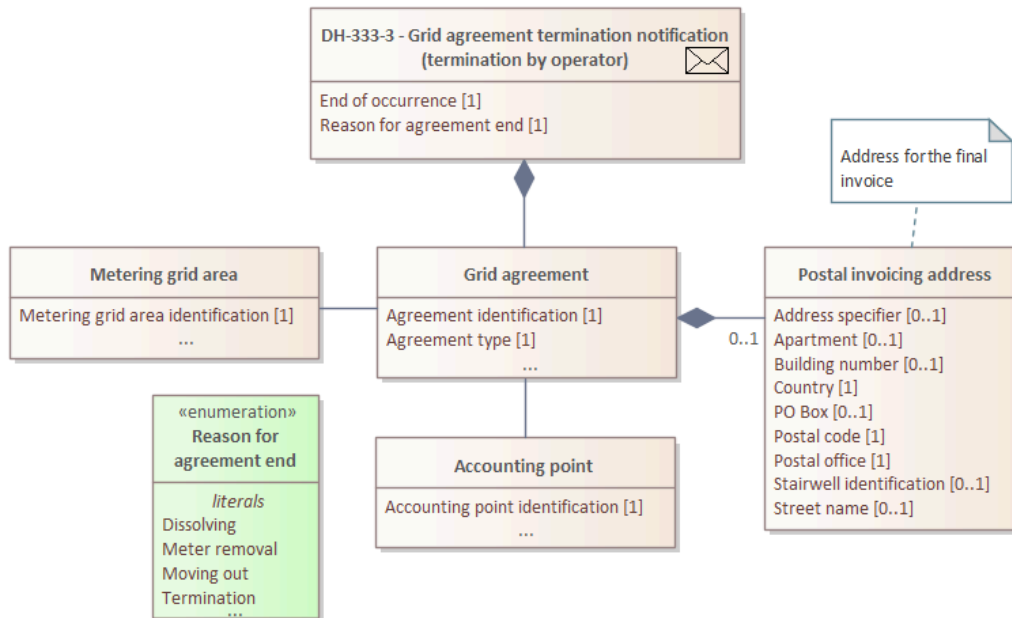
Message DH-333-2 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1		
Original message identification	2	0.1	Contains the message identification for message DH-333-1.	<a href="#">Field usage</a>
Original message sender	2	0.1	Contains the message sender for message DH-333-1.	<a href="#">Field usage</a>
Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>Moving out</li> <li>Termination</li> </ul>	

			<ul style="list-style-type: none"> <li>• Dissolving</li> <li>• Meter removal</li> </ul>	
Agreement information	2	1..1		
Agreement identification	3	1..1		
Agreement type	3	1..1	Grid agreement	
Postal invoicing address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-333-3 Grid agreement termination notification (termination by operator)



Details of grid agreement termination notification (termination by operator)

Message DH-333-3 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Meter removal</li> </ul>	
Agreement information	2	1..1		
Agreement identification	3	1..1		

Agreement type	3	1.1	Grid agreement	
Postal invoicing address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-340 Agreement cancellations and error corrections

[Sales agreement cancellation](#)

[Grid agreement cancellation](#)

Agreements are cancelled for the purpose of correcting erroneous agreements and when the customer exercises their statutory cancellation right in home and distance sales. The general principle of cancellation is that the agreement is cancelled from the start date of the agreement. However, depending on the reason for the cancellation, there are some exceptions which are described in the [examples](#) section. In addition to the cancellation of agreements, it is possible to correct erroneous data arising solely from parties' mistakes by reporting the [start or end of agreements retroactively](#). Retroactively means that the start date of a reported agreement or the date on which a terminated agreement ended falls on any day preceding the date on which the notification was made. In general, retroactive change refers to a change which changes any validity of a sales agreement in the past.

For retroactive changes, it is essential that both the validity of imbalance settlement (balance information) and the validity of the sales agreement (agreement information) are separately maintained by accounting point in Datahub. Balance information indicates the supplier on whose balance sheet the accounting point's consumption or production is calculated in Datahub's imbalance settlement calculations. Changes outside of the balance window that are included in balance information will be accounted for in balance error correction. Agreement information indicates which supplier has the right to accounting point data in Datahub (including metering data). Agreement information corresponds to the period during which the supplier has the right to invoice the customer. In normal situations, balance information corresponds to agreement information. Discrepancies between the balance information and agreement information may occur when corrections are made retroactively.

### **Sales agreement cancellation**

Sales agreements are cancelled when a customer cancels an agreement by exercising its statutory cancellation right or in error situations wherein a sales agreement or possibly grid agreement is set up for an incorrect accounting point or otherwise erroneously. The agreement may be cancelled before it starts or retroactively after it starts. The cancellation process for these two events is processed in Datahub in different ways.

The supplier must report the cancellation of the agreement to Datahub. In most situations when the sales agreement to be cancelled is originally reported, it terminates the preceding supplier's sales agreement at the accounting point, in which case the preceding agreement will be

restored upon the cancellation. Agreements that have been terminated by a separate event (supplier's own notification or bulk termination of agreements by the operator) are not restored. If the agreement is cancelled due to a supplier related reason, the previous agreement is not restored.

The industry convention is that the previous supplier should take the customer back unless the matter concerns a customer's fixed-term agreement that has already ended. If the previous supplier does not want to take the customer back, it can [refuse the sales agreement restoration](#) (event DH-343). Refusal of sales agreement restoration corresponds with an agreement ending and is always reported with termination as the reason for an agreement ending. If the supplier of the previous agreement wants to end its agreement after a cancellation with some other reason code, termination is reported using the regular [agreement termination event](#) DH-331. There is not always a preceding supplier at move-in sites; therefore the agreement cannot be restored in these situations.

When the sales agreement (move-in) to be cancelled was originally reported to Datahub, it might have cancelled future sales agreements and authorizations, which are restored when the the move-in is cancelled. Agreements and authorizations are not restored if the agreement was cancelled for a reason arising from the supplier, reason code 'due to a supplier related reason'.

If the supplier/authorized party of the previous/future agreement is no longer an active market party in Datahub when cancelling the current sales agreement, the previous/future sales agreement/authorization will not be restored. If the accounting point is left without an agreement, the DSO is notified.

Agreements imported in the Datahub data migration cannot be cancelled by normal cancellation processes. In the data migration, the data migrated to Datahub was a snapshot of the parties' systems at a certain point in time and the agreement history of the accounting point was not migrated. Therefore, Datahub has no knowledge of the status of previous agreements and cannot restore previous agreements. If a migrated agreement must be cancelled, the market party informs the Datahub operator, and the operator will then perform the cancellation on behalf of the market party.

In the cancellation notification, the supplier must provide information as to whether the agreement was cancelled by the customer or the supplier.

**A customer's cancellation** may be, for example, based on the customer's right of withdrawal or on incorrect information provided by the customer. In retroactive cancellations made after the agreement has started, the supplier retains the right to billing/agreement data from the start of the agreement for the period in which the balance settlement window has closed. In these

cases, the previous supplier's contract cannot automatically be restored in Datahub, as despite the cancellation, the cancelled contract remains valid for a certain period. In such cases, Datahub informs the previous supplier of the date from which they can retroactively report a new agreement in Datahub, if it wishes to regain the customer.

**Supplier cancellations** are due to various error situations caused by the supplier. In these cases, Datahub forwards information about the cancellation of the sales agreement to the (potential) previous supplier for the accounting point, and the earlier sales agreement is automatically restored. If there is no previous supplier, the accounting point will be without a supplier in retroactive cancellations starting from the day after the cancellation date. Based on the forwarded cancellation notification, the previous supplier can [notify Datahub of the termination of its own sales agreement](#) without the 14-day limit, provided the termination is made on the working day following the cancellation notification. The termination date can be, at the earliest, the start date of the cancelled agreement if the cancellation is made before the agreement start date, or the date of the cancellation notice if the cancellation is made after the agreement has started.

The [examples](#) illustrate cancellations made before and after the agreement start date for different reasons, and their impact on the accounting point's agreement information and balance data.

### **Grid agreement cancellation**

The cancellation of sales agreements may also lead to the cancellation of a grid agreement. The DSO must cancel a grid agreement in Datahub if the grid agreement was originally confirmed based on a cancelled sales agreement. The old grid agreement will be automatically restored in Datahub based on a cancellation if this grid agreement was created in Datahub in conjunction with the creation of the sales agreement that is to be cancelled. A grid agreement terminated using a [termination notification](#) is not restored. If a sales agreement is cancelled with the reason 'Cancellation due to a supplier related reason', the corresponding grid agreement is not cancelled and the old grid agreement is not restored in Datahub.

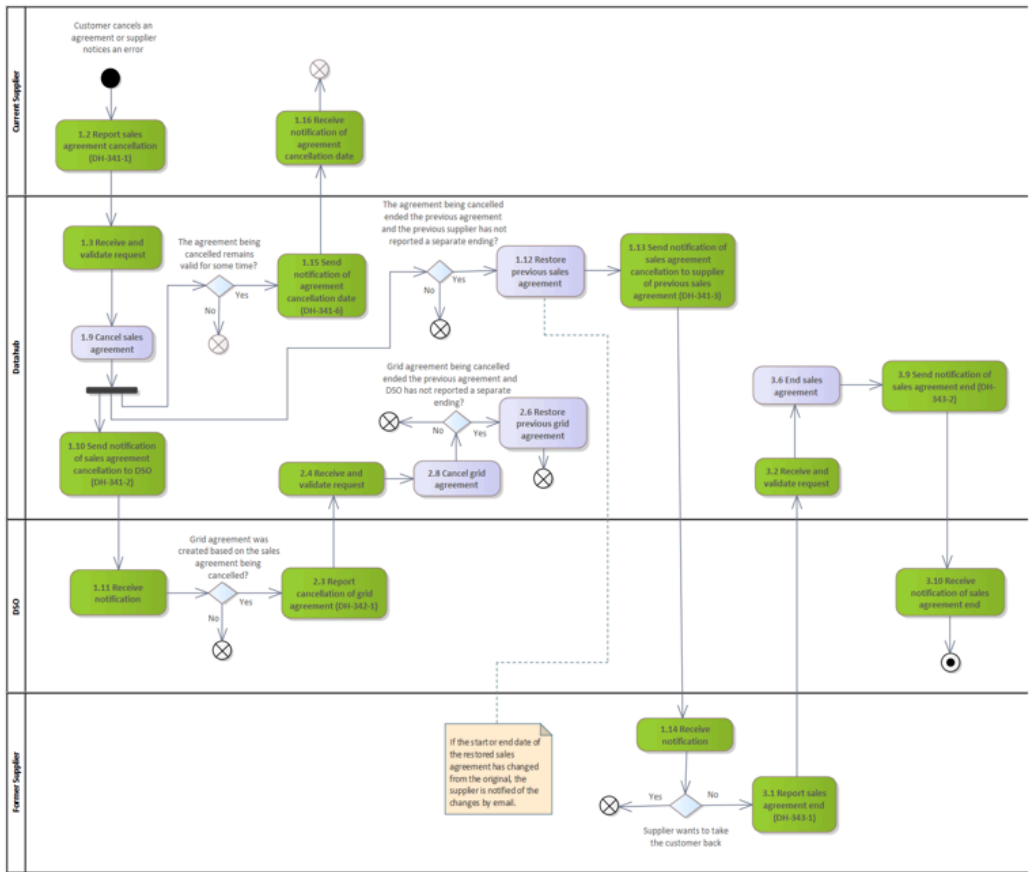
Regarding grid agreement cancellation and the restoration of a previous grid agreement, the resulting agreement situation in Datahub is based on rules similar to the sales agreement cancellation. When a grid agreement is cancelled, the possible previous grid agreement at the accounting point is restored. If the previous grid agreement already had an end date before the agreement being cancelled was created, the previous grid agreement is restored only until said end date. If there already is a future grid agreement, the previous grid agreement is restored only until the start date of the future grid agreement. If the cancellation is reported retroactively



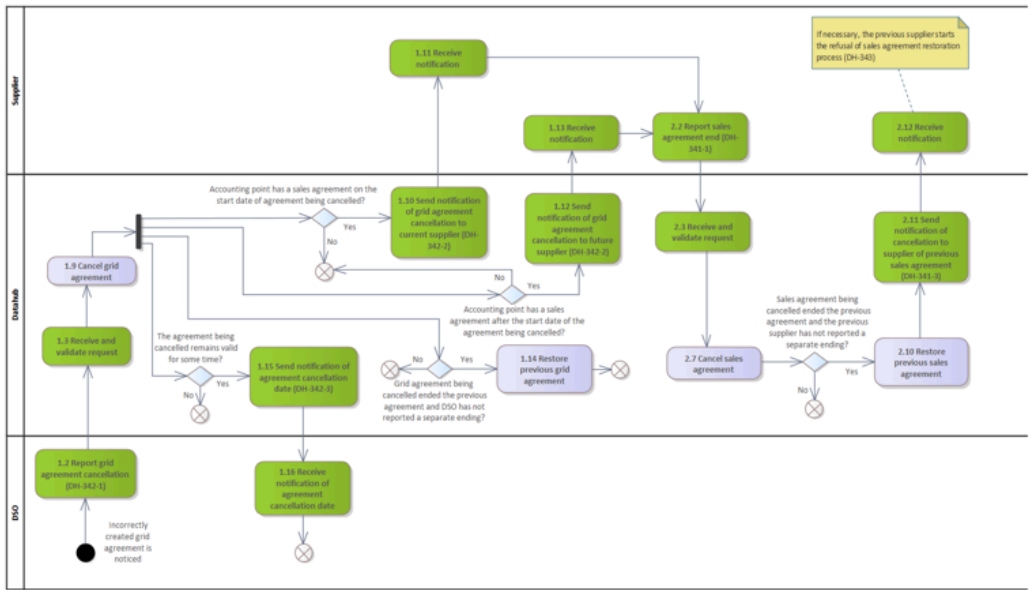
after the closing of the balance window with the reason 'customer's cancellation', the previous grid agreement is not restored, and the cancelled grid agreement remains valid until the closing of the balance window and is cancelled from then on. If there is no previous grid agreement, the accounting point is left without a grid agreement. As an exception to the previous rule, if a grid agreement is cancelled retroactively with reason customer's cancellation and there is no previous grid agreement, the grid agreement is cancelled only starting from the date when the cancellation is reported. Then the grid agreement being cancelled remains valid in Datahub from its start date until the date the cancellation was sent to Datahub. If the grid agreement remains valid for some time upon the cancellation, Datahub notifies the DSO of the date from which the agreement is cancelled (= until when the agreement remains valid).

If the cancellation of the agreement reported to Datahub is expecting the cancellation notification of the other market party, this is notified within seven days of receipt of the cancellation notification. Information about cancellations is still accepted after this period, but interventions will be made if notifications are repeatedly sent late.

# DH-340 Process maps



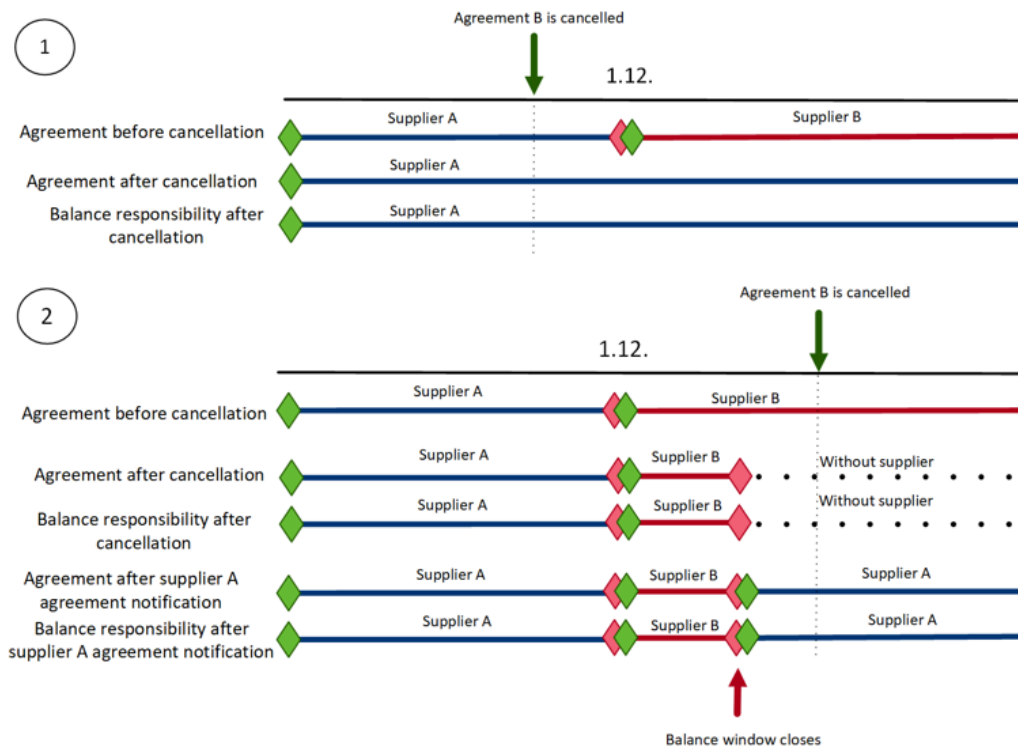
Sales agreement cancellation



Grid agreement cancellation

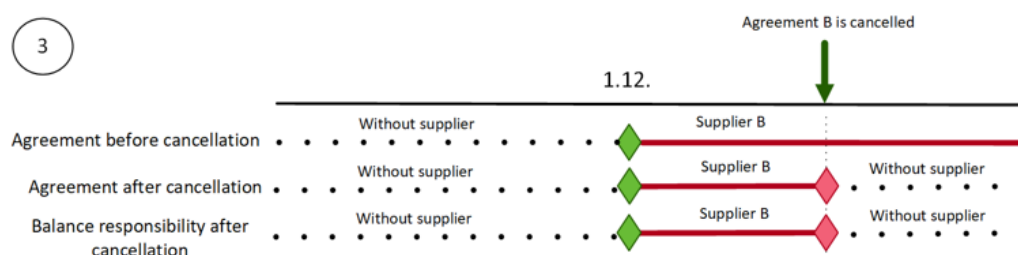
## DH-340 Examples

The images below depict cancellations to sales agreements before and after the agreement begins and their impact on the agreement situation and the balance information.



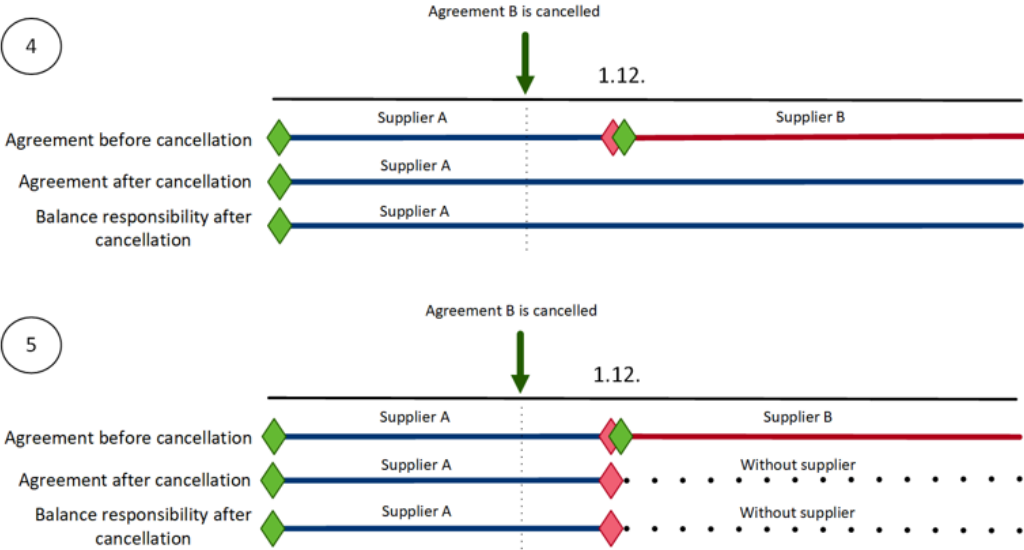
**Figure 1:** A customer cancellation before the agreement begins.

**Figure 2:** The customer has cancelled the sales agreement after its start date. When the agreement of the supplier who reported the cancellation remains valid for a while, Datahub notifies the supplier of the date from which the agreement is cancelled (i.e., until when the agreement remains in effect). If a retroactive cancellation is done within the balance window, the agreement and balance information are automatically fully returned to supplier A.



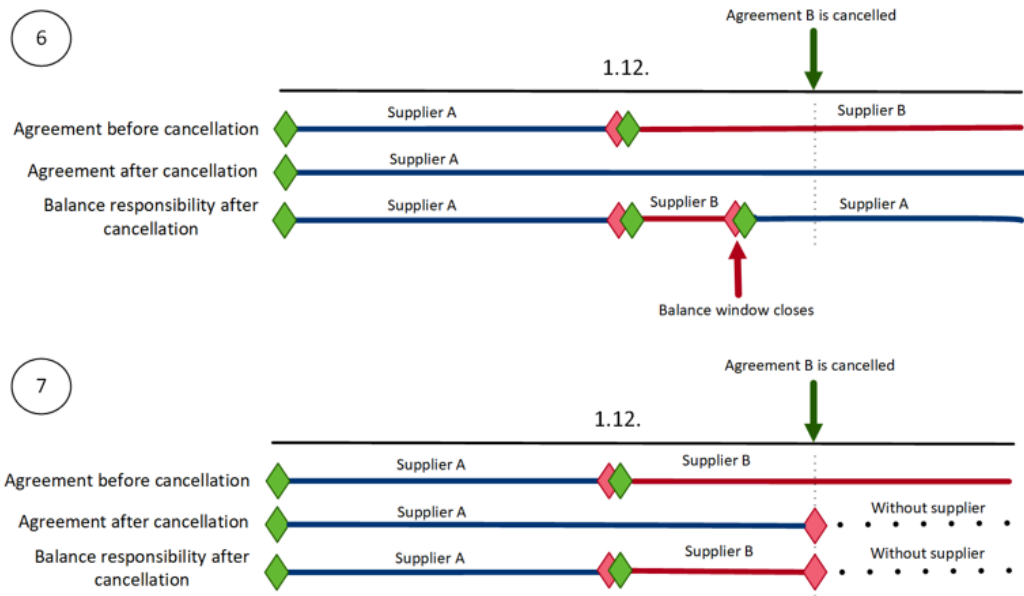
**Figure 3:** If there is no preceding supplier at the accounting point in connection with the customer's cancellation, the supplier will retain billing rights until the date of cancellation. If the agreement of the supplier who reported the cancellation remains valid for some time, Datahub

notifies the supplier of the date from which the agreement is cancelled (i.e., until when the agreement remains in effect). The situation in figure 3 will apply for supplier B if the accounting has a preceding supplier who will not take the customer back.



**Figure 4:** A situation where supplier B cancels its agreement before the agreement begins and supplier A’s agreement is restored.

**Figure 5:** A situation where supplier A reports the cancellation of its own agreement to Datahub based on a notification by supplier B. The process in figure 5 is also used when the event is registered as customer cancellation.

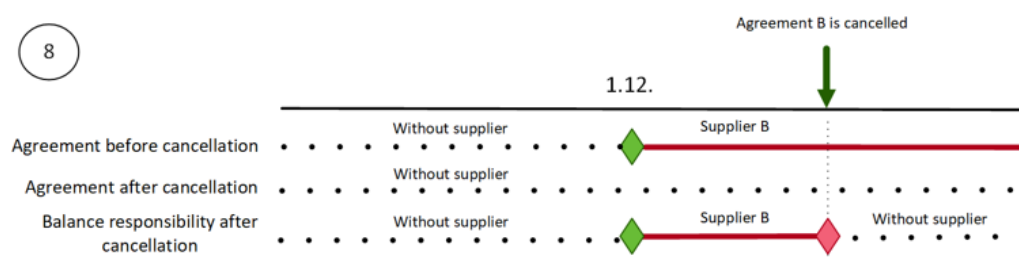


In Datahub, cancellations made after an agreement has begun are processed as follows: the cancellation of supplier B’s agreement is registered on the day the cancellation is reported. Supplier A receives a notification of the agreement cancellation, and without further action,

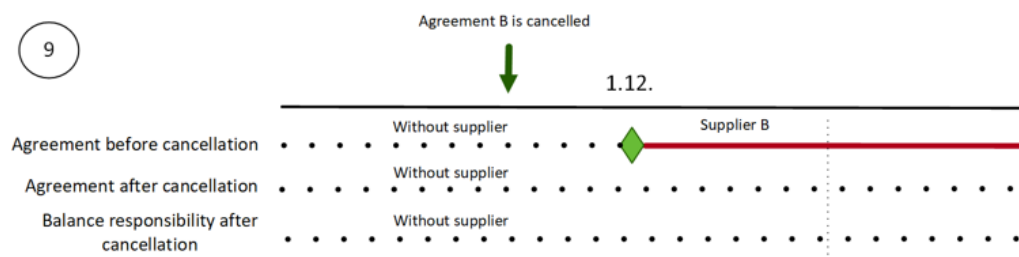
supplier A's terminated agreement is restored in Datahub. Once it has received the report, supplier A can terminate its own sales agreement without time limit validation (such as that for a move-out) no later than on the following business day. Supplier A may not, however, terminate its agreement retroactively; it can only do so by the end of the current day or on a later date. After the following business day has passed, normal time limits for termination will apply to supplier A's agreement.

**Figure 6:** A situation where supplier B cancels its agreement in Datahub after the agreement has begun and supplier A does not terminate its own agreement. Balance information for supplier A is only corrected within the balance window. If the cancellation is done within the balance window, the balance information is completely corrected for supplier A.

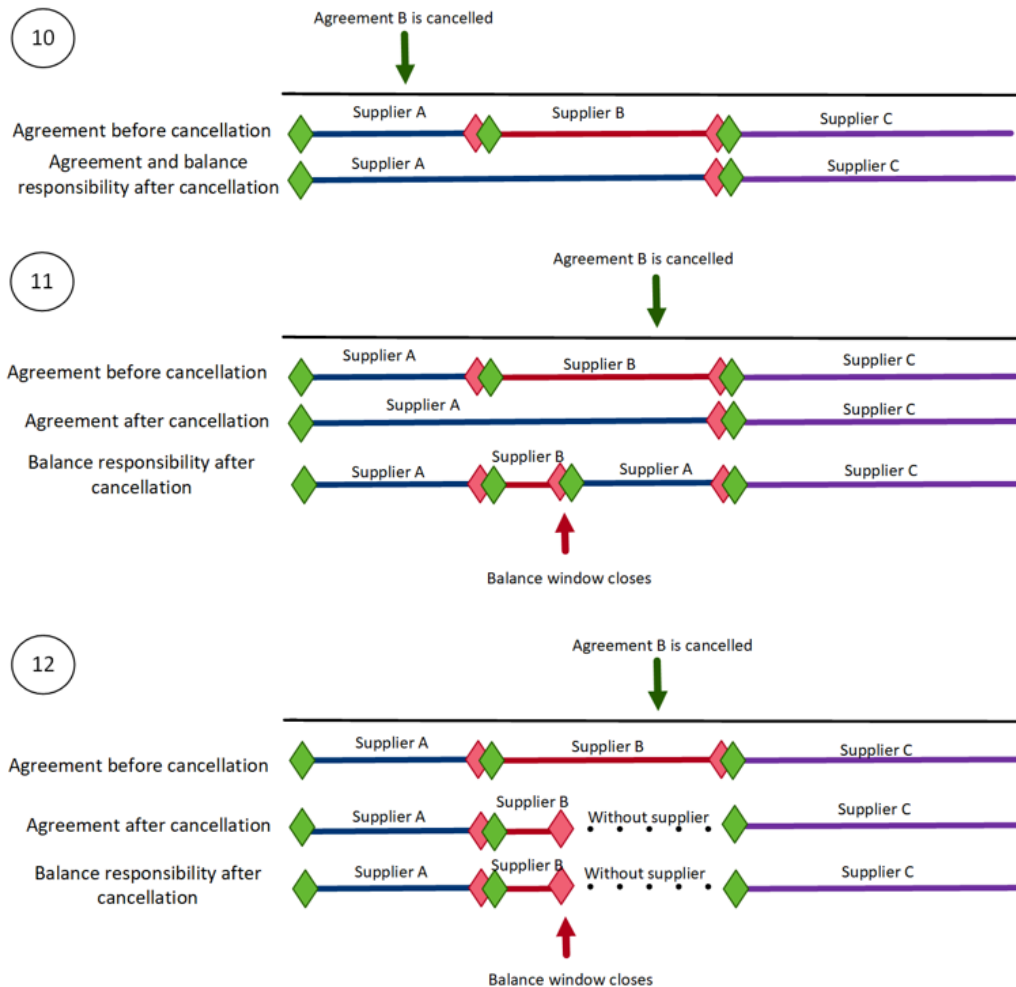
**Figure 7:** A situation where supplier A terminates its own agreement. The accounting point is left without a supplier in accordance with supplier A's termination notification. Datahub notifies the DSO of the accounting point without a supplier.



**Figure 8:** If, in a retroactive cancellation by a supplier, there is no previous sales agreement for an accounting point, the accounting point will remain without a supplier for the entire period after cancellation. Supplier B is, nevertheless, responsible for balances until the date of cancellation. If supplier B becomes aware of a customer that has used electricity at the accounting point during this time, supplier B can retroactively report the start of a sales agreement after reaching agreement with the customer.

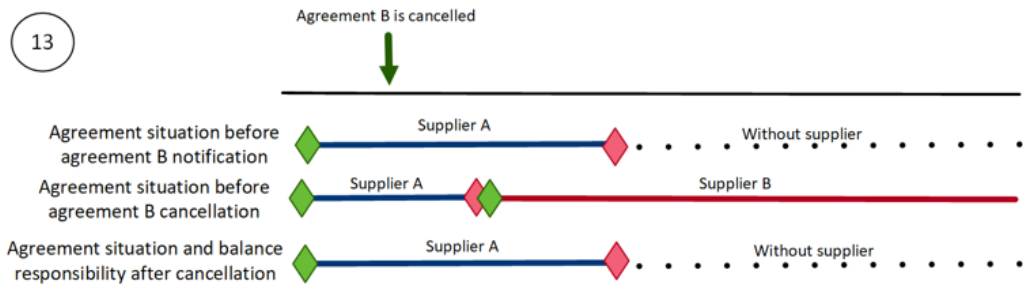


**Figure 9:** In addition to the previously described situations, it is possible that the customer or the supplier cancels the agreement before delivery starts at an accounting point without a preceding supplier. In this case, the agreement and balance information return to state “without supplier” starting from the first day of the cancelled agreement

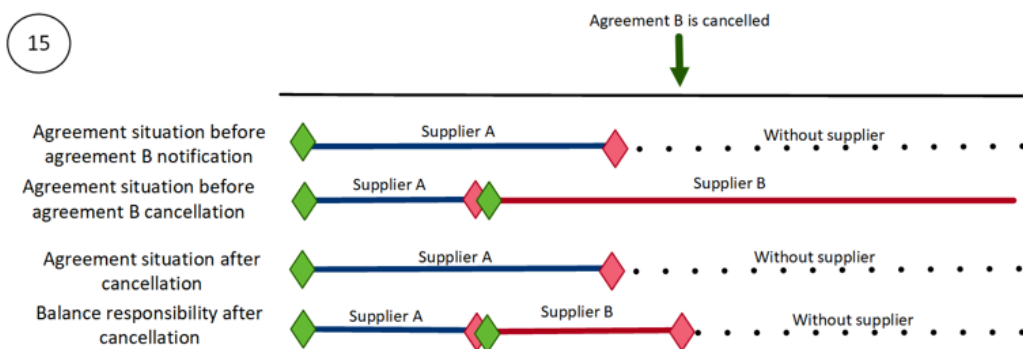
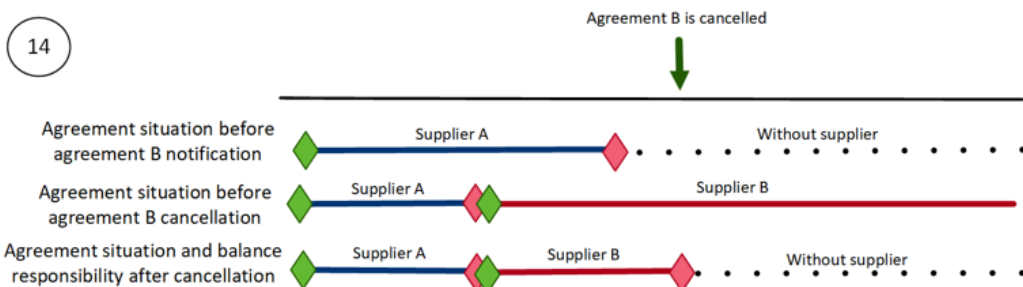


**Figures 10 and 11:** If there already is a future sales agreement on the same accounting point in Datahub that starts after the agreement being cancelled, the previous agreement is restored only until the start date of the future agreement. If the retroactive cancellation (11) is done within the balance window, the balance information is completely corrected for the previous supplier A until the start date of the future agreement.

**Figure 12:** The handling of agreement and balance information when a customer cancels an agreement after the agreement start date and there already is a future agreement for the accounting point starting after the agreement being cancelled. Because agreement B remains valid for the period outside the balance window, supplier A's agreement cannot be automatically restored in Datahub. As in the case of figure 2, a restoration date is forwarded to supplier A which can report a new agreement to Datahub with that start date, if A wants the customer back. If the retroactive cancellation is done within the balance window, the agreement and balance information is automatically fully returned to the previous supplier A until the start date of the future agreement.

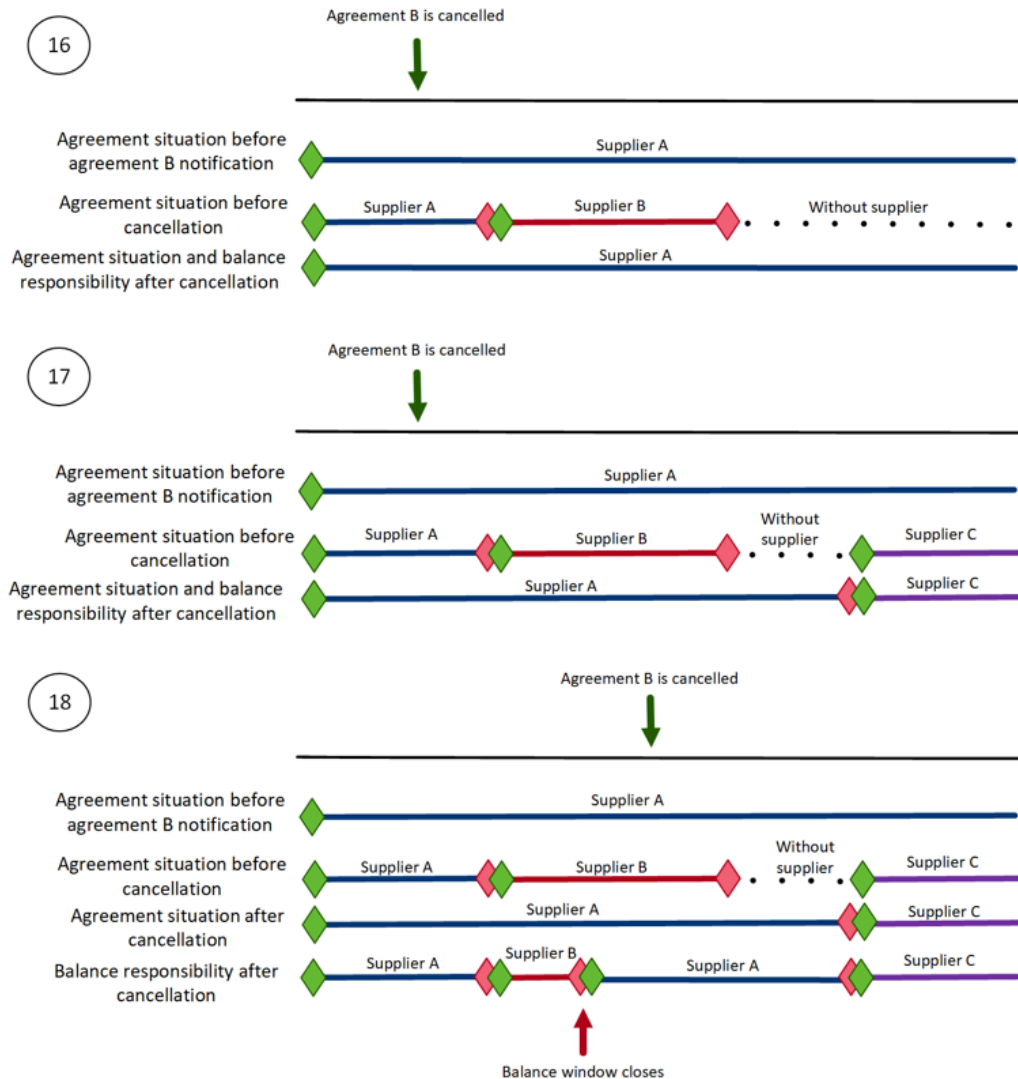


**Figure 13:** If the agreement that is being restored because of the cancellation already had an end date before the agreement that is now being cancelled caused the agreement to end earlier, the previous agreement is restored with the end date it had before the agreement being cancelled was reported. In short, the figure depicts a cancellation before the agreement start when the previous agreement has had an end date.



**Figures 14 and 15:** If agreement cancellation is reported after the agreement start and the previous agreement has had an end date, the previous agreement is restored with the original end date in case of supplier's cancellation (diagram 15). In case of retroactive cancellation by customer, the cancelling supplier retains the billing right from agreement start date until the date of reporting the cancellation (diagram 14). In both cases the balance responsibility remains with the cancelling supplier until the date the cancellation is reported.





**Figures 16, 17 and 18:** If the agreement being cancelled has an end date in Datahub, that does not affect the restoration of the previous agreement. If the previous agreement has not originally had an end date, the previous agreement is restored as valid until further notice (figure 16), or in case the accounting point already has a future agreement, the previous agreement is restored until the start date of the future agreement (figures 17 and 18). If the retroactive cancellation (18) is done within the balance window, the balance information is fully restored for the previous seller A until the start date of the future agreement.



## DH-341 Notification of sales agreement cancellation

Event description

Parties

Time limits

Event processing in Datahub

Information storage

Return of information

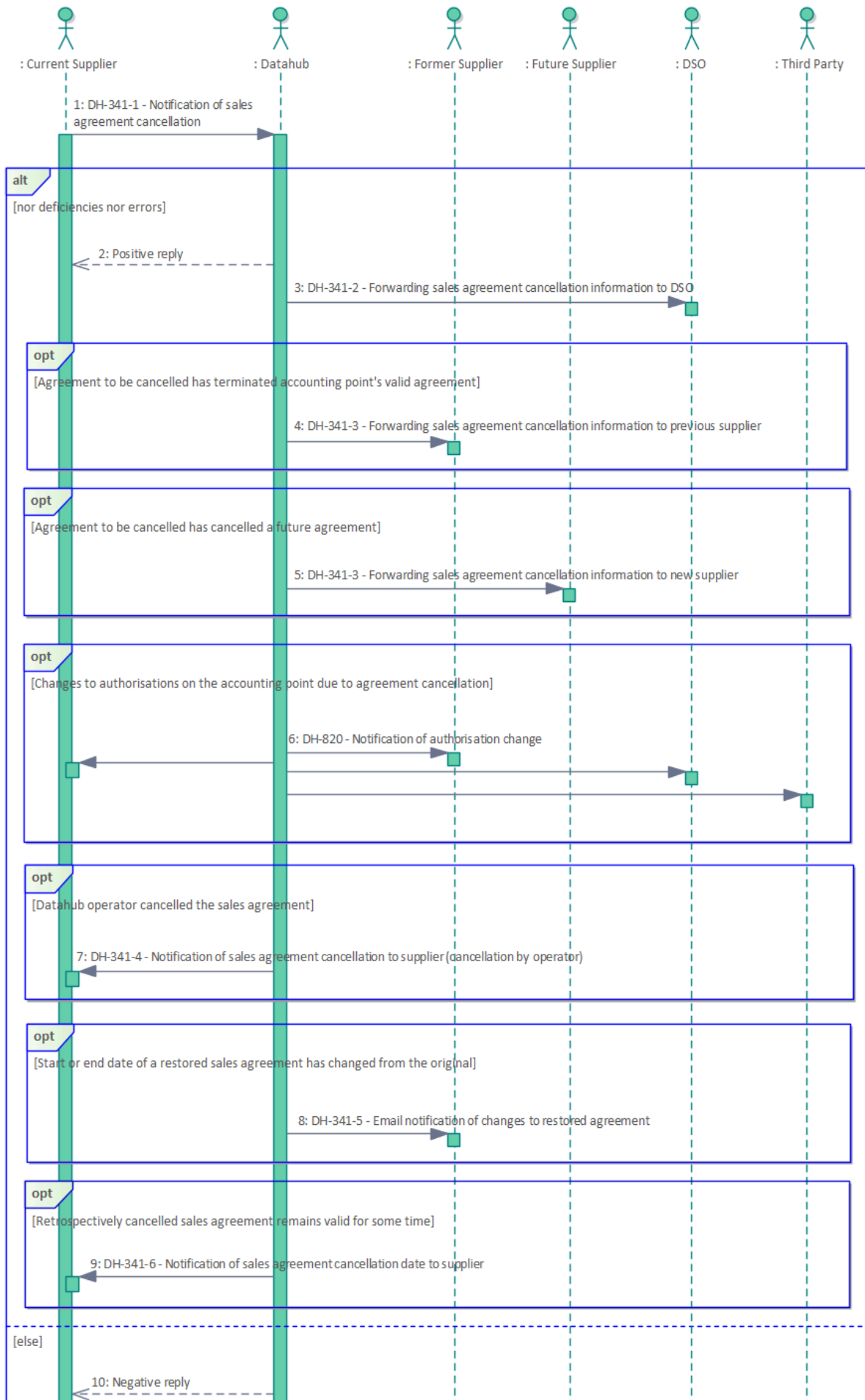
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules





## Event description

A supplier reports the cancellation of a sales agreement at the accounting point. The Datahub operator may also use the event for cancelling a sales agreement.

## Parties

- Current supplier (notifying the agreement termination)
- Datahub
- DSO
- Previous supplier
- Future supplier
- Third party
- Balancing service provider

## Time limits

Reason for termination	Effective date of termination (= start date of the agreement to be cancelled)
Agreement terminated by customer	Earliest termination date is 90 days in the future. Termination may be applied retroactively up to 1 year from the agreement start date.
Agreement terminated by supplier	Earliest termination date is 90 days in the future. Termination may be applied retroactively up to 10 years from the agreement start date.
Agreement terminated by DSO	Earliest termination date is 90 days in the future. Termination may be applied retroactively up to 10 years from the agreement start date.
Termination due to a supplier related reason	Earliest termination date is 90 days in the future. Termination may not be applied retroactively.

## Event processing in Datahub

Step	Description
------	-------------

Agreement and balance information	<p>Registration of the accounting point's agreement and balance information <a href="#">according to the cancellation situation being processed</a>.</p> <p>Previous agreement information that was automatically terminated in connection with the creation of the agreement that is being cancelled will not be restored if the previous supplier has reported a separate termination for the previous agreement.</p>
Cancelling the unconfirmed grid agreement	<p>If the DSO has not yet confirmed the grid agreement that corresponds to the sales agreement being cancelled, the system cancels the unconfirmed grid agreement automatically. If the cancellation is reported with reason 'Cancellation due to a supplier related reason', the unconfirmed grid agreement is not cancelled.</p>
Restoring authorizations	<p>If customer authorizations have been ended due to the creation of the agreement that is being cancelled, they are restored if a sales agreement is restored.</p> <p>Restoring is not done if the previous supplier has reported a separate termination for the previous agreement or cancellation has been reported with reason 'Cancellation due to a supplier related reason'.</p>
Terminating or cancelling authorizations	<p>Authorizations for the accounting point and the agreement being cancelled are cancelled or terminated for the start date of the cancelled agreement, if the cancellation is retroactive and the authorization has begun before the start date of the cancelled agreement. If the same customer continues to hold a sales or grid agreement for the accounting point after the cancellation, authorizations are not terminated. In other words, after the cancellation of the sales agreement, the authorization remains valid if the grid agreement is valid, and it will only end when the customer's grid agreement is cancelled too.</p> <p>Authorizations are not terminated or cancelled if the sales agreement cancellation is reported with reason 'Cancellation due to a supplier related reason'.</p>

## Information storage

Origin of information	Information stored
-----------------------	--------------------

Information reported by party	Reason for sales agreement cancellation.
Information processed by Datahub	The agreement situation and balance information for the accounting point in accordance with the <a href="#">cancellation situation</a> .
	The possible cancelled unconfirmed grid agreement.
	Possible updates to the accounting point's authorizations.

## Return of information

Party	Description	Message
Supplier	Information about a successful event or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Specification	Description	Message
DSO		If there is a valid or an unconfirmed grid agreement on the accounting point, cancellation information for the sales agreement is forwarded to the DSO.	<a href="#">DH-341-2</a>
Supplier	Accounting point's previous supplier	A possible previous supplier for the accounting point is notified of cancellation of the termination of its sales agreement. The agreement identification of the restored sales agreement is forwarded to the previous supplier, but the identification of the cancelled agreement or the supplier who reported the cancellation is not forwarded. If in the cancellation situation the previous sales agreement cannot be restored automatically, a recreation date is forwarded to the previous supplier. If the previous supplier wants to take the customer back, they can report a new sales agreement to Datahub starting from the recreation date.	<a href="#">DH-341-3</a>
		If the start or end date of a restored sales agreement was changed, the supplier is notified of the changes by	Email (DH-341-5)

		email.	
	Accounting point's future supplier	If future sales agreements were restored due to the cancellation of a move-in agreement, the suppliers involved are notified of the cancellation. The identification of the restored sales agreement is forwarded to the future supplier in the notification.	<a href="#">DH-341-3</a>
	Supplier for cancelled agreement	If the Datahub operator has cancelled a sales agreement, a notification of agreement cancellation is sent to the supplier of the agreement.	<a href="#">DH-341-4</a>
		If a retroactively cancelled agreement remains valid for some time, Datahub notifies the supplier of the agreement of the date from which the agreement is cancelled.	<a href="#">DH-341-6</a>
	Authorized supplier	If authorizations were restored, ended or cancelled due to the cancellation, parties are notified of the changes in their authorizations	<a href="#">DH-821</a>
Third party		If authorizations were restored, ended or cancelled due to the cancellation, parties are notified of the changes in their authorizations	<a href="#">DH-822</a>
Balancing service provider		If the notification of an agreement cancellation changes a customer's supplier information due to the cancelled (or a potentially restored) agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization. If the change is retroactive, the information is forwarded only if its validity overlaps with the validity of the authorization during the last 60 days (counting from the reporting date).	<a href="#">DH-136-2</a>

## Composite processes

Party	Description	Composite process
DSO	The DSO must cancel a grid agreement that was created based on the cancelled sales agreement. If the cancellation of the sales agreement is reported with the reason 'Cancellation due to a supplier related reason', the grid agreement is not be cancelled and no process chain is formed.	<a href="#">DH-341 → DH-342</a>
Previous supplier	The previous supplier may refuse a sales agreement restoration.	<a href="#">DH-341 → DH-343</a>

### Significant errors and consequences

Error	Consequence
The cancellation message is sent for the wrong accounting point and agreement.	The customer's experience may be poor, and the matter may need to be clarified, for example, via email.


### Event cancellation

The notification cannot be cancelled.

### Validation rules

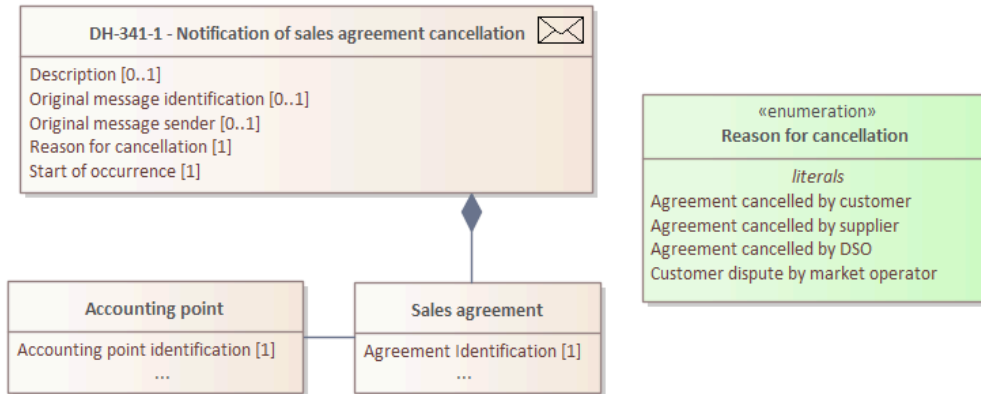
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.11 5	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.1 20	
The agreement must be available in Datahub, with the reporting supplier as one of the parties.	EC.AGR.11 7	

The agreement must be valid when the update enters into force.	EC.AGR.11 8	
<div>  Please observe that the list is not complete. </div>		



## DH-341-1 Notification of sales agreement cancellation



Details of the notification of sales agreement cancellation

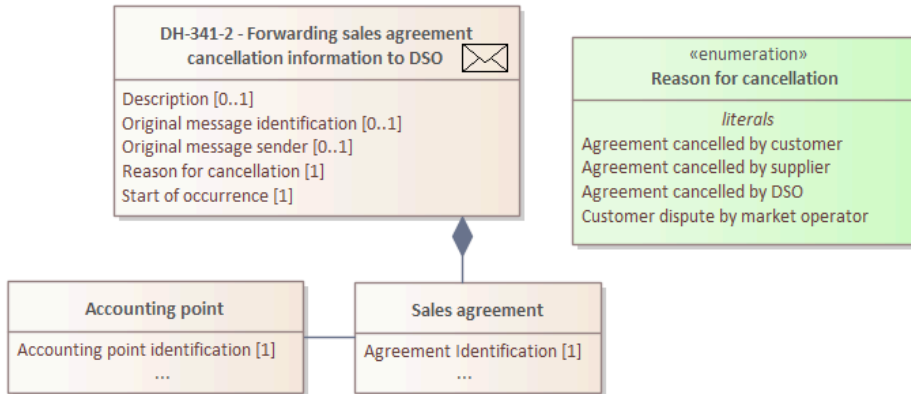
Message DH-341-1 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Start date of cancelled agreement	
Original message identification	2	0.1	If the sales agreement cancellation follows the cancellation of the grid agreement, message identification for message DH-342-2 is used. Otherwise this field is not used in message DH-341-1.	<a href="#">Field usage</a>
Original message sender	2	0.1	If the sales agreement cancellation follows the cancellation of the grid agreement, message sender for message DH-342-2 is used. Otherwise this field is not used in message DH-341-1.	<a href="#">Field usage</a>
Reason for cancellation	2	1.1	<ul style="list-style-type: none"> <li>Agreement cancelled by customer</li> <li>Agreement cancelled by supplier</li> <li>Agreement cancelled by DSO</li> </ul>	

			• Customer dispute by market operator	
Description	2	0.1		
Agreement information	2	1.1		
Agreement identification	3	1.1	Identification of the agreement being cancelled	
Accounting point data	2	1.1		
Accounting point identification	3	1.1		

## DH-341-2 Forwarding sales agreement cancellation information to DSO



Details of forwarding sales agreement cancellation information to DSO

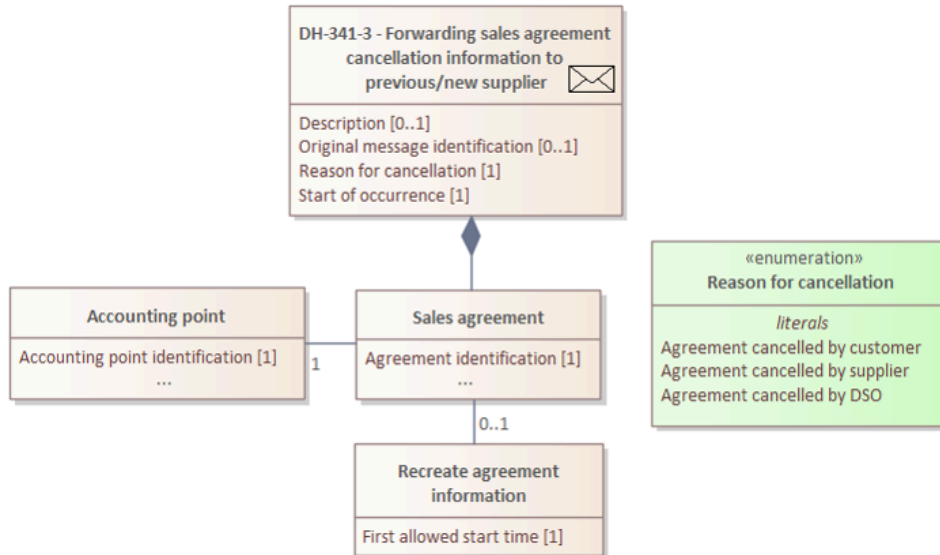
Message DH-341-2 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date of cancelled agreement	
Original message identification	2	0..1	Contains the message identification for message DH-341-1.	<a href="#">Field usage</a> When the Datahub operator uses a bulk process to cancel future sales agreements of a supplier who is terminating its operations, the field is not used in message DH-341-2.
Original message sender	2	0..1	Contains the message sender for message DH-341-1.	<a href="#">Field usage</a> When the Datahub operator uses a bulk process to cancel future sales agreements of a supplier who is terminating its operations, the field is not used in message DH-341-2.

Reason for cancellation	2	1.1	<ul style="list-style-type: none"> <li>• Agreement cancelled by customer</li> <li>• Agreement cancelled by supplier</li> <li>• Agreement cancelled by DSO</li> <li>• Customer dispute by market operator</li> </ul>	
Description	2	0..1		
Agreement information	2	1..1		
Agreement identification	3	1.1	Identification of the agreement being cancelled	
Accounting point data	2	1..1		
Accounting point identification	3	1.1		

## DH-341-3 Forwarding sales agreement cancellation information to previous/new supplier



Details of forwarding sales agreement cancellation information to previous/new supplier

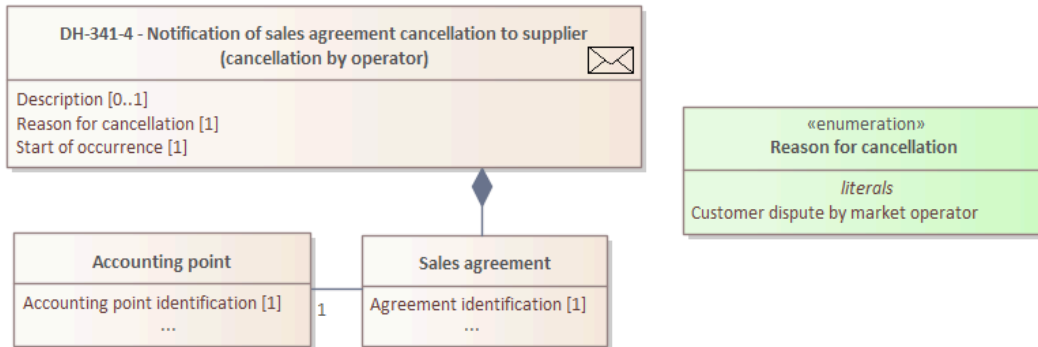
Message DH-341-3 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date of cancelled agreement	
Original message identification	2	0..1	Contains the message identification for message DH-341-1.	<a href="#">Field usage</a>
Reason for cancellation	2	1..1	<ul style="list-style-type: none"> <li>Agreement cancelled by customer</li> <li>Agreement cancelled by supplier</li> <li>Agreement cancelled by DSO</li> </ul>	
Description	2	0..1		

Agreement information	2	0.1		This part is included in the notification to the previous supplier only if the sales agreement of the previous supplier is automatically restored.
Agreement identification	3	1..1		
Recreate agreement information	2	0.1		This part is only included if the sales agreement should be returned to the previous supplier, which cannot be automatically done in the system, because even after the cancellation there is a time period outside the balance window during which the sales agreement being cancelled remains in effect. In this case, the previous supplier can report a new sales agreement for the customer using this date as the start date, if it wants to take the customer back.
First allowed start time	3	1..1		
Accounting point data	2	1..1		
Accounting point identification	3	1..1		

## DH-341-4 Notification of sales agreement cancellation to supplier (cancellation by operator)



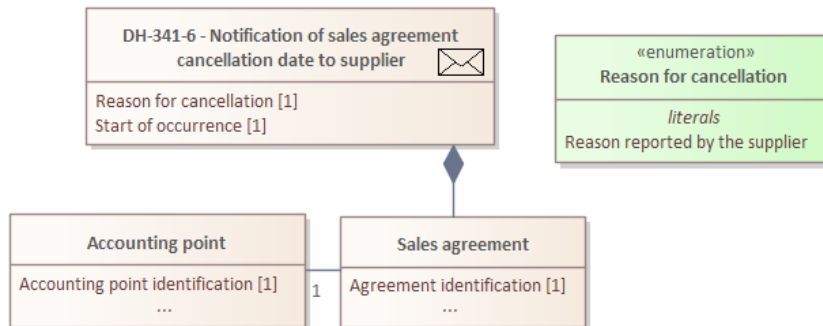
Details of the notification of sales agreement cancellation to supplier (cancellation by operator)

Message DH-341-4 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date of cancelled agreement	
Reason for cancellation	2	1..1	Customer dispute by market operator	
Description	2	0..1		
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification of the agreement being cancelled	
Accounting point data	2	1..1		
Accounting point identification	3	1..1		

## DH-341-6 Notification of sales agreement cancellation date to supplier



Details of the notification of sales agreement cancellation date to supplier

Message DH-341-6 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Date of agreement cancellation	The date until which the agreement remains valid.
Reason for cancellation	2	1..1	Reason reported by the supplier	
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification of the agreement being cancelled	
Accounting point data	2	1..1		
Accounting point identification	3	1..1		



## DH-342 Notification of grid agreement cancellation

Event description

Parties

Time limits

Event processing in Datahub

Information storage

Return of information

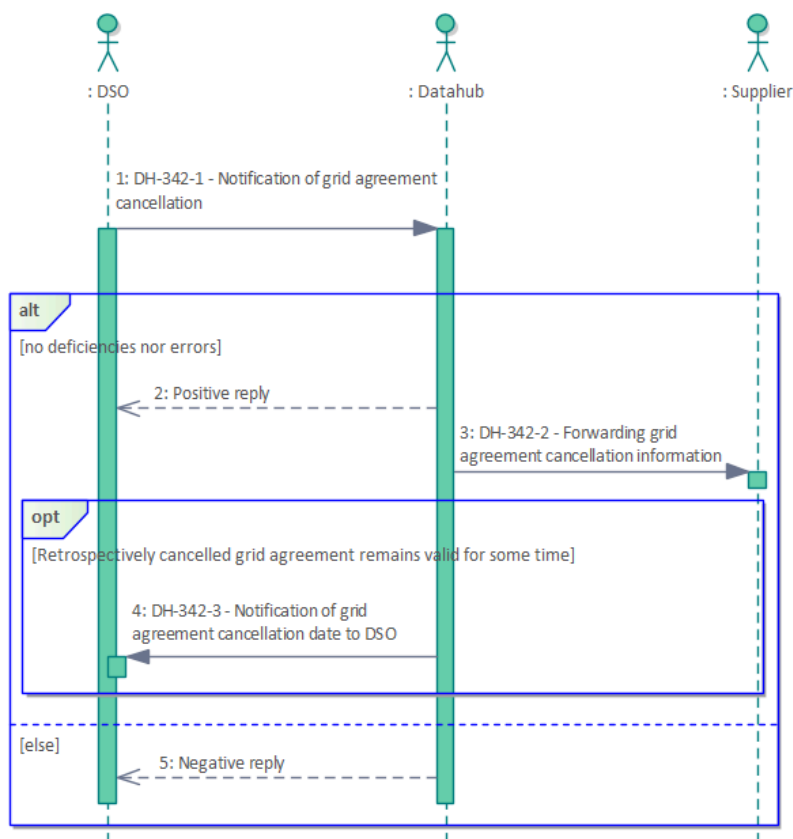
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Notification of grid agreement cancellation

### Event description

A DSO reports the cancellation of a grid agreement after having received a notification of sales agreement cancellation. The DSO cancels the grid agreement made on the basis of this sales agreement, or after having noticed an erroneous confirmation of a grid agreement.

### Parties

- DSO

- Datahub
- Supplier

### Time limits

Reason for termination	Effective date of termination (= start date of the agreement to be cancelled)
Agreement terminated by customer	Earliest termination date is 90 days in the future. Termination may be applied retroactively up to 1 year from the agreement start date.
Agreement terminated by supplier	Earliest termination date is 90 days in the future. Termination may be applied retroactively up to 10 years from the agreement start date.
Agreement terminated by DSO	Earliest termination date is 90 days in the future. Termination may be applied retroactively up to 10 years from the agreement start date.

### Event processing in Datahub

Step	Description
Agreement information	The grid agreement is cancelled in the system <a href="#">according to the cancellation situation being processed</a> . A possible previous grid agreement is restored if it was automatically terminated in connection with the cancelled agreement process and the DSO has not reported a separate termination for the previous grid agreement.
Terminating or cancelling authorizations	If the same customer no longer has a valid sales or grid agreement for the accounting point after the cancellation, the authorizations linked to the accounting point for the period of the cancelled agreement are cancelled or terminated on the start date of the cancelled agreement, if it is a retroactive cancellation and the authorization has begun before the start of the cancelled agreement.

### Information storage

Origin of information	Information stored
Information reported by party	Reason for grid agreement cancellation.

Information processed by Datahub	Grid agreement cancellation and possible restoration of a previous grid agreement.
	Possible updates to the accounting point's authorizations.

### Return of information

Party	Description	Message
DSO	Information about a successful event or rejected notification.	<a href="#">ACK</a>

### Forwarding of information

Party	Specification	Description	Message
Supplier	Accounting point's current supplier	Grid agreement cancellation information is forwarded to the supplier who has a valid sales agreement for the accounting point at the start of occurrence.	<a href="#">DH-342-2</a>
	Accounting point's future supplier	Grid agreement cancellation information is forwarded to suppliers who have a sales agreement for the accounting point with a start date after the start of occurrence.	
DSO		If a retroactively cancelled agreement remains valid for some time, Datahub notifies the DSO of the date from which the agreement is cancelled.	<a href="#">DH-342-3</a>

### Composite processes

Party	Description	Composite process
Supplier	If there is an active sales agreement at the accounting point that corresponds to the cancelled grid agreement, the supplier must cancel it.	<a href="#">DH-342 → DH-341</a>

## Significant errors and consequences

Error	Consequence
The cancellation message is sent for the wrong accounting point and agreement.	The customer's experience may be poor, and the matter may need to be clarified, for example, via email.


## Event cancellation

The notification cannot be cancelled.

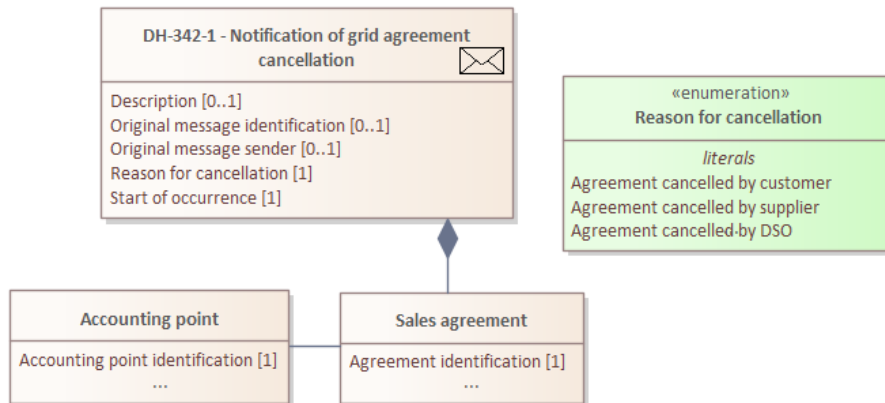
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	

 Please observe that the list is not complete.

## DH-342-1 Notification of grid agreement cancellation



Details of the notification of grid agreement cancellation

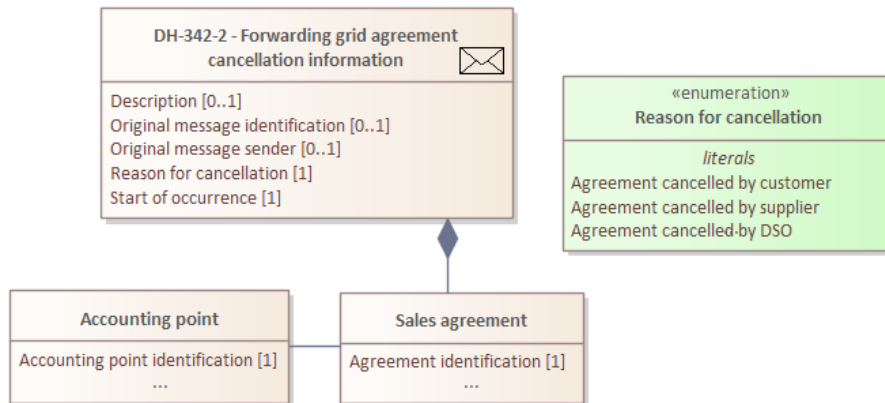
Message DH-342-1 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Start of occurrence	2	1.1	Start date of cancelled agreement	
Original message identification	2	0..1	If the grid agreement cancellation follows the cancellation of the sales agreement, message identification for message DH-341-2 is used. Otherwise this field is not used in message DH-342-1.	<a href="#">Field usage</a>
Original message sender	2	0..1	If the grid agreement cancellation follows the cancellation of the sales agreement, message sender for message DH-341-2 is used. Otherwise this field is not used in message DH-342-1.	<a href="#">Field usage</a>
Reason for cancellation	2	1.1	<ul style="list-style-type: none"> <li>Agreement cancelled by customer</li> <li>Agreement cancelled by supplier</li> <li>Agreement cancelled by DSO</li> </ul>	

Description	2	0.1		
Agreement information	2	1.1		
Agreement identification	3	1.1	Identification of the agreement being cancelled	
Accounting point data	2	1.1		
Accounting point identification	3	1.1		

## DH-342-2 Forwarding grid agreement cancellation information



Details of forwarding grid agreement cancellation information

Message DH-342-2 is of message type [F18](#).

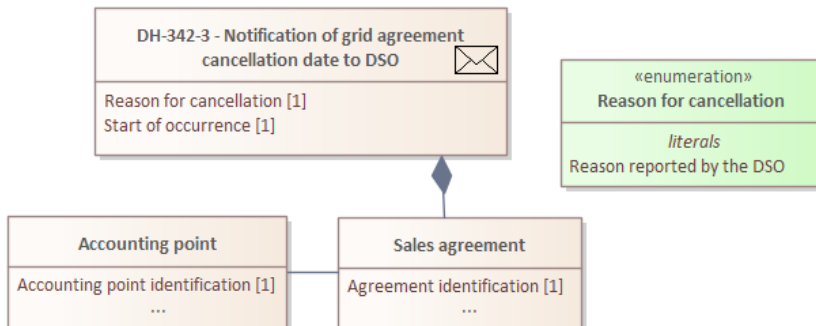
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date of cancelled agreement	
Original message identification	2	1..1	Contains the message identification for message DH-342-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-342-1.	<a href="#">Field usage</a>
Reason for cancellation	2	1..1	<ul style="list-style-type: none"> <li>Agreement cancelled by customer</li> <li>Agreement cancelled by supplier</li> <li>Agreement cancelled by DSO</li> </ul>	
Description	2	0..1		
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification of the agreement being cancelled	

Accounting point data	2	1.1		
Accounting point identification	3	1..1		



## DH-342-3 Notification of grid agreement cancellation date to DSO



Details of the notification of grid agreement cancellation date to DSO

Message DH-342-3 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Date of agreement cancellation	The date until which the agreement remains valid.
Reason for cancellation	2	1..1	Reason reported by the DSO	
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification of the agreement being cancelled	
Accounting point data	2	1..1		
Accounting point identification	3	1..1		

## DH-343 Notification by previous supplier of refusal to restore sales agreement

Event description

Parties

Time limits

Event processing in Datahub

Information storage

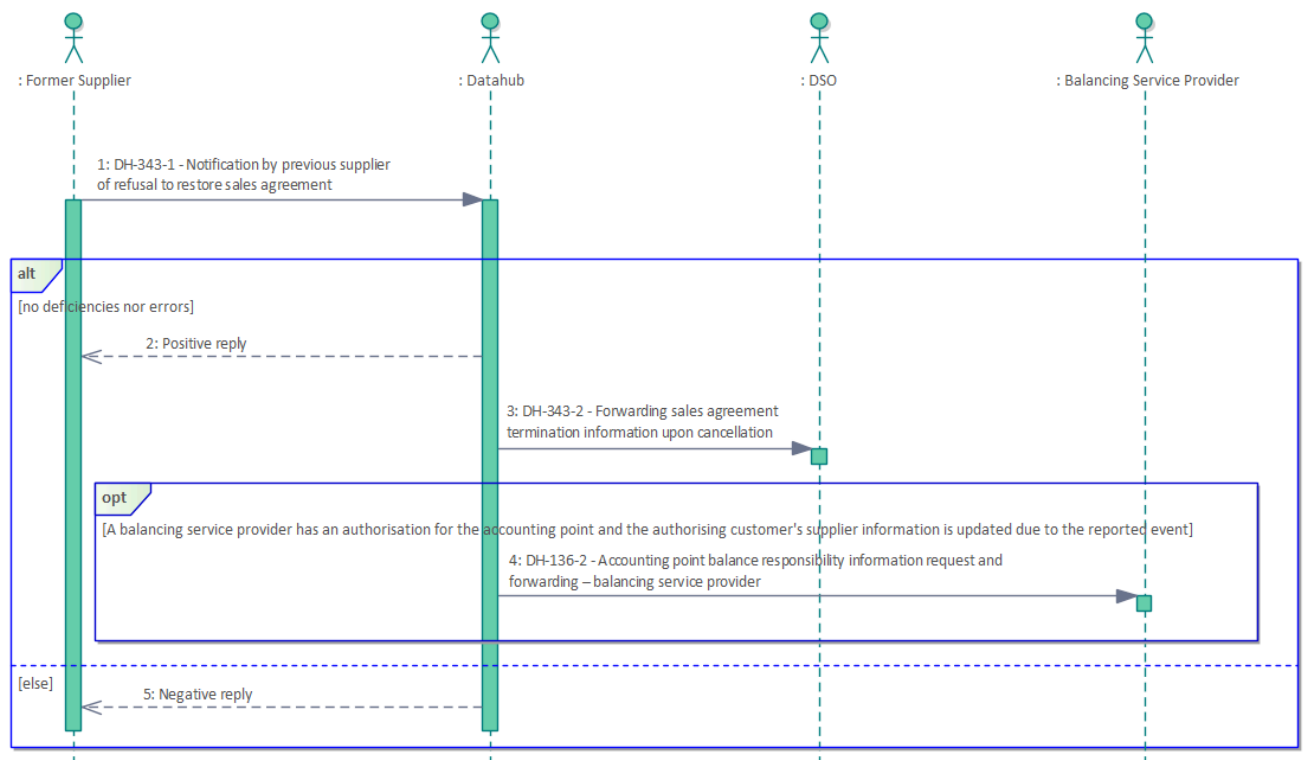
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Notification by previous supplier of refusal to restore sales agreement

### Event description

A supplier reports the termination of a sales agreement that was restored in a [cancellation process](#), because the supplier does not wish to continue supplying to the accounting point and customer in question.

### Parties

- Supplier
- Datahub
- DSO

- Balancing service provider

### Time limits

Event/information	Time limit
Sending message	Notification must be sent at the latest the weekday following the reception of message <a href="#">DH-341-3</a> .
Agreement end date	The end date can be the current day at the earliest and at most 90 days in the future.

### Event processing in Datahub

Step	Description
Agreement and balance information	Agreement and balance information for the accounting point are registered <a href="#">according to the situation being processed</a> .

### Information storage

Origin of information	Information stored
Information reported by party	The sales agreement termination information.
	Datahub stores and forwards information on a post office located in Finland in upper case, even if the post office name is reported differently to Datahub.
Information processed by Datahub	Agreement and balance information for the accounting point are registered <a href="#">according to the situation being processed</a> .

### Return of information

Party	Description	Message
DSO	Information about a successful event or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
DSO	The sales agreement termination information is forwarded to the DSO.	<a href="#">DH-343-2</a>
Balancing service provider	If the notification of refusal to restore sales agreement changes a customer's supplier information due to the terminated agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization.	<a href="#">DH-136-2</a>

## Significant errors and consequences

Error	Consequence
The supplier accidentally terminates an agreement that it would have wanted to continue.	If necessary, the supplier contacts the customer and reports a new sales agreement to Datahub.


## Event cancellation

The notification cannot be cancelled.

## Validation rules

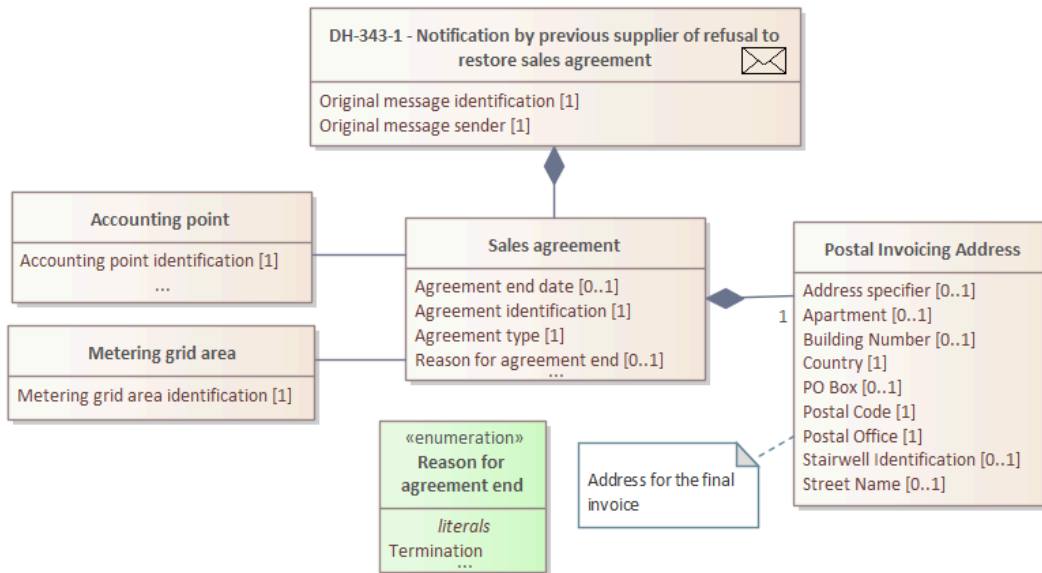
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	

 Please observe that the list is not complete.



## DH-343-1 Notification by previous supplier of refusal to restore sales agreement



Details of notification by previous supplier of refusal to restore sales agreement

Message DH-343-1 is of message type [F06](#).

Message payload includes the following information:

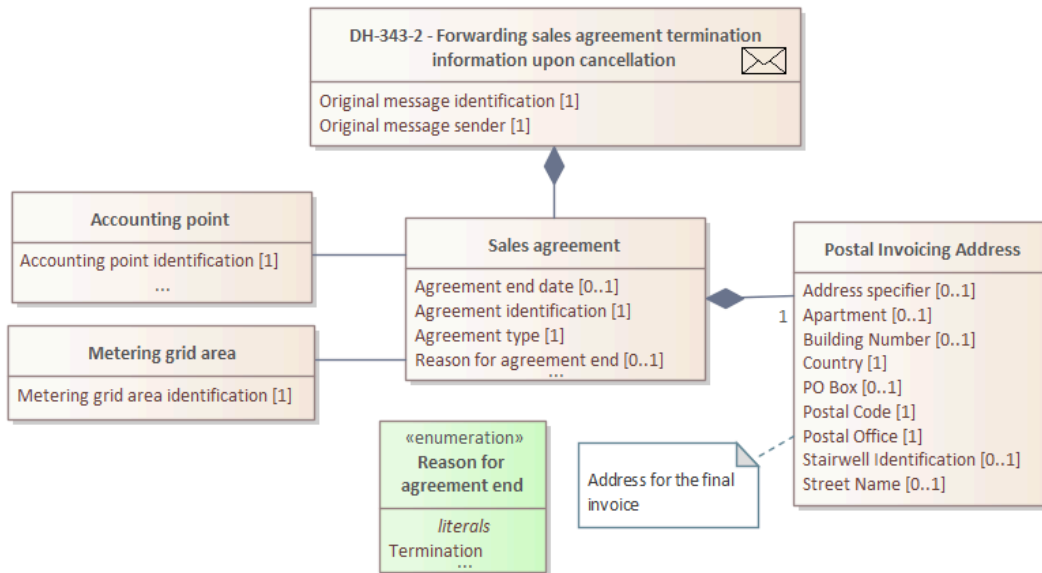
Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1		Agreement end time must be midnight.
Original message identification	2	1.1	Message identification for message DH-341-3	<a href="#">Field usage</a>
Original message sender	2	1.1	Message sender for message DH-341-3	<a href="#">Field usage</a>
Reason for agreement end	2	1.1	Termination	

Agreement information	2	1..1		
Agreement identification	3	1..1		
Agreement type	3	1..1		
Postal invoicing address	3	0..1		<p>Address information must contain the postal code and either street name and building number or PO Box.</p> <p>Address information may not contain both PO Box and street address information (street name, building number, stairwell identification or apartment).</p> <p>If apartment information is reported, stairwell identification is mandatory.</p>
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		<p>When the address is in Finland, the building number field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Stairwell identification	4	0..1		<p>Rules for the stairwell identification field:</p> <ul style="list-style-type: none"> <li>• if the value is one of the following: 'as', 'as.', 'bst' or 'bst.', it must be in lowercase</li> <li>• if only one letter used, it must be in uppercase, if the address is in Finland</li> <li>• spaces are not allowed</li> </ul>

Apartment	4	0..1		<p>When the address is in Finland, the apartment field:</p> <ul style="list-style-type: none"> <li>• may not contain spaces</li> <li>• may not contain uppercase letters</li> <li>• the only special characters allowed are dot (.), hyphen (-) and slash (/)</li> <li>• special characters only are not allowed</li> </ul>
Postal code	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
PO Box	4	0..1		
Post office	4	1..1		The postal code and post office must match. This check is only performed for addresses located in Finland.
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		



## DH-343-2 Forwarding sales agreement termination information upon cancellation



Details of forwarding sales agreement termination information upon cancellation


Message DH-343-2 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-341-3	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-341-3	<a href="#">Field usage</a>
Reason for agreement end	2	1..1	Termination	
Agreement information	2	1..1		
Agreement identification	3	1..1		

Agreement type	3	1.1		
Postal invoicing address	3	0..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code used in accordance with alpha-2	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## [DH-344 Grid agreement termination notification upon cancellation]

 Note: Event DH-344 should not be used. The event will be completely removed in a future version update of Datahub. A description of the event can be found in [earlier documentation](#).

## DH-350 Cancellation of agreement termination

Sales and grid agreement terminations can be cancelled using specific cancellation events. Agreement terminations may be cancelled if the termination of the agreement has been reported for the future and there is no new agreement for the accounting point after the end date.

Agreement terminations imported in the data migration cannot be cancelled. If an agreement imported in the data migration is to continue despite a notified termination, then a new agreement must be reported after the original end date.

## DH-351 Cancellation of sales agreement termination

Event description

Parties

Time limits

Event processing in Datahub

Information storage

Return of information

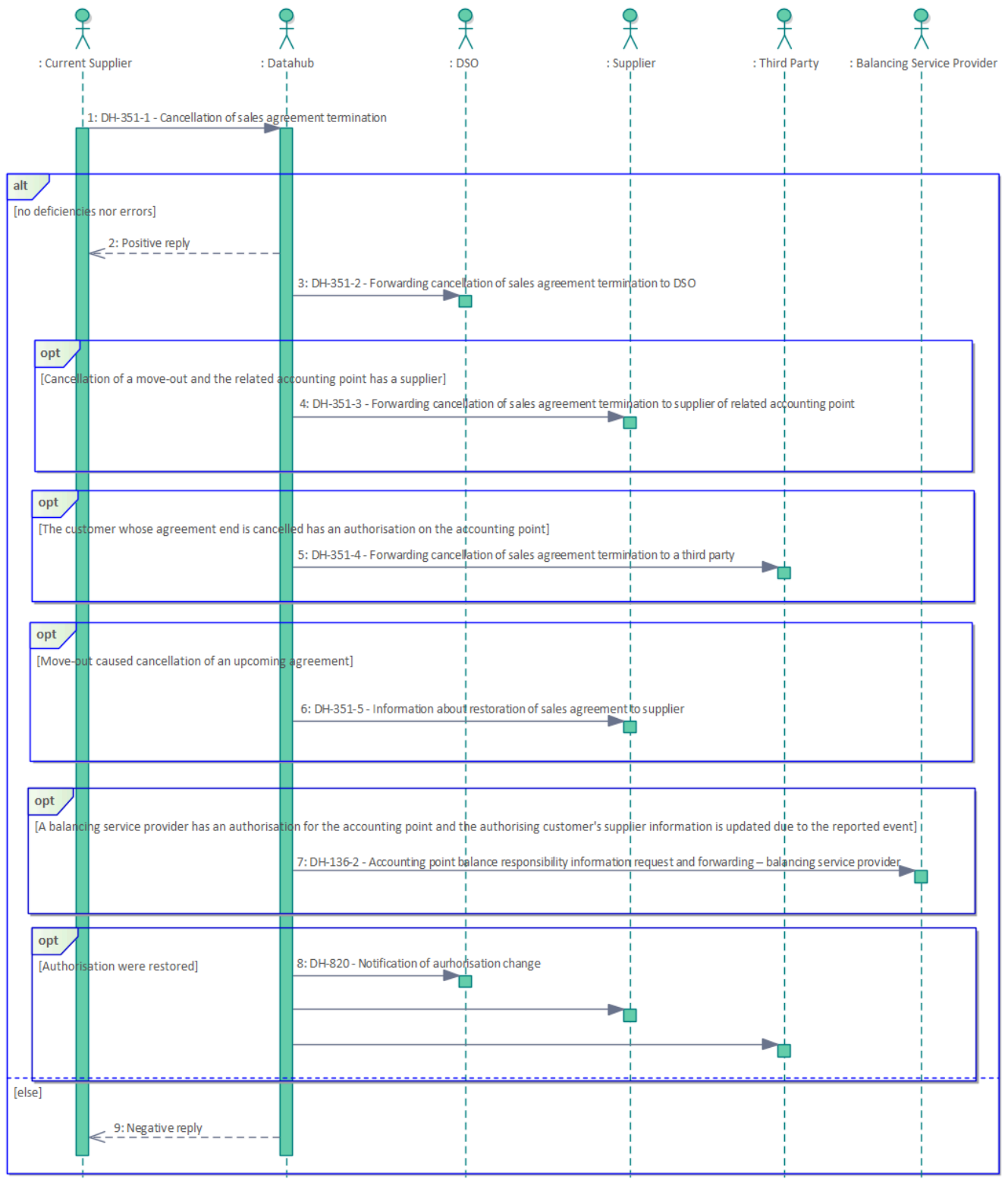
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Cancellation of sales agreement termination

## Event description

A supplier cancels a reported termination of a sales agreement to Datahub.

## Parties

- Supplier
- Datahub
- DSO
- Third party
- Balancing service provider

## Time limits

An agreement termination can be cancelled if the original agreement end date is tomorrow or further in the future.

## Event processing in Datahub

Step	Description
Cancellation of agreement termination	The corresponding notified agreement termination is cancelled. The sales agreement continues as was, just without the now cancelled termination.
Restoration of cancelled agreement	If the original agreement termination caused a cancellation of a future sales agreement, the cancelled agreement is restored.
Postal invoicing address	If the cancelled DH-331 event updated the postal invoicing address, the previous postal invoicing address is restored.

## Information storage

Origin of information	Information stored
Information processed by Datahub	The agreement information for the accounting point
	A restored postal invoicing address

## Return of information

Party	Description	Message
Supplier	Information about a successful event or rejected notification. If the cancellation is rejected because there is a new agreement starting after the end date, the start date of the new agreement is returned.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
DSO	The cancellation is forwarded to the DSO if the customers of the valid corresponding grid agreement are the same as the customers of the sales agreement on its original end date (reported by DH-331). If the cancellation concerns a move-out and the corresponding grid agreement has already been terminated, this cancellation is also forwarded to the DSO.	<a href="#">DH-351-2</a>
Related accounting point's supplier	If the cancellation is for a move-out and the related accounting point has a valid sales agreement on the original end date (reported by DH-331), the cancellation is forwarded to the supplier of the related accounting point. Only the end date, reason for agreement end, description, related accounting point identification and metering grid area are forwarded. The party identification of the supplier reporting the cancellation is not forwarded.	<a href="#">DH-351-3</a>
Third party	If there is a valid authorization for the accounting point (on or after the original agreement end date reported by DH-331) from the customer whose agreement termination is cancelled, the cancellation is forwarded to an authorized third party. The notification includes the same information that is forwarded to the supplier of the related accounting point.	<a href="#">DH-351-4</a>
Accounting point's future supplier	If the original agreement termination caused a cancellation of a future agreement, a notification of the agreement being restored is forwarded to the supplier of the restored sales agreement.	<a href="#">DH-351-5</a>
Balancing service provider	If the notification of an agreement cancellation changes a customer's supplier information due to the cancelled (or a potentially restored) agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date	<a href="#">DH-136-2</a>



of the event and the validity of the changed data must overlap with the validity of the authorization.
--

## Composite processes

Party	Description	Composite process
DSO	The termination of the grid agreement must be cancelled when the termination of the sales agreement for the accounting point is cancelled.	<a href="#">DH-351 → DH-352</a>

## Significant errors and consequences

Error	Consequence
The wrong agreement termination is cancelled.	May cause retroactive corrections later.


## Event cancellation

The event cannot be cancelled.

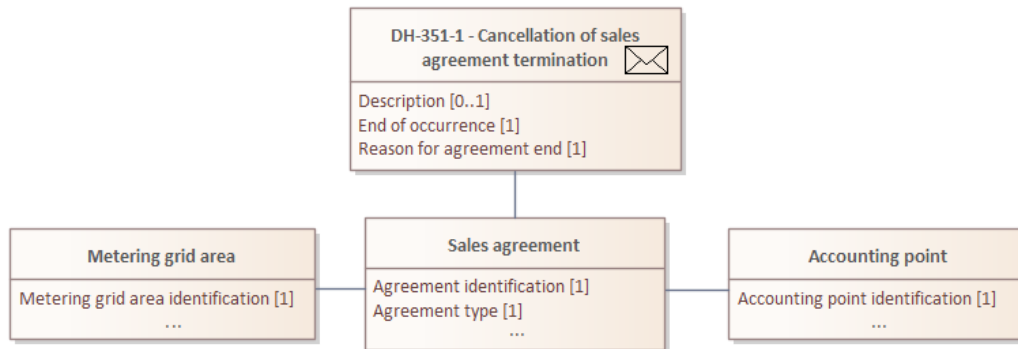
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.11 5	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.1 20	
The supplier must be party to the sales agreement at the notified termination time.	EC.AGR.11 7	
For the notified accounting point, there is a sales agreement which is terminating due to a DH-331 event and which has the same agreement ID, same termination date and same termination reason as	EC.AGR.1 37	

in the cancellation notification. Cancellation of termination is not permitted in a case where the agreement originally terminated due to a new agreement (DH-311), but for which DH-331 was notified for the same date.		
No new agreement is beginning at the accounting point after the termination date.	EC.AGR.2 40	
<div>  Please observe that the list is not complete. </div>		

## DH-351-1 Cancellation of sales agreement termination



Details of the cancellation of sales agreement termination

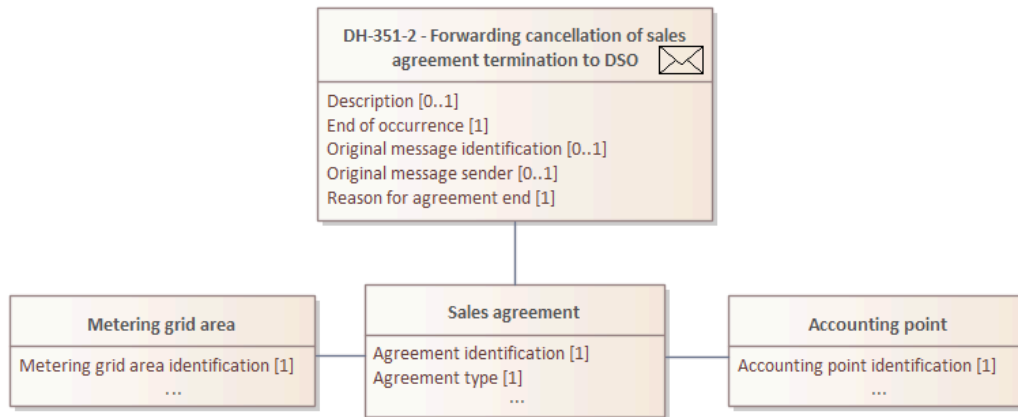
Message DH-351-1 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Description	2	0..1	Optional explanation for why the agreement termination is cancelled.	
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	
Agreement information	2	1..1		
Agreement identification	3	1..1		
Agreement type	3	1..1		

Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-351-2 Forwarding cancellation of sales agreement termination to DSO



Details of forwarding cancellation of sales agreement termination to DSO

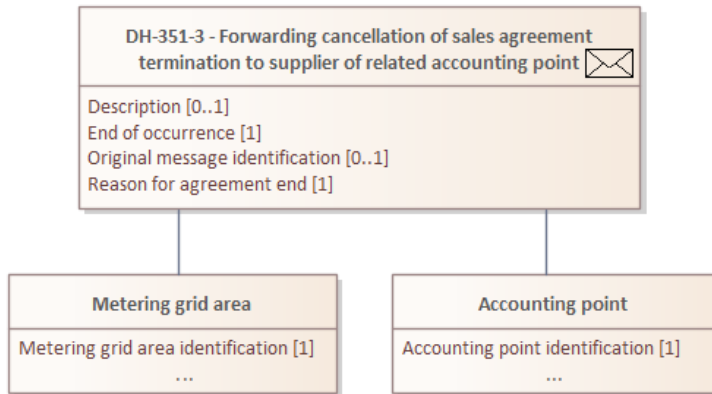
Message DH-351-2 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	0..1	Contains the message identification for message DH-351-1.	<a href="#">Field usage</a>
Original message sender	2	0..1	Contains the message sender for message DH-351-1.	<a href="#">Field usage</a>
Description	2	0..1	Optional explanation for why the agreement termination is cancelled.	
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	
Agreement information	2	1..1		

Agreement identification	3	1.1		
Agreement type	3	1.1		
Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-351-3 Forwarding cancellation of sales agreement termination to supplier of related accounting point



Details of forwarding cancellation of sales agreement termination to supplier of related accounting point

Message DH-351-3 is of message type [F06](#).

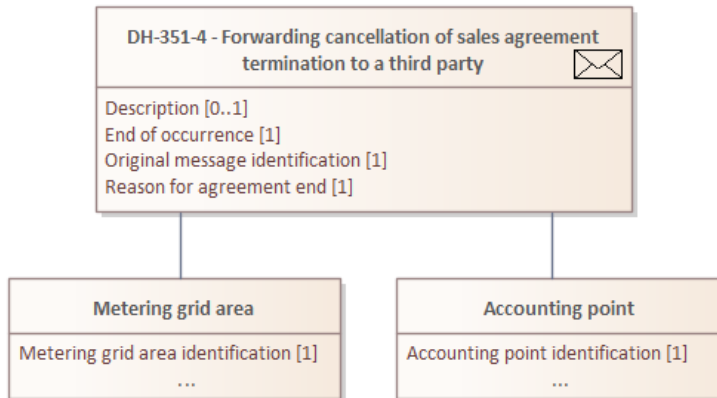
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
End of occurrence	2	1.1		
Original message identification	2	0.1	Contains the message identification for message DH-351-1.	<a href="#">Field usage</a>
Description	2	0.1	Optional explanation for why the agreement termination is cancelled.	
Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	
Accounting point data	3	1.1		

Accounting point identification	4	1.1		The identification of the related accounting point (=the accounting point for which the recipient of the notification is the supplier) is forwarded to the related accounting point's supplier.
Area information	3	1.1		
Metering grid area identification	4	1.1		



## DH-351-4 Forwarding cancellation of sales agreement termination to a third party



Details of forwarding cancellation of sales agreement termination to a third party

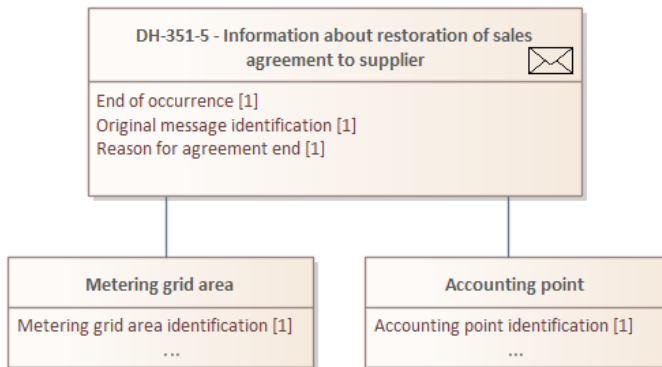
Message DH-351-4 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-351-1.	<a href="#">Field usage</a>
Description	2	0..1	Optional explanation for why the agreement termination is cancelled.	
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> <li>• Delivery ends due to a supplier related reason</li> </ul>	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		

Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-351-5 Information about restoration of sales agreement to supplier



Details of information about restoration of sales agreement to supplier

Message DH-351-5 is of message type [F18](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Start date of cancelled agreement	
Original message identification	2	1..1	Contains the message identification for message DH-351-1.	<a href="#">Field usage</a>
Reason for agreement end	2	1..1	Agreement cancelled by the customer	
Agreement information	2	1..1		
Agreement identification	3	1..1	Identification of the restored sales agreement	
Accounting point data	3	1..1		
Accounting point identification	4	1..1		

## DH-352 Cancellation of grid agreement termination

Event description

Parties

Time limits

Event processing in Datahub

Information storage

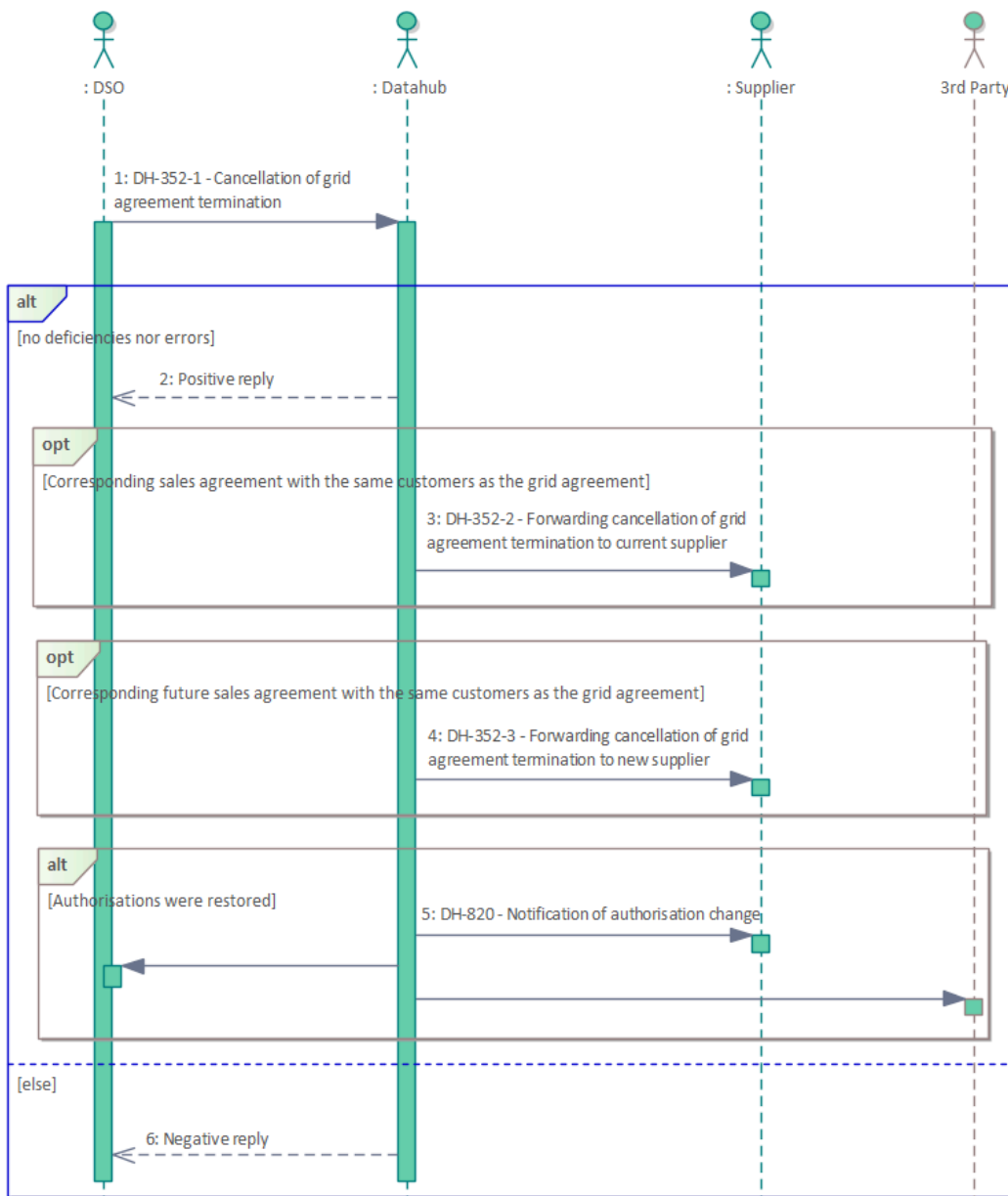
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Cancellation of grid agreement termination

## Event description

A DSO reports the cancellation of a grid agreement termination to Datahub

## Parties

- DSO
- Datahub
- Supplier

## Time limits

The agreement termination can be cancelled when the original agreement end date is tomorrow or further in the future.

## Event processing in Datahub

Step	Description
Cancellation of agreement termination	The corresponding notified agreement termination is cancelled. The grid agreement continues as was, just without the now cancelled termination.
Postal invoicing address	If the cancelled DH-333 event updated the postal invoicing address, the previous postal invoicing address is restored.

## Information storage

Origin of information	Information stored
Information processed by Datahub	The agreement information for the accounting point
	A restored postal invoicing address

## Return of information

Party	Description	Message
DSO	Information about a successful event or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Specification	Description	Message
Supplier	Accounting point's current supplier	The cancellation is forwarded to the supplier of the accounting point if the customers of the corresponding sales agreement are the same as the customers of the grid agreement on the original end date or before that (in case the corresponding sales agreement has been terminated).	<a href="#">DH-352-2</a>
	Accounting point's future supplier	If the accounting point has a future sales agreement corresponding to the grid agreement with the same customers, the cancellation is also forwarded to the future supplier.	<a href="#">DH-352-3</a>

## Significant errors and consequences

Error	Consequence
The wrong agreement termination is cancelled.	May cause retroactive corrections later.


## Event cancellation

The event cannot be cancelled.

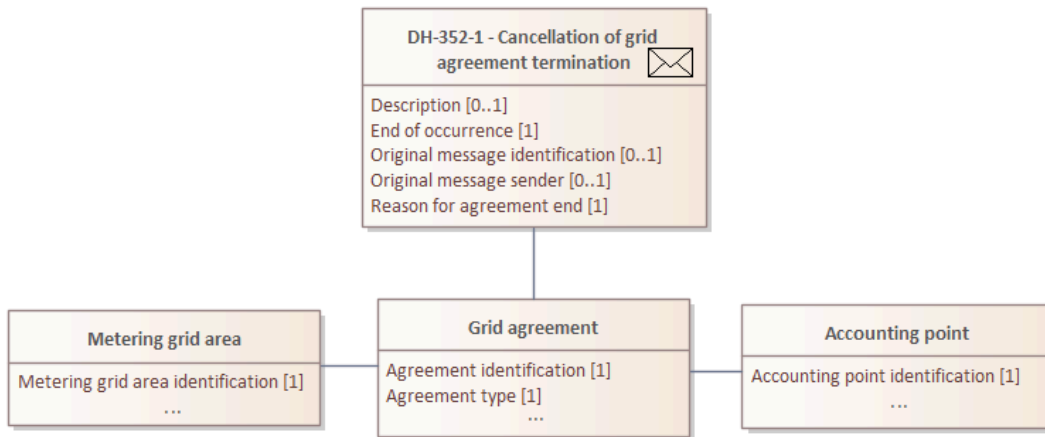
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is part of the reported metering grid area.	EC.MPT.116	
The DSO must be party to the grid agreement at the notified termination time.	EC.AGR.117	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
For the notified accounting point, there is a grid agreement which is terminating due to a DH-333 event and which has the same agreement	EC.AGR.314	

ID, same termination date and same termination reason as in the cancellation notification.		
Cancellation of termination is not permitted in a case where the agreement originally terminated due to a new agreement (DH-312), but for which DH-333 was notified for the same date.	EC.AGR.13 7	
No new agreement is beginning at the accounting point after the termination date.	EC.AGR.31 5	
The original agreement termination date is tomorrow or later.	EC.AGR.30 7	
<div>  Please observe that the list is not complete. </div>		

## DH-352-1 Cancellation of grid agreement termination



Details of the cancellation of grid agreement termination

Message DH-352-1 is of message type [F06](#).

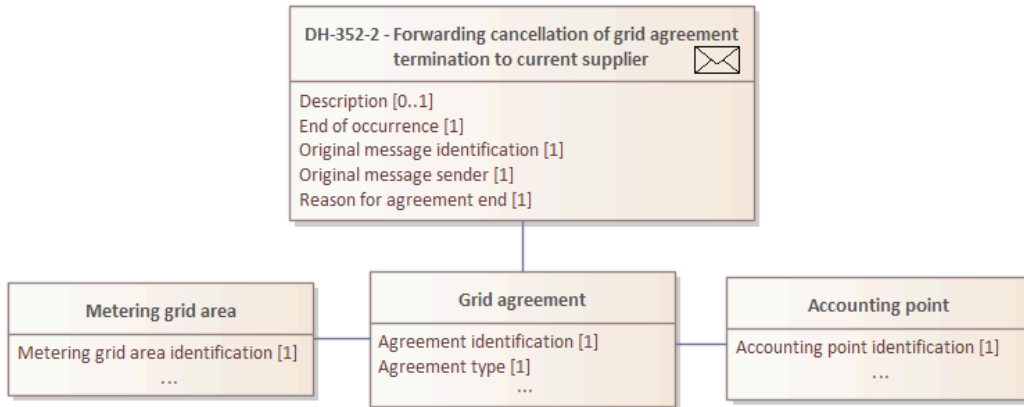
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	0..1	If the grid agreement cancellation follows the cancellation of the sales agreement, message identification for message DH-351-2 is used. Otherwise this field is not used in message DH-352-1.	<a href="#">Field usage</a>
Original message sender	2	0..1	If the grid agreement cancellation follows the cancellation of the sales agreement, message sender for message DH-351-2 is used. Otherwise this field is not used in message DH-352-1.	<a href="#">Field usage</a>
Description	2	0..1	Optional explanation for why the agreement termination is cancelled.	



Reason for agreement end	2	1.1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> </ul>	
Agreement information	2	1.1		
Agreement identification	3	1.1		
Agreement type	3	1.1		
Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-352-2 Forwarding cancellation of grid agreement termination to current supplier



Details of forwarding cancellation of grid agreement termination to current supplier

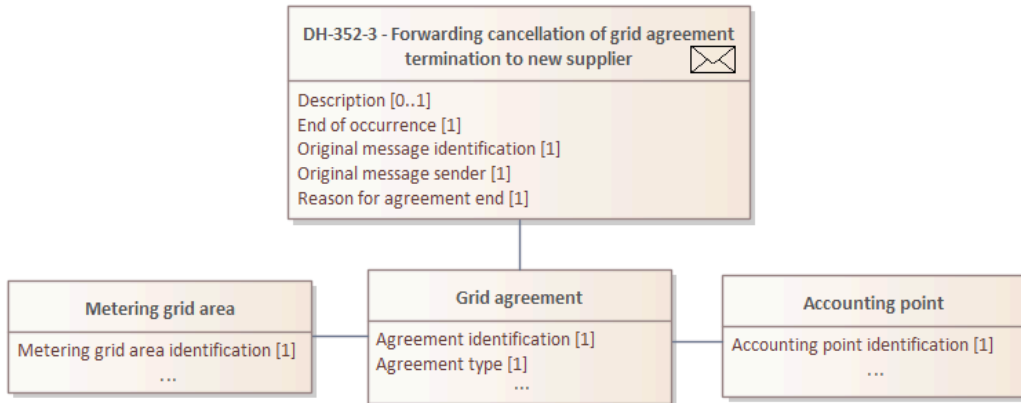
Message DH-352-2 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-352-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-352-1.	<a href="#">Field usage</a>
Description	2	0..1	Optional explanation for why the agreement termination is cancelled.	
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>• Moving out</li> <li>• Termination</li> <li>• Dissolving</li> </ul>	
Agreement information	2	1..1		

Agreement identification	3	1..1		
Agreement type	3	1..1		
Accounting point data	3	1..1		
Accounting point identification	4	1..1		
Area information	3	1..1		
Metering grid area identification	4	1..1		

## DH-352-3 Forwarding cancellation of grid agreement termination to new supplier



Details of forwarding cancellation of grid agreement termination to new supplier

Message DH-352-3 is of message type [F06](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
End of occurrence	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-352-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-352-1.	<a href="#">Field usage</a>
Description	2	0..1	Optional explanation for why the agreement termination is cancelled.	
Reason for agreement end	2	1..1	<ul style="list-style-type: none"> <li>Moving out</li> <li>Termination</li> <li>Dissolving</li> </ul>	
Agreement information	2	1..1		

Agreement identification	3	1.1		
Agreement type	3	1.1		
Accounting point data	3	1.1		
Accounting point identification	4	1.1		
Area information	3	1.1		
Metering grid area identification	4	1.1		

## DH-400 Connection and disconnection processes

[Agreement handling in connection processes](#)

[Connection and disconnection events](#)

From the perspective of the Datahub, connections and disconnections are changes in the status of an accounting point, which are reported separately during agreement processes and during delivery, in connection with parties' collection processes or modification work at the accounting point. Datahub forwards the supplier's requests for status changes of the accounting point to the distribution system operator, and the DSO's confirmation of the status change back to the supplier.

The deadlines for connection and disconnection requests depend on the overall process in which the action is performed. When a connection or disconnection occurs as part of a move-in or move-out process, no separate request is made. Instead, the DSO connects or disconnects the electricity at the accounting point as needed at the end of the agreement process, and the information exchange deadlines follow those of the agreement process. Therefore, for example, in move-in situations, it may be possible under certain conditions to get a same-day connection (more details in the agreement process description). The reconnection procedure varies by DSO. A connection request must always include a contact person and a phone number to ensure a safe connection.

The supplier must submit disconnection requests related to collection processes at least one week before the desired date. If the customer pays the overdue invoice, reconnection should be done as quickly as possible for good customer service. If the customer pays before the requested disconnection date, the disconnection request must be cancelled with a separate cancellation notification. If the customer pays on the requested disconnection date, the supplier must submit a connection request for the accounting point. This is because the DSO may not be able to cancel the disconnection on the same day for which it is scheduled. Datahub forwards the supplier's connection request in real time to the DSO, who processes it according to its internal procedures. If the DSO is still able to cancel the disconnection based on the connection request, the DSO must respond to the original disconnection request with a disconnection notification indicating the status as 'connected'. Additionally, the DSO must respond to the connection request. Otherwise the DSO must report the completed disconnection according to the standard process. This ensures that the original disconnection request is fully processed in all cases and that Datahub does not remain waiting for a disconnection notification if the disconnection is not carried out.

The DSO must not reconnect an accounting point before receiving a connection request from the supplier if the disconnection was made at the supplier's request. If the supplier needs to inform the DSO that electricity must not be reconnected at a previously disconnected metering point, the supplier must submit a new disconnection request. The DSO must respond with a new disconnection notification for the actual disconnection date, even if it had already reported the disconnection to Datahub earlier for its own purposes.

When a DSO uses a connection or disconnection notification to change the status of an accounting point under construction to connected or disconnected, it must first update the accounting point's attributes if any required information is missing. Datahub does not allow connection or disconnection if a mandatory attribute is missing.

As a rule, the DSO must report a completed connection or disconnection as soon as the information is available in its system, just like any other accounting point information update. If the action is performed manually, there may be a delay in updating the information in the DSO's system and thus in Datahub. A delay of up to one week is allowed. Delays longer than one week in responding to connection or disconnection requests will be monitored by the Datahub operator. Connection and disconnection requests are not validated based on the current status in Datahub, as it may be temporarily incorrect due to this delay. The supplier can always send connection or disconnection requests based on the status in Datahub. The DSO has the correct status and can process the supplier's requests accordingly. For example, if a supplier requests a disconnection due to collection, and the DSO manually disconnects the electricity in the morning, the customer may pay the invoice immediately after the power is cut. However, the supplier cannot see the correct status in Datahub because the DSO has not yet updated its system. Even if Datahub shows the status as 'connected', the supplier can still send a connection request, which the DSO can forward to a technician.

If the DSO cannot or does not want to connect the metering point as requested by the supplier, it must report the delay using a connection delay event no later than the next business day after the requested connection or disconnection date. Longer delays will be monitored by the Datahub operator. The reason for the delay can be included in the event description. If necessary, the delay notification can be sent multiple times. If the DSO cannot perform the disconnection on the requested date, the electricity delivered to the metering point must be included in the DSO's balance. The DSO must notify the supplier of the delay via Datahub. If needed, the supplier can submit a new connection request with a new date, which cancels the previous one. Electricity delivery is again included in the supplier's balance from the moment the DSO reconnects the metering point based on the supplier's request. If the connection is reported late and outside the balance window, the consumed electricity is counted as losses in

the metering grid area. The DSO may not always be able to estimate the correct date for the connection or disconnection. The DSO can report delays multiple times using the same event type.

For urgent connections or disconnections outside working hours or without remote control, the DSO usually charges a fee. The DSO bills either the supplier or the customer, depending on who requested the action. DSOs' price lists are compiled in a standardized table in the Datahub service portal, allowing the supplier to inform the customer about potential costs. These situations often relate to move-in processes with tight schedules. With the DSO's price list, it is easier to agree on the contract start date with the customer and inform them of any additional costs.

During delivery, the customer may also need a disconnection or connection, for example, during renovations. In such cases, the customer must contact the DSO. If the DSO is decommissioning an accounting point, it may be necessary to report the disconnection before the actual decommissioning. Once the disconnection is reported, the DSO can then report the status as 'decommissioned' by updating the accounting point information.

If disconnecting an accounting point also affects a production accounting point located at the same physical location, the DSO must report the disconnection for both accounting points.

The supplier can cancel a submitted connection request using a separate cancellation event.

### **Agreement handling in connection processes**

New agreements can be made for an accounting point as soon as the accounting point information exists in Datahub. If a new sales and grid agreement is made for the accounting point when it is still in the 'under construction' state, but delivery cannot be started on the start date of the agreements, agreement start dates and the actual connection date differ from each other. In these cases, the accounting point connection notified by the DSO automatically changes the start dates of the sales and grid agreements valid on the connection date to correspond to the connection date in Datahub.

Datahub updates validities for sales and grid agreements involved in connection processes not only for new accounting points, but also for accounting points that have been set to the 'under construction' state at a later point, e.g., accounting points under maintenance or renovation, or accounting points that are without an agreement for a part of the year, such as market places or summer houses. The condition for when the agreement start date gets updated is that the agreement valid at the connection time begins during the period when the accounting point is 'under construction' and does not directly continue a previous agreement starting before the

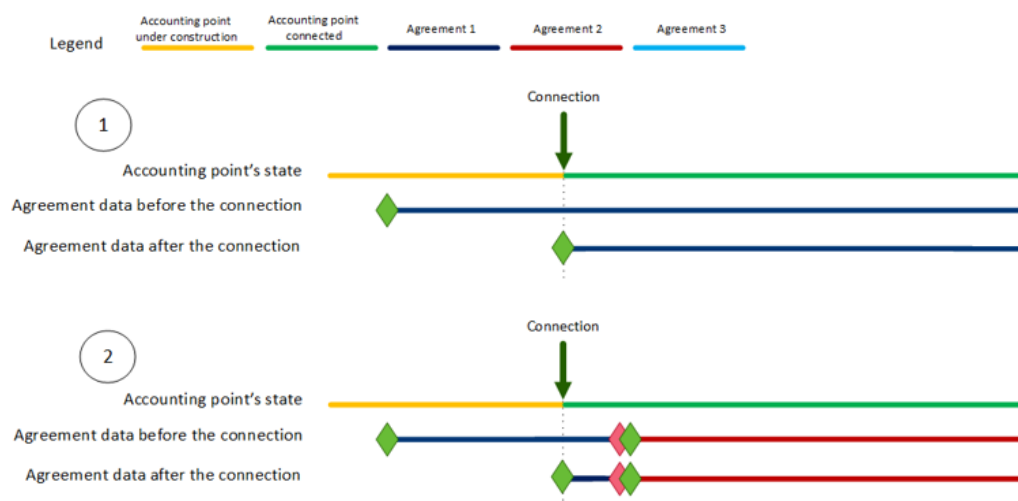


‘under construction’ period. If the agreement has started before the accounting point went “under construction” or starts during the ‘under construction’ period and continues directly from a previous agreement or agreements that started before the ‘under construction’ period, the start date is not updated together with the connection. The agreement start reason does not matter, meaning that the same rules apply for move-ins and supplier and agreement changes. Different scenarios are described in the examples below.

If the connection changes the agreement start dates of the agreements on the accounting point, the supplier and DSO are notified of the new agreement start dates with notifications sent by Datahub. Based on the notifications, the supplier and DSO must update the agreement start dates to the connection date in their own systems. Agreement start date updates made by a market party in this case must not trigger any updates to Datahub. If no changes to agreement start dates are wanted in cases where Datahub would otherwise perform updates together with connection as described above, the accounting point must first be changed from the ‘under construction’ state to the ‘disconnected’ state and then be connected.

If another agreement exists before the updated agreement that would remain valid only during the accounting point’s ‘under construction’ period, Datahub cancels the previous agreement automatically and notifies the market party (supplier or DSO) about the cancellation by email (as described in the figure 3).

If the connection changes the validity period of an agreement on the accounting point, the validity period of any authorizations based on the validity of the agreement also changes accordingly.



Figures 1–2: The agreement valid at the connection time starts when the accounting point state is ‘under construction’ (new accounting point or old accounting point without agreement), in which case the agreement start date is updated to correspond to the connection date.

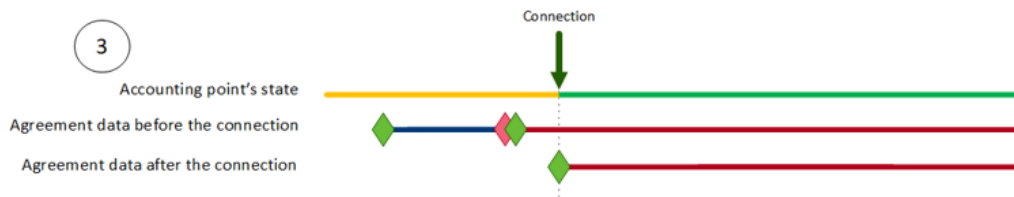
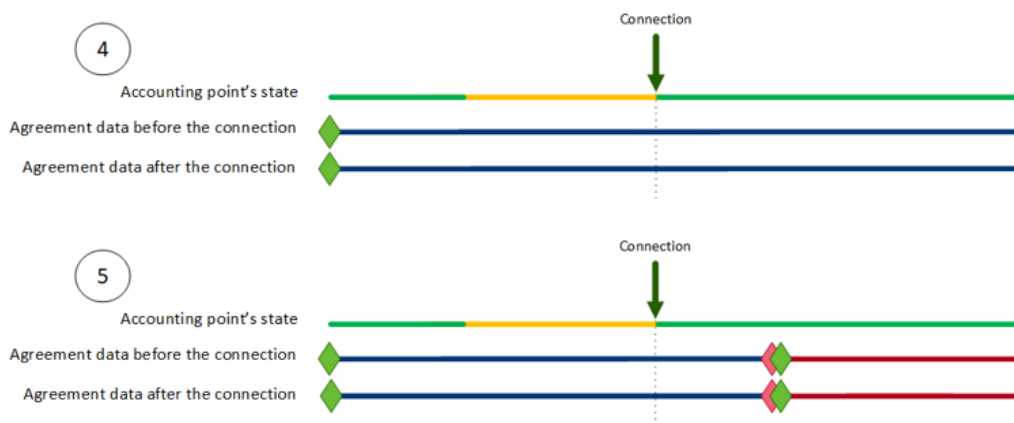


Figure 3: The agreement valid at the connection time starts when the accounting point is 'under construction', continuing an agreement that has also started during the 'under construction' period (new accounting point or old accounting point without agreement). The start date of the agreement valid at the connection time is updated to correspond to the connection date. The agreement valid only during the 'under construction' period is cancelled automatically and Datahub notifies the market party (supplier or DSO) about the agreement cancellation by email.



Figures 4–5: The agreement valid at the connection time has started before the accounting point is 'under construction' (old accounting point 'under construction', e.g., due to renovation), in which case the agreement start date is not updated together with the connection.

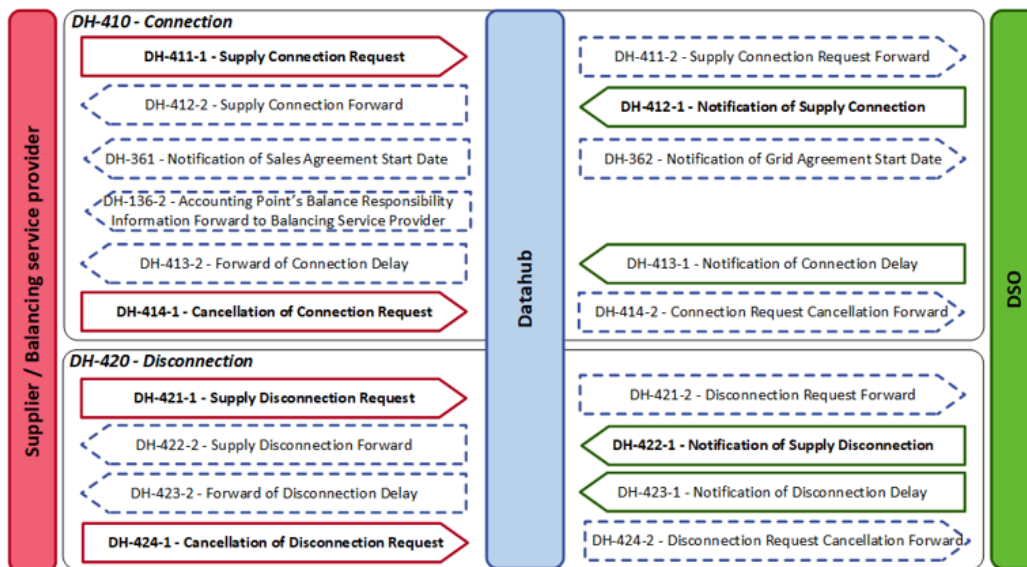


Figure 6: The agreement valid at the connection time starts during the time that the accounting point is 'under construction', directly continuing a previous agreement that has started before the 'under construction' period (old accounting point 'under construction', e.g., due to renovation). The agreement start date is not updated together with the connection.



Figure 7: The agreement valid at the connection time starts during the time that the accounting point is ‘under construction’, directly continuing a series of previous agreements that has started before the ‘under construction’ state (old accounting point ‘under construction’, e.g., due to renovation). The agreement start date is not updated together with the connection.

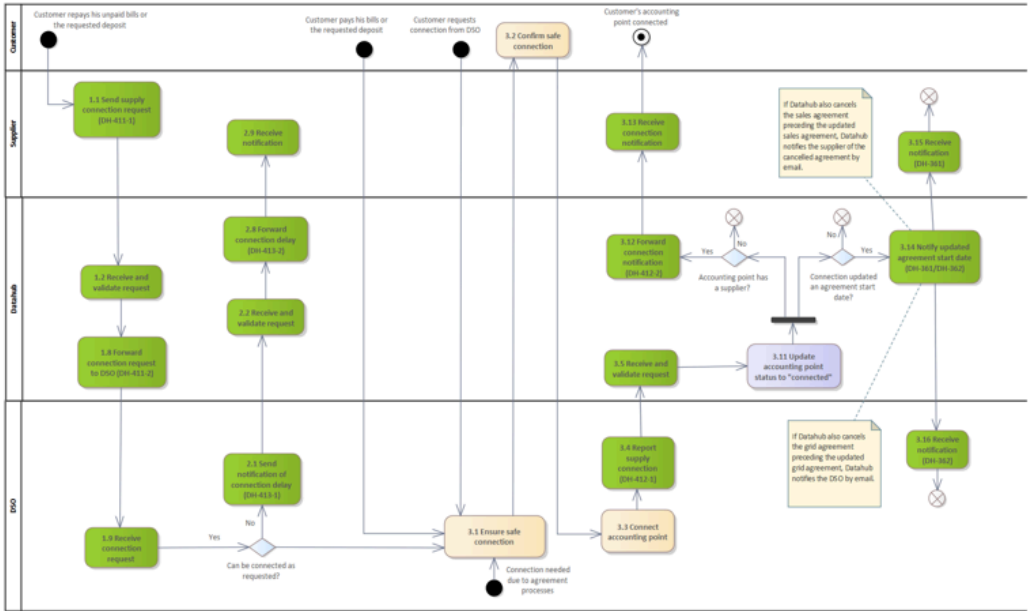
## Connection and disconnection events



## DH-410 Connection processes

- [DH-410 Process maps](#)
- [DH-410 Examples](#)
- [DH-411 Request for supply connection](#)
- [DH-412 Notification of supply connection](#)
- [DH-413 Notification of connection delay](#)
- [DH-414 Cancellation of request for connection](#)

DH-410 Process maps



Connection process

## DH-410 Examples

Examples will be added to this section as needed. You can suggest what kind of examples you would like to see here!

## DH-411 Request for supply connection

Event description

Parties

Time limits

Event processing in Datahub

Return of information

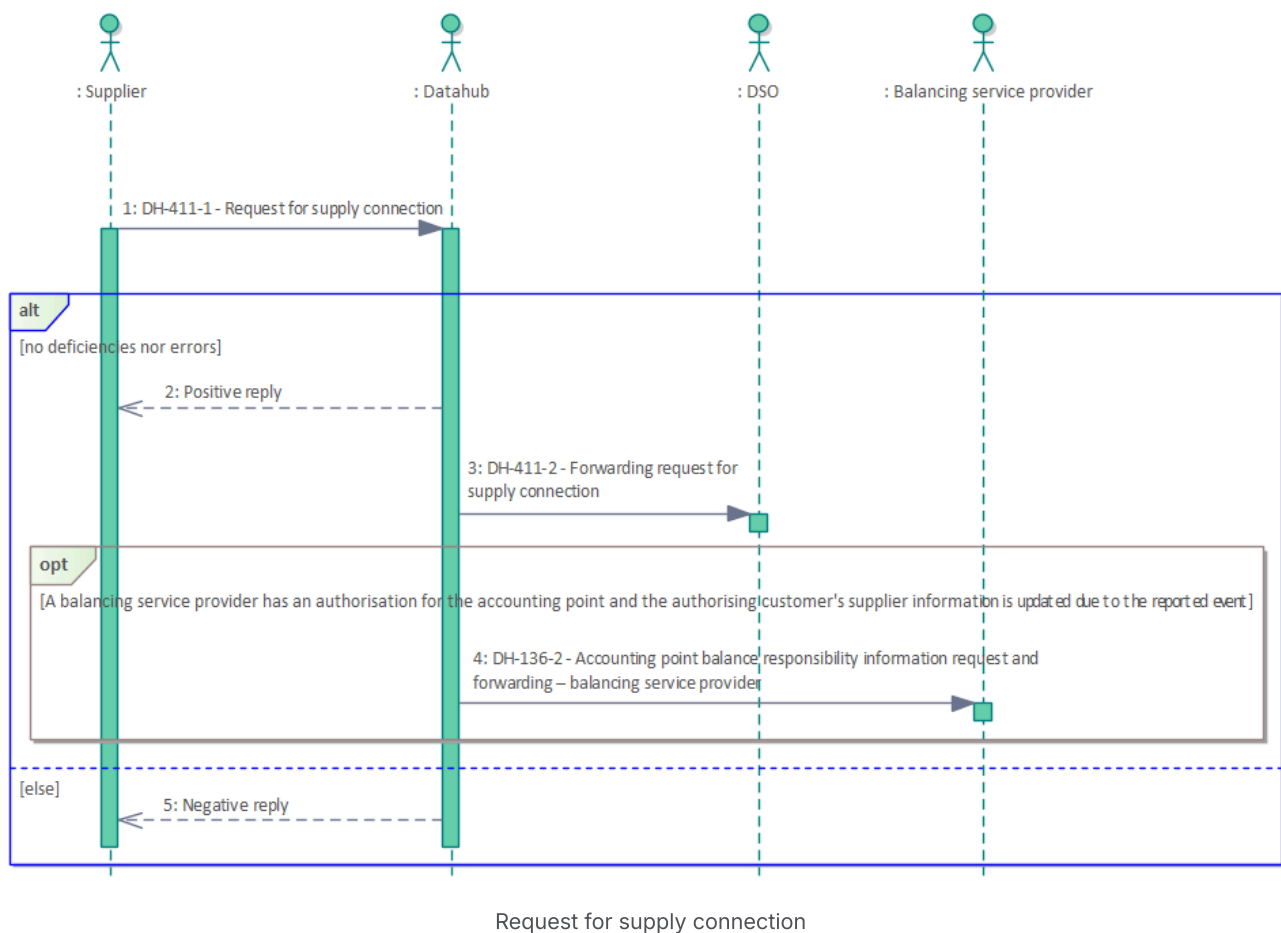
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A supplier reports a request for accounting point supply connection to Datahub. The supplier requests the connection from the DSO when:

- The customer pays the overdue invoice or rectifies another contractual breach
- The supplier cancels the disconnection request on the requested disconnection date (a connection request is sent instead of the cancellation message DH-424).

## Parties

- Supplier
- Datahub
- DSO
- Balancing service provider

## Time limits

Effective time of the update
The start of occurrence is the current day or maximum 90 days in the future.

## Event processing in Datahub

Step	Description
Closing previous connection and disconnection requests	If the same accounting point has an open connection or disconnection request from a supplier with a requested connection/disconnection date in the past, this request is closed so that it no longer waits for the DSO's response.
Balance information update	If the connection request is reported for the same date as the supplier's earlier disconnection request, the supplier's balance information, which was terminated with the disconnection request, is linked to the supplier again.

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected connection request.	<a href="#">ACK</a>

## Forwarding of information

Part y	Description	Message
DSO	The connection request is forwarded to the DSO for the accounting point.	<a href="#">DH-411-2</a>
	If the connection request changes a customer's supplier information due to the updated agreement and the customer has issued an "Accounting point's	<a href="#">DH-136-2</a>



	balance responsibility information” authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization.	
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## Composite processes

Party	Description	Composite process
DSO	The connection request is forwarded to the accounting point's DSO.	<a href="#">DH-411 → DH-412</a>

## Significant errors and consequences

Error	Consequence
The connection request is reported for the wrong accounting point or the wrong day.	Depending on the DSO's business processes, the DSO may contact the customer unnecessarily in order to ensure a safe connection.


## Event cancellation

The cancellation is made with a separate connection request cancellation message ([DH-414](#)). The cancellation must be submitted before the DSO's connection notification ([DH-412](#)).

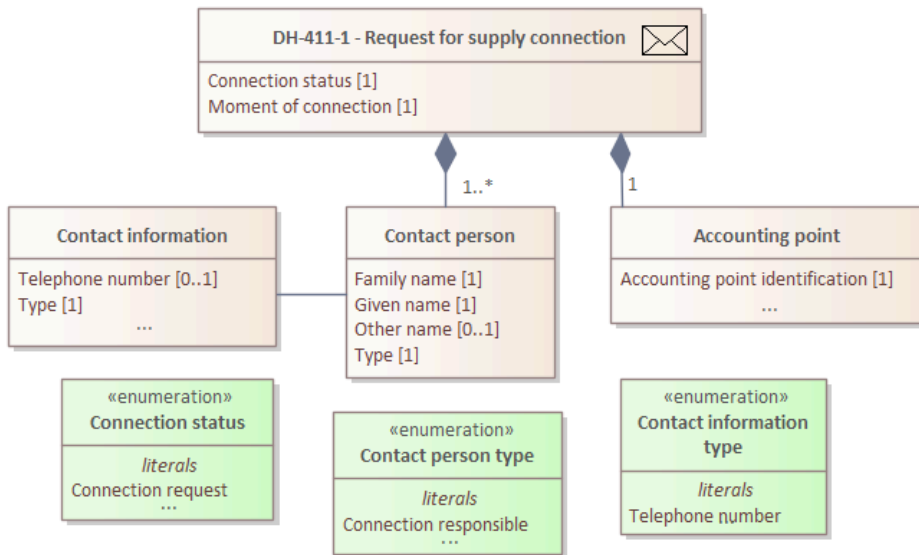
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The requested connection time is midnight.	EC.MPT.1 07	'00:00:00' (local) = '22:00:00' (UTC).
The accounting point is recorded in Datahub.	EC.MPT.1 15	

The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.1 20	
The connection date is not in the past.	EC.MPT.1 25	
No other connection process may be under way at the accounting point.	EC.MPT.1 27	
The status of the accounting point reported in the message must be 'Connected'.	EC.MPT.1 28	
The supplier must have a valid supply agreement for the accounting point both at the time of submitting the request and on the connection date.	EC.AGR. 214	
<div>  Please observe that the list is not complete. </div>		

## DH-411-1 Request for supply connection



Details of request for supply connection

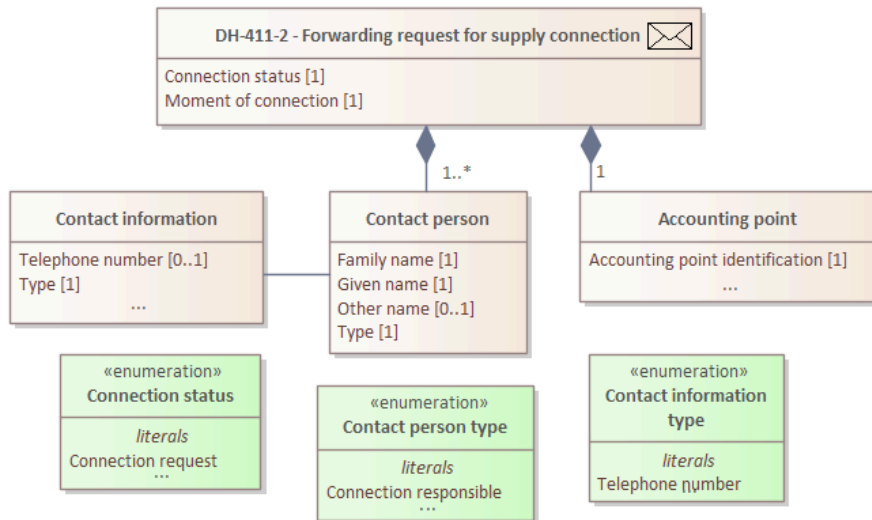
Message DH-411-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of connection	2	1..1		
Accounting point identification	2	1..1		
Connection status	2	1..1	Connection request	
Contact person	2	1..n		
Type	3	1..1	Responsible for connections	
Given name	3	1..1		
Family name	3	1..1		

Other name	3	0..1		
Contact information	3	1..1		
Contact information type	4	1..1	Telephone	
Telephone number/ Email address	4	1..1	Telephone number must be reported	<p>A phone number must start with a plus '+'. A phone number may not contain spaces. The country code '+358' may not be followed by the number zero.</p>

## DH-411-2 Forwarding request for supply connection



Details of forwarding request for supply connection

Message DH-411-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of connection	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-411-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-411-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Connection request	
Contact person	2	1..n		

Type	3	1..1	Responsible for connections	
Given name	3	1..1		
Family name	3	1..1		
Other name	3	0..1		
Contact information	3	1..1		
Contact information type	4	1..1	Telephone	
Telephone number/ Email address	4	1..1	Telephone number must be reported	<p>A phone number must start with a plus '+'.</p> <p>A phone number may not contain spaces.</p> <p>The country code '+358' may not be followed by the number zero.</p>

## DH-412 Notification of supply connection

Event description

Parties

Interrupting events

Time limits

Event processing in Datahub

Information storage

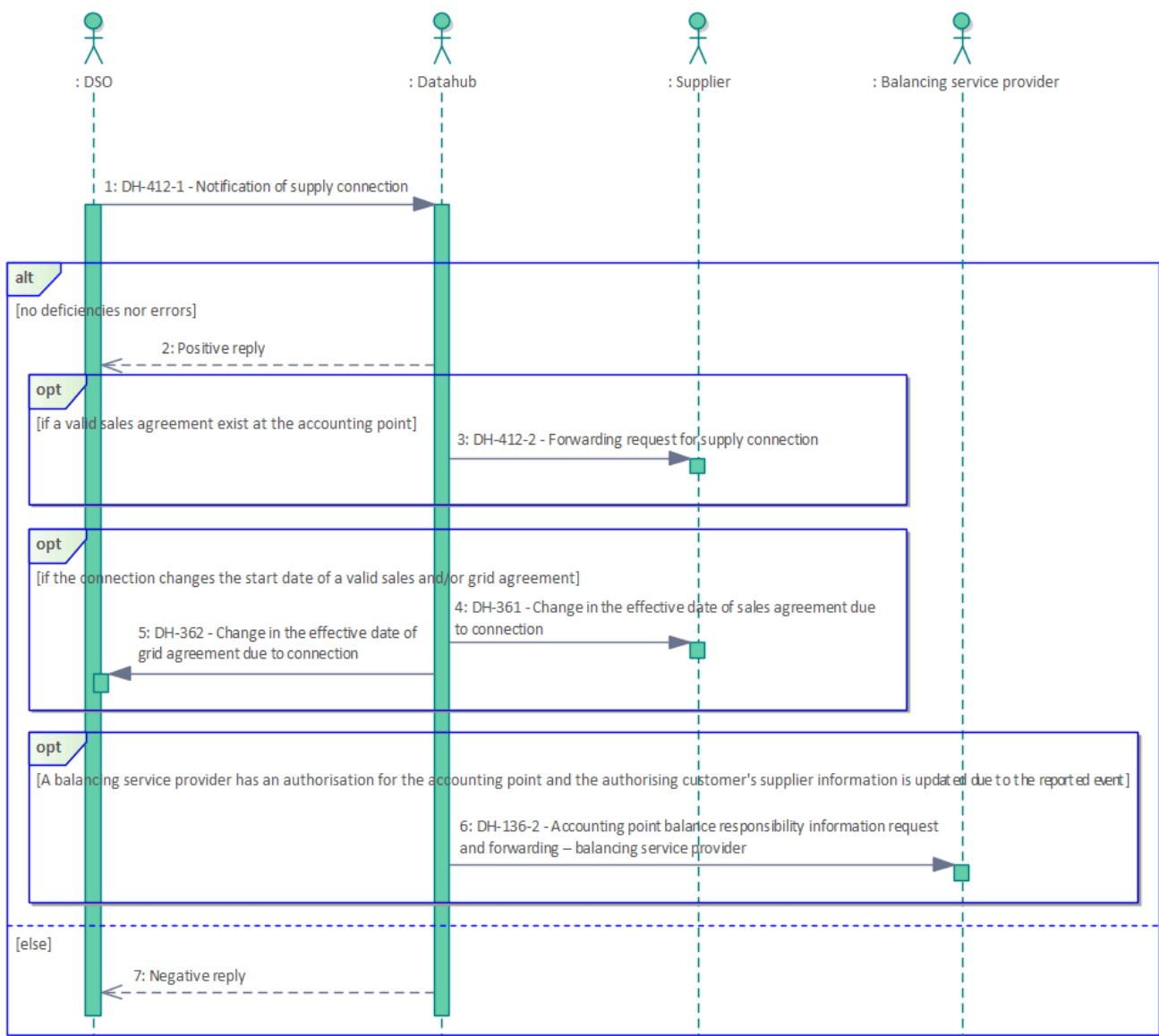
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Notification of supply connection

## Event description

A DSO reports the electricity connection at an accounting point to Datahub. The DSO (re)connects electricity at the metering point when, for example:

- A move-in occurs at a disconnected or supplierless metering point
- Renovation work at the accounting point is completed
- The customer pays an overdue invoice from the DSO
- The customer requests an electricity connection from the DSO
- The supplier has requested the connection of electricity at the accounting point (DH-411).

## Parties

- DSO
- Datahub
- Supplier
- Balancing service provider

## Interrupting events

If the accounting point status is 'disconnected' at the supplier's request (DH-421), a supply connection request (DH-411) must precede this notification.

## Time limits

Effective time of the update	Notes/Exceptions
A connection must be reported to Datahub immediately after the connection as soon as the information is available in the DSO's system.	If the information is not available immediately after connection, for example, due to a manually connected site, the notification must be sent to Datahub within one week of supply connection, if the customer's annual consumption estimate is less than 1 GWh and, at the latest, on the following working day after connection for a customer with an annual consumption of 1 GWh or more. A connection notification is still accepted after this period, but interventions will be made if notifications are repeatedly sent late.

## Event processing in Datahub

Step	Description
------	-------------



Balance information update	<p>If the balance information has been terminated starting the day after the supplier's disconnection request (<a href="#">DH-421</a>) and the supplier has made a supply connection request (<a href="#">DH-411</a>) before the notification of the supply connection, the accounting point's balance information is linked to the accounting point's supplier starting from the hour or fifteen minutes of the reported connection (depending on the accounting point's metering time step).</p> <p>The balance information is linked to the supplier from the time of the connection even without the supplier's connection request if the previous disconnection was not based on the supplier's request. However, if the balance window is no longer open for the time of the notification of the supply connection, the linking begins from the opening of the balance window.</p>
Update of agreement validity	<p>If the accounting point was under construction before the connection, the start date of the sales and grid agreement that are valid at the moment of connection is updated to match the connection date if the original start date of the agreements is during the period when the accounting point is under construction and the agreements do not directly continue an agreement that started before the under-construction period.</p> <p>If a previous agreement would remain valid only during the period when the accounting point is under construction, Datahub will cancel the previous agreement. See a more detailed description of the processing of agreements when an accounting point is connected under <a href="#">Agreement handling in connection processes</a>.</p>
Update of authorization validity	<p>If the validity period of a customer's agreement changes due to the under-construction status, the validity period of any authorizations based on the validity of the agreement also changes.</p>

## Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored.

Information processed by Datahub	<p>The accounting point's balance information.</p> <p>Validity periods of agreements and authorizations, if they are affected by changes during the process.</p>
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## Return of information

Party	Description	Message
DSO	Notification of successful or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Accounting point's supplier	The change in accounting point connection status is reported to the possible supplier.	<a href="#">DH-412-2</a>
	A notification is sent to the supplier if the connection updates the start date of the sales agreement for the accounting point. If the connection cancels a previous agreement for the accounting point, the supplier is notified of the cancellation by email.	<a href="#">DH-361</a>
DSO	A notification is sent to the DSO if the connection updates the start date of the grid agreement for the accounting point. If the connection cancels a previous agreement for the accounting point, the DSO is notified of the cancellation by email.	<a href="#">DH-362</a>
Balancing service provider	If the notification of connection changes a customer's supplier information due to the potentially updated or cancelled agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization. If the change is retroactive, the information is forwarded only if its validity overlaps with the validity of the authorization during the last 60 days (counting from the reporting date).	<a href="#">DH-136-2</a>

## Significant errors and consequences

Error	Consequence
The connection is reported for the wrong accounting point or the wrong day.	Depending on the supplier's business processes, the supplier may unnecessarily contact the customer or instigate other additional follow-up tasks.


## Event cancellation

An incorrect notification is corrected by a disconnection notification for the same time.

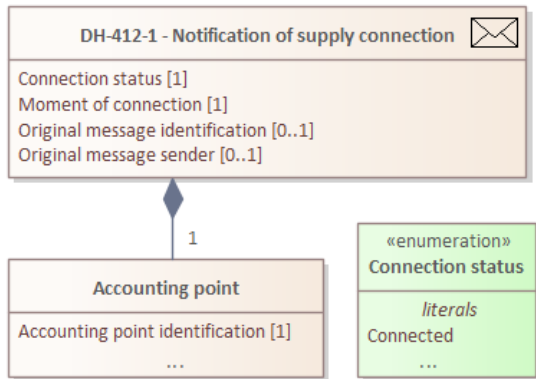
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The status of the accounting point reported in the message must be 'Connected'.	EC.MPT.128	
If the connection is a response to a supplier's connection request, the accounting point must have a connection process under way which is awaiting confirmation. If the accounting point is in the 'Disconnected' status upon the supplier's request (DH-421), this must be preceded by a supplier's connection request (DH-411).	EC.MPT.129	
The accounting point is in a distribution system operator's metering grid area.	EC.MPT.130	
At the connection time, the time must match the accounting point's metering resolution.	EC.MPT.133	

	EC.MPT.1 64	
No supplier-requested disconnection process may be under way at the accounting point.	EC.MPT.1 34	
The connection date cannot be in the future.	EC.MPT.1 54	
<div>  Please observe that the list is not complete. </div>		

## DH-412-1 Notification of supply connection



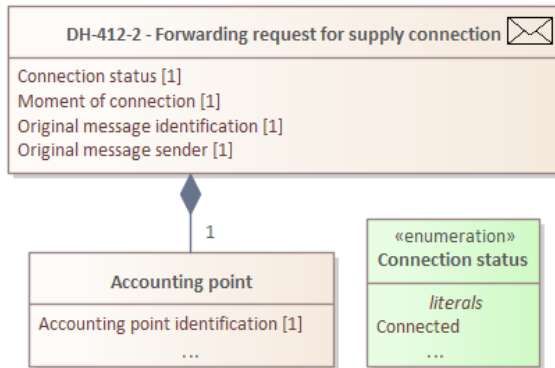
Details of the notification of supply connection

Message DH-412-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of connection	2	1..1		
Original message identification	2	0..1	If message DH-412-1 is a reply to event DH-411, message identification for message DH-411-2 is used.	<a href="#">Field usage</a>
Original message sender	2	0..1	If message DH-412-1 is a reply to event DH-411, message sender for message DH-411-2 is used.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Connected	

## DH-412-2 Forwarding request for supply connection



Details of forwarding request for supply connection

Message DH-412-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of connection	2	1..1		
Original message identification	2	0..1	Contains the message identification for message DH-412-1.	<a href="#">Field usage</a>
Original message sender	2	0..1	Contains the message sender for message DH-412-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Connected	

## DH-361 Change in the effective date of sales agreement due to connection

Message DH-361 is of message type [F27](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Updated agreement start date	The start date of the sales agreement, updated due to the connection.
Original message identification	2	1..1	Contains the message identification for message DH-412-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-412-1.	<a href="#">Field usage</a>
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Agreement information	2	1..1		
Agreement identification	3	1..1	Sales agreement identification	

## DH-362 Change in the effective date of grid agreement due to connection

Message DH-361 is of message type [F27](#).

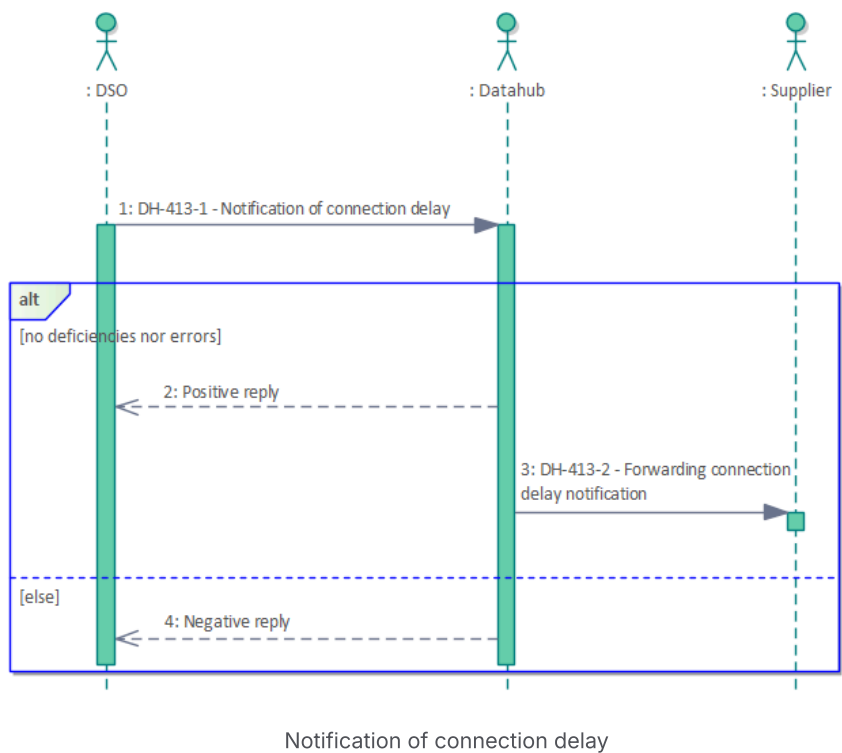
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Start of occurrence	2	1..1	Updated agreement start date	The start date of the grid agreement, updated due to the connection.
Original message identification	2	1..1	Contains the message identification for message DH-412-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-412-1.	<a href="#">Field usage</a>
Accounting point data	2	1..1		
Accounting point identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Agreement information	2	1..1		
Agreement identification	3	1..1	Grid agreement identification	



# DH-413 Notification of connection delay

- Event description
- Parties
- Time limits
- Return of information
- Forwarding of information
- Event cancellation
- Validation rules



## Event description

A DSO reports that an accounting point cannot be connected on the date requested by the supplier.

## Parties

- DSO
- Datahub
- Supplier

## Time limits

Effective time of the update	Notes/Exceptions
------------------------------	------------------

No later than the business day following the connection date requested by the supplier, if a connection notification (DH-412) has not yet been submitted for the request.	The delay notification is still accepted after this date, but interventions will be made if notifications are repeatedly sent late.
---	---

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Supplier	The information reported by the DSO is forwarded to the supplier that sent the request. The forwarded notification must contain a reference to the original request.	<a href="#">DH-413-2</a>


## Event cancellation

The event cannot be cancelled.

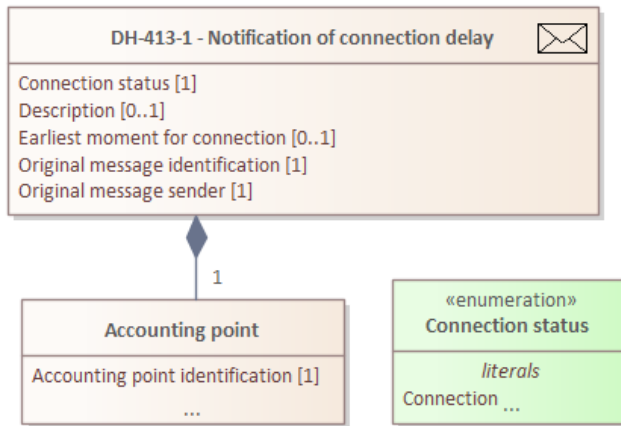
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The notified connection time is midnight.	EC.MPT.107	
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The connection date is not in the past.	EC.MPT.125	

The accounting point is in a distribution system operator's metering grid area.	EC.MPT.1 30	
The status of the accounting point reported in the message must be 'Disconnected'.	EC.MPT.1 43	
If the delay notification is a response to a supplier's connection request, a connection process must be under way at the accounting point.	EC.MPT.1 44	
<div>  Please observe that the list is not complete. </div>		

## DH-413-1 Notification of connection delay



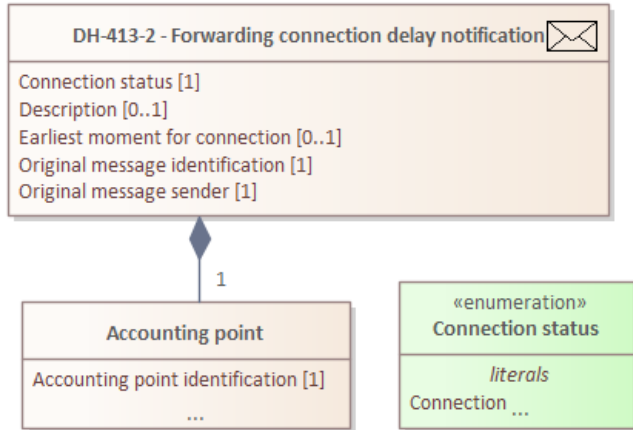
Details of the notification of connection delay

Message DH-413-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Earliest moment	2	0..1	Earliest moment for connection	
Original message identification	2	1..1	If message DH-413-1 is a reply to event DH-411, message identification for message DH-411-2 is used.	<a href="#">Field usage</a>
Original message sender	2	1..1	If message DH-413-1 is a reply to event DH-411, message sender for message DH-411-2 is used.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Connection	
Description	2	0..1	Description for connection delay	

## DH-413-2 Forwarding connection delay notification



Details of forwarding connection delay notification

Message DH-413-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Earliest moment	2	0..1	Earliest moment for connection	
Original message identification	2	1..1	Contains the message identification for message DH-413-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-413-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Connection	
Description	2	0..1	Description for connection delay	

## DH-414 Cancellation of request for connection

Event description

Parties

Time limits

Event processing in Datahub

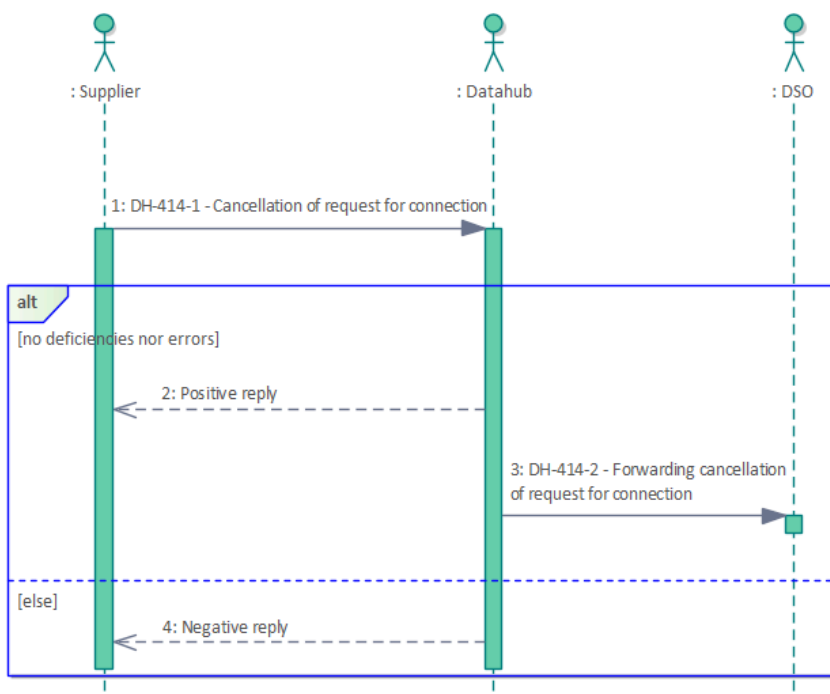
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Cancellation of request for connection

### Event description

A supplier reports a cancellation of a connection request it has sent earlier. The supplier requests the DSO to cancel the requested connection since the connection has been requested for the wrong accounting point or the accounting point no longer needs to be connected.

### Parties

- Supplier
- Datahub
- DSO

### Time limits

Effective time of the update
The start of occurrence cannot be in the past.

## Event processing in Datahub

Step	Description
Cancellation of connection request	The connection request for the same accounting point with the same date no longer waits for the DSO to connect the accounting point.

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected cancellation request.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
DSO	The cancellation request is forwarded to the accounting point's DSO.	<a href="#">DH-412-2</a>

## Significant errors and consequences

Error	Consequence
The cancellation is reported for the wrong connection request.	A customer's electricity supply is not connected as requested.


## Event cancellation

The event cannot be cancelled.

## Validation rules

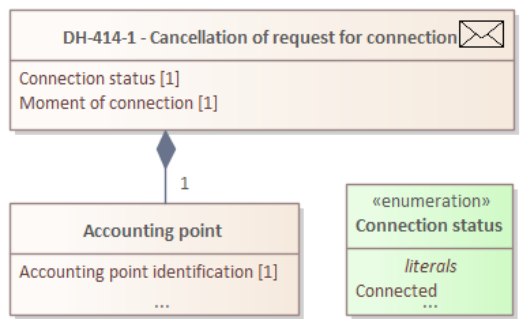
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
------	------------	------

The notified connection time is midnight.	EC.MPT.1 07	
The accounting point is recorded in Datahub.	EC.MPT.1 15	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.1 20	
The connection date is not in the past.	EC.MPT.1 25	
The status of the accounting point reported in the message must be 'Connected'.	EC.MPT.1 28	
At the accounting point, there is a waiting connection request from the same supplier for the same date (the cancellation connection date matches the original requested connection date).	EC.MPT.1 53	The connection request is considered pending as long as the DSO has not sent the DH-412 event. Delay notifications do not affect the status.
The supplier must hold a valid sales agreement for the accounting point at the moment of sending the cancellation and for the cancellable connection date.	EC.AGR. 238	
<div>  Please observe that the list is not complete. </div>		



# DH-414-1 Cancellation of request for connection



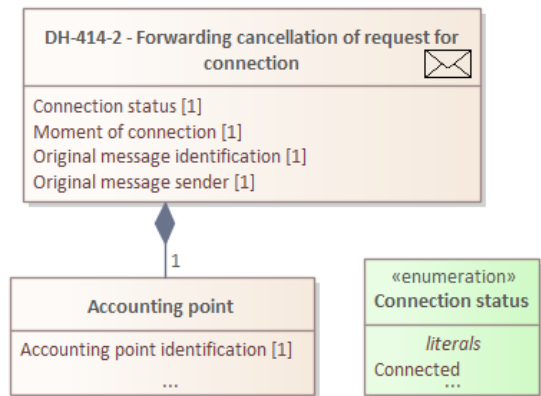
Details of the cancellation of request for connection

Message DH-414-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Moment of connection	2	1.1		
Accounting point identification	2	1.1		
Connection status	2	1.1	Connected	

## DH-414-2 Forwarding cancellation of request for connection



Details of forwarding cancellation of request for connection

Message DH-414-2 is of message type [F09](#).

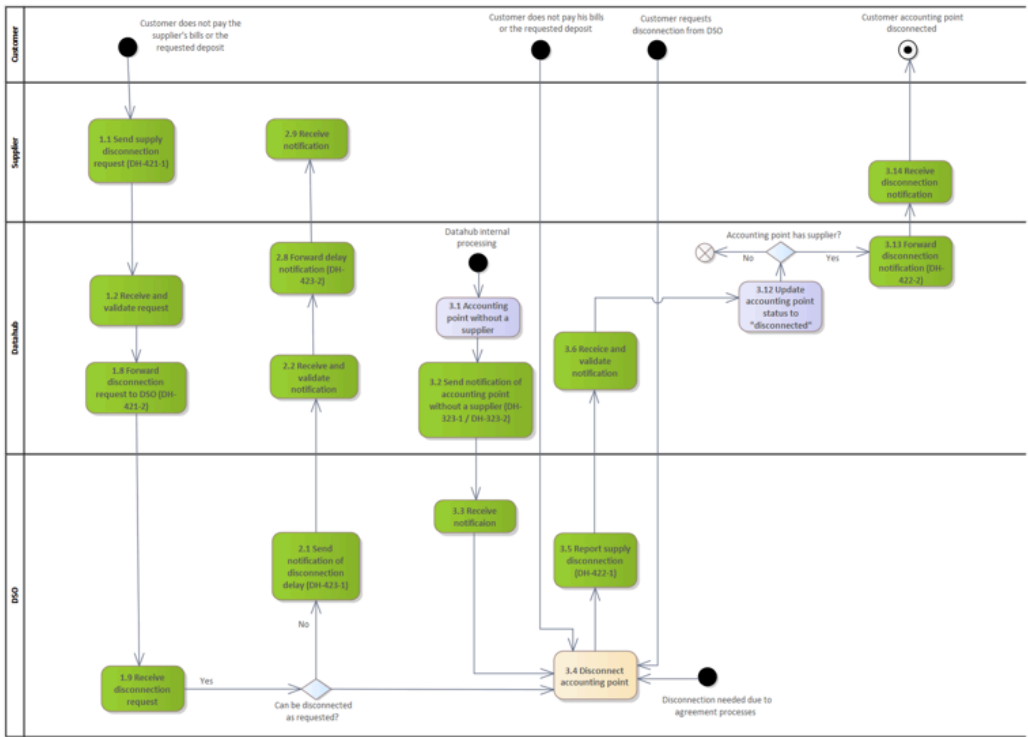
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of connection	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-414-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-414-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Connected	

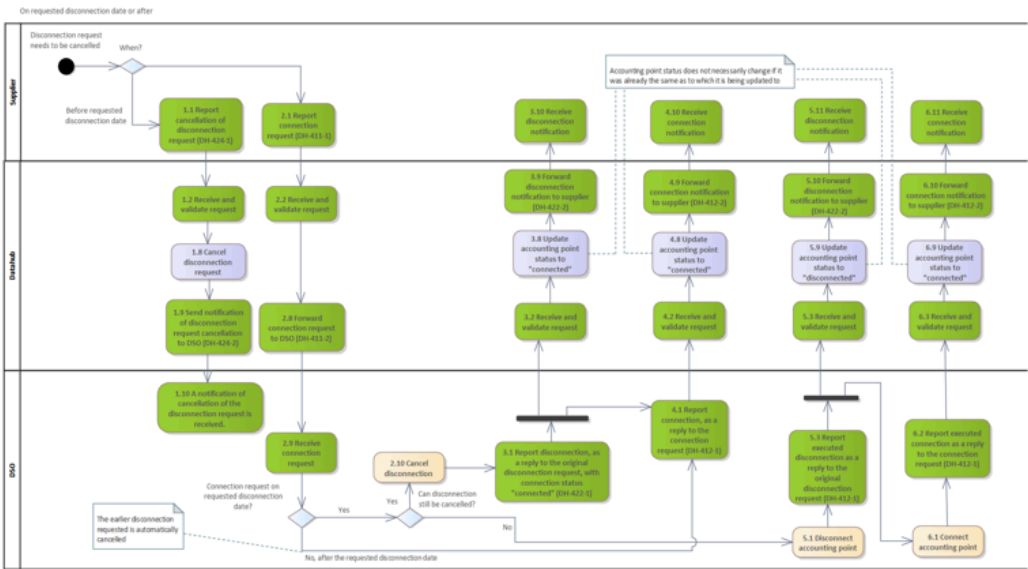
## DH-420 Disconnection processes

- [DH-420 Process maps](#)
- [DH-420 Examples](#)
- [DH-421 Request for supply disconnection](#)
- [DH-422 Notification of supply disconnection](#)
- [DH-423 Notification of disconnection delay](#)
- [DH-424 Cancellation of request for disconnection](#)

DH-420 Process maps



Disconnection process



Process for cancellation of disconnection request

## DH-420 Examples

Examples will be added to this section as needed. You can suggest what kind of examples you would like to see here!

## DH-421 Request for supply disconnection

Event description

Parties

Time limits

Event processing in Datahub

Information storage

Return of information

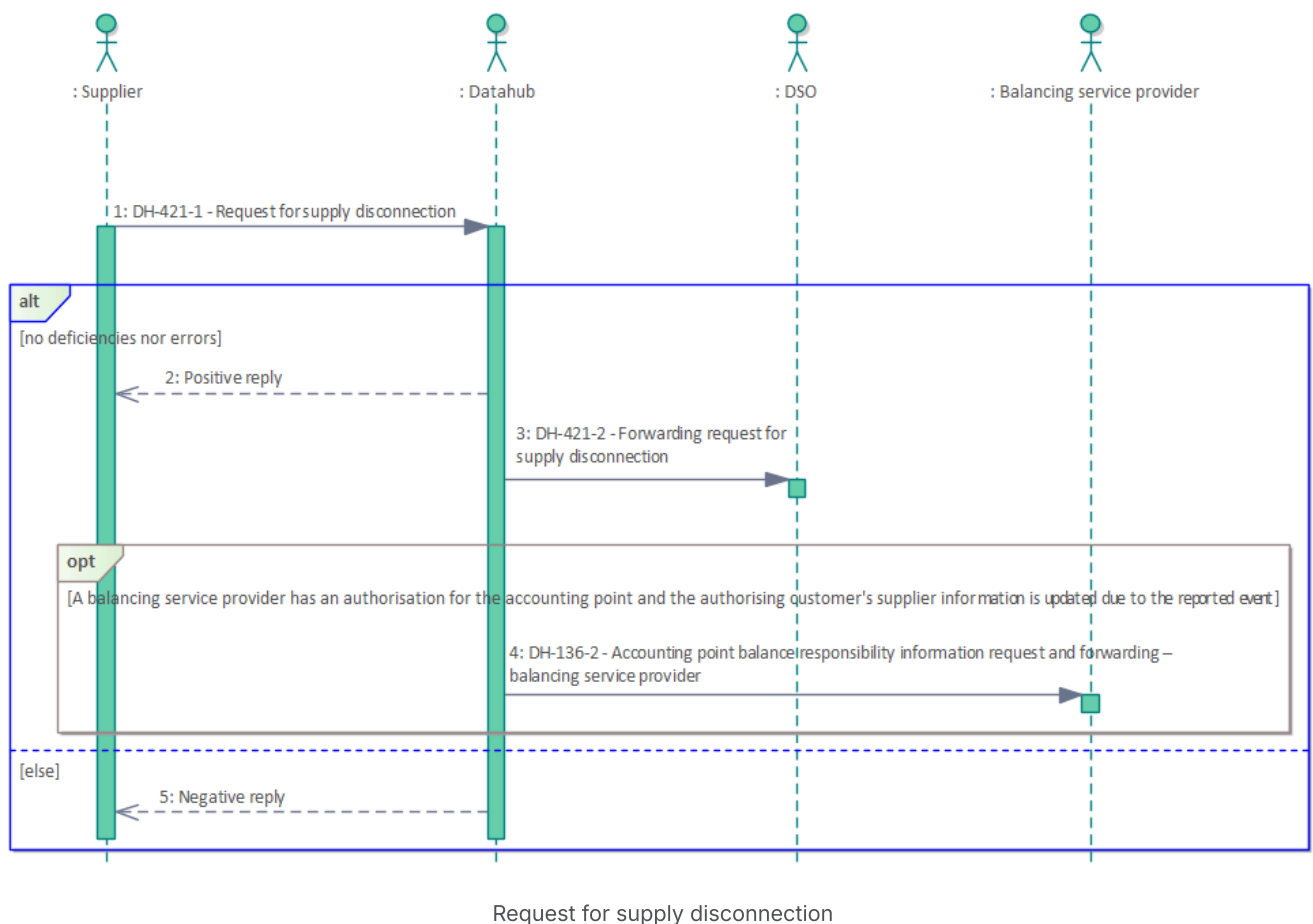
Forwarding of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A supplier reports a request for supply disconnection to Datahub. The supplier requests the DSO to disconnect the supply if the customer fails to pay their bills to the supplier or commits another breach of agreement.

## Parties

- Supplier
- Datahub
- DSO
- Balancing service provider

## Time limits

Effective time of the update
The request must be reported at least one week prior to the desired disconnection date.

## Event processing in Datahub

Step	Description
Balance information update	From the day following the requested disconnection date, electricity use at the accounting point is calculated to the DSO's balance (electricity use is once again calculated to the supplier's balance after the connection notification DH-412).
Closing previous connection and disconnection requests	If the same accounting point has an open connection or disconnection request from a supplier with a requested connection/disconnection date in the past, the past request is closed so that it no longer waits for the DSO's response.

## Information storage

Origin of information	Information stored
Information processed by Datahub	Balance information for the accounting point.

## Return of information

Party	Description	Message
-------	-------------	---------

Supplier	Notification of successful or rejected disconnection notification.	<a href="#">ACK</a>
----------	--	---------------------

### Forwarding of information

Party	Description	Message
DSO	The disconnection request is forwarded to the accounting point's DSO.	<a href="#">DH-421-2</a>
Balancing service provider	If the notification of disconnection changes a customer's supplier information due to the updated agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization.	<a href="#">DH-136-2</a>

### Composite processes

Party	Description	Composite process
DSO	The disconnection request is forwarded to the accounting point's DSO.	<a href="#">DH-421 → DH-422</a>

### Significant errors and consequences

Error	Consequence
The disconnection request is reported for the wrong accounting point or the wrong day.	The DSO disconnects the customer's delivery on the wrong grounds (consequences are equivalent to an unexpected electricity outage).




## Event cancellation

The cancellation must be made before the disconnection notification ([DH-422](#)) from the DSO, but no later than the day before the requested disconnection date. On the disconnection date, the process can be cancelled by submitting a connection request ([DH-411](#)).

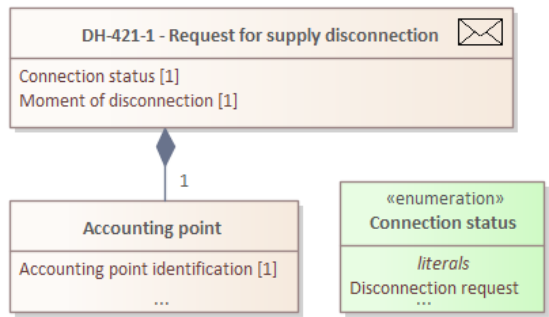
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The requested disconnection time is midnight.	EC.MPT.107	'00:00:00' (local) = '22:00:00' (UTC).
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The disconnection date must be at least one week in the future.	EC.MPT.125	
No other disconnection processes may be under way at the accounting point.	EC.MPT.142	
The status of the accounting point reported in the message must be 'Disconnected'.	EC.MPT.143	
The supplier must be party to a valid sales agreement for the accounting point when the request is made, as well as on the disconnection date.	EC.AGR.218	

 Please observe that the list is not complete.

# DH-421-1 Request for supply disconnection



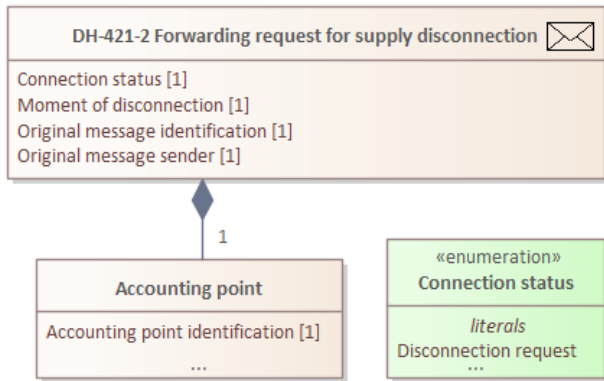
Details of request for supply disconnection

Message DH-421-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of disconnection	2	1..1		
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnection request	

## DH-421-2 Forwarding request for supply disconnection



Details of forwarding request for supply disconnection

Message DH-421-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of disconnection	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-421-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message identification for message DH-421-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnection request	

## DH-422 Notification of supply disconnection

Event description

Parties

Time limits

Information storage

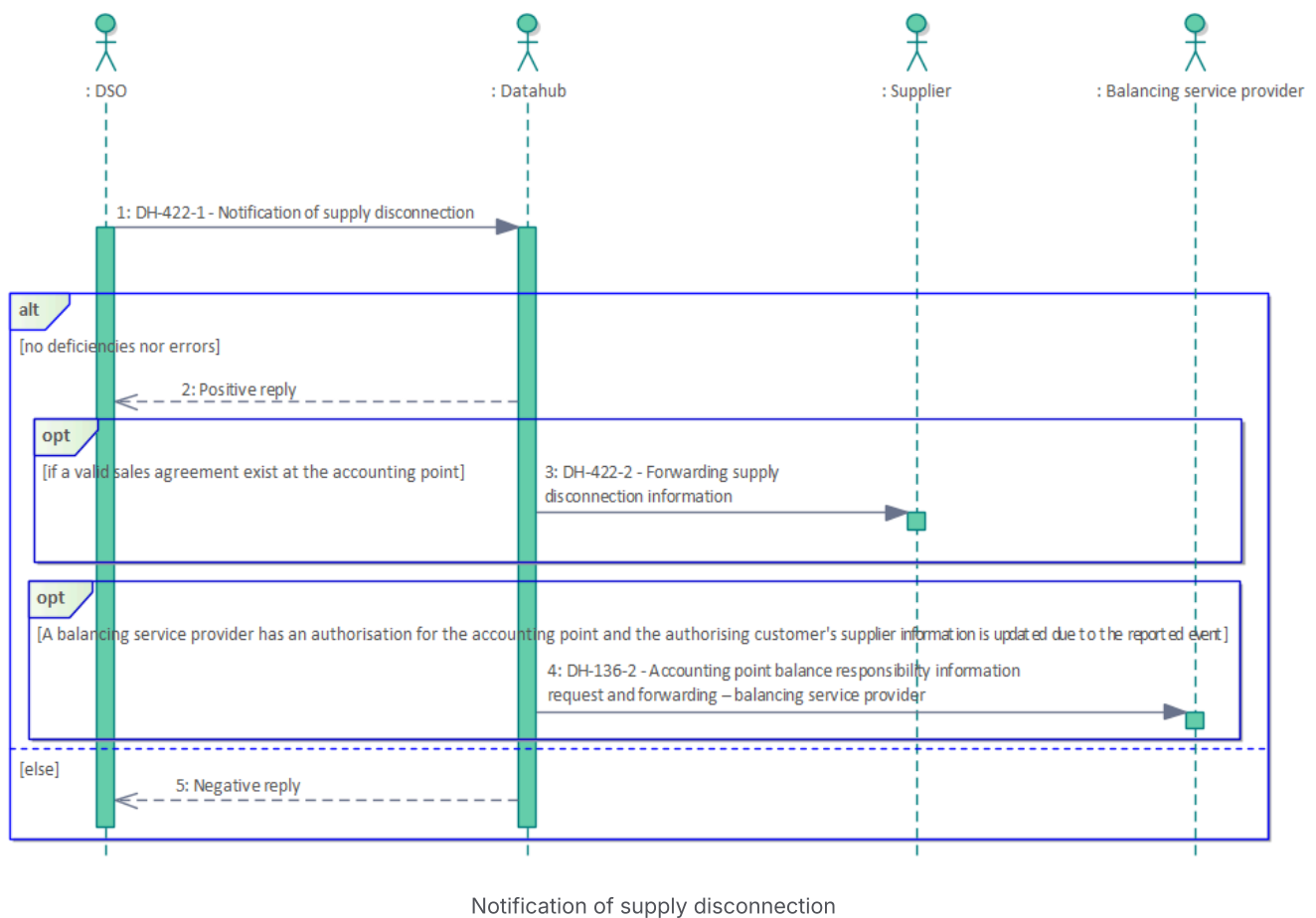
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A DSO reports the electricity disconnection at an accounting point to Datahub. The DSO disconnects electricity at the accounting point when, for example:

- The accounting point has no supplier
- Renovation work is being carried out at the accounting point
- The customer fails to pay the DSO's bills
- The customer requests a disconnection from the DSO

- The supplier has requested disconnection ([DH-421](#)).

## Parties

- DSO
- Datahub
- Supplier
- Balancing service provider

## Time limits

Effective time of the update	Notes/Exceptions
A disconnection must be reported to Datahub immediately after the disconnection as soon as the information is available in the DSO's system.	If the information is not available immediately after disconnection, for example, due to a manually disconnected site, the notification must be sent to Datahub within one week of supply disconnection, if the customer's annual consumption estimate is less than 1 GWh and, at the latest, on the following working day after connection for a customer with an annual consumption of 1 GWh or more. A disconnection notification is still accepted after this period, but interventions will be made if notifications are repeatedly sent late.

## Information storage

Origin of information	Information stored
Information reported by the party	All reported information is stored.

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Supplier	The change in accounting point connection status is forwarded to the possible supplier.	<a href="#">DH-422-2</a>
Balancing service provider	If the notification of disconnection changes a customer's supplier information due to the updated agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization. If the change is retroactive, the information is forwarded only if its validity overlaps with the validity of the authorization during the last 60 days (counting from the reporting date).	<a href="#">DH-136-2</a>

### Significant errors and consequences

Error	Consequence
Disconnection is reported for the wrong accounting point or otherwise incorrectly.	Depending on the supplier's business processes, the supplier may unnecessarily contact the customer or instigate other additional follow-up tasks.


### Event cancellation

An incorrect notification is corrected by a connection notification ([DH-412](#)) for the same time.

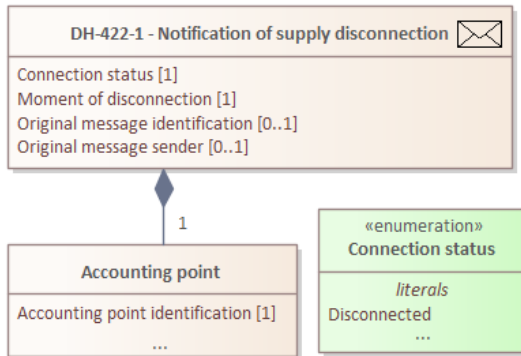
### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.1 15	

The accounting point must not have the status 'Removed from use'.	EC.MPT.1 20	
At the disconnection time, the time must match the accounting point's metering resolution.	EC.MPT.1 33	
If the disconnection is a response to the supplier's disconnection request, the accounting point must have a disconnection process under way which is awaiting confirmation.	EC.MPT.1 47	
The disconnection date cannot be in the future.	EC.MPT.1 54	
When an accounting point is connected due to a cancelled disconnection, the notified disconnection date must be the current date.	EC.MPT.1 58	
When an accounting point is connected due to a cancelled disconnection, the notified disconnection date must correspond to the supplier's ongoing disconnection request (i.e., the current date).	EC.MPT.1 59	
When an accounting point is connected due to a cancelled disconnection, the notified disconnection date must correspond to the supplier's ongoing connection request (i.e., the current date).	EC.MPT.1 60	
The starting time of the date of entry into force must be specified at the quarter-hour level if the disconnection/connection date is after the 15-minute imbalance settlement start date (or on the same date) and the accounting point uses 15-minute metering.	EC.MPT.1 64	
<div>  Please observe that the list is not complete. </div>		

## DH-422-1 Notification of supply disconnection



Details of the notification of supply disconnection

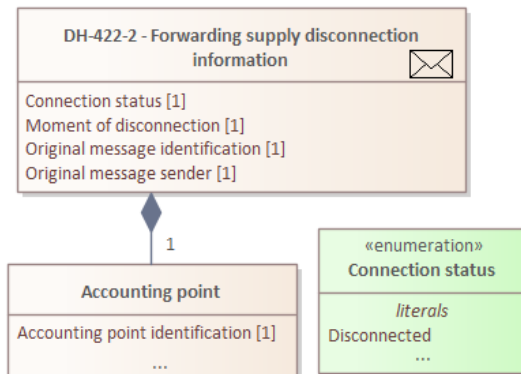
Message DH-422-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of disconnection	2	1..1		
Original message identification	2	0..1	If message DH-422-1 is a reply to event DH-421, message identification for message DH-421-2 is used.	<a href="#">Field usage</a>
Original message sender	2	0..1	If message DH-422-1 is a reply to event DH-421, message sender for message DH-421-2 is used.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnected	



## DH-422-2 Forwarding supply disconnection information



Details of forwarding supply disconnection information

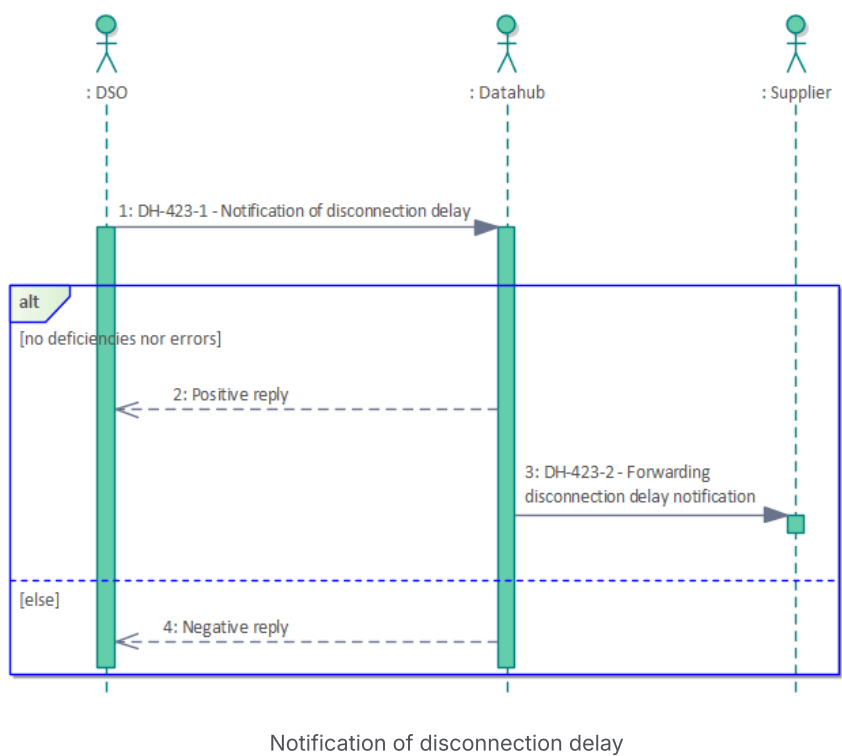
Message DH-422-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of disconnection	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-422-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-422-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnected	

# DH-423 Notification of disconnection delay

- Event description
- Parties
- Time limits
- Return of information
- Forwarding of information
- Event cancellation
- Validation rules



## Event description

A DSO reports that an accounting point cannot be disconnected on the date requested by the supplier.

## Parties

- DSO
- Datahub
- Supplier

## Time limits

Effective time of the update	Notes/Exceptions
------------------------------	------------------

No later than the business day following the disconnection date requested by the supplier, if a disconnection notification (DH-422) has not yet been submitted for the request.	The delay notification is still accepted after this date, but interventions will be made if notifications are repeatedly sent late.
---	---

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected notification.	<a href="#">ACK</a>

## Forwarding of information

Party	Description	Message
Supplier	The information reported by the DSO is forwarded to the supplier that sent the request. The forwarded notification must contain a reference to the original request.	<a href="#">DH-423-2</a>


## Event cancellation

The event cannot be cancelled.

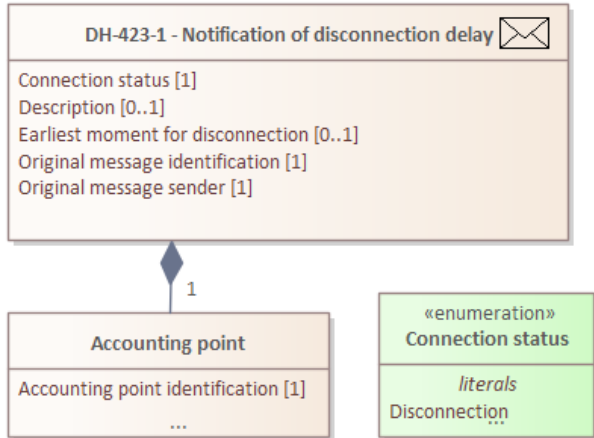
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The notified disconnection time is midnight.	EC.MPT.107	
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	
The supplier must be party to a valid sales agreement for the accounting point when the request is made, as well as on the	EC.AGR.218	

disconnection date.		
The disconnection date cannot be in the past.	EC.MPT.12 5	
The accounting point is in a distribution system operator's metering grid area.	EC.MPT.13 0	
The status of the accounting point reported in the message must be 'Disconnected'.	EC.MPT.14 3	
If the delay notification is a response to a supplier's disconnection request, an open disconnection process must exist.	EC.MPT.14 4	
<div>  Please observe that the list is not complete. </div>		

## DH-423-1 Notification of disconnection delay



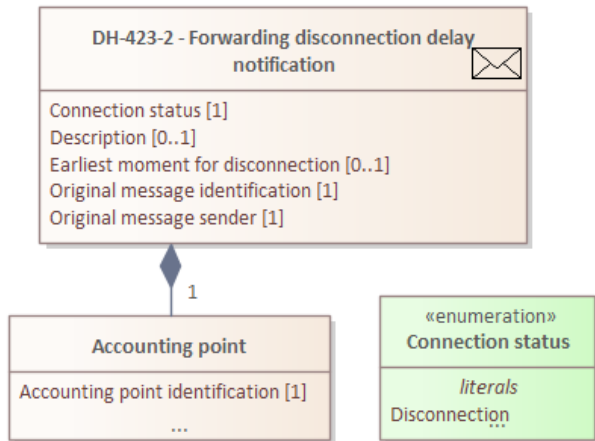
Details of the notification of disconnection delay

Message DH-423-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Neces sity	Field content	Note
Payload	1	1..1		
Earliest moment	2	0..1	Earliest moment for disconnection	
Original message identification	2	1..1	If message DH-423-1 is a reply to event DH-421, message identification for message DH-421-2 is used.	<a href="#">Field usage</a>
Original message sender	2	1..1	If message DH-423-1 is a reply to event DH-421, message sender for message DH-421-2 is used.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnection	
Description	2	0..1	Reason for disconnection delay	

## DH-423-2 Forwarding disconnection delay notification



Details of forwarding disconnection delay notification

Message DH-423-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Comment	Note
Payload	1	1..1		
Earliest moment	2	0..1	Earliest moment for connection/disconnection	
Original message identification	2	1..1	Contains the message identification for message DH-423-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-423-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnection	
Description	2	0..1	Reason for disconnection delay	

## DH-424 Cancellation of request for disconnection

Event description

Parties

Time limits

Event processing in Datahub

Information storage

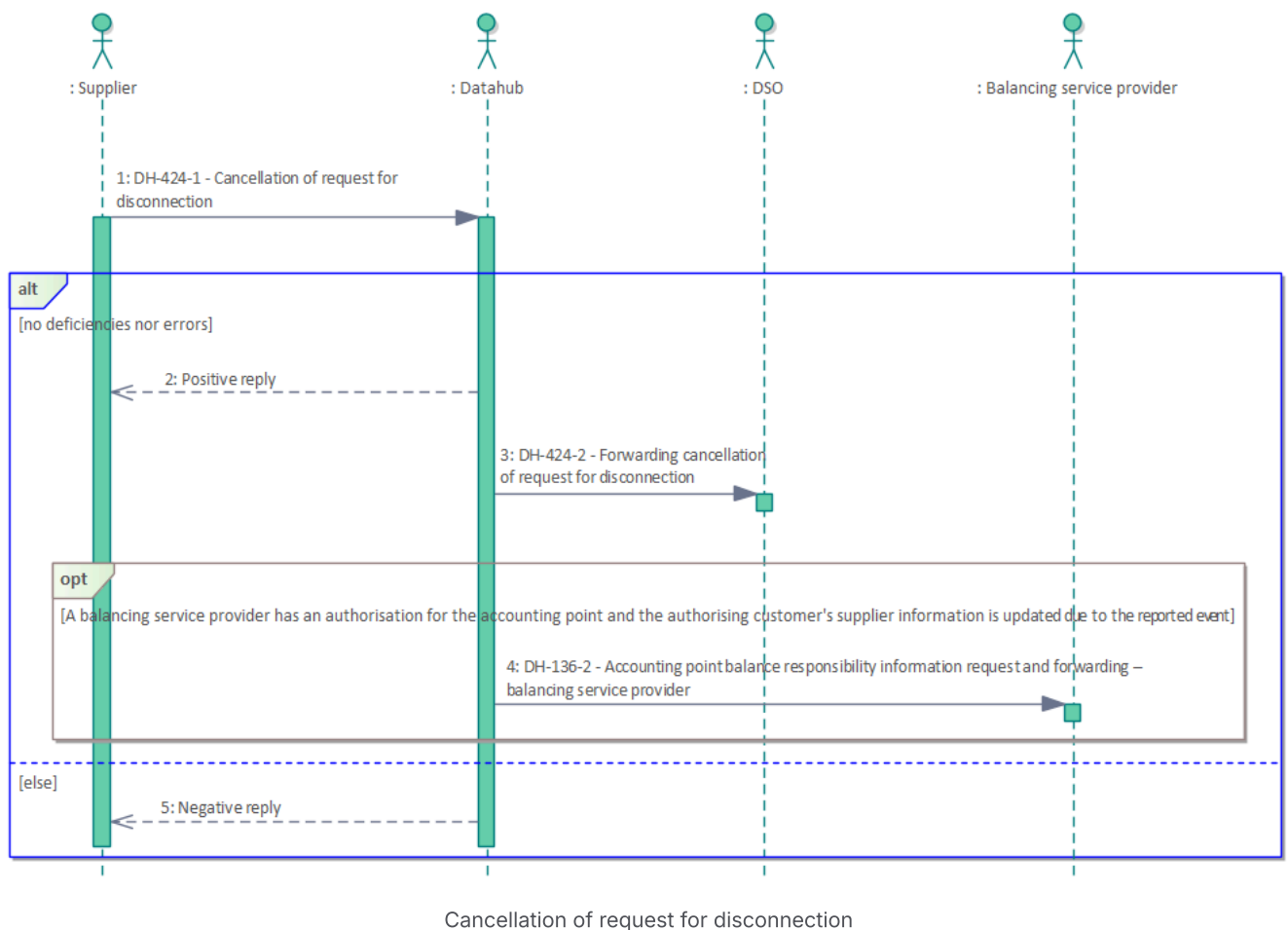
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A supplier reports a cancellation of a disconnection request it has sent earlier. The supplier requests the DSO to cancel the requested disconnection since the disconnection has been requested for the wrong accounting point or the accounting point no longer needs to be disconnected.

## Parties

- Supplier
- Datahub
- DSO
- Balancing service provider

## Time limits

Effective time of the update
The start of occurrence cannot be in the past.
If the supplier wants to cancel the requested disconnection on the requested disconnection date, this event is not used for the cancellation; instead, a connection request ( <a href="#">DH-411</a> ) must be submitted.

## Event processing in Datahub

Step	Description
Cancellation of a previous disconnection request	The disconnection request for the same accounting point with the same date no longer waits for the DSO to disconnect the accounting point.
Balance information update	The supplier's balance information, which was terminated with the disconnection request, is linked to the supplier again.

## Information storage

Origin of information	Information stored
Information processed by Datahub	Balance information

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected cancellation request.	<a href="#">ACK</a>



## Forwarding of information

Party	Description	Message
DSO	The cancellation request is forwarded to the accounting point's DSO.	<a href="#">DH-424-2</a>
Balancing service provider	If the notification of disconnection changes a customer's supplier information due to the updated agreement and the customer has issued an 'Accounting point's balance responsibility information' authorization for the accounting point, the new balance responsibility information is forwarded to the balancing service provider. The authorization must be valid on the reporting date of the event and the validity of the changed data must overlap with the validity of the authorization.	<a href="#">DH-136-2</a>

## Significant errors and consequences

Error	Consequence
Cancellation is reported for the wrong disconnection request.	A customer's electricity supply is not disconnected as requested.

## Event cancellation


The event cannot be cancelled.

## Validation rules

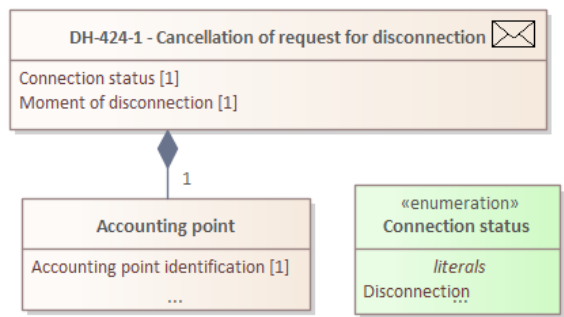
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The notified disconnection time is midnight.	EC.MPT.107	
The accounting point is recorded in Datahub.	EC.MPT.115	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.120	

The cancellation using this message must be made no later than the day before the disconnection date.	EC.MPT.1 25	If the supplier wants to cancel the requested disconnection on the requested disconnection date, this event is not used for the cancellation; instead, a connection request ( <a href="#">DH-411</a> ) must be submitted.
The status of the accounting point reported in the message must be 'Disconnected'.	EC.MPT.1 43	
At the accounting point, there is a waiting disconnection request from the same supplier for the same date (the cancellation disconnection date matches the original requested connection date).	EC.MPT.1 53	The disconnection request is considered pending as long as the DSO has not sent the DH-422 event. Delay notifications do not affect the status.
The supplier must hold a valid sales agreement for the accounting point at the moment of sending the cancellation and for the cancellable disconnection date.	EC.AGR.2 38	

 Please observe that the list is not complete.

# DH-424-1 Cancellation of request for disconnection



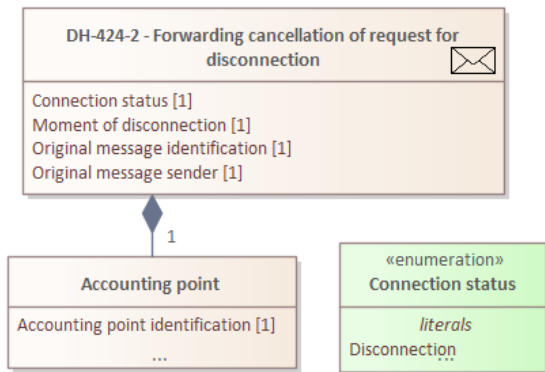
Details of the cancellation of request for disconnection

Message DH-424-1 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of disconnection	2	1..1		
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnection	

## DH-424-2 Forwarding cancellation of request for disconnection



Details of forwarding cancellation of request for  
disconnection

Message DH-424-2 is of message type [F09](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Moment of disconnection	2	1..1		
Original message identification	2	1..1	Contains the message identification for message DH-424-1.	<a href="#">Field usage</a>
Original message sender	2	1..1	Contains the message sender for message DH-424-1.	<a href="#">Field usage</a>
Accounting point identification	2	1..1		
Connection status	2	1..1	Disconnection	

## DH-500 Distribution system operator's imbalance settlement

- Initial data for balance settlement
- Virtual production units
- Imbalance settlement calculations and calculated data
- Information exchange in imbalance settlement
- Data reported to eSett
  - Structural information
  - Time series data
- Supplier's imbalance settlement data
- Distribution system operator's imbalance settlement data
- Imbalance settlement calculations outside the balance window

This chapter describes the DSO's imbalance settlement calculations performed in Datahub and imbalance settlement data notifications to eSett and market parties. Datahub handles imbalance settlement reporting of all data to eSett on behalf of the DSO. Datahub provides a user interface for maintenance of so-called structural information. The user interface enables the parties to maintain information that has no defined messaging processes. Datahub also sends the DSO data about metering grid area imbalance and MGA exchange confirmations calculated by eSett.

The DSO is responsible for reporting settlement data required to calculate the imbalance settlement described in this section to Datahub in accordance with the agreed rules and deadlines. Datahub is responsible for performing the imbalance settlement calculations and sending these to eSett in compliance with the rules of the Nordic balance settlement model (NBS). The rules of the NBS model are described in a [handbook released by eSett](#). Imbalance settlement data can also be retrieved from Datahub by parties entitled to this data.

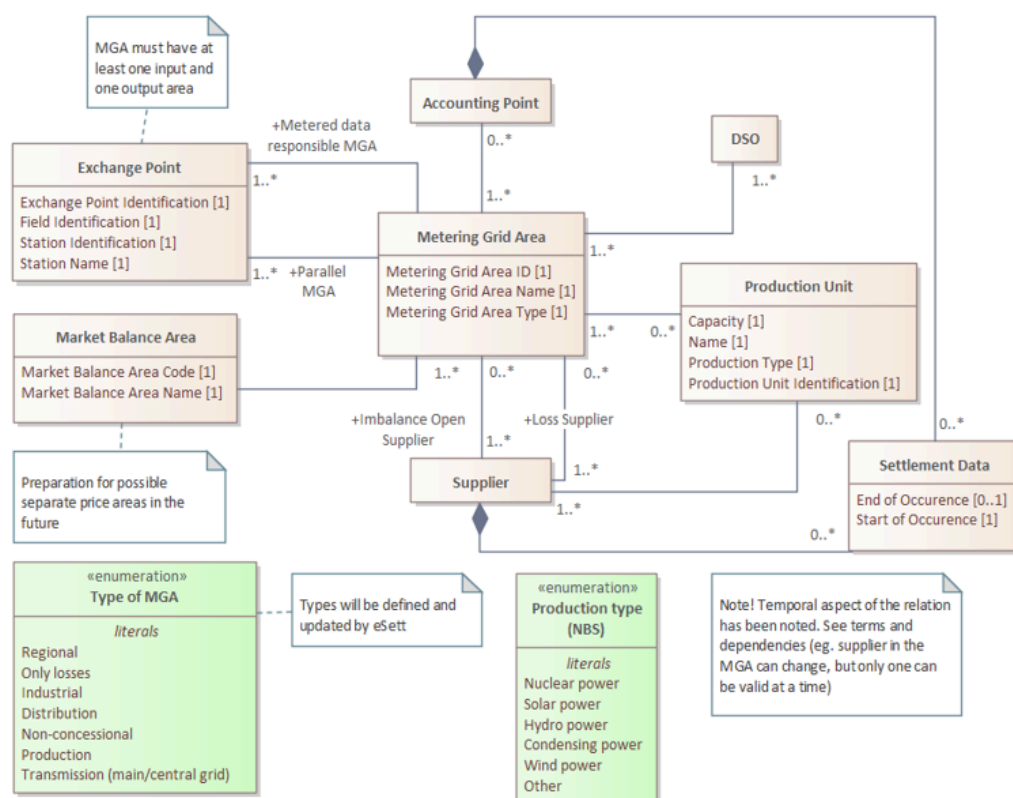
The most important tasks in the daily imbalance settlement process are executing the imbalance settlement calculations based on structural information and metering data, and information exchange of balance settlement data. Imbalance settlement calculations depend on [DH-120](#), [DH-200](#), [DH-300](#) and [DH-400](#) processes, and on structural information, which is maintained via the user interface. The information, which is handled in balance settlement and exchanged between parties, is described in more detail later in this chapter.

### Initial data for balance settlement

Imbalance settlement data consists of structural information and metering/time series data. Structural information defines to which party's balance and to which metering grid area each metering point's metering data (metered consumption or production) is calculated in balance settlement calculations executed by Datahub.

According to the Nordic Balance Settlement model, an imbalance statement by a DSO is calculated by metering grid area. DSOs can divide their grids into one or more metering grid areas. However, DSOs usually have only one metering grid area. The figure below presents the data used as the basis for imbalance settlement calculations in Datahub. With the exception of electricity sales agreement information, the DSO is responsible for maintaining this data. Technically, however, the Datahub operator will maintain metering grid area data, because this data significantly and widely affects other processes and data in Datahub, for example, imbalance settlement calculations and accounting point data. The goal of this procedure is to ensure that all necessary changes, like terminating and adding metering grid areas, are done in a controlled manner taking all viewpoints into consideration.

Relations marked with blue have a time when they are valid. This means that for example the loss supplier of a metering grid area may change with time and the system must be able to handle these changes so that the history data is maintained. When interpreting the figure, one must take into account that for some of these relations only one relation at a time can be valid, even though the relation is marked with “1..\*”. Accurate relation definitions can be found in the Datahub data standard. Validity of the relations related to balance information is based on the validity of the balance information. Datahub also handles market balance area information, although Finland has only one market balance area. This ensures that Datahub supports the structure of the electricity market for possible future demands.



Information used in balance settlement

The foundation for imbalance settlement calculations is the metering data from the metering points: accounting points, exchange points and production units. Metering points always belong to one metering grid area at a time. However, the system must be able to handle situations where metering points move to another metering grid area at a defined time. These situations may occur when metering grid areas unite or divide into a larger number of metering grid areas. These situations and their management are described in more detail in section [Structural changes to a metering grid area](#). Datahub must include the possibility to define to which market balance area each metering grid area belongs to at a given time so that it supports the general structure of the electricity market.

The DSO maintains accounting point information by means of the accounting point information maintenance events ([DH-120](#)). The exchange point and production unit information is maintained via the Datahub interface. This information must be created via the interface before the metering data for the metering points in question is reported. The DSO also maintains information about the production unit supplier. The metering data of all metering points is reported in accordance with event [DH-211 reporting metering data](#). The DSO must also use the interface to maintain information on the suppliers responsible for the open supplier and loss supplier roles for the metering grid area at a given time (imbalance). In the user interface, there is a report for DSOs where the structural information depicted above is available, excluding the accounting point specific settlement data,

Using the user interface, the DSO may use delegation to authorize other parties to exchange point and production unit metering data. For exchange points, only the DSO of the metered data responsible MGA can issue the delegation. In that case, the metering data of these metering points will automatically be forwarded to the authorized parties. By default, exchange point metering data will always be forwarded also to the DSO of the exchange point's other metering grid area when both metering grid areas of the exchange point do not belong to the same DSO. Information about the electric station and its field, to which an exchange point is connected, is available in Datahub to make information processing easier in the market parties' own processes and in Datahub.

Accounting point metering data is linked to a supplier in balance settlement calculations using so called balance information. If an accounting point does not have a valid balance information, the possible production and consumption of the accounting point are calculated into the losses of the metering grid area, in other words to the balance of the DSO. Most of the time the validity of the balance information is similar to the start and end dates of the accounting point's sales agreement reported by the supplier. However, balance information may change when sales agreements are cancelled or retroactively corrected, or during connection and disconnection

processes initiated by the supplier. Balance information changes related to cancelling sales agreements and error corrections are described in section [Retroactive error correction](#). If a supplier requests disconnection of an accounting point within agreed time limits, but the DSO for some reason cannot disconnect the accounting point, the consumption/production of the accounting point is calculated into the losses of the metering grid area according to the industry convention. Because of this, the balance responsibility is transferred to the DSO (supplier's balance information is updated) starting the day after the requested disconnection date in the supplier's disconnection request. Balance responsibility is transferred back to the supplier (new balance information is created) based on the connection time reported by the DSO.

### **Virtual production units**

Small-scale production per metering grid area and supplier, i.e., production related to an accounting point with a type production, is handled in NBS by creating a virtual production unit. The small-scale production total per metering grid area and supplier is calculated into the production of the virtual production unit. Because of this, there must always be a virtual production unit per supplier, metering grid area and NBS production type in the system when a supplier has balance information for an accounting point with the accounting point type 'production'. Virtual production units are handled in Datahub in such a manner that adding, removing or updating the validity of virtual production units does not require specific actions from the user.

Virtual production units are handled in the NBS model as any other production units. Thus, virtual production units must have identification, name, NBS production type and capacity recorded in the system. Maintaining capacity, for example, by adding the powers of production devices is not worthwhile, because this might mean calculating new capacity daily. Because of this, it must be possible to define the capacity with a predetermined value. The name of the virtual production unit is generated automatically, for example, based on identifications of metering grid area and supplier and the production type. The system creates an identification for the virtual production unit based on the identification system which is in use at the time of creation. The system updates the validity of the relation between virtual production unit and supplier so that the relation is valid exactly when the supplier has at least one balance information for an accounting point in the metering grid area and the production type of the accounting point corresponds the NBS production type of the virtual production unit. The validity in question may consist of one or more time periods.

The production type of the virtual production unit depends on the production devices reported for the accounting point. NBS production types differ from the production types defined for



Datahub production devices. The relations between the production types are presented in the table below. If the production accounting point has no reported production devices or the production accounting point has several production devices with different production types, the production type of the virtual production unit is 'other production'. If the production accounting point has one or more production devices of the same type, the NBS production type of the production unit will be determined based on the production devices of the accounting point according to the table.

Cross-tabulation of the site's production type with NBS production types:

Accounting point production type	NBS production type
Solar power	Solar
Gas turbine	Thermal
Combined production	Thermal
Wave power	Other production
Bioenergy	Other production
Diesel engine	Other production
Other production	Other production
Wind onshore	Wind onshore
Wind offshore	Wind offshore
Hydropower	Hydro
Nuclear power	Nuclear
Energy storage	Energy storage

The table below presents a condensed version of the rules according to which the system generates a new virtual production unit or updates its information.

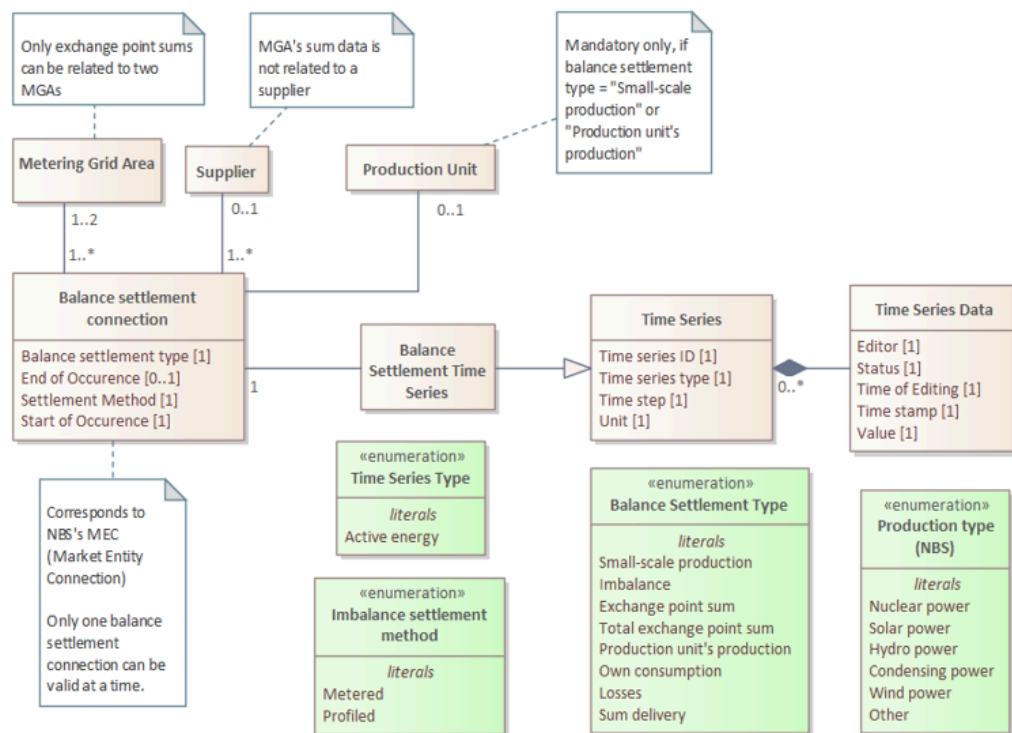
Defining the data of a virtual production unit:

Attribute/relation of the virtual production unit	Basis for determination
---	-------------------------

Production unit – Metering time series	Metering time series of the virtual production unit is the resulting time series ‘Supplier’s small-scale production’ in the balance settlement.
Capacity	Predetermined value, which is used for all new virtual production units.
Name	Name generated by the system, such as <supplier_id>_<metering grid area id>_<NBS production type>.
(NBS) Production type	Determined by the system based on production types of the accounting point’s production devices.
Production unit identification	The system generates a new identification according to the requirements of the data standard.
Production unit – Metering grid area	Metering grid area for the virtual production unit. Validity is not updated, instead a new virtual production unit is created if necessary.
Production unit – Supplier	Validity is determined based on the validity of balance information so that the relation is always valid when the supplier has at least one balance information for an accounting point, which is related to a corresponding metering grid area and which has a production type that corresponds the production type of the production unit. The relation may have several time periods, if necessary.

## Imbalance settlement calculations and calculated data

Datahub calculates the imbalance settlement time series (imbalance settlement resulting time series) based on structural information and metering data until the closing of the balance window. The figure below presents the general structure of imbalance settlement time series based on NBS model and from the Datahub point of view. The actual imbalance settlement time series are described later in this chapter.



Information on balance settlement connections

The imbalance settlement time series are the basis of imbalance settlement performed by eSett. In Datahub, the balance settlement type defines the purpose of the imbalance settlement time series in balance settlement. The imbalance settlement method indicates whether the time series data is based on data that is metered or specified in some other manner, in other words, profiled data. All metering data related to an accounting point with a metering method of 'reading metering' or 'unmetered' is profiled metering data in Datahub. In practice, the metering method of an accounting point may change several times, and these changes and their validity must be taken into account in balance settlement calculations. For example, consumption is calculated into supplier's profiled sum delivery only from time periods when the metering method of the accounting point is 'reading metering' or 'unmetered'.

Not all balance settlement method and type combinations are in use. For example, the NBS model allows for both metered and profiled (grid) losses, although only metered losses are used

in Finland. Profiled balance settlement data is used only for sum deliveries and production units' own consumption in Finland. The metering method of the accounting point defines the balance settlement method the consumption/production of the accounting point is calculated into.

The balance settlement connection is Datahub's equivalent to the MEC (Market Entity Connection) defined by [eSett](#). Datahub's balance settlement connection is a construct that defines balance settlement method and type related to imbalance settlement time series, as well as connects time series to market parties and on behalf of production data to (virtual or actual) production units. Datahub maintains balance settlement connections automatically based on initial data for balance settlement. Although there can be more than one balance settlement connection in Datahub with the same combination of balance settlement type, balance settlement method, supplier, metering grid area and production unit, only one of them can be valid at a time. The balance settlement structural information eSett reports to Datahub is mostly based on balance settlement connections.

Imbalance settlement is done per metering grid area and per supplier, i.e., there must be a supplier for all production and consumption. All consumption and production without a defined supplier is calculated, according to calculation rules, into the metering grid losses and to the balance of the metering grid area loss supplier. Only metering grid area sum level imbalance settlement time series do not have a related supplier. These time series are not used in imbalance settlement or reported to eSett, they are only used for statistical and analytical purposes.

Out of the imbalance settlement time series in Datahub, metering grid area imbalances and MGA exchange confirmations are calculated in eSett's system. Imbalance is a tool for handling situations where, due to various rounding, calculation and information exchange errors, the metering grid area's exchange point sum does not match the sum of metering grid area's productions, suppliers' deliveries and losses. In these cases the calculated imbalance is recorded as a delivery of the metering grid area imbalance open supplier. Imbalance is calculated as the sum of the calculations 1–7 in the table below, considering the signs. Because the metering grid area losses (calculation 7) is calculated as the sum of calculations 1–6, the calculated imbalance should always be zero under normal circumstances. eSett separately reports MGA imbalance as an intermediate report from the open balance window and as a final report from the closed day of the balance window.

According to the [NBS rules](#), Datahub classifies the supplier and metering grid area specific sum information it reports according to balance settlement type and method. The table below presents the **metering grid area-specific** sum calculations calculated by Datahub, which are used in Finnish imbalance settlement. The data with gray background is reported to eSett for

imbalance settlement. The principle in calculating the metering grid area losses is that the losses are calculated based on information that is reported to eSett, not based on metering grid area sum calculations. The losses are calculated, for example, based on individual exchange point sums instead of metering grid area total exchange point sum to avoid possible rounding errors. Rounding errors could cause unnecessary imbalance in eSett calculations.

With the transition to 15-minute imbalance settlement, Datahub calculates the aggregated balance settlement data in 15-minute intervals. For hourly measurements, the balance settlement calculation first aggregates the hourly series into their own sum series. These hourly sum series are then divided by four and added to the 15-minute sum series.

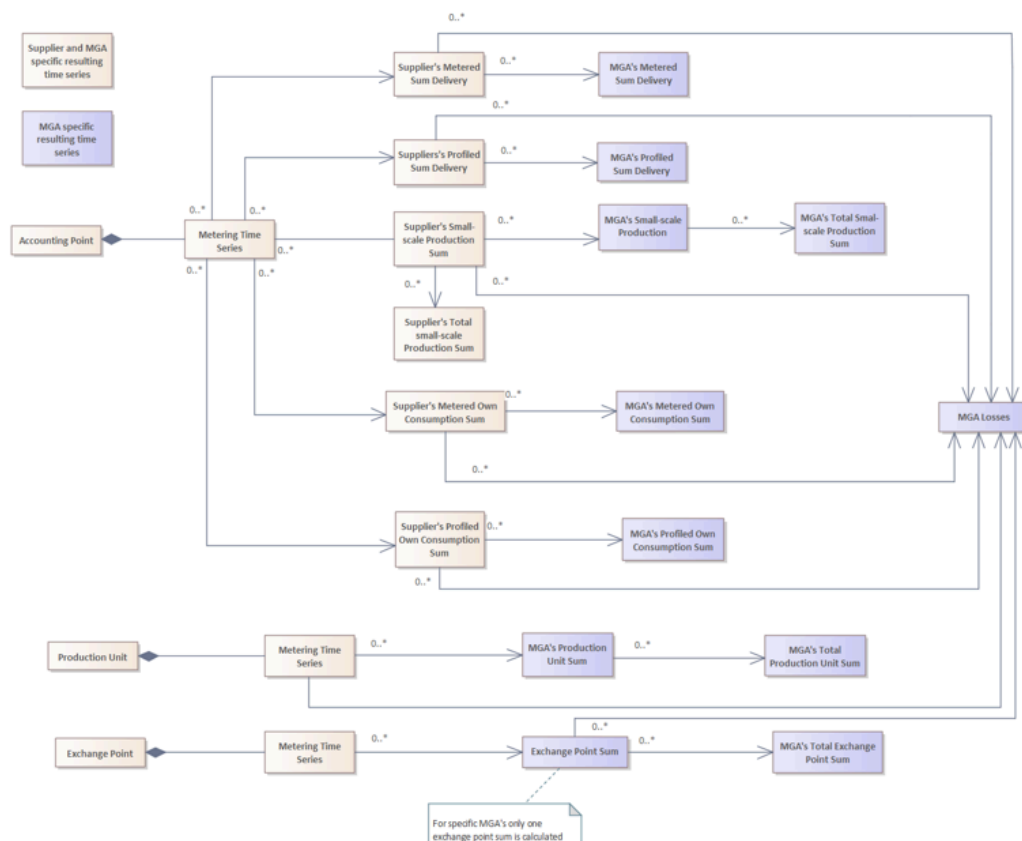
Metering grid area-specific sum calculations calculated by Datahub:

#	Data to be calculated	Description
1	Supplier's metered sum delivery	The supplier's calculated sum, in accordance with the official imbalance settlement period, of metering time series of fifteen minute and hourly-metered consumption accounting points in the metering grid area.
2	Supplier's profiled sum delivery	The supplier's calculated sum, in accordance with the official imbalance settlement period, of metering time series of profiled (reading metered or unmetered) consumption accounting points in the metering grid area.
3	Supplier's small-scale production sum (per production type)	The supplier's calculated sum, in accordance with the official imbalance settlement period, of metering time series of small-scale production accounting points in the metering grid area, per production type
4	Supplier's metered own consumption sum	The supplier's calculated sum, in accordance with the official imbalance settlement period, of production unit's own consumption accounting points'

		metered metering time series in the metering grid area.
5	Supplier's profiled own consumption sum	The supplier's calculated sum, in accordance with the official imbalance settlement period, of production unit's own consumption accounting points' profiled metering time series in the metering grid area.
6	Exchange point sum	The exchange point sum between two metering grid areas calculated from exchange point metering.
7	Metering grid area losses	Calculated based on sections 1–6 production unit productions using formula
8	Supplier's total small-scale production sum	Sum of supplier's small-scale production sums in section 3.
9	Metered sum delivery of the metering grid area	Sum of metering grid area's sum deliveries in section 1.
10	Profiled sum delivery of the metering grid area	Sum of metering grid area's sum deliveries in section 2.
11	Small-scale production sum of the metering grid area (per production type)	Sum of metering grid area's small-scale production sums in section 3.
12	Metered own consumption sum of the metering grid area	Sum of metering grid area's own consumption sums in section 4.
13	Profiled own consumption sum of the metering grid area	Sum of metering grid area's own consumption sums in section 5.

14	Production unit sum of the metering grid area (per production type)	Sum of all production unit meterings in the metering grid area, per production type.
15	Total exchange point sum of the metering grid area	Sum of exchange point sums in section 6, which are related to the metering grid area.
16	Total small-scale production sum of the metering grid area	Sum of metering grid area's small-scale production sums in section 12.
17	Total production unit sum of the metering grid area	Sum of metering grid area's production unit sums in section 15.

The chart below presents a diagram of how the calculations described above are dependent on each other and on individual metering time series.

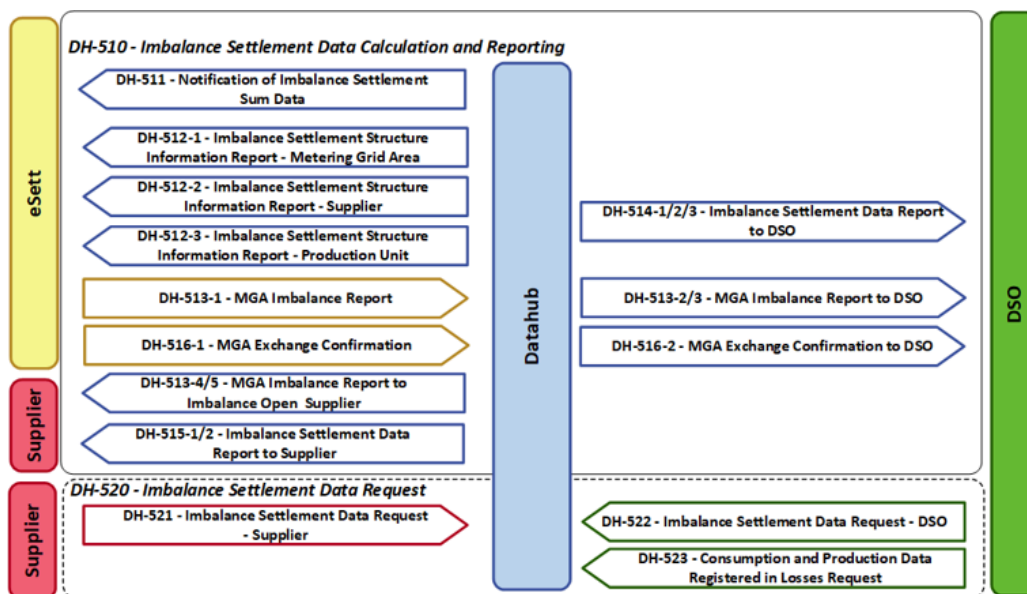




## Information exchange in imbalance settlement

In addition to being used in balance settlement calculations, balance settlement structural information and time series information calculated by Datahub are exchanged between the parties in Datahub. Datahub reports the updated structural information and the calculated imbalance settlement data to eSett daily. eSett calculates the imbalances of metering grid areas based on information reported by Datahub and reports the imbalances to Datahub. Finally, Datahub reports the imbalance settlement data it has calculated and the imbalances of metering grid areas to the market parties according to their rights. In addition to the above-described daily process ([DH-510](#)), the parties can specifically request imbalance settlement data from Datahub using [DH-520](#) events.

The diagram below presents the information exchange for imbalance settlement (Datahub events).



## Data reported to eSett

This section describes how imbalance settlement data is reported from Datahub to eSett using the current interface specifications (available at [NMEG](#)). Thus, the data exchanges presented below do not apply to DSOs, and Datahub reports this information on behalf of the DSOs.

However, the DSO must for its part maintain the data described in section [Initial data for balance settlement](#) in Datahub so that this data can be compiled and reported to eSett. Datahub and eSett can also agree on information exchange that is based on interface specifications other than those outlined above.



## Structural information

Datahub reports structural information to eSett separately before the metering data can be reported. Reporting structural information is mainly based on balance settlement connections described in chapter [Imbalance settlement calculations and calculated data](#). Structural information is reported to eSett on a supplier or metering grid area level; only production unit information is reported for individual metering points. Structural information includes information about which supplier operates in a certain MGA. For example, when a new supplier is registered in Datahub, this information is reported to eSett. Technically speaking, also the small-scale production sum is processed as a so-called virtual production unit and it is separately created for each unique supplier, metering grid area and production type combination.

Datahub reports the following structural information to eSett for the DSO's imbalance settlement:

Data	NBS Information exchange document
Metering grid area data	Area Specification Document
Exchange point connections (MGA–MGA relation)	Area Specification Document
Supplier operating in the MGA	Party Master Data Document
Production unit data	Resource Object Master Data Document

Exchange point connections is information about which two metering grid areas have transmission between them, i.e., which two metering grid areas have at least one exchange point. For the supplier operating in the MGA, Datahub includes the following information in its notification to eSett: MGA, consumption type (BusinessTypeCode), imbalance settlement method (SettlementMethodCode) and validity data. Each balance settlement type/settlement method combination for each supplier must be reported as separate data to eSett in accordance with the table below.

## Time series data

Datahub reports the below-mentioned time series to eSett on a supplier- and metering grid area-specific basis:

Data	NBS Information	BusinessType Code (Balance	SettlementMethodCode
------	-----------------	----------------------------	----------------------

	<b>exchange document</b>	<b>settlement type)</b>	<b>(Settlement method)</b>
Metered sum delivery	Aggregated Data per MGA for Settlement Responsible from MDA	Consumption (A04)	Non profiled
Profiled sum delivery	Aggregated Data per MGA for Settlement Responsible from MDA	Consumption (A04)	Profiled
Metered own consumption sum	Aggregated Data per MGA for Settlement Responsible from MDA	Production Units own consumption (B36)	Non profiled
Profiled own consumption sum	Aggregated Data per MGA for Settlement Responsible from MDA	Production Units own consumption (B36)	Profiled
MGA losses (must be allocated to a single supplier)	Aggregated Data per MGA for Settlement Responsible from MDA	Losses (A15)	Non profiled

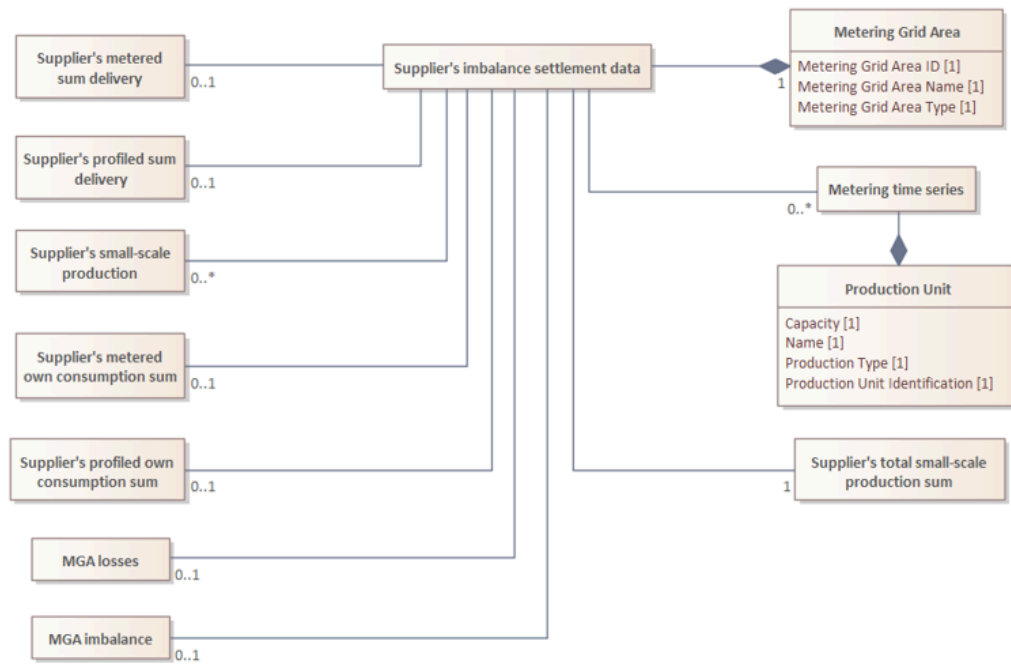
In addition to the above, Datahub reports to eSett the production data for individual production units (PU), supplier-specific small-scale production sums by MGA and exchange point sums between grids. Datahub creates a virtual production unit (PU) for the supplier's MGA small-scale production sum, for which the data is reported. When the metering grid area loss calculation produces negative values, for example, due to missing metering data, Datahub will report negative values as a part of the production of the metering grid area's loss supplier's virtual

production unit with the production type 'other production'. This is the course of action because eSett does not allow negative values for consumption (or production). The information exchange documents that Datahub can use to report this information to eSett are listed below.

Data	NBS Information exchange document	MeteringPointTypeCode
Supplier's small-scale production sum	Validated data for Aggregator from MDR	Production
Production unit's production	Validated data for Aggregator from MDR	Production
Exchange point sum	Aggregated Data per neighbouring grid	Exchange

### Supplier's imbalance settlement data

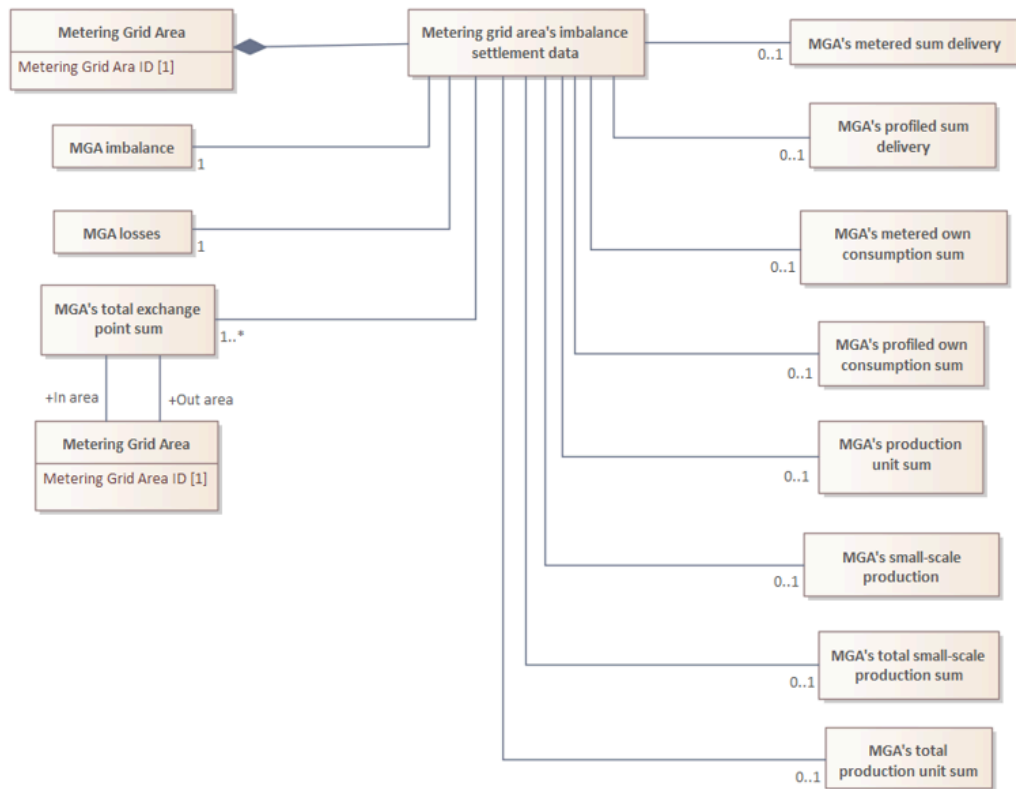
Datahub calculates imbalance settlement time series data for the supplier and the MGA. The diagram below presents the supplier's **MGA-specific** imbalance settlement data. The new and changed imbalance settlement data for the duration of the balance window and for the latest day locked in the balance settlement is reported to suppliers on a daily basis. In addition to the notification, the suppliers can also retrieve this data separately from Datahub. In the figure, supplier's small-scale production refers to small-scale production per production type, and total small-scale production sum refers to the sum of all small-scale productions. Not every supplier has all information. For example, the metering grid area losses are reported only to the supplier who is the loss supplier for the metering grid area.



Supplier's MGA-specific imbalance settlement data

## Distribution system operator's imbalance settlement data

The DSO has the right to both the above-mentioned supplier's imbalance settlement data and the MGA imbalance settlement data. The new and changed imbalance settlement data calculated by Datahub is reported to the DSOs on a daily basis until the first day outside the balance window. In addition to the notification, the DSOs can also retrieve this data separately from Datahub. Small-scale production for metering grid areas is also reported separately both per production type and as sum of all productions.



DSO's MGA-specific imbalance settlement data

In addition to balance settlement data, Datahub reports to the DSO when a sales agreement of an accounting point is terminated so that the DSO can disconnect the accounting point. Datahub also reports separately to DSOs if an accounting point is without a supplier and does not have a reported disconnection. In addition to the previously mentioned, Datahub provides an information request event that DSOs can use to get accounting point specific consumption/production, which are calculated into the DSO's losses.

### Imbalance settlement calculations outside the balance window

Imbalance settlement calculations are primarily calculated in Datahub for the needs of the official imbalance settlement performed by eSett. Imbalance settlement calculations do however have another use in addition to official imbalance settlement. For example, metering grid area losses are a significant cost to a grid company, and the exact amount of losses is also monitored by grid companies outside the balance window. Datahub is the primary data bank for metering and imbalance settlement data, so it is natural for all up-to-date and corrected metering data and the results calculated from them to be available in Datahub.

Official imbalance settlement always closes when the balance window closes, after which data calculated in official imbalance settlement and reported to eSett can no longer be changed. Changes in metering data outside the balance window are mainly taken into account in balance deviation calculation. Balance deviations are, however, registered neither to exchange points nor

production units, nor to those accounting points at which a metering error arises more than six weeks after the period of a terminated sales agreement. The updating of the results of imbalance settlement calculations in connection with balance deviation calculation is therefore not possible. This concerns not only metering grid area losses but also other imbalance settlement aggregations.

Calculation results corresponding to the official imbalance settlement are calculated for the period outside the balance window for all metering grid areas over the past three years upon request. These results are retrievable using [DH-520](#) data request events. In the request event, the party must state whether it is searching for official data locked in the imbalance settlement or for the results of the correction calculations described above. Correction calculations can also be performed separately for a freely specified period upon request.

## Descriptions of imbalance settlement calculations

Supplier's metered sum delivery  
Supplier's profiled sum delivery  
Supplier's small-scale production by production type  
Supplier's metered PU's own consumption sum  
Supplier's profiled PU's own consumption sum  
MGA exchange sum  
Metering grid area losses  
Metering grid area's metered sum delivery  
Metering grid area's profiled sum delivery  
Metering grid area's small-scale production by production type  
Metering grid area's metered PU's own consumption sum  
Metering grid area's profiled PU's own consumption sum  
Metering grid area's production unit sum by production type  
Metering grid area's exchange sum total  
Metering grid area's small-scale production sum total  
Metering grid area's production unit total

This page describes in more detail how time series are selected for imbalance settlement calculations. In the descriptions of calculations, input refers to data needed to calculate an individual imbalance settlement calculation. Other selection criteria refers to criteria that are based on which of the time series is selected as the basis for the calculations. Fulfillment of these criteria is verified by time-step. Only time-steps from the selected time series for which all the criteria are met are included in the calculated sum. In calculations based on accounting point information, especially the metering method may change by time-step. In practice, the accounting point type cannot change and the metering grid area to which the accounting point belongs changes very rarely.

### Supplier's metered sum delivery

#### Description:

Supplier and metering grid area specifically calculated sum, in accordance with the official imbalance settlement period, of the metering time series of continuously metered accounting points.

**Datahub's balance settlement type code:** BI02

#### Input:

- Supplier
- Metering grid area

**Other selection criteria for metering time series:**

- The supplier in the input has valid balance information to the accounting point at the time-step of calculation
- Accounting point belongs to the metering grid area in the input
- Accounting point type = Consumption
- Accounting point's metering time series type = Active energy
- Accounting point metering method = Continuous metering

**Supplier's profiled sum delivery****Description:**

Supplier and metering grid area specifically calculated sum, in accordance with the official imbalance settlement period, of the metering time series of profiled, i.e., not continuously metered, accounting points.

**Datahub's balance settlement type code:** BI01

**Input:**

- Supplier
- Metering grid area

**Other selection criteria for metering time series:**

- The supplier in the input has valid balance information to the accounting point at the time-step of calculation
- Accounting point belongs to the metering grid area in the input
- Accounting point type = Consumption
- Accounting point's metering time series type = Active energy
- Accounting point metering method = Reading metering or Unmetered

**Supplier's small-scale production by production type****Description:**

Supplier, metering grid area and (NBS) production type specifically calculated sum, in accordance with the official imbalance settlement period, of accounting points' metering time series of the production type.

**Datahub's balance settlement type code:** BI05

**Input:**



- Supplier
- Metering grid area
- (NBS) production type

**Other selection criteria for metering time series:**

- The supplier in the input has valid balance information to the accounting point at the time-step of calculation
- Accounting point belongs to the metering grid area in the input
- Accounting point type = Production
- Accounting point's metering time series type = Active energy
- Accounting point metering method = Continuous metering

**Supplier's metered PU's own consumption sum**

**Description:**

Supplier and metering grid area specifically calculated sum, in accordance with the official imbalance settlement period, of the metering time series of continuously metered own consumption accounting points.

**Datahub's balance settlement type code: BI04**

**Input:**

- Supplier
- Metering grid area

**Other selection criteria for metering time series:**

- The supplier in the input has valid balance information to the accounting point at the time-step of calculation
- Accounting point belongs to the metering grid area in the input
- Accounting point sub-type = Own consumption
- Accounting point's metering time series type = Active energy
- Accounting point metering method = Continuous metering

**Supplier's profiled PU's own consumption sum**

**Description:**

Supplier and metering grid area specifically calculated sum, in accordance with the official imbalance settlement period, of the metering time series of profiled, i.e. other than continuously

metered, own consumption accounting points.

**Datahub's balance settlement type code:** BI03

**Input:**

- Supplier
- Metering grid area

**Other selection criteria for metering time series:**

- The supplier in the input has valid balance information to the accounting point at the time-step of calculation
- Accounting point belongs to the metering grid area in the input
- Accounting point sub-type = Own consumption
- Accounting point's metering time series type = Active energy
- Accounting point metering method = Reading metering or Unmetered

**MGA exchange sum**

**Description:**

Exchange point sum refers to the total electricity transmission between two metering grid areas that is calculated from the metering time series of the exchange points between the two metering grid areas in question. Exchange point sum includes information about which metering grid area is the 'In Area' (the area electricity is transmitted to) and which is the 'Out Area' (the area electricity is transmitted from).

Exchange point sums are calculated between all two metering grid areas, which have at least one exchange point metering.

**Datahub's balance settlement type code:** BI18

**Input:**

- Out Area
- In Area

**Other selection criteria for metering time series to be added:**

- Metering point type = Exchange point

**Metering grid area losses**

**Description:**

Transmission losses of the metering grid area in accordance with the official imbalance settlement period.

Metering grid area losses are calculated based on other calculated sums of the metering grid area using formula:

Metering grid area losses = Connection point sums – metered sum deliveries – profiled sum deliveries – metered own consumption sums – profiled own consumption sums + small scale production sums + production unit productions

**Datahub's balance settlement type code:** BI07 and BI08

#### **Metering grid area's metered sum delivery**

##### **Description:**

Total sum of metered sum deliveries of the suppliers in the metering grid area.

**Datahub's balance settlement type code:** BI11

##### **Input:**

- Metering grid area

##### **Other selection criteria for times series to be added:**

- Suppliers' metered sum deliveries for the metering grid area in the input.

#### **Metering grid area's profiled sum delivery**

##### **Description:**

Total sum of profiled sum deliveries of the suppliers in the metering grid area.

**Datahub's balance settlement type code:** BI10

##### **Input:**

- Metering grid area

##### **Other selection criteria for times series to be added:**

- Suppliers' profiled sum deliveries for the metering grid area in the input.

## **Metering grid area's small-scale production by production type**

### **Description:**

Total sum of metering grid area's suppliers' small-scale production sums per production type.

**Datahub's balance settlement type code:** BI14

### **Information to be calculated:**

- Total sum of metering grid area's suppliers' small-scale production sums

### **Input:**

- Metering grid area
- (NBS) Production type

### **Other selection criteria for the time series to be added:**

- Suppliers' (production type specific) small-scale productions for the metering grid area and production type in the input.

## **Metering grid area's metered PU's own consumption sum**

### **Description:**

Total sum of the metering grid area's suppliers' metered own consumption sums.

**Datahub's balance settlement type code:** BI13

### **Input:**

- Metering grid area

### **Other selection criteria for the time series to be added:**

- Suppliers' metered own consumption sums for the metering grid area in the input.

## **Metering grid area's profiled PU's own consumption sum**

### **Description:**

Total sum of the metering grid area's suppliers' profiled own consumption sums.

**Datahub's balance settlement type code:** BI12

### **Input:**

- Metering grid area

### **Other selection criteria for the time series to be added:**

- Suppliers' profiled own consumption sums for the metering grid area in the input.

### **Metering grid area's production unit sum by production type**

#### **Description:**

Total production of metering grid area's production units per production type.

**Datahub's balance settlement type code:** BI16

#### **Input:**

- Metering grid area
- (NBS) Production type

#### **Other selection criteria for the time series to be added:**

- Production units' time series with the input production type for the metering grid area in the input

### **Metering grid area's exchange sum total**

#### **Description:**

Metering grid area's total exchange point sum is the remainder of electric energy input to the grid and output from the grid. Total exchange point sum is calculated by adding together, including sign, all exchange point sums where the metering grid area in question is either the In Area or Out Area.

**Datahub's balance settlement type code:** BI19

#### **Input:**

- Metering grid area

#### **Other selection criteria for the time series to be added:**

- Exchange point sums, where the input metering grid area is either 'In Area' or 'Out Area'.

### **Metering grid area's small-scale production sum total**

#### **Description:**

Total production of metering grid area's small-scale productions.

**Datahub's balance settlement type code:** BI15

#### **Input:**

- Metering grid area

**Other selection criteria for the time series to be added:**

- Input metering grid area's (production type specific) small-scale production sums

**Metering grid area's production unit total**

**Description:**

Total production of metering grid area's production units.

**Datahub's balance settlement type code:** BI17

**Input:**

- Metering grid area

**Other selection criteria for the time series to be added:**

- Input metering grid area's (production type specific) production unit sums

## DH-510 Calculation and notification of imbalance settlement data

Datahub performs imbalance settlement calculations on behalf of DSOs and delivers the balance settlement data to eSett. The information exchange is carried out in accordance with the NBS specifications ([NMEG](#)), and the events related to the exchange are not described in this wiki.

eSett provides the DSOs' imbalance data and confirmed exchange point sums to Datahub, which then forwards the information to the DSOs and suppliers. The interactions between Datahub and eSett also follow the NBS specifications ([NMEG](#)) and are not described in this wiki.





## DH-510 Examples

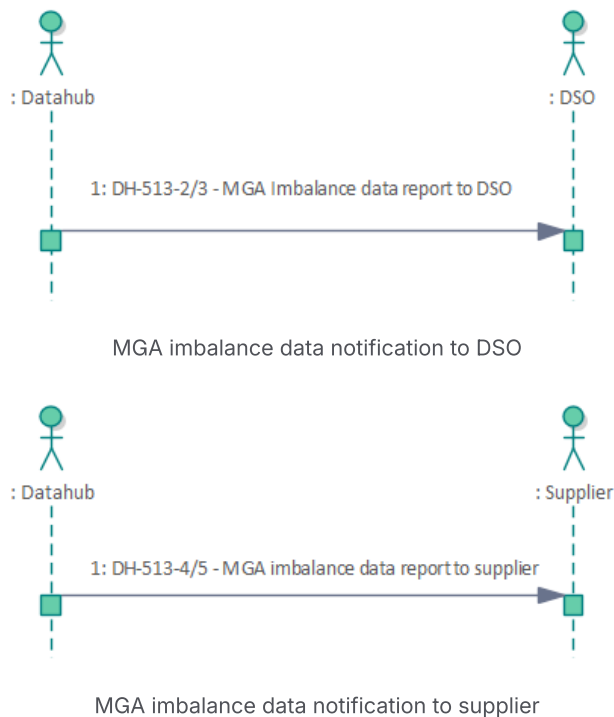
Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

# DH-513 MGA imbalance notification

Event description

Parties

Forwarding of information



Event description

Datahub has received the results of MGA imbalance calculation from eSett. Datahub reports MGA imbalance data calculated by eSett to the DSO and the supplier.

**i** The imbalance settlement data is reported in messages where each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of data, there may be one or several messages to be sent.

Parties

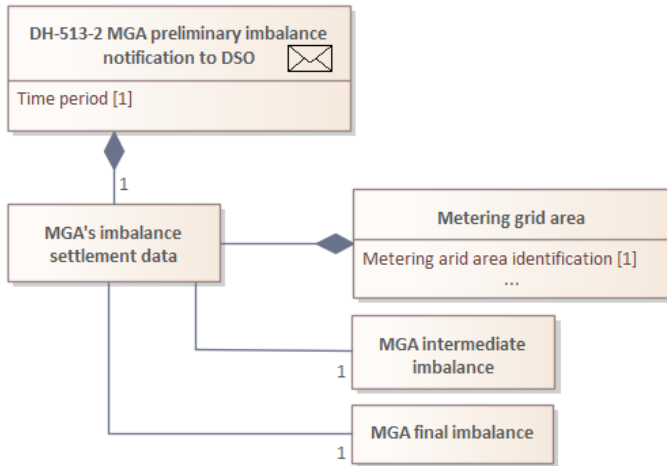
- Datahub
- DSO
- Supplier

Forwarding of information

Party	Description	Message
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DSO	Notification of preliminary balance deviation in the metering grid area to the distribution system operator	<a href="#"><u>DH-513-2</u></a>
DSO	Notification of final balance deviation in the metering grid area to the distribution system operator	<a href="#"><u>DH-513-3</u></a>
Supplier	Notification of preliminary balance deviation in the metering grid area to the supplier	<a href="#"><u>DH-513-4</u></a>
Supplier	Notification of final balance deviation in the metering grid area to the supplier	<a href="#"><u>DH-513-5</u></a>

## DH-513-2 MGA preliminary imbalance notification to DSO



Details of MGA preliminary imbalance notification to DSO

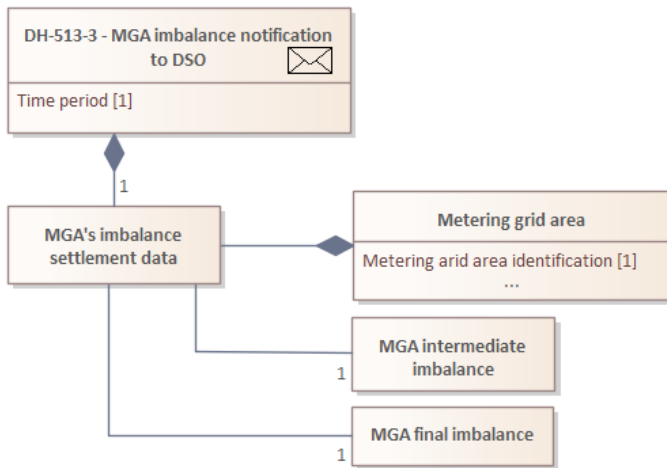
Message DH-513-2 is of message type [F25](#).

Message payload includes the following information:

Information field	Level	Necessity	Note
Payload	1	1..n	
Time series identification	2	1..1	
Party identification	2	1..1	
Imbalance settlement method	2	1..1	Imbalance
Total series type	2	1..1	
Product type	3	1..1	Active energy
Unit	3	1..1	kWh
Area information	2	1..1	
Metering grid area identification	3	1..1	
Reporting period	2	1..1	
Time step	3	1..1	

Start time	3	1..1	
End time	3	1..1	
Time series values	2	1..n	
Position	3	1..1	
Values	3	1..1	
In quantity	4	1..1	
Out quantity	4	1..1	

## DH-513-3 MGA imbalance notification to DSO



Details of MGA imbalance notification to DSO

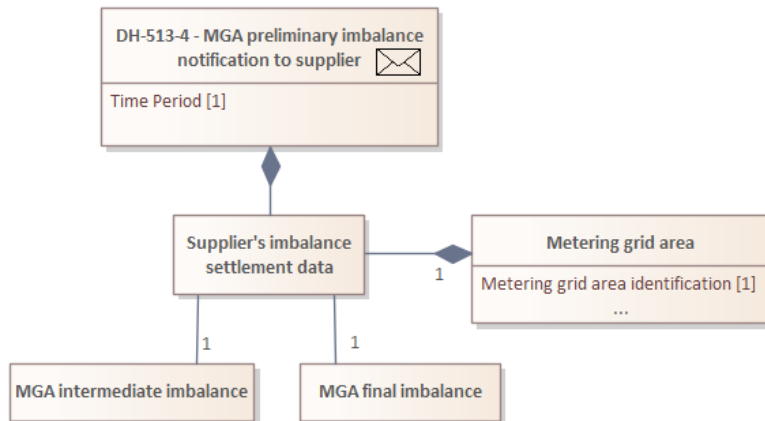
Message DH-513-3 is of message type [F25](#).

Message payload includes the following information:

Information field	Level	Necessity	Note
Payload	1	1..n	
Time series identification	2	1..1	
Party identification	2	1..1	
Imbalance settlement method	2	1..1	Imbalance
Total series type	2	1..1	
Product type	3	1..1	Active energy
Unit	3	1..1	kWh
Area information	2	1..1	
Metering grid area identification	3	1..1	
Reporting period	2	1..1	
Time step	3	1..1	

Start time	3	1..1	
End time	3	1..1	
Time series values	2	1..n	
Position	3	1..1	
Values	3	1..1	
In quantity	4	1..1	
Out quantity	4	1..1	

## DH-513-4 MGA preliminary imbalance notification to supplier



Details of MGA preliminary imbalance notification to supplier

Message DH-513-4 is of message type [F25](#).

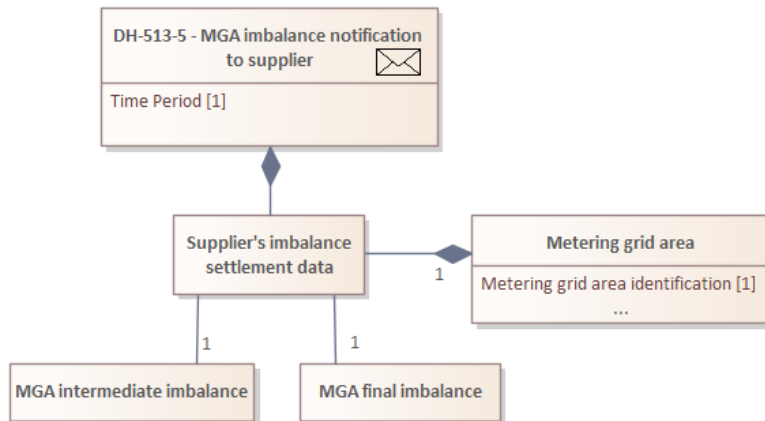
Message payload includes the following information:

Information field	Level	Necessity	Note
Payload	1	1..n	
Time series identification	2	1..1	
Party identification	2	1..1	
Imbalance settlement method	2	1..1	Imbalance
Total series type	2	1..1	
Product type	3	1..1	Active energy
Unit	3	1..1	kWh
Area information	2	1..1	
Metering grid area identification	3	1..1	
Reporting period	2	1..1	
Time step	3	1..1	



Start time	3	1..1	
End time	3	1..1	
Time series values	2	1..n	
Position	3	1..1	
Values	3	1..1	
In quantity	4	1..1	
Out quantity	4	1..1	

## DH-513-5 MGA imbalance notification to supplier



Details of MGA imbalance notification to supplier

Message DH-513-5 is of message type [F25](#).

Message payload includes the following information:

Information field	Level	Necessity	Comment
Payload	1	1..n	
Time series identification	2	1..1	
Party identification	2	1..1	
Balance settlement method	2	1..1	Imbalance
Total series type	2	1..1	
Product type	3	1..1	Active energy
Unit	3	1..1	kWh
Area information	2	1..1	
Metering grid area identification	3	1..1	
Reporting period	2	1..1	
Time step	3	1..1	
Start time	3	1..1	

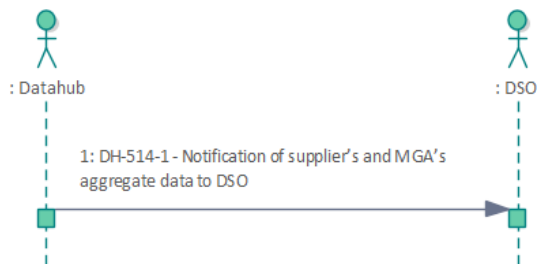
End time	3	1..1	
Time series values	2	1..n	
Position	3	1..1	
Values	3	1..1	
In quantity	4	1..1	
Out quantity	4	1..1	

## DH-514 Notification of imbalance settlement data to DSO

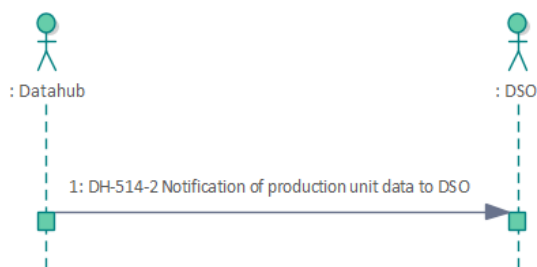
### Event description

#### Parties

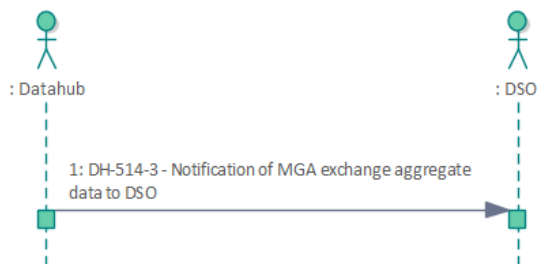
#### Forwarding of information



Notification of supplier's and MGA's aggregate data to DSO



Notification of production unit data to DSO



Notification of MGA exchange aggregate data to DSO

### Event description

Datahub has calculated the imbalance settlement data. Datahub notifies the distribution system operator of the calculated:

- Aggregated imbalance settlement data per metering grid area and supplier
- Imbalance settlement data for production units
- Exchange point sum data

**i** MGA-specific imbalance settlement data. The time interval for the data is from the first closed day of the balance window to the previous day, e.g., 16/10–27/10 when the date in

question is 28/10.

The imbalance settlement data is reported in messages where each contains at most 10 000 imbalance settlement time series and each time series contains at most 10 000 time series values. Depending on the amount of data, there may be one or several messages to be sent.

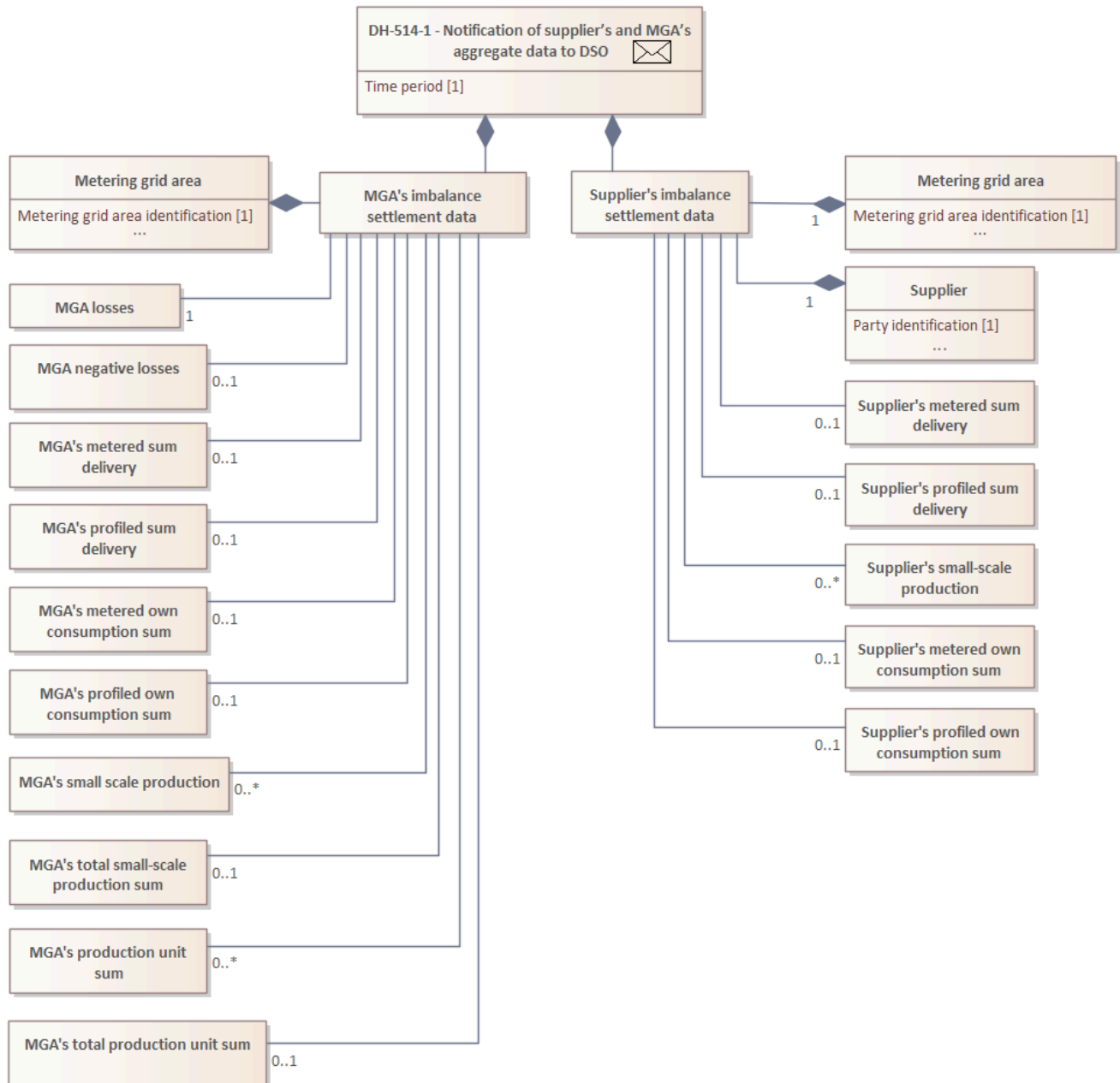
### Parties

- Datahub
- DSO

### Forwarding of information

Party	Description	Message
DSO	Notification of supplier's and MGA's aggregate data to distribution system operator	<a href="#">DH-514-1</a>
DSO	Notification of production unit data to distribution system operator	<a href="#">DH-514-2</a>
DSO	Notification of MGA exchange aggregate data to distribution system operator	<a href="#">DH-514-3</a>

## DH-514-1 Notification of supplier's and MGA's aggregate data to DSO



Details of the notification of supplier's and MGA's aggregate data to DSO

Message DH-514-1 is of message type [E31](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		

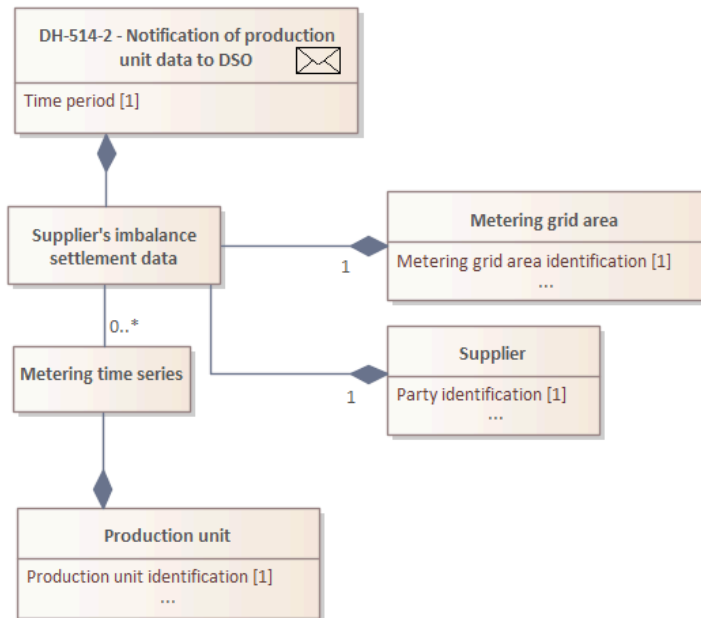
Time series identification	2	1.1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Total series type	2	1.1		
Product type	3	1.1	Active energy	
Unit	3	1.1		
Time series characteristics	2	1.1		
Type of time series	3	0..1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Imbalance settlement method	3	0..1	<ul style="list-style-type: none"> <li>• Profile imbalance settlement</li> <li>• Non-profiled imbalance settlement</li> </ul>	
Balance settlement type	3	1.1	BI01=Supplier consumption profiled BI02=Supplier consumption non-profiled BI03=Supplier PU own consumption profiled BI04=Supplier PU own consumption non-profiled BI05=Supplier small-scale production by production type BI06=Production Unit production BI07=MGA Losses BI08=MGA Negative losses BI09=MGA Imbalance (from eSett)	

			BI10=MGA Consumption profiled BI11=MGA Consumption non-profiled BI12=MGA PU own consumption profiled BI13=MGA PU own consumption non-profiled BI14=MGA Small-scale production by production type BI15=MGA Small-scale production total BI16=MGA Production unit by production type BI17=MGA Production unit total BI18=MGA Exchange sum BI19=MGA Exchange sum total BI20=MGA Exchange confirmation (from eSett) BI21=Supplier small-scale production total	
Production unit type	3	0.1		
Balance supplier	2	0.1		
Party identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		



Values	3	1..1		
<choice 1>				
Value	4	0..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Temporary</li> <li>• Estimated, approved for billing</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-514-2 Notification of production unit data to DSO



Details of the notification of production unit data to DSO

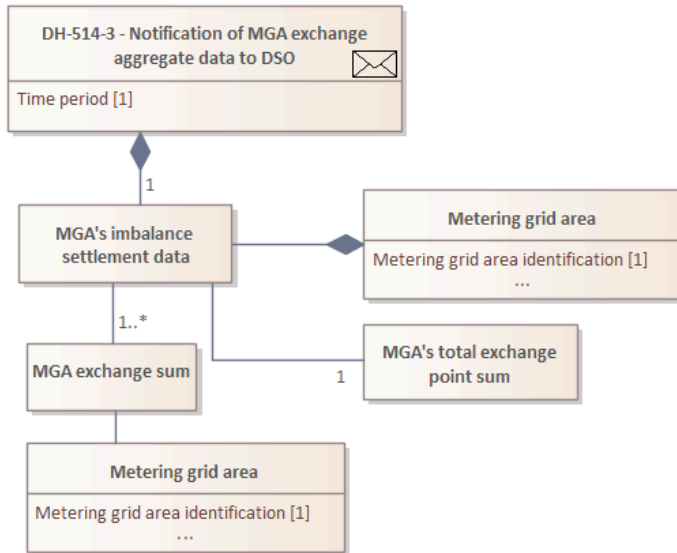
Message DH-514-2 is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Metering time series identification	2	1.1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Metering's type	2	1.1		

Metering time series type	3	1.1	Active energy	
Unit	3	1.1	kWh	
Metering characteristics	2	1.1		
Metering point type	3	1.1	Production	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	1.1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Temporary</li> <li>• Estimated, approved for billing</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

## DH-514-3 Notification of MGA exchange aggregate data to DSO



Details of the notification of MGA exchange aggregate data to DSO

Message DH-514-3 is of message type [E31](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Time series identification	2	1..1		
Reporting period	2	1..1		
Time step	3	1..1		
Start time	3	1..1		
End time	3	1..1		
Total series type	2	1..1		
Product type	3	1..1	Active energy	

Unit	3	1.1	kWh	
Time series characteristics	2	1..1		
Type of time series	3	0..1	Exchange point	
Balance settlement type	3	1..1	BI01=Supplier consumption profiled  BI02=Supplier consumption non-profiled  BI03=Supplier PU own consumption profiled  BI04=Supplier PU own consumption non-profiled  BI05=Supplier small-scale production by production type  BI06=Production Unit production  BI07=MGA Losses  BI08=MGA Negative losses  BI09=MGA Imbalance (from eSett)  BI10=MGA Consumption profiled  BI11=MGA Consumption non-profiled  BI12=MGA PU own consumption profiled  BI13=MGA PU own consumption non-profiled	

			BI14=MGA Small-scale production by production type  BI15=MGA Small-scale production total  BI16=MGA Production unit by production type  BI17=MGA Production unit total  BI18=MGA Exchange sum  BI19=MGA Exchange sum total  BI20=MGA Exchange confirmation (from eSett)  BI21=Supplier small-scale production total	
Area information	2	1.1		
Metering grid area identification	3	1.1		
Input area	2	0.1		
Input area identification	3	1.1		
Output area	2	0.1		
Output area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		

<choice 1>				
Value	4	0..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Temporary</li> <li>• Estimated, approved for billing</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-515 Notification of imbalance settlement data to supplier

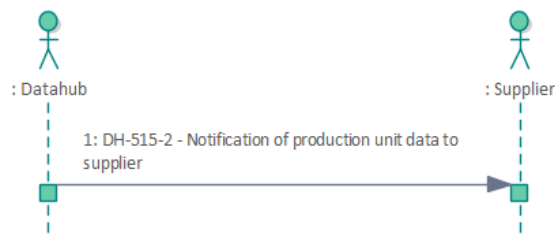
### Event description

#### Parties

#### Forwarding of information



Notification of aggregate data to supplier



Notification of production unit data to supplier

### Event description

Datahub has calculated the imbalance settlement data. Datahub notifies the supplier of the calculated:

- Aggregated imbalance settlement data per metering grid area
- Imbalance settlement data per metering grid area for production units.

**i** The time interval for the data is from the first closed day of the balance window to the previous day, e.g., 16/10–27/10 when the date in question is 28/10.

The imbalance settlement data is reported in messages of which each contains at most 10 000 imbalance settlement time series and each time series contains at most 10 000 time series values. Depending on the amount of data, there may be one or several messages to be sent.

### Parties

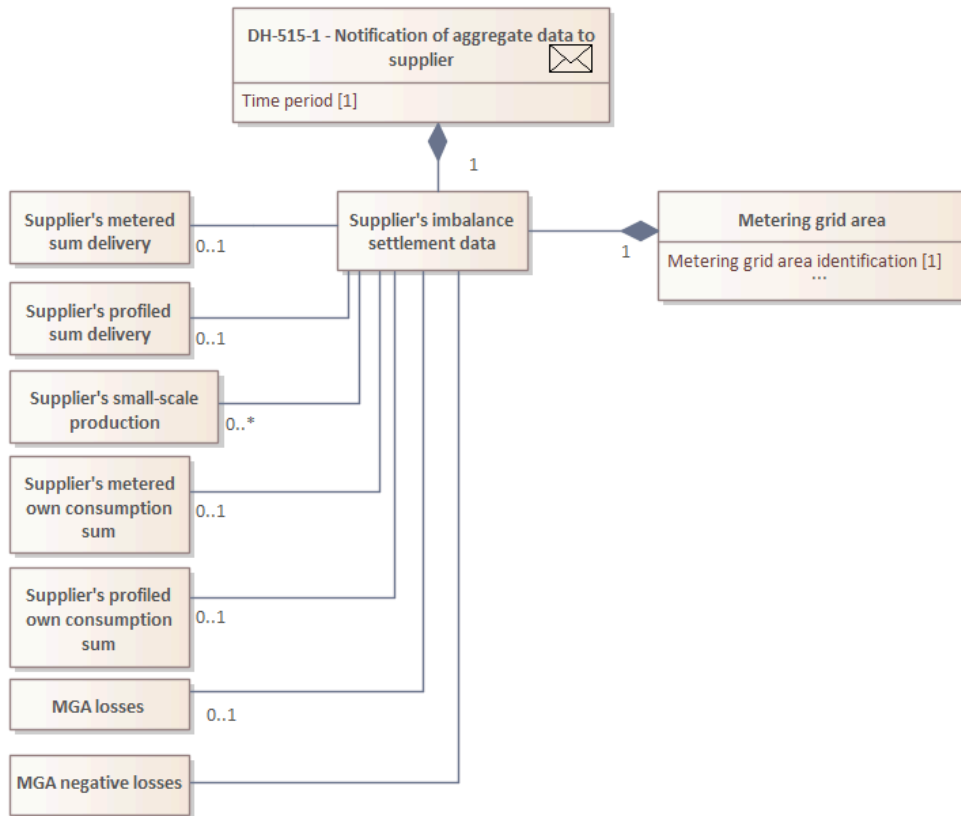
- Datahub
- Supplier



Forwarding of information

Party	Description	Message
Supplier	Notification of aggregated data to the supplier.	<a href="#">DH-515-1</a>
Supplier	Notification of production unit data to the supplier.	<a href="#">DH-515-2</a>

## DH-515-1 Notification of aggregate data to supplier



Details of the notification of aggregate data to supplier

Message DH-515-1 is of message type [E31](#).

Message payload includes the following information:

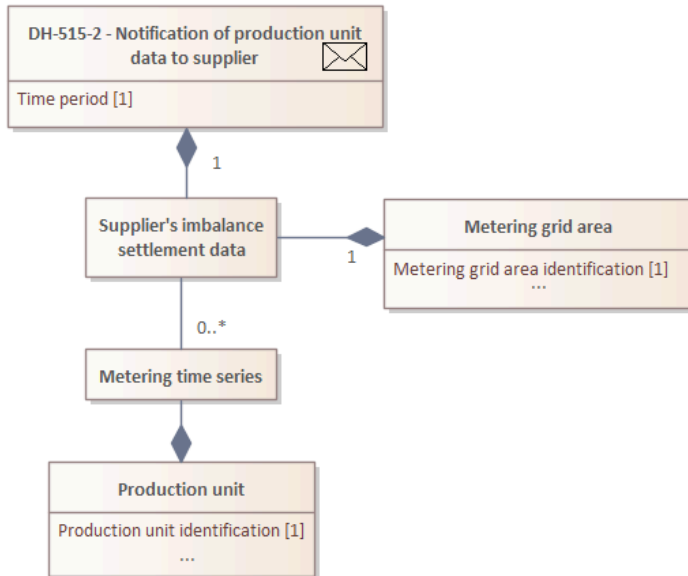
Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Time series identification	2	1.1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1		

Total series type	2	1.1		
Product type	3	1.1	Active energy	
Unit	3	1.1		
Time series characteristics	2	1.1		
Type of time series	3	1.1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Imbalance settlement method	3	1.1	<ul style="list-style-type: none"> <li>• Profile imbalance settlement</li> <li>• Hourly imbalance settlement</li> </ul>	
Balance settlement type	3	1.1	BI01=Supplier consumption profiled BI02=Supplier consumption non-profiled BI03=Supplier PU own consumption profiled BI04=Supplier PU own consumption non-profiled BI05=Supplier small-scale production by production type BI06=Production Unit production BI07=MGA Losses BI08=MGA Negative losses BI09=MGA Imbalance (from eSett) BI10=MGA Consumption profiled BI11=MGA Consumption non-profiled BI12=MGA PU own consumption profiled BI13=MGA PU own consumption non-profiled	

			BI14=MGA Small-scale production by production type  BI15=MGA Small-scale production total  BI16=MGA Production unit by production type  BI17=MGA Production unit total  BI18=MGA Exchange sum  BI19=MGA Exchange sum total  BI20=MGA Exchange confirmation (from eSett)  BI21=Supplier small-scale production total	
Production unit type	3	0..1		
Supplier	2	0..1		
Party identification	3	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Time series values	2	1..n		
Position	3	1..1		
Values	3	1..1		
<choice 1>				
Value	4	0..1		
Status	4	0..1	<ul style="list-style-type: none"> <li>• Temporary</li> <li>• Estimated, approved for billing</li> </ul>	
</choice 1>				

<choice 2>				
Value missing	4	1..1		
</choice 2>				

## DH-515-2 Notification of production unit data to supplier



Details of the notification of production unit data to supplier

Message DH-515-2 is of message type [E31](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Time series identification	2	1.1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Metering type	2	1.1		

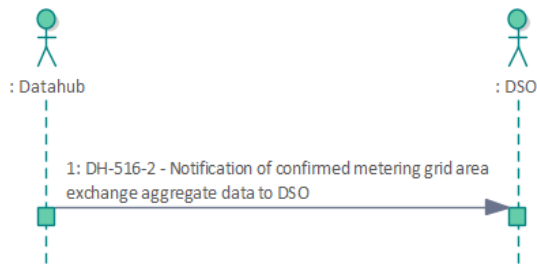
Metering time series type	3	1.1	Active energy	
Unit	3	1.1	kWh	
Metering characteristics	2	1.1		
Metering point type	3	1.1	Production	
Metering point	2	0.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	0.1		
Status	4	0.1	<ul style="list-style-type: none"> <li>• Temporary</li> <li>• Estimated, approved for billing</li> </ul>	
</choice 1>				
<choice 2>				
Value missing	4	1.1		
</choice 2>				

# DH-516 Notification of confirmed metering grid area exchange aggregate data to DSO

Event description

Parties

Forwarding of information



Notification of confirmed metering grid area exchange aggregate data to DSO

## Event description

Datahub has received the confirmed exchange point aggregate data calculated by eSett. Datahub forwards the confirmed exchange point aggregate data (imbalance settlement data per exchange point) calculated by eSett to the DSO.

**i** The time interval for the data is from the first closed day of the balance window to the previous day, e.g., 16/10–27/10 when the date in question is 28/10.

The imbalance settlement data is reported in messages where each contains at most 10 000 imbalance settlement time series and each time series contains at most 10 000 time series values. Depending on the amount of data, there may be one or several messages to be sent.

## Parties

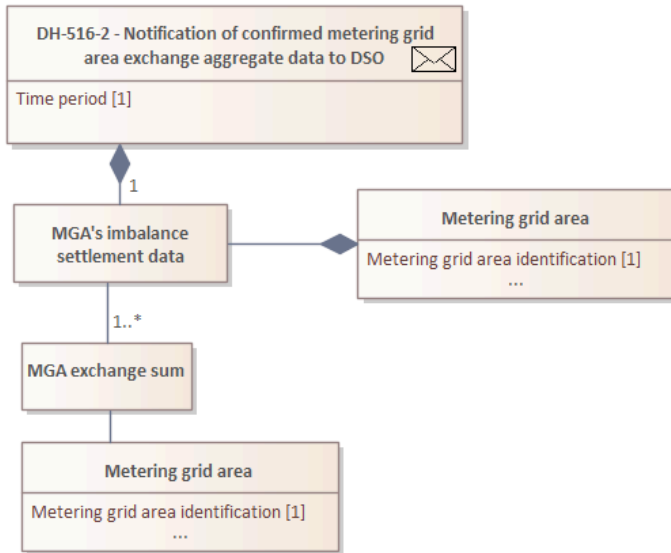
- Datahub
- DSO

## Forwarding of information

Party	Description	Message
DSO	Notification of confirmed exchange point aggregate data to to distribution system operator	<a href="#">DH-516-2</a>



## DH-516-2 Notification of confirmed metering grid area exchange aggregate data to DSO



Notification of confirmed metering grid area exchange aggregate data to DSO

Message DH-516-2 is of message type [E44](#).

Message payload includes the following information:

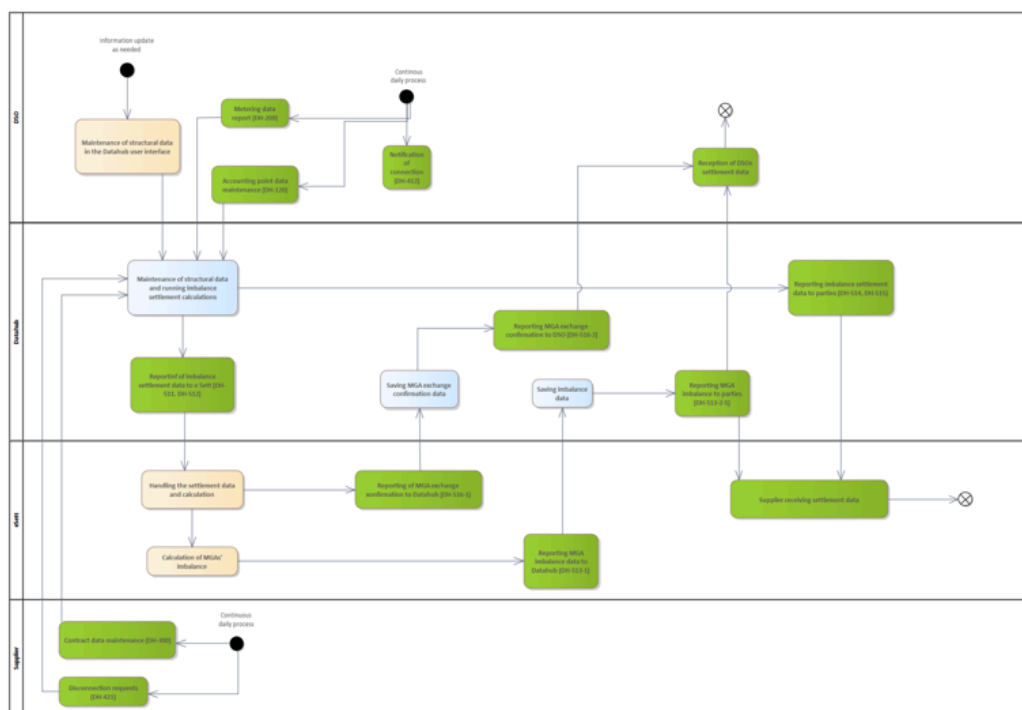
Information field	Level	Necessity	Note
Payload	1	1..n	
Time series identification	2	1..1	
Reporting period	2	1..1	
Time step	3	1..1	
Start time	3	1..1	
End time	3	1..1	
Total series type	2	1..1	
Product type	3	1..1	Active energy
Unit	3	1..1	kWh

Time series characteristics	2	1..1	
Type of time series	3	1..1	Exchange point
Area information	2	1..1	
Metering grid area identification	3	1..1	
Input area	2	0..1	
Input area identification	3	1..1	
Output area	2	0..1	
Output area identification	3	1..1	
Time series values	2	1..n	
Position	3	1..1	
Values	3	1..1	
Value	4	1..1	
Delta quality	4	1..1	

## DH-520 Imbalance settlement data request

- [DH-520 Process maps](#)
- [DH-520 Examples](#)
- [DH-521 Imbalance settlement data request – supplier](#)
- [DH-522 Imbalance settlement data request – DSO](#)
- [DH-523 Request for consumption and production recorded as losses](#)

## DH-520 Process maps



## The imbalance settlement process in Datahub

## DH-520 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-521 Imbalance settlement data request – supplier

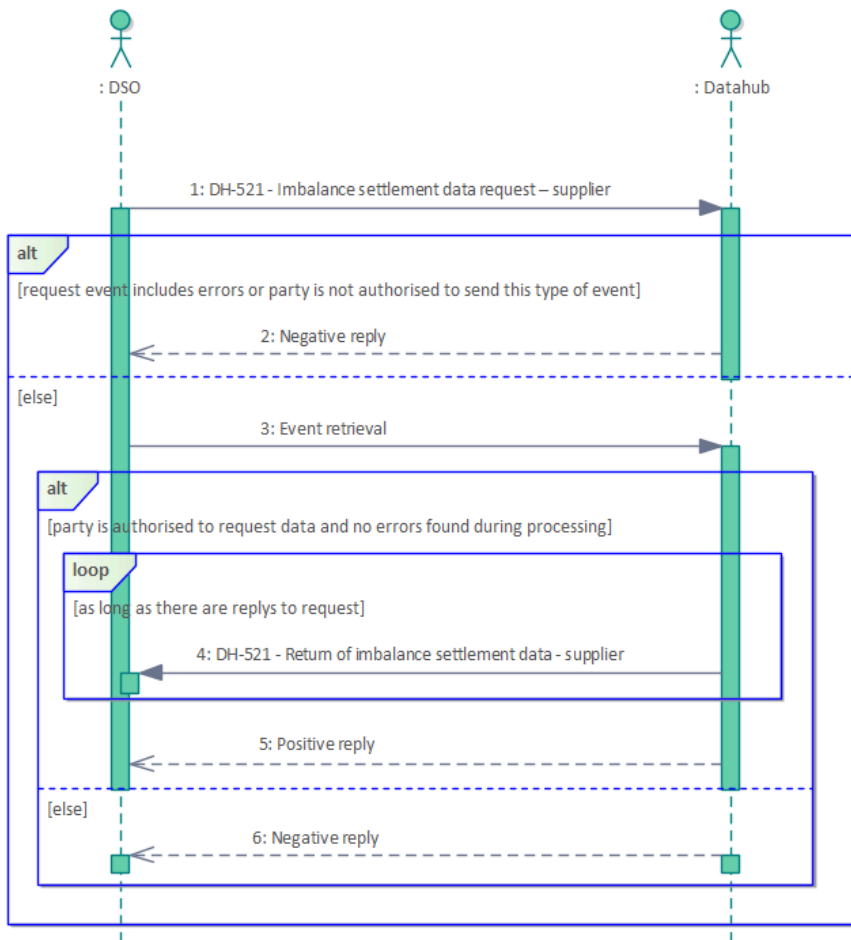
Event description

Parties

Event processing in Datahub

Return of information

Validation rules



Imbalance settlement data request – supplier

### Event description

A supplier requests imbalance settlement data from Datahub. The supplier requires balance settlement data from Datahub for its operations.

### Parties

- Supplier
- Datahub

## Event processing in Datahub


The retrieval of imbalance settlement data is asynchronous due to the large volume of data. Datahub prioritizes synchronous requests over imbalance settlement data retrieval, which is therefore processed in the background. The processing time depends on the amount of data requested.

## Return of information

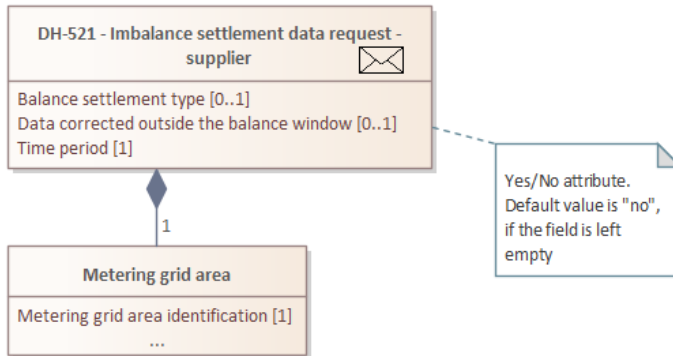
Party	Description	Message
Supplier	<p>Supplier's imbalance settlement data for the metering grid area.</p> <p>The results are returned in messages where each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.</p> <p>An error message is returned if no aggregated series matching the search criteria are found.</p>	<a href="#">DH-521</a>

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The supplier has imbalance settlement data for the requested metering grid area and time period.		
The requested time period is not in the future.		
 Please observe that the list is not complete.		

## DH-521 Imbalance settlement data request (supplier)



Details of imbalance settlement data request

Message DH-521 is of message type [F10](#).

Message payload includes the following information:

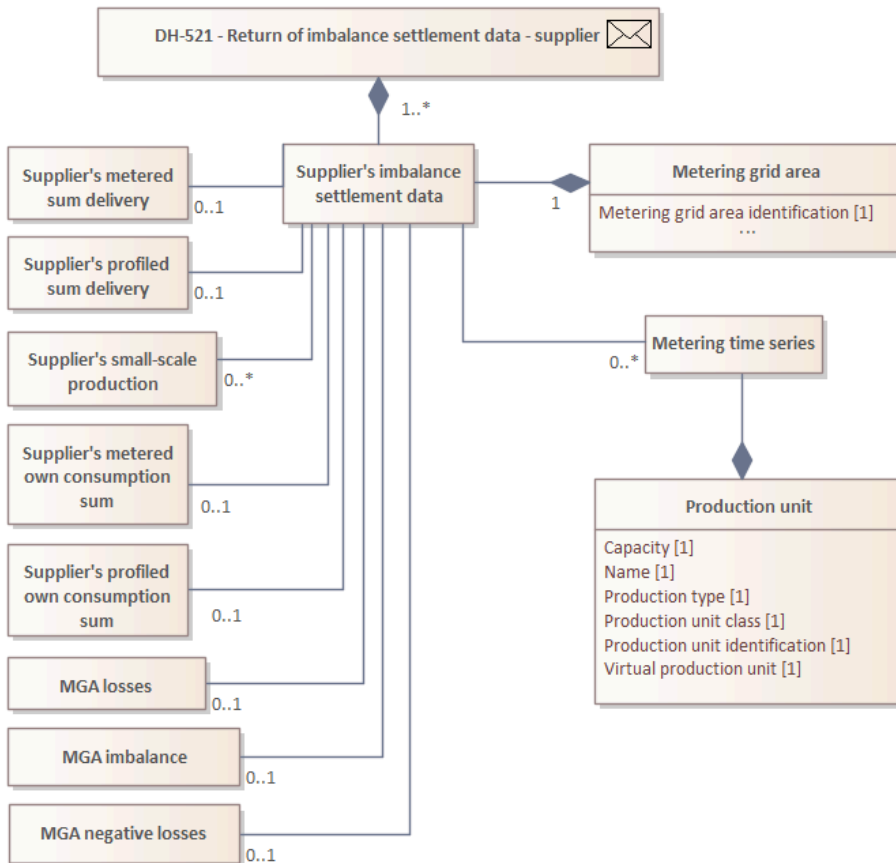
Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Metering grid area identification	2	1..1		
Balance settlement type	2	0..1	BI01=Supplier consumption profiled BI02=Supplier consumption non-profiled BI03=Supplier PU own consumption profiled BI04=Supplier PU own consumption non-profiled BI05=Supplier small-scale production by production type BI06=Production Unit production BI07=MGA Losses	If the balance settlement type is left empty, all imbalance settlement data for the requested time period will be returned.



			BI08=MGA Negative losses BI09=MGA Imbalance (from eSett) BI10=MGA Consumption profiled BI11=MGA Consumption non-profiled BI12=MGA PU own consumption profiled BI13=MGA PU own consumption non-profiled BI14=MGA Small-scale production by production type BI15=MGA Small-scale production total BI16=MGA Production unit by production type BI17=MGA Production unit total BI18=MGA Exchange sum BI19=MGA Exchange sum total BI20=MGA Exchange confirmation (from eSett) BI21=Supplier small-scale production total	
Data corrected outside the balance window	2	0.1		
Request period	2	1.1		
Start time	3	1.1		
End time	3	1.1		



## DH-521 Return of imbalance settlement data (supplier)



Details of the return of imbalance settlement data

The response event contains the same data as [DH-513-4](#), [DH-513-5](#), [DH-515-1](#), and [DH-515-2](#). Imbalance settlement data is provided only for the time period the market party [is entitled to](#).

## DH-522 Imbalance settlement data request – DSO

Event description

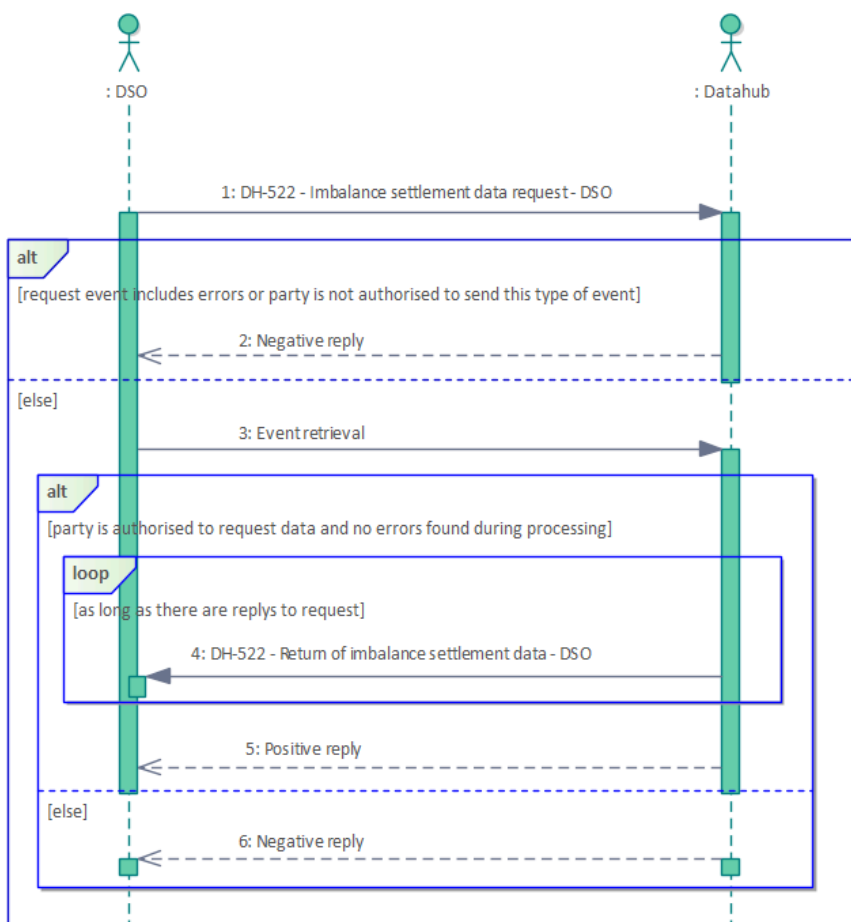
Parties

Time limits

Event processing in Datahub

Return of information

Validation rules



Imbalance settlement data request – DSO

### Event description

A DSO requests imbalance settlement data from Datahub. The DSO requires imbalance settlement data from Datahub for its operations, for example, to check results.

### Parties

- Datahub
- DSO

## Time limits

The requested time period must not be in the future.

## Event processing in Datahub


The retrieval of imbalance settlement data is asynchronous due to the large volume of data. Datahub prioritizes synchronous requests over imbalance settlement data retrieval, which is therefore processed in the background. The processing time depends on the amount of data requested.

## Return of information

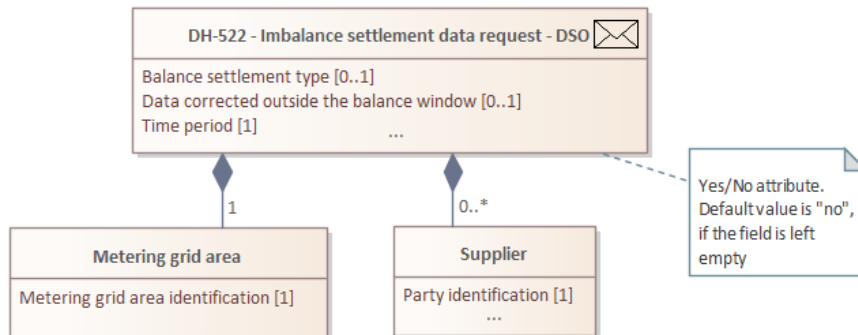
Party	Description	Message
DSO	DSO's imbalance settlement data for the metering grid area.  The results are returned in messages where each contains at most 10 000 time series and each time series contains at most 10 000 time series values. Depending on the amount of requested data, there may be one or several messages to be returned.	<a href="#">DH-522</a>

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The metering grid area belongs to the DSO.		
The requested time period is not in the future.		
 Please observe that the list is not complete.		

## DH-522 Imbalance settlement data request (DSO)



Details of imbalance settlement data request

Message DH-522 is of message type [F10](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Metering grid area identification	2	0..1		
Supplier identification	2	0..1		If no supplier ID is given, the total sum of the metering grid area is returned.
Balance settlement type	2	0..1	BI01=Supplier consumption profiled BI02=Supplier consumption non-profiled BI03=Supplier PU own consumption profiled BI04=Supplier PU own consumption non-profiled	If the balance settlement type is left empty, all imbalance settlement data for the requested time period will be returned.

BI05=Supplier small-scale  
production by production  
type

BI06=Production Unit  
production

BI07=MGA Losses

BI08=MGA Negative losses

BI09=MGA Imbalance (from  
eSett)

BI10=MGA Consumption  
profiled

BI11=MGA Consumption  
non-profiled

BI12=MGA PU own  
consumption profiled

BI13=MGA PU own  
consumption non-profiled

BI14=MGA Small-scale  
production by production  
type

BI15=MGA Small-scale  
production total

BI16=MGA Production unit  
by production type

BI17=MGA Production unit  
total

BI18=MGA Exchange sum

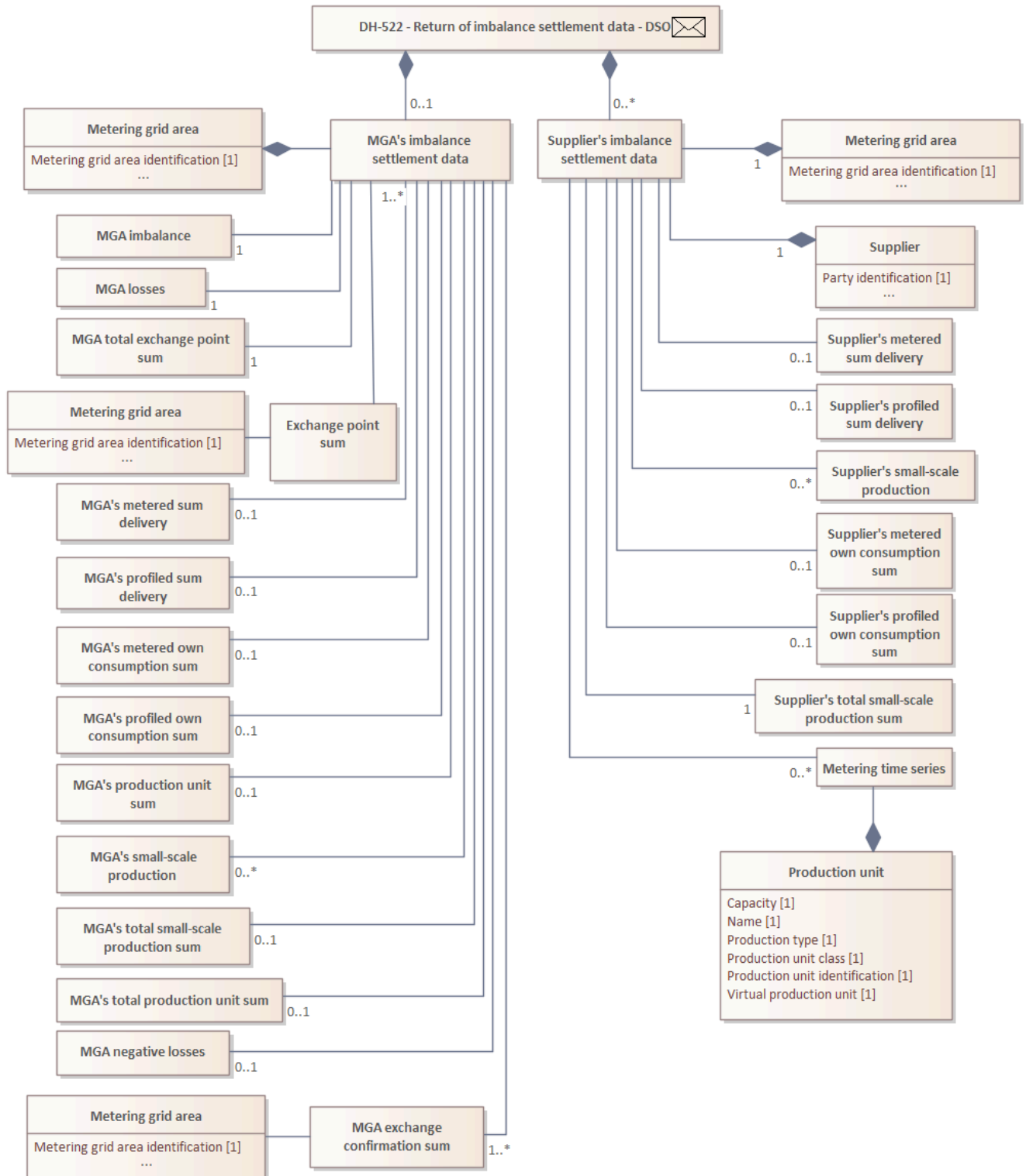
BI19=MGA Exchange sum  
total

BI20=MGA Exchange  
confirmation (from eSett)

			BI21=Supplier small-scale production total	
Data corrected outside the balance window	2	0..1		
Request period	2	1..1		
Start time	3	1..1		
End time	3	1..1		



## DH-522 Return of imbalance settlement data (DSO)



Details of the return of imbalance settlement data

The response event contains the same data as [DH-513-2](#), [DH-513-3](#), [DH-514-1](#), [DH-514-2](#), [DH-514-3](#), and [DH-516-2](#). Imbalance settlement data is provided only for the time period the market

party [is entitled to](#).

## DH-523 Request for consumption and production recorded as losses

Event description

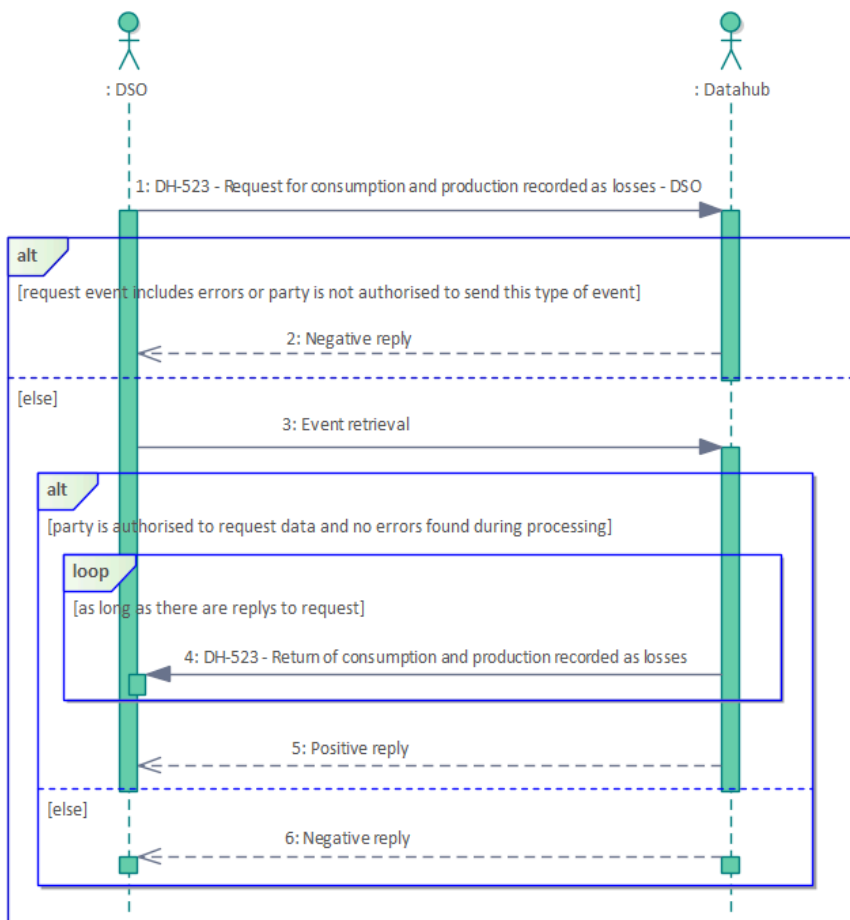
Parties

Time limits

Event processing in Datahub

Return of information

Validation rules



Request for consumption and production recorded as losses

### Event description

A DSO requests data from Datahub concerning accounting points' consumption and production recorded as losses.

### Parties

- DSO
- Datahub

## Time limits

- The query time period must be a maximum of 7 days when requesting all metering points.
- The query time period must not be in the future or more than 6 years in the past.

## Event processing in Datahub


The retrieval of imbalance settlement data is asynchronous due to the large volume of data. Datahub prioritizes synchronous requests over imbalance settlement data retrieval, which is therefore processed in the background. The processing time depends on the amount of data requested.

## Return of information

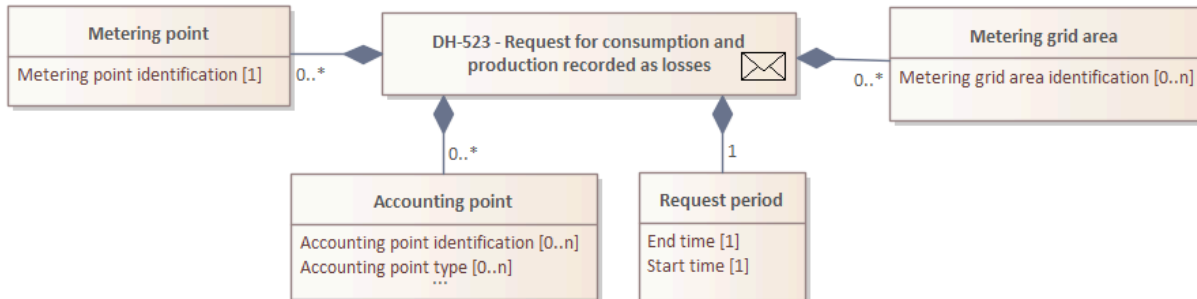
Party	Description	Message
DSO	<p>Metering data and the start and end time of the period without a supplier for all accounting points that are completely or partially without a supplier for the interval given in the request.</p> <p>The results of the request are returned in messages where each contains at most 10 000 metering time series and each metering contains at most 10 000 metering values. Depending on the amount of requested data, there may be one or several messages to be returned.</p>	<a href="#">DH-523</a>

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The metering grid area belongs to the DSO.		
The requested time period is not in the future.		
When all metering points are part of the query, the query period is at most 7 days.		
The query period is not in the future or more than 6 years in the past.		
 Please observe that the list is not complete.		

## DH-523 Request for consumption and production recorded as losses (DSO)



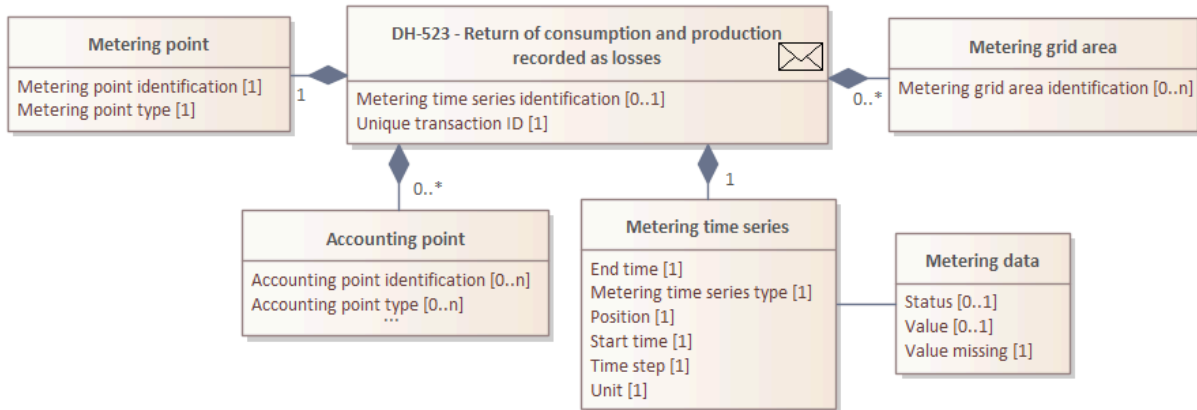
Details of the request for consumption and production recorded as losses

Message DH-523 is of message type [F08](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Request period	2	1.1		
Start time	3	1.1		
End time	3	1.1		
Metering point	2	1.1		
Accounting point type	3	0..n	If no type is given, data for both consumption and production accounting points is returned.	
Metering point identification	3	0..n		
Metering grid area identification	3	0..n		

## DH-523 Return of consumption and production recorded as losses (DSO)



Details of the return of consumption and production recorded as losses

Message DH-523 is of message type [E66](#).

Message payload includes the following information:

Information field	Level	Neces sity	Field content	Note
Payload	1	1..n		
Unique transaction ID	2	1.1		
Metering time series identification	2	0..1		
Reporting period	2	1.1		
Time step	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Metering type	2	1.1		
Metering time series type	3	1.1	<ul style="list-style-type: none"> <li>Consumption</li> <li>Production</li> </ul>	
Unit	3	1.1		

Metering characteristics	2	1.1		
Metering point type	3	1.1	Accounting point	
Metering point	2	1.1		
Metering point identification	3	1.1		
Area information	2	1.1		
Metering grid area identification	3	1.1		
Time series values	2	1..n		
Position	3	1.1		
Values	3	1.1		
<choice 1>				
Value	4	0.1		Either value or value missing is used.
Status	4	0.1	<ul style="list-style-type: none"> <li>• Uncertain</li> <li>• Estimated</li> <li>• Corrected OK</li> </ul>	<p>Status is used if other than metered. (136=OK)</p> <p>‘Missing’ is not used, only expressed as <i>value missing</i> in the value missing field.</p>
</choice 1>				
<choice 2>				
Value missing	4	1.1		Either value or value missing is used.
</choice 2>				

## DH-600 Management of balance deviation

[Balance deviation calculation and handling process](#)

[Balance deviation caused by metering data corrections](#)

[Balance deviation of metering grid area losses](#)

[Balance deviation in energy netting and energy communities](#)

[Performance of balance deviation calculations](#)

[Balance deviation events](#)

Management of balance deviation in Datahub is based on Finnish Energy's instructions

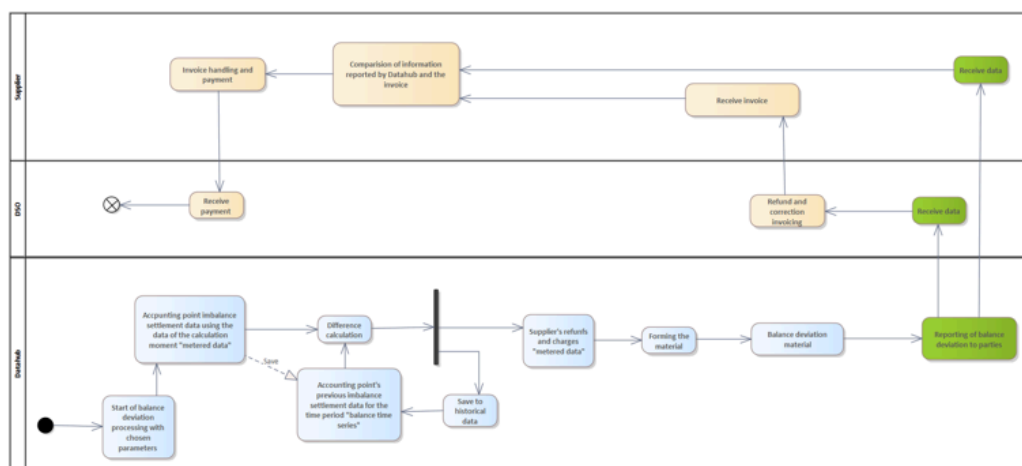
“[Taseisiin jääneiden virheiden käsittely taseiden sulkeutumisen jälkeen](#)” (Handling of balance deviation after balance window closure). Balance deviation is caused by processes that alter the supplier's balance information or an accounting point's metering data outside of the balance window. These processes are:

- [DH-211 Metering data report](#) / correcting metering errors outside the balance window (for reading-based metering points – accounting points where the metering method is another than 'continuous metering' – metering data is always reported retroactively, which causes imbalance errors).
- DH-300 Agreement processes: the [retroactive agreement processes](#), which alter the validities of agreements outside the balance window (retroactive starts, terminations and cancellations of agreements).
- Manual balance information corrections performed by the Datahub operator at the parties' request.

Updating reading metered sites' metering data from data based on estimated yearly consumption to reading metered data, and the need for corrections caused by this, will be handled in the same balance deviation handling process as all other balance corrections.



## Balance deviation calculation and handling process



Process diagram for correction of balance deviation

The balance deviation correction process in Datahub is depicted in the figure above. First, Datahub defines supplier's settlement data per accounting point, using the data of the time of calculation. In this case, settlement data includes the metered consumption of the accounting point from the time period during which the supplier has the balance responsibility. The calculation is executed only for accounting points, which, outside the balance window, have new metering data or balance information changes for the calculation period that have not been taken into account in the previous calculation runs.

The accounting point specific time series, which is compiled from the settlement data of the time of calculation, is called "metered data". After this, the calculation result is compared to the accounting point specific settlement data time series, which is based on the locked data reported to imbalance settlement or on previously corrected data. More specifically, the metered data is compared to the corrected data for the time interval that has been processed in the previous calculation. For the time interval that has not yet been processed in the previous calculation, the metered data is compared to the data that was valid at the time of balance window closure. Possible differences in the comparison are recorded as balance deviations and the supplier's correction in euros is created by multiplying the difference with the NordPool Spot Finnish area price. After this, the settlement data of the time of calculation, i.e., the metered data which was defined at the beginning, is stored as the settlement data time series, with which the next calculation result is compared. Metering data is always handled as positive values in Datahub and the balance deviation calculation will take signs into account depending on whether the accounting point in question is a production or consumption accounting point.

After the calculations have been executed and the Datahub operator has approved the calculation results, Datahub creates metering grid area specific correction billing materials for all suppliers and dispatches these to the DSOs and suppliers according to their rights to data. The

materials include, for each accounting point, the metered data, settlement data time series values, balance deviations and metering grid area and supplier specific compilations of balance deviations. DSOs use the material for supplier-specific compensation or correction billing for their own metering grid area. Suppliers can use the material for checking the DSO's balance deviation billing.

### **Balance deviation caused by metering data corrections**

Regarding metering data, balance deviation is corrected only for suppliers responsible for correcting the customer's sales agreement billing according to section [Correction of metering data](#). Balance deviation for metering error is corrected for a supplier which holds a valid agreement at the time of balance deviation calculation and at the moment affected by the metering error. In other words, metering errors are not corrected for suppliers which in the imbalance settlement due to their own mistake have been responsible for the consumption of an accounting point without any actual right (agreement) to charge the customer for the electricity consumed. The DSO must always report corrected metering data for the whole time period affected, not only for the time period for which the supplier corrects the customer's billing. In this way Datahub always has correct and up-to-date information for customers and third parties.

### **Balance deviation of metering grid area losses**

In addition to accounting points, balance deviation occurs in metering grid area losses. Balance deviations of losses are recorded to the metering grid area's loss supplier's balance. Losses are affected both by metering data corrections outside the balance window and by balance information corrections where an accounting point is left without a supplier or a supplier is added to an accounting point without a supplier. The balance deviation time series for losses in metering grid areas is created by adding all balance deviation of the metering grid area's accounting points, considering the signs. Settlement data time series for losses is compiled, as for an accounting point, using values locked for imbalance settlement or values updated according to metered data during the previous balance deviation calculation. In balance deviation calculation, the "metered data" of metering grid area losses is calculated conversely by adding balance deviations of the losses and settlement data time series. Finally, the calculated metered data is stored in the settlement data time series for the next calculation. Balance deviation information from accounting points that have caused the balance deviation of losses is not separately reported to the metering grid area's loss supplier. The loss supplier is only informed about the total deviation of the losses. Balance deviations of losses are not reported to a supplier whose supply in the metering grid area has ended.

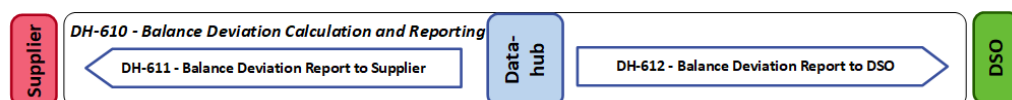
## Balance deviation in energy netting and energy communities

Netting and energy community calculations are performed immediately when metering data is reported for a netted accounting point or for an accounting point belonging to an energy community. This also applies when metering data is reported for dates outside the balance window. In the balance deviation calculations, the possible changes in netted or energy community values are compared to the values closed in the balance settlement or in the previous balance deviation calculations. The surplus method of the energy community (SMA or SMB) has no effect on the handling of balance deviation. Balance deviation is caused if there are changes in the netted or energy community values after balance window closure.

## Performance of balance deviation calculations

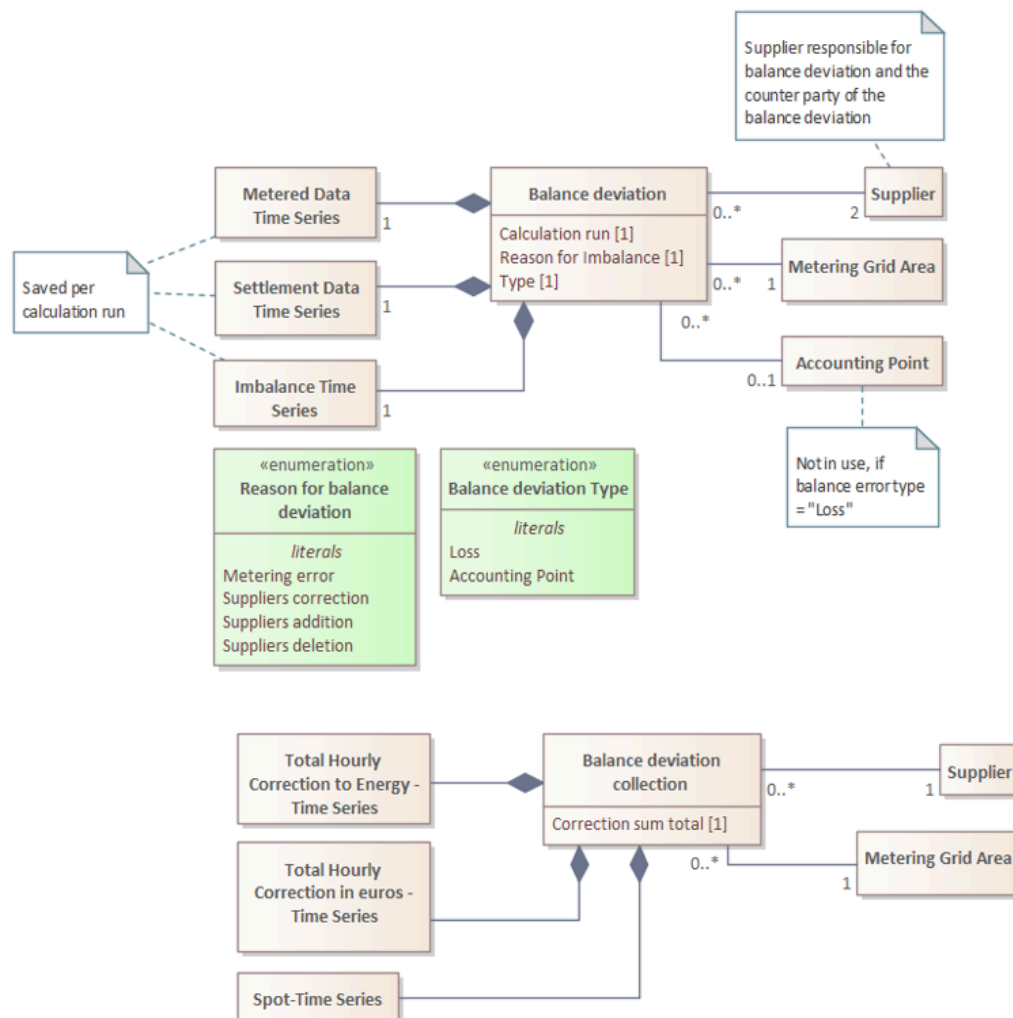
Balance deviation calculations are only performed as separate runs started by the Datahub operator. There are no automated/preset balance deviation calculations. Balance deviations are corrected retroactively for a period of three years on an accounting point-specific basis twice a year in accordance with the Finnish Energy instructions. Calculation of balance deviations can also be initiated at the specific request of an operator if the balance deviation is large and the operator wants to handle it quickly. Balance deviations can be calculated also for individual metering grid area or accounting point if needed. All balance settlement and balance deviation data, which have been the basis for correction invoicing, will be saved according to their time of calculation as history data for reviews. Thus, there's always information in Datahub about what has been originally reported to imbalance settlement how this data has been corrected in each of the following balance deviation calculation runs.

## Balance deviation events



## Balance deviation data

The class diagram below presents the balance deviation data stored by Datahub.



Information on balance deviations and aggregated data by metering grid and supplier areas

It is important to note that in the calculation of balance deviation, each individual balance deviation always involves two suppliers. For both suppliers, the balance deviation is always equally large but opposite in sign (positive for one supplier and negative for the other). Therefore, the total energy and monetary value of all balance deviations always sums to zero for each calculation run.

The reason for each balance deviation is determined based on the event that caused it:

- Correction of metering data: A correction to metering data reported by the DSO.
- Correction of supplier information (balance information correction):
  - The balance responsibility of an accounting point has been transferred from one supplier to another.

- A supplier has been added to an accounting point previously without a supplier.
- An accounting point is left without a supplier.

In cases of metering data correction, supplier addition or supplier removal, the counterpart for the balance deviation is the loss supplier for the metering grid area.

## DH-610 Notification of balance deviation data

- [DH-610 Process maps](#)
- [DH-610 Examples](#)
- [DH-611 Notification of balance deviation data to supplier](#)
- [DH-612 Notification of balance deviation data to DSO](#)

DH-610 Process maps

No content yet.

## DH-610 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!



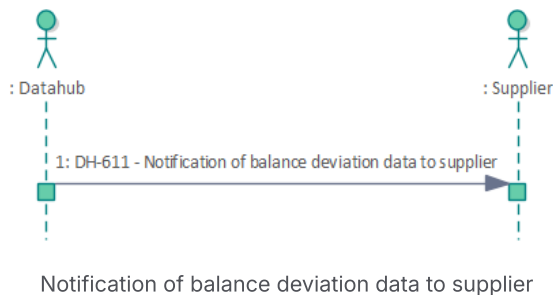
## DH-611 Notification of balance deviation data to supplier

Event description

Parties

Forwarding of information

Significant errors and consequences



### Event description

Datahub has performed the balance deviation calculation and approved the results for one or more of the the supplier's accounting points. It then sends these results to the supplier for review.

- i** The loss supplier of a metering grid area is not separately provided with the balance deviation data for accounting points whose balance deviation has caused balance deviation of losses. The loss supplier only receives information on the total balance deviation of losses.

### Parties

- Datahub
- Supplier

### Forwarding of information

Party	Description	Message
Supplier	Accounting-point-specific balance deviation data, categorized by metering grid area and supplier.	<a href="#">DH-611</a>

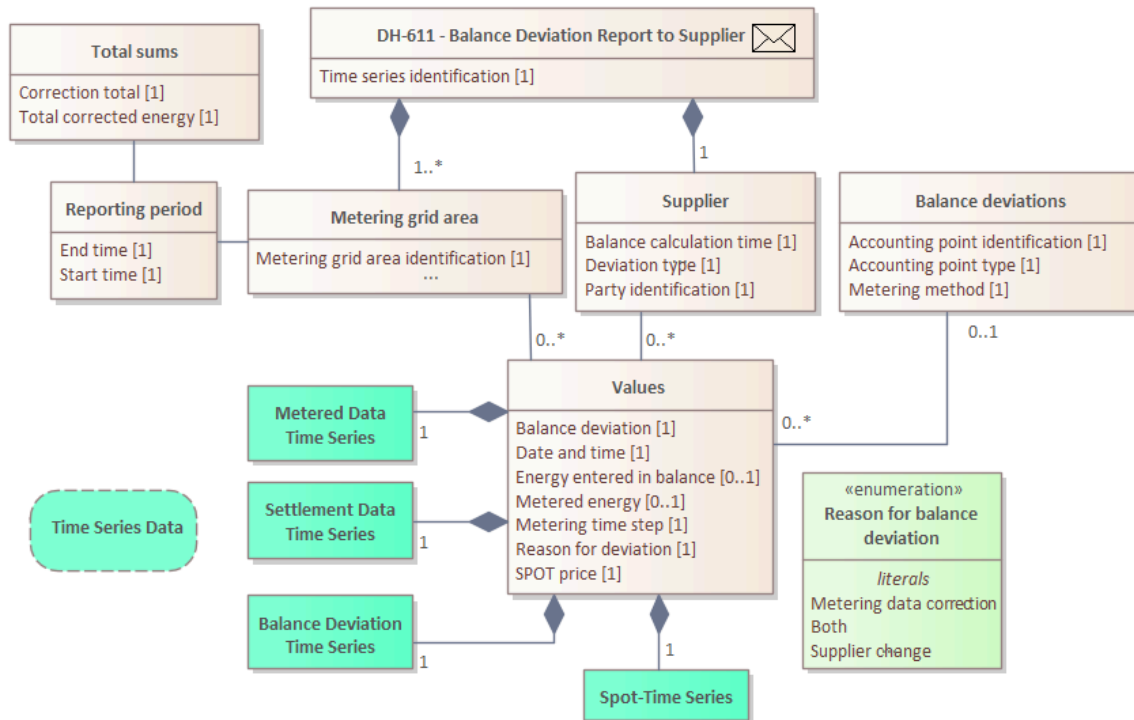
### Significant errors and consequences

Error	Consequence
-------	-------------

The balance deviation calculation is performed incorrectly and the reported data is incorrect.

The DSO invoices suppliers on incorrect grounds.

## DH-611 Notification of balance deviation data (to supplier)



Details of the notification of balance deviation data

Message DH-611 is of message type [F19](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Time series identification	2	1.1		
Area Information	2	1.1		
Metering grid area identification	3	1.1		
Supplier	2	1.1	See the <a href="#">general description for the message type</a>	

Party identification	3	1..1		
Balance calculation time	2	1..1		
Deviation type	2	1..1		
Reporting period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Total sums	2	0..n		
Correction total	3	1..1	EUR	
Total corrected energy	3	1..1		
Balance deviations	2	0..n		
Accounting point identification	3	0..1	Only used for accounting-point-specific series	
Accounting point type	3	1..1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Metering Method	3	0..1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Values	3	1..n		
Date and time	4	1..1		
Energy entered in balance	4	0..1	kWh	Energy entered into the balance is reported for accounting points only if the supplier in question has balance responsibility registered for the hour and accounting point in question, either when the balance window closes or from a

				previous balance deviation calculation, and there is a metering value for the hour and accounting point in question.
Metered energy	4	0..1	kWh	Metered energy is reported for accounting points only if the supplier in question has balance responsibility according to the balance information for the accounting point and hour in question.
Balance deviation	4	1..1	kWh	The value is zero if metered energy and energy entered into the balance are not defined.
SPOT price	4	1..1	EUR/MWh	
Metering time step	4	1..1	<ul style="list-style-type: none"> <li>• PT1H</li> <li>• PT15M</li> </ul>	
Reason for deviation	4	0..1	<ul style="list-style-type: none"> <li>• Metered data correction</li> <li>• Supplier change</li> <li>• Both</li> </ul>	

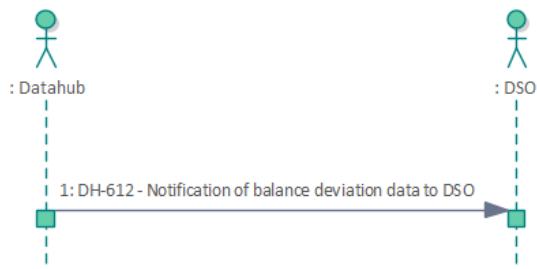
## DH-612 Notification of balance deviation data to DSO

### Event description

#### Parties

#### Forwarding of information

#### Significant errors and consequences



Notification of balance deviation data to DSO

### Event description

Datahub has performed the balance deviation calculation and approved the results for one or more of the DSO's accounting points. It then sends these results to the DSO.

#### Parties

- Datahub
- DSO

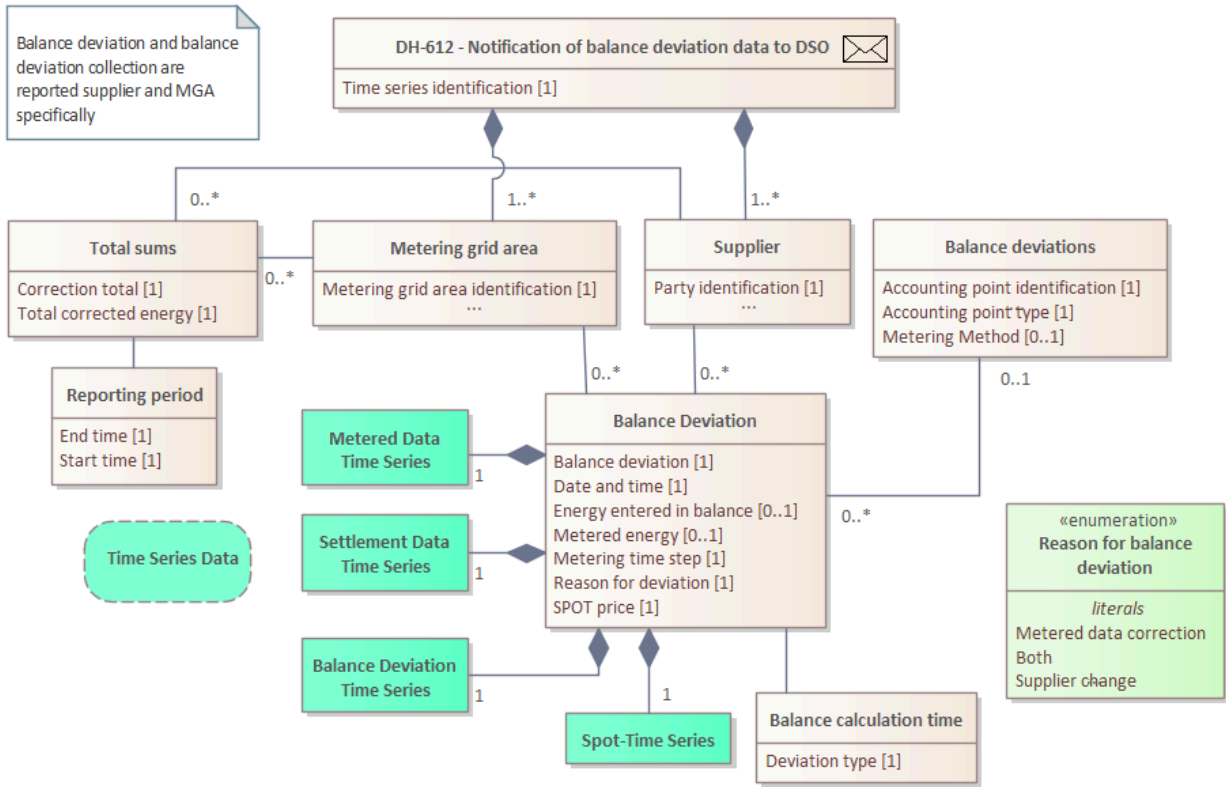
#### Forwarding of information

Party	Description	Message
DSO	Accounting-point-specific balance deviation data, categorized by metering grid area and supplier.	<a href="#">DH-612</a>

#### Significant errors and consequences

Error	Consequence
The balance deviation calculation is performed incorrectly and the reported data is incorrect.	The DSO invoices suppliers on incorrect grounds.

## DH-612 Notification of balance deviation data (to DSO)



### Details of the notification of balance deviation data

Message DH-612 is of message type [F19](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Time series identification	2	1..1		
Area information	2	1..1		
Metering grid area identification	3	1..1		
Supplier	2	1..1	See the <a href="#">general description for the message type</a>	

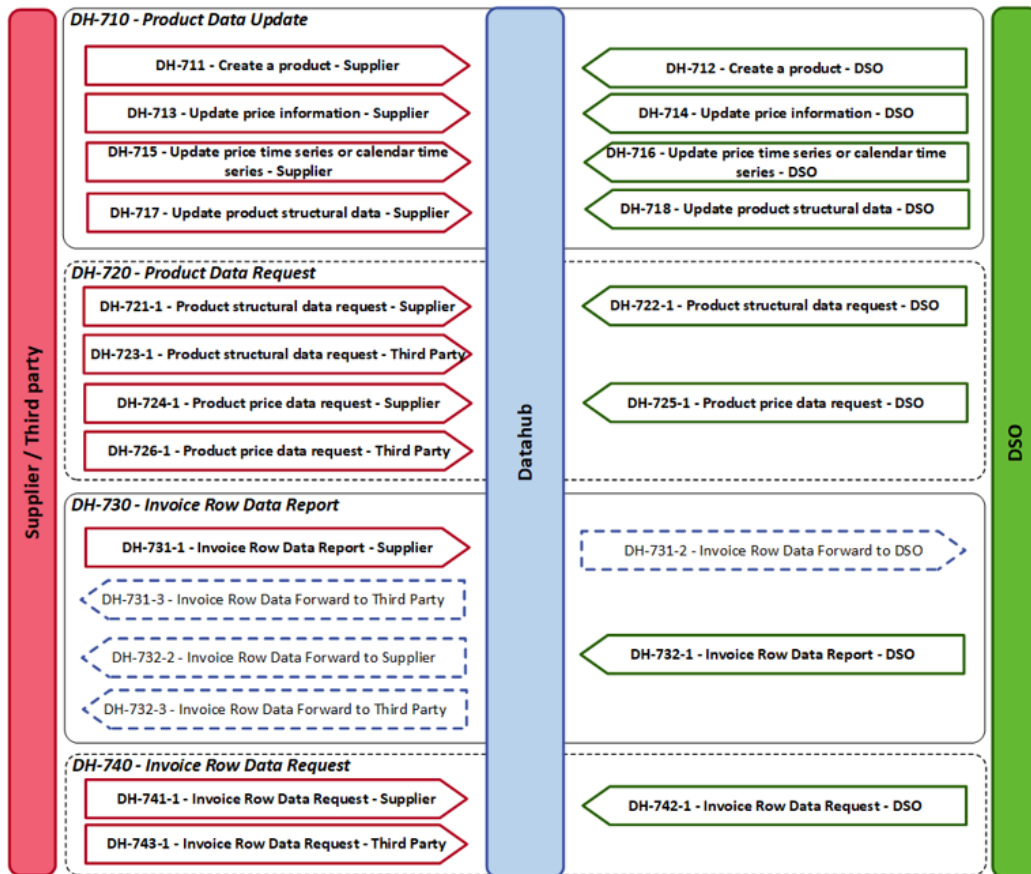
Party identification	2	1..1		
Balance calculation time	2	1..1		
Deviation type	3	1..1		
Reporting period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Total sums	2	0..n		
Correction total	3	1..1	EUR	
Total corrected energy	3	1..1		
Balance deviations	2	0..n		
Accounting point identification	3	0..1	Only used for accounting point-specific series	
Accounting point type	3	1..1	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Production</li> </ul>	
Metering Method	3	0..1	<ul style="list-style-type: none"> <li>• Continuous metering</li> <li>• Reading metering</li> <li>• Unmetered</li> </ul>	
Values	3	1..n		
Date and time	4	1..1		
Energy entered in balance	4	0..1	kWh	Energy entered into the balance is reported for accounting points only if the supplier in question has balance responsibility registered for the hour and accounting point in question,



				either when the balance window closes or from a previous balance deviation calculation, and there is a metering value for the hour and accounting point in question.
Metered energy	4	0.1	kWh	Metered energy is reported for accounting points only if the supplier in question has balance responsibility according to the balance information for the accounting point and hour in question.
Balance deviation	4	1.1	kWh	The value is zero if metered energy and energy entered into the balance are not defined.
SPOT price	4	1.1	EUR/MWh	
Metering time step	4	1.1	<ul style="list-style-type: none"> <li>• PT1H</li> <li>• PT15M</li> </ul>	
Reason for deviation	4	0.1	<ul style="list-style-type: none"> <li>• Metered data correction</li> <li>• Supplier change</li> <li>• Both</li> </ul>	

## DH-700 Product and invoice row information maintenance and retrieval

### Product and invoice row information events



## DH-710 Product information update

[Product information](#)

[Creating a product](#)

[Updating a product's structural data](#)

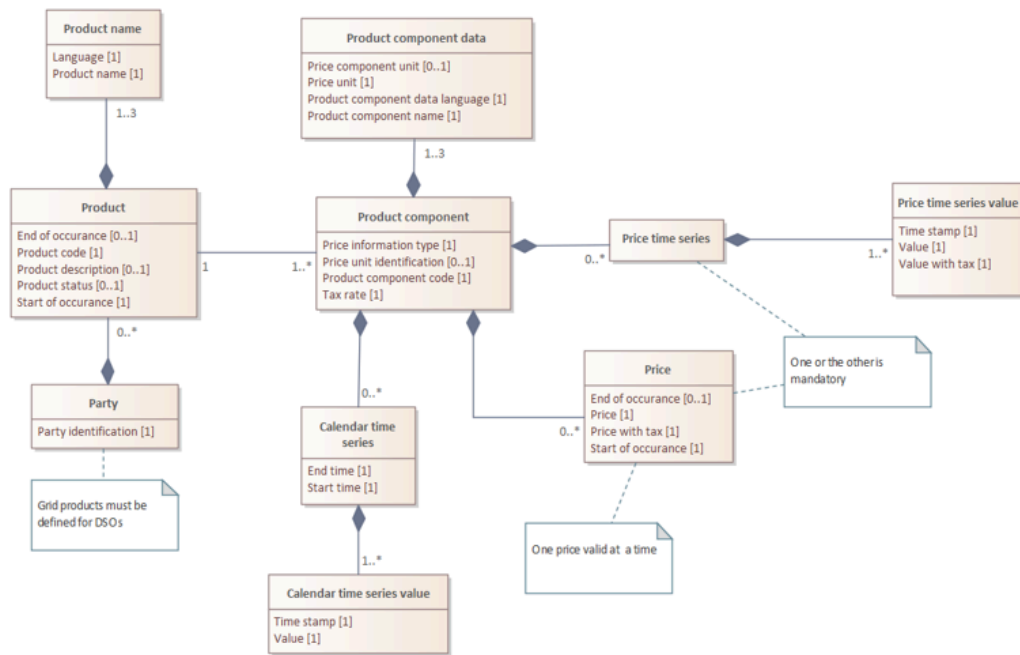
[Updating prices or price time series](#)

### **Product information**

Datahub enables the maintenance and transfer of product information. In order for suppliers to be able to make an electricity sales agreement using a product that corresponds to the accounting point's grid service product, the DSOs must maintain information on their own transmission products according to the structure below. Suppliers also need grid service product information for electricity delivery agreement billing.

Suppliers can maintain sales product information in accordance with their own needs and agreements signed with other market parties. The sales product is not forwarded to the DSO or third parties without a separate party authorization from the supplier.

Product and price information must be reported and it can be retrieved via an automated interface in accordance with DH-700 events. Only the product identification is needed when retrieving accounting point information and in agreement processes, in which case the above-mentioned interface must be used to determine the product structure. If necessary, several products can be reported for an agreement. Grid service product prices are public and thus must be reported to Datahub in order to be available to all parties. Sales product prices in Datahub are available only to parties authorized by the supplier. A customer cannot provide a third party with an authorization for price information.



In the structure above, the product can be, for example, ‘Timed transmission’, which has two product components: ‘Day transmission’ and ‘Night transmission’. A calendar time series is a time series in which the time step value can be 0 or 1. When the value is 1, the product component in question is applied for the time step in question. A calendar time series must be compiled separately for each year, because a calendar can vary according to public holidays falling on weekdays and occurring differently each year. The calendar time series must also take changes between daylight savings and standard time into consideration, as well as the extra day in leap years. The calendar time series must be reported by the end of September at the latest. A price time series indicates the price for each time step.

## Creating a product

When reporting a new product to Datahub, the reporting party sends in all required information on the product structure. After the product is reported, the structure of the product cannot be changed. The structural data is reported with one message and in this message the market party reports what kind of price information the product has and whether it is a price or price time series. The reported product, that has the price information type BG01=Price, will be completed once the party has submitted the price information for the product with a separate price notification message. The product cannot be used until the price information is provided, and no retroactive price notifications to products are allowed. If a product price is time series based, then the price time series can be reported retroactively and the product can be used even though the price information is not submitted immediately after the product is created. A price time series can be reported for a maximum of one year retroactively.

A product can also include a calendar time series. It defines the moments in time when a certain product component (such as day-rate or night-rate electricity) is in effect. Calendar time series are reported with the same message used for the price time series.

Datahub products are created by combining different product components to form a complete product. Each product has its own instance of a product component, even if the same component is used in another product. This allows the reporting market party to use different prices for the component by products.

The Datahub data model supports storing product names and product component names in three different languages: Finnish, Swedish and English. The product code must be unique, as well as the combination of product code and product component code. If a product is cancelled, the product code cannot be used again.

### **Updating a product's structural data**

The market parties can update their own valid products. The structural data of a product consists of the product and product component data. Product structural data that can be updated by a market party consists of product name, product component name and tax rate. A market party can also set the end date for a product. When an end date is reported, the product remains in Datahub as terminated and changes can no longer be made to it.

The market parties cannot change the product structure once it has been reported, e.g., by adding a new component or removing existing ones. If this kind of change is needed, it is handled by reporting a new product and ending the existing one.

### **Updating prices or price time series**

When market parties need to change the prices of their products, they do this with separate messages.

A market party must report a new price to Datahub at least one month before the product price becomes effective. A new price notification always terminates the previous valid price on the day before the new price takes effect. If there is a need to update a price retroactively, for example, due to an error, the party informs the operator, who then makes the necessary update. A party can only change prices that have been reported for the future. This is done by replacing the old price with a new one.

Prices reported to Datahub are reported both with and without value added tax (VAT). This makes it easier for the party who needs these prices to handle billing correctly, as additional tax calculations may cause differences in decimals and affect the end customer billing.

There are also products where charges are based on different conditions and calculation formulas, using more than one billing basis rather than just the actual electricity consumption for a specific hour. Examples include power-based products, where charges are determined by one or more of the highest measured power values within a given time period. For these products prices are reported to Datahub as unit price information.

# DH-710 Process maps

No content yet.

## DH-710 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!



## DH-711 Product creation – supplier

Event description

Parties

Time limits

Event processing in Datahub

Information storage

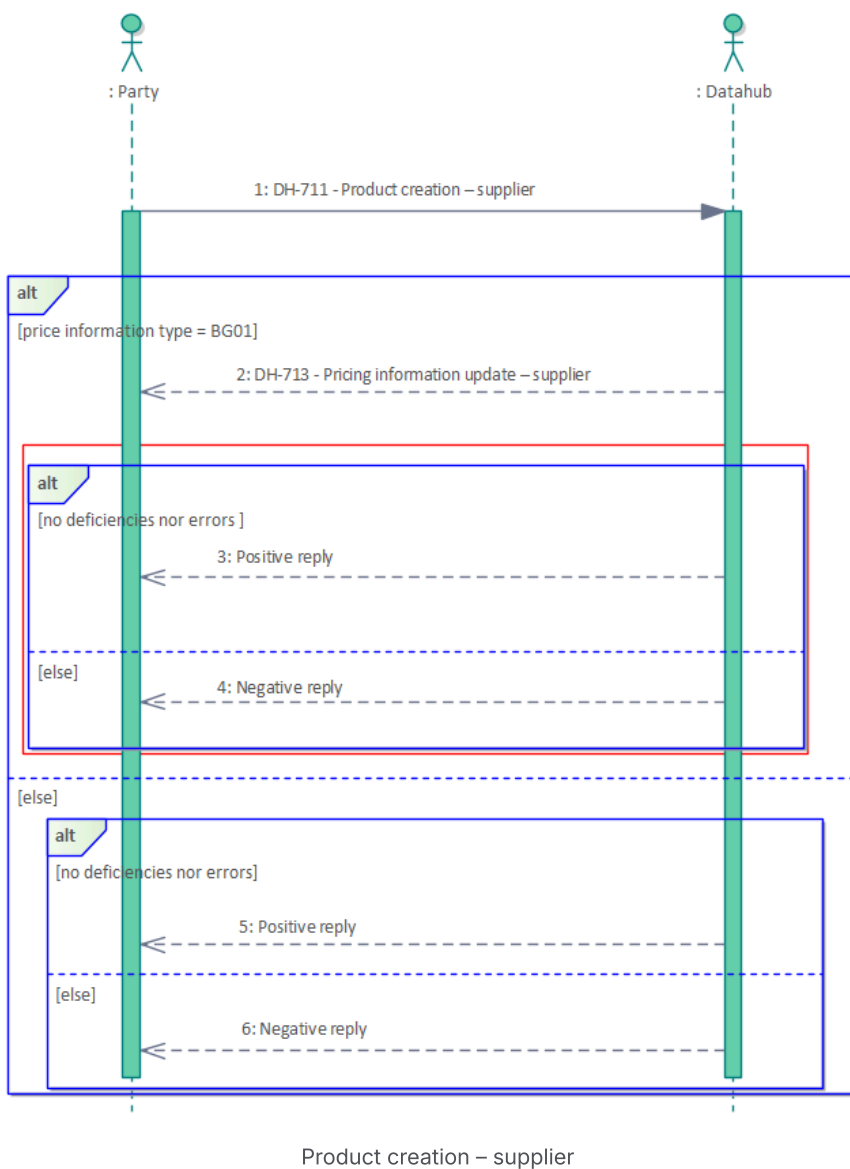
Return of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



### Event description

A supplier creates a new product and reports its information to Datahub.

## Parties

- Supplier
- Datahub

## Time limits

Effective time of the update
At the earliest, the current day.
At the latest, 90 days in the future.

## Event processing in Datahub

Step	Description
Fixed-price component	If the created product has a component with price type 'BG01=Price', the product information creation process waits for the price information before the product is activated.

## Information storage

Origin of information	Information stored
Information reported by the party	Product information and product component information

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information.	<a href="#">ACK</a>

## Composite processes

Party	Description	Composite process
-------	-------------	-------------------

Supplier	If the created product has a component with price type 'BG01=Price', the product information creation process waits for the price information before the product is activated.	<a href="#">DH-711 → DH-713</a>
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## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.


## Event cancellation

The creation of the product can be cancelled by specifying the same end date as the previously indicated start date.

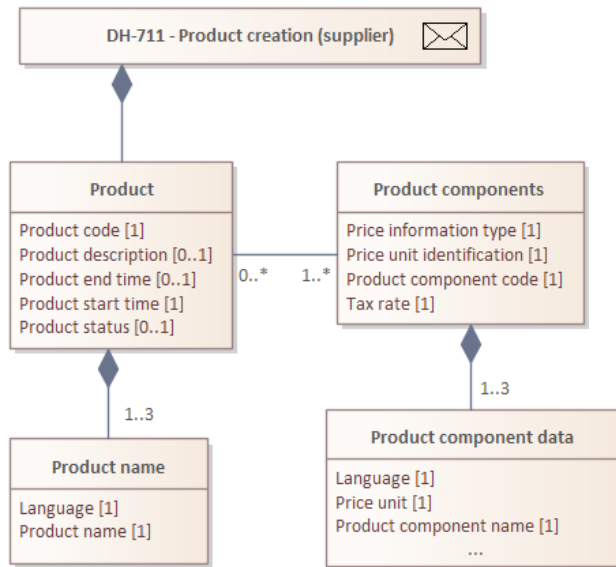
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The product code, as well as the combination of component code and product code, must be unique.	EC.PRD.103 EC.PCP.100	
The party must report all product structural data at once, meaning the product must have at least one component and the component must have a price.	EC.PCP.103 EC.PNM.101 EC.PNM.103 EC.PCD.103 EC.PCD.104	

The product and product components must be in the same language. If the product has a name in English, every component of the product must also have a name in English.	EC.PCD.10 1 EC.PCD.10 2	
The product's date of entry into force may be the current date at the earliest and no later than 90 days in the future.	EC.PRD.10 5	
If the product's termination date has been reported, it must be after the date of entry into force.	EC.PRD.10 4	
<div>  Please observe that the list is not complete. </div>		

## DH-711 Product creation (supplier)



Details of product creation

Message DH-711 is of message type [F11](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Product code	2	1..1		
Product description	2	0..1		
Product status	2	0..1		
Product validity period	2	1..1		
Product start time	3	1..1		
Product end time	3	0..1		
Product name	2	1..3		
Language	3	1..1	<ul style="list-style-type: none"> <li>fi</li> <li>en</li> </ul>	

			• sv	
Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		

## DH-712 Product creation – DSO

Event description

Parties

Time limits

Event processing in Datahub

Information storage

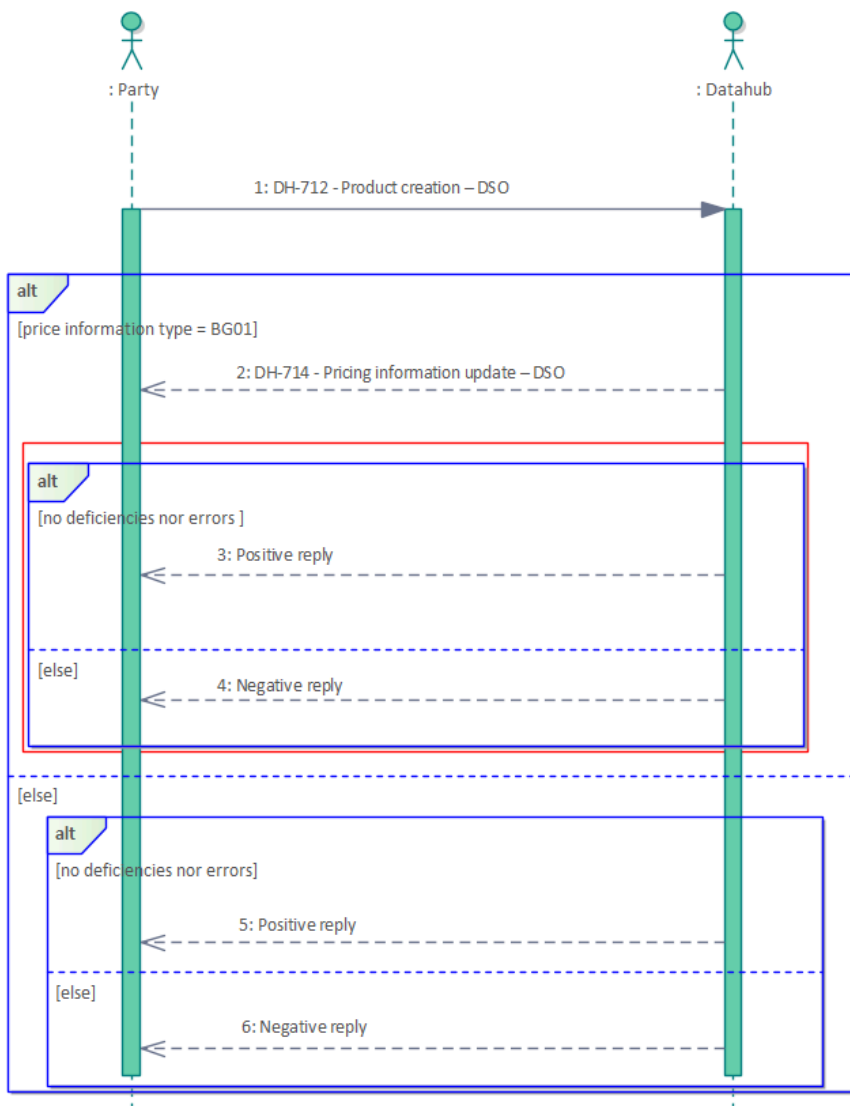
Return of information

Composite processes

Significant errors and consequences

Event cancellation

Validation rules



Product creation – DSO

### Event description

A DSO creates a new product and reports its information to Datahub.

## Parties

- DSO
- Datahub

## Time limits

Effective time of the update
At the earliest, the current day.
At the latest, 90 days in the future.

## Event processing in Datahub

Step	Description
Fixed-price component	If the created product has a component with price type 'BG01=Price', the product information creation process waits for the price information before the product is activated.

## Information storage

Origin of information	Information stored
Information reported by the party	Product information and product component information

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected information.	<a href="#">ACK</a>

## Composite processes

Party	Description	Composite process
-------	-------------	-------------------



DSO	If the created product has a component with price type 'BG01=Price', the product information creation process waits for the price information before the product is activated.	<a href="#">DH-712 → DH-714</a>
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## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.


## Event cancellation

The creation of the product can be cancelled by specifying the same end date as the previously indicated start date.

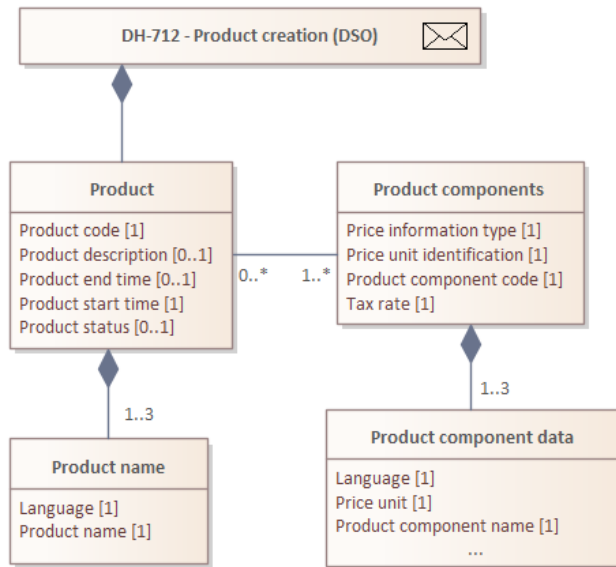
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The product code, as well as the combination of component code and product code, must be unique.	EC.PRD.10 3 EC.PCP.10 0	
The party must report all product structural data at once, meaning the product must have at least one component and the component must have a price.	EC.PCP.10 3 EC.PNM.10 1 EC.PNM.10 3 EC.PCD.10 3 EC.PCD.10 4	

The product and product components must be in the same language. If the product has a name in English, every component of the product must also have a name in English.	EC.PCD.10 1 EC.PCD.10 2	
The product's date of entry into force may be the current date at the earliest and no later than 90 days in the future.	EC.PRD.10 5	
If the product's termination date has been reported, it must be after the date of entry into force.	EC.PRD.10 4	
<div>  Please observe that the list is not complete. </div>		

## DH-712 Product creation (DSO)



Details of product creation

Message DH-712 is of message type [F11](#).

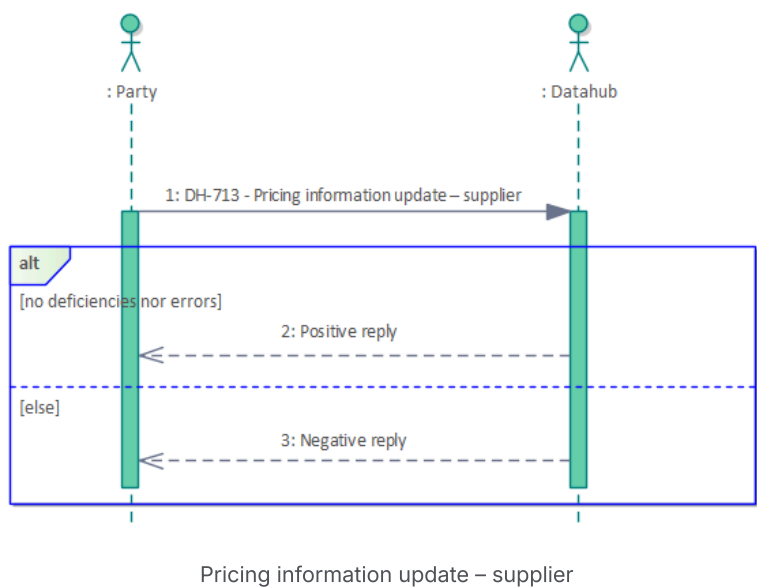
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Product code	2	1..1		
Product description	2	0..1		
Product validity period	2	1..1		
Product start time	3	1..1		
Product end time	3	0..1		
Product name	2	1..3		
Language	3	1..1	<ul style="list-style-type: none"> <li>fi</li> <li>en</li> <li>sv</li> </ul>	

Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		

# DH-713 Pricing information update – supplier

- Event description
- Parties
- Time limits
- Event processing in Datahub
- Information storage
- Return of information
- Significant errors and consequences
- Event cancellation
- Validation rules



## Event description

A supplier reports updates to product prices.

## Parties

- Supplier
- Datahub

## Time limits

Effective time of the update	Notes/Exceptions
30–365 days in the future	When creating a new price corresponding to a new product, the <i>price start time</i> must be the same as the <i>product start time</i> and this time limit does not apply.

## Event processing in Datahub

Step	Description
Price end time	The price end time is automatically set to match the product end time in event DH-717/718. Providing the price end time will cause a validation error.

## Information storage

Origin of information	Information stored
Information reported by party	Price information
Information processed by Datahub	Price end time

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.


## Event cancellation

Future prices can be corrected by reporting the new ones with the same start date. This will overwrite the existing prices. If prices outside the normal time limits for the event need to be changed, this is done by the Datahub operator.

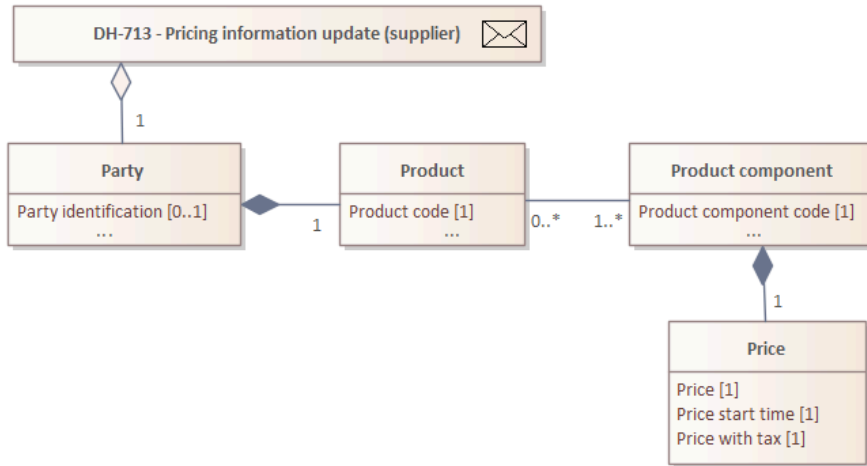
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
------	------------	------

The price may only be notified for a product which has not been removed from sales when the price enters into force.	EC.PRD.100	
The parties may only update their own product information.	EC.PRD.101 EC.PRD.111 EC.PCP.101	
The type of the reported product component price information must be 'Price'.	EC.PCP.022	
The prices are valid for entire days.	EC.PRC.101	
Prices may be notified 30–365 days into the future.	EC.PRC.102	
Only one price may be in force at each moment in time.		
Only one price may be notified at a time.		
The price end time cannot be set using this event.		
 Please observe that the list is not complete.		

## DH-713 Pricing information update (supplier)



Details of pricing information update

Message DH-713 is of message type [F22](#).

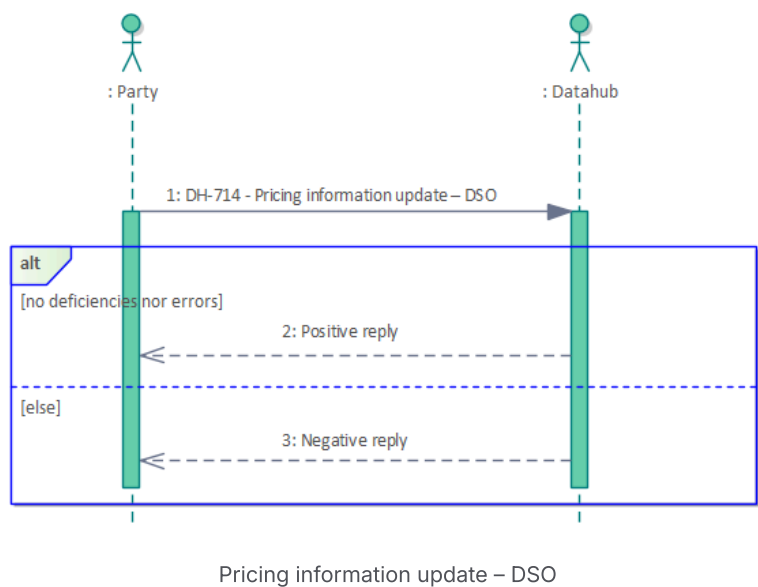
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Price	2	1..1		
Price with tax	2	1..1		
Price validity period	2	1..1		
Price start time	3	1..1		



# DH-714 Pricing information update – DSO

- Event description
- Parties
- Time limits
- Event processing in Datahub
- Information storage
- Return of information
- Significant errors and consequences
- Event cancellation
- Validation rules



## Event description

A DSO reports updates to product prices.

## Parties

- DSO
- Datahub

## Time limits

Effective time of the update	Notes/Exceptions
30–365 days in the future	When creating a new price corresponding to a new product, the <i>price start time</i> must be the same as the <i>product start time</i> and this time limit does not apply.

## Event processing in Datahub

Step	Description
Price end time	The price end time is automatically set to match the product end time in event DH-717/718. Providing the price end time will cause a validation error.

## Information storage

Origin of information	Information stored
Information reported by party	Price information
Information processed by Datahub	Price end time

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected information.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.


## Event cancellation

Future prices can be corrected by reporting the new ones with the same start date. This will overwrite the existing prices. If prices outside the normal time limits for the event need to be changed, this is done by the Datahub operator.

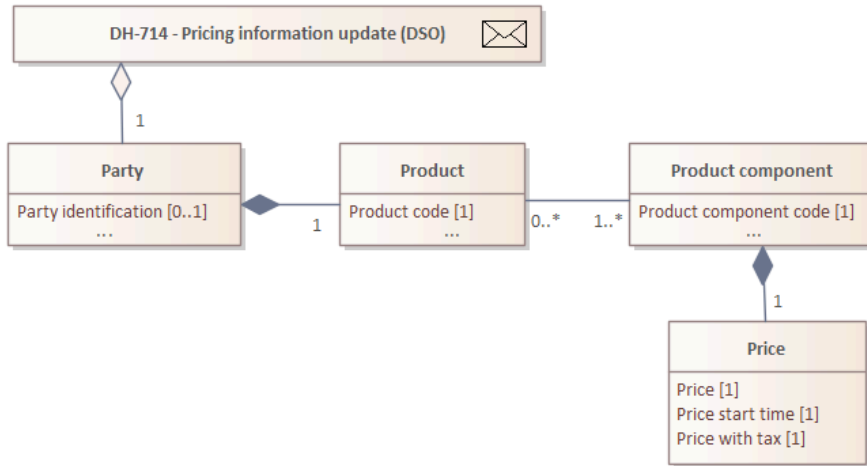
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
------	------------	------

The price may only be notified for a product which has not been removed from sales when the price enters into force.	EC.PR.D.100	
The parties may only update their own product information.	EC.PR.D.101 EC.PR.D.111 EC.PCP.101	
The type of the reported product component price information must be 'Price'.	EC.PCP.022	
The prices are valid for entire days.	EC.PRC.101	
Prices may be notified 30–365 days into the future.	EC.PRC.102	
Only one price may be in force at each moment in time.		
Only one price may be notified at a time.		
The price end time cannot be set using this event.		
 Please observe that the list is not complete.		

## DH-714 Pricing information update (DSO)



Details of pricing information update

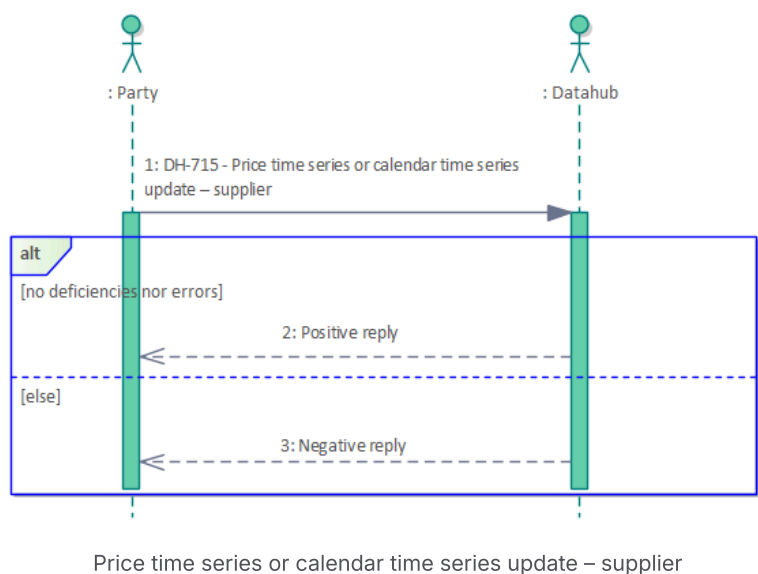
Message DH-714 is of message type [F22](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Price	2	1..1		
Price with tax	2	1..1		
Price validity period	2	1..1		
Price start time	3	1..1		

# DH-715 Price time series or calendar time series update – supplier

- Event description
- Parties
- Time limits
- Information storage
- Return of information
- Significant errors and consequences
- Event cancellation
- Validation rules



## Event description

A supplier reports updates to the price time series or calendar time series.

## Parties

- Supplier
- Datahub

## Time limits

Effective time of the update	Notes/Exceptions
-365 to 365 days days from the notification date	A calendar time series must be reported by the end of September at the latest for the whole coming year.

## Information storage

Origin of information	Information stored
Information reported by party	Reported times series information
Information processed by Datahub	-

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.

## Event cancellation


Price time series can be corrected by reporting new values with the same dates. This will overwrite the existing values.

## Validation rules

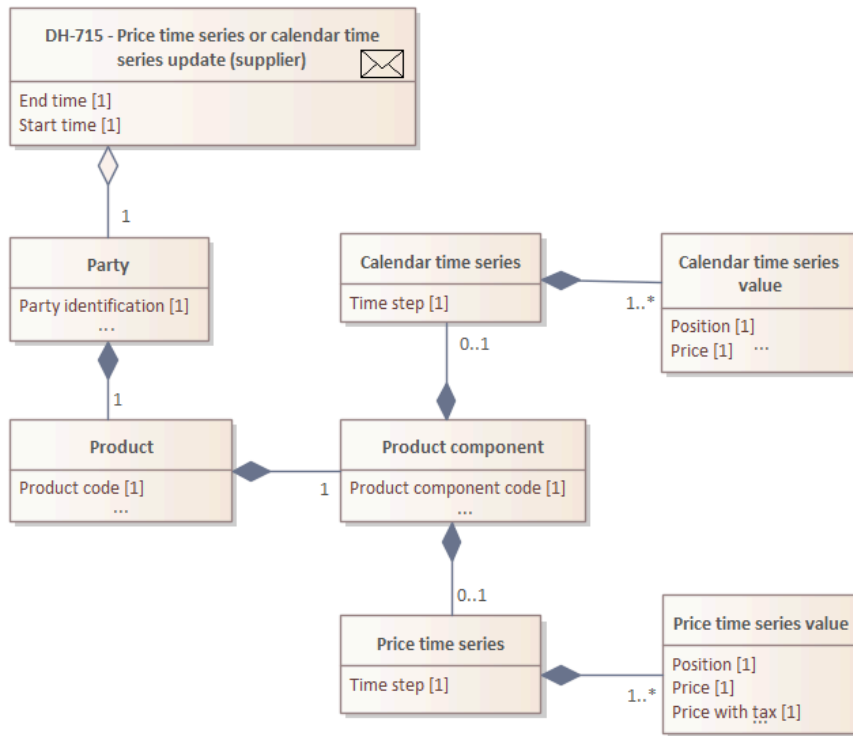
Please see [Datahub Validation Rules](#) for a more thorough list.

- Only one price may be in force at each moment in time.

Rule	Error code	Note
The price may only be notified for a product which has not been removed from sales when the price enters into force.	EC.PR.D.100	
The parties may only update their own product information.	EC.PR.D.101 EC.PR.D.111 EC.PCP.101	

The price and calendar time series may be notified with a start date no earlier than 365 days before, and no later than 365 days after, the notification date.	EC.TSV.101	
The calendar or price time series' end time cannot exceed the product's end time.	EC.TSV.108	
The start time of the price-time series must correspond to the product's start time upon creation, or it must match the previous notified end time.	EC.TSV.109	
When the existing price time series is updated, it must match the previously notified price time series period.	EC.TSV.110	
The type of the reported product component price information must be 'Price time series'.	EC.PCP.022	
<div>  Please observe that the list is not complete. </div>		

## DH-715 Price time series or calendar time series update (supplier)



Details of price time series or calendar time series update

Message DH-715 is of message type [F23](#).

Message payload includes the following information:

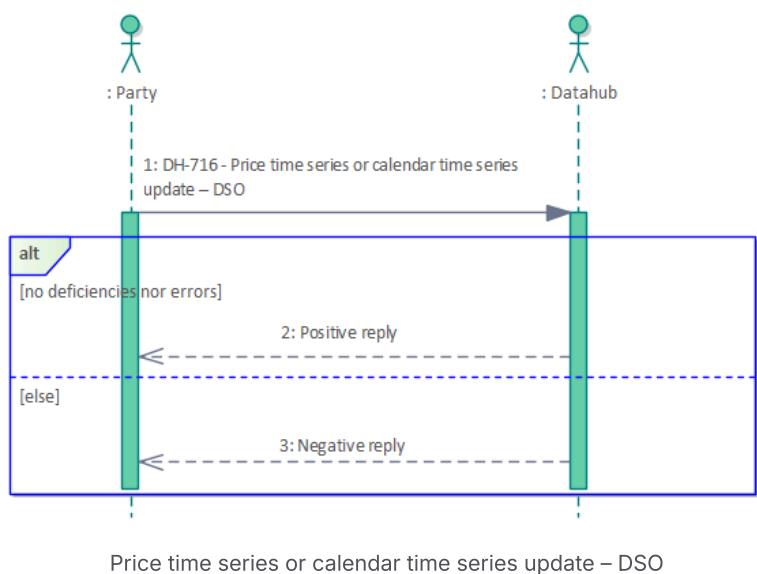
Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	1..1		
End time	2	1..1		
Calendar time series	2	0..1		



Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Value	4	1..1		
Price time series	2	0..1		
Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Price	4	1..1		
Price with tax	4	1..1		

# DH-716 Price time series or calendar time series update – DSO

- Event description
- Parties
- Time limits
- Information storage
- Return of information
- Significant errors and consequences
- Event cancellation
- Validation rules



## Event description

A DSO reports updates to the price time series or calendar time series.

## Parties

- DSO
- Datahub

## Time limits

Effective time of the update	Notes/Exceptions
-365 to 365 days days from the notification date	A calendar time series must be reported by the end of September at the latest for the whole coming year.

## Information storage

Origin of information	Information stored
Information reported by party	Reported times series information
Information processed by Datahub	-

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected information.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.

## Event cancellation


Price time series can be corrected by reporting new values with the same dates. This will overwrite the existing values.

## Validation rules

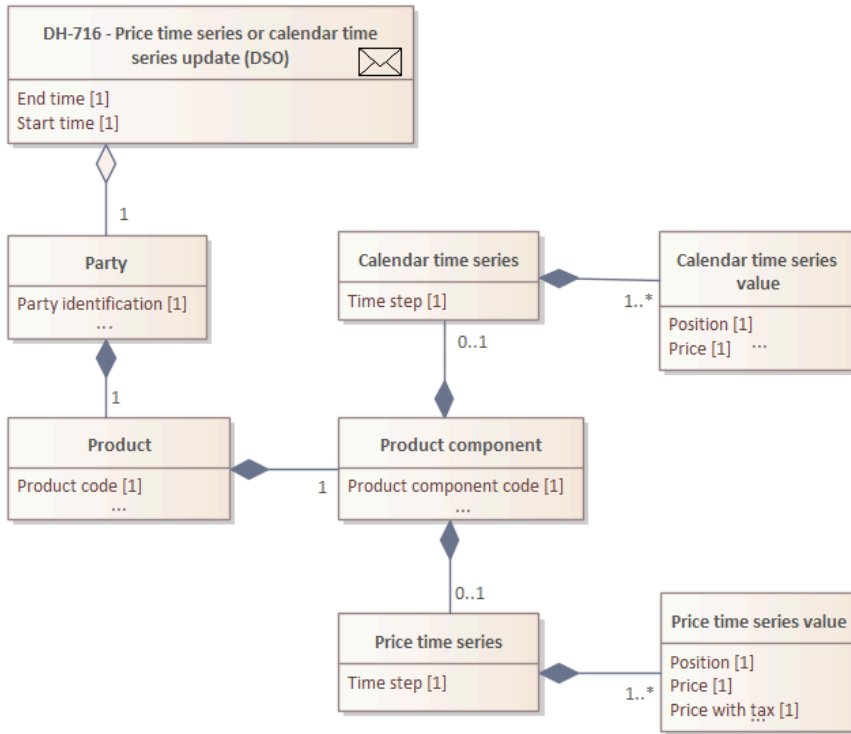
Please see [Datahub Validation Rules](#) for a more thorough list.

- Only one price may be in force at each moment in time.

Rule	Error code	Note
The price may only be notified for a product which has not been removed from sales when the price enters into force.	EC.PR.D.100	
The parties may only update their own product information.	EC.PR.D.101 EC.PR.D.111 EC.PCP.101	

The price and calendar time series may be notified with a start date no earlier than 365 days before, and no later than 365 days after, the notification date.	EC.TSV.101	
The calendar or price time series' end time cannot exceed the product's end time.	EC.TSV.108	
The start time of the price-time series must correspond to the product's start time upon creation, or it must match the previous notified end time.	EC.TSV.109	
When the existing price time series is updated, it must match the previously notified price time series period.	EC.TSV.110	
The type of the reported product component price information must be 'Price time series'.	EC.PCP.022	
<div>  Please observe that the list is not complete. </div>		

## DH-716 Price time series or calendar time series update (DSO)



Details of price time series or calendar time series update

Message DH-716 is of message type [F23](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	1..1		
End time	2	1..1		
Calendar time series	2	0..1		

Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Value	4	1..1		
Price time series	2	0..1		
Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Price	4	1..1		
Price with tax	4	1..1		

## DH-717 Update of product's structural data – supplier

Event description

Parties

Time limits

Event processing in Datahub

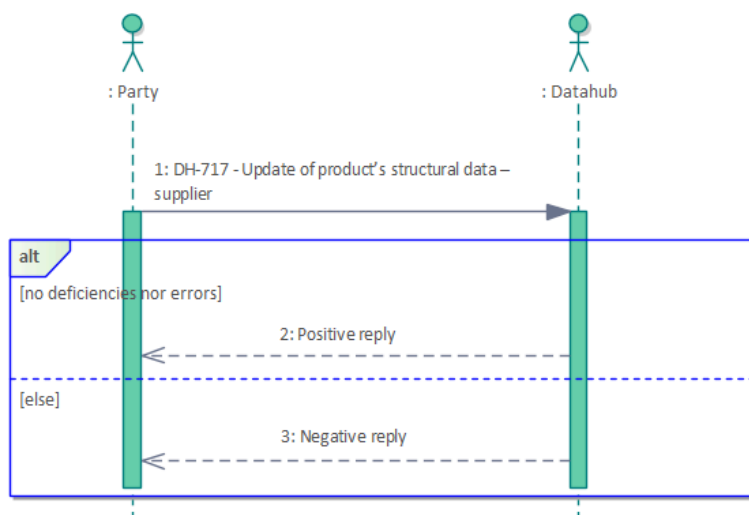
Information storage

Return of information

Significant errors and consequences

Event cancellation

Validation rules



Update of product's structural data – supplier

### Event description

A supplier reports updates to a product's structural data.

### Parties

- Supplier
- Datahub

### Time limits

Effective time of the update	Notes/Exceptions
At the earliest, the current day. At the latest, 90 days in the future.	
The product's end date may be no earlier than 30 days in the future from the update date.	If a product is cancelled, the end date is reported as the product's

	start date.
--	-------------

## Event processing in Datahub

Step	Description
Datahub updates the end time for the product components and prices.	If a product's end time is updated, it is updated for both product components and prices.

## Information storage

Origin of information	Information stored
Information reported by party	Product data and product component data. Old data will be overwritten.
Information processed by Datahub	-

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.

## Event cancellation


Product data is corrected by means of a new update.

## Validation rules

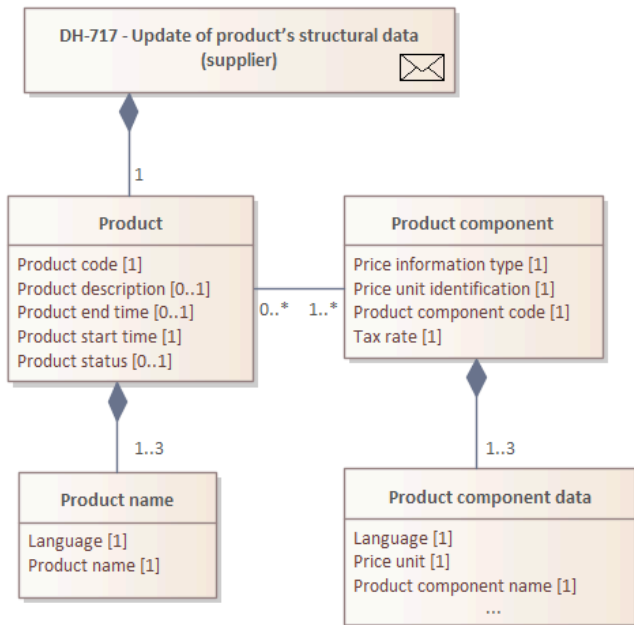
Please see [Datahub Validation Rules](#) for a more thorough list.



- Only changes to the product description, end time, product name (including language information), product component name (including language information) and tax rate are allowed. This includes the removal of name information sets for the product or product component, provided that at least one name set remains for both the product and the product component.

Rule	Error code	Note
The parties may only update their own product information.	EC.PRD.101 EC.PCP.101	
The update's time of entry into force may be the current date at the earliest and no later than 90 days in the future.	EC.PRD.109	
At least one product component must be valid.	EC.PCP.103	
The product and product components must be in the same language.	EC.PCD.101 EC.PCD.102	
If the product's termination date has been reported, it must be after the date of entry into force.	EC.PRD.104	
The product's end time may be no earlier than 30 days in the future from the update date.	EC.PRD.108	
 Please observe that the list is not complete.		

## DH-717 Update of product's structural data (supplier)



Details of the update of product's structural data

Message payload for events DH-717 and DH-718 is the same as in events [DH-711](#) and [DH-712](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Product code	2	1..1		
Product description	2	0..1		
Product status	2	0..1		
Product validity period	2	1..1		
Product start time	3	1..1		
Product end time	3	0..1		
Product name	2	1..3		
Language	3	1..1	• fi	

			<ul style="list-style-type: none"> <li>• en</li> <li>• sv</li> </ul>	
Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		

## DH-718 Update of product's structural data – DSO

Event description

Parties

Time limits

Event processing in Datahub

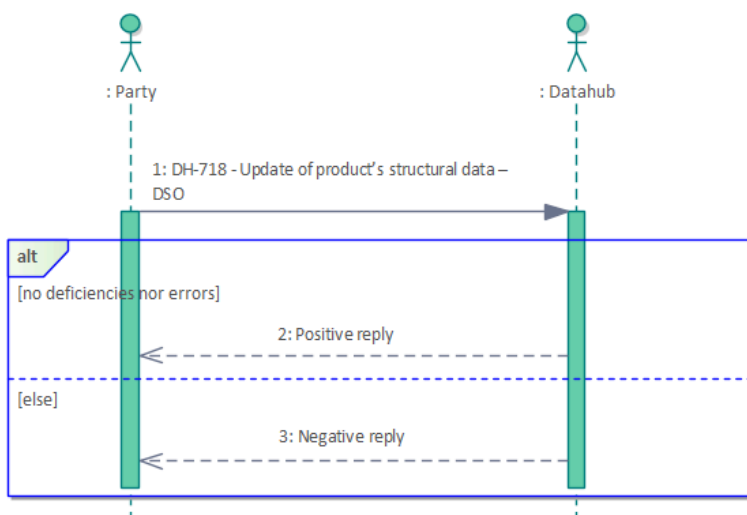
Information storage

Return of information

Significant errors and consequences

Event cancellation

Validation rules



Update of product's structural data – DSO

### Event description

A DSO reports updates to a product's structural data.

### Parties

- DSO
- Datahub

### Time limits

Effective time of the update	Notes/Exceptions
At the earliest, the current day. At the latest, 90 days in the future.	
The product's end date may be no earlier than 30 days in the future from the update date.	If a product is cancelled, the end date is reported as the product's

	start date.
--	-------------

## Event processing in Datahub

Step	Description
Datahub updates the end time for the product components and prices.	If a product's end time is updated, it is updated for both product components and prices.

## Information storage

Origin of information	Information stored
Information reported by party	Product data and product component data. Old data will be overwritten.
Information processed by Datahub	-

## Return of information

Party	Description	Message
DSO	Notification of successful or rejected information.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.


## Event cancellation

Product data is corrected by means of a new update.

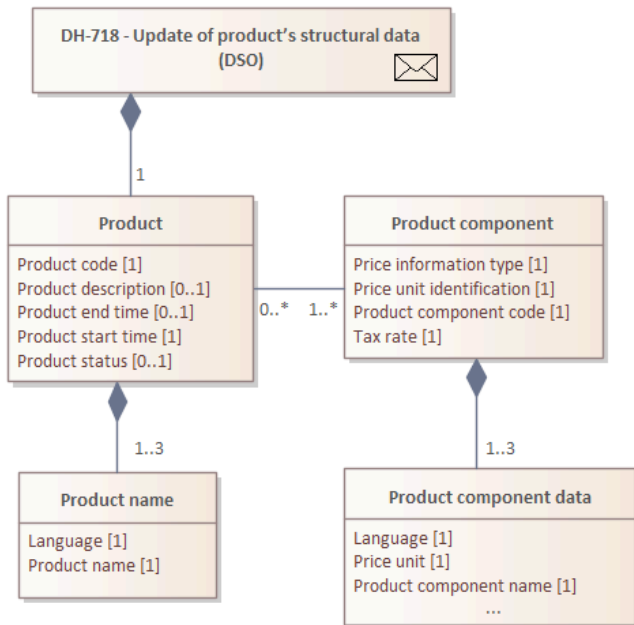
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

- Only changes to the product description, end time, product name (including language information), product component name (including language information) and tax rate are allowed. This includes the removal of name information sets for the product or product component, provided that at least one name set remains for both the product and the product component.

Rule	Error code	Note
The parties may only update their own product information.	EC.PRD.101 EC.PCP.101	
The update's time of entry into force may be the current date at the earliest and no later than 90 days in the future.	EC.PRD.109	
At least one product component must be valid.	EC.PCP.103	
The product and product components must be in the same language.	EC.PCD.101 EC.PCD.102	
If the product's termination date has been reported, it must be after the date of entry into force.	EC.PRD.104	
The product's end time may be no earlier than 30 days in the future from the update date.	EC.PRD.108	
 Please observe that the list is not complete.		

## DH-718 Update of product's structural data (DSO)



Details of the update of product's structural data

Message payload for events DH-717 and DH-718 is the same as in events [DH-711](#) and [DH-712](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Product code	2	1.1		
Product description	2	0.1		
Product status	2	0.1		
Product validity period	2	1.1		
Product start time	3	1.1		
Product end time	3	0.1		
Product name	2	1..3		
Language	3	1.1	• fi	

			<ul style="list-style-type: none"> <li>• en</li> <li>• sv</li> </ul>	
Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		



## DH-720 Product information request

Market parties can retrieve product information and pricing from Datahub. A DSO's product information can be retrieved by all parties, but a supplier's product information can only be retrieved by parties who [have been authorized](#) to it by the supplier.

The request for product information is divided into two different requests: one for the structural data and one for price, price time series and calendar time series.

Structural data ([DH-721/DH-722/DH-723](#)) is always requested per party, but the request can also be based on product identifier. The query can also specify whether only current data or historical data is to be retrieved.

Pricing ([DH-724/DH-725/DH-726](#)) is requested per party or per product or product component. The request can be limited by specifying a time interval for price, price time series or calendar time series.

# DH-720 Process maps

No content yet.

## DH-720 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

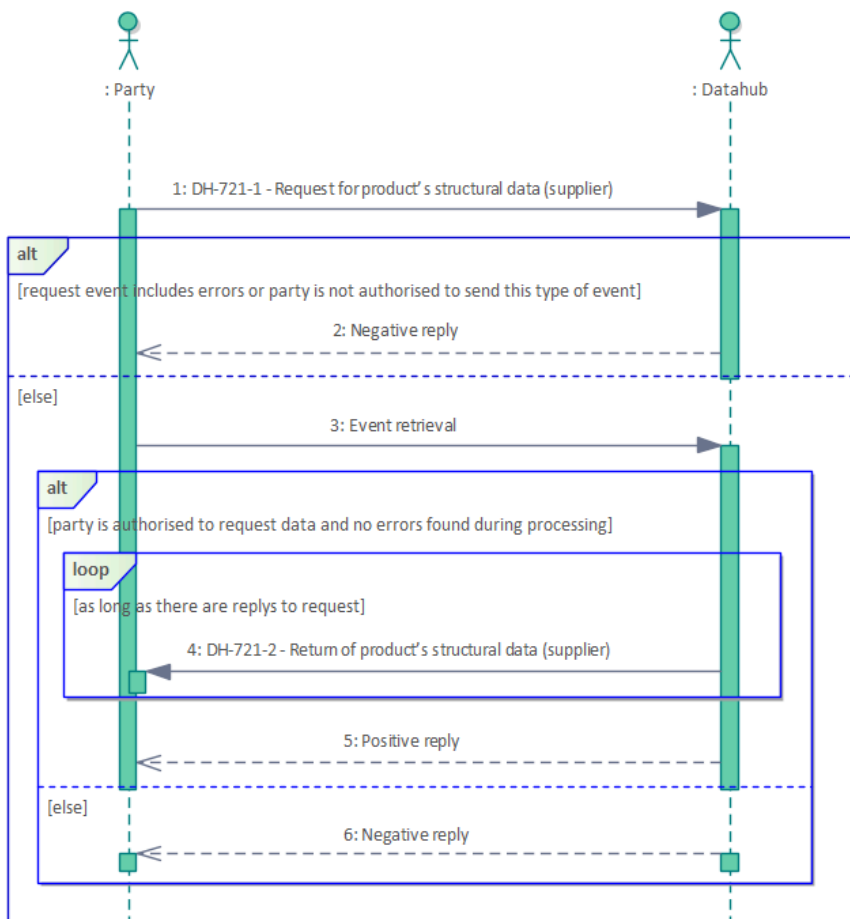
## DH-721 Request for product's structural data – supplier

Event description

Parties

Return of information

Significant errors and consequences



Request for product's structural data – supplier

### Event description

A supplier retrieves another party's product information from Datahub.

- A supplier's product information is returned only if the requesting party has been authorized to it by the product owner (i.e., the supplier).

### Parties

- Supplier
- Datahub

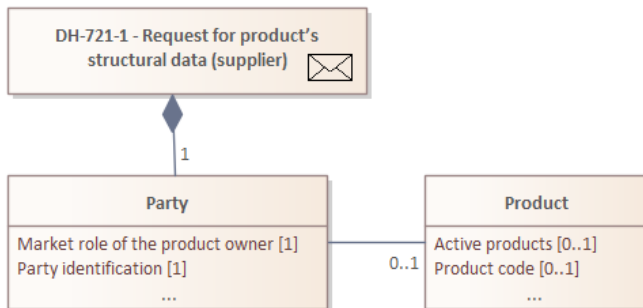
### Return of information

Party	Description	Message
Supplier	The party's product information and product component information. If there are no products matching the search criteria, the request is rejected.	<a href="#">DH-721-2</a>

### Significant errors and consequences

Error	Consequence
Product information is reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.

## DH-721-1 Request for product's structural data (supplier)



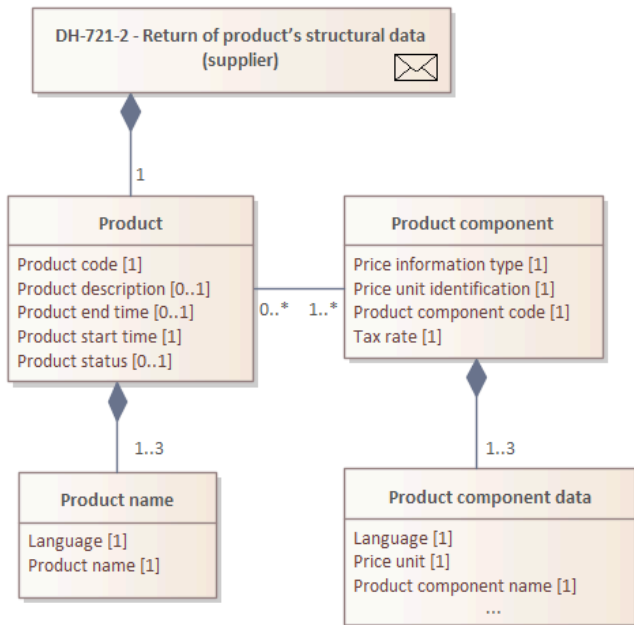
Details of the request for product's structural data

Message DH-721-1 is of message type [F12](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Market role of the product owner	2	1..1	DSO or DDQ	
Product code	2	0..1		
Active products	2	0..1	0 = Confirmed and terminated products 1 = Confirmed products	Default value is confirmed products.

## DH-721-2 Return of product's structural data (supplier)



Details of the return of product's structural data

The returned data is the same as in message [F11](#), which is used for updating product information ([DH-711](#), [DH-712](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Product code	2	1.1		
Product description	2	0..1		
Product status	2	0..1		
Product validity period	2	1.1		
Product start time	3	1.1		
Product end time	3	0..1		
Product name	2	1..3		
Language	3	1.1	• fi	

			<ul style="list-style-type: none"> <li>• en</li> <li>• sv</li> </ul>	
Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		



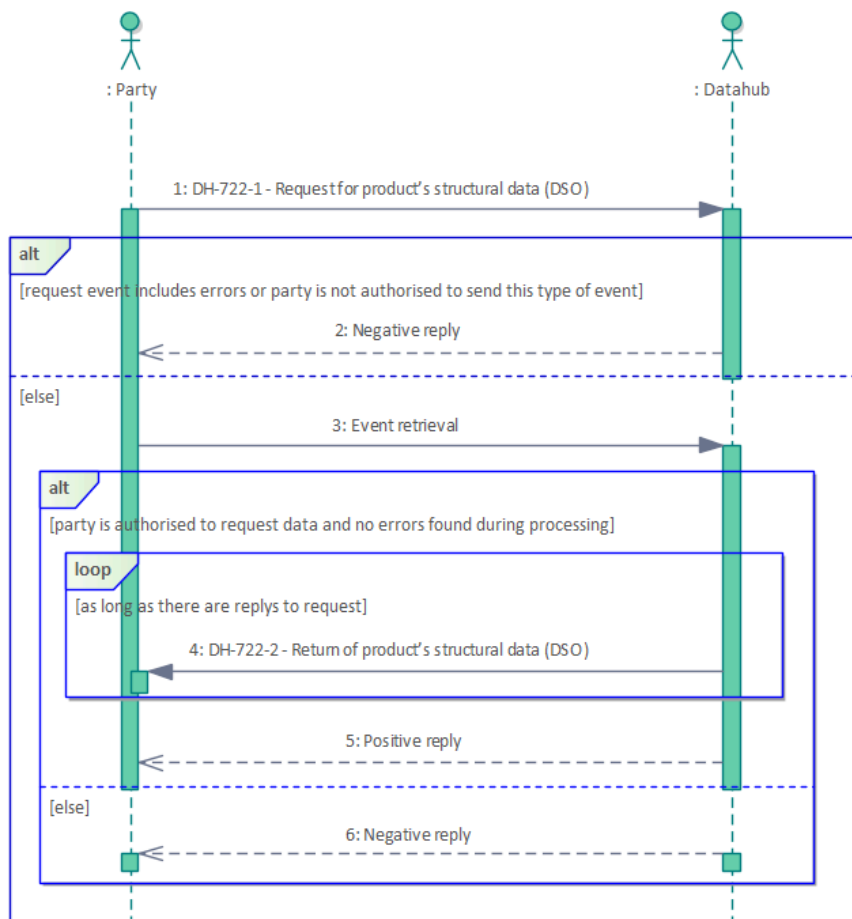
## DH-722 Request for product's structural data – DSO

Event description

Parties

Return of information

Significant errors and consequences



Request for product's structural data – DSO

### Event description

A DSO retrieves another party's product information from Datahub.

- A supplier's product information is returned only if the requesting party has been authorized to it by the product owner (i.e., the supplier).

### Parties

- DSO
- Datahub

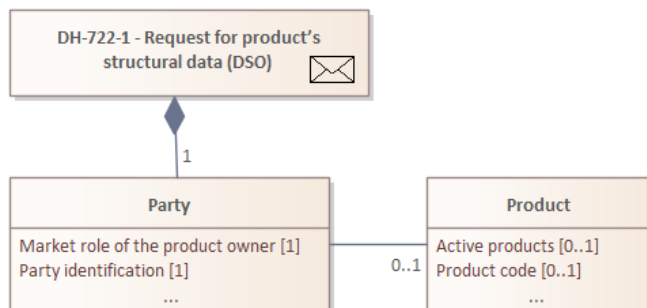
### Return of information

Party	Description	Message
DSO	The party's product information and product component information. If there are no products matching the search criteria, the request is rejected.	<a href="#">DH-722-2</a>

### Significant errors and consequences

Error	Consequence
The product information has been reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.

## DH-722-1 Request for product's structural data (DSO)



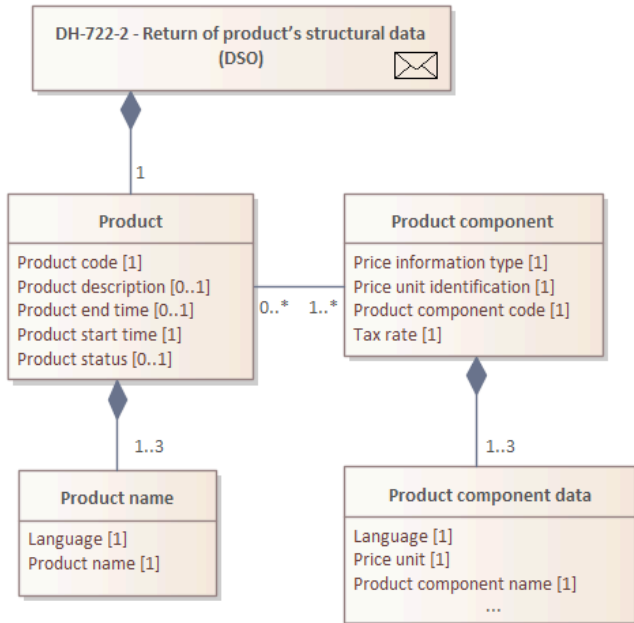
Details of the request for product's structural data

Message DH-722-1 is of message type [F12](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Market role of the product owner	2	1..1	DSO or DDQ	
Product code	2	0..1		
Active products	2	0..1	0 = Confirmed and terminated products 1 = Confirmed products	Default value is confirmed products.

## DH-722-2 Return of product's structural data (DSO)



Details of the return of product's structural data

The returned data is the same as in message [F11](#), which is used for updating product information ([DH-711](#), [DH-712](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Product code	2	1..1		
Product description	2	0..1		
Product status	2	0..1		
Product validity period	2	1..1		
Product start time	3	1..1		
Product end time	3	0..1		
Product name	2	1..3		

Language	3	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		

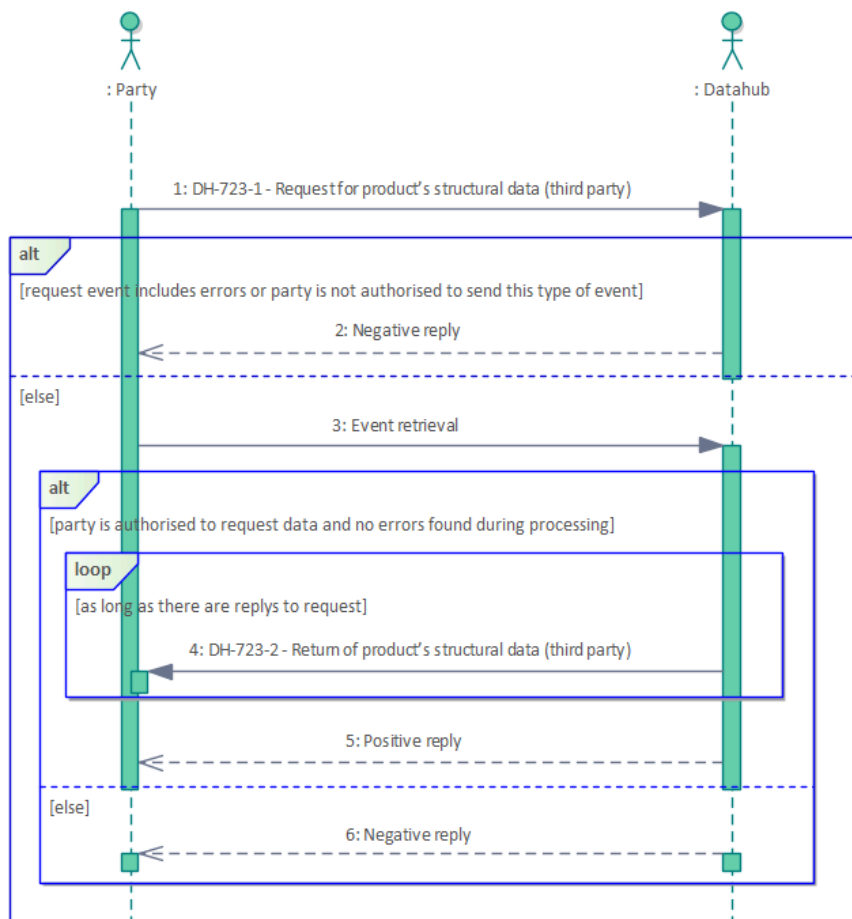
## DH-723 Request for product's structural data – third party

Event description

Parties

Return of information

Significant errors and consequences



Request for product's structural data – third party

### Event description

A third party retrieves another party's product information from Datahub.

- i** A supplier's product information is returned only if the requesting party has been authorized to it by the product owner (i.e., the supplier).

### Parties

- Third party
- Datahub

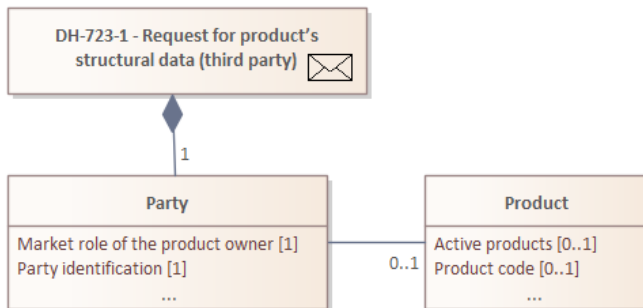
### Return of information

Party	Description	Message
Third party	The party's product information and product component information. If there are no products matching the search criteria, the request is rejected.	<a href="#">DH-723-2</a>

### Significant errors and consequences

Error	Consequence
The product information has been reported incorrectly.	An automated billing process can produce incorrect invoices or the wrong information may be given to a customer.

## DH-723-1 Request for product's structural data (third party)



Details of the request for product's structural data

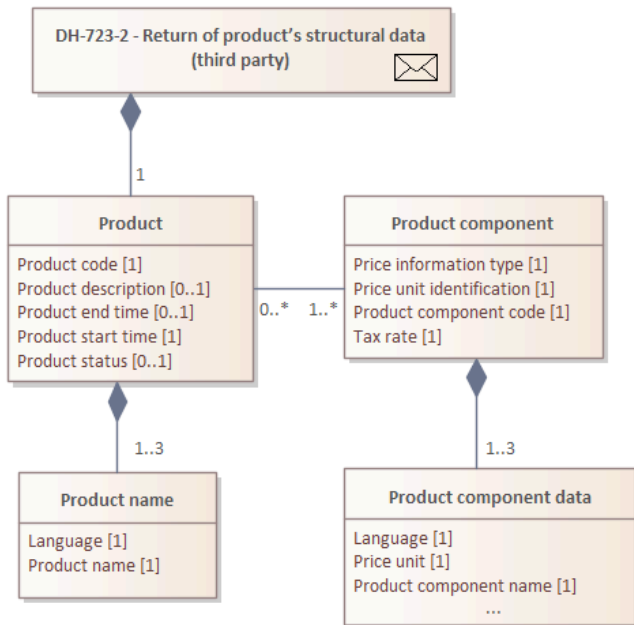
Message DH-723-1 is of message type [F12](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Market role of the product owner	2	1..1	DSO or DDQ	
Product code	2	0..1		
Active products	2	0..1	0 = Confirmed and terminated products 1 = Confirmed products	Default value is confirmed products.



## DH-723-2 Return of product's structural data (third party)



Details of the return of product's structural data

The returned data is the same as in message [F11](#), which is used for updating product information ([DH-711](#), [DH-712](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Product code	2	1..1		
Product description	2	0..1		
Product status	2	0..1		
Product validity period	2	1..1		
Product start time	3	1..1		
Product end time	3	0..1		
Product name	2	1..3		
Language	3	1..1	• fi	

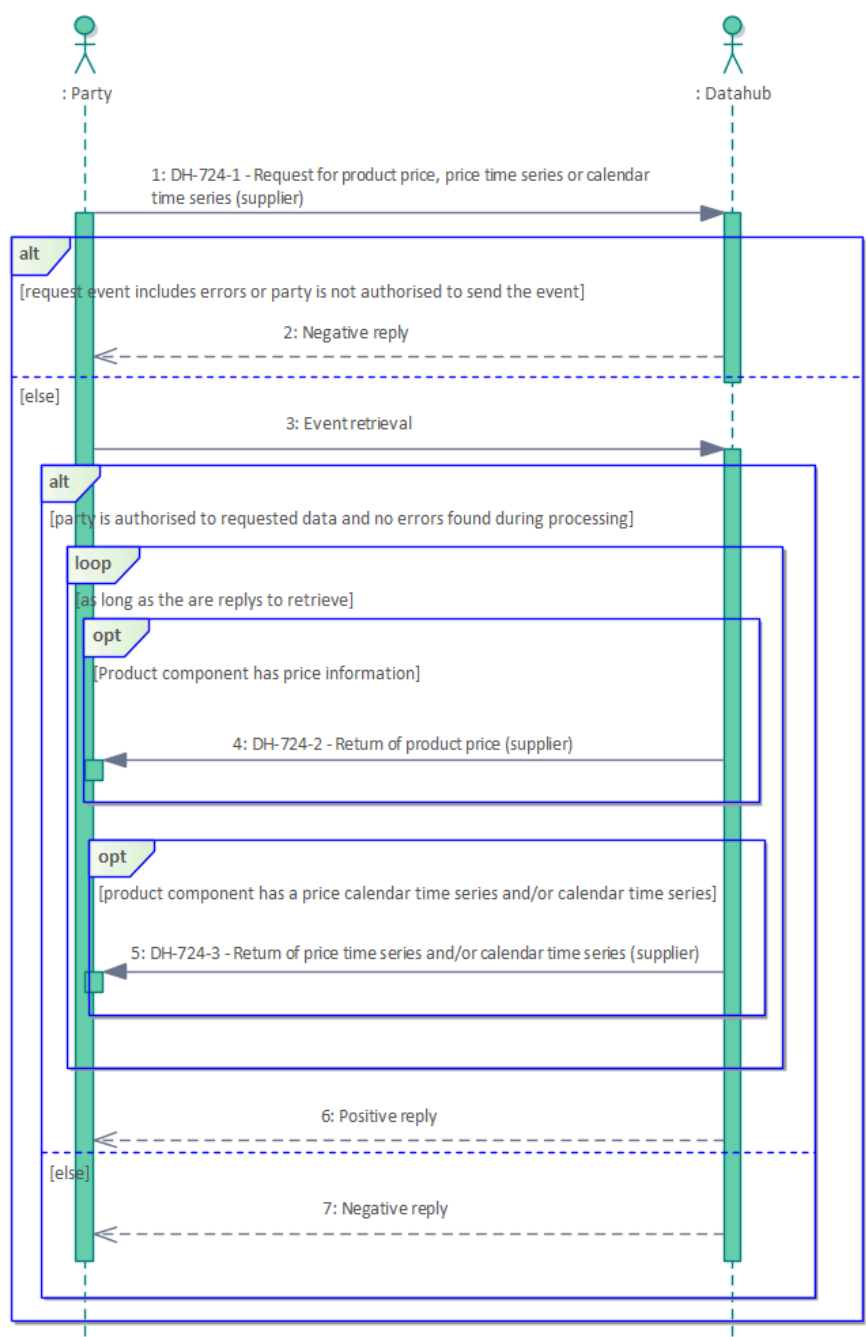
			<ul style="list-style-type: none"> <li>• en</li> <li>• sv</li> </ul>	
Product name	3	1..1		
Product components	2	1..n		
Product component code	3	1..1		
Price unit identification	3	0..1		
Price information type	3	1..1	<ul style="list-style-type: none"> <li>• Price</li> <li>• Price time series</li> </ul>	
Tax rate	3	1..1		
Product component data	3	1..3		
Language	4	1..1	<ul style="list-style-type: none"> <li>• fi</li> <li>• en</li> <li>• sv</li> </ul>	
Product component name	4	1..1		
Price unit	4	1..1		

# DH-724 Request for product price, price time series or calendar time series – supplier

Event description

Parties

Return of information



Request for product price, price time series or calendar time series – supplier

## Event description

A supplier retrieves another party's product price, price time series or calendar time series from Datahub.

**i** A supplier's product price, price time series or calendar time series information is returned only if the requesting party has been authorized to it by the product owner (i.e., the supplier).

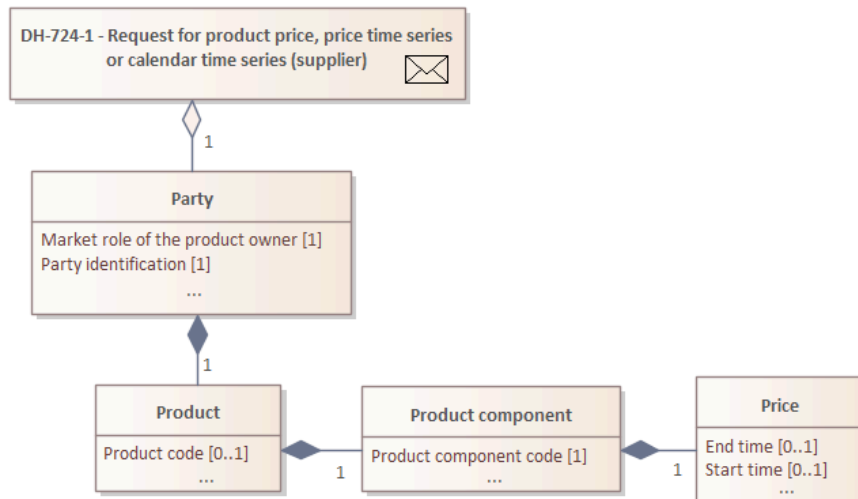
## Parties

- Supplier
- Datahub

## Return of information

Party	Description	Message
Supplier	<p>The requested product price, price time series or calendar time series.</p> <p>Based on the price type of the requested product, either price information (F22) or a price time series (F23) is returned. It is possible that a product component includes both a price and a calendar time series, in which case both F22 and F23 messages are returned.</p>	<p><a href="#">DH-724-2</a></p> <p><a href="#">DH-724-3</a></p>

## DH-724-1 Request for product price, price time series or calendar time series (supplier)



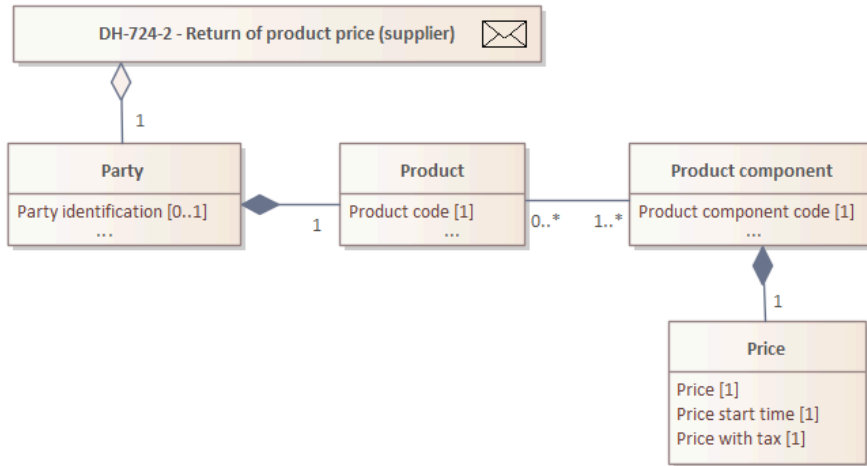
Details of the request for product price, price time series or calendar time series

Message DH-724-1 is of message type [F24](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Market role of the product owner	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	0..1		
End time	2	0..1		

## DH-724-2 Return of product price (supplier)



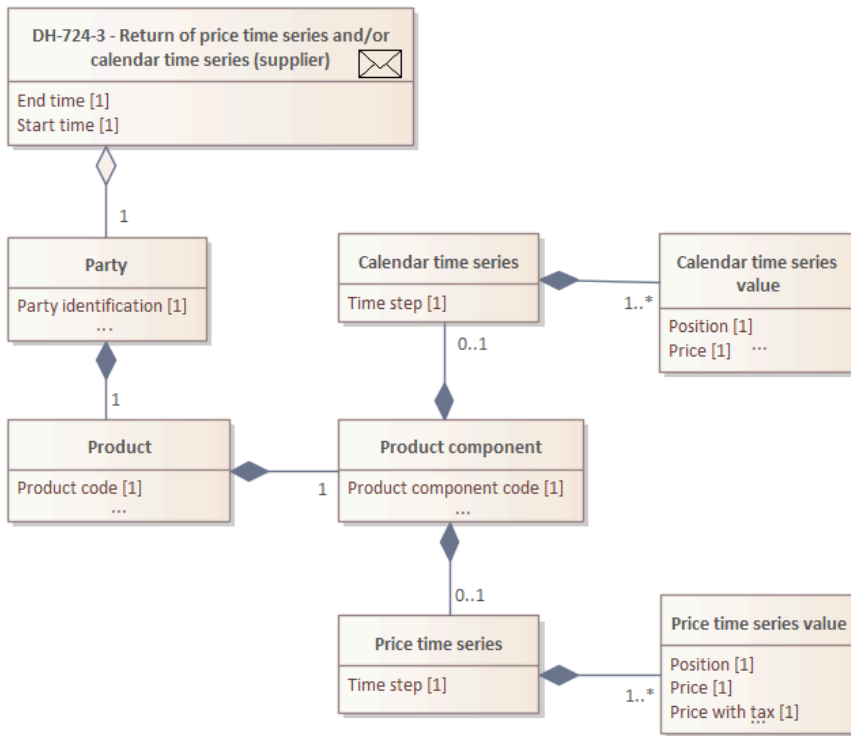
Details of the return of product price

The returned data is the same as in message [F22](#), which is used for updating pricing information ([DH-713/DH-714](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	0..1		
Product code	2	1..1		
Product component code	2	1..1		
Price	2	1..1		
Price with tax	2	1..1		
Price validity period	2	1..1		
Price start time	3	1..1		

## DH-724-3 Return of price time series and/or calendar time series (supplier)



Details of the return of price time series and/or calendar time series

The returned data is the same as in message [F23](#), which is used for updating price time series and calendar time series information ([DH-715/DH-716](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Party identification	2	0..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	1..1		
End time	2	1..1		
Calendar time series	2	0..1		

Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Value	4	1..1		
Price time series	2	0..1		
Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Price	4	1..1		
Price with tax	4	1..1		

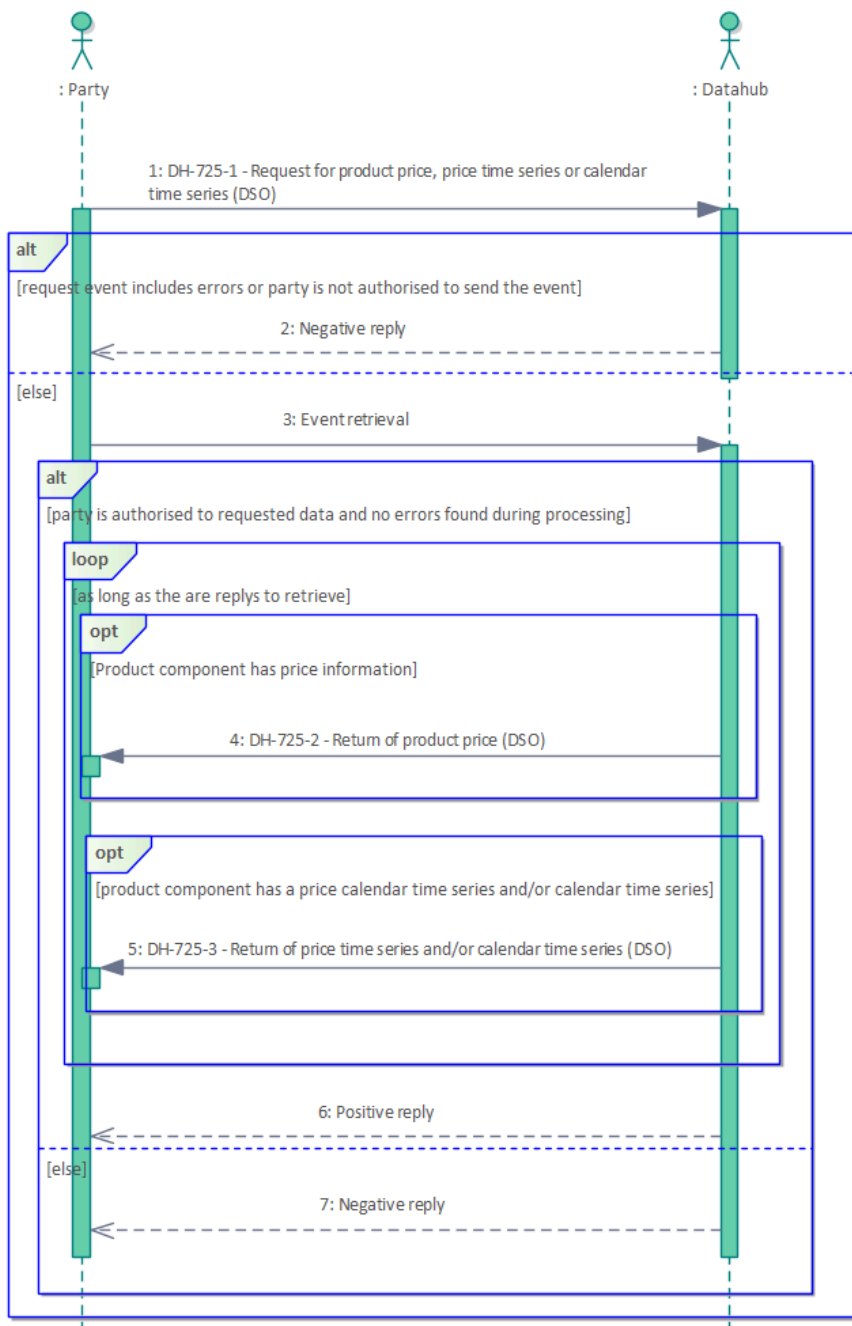


## DH-725 Request for product price, price time series or calendar time series – DSO

Event description

Parties


Return of information



Request for product price, price time series or calendar time series – DSO

### Event description

A DSO retrieves another party's product price, price time series or calendar time series from Datahub.

 A supplier's product price, price time series or calendar time series information is returned only if the requesting party has been authorized to it by the product owner (i.e., the supplier).

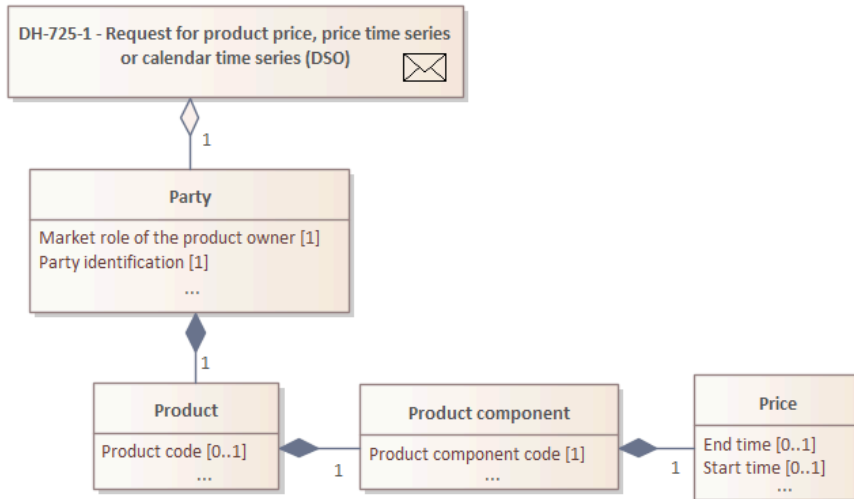
## Parties

- DSO
- Datahub

## Return of information

Party	Description	Message
DSO	<p>The requested product price, price time series or calendar time series.</p> <p>Based on the price type of the requested product, either price information (F22) or a price time series (F23) is returned. It is possible that a product component includes both a price and a calendar time series, in which case both F22 and F23 messages are returned.</p>	<p><a href="#">DH-725-2</a></p> <p><a href="#">DH-725-3</a></p>

## DH-725-1 Request for product price, price time series or calendar time series (DSO)



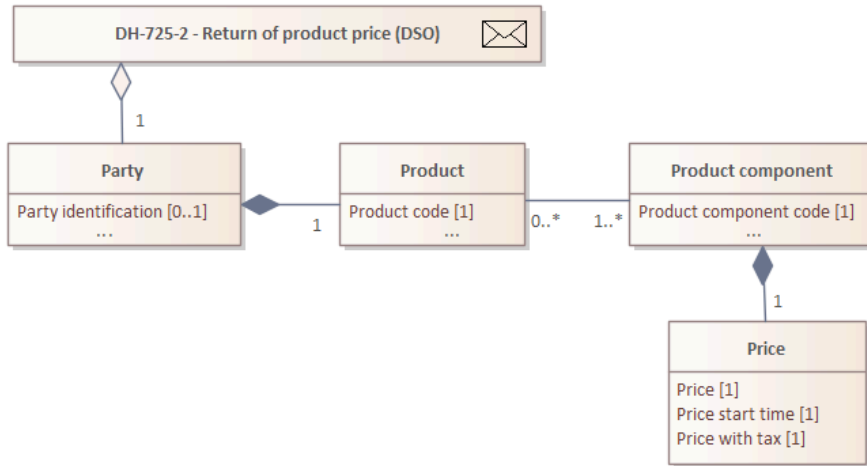
Details of the request for product price, price time series or calendar time series

Message DH-725-1 is of message type [F24](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Market role of the product owner	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	0..1		
End time	2	0..1		

## DH-725-2 Return of product price (DSO)



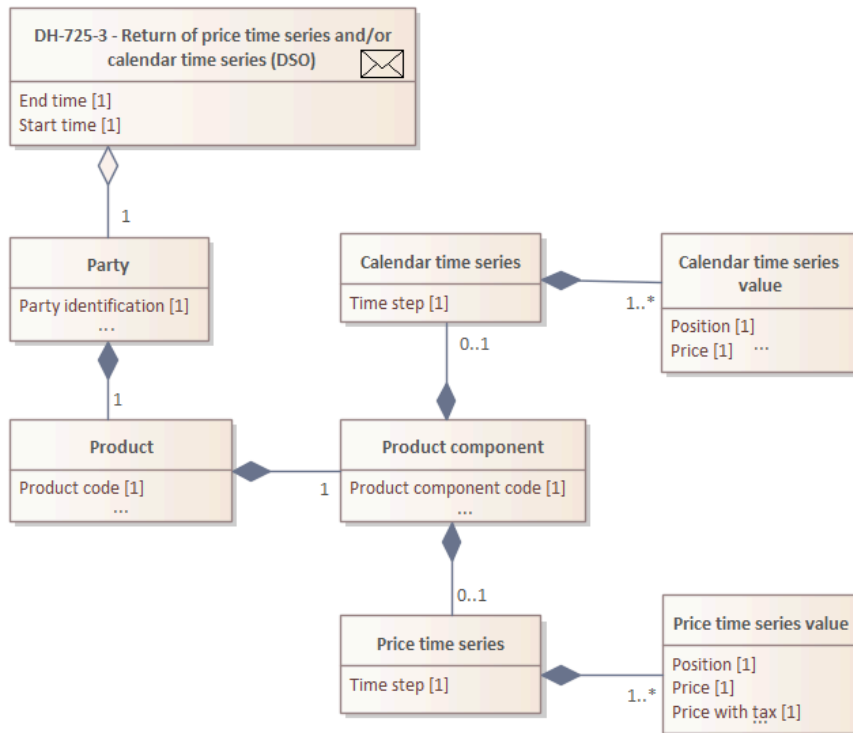
Details of the return of product price

The returned data is the same as in message [F22](#), which is used for updating pricing information ([DH-713/DH-714](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	0..1		
Product code	2	1..1		
Product component code	2	1..1		
Price	2	1..1		
Price with tax	2	1..1		
Price validity period	2	1..1		
Price start time	3	1..1		

## DH-725-3 Return of price time series and/or calendar time series (DSO)



Details of the return of price time series and/or calendar time series

The returned data is the same as in message [F23](#), which is used for updating price time series and calendar time series information ([DH-715/DH-716](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Party identification	2	0..1		
Product code	2	1.1		
Product component code	2	1.1		
Start time	2	1.1		
End time	2	1.1		
Calendar time series	2	0..1		

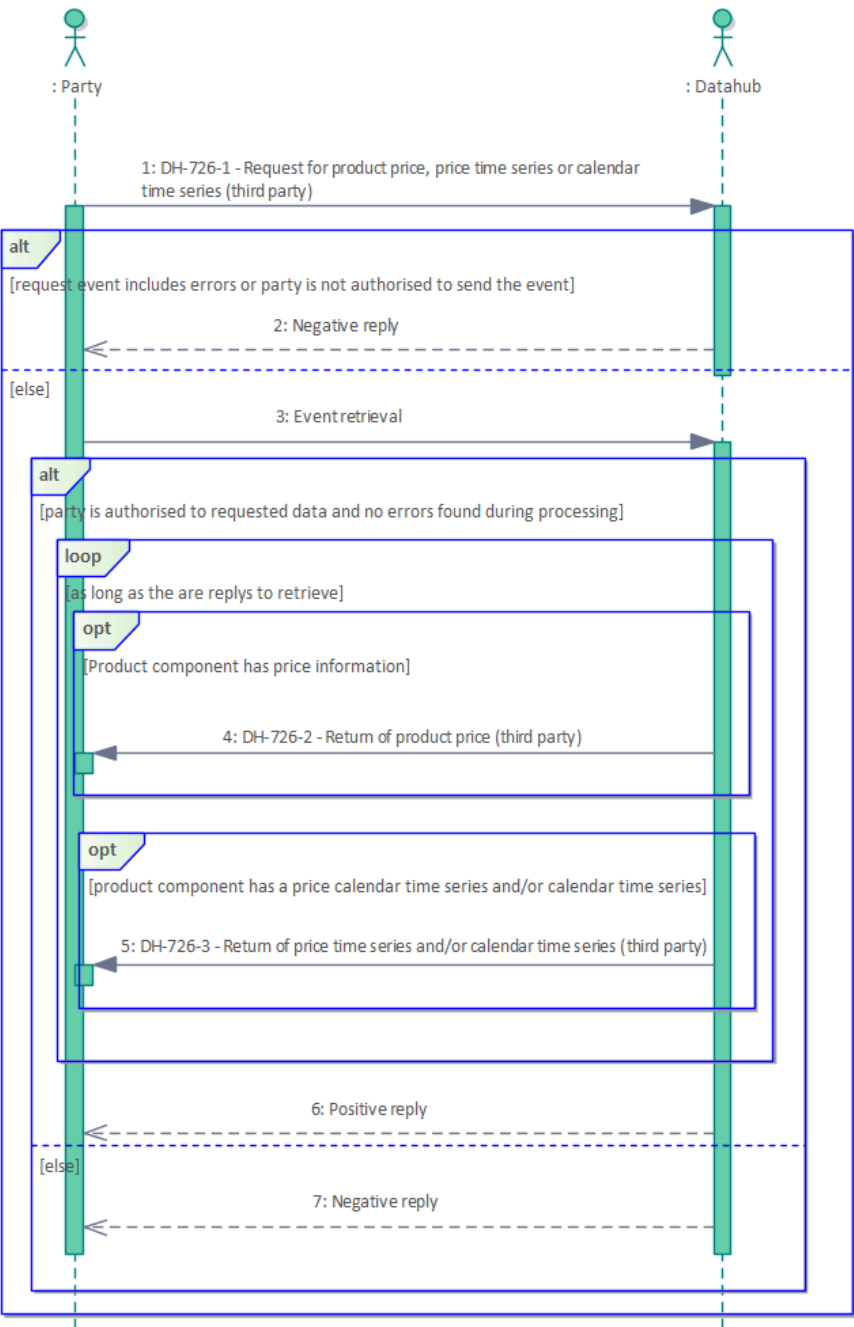
Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Value	4	1..1		
Price time series	2	0..1		
Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Price	4	1..1		
Price with tax	4	1..1		

# DH-726 Request for product price, price time series or calendar time series – third party

Event description

Parties

Return of information



Request for product price, price time series or calendar time series – third party

## Event description

A third party retrieves another party’s product price, price time series or calendar time series from Datahub.

**i** A supplier's product price, price time series or calendar time series information is returned only if the requesting party has been authorized to it by the product owner (i.e., the supplier).

## Parties

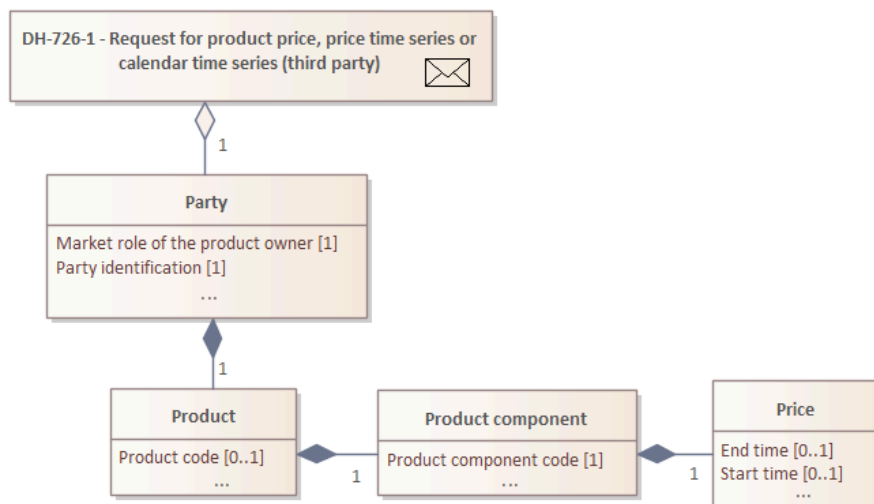
- Third party
- Datahub

## Return of information

Party	Description	Message
Third party	<p>The requested product price, price time series or calendar time series.</p> <p>Based on the price type of the requested product, either price information (F22) or a price time series (F23) is returned. It is possible that a product component includes both a price and a calendar time series, in which case both F22 and F23 messages are returned.</p>	<p><a href="#">DH-726-2</a></p> <p><a href="#">DH-726-3</a></p>



## DH-726-1 Request for product price, price time series or calendar time series (third party)



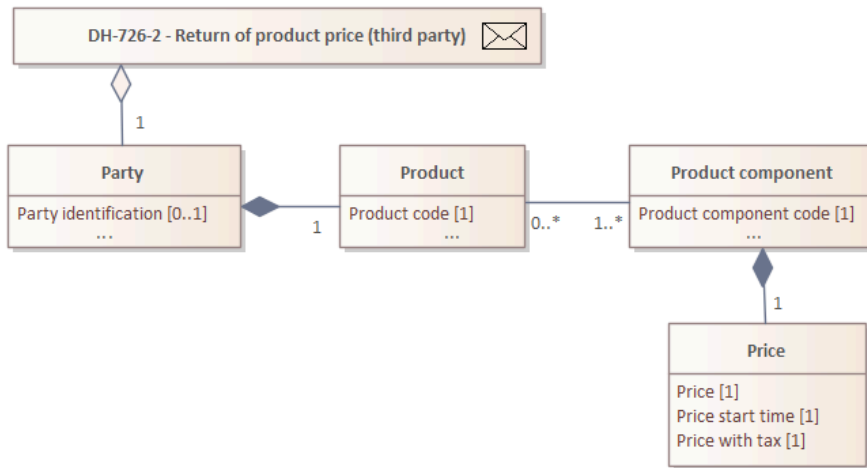
Details of the request for product price, price time series or calendar time series

Message DH-726-1 is of message type [F24](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	1..1		
Market role of the product owner	2	1..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	0..1		
End time	2	0..1		

## DH-726-2 Return of product price (third party)



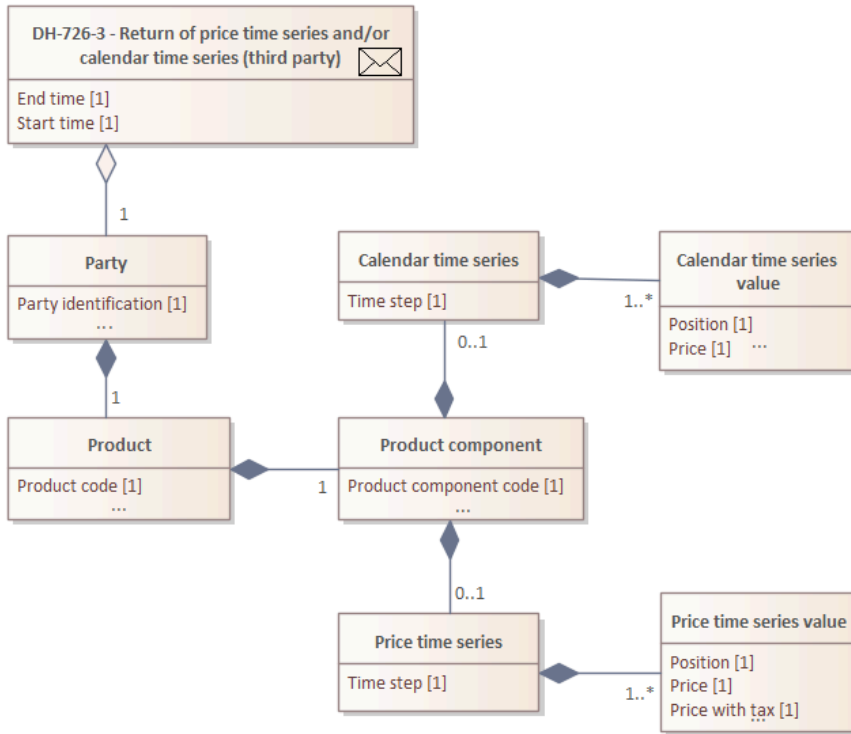
Details of the return of product price

The returned data is the same as in message [F22](#), which is used for updating pricing information ([DH-713/DH-714](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	0..1		
Product code	2	1..1		
Product component code	2	1..1		
Price	2	1..1		
Price with tax	2	1..1		
Price validity period	2	1..1		
Price start time	3	1..1		

## DH-726-3 Return of price time series and/or calendar time series (third party)



Details of the return of price time series and/or calendar time series

The returned data is the same as in message [F23](#), which is used for updating price time series and calendar time series information ([DH-715/DH-716](#)).

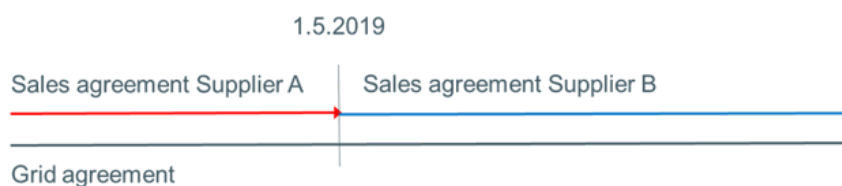
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party identification	2	0..1		
Product code	2	1..1		
Product component code	2	1..1		
Start time	2	1..1		
End time	2	1..1		
Calendar time series	2	0..1		

Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Value	4	1..1		
Price time series	2	0..1		
Reporting period	3	1..1		
Time step	4	1..1		
Time series values	3	1..n		
Position	4	1..1		
Price	4	1..1		
Price with tax	4	1..1		

## DH-730 Invoice row information notification

Market parties can send invoice row information via Datahub. Invoice row information can be sent, for example, when a party has agreed with a customer that the customer receives only one invoice, containing both electricity supply and transmission. In this case, the other market party can report all its accounting point related billing information to the invoicing party using invoice rows. The market party that sends the invoice row information to Datahub needs to ensure that the information is forwarded to the right party. When using combined invoicing, the invoicing party also reports the receiving party's identification and the agreement identification of the receiving party in the invoice row message. Parties receive these identifications through agreement processes. If, for example, a DSO reports invoice row information to the supplier, the DSO must be able to generate the grid agreement's invoice rows for the correct recipient, taking into account a possible supplier change.



In the example above supplier B's agreement starts on 1.5.2019. The grid agreement does not change in the supplier change situation. If the DSO has agreed on combined invoicing with both suppliers, it needs to ensure that it does not send invoice rows to supplier A for the period after 1.5.2019.

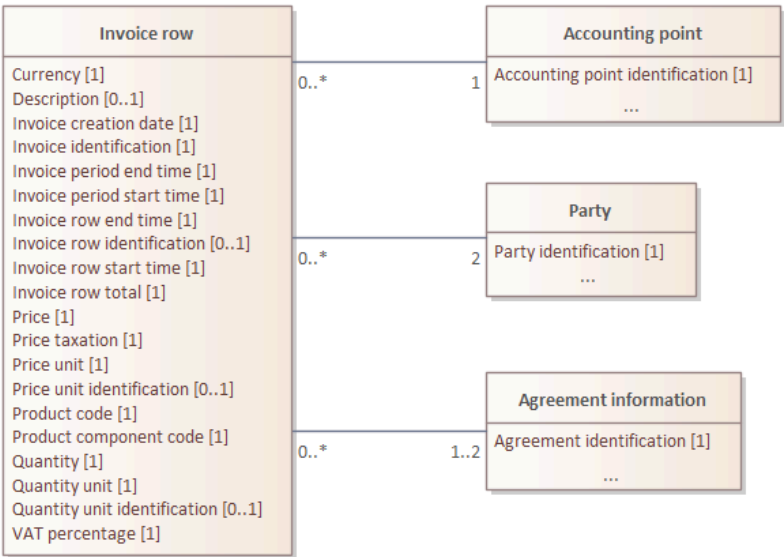
Invoice row information can also be used for forwarding billing information to a service provider offering invoicing services. In such cases, there is no agreement identification for the receiving party to report. Before forwarding invoice row information, the involved parties must agree on the terms of information exchange and report a party authorization in the user interface. The authorizing party selects the authorized party and sets the validity period for the authorization. The issued authorization applies to all invoice rows delivered to the authorized party. If needed, the receiving of invoice rows can be delegated to a service provider. If the DSO authorizes supplier A to its invoice rows, supplier A can delegate the reception of those rows to a third party, such as service provider C. A private customer cannot authorize a third party to access invoice row information.

A party reports invoice row information to Datahub after first having compiled it in its own system according to party-specific invoicing processes. Invoice row information is reported separately for each product component. For example, for an electricity product the basic fee

component and energy component are reported as separate rows. The invoicing period for the whole invoice and the invoicing period for a separate invoice row are both reported in the message. The invoicing period may include invoice rows with data that has been corrected retroactively, and therefore the information may not always match. Invoice rows can also be used to communicate service fee invoicing between parties as separate invoice rows. The amount to be invoiced for a power-based product component can also be communicated using invoice row data. In this way, a party receiving invoice rows and handling customer billing does not necessarily have to maintain the calculation rules affecting the invoicing.

A notification of invoice rows to Datahub is never cancelled or modified. If the sending party corrects its own billing, it is obligated to send the correction data as separate invoice row entries via Datahub to the receiving party, first as credit rows and then as new debit rows.

Invoice row information is reported according to the structure below.



Invoice row information class diagram

# DH-730 Process maps

No content yet.

## DH-730 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!



## DH-731 Invoice row information notification – supplier

Event description

Parties

Information storage

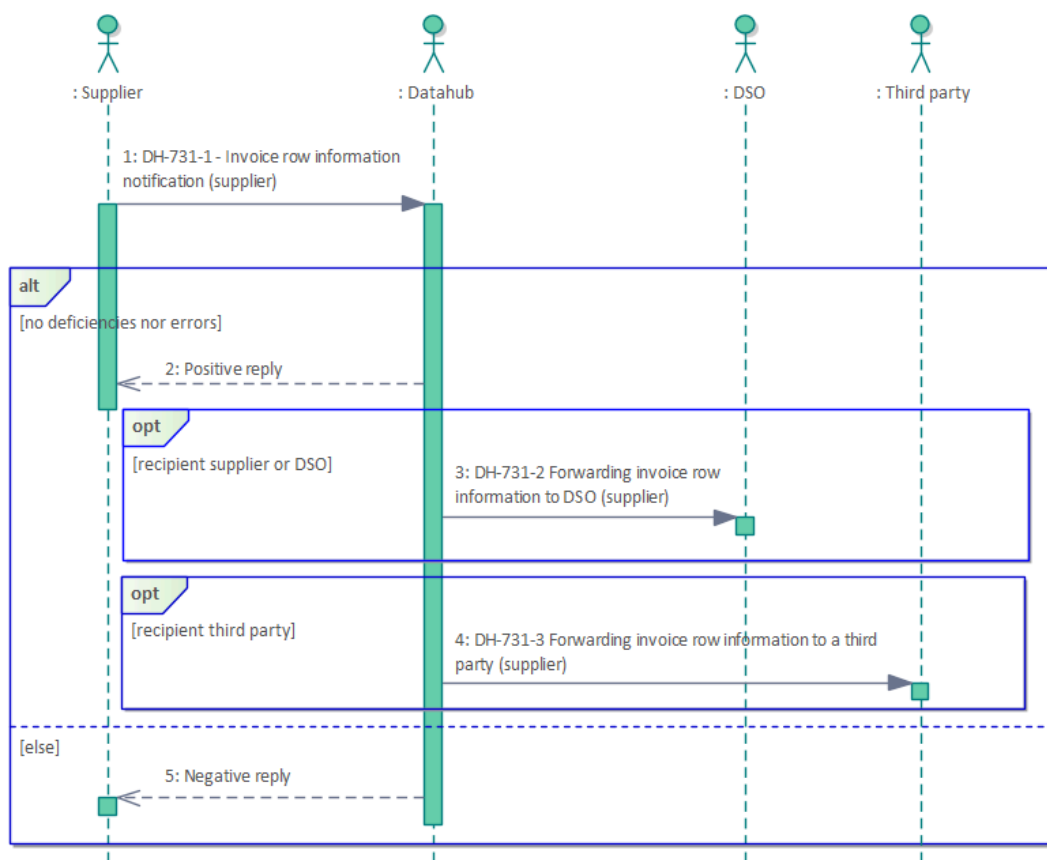
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Invoice row information notification – supplier

### Event description

A supplier reports its own invoice rows to Datahub.

### Parties

- Supplier
- Datahub
- DSO/Third party

### Information storage

Origin of information	Information stored
Information reported by party	Invoice row information

### Return of information

Party	Description	Message
Supplier	Notification of successful or rejected information. Rejection is accounting-point specific.	

### Forwarding of information

Party	Specification	Description	Message
DSO	Authorized by the supplier	Invoice row information is forwarded to the receiving party, who needs an authorization for invoice row data from the sender party.	<a href="#">DH-731-2</a>
Third party	Authorized by the supplier	Invoice row information is forwarded to the receiving party, who needs an authorization for invoice row data from the sender party.	<a href="#">DH-731-3</a>

### Significant errors and consequences


Error	Consequence
Invoice row information is reported incorrectly.	The billing process produces incorrect invoices.

### Event cancellation

The event cannot be cancelled.


### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

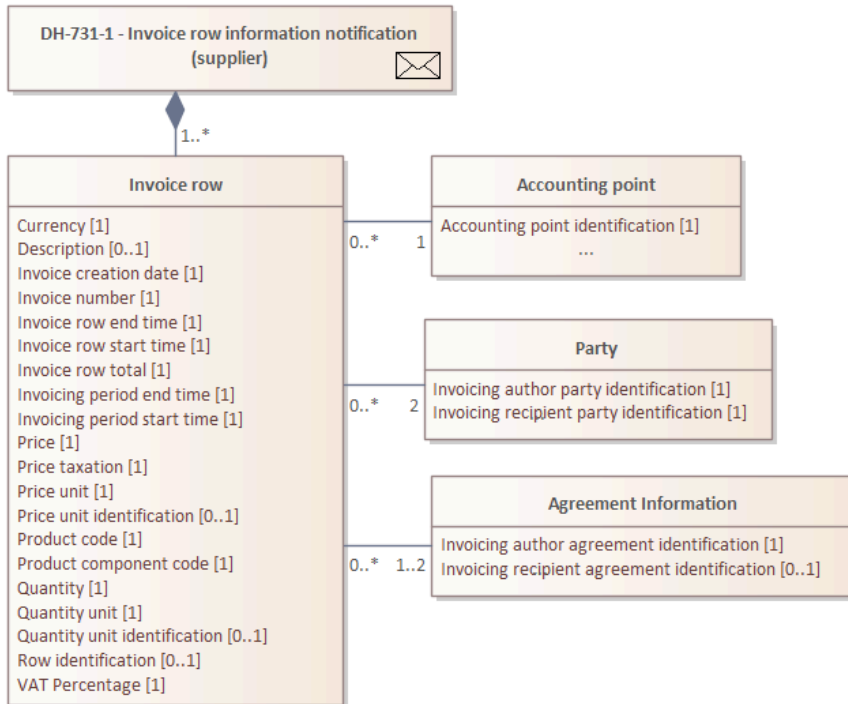
-  If the message causes validation errors, Datahub rejects the invoice row information on an accounting-point-specific basis. An error does not result in the rejection of the entire

message; only invoice rows for the accounting point associated with the faulty rows are rejected.

Rule	Error code	Note
The accounting point must be recorded in Datahub.	RC.IVR.001	
The reported agreement must be a supplier's agreement.	RC.IVR.002	
If the recipient is a distribution system operator, the agreement held by the DSO must be reported.	RC.IVR.003	
A valid authorization must exist in between the supplier and recipient.	RC.IVR.004	
When a recipient's agreement is not reported, the recipient must be a third party.	RC.IVR.005	
The reported party must match the message's JuridicalSender information.	RC.IVR.008	

 Please observe that the list is not complete.

## DH-731-1 Invoice row information notification (supplier)



Details of invoice row information notification

Message DH-731-1 is of message type [F13](#).

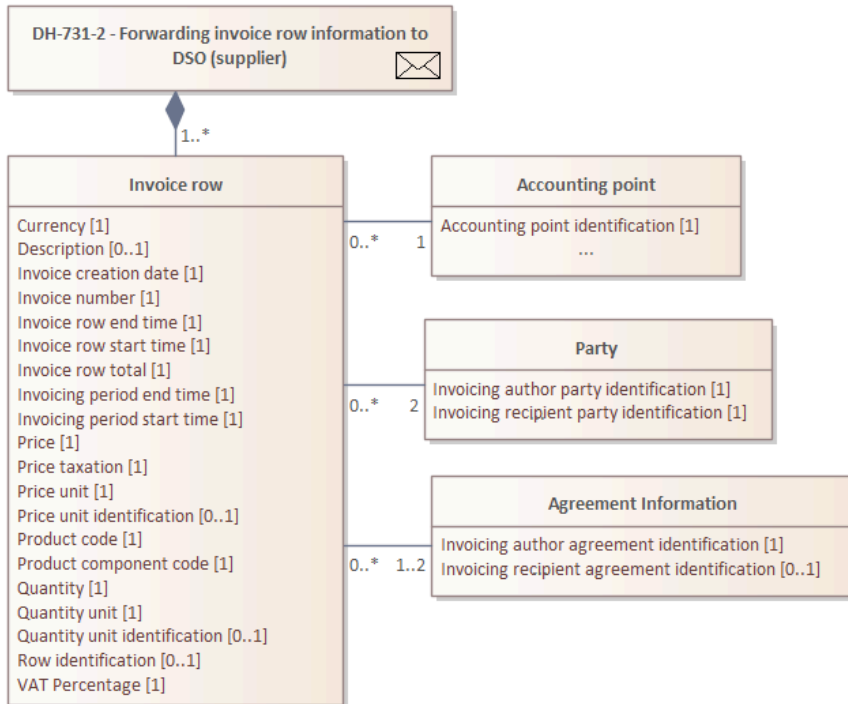
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		

Invoicing recipient party identification	2	1..1		
Invoicing period	2	1..1	Total invoicing period for which invoice rows are reported	
Invoice number	3	1..1		
Invoice creation date	3	1..1		
Start time	3	1..1		
End time	3	1..1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1..1		
Product component code	3	1..1		
Price	3	1..1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1..1		
Price unit identification	3	0..1		
Currency	3	1..1	EUR	
Price taxation	3	1..1	Yes/No	
Quantity	3	1..1	100	
Quantity unit	3	1..1	kWh	
Quantity unit identification	3	0..1		

Invoice row total	3	1..1	4.89	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		

## DH-731-2 Forwarding invoice row information to DSO (supplier)



Details of forwarding invoice row information to DSO

Message DH-731-2 is of message type [F13](#).

Message payload includes the following information:

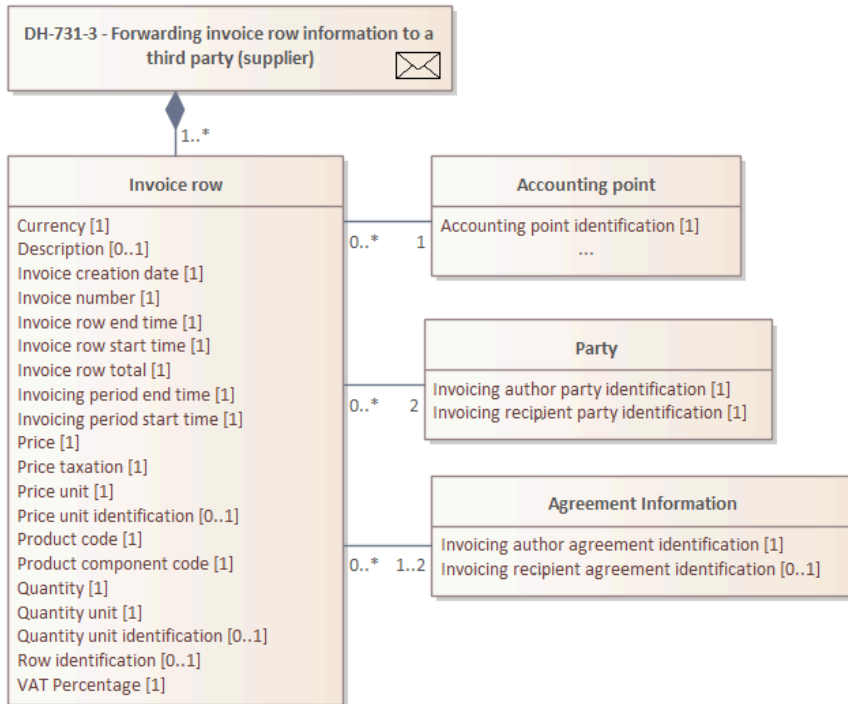
Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		

Invoicing recipient party identification	2	1..1		
Invoicing period	2	1..1	Total invoicing period for which invoice rows are reported	
Invoice number	3	1..1		
Invoice creation date	3	1..1		
Start time	3	1..1		
End time	3	1..1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1..1		
Product component code	3	1..1		
Price	3	1..1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1..1		
Price unit identification	3	0..1		
Currency	3	1..1	EUR	
Price taxation	3	1..1	Yes/No	
Quantity	3	1..1	100	
Quantity unit	3	1..1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1..1	4.89	Price unit is unit of currency/unit of electrical



				power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		

## DH-731-3 Forwarding invoice row information to a third party (supplier)



Details of forwarding invoice row information to a third party

Message DH-731-1 is of message type [F13](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1.1		
Invoicing author agreement identification	2	1.1		
Invoicing recipient agreement identification	2	0.1		

Invoicing author party identification	2	1..1		
Invoicing recipient party identification	2	1..1		
Invoicing period	2	1..1	Total invoicing period for which invoice rows are reported	
Invoice number	3	1..1		
Invoice creation date	3	1..1		
Start time	3	1..1		
End time	3	1..1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1..1		
Product component code	3	1..1		
Price	3	1..1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1..1		
Price unit identification	3	0..1		
Currency	3	1..1	EUR	
Price taxation	3	1..1	Yes/No	
Quantity	3	1..1	100	

Quantity unit	3	1.1	kWh	
Quantity unit identification	3	0.1		
Invoice row total	3	1.1	4.89	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Description	3	0.1		
VAT percentage	3	1.1	24.00	
Start time	3	1.1		
End time	3	1.1		

## DH-732 Invoice row information notification – DSO

Event description

Parties

Information storage

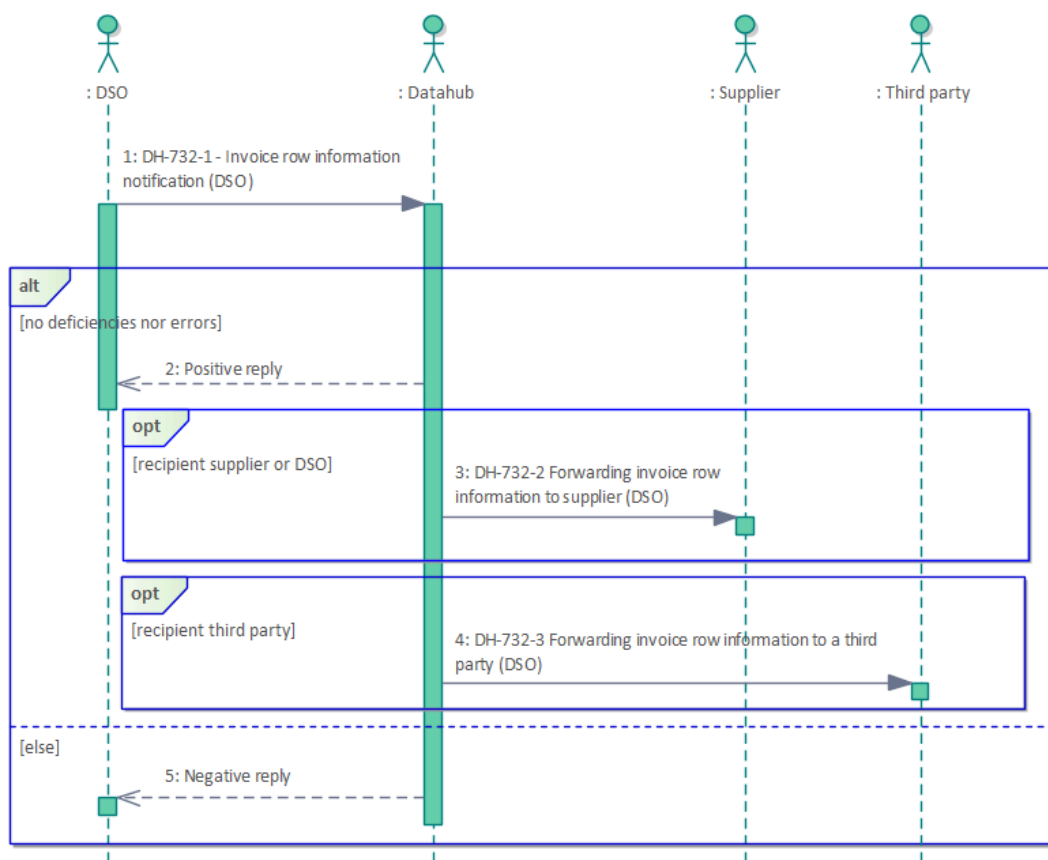
Return of information

Forwarding of information

Significant errors and consequences

Event cancellation

Validation rules



Invoice row information notification – DSO

### Event description

A DSO reports its own invoice rows to Datahub.

### Parties

- DSO
- Datahub
- Supplier/Third party

### Information storage

Origin of information	Information stored
Information reported by party	Invoice row information

### Return of information

Party	Description	Message
DSO	Notification of successful or rejected information. Rejection is accounting-point specific.	

### Forwarding of information

Party	Specification	Description	Message
Supplier	Authorized by the DSO	Invoice row information is forwarded to the receiving party, who needs an authorization for invoice row data from the sender party.	<a href="#">DH-732-2</a>
Third party	Authorized by the DSO	Invoice row information is forwarded to the receiving party, who needs an authorization for invoice row data from the sender party.	<a href="#">DH-732-3</a>

### Significant errors and consequences

Error	Consequence
Invoice row information is reported incorrectly.	The billing process produces incorrect invoices.

### Event cancellation


The event cannot be cancelled.

### Validation rules

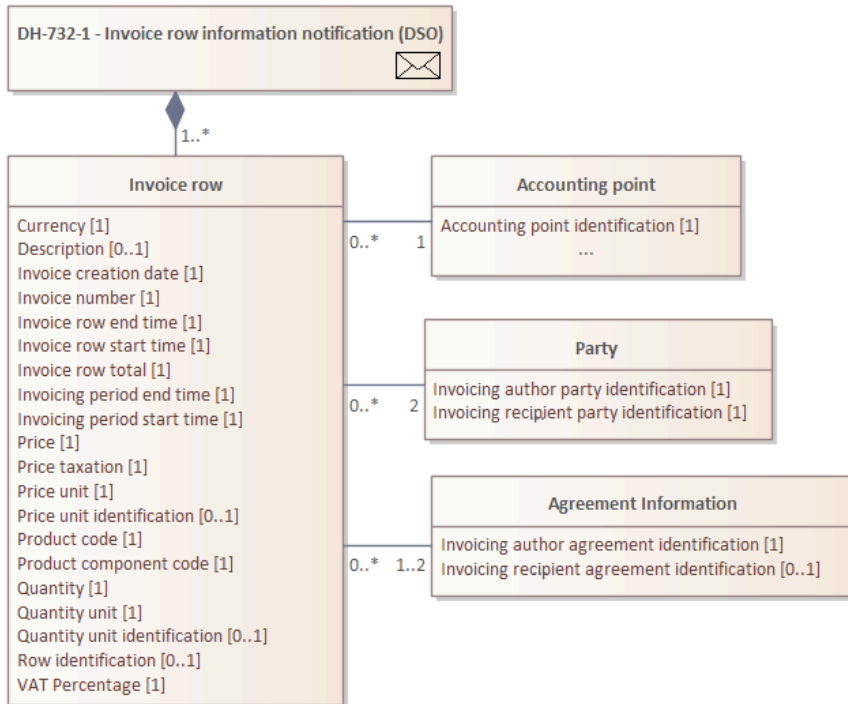
Please see [Datahub Validation Rules](#) for a more thorough list.

**i** If the message causes validation errors, Datahub rejects the invoice row information on an accounting-point-specific basis. An error does not result in the rejection of the entire

message; only invoice rows for the accounting point associated with the faulty rows are rejected.

Rule	Error code	Note
The accounting point must be recorded in Datahub.	RC.IVR.001	
The reported agreement must be a supplier's agreement.	RC.IVR.002	
If the recipient is a distribution system operator, the agreement held by the DSO must be reported.	RC.IVR.003	
A valid authorization must exist in between the supplier and recipient.	RC.IVR.004	
When a recipient's agreement is not reported, the recipient must be a third party.	RC.IVR.005	
The reported party must match the message's JuridicalSender information.	RC.IVR.008	
<div>  Please observe that the list is not complete.         </div>		

## DH-732-1 Invoice row information notification (DSO)



Details of invoice row information notification

Message DH-732-1 is of message type [F13](#).

Message payload includes the following information:

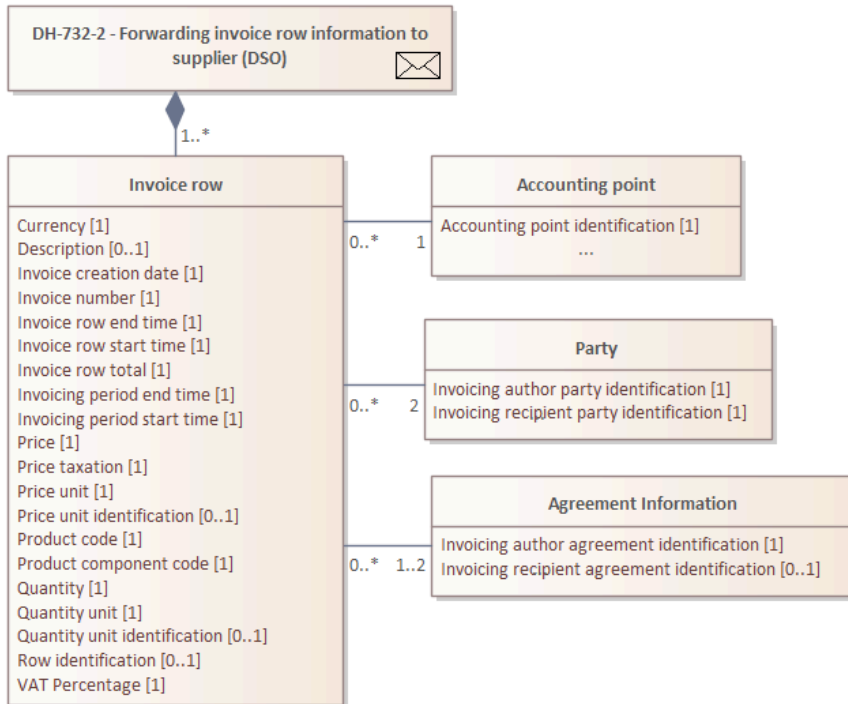
Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		



Invoicing recipient party identification	2	1.1		
Invoicing period	2	1.1	Total invoicing period for which invoice rows are reported	
Invoice number	3	1.1		
Invoice creation date	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1.1		
Product component code	3	1.1		
Price	3	1.1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1.1		
Price unit identification	3	0..1		
Currency	3	1.1	EUR	
Price taxation	3	1.1	Yes/No	
Quantity	3	1.1	100	
Quantity unit	3	1.1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1.1	4.89	Price unit is unit of currency/unit of electrical

				power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		

## DH-732-2 Forwarding invoice row information to supplier (DSO)



Details of forwarding invoice row information to supplier

Message DH-732-2 is of message type [F13](#).

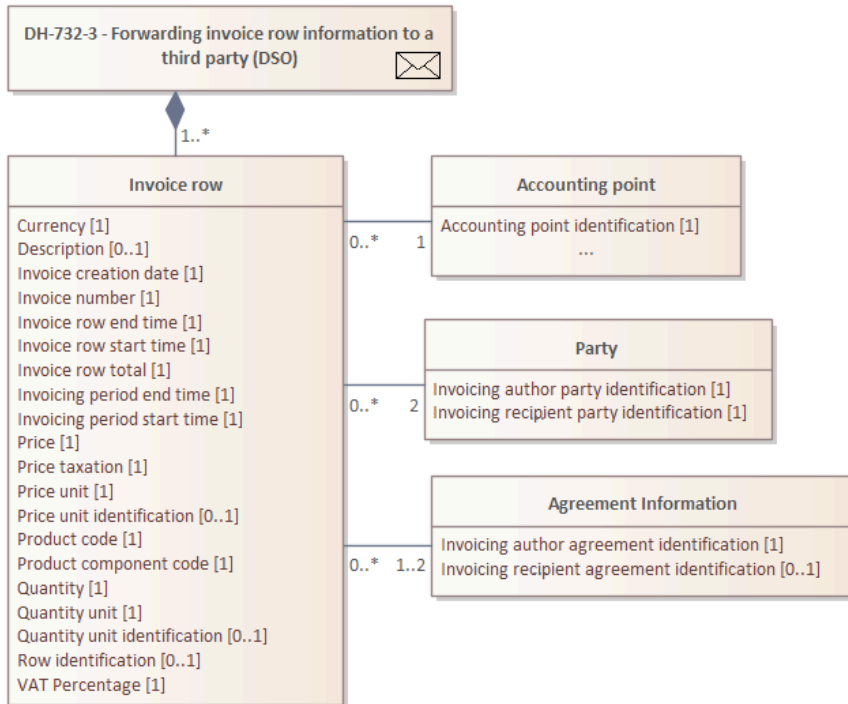
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1.1		
Invoicing author agreement identification	2	1.1		
Invoicing recipient agreement identification	2	0.1		
Invoicing author party identification	2	1.1		

Invoicing recipient party identification	2	1.1		
Invoicing period	2	1.1	Total invoicing period for which invoice rows are reported	
Invoice number	3	1.1		
Invoice creation date	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1.1		
Product component code	3	1.1		
Price	3	1.1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1.1		
Price unit identification	3	0..1		
Currency	3	1.1	EUR	
Price taxation	3	1.1	Yes/No	
Quantity	3	1.1	100	
Quantity unit	3	1.1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1.1	4.89	Price unit is unit of currency/unit of electrical

				power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		

## DH-732-3 Forwarding invoice row information to a third party (DSO)



Details of forwarding invoice row information to a third party

Message DH-732-3 is of message type [F13](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		

Invoicing recipient party identification	2	1.1		
Invoicing period	2	1.1	Total invoicing period for which invoice rows are reported	
Invoice number	3	1.1		
Invoice creation date	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1.1		
Product component code	3	1.1		
Price	3	1.1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1.1		
Price unit identification	3	0..1		
Currency	3	1.1	EUR	
Price taxation	3	1.1	Yes/No	
Quantity	3	1.1	100	
Quantity unit	3	1.1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1.1	4.89	Price unit is unit of currency/unit of electrical

				power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		



## DH-740 Invoice row information request

Market parties retrieve invoice rows in the same way as all other messages. For a detailed process description, see [Datahub External Interface Specification](#). A separate invoice row information request is not needed in normal message exchange.

The separate invoice row information request is meant to be used for individual invoice rows. Using this request, market parties can retrieve invoice rows for an individual accounting point or agreement whenever they need to find out what information has been exchanged between parties through Datahub.

The invoice rows described above can be retrieved using a specific time interval. The request returns all invoice rows of the given time interval. For example, a request for the interval 1.1.2025–31.3.2025 could return invoice rows for the time periods 15.12.2024–14.2.2025 and 15.2.2025–14.4.2025. The request is always limited using accounting point, or, if needed, the agreement identification of the agreement to be invoiced. Datahub enables the exchange of invoice row information in accordance with the valid decree on invoices. Datahub's invoice rows also support the forwarding of identification information according to the future Finvoice 3.0 standard.

DH-740 Process maps

No content yet.

## DH-740 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

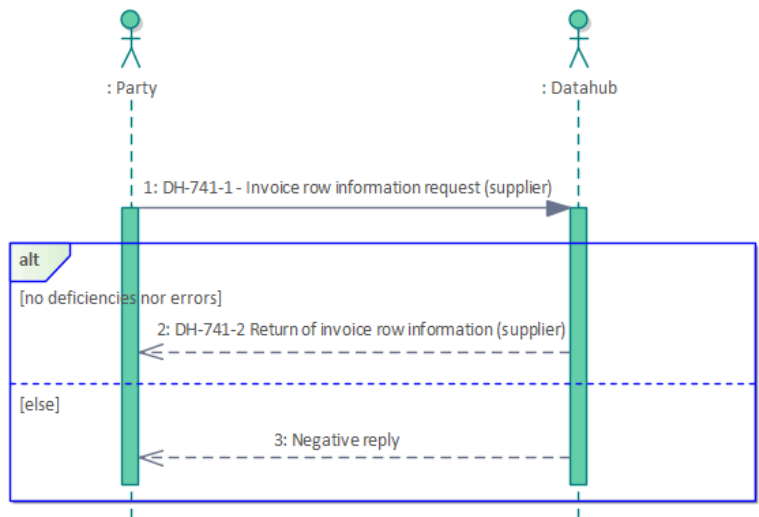
# DH-741 Invoice row information request – supplier

Event description

Parties

Return of information

Validation rules



Invoice row information request – supplier

## Event description

A supplier retrieves invoice row information from Datahub. Rights to information: The invoicing method of the agreement is combined invoicing, and the party has been issued an authorization for invoice row information.

## Parties


- Supplier
- Datahub

## Return of information

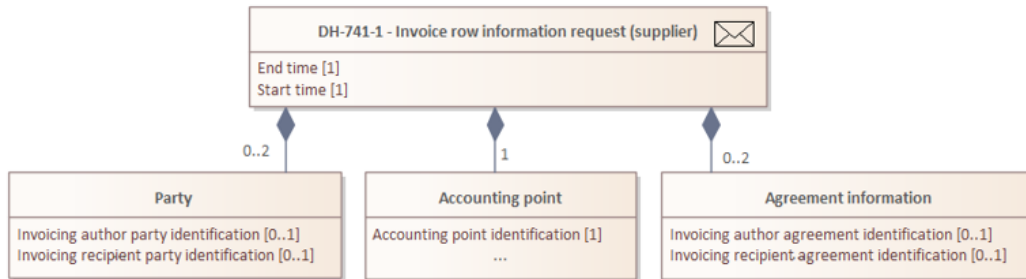
Party	Description	Message
Supplier	All invoice rows corresponding to the limiting conditions and for which the time interval intersects with the interval used in the request, or a rejected request. If there are no invoice rows matching the search criteria, the request is rejected.	<a href="#">DH-741-2</a>

### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The minimum number of invoice rows is 1.	EC.IVR.006	
The maximum number of invoice rows is 1,000.	EC.IVR.007	
<div> Please observe that the list is not complete.</div>		

## DH-741-1 Invoice row information request (supplier)



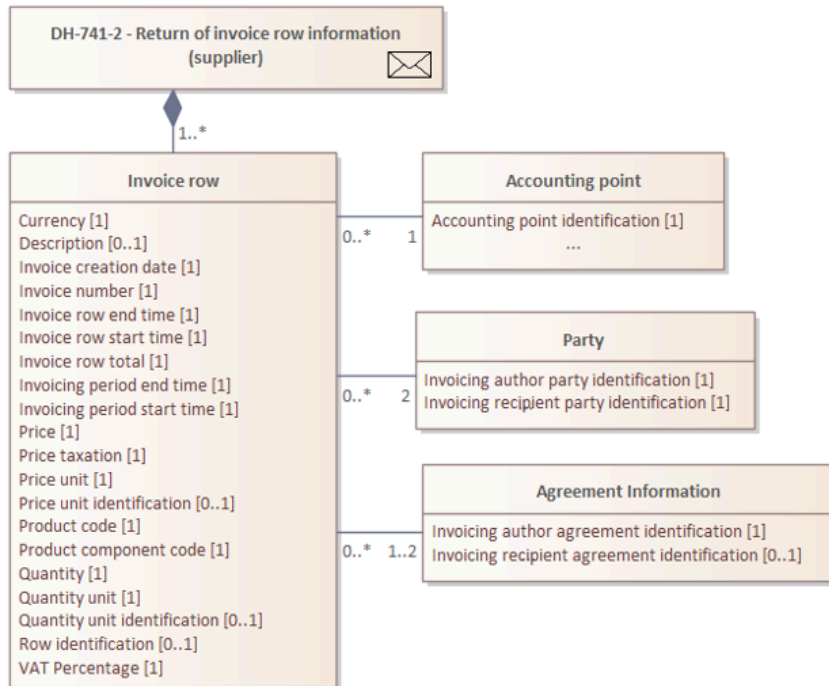
Details of invoice row information request

Message DH-741-1 is of message type [F14](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Invoicing period	2	1..1		Invoice rows that intersect with the invoicing period are returned.
Start time	3	1..1		
End time	3	1..1		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	0..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	0..1		
Invoicing recipient party identification	2	0..1		

## DH-741-2 Return of invoice row information (supplier)



Details of the return of invoice row information

Message DH-741-2 is of message type [F13](#). Returned information is the same as in the invoice row information notification ([DH-731](#), [DH-732](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		

Invoicing recipient party identification	2	1.1		
Invoicing period	2	1.1	Total invoicing period for which invoice rows are reported.	
Invoice number	3	1.1		
Invoice creation date	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1.1		
Product component code	3	1.1		
Price	3	1.1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1.1		
Price unit identification	3	0..1		
Currency	3	1.1	EUR	
Price taxation	3	1.1	Yes/No	
Quantity	3	1.1	100	
Quantity unit	3	1.1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1.1	4.89	Price unit is unit of currency/unit of



				<p>electrical power, e.g., EUR/kWh.</p> <p>The unit for the total is currency, e.g., EUR.</p>
Description	3	0.1		
VAT percentage	3	1.1	24.00	
Start time	3	1.1		
End time	3	1.1		

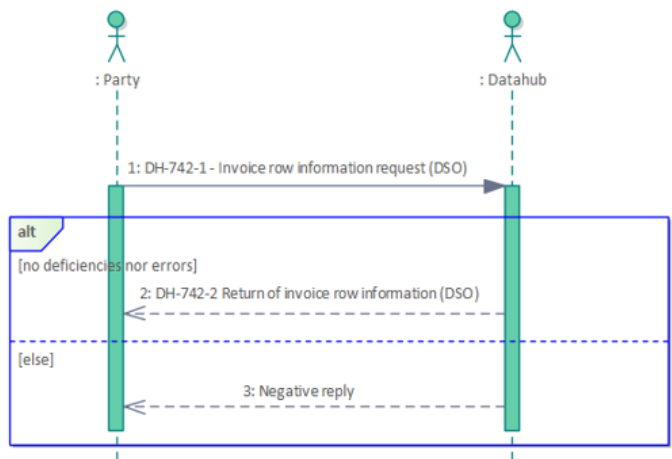
# DH-742 Invoice row information request – DSO

Event description

Parties

Return of information

Validation rules



Invoice row information request – DSO

## Event description

A DSO retrieves invoice row information from Datahub. Rights to information: The invoicing method of the agreement is combined invoicing, and the party has been issued an authorization for invoice row information.

## Parties


- DSO
- Datahub

## Return of information

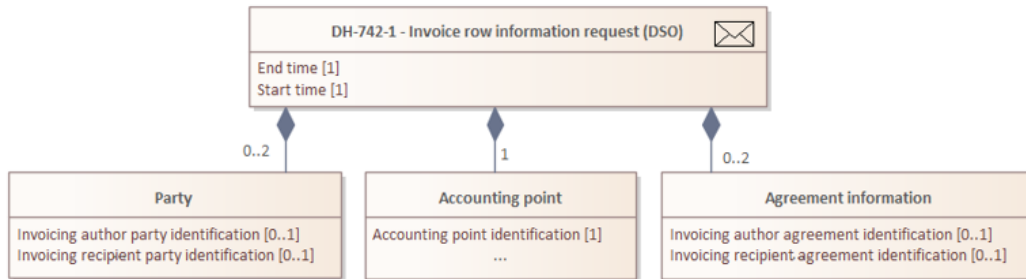
Party	Description	Message
DSO	All invoice rows corresponding to the limiting conditions and for which the time interval intersects with the interval used in the request, or a rejected request. If there are no invoice rows matching the search criteria, the request is rejected.	<a href="#">DH-742-2</a>

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The minimum number of invoice rows is 1.	EC.IVR.006	
The maximum number of invoice rows is 1,000.	EC.IVR.007	
<div>  Please observe that the list is not complete. </div>		

## DH-742-1 Invoice row information request (DSO)



Details of invoice row information request

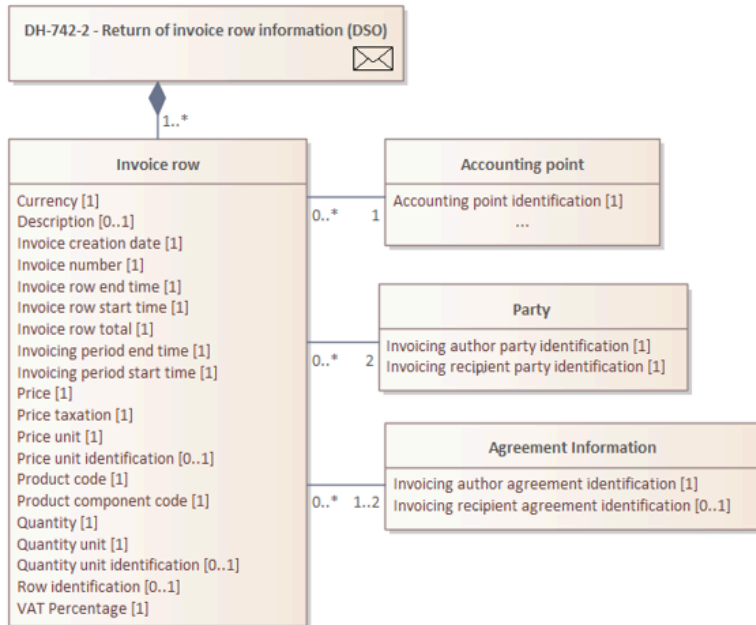
Message DH-742-1 is of message type [F14](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Invoicing period	2	1..1		Invoice rows that intersect with the invoicing period are returned.
Start time	3	1..1		
End time	3	1..1		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	0..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	0..1		
Invoicing recipient party identification	2	0..1		

Invoicing author agreement identification	2	0..1		
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## DH-742-2 Return of invoice row information (DSO)



Details of the return of invoice row information

Message DH-742-2 is of message type [F13](#). Returned information is the same as in the invoice row information notification ([DH-731](#), [DH-732](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		

Invoicing recipient party identification	2	1..1		
Invoicing period	2	1..1	Total invoicing period for which invoice rows are reported.	
Invoice number	3	1..1		
Invoice creation date	3	1..1		
Start time	3	1..1		
End time	3	1..1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1..1		
Product component code	3	1..1		
Price	3	1..1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1..1		
Price unit identification	3	0..1		
Currency	3	1..1	EUR	
Price taxation	3	1..1	Yes/No	
Quantity	3	1..1	100	
Quantity unit	3	1..1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1..1	4.89	Price unit is unit of currency/unit of

				<p>electrical power, e.g., EUR/kWh.</p> <p>The unit for the total is currency, e.g., EUR.</p>
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		



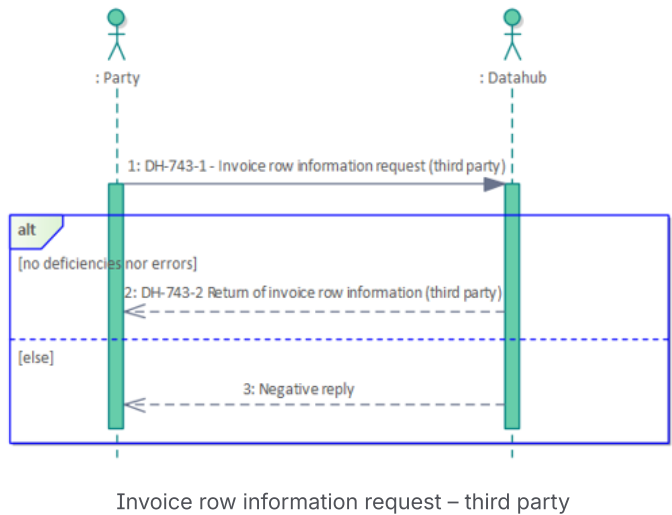
# DH-743 Invoice row information request – third party

Event description

Parties

Return of information

Validation rules



## Event description

A third party retrieves invoice row information from Datahub. Rights to information: The invoicing method of the agreement is combined invoicing, and the party has been issued an authorization for invoice row information.

## Parties


- Third party
- Datahub

## Return of information

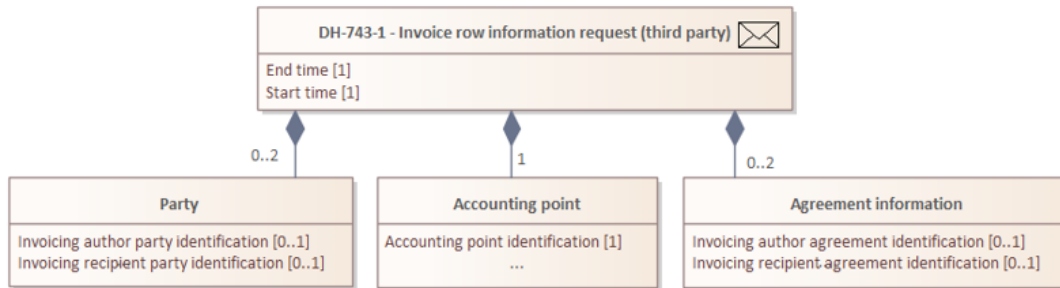
Party	Description	Message
Third party	All invoice rows corresponding to the limiting conditions and for which the time interval intersects with the interval used in the request, or a rejected request. If there are no invoice rows matching the search criteria, the request is rejected.	<a href="#">DH-743-2</a>

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The minimum number of invoice rows is 1.	EC.IVR.006	
The maximum number of invoice rows is 1,000.	EC.IVR.007	
<div>  Please observe that the list is not complete. </div>		

## DH-743-1 Invoice row information request (third party)



Details of invoice row information request

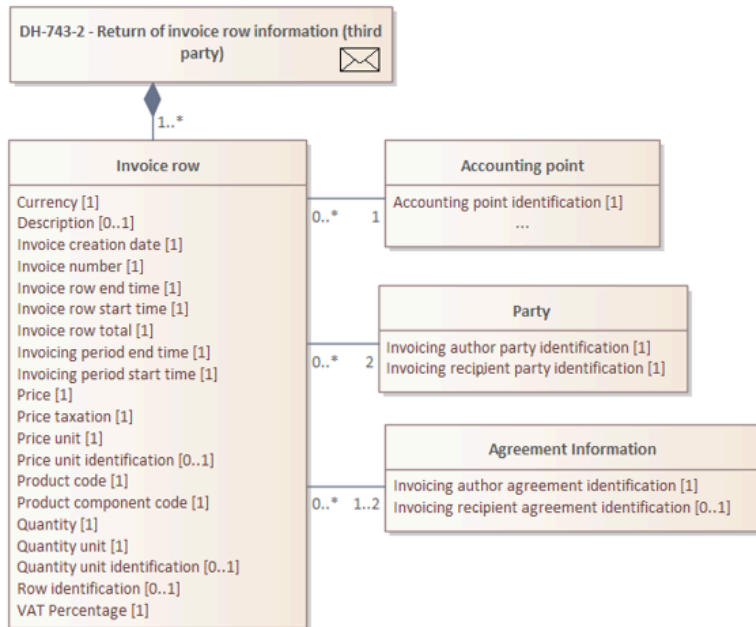
Message DH-743-1 is of message type [F14](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Invoicing period	2	1.1		Invoice rows that intersect with the invoicing period are returned.
Start time	3	1.1		
End time	3	1.1		
Accounting point identification	2	1.1		
Invoicing author agreement identification	2	0.1		
Invoicing recipient agreement identification	2	0.1		
Invoicing author party identification	2	0.1		
Invoicing recipient party identification	2	0.1		

Invoicing author agreement identification	2	0.1		
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## DH-743-2 Return of invoice row information (third party)



Details of the return of invoice row information

Message DH-743-2 is of message type [F13](#). Returned information is the same as in the invoice row information notification ([DH-731](#), [DH-732](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Accounting point identification	2	1..1		
Invoicing author agreement identification	2	1..1		
Invoicing recipient agreement identification	2	0..1		
Invoicing author party identification	2	1..1		

Invoicing recipient party identification	2	1.1		
Invoicing period	2	1.1	Total invoicing period for which invoice rows are reported.	
Invoice number	3	1.1		
Invoice creation date	3	1.1		
Start time	3	1.1		
End time	3	1.1		
Invoice rows	2	1..n		
Row identification	3	0..1		
Product code	3	1.1		
Product component code	3	1.1		
Price	3	1.1	0.0489	Price unit is unit of currency/unit of electrical power, e.g., EUR/kWh.  The unit for the total is currency, e.g., EUR.
Price unit	3	1.1		
Price unit identification	3	0..1		
Currency	3	1.1	EUR	
Price taxation	3	1.1	Yes/No	
Quantity	3	1.1	100	
Quantity unit	3	1.1	kWh	
Quantity unit identification	3	0..1		
Invoice row total	3	1.1	4.89	Price unit is unit of currency/unit of

				<p>electrical power, e.g., EUR/kWh.</p> <p>The unit for the total is currency, e.g., EUR.</p>
Description	3	0..1		
VAT percentage	3	1..1	24.00	
Start time	3	1..1		
End time	3	1..1		

## DH-800 End customer authorizations

[Authorizations issued by the customer: types, purposes and validity](#)

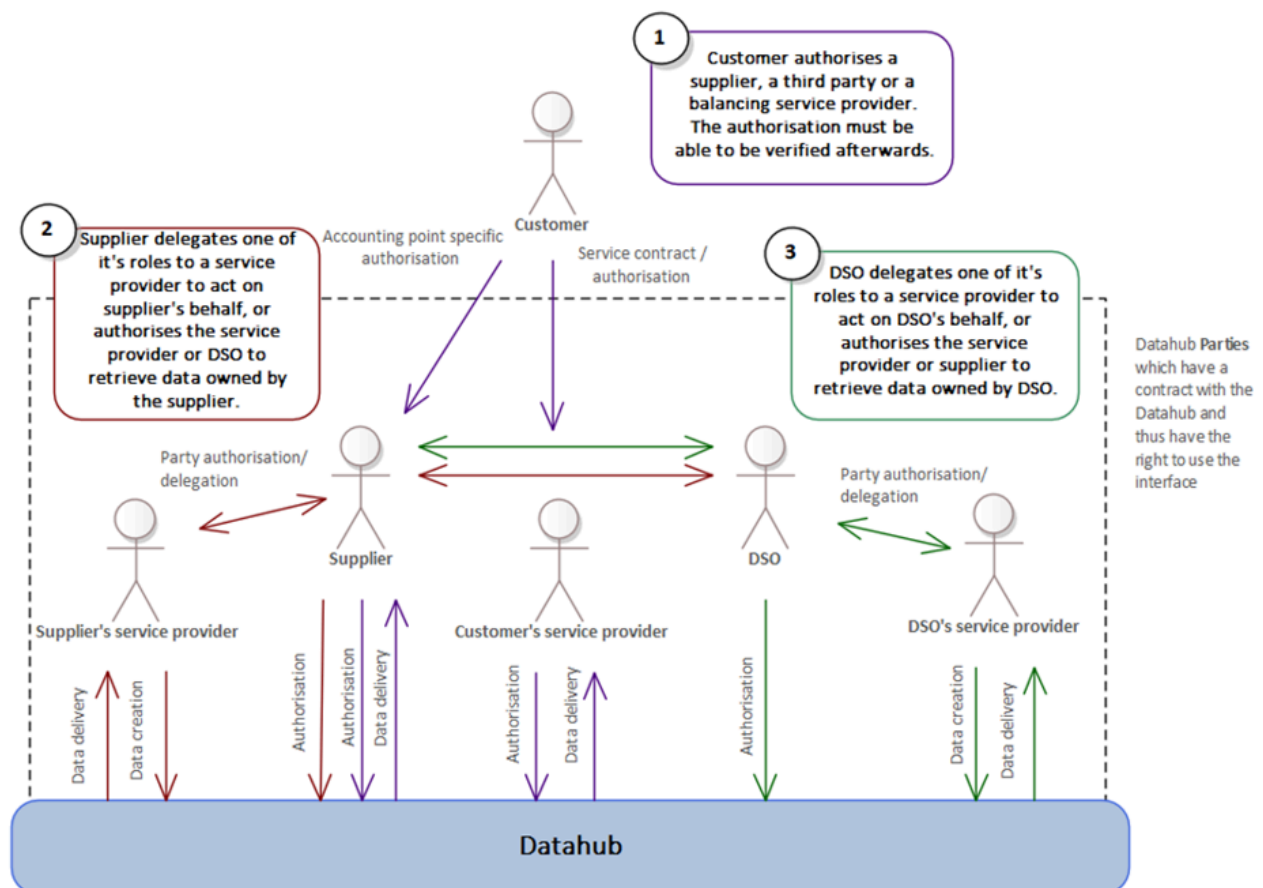
[Creating a new authorization](#)

[Maintenance of authorizations](#)

[End customer authorization events](#)

The rights of Datahub parties are managed by agreements and by means of authorizations. There are two types of authorizations:

1. **Authorizations issued by the customer**, in which the customer provides consent for the processing of personal and electricity consumption data. The principle of these authorizations is described under number 1 in the figure below.
2. **Delegations and party authorizations** are arrangements between Datahub parties that allow one party to grant another the right to access its data or to perform specific tasks associated with a defined role. The principle of these delegations and party authorizations is described under numbers 2 (delegations and party authorizations issued by the supplier) and 3 (delegations and party authorizations issued by the DSO) in the figure below.



Authorizations and delegations reported to Datahub



The processes for end-customer authorizations are being revised. New functionalities will be implemented gradually from version 2.5 onwards. The new types of authorizations and their validity will only become possible with the revised processes; thus, the current authorization notification by a party cannot report authorizations with new authorization types (marked with \* in the table below) or with longer validity than 2 years.

### Authorizations issued by the customer: types, purposes and validity

The customer authorizes a Datahub party to use their information for a specific purpose. The following table presents purposes for and types of authorizations in Datahub.

Co de	Purpose of authorization	Authorized Datahub party	Validity of authorization	Rights provided by the authorization	Rights to metering data
AP 02	<p>Authorization type:</p> <p>Invitation to tender, agreement for the accounting point</p> <p>The customer authorizes the supplier to view their information so the supplier can provide a better offer in a competitive bidding situation. Customer has an agreement for the accounting point.</p>	New supplier, potential supplier	30 days from the time the supplier reports receiving the authorization.	Customer information, accounting point information and metering data retrieval.	6 years, or the validity period of the customer's agreement if shorter.
AP 04	<p>Authorization type:</p> <p>Invitation to tender, no agreement for the accounting point</p> <p>The customer authorizes the supplier to view their information so the supplier can provide a</p>	New supplier, potential supplier	30 days from the time the supplier reports receiving the authorization.	Customer information, accounting point basic information and agreement situation of the	No access to metering data.

	<p>better offer in a competitive bidding situation. Customer does not yet have an agreement for the accounting point.</p>			accounting point.	
AP 03	<p>Authorization type: Competitive bidding, agreement for the accounting point</p> <p>The customer agrees with a consultant concerning competitive bidding and authorizes the consultant to view the customer and accounting point information. Customer has an agreement for the accounting point.</p>	Third party	For the duration of the competitive bidding process, max 30 days.	Customer information, accounting point information and metering data retrieval.	6 years, or the validity period of the customer's agreement if shorter.
AP 05	<p>Authorization type: Competitive bidding, no agreement for the accounting point</p> <p>The customer agrees with a consultant concerning competitive bidding and authorizes the consultant to view the customer and accounting point information. Customer does not have an agreement for the accounting point.</p>	Third party	For the duration of the competitive bidding process, max 30 days.	Customer information, accounting point basic information and agreement situation of the accounting point.	No access to metering data.

AP 01	<p>Authorization type: Energy reporting, agreement for the accounting point</p> <p>The customer authorizes a consultant to handle all their matters related to electricity use. Customer has an agreement for the accounting point.</p>	Third party	Validity period defined by the customer (end date optional).	Customer information, accounting point information and metering data retrieval.	6 years, or the validity period of the customer's agreement if shorter.
AP 06	<p>Authorization type: Balance responsibility information, agreement for the accounting point *</p> <p>The customer authorizes a balancing service provider to access their balance responsibility information on the accounting point and to transfer the information outside of Datahub to the balancing service provider's own systems. Customer has an agreement for the accounting point.</p>	Balancing service provider	Validity period defined by the customer (end date optional).	Accounting point's balance responsibility information retrieval.	No access to metering data.
AP 07	<p>Authorization type: Energy reporting and agreement information *</p> <p>The customer authorizes a consultant to handle all their matters related to electricity use and to</p>	Third party	Validity period defined by the customer (end date optional).	Customer information, accounting point information, metering data retrieval and	6 years, or the validity period of the customer's agreement if shorter.

	access their agreement information.			agreement information.	
AP 08	<p>Authorization type: Accounting points</p> <p>The customer authorizes the supplier or a third party to retrieve basic information about their accounting points.</p>	New supplier, potential supplier, third party	Validity period defined by the customer (end date optional).	Basic information of all the customer's accounting points.	No access to metering data.

The validity of the authorization must correspond to the period agreed upon with the customer. In the industry, fixed-term authorizations are generally recommended, but some types of authorizations may, if necessary, be valid until further notice. If a fixed-term service has been agreed upon with the customer, the authorizations must also be created as fixed-term.

Authorizations grant access to metering data only for the period during which the customer has held an agreement for the accounting point, up to a maximum of 6 years. When a customer authorizes a new supplier using the authorization type 'Invitation to tender', the supplier has the right to access the customer's data for 30 days and can retrieve metering data for up to six years. A customer who is in the process of moving to a new accounting point cannot authorize a new supplier to access metering data, as they have not previously been a customer at that accounting point and therefore do not have any metering data until the moving date.

If the customer has had multiple agreements for the accounting point, and there has been another customer with an agreement in between, the authorization only grants access to data from the most recent agreement period.

Authorizations are stored in Datahub per customer and accounting point. An exception to this is the 'Accounting points' type of authorization, which is customer-specific and grants the authorized party the right to retrieve basic information about all of the customer's accounting point, based on the customer's identifier (business ID or personal ID). The customer can view the authorizations they have issued and their details (associated accounting point, recipient of the authorization, type of authorization, and validity period) in the customer portal.

### Creating a new authorization

The customer issues an authorization to a supplier, a third party or balancing service provider, after which the party can retrieve the specified information from Datahub. According to the

Electricity Market Act and current data protection regulation, a residential customer must personally issue an authorization directly to Datahub. Therefore, the residential customer always authenticates their identity using strong identification on the [customer portal](#) provided by Datahub. Suppliers and third parties can, temporarily, report a business customer's authorization on behalf of the customer, using an authorization notification event, but the event will be discontinued once the authorization process reform is fully completed. After that, parties will send authorization requests to customers for approval through Datahub.

### **Maintenance of authorizations**

If a customer moves out of an accounting point for which they have issued authorizations, these authorizations are automatically ended in Datahub when the customer moves out. The customer's authorizations are also automatically ended also in situations when the customer is marked as information-restricted (non-disclosure). A customer marked as information-restricted cannot issue authorizations.

The combination of customer, party, accounting point and authorization type cannot be duplicated in Datahub. Authorization notifications with the same combination of information overwrite the existing authorization.

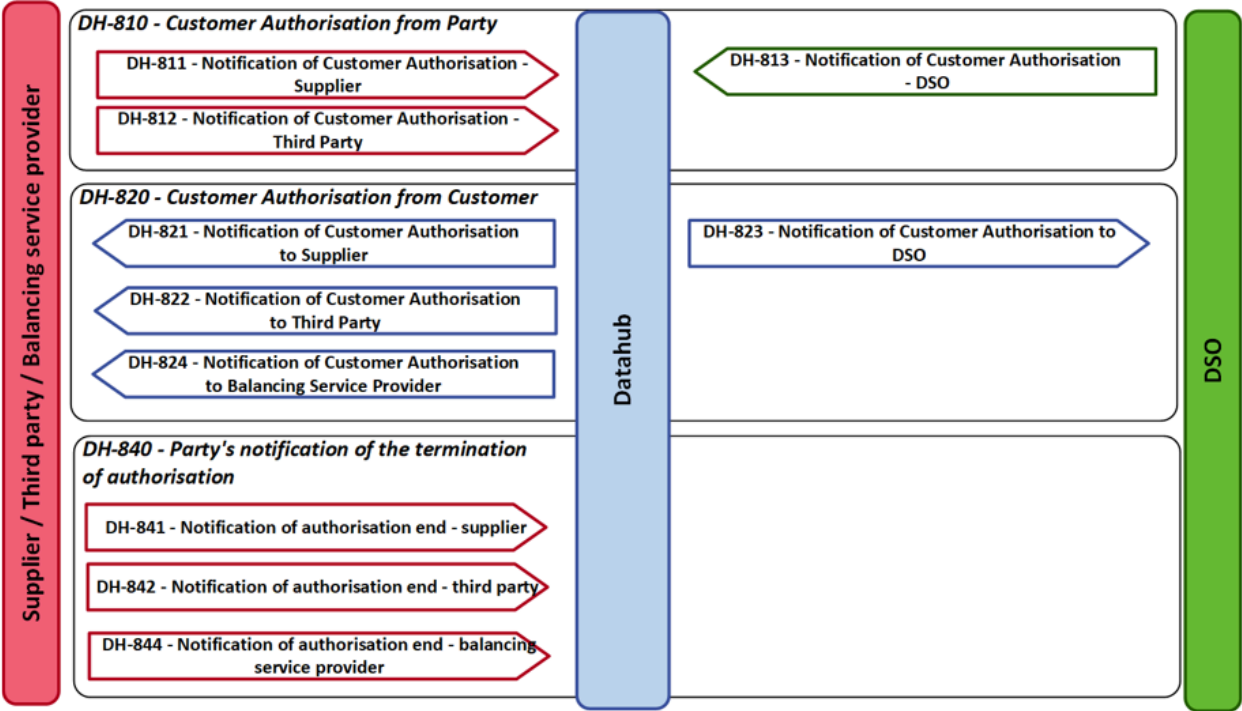
The party must terminate the authorizations received from the customer, for example, when the service relationship or contract between the party and the customer ends. Termination should not be left to the customer's responsibility. The party can terminate the customer's authorization in Datahub via a message or the user interface. It is also possible to cancel authorizations that are set to start in the future. A party can send a notification of termination/cancellation of authorization concerning:

- One or more specified accounting points
- All authorizations of a customer with a single request without specifying accounting points
- A specific type of authorization for all of the customer's accounting points with a single request

In the user interface, authorizations can only be terminated or cancelled one at a time.

Both residential and business customers can manage (add, update and remove) the authorizations in the Datahub [customer portal](#). A customer can always terminate an authorization before the planned end date.

End customer authorization events



## DH-810 Customer's authorization from a party

- [DH-810 Process maps](#)
- [DH-810 Examples](#)
- [DH-811 Customer authorization notification – supplier](#)
- [DH-812 Customer authorization notification – third party](#)
- [DH-813 Customer authorization notification – DSO](#)

DH-810 Process maps

No content yet.

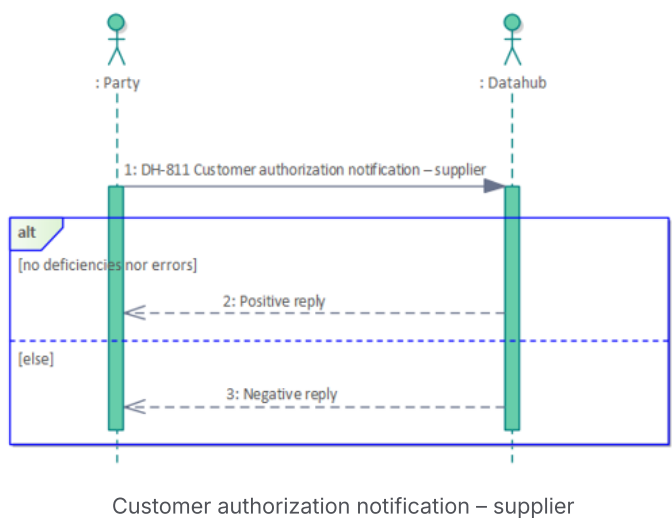


## DH-810 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

# DH-811 Customer authorization notification – supplier

- Event description
- Parties
- Time limits
- Information storage
- Return of information
- Significant errors and consequences
- Event cancellation
- Validation rules



## Event description

A supplier registered in Datahub reports an authorization issued by a customer to Datahub.

## Parties

- Supplier
- Datahub

## Time limits

Effective time of the update
The start time cannot be in the past or further than 90 days into the future.
The maximum validity of the authorization is 30 days.

## Information storage

Origin of information	Information stored
-----------------------	--------------------

Information reported by the party	<p>A new authorization is created based on the reported information.</p> <p>If an authorization already exists for the same party, customer, accounting point and purpose, the new authorization will overwrite the previously reported one.</p> <p>If the reported authorization involves multiple customers, Datahub stores the authorization information separately for each customer and accounting point pair.</p>
-----------------------------------	---

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected notification.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
The authorization is reported for the wrong accounting point.	The party receives information it is not entitled to. The party must cancel the authorization and delete the information that it has already retrieved from Datahub.
A party reports an authorizations without actually having been issued an authorization by a customer.	The party is criminally liable for its actions in cases of abuse.

## Event cancellation


If the start date is in the future, the cancellation can be done by an update that sets the end date to be the same as the start date. A valid authorization cannot be cancelled, but it can be terminated on the current date.

## Validation rules

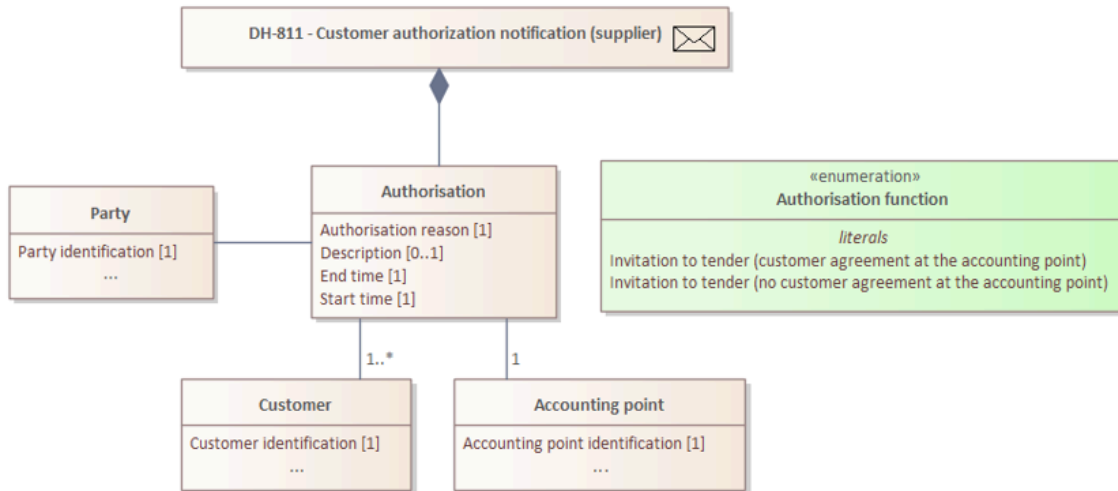
Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
------	------------	------

The accounting point is recorded in Datahub.	EC.MPT.11 5	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.12 0	
If the type of authorization is 'Invitation to tender' (customer has an agreement for the accounting point), all reported customers must hold a sales or grid agreement at the accounting point for the entire specified authorization period.	EC.AGR.4 03	
<p>A supplier (DH-811) may notify an authorization with the following purposes:</p> <ul style="list-style-type: none"> <li>• 'Invitation to tender' (customer has an agreement for the accounting point)</li> <li>• 'Invitation to tender' (customer has no agreement for the accounting point).</li> </ul>	EC.AGR.4 05  EC.AGR.4 08	
The start time cannot be in the past or further than 90 days into the future.	EC.AGR.4 06	
The request must specify at least one customer.	EC.AGR.4 07	
If the type of authorization is 'Invitation to tender' (customer does not have an agreement for the accounting point), none of the reported customers may hold a sales or grid agreement at the accounting point for the entire reported authorization period.	EC.AGR.41 1	
The maximum duration of the authorization is 30 days.	EC.AGR.41 2	
The authorizing organization must be active for the entirety of the authorization period.	EC.AGR.41 8	
The authorization period cannot overlap with more than one existing authorization period if they have the same authorization reason and customer.	EC.AGR.41 9	
The termination date conforms to the rules.	EC.AGR.4 21	

An authorization cannot be notified in a situation in which the accounting point already has, during the reported period, an unconfirmed grid agreement for another customer awaiting confirmation from the distribution system operator.	EC.CAA.4 34	
The customer must be recorded in Datahub.	EC.CUS.11 3	
All reported customers must have different customer identifiers.	EC.CUS.11 4	
The reported customers are business customers.	EC.CUS.13 5	
The customer cannot be flagged as confidential for the reported authorization period.	EC.CUS.13 9	
<div>  Please observe that the list is not complete. </div>		

## DH-811 Customer authorization notification (supplier)



Details of customer authorization notification

Message DH-811 is of message type [F15](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Authorization period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Authorization reason	2	1..1	<ul style="list-style-type: none"> <li>Invitation to tender (customer agreement for the accounting point)</li> <li>Invitation to tender (no customer agreement for the accounting point)</li> </ul>	
Description	2	0..1	Free-form description	
Party identification	2	1..1	Identification of the reporting party	

Accounting point identification	2	1..1		
Customer information	2	1..n		
Customer identification	3	1..1		

## DH-812 Customer authorization notification – third party

Event description

Parties

Time limits

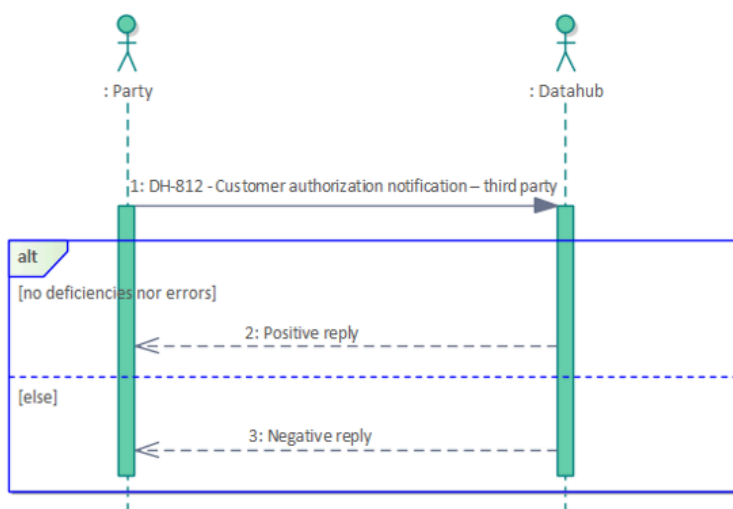
Information storage

Return of information

Significant errors and consequences

Event cancellation

Validation rules



Customer authorization notification – third party

### Event description

A third party registered in Datahub reports an authorization issued by a customer to Datahub.

### Parties

- Third party
- Datahub

### Time limits

#### Effective time of the update

The start time cannot be in the past or further than 90 days into the future.

The maximum validity of the authorization is:

- 30 days for authorization reasons 'Competitive bidding for an agreement as a service'
- 2 years for authorization reason 'Energy reporting'



## Information storage

Origin of information	Information stored
Information reported by the party	<p>A new authorization is created based on the reported information.</p> <p>If an authorization already exists for the same party, customer, accounting point and purpose, the new authorization will overwrite the previously reported one.</p> <p>If the reported authorization involves multiple customers, Datahub stores the authorization information separately for each customer and accounting point pair.</p>

## Return of information

Party	Description	Message
Third party	Notification of successful or rejected notification.	<a href="#">ACK</a>

## Significant errors and consequences

Error	Consequence
The authorization is reported for the wrong accounting point.	<p>The party receives information it is not entitled to.</p> <p>The party must cancel the authorization and delete the information that it has already retrieved from Datahub.</p>
A party reports an authorizations without actually having been issued an authorization by a customer.	<p>The party is criminally liable for its actions in cases of abuse.</p>


## Event cancellation

If the start date is in the future, the cancellation can be done by an update that sets the end date to be the same as the start date. A valid authorization cannot be cancelled, but it can be terminated on the current date.

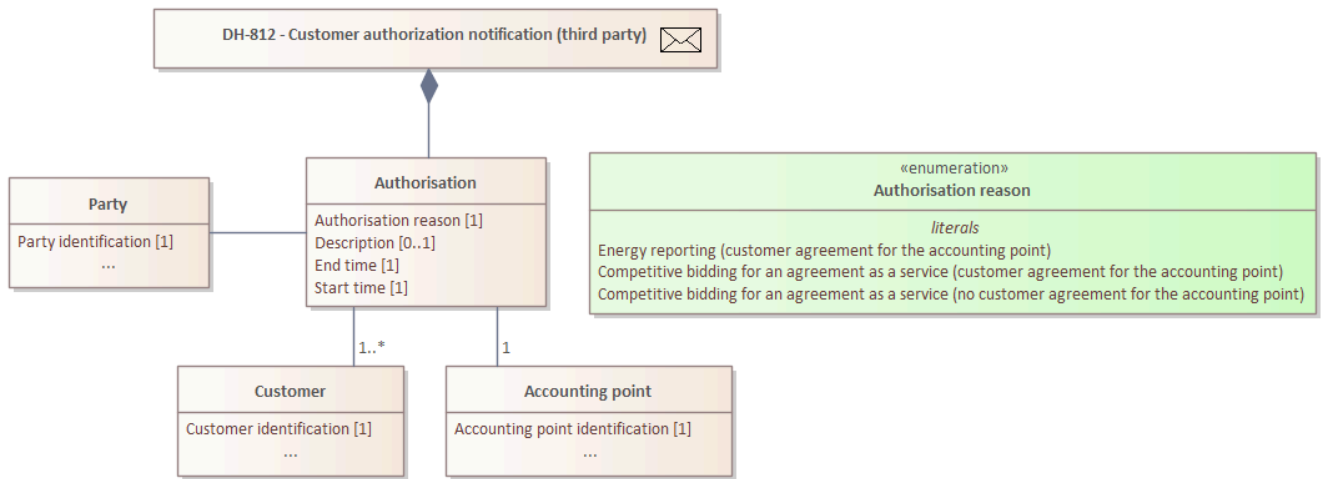
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The accounting point is recorded in Datahub.	EC.MPT.11 5	
The accounting point must not have the status 'Removed from use' or 'Deleted'.	EC.MPT.12 0	
If the type of authorization is contract tendering as a service (the customer has a contract for the metering point) or energy reporting, all reported customers must have a sales or network contract for the metering point for the entire duration of the reported authorization.	EC.AGR.4 03	
The maximum validity of an energy-reporting-type authorization is 30 days.	EC.AGR.4 04	
<p>A third party (DH-812) registered in the Datahub can report an authorization for the following purposes:</p> <ul style="list-style-type: none"> <li>• 'Energy reporting' (the customer has an agreement for the metering point)</li> <li>• 'Competitive bidding for an agreement as a service' (customer has an agreement for the accounting point)</li> <li>• 'Competitive bidding for an agreement as a service' (customer has no agreement for the accounting point)</li> </ul>	EC.AGR.4 05  EC.AGR.4 08	
The start time cannot be in the past or further than 90 days into the future.	EC.AGR.4 06	
The request must specify at least one customer.	EC.AGR.4 07	
If the type of authorization is 'Invitation to tender' (customer does not have an agreement for the accounting point), none of the reported customers may hold a sales or grid agreement at the accounting point for the entire reported authorization period.	EC.AGR.41 1	
The maximum duration of the authorization is 30 days.	EC.AGR.41 2	

The authorizing organization must be active for the entirety of the authorization period.	EC.AGR.41 8	
The authorization period cannot overlap with more than one existing authorization period if they have the same authorization reason and customer.	EC.AGR.41 9	
The termination date conforms to the rules.	EC.AGR.4 21	
An authorization cannot be notified in a situation in which the accounting point already has, during the reported period, an unconfirmed grid agreement for another customer awaiting confirmation from the distribution system operator.	EC.CAA.4 34	
The customer must be recorded in Datahub.	EC.CUS.11 3	
All reported customers must have different customer identifiers.	EC.CUS.11 4	
The reported customers are business customers.	EC.CUS.13 5	
The customer cannot be flagged as confidential for the reported authorization period.	EC.CUS.13 9	
<div>  Please observe that the list is not complete. </div>		

## DH-812 Customer authorization notification (third party)



Details of customer authorization notification

Message DH-812 is of message type [F15](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Authorization period	2	1..1		
Start time	3	1..1		
End time	3	1..1		
Authorization reason	2	1..1	<ul style="list-style-type: none"> <li>• Energy reporting (customer agreement for the accounting point)</li> <li>• Competitive bidding for an agreement as a service (customer agreement for the accounting point)</li> <li>• Competitive bidding for an agreement as a service (no customer agreement for the accounting point)</li> </ul>	
Description	2	0..1	Free-form description	

Party identification	2	1..1	Identification of the reporting party	
Accounting point identification	2	1..1		
Customer information	2	1..n		
Customer identification	3	1..1		

## DH-813 Customer authorization notification – DSO

No authorization type for DSOs is in use at the moment.



# DH-820 Process maps

No content yet.



## DH-820 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

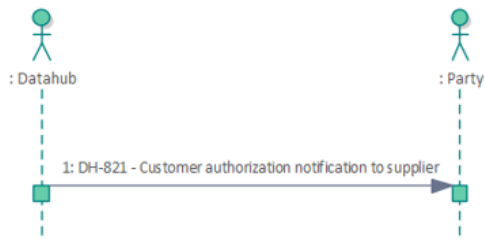
## DH-821 Customer authorization notification to supplier

Event description

Parties

Forwarding of information

Significant errors and consequences



Customer authorization notification to supplier

### Event description

Datahub notifies an authorized party of changes to a customer's authorization or of a new authorization received from a customer when:

- The customer has agreed on a service with the party and enters the authorization information in the customer portal.
- The customer terminates an active authorization in the customer portal.
- As a result of other market processes, the authorization information for the party needs to be updated.

### Parties

- Datahub
- Supplier

### Forwarding of information

Party	Description	Message
Supplier	Authorization details	<a href="#">DH-821</a>

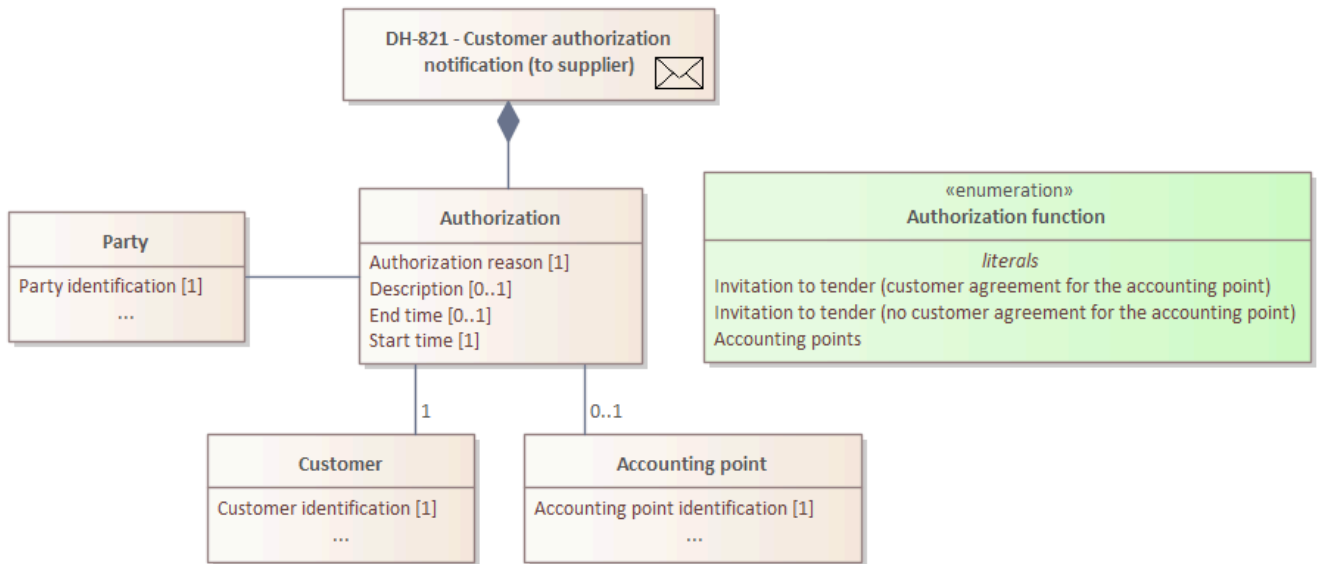
### Significant errors and consequences

Error	Consequence
-------	-------------

The authorization is reported for the wrong accounting point.

The party receives information it is not entitled to. The party must cancel the authorization and delete the information that it has already retrieved from Datahub.

## DH-821 Customer authorization notification (to supplier)



Details of customer authorization notification

Message DH-821 is of message type [F15](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Authorization period	2	1..1		
Start time	3	1..1		
End time	3	0..1		An authorization of type 'Invitation to tender' always has an end time. An authorization of type 'Accounting points' can be valid until further notice, in which case no end time is returned.

Authorization reason	2	1.1	<ul style="list-style-type: none"> <li>• Invitation to tender (customer agreement for the accounting point)</li> <li>• Invitation to tender (no customer agreement for the accounting point)</li> <li>• Accounting points</li> </ul>	
Description	2	0.1	Free-form description	
Party identification	2	1.1	Identification of the reporting party	
Accounting point identification	2	0.1		No accounting point identification is returned if authorization reason is 'Accounting points'.
Customer information	2	1.1		A customer can issue an authorization only to their own information.
Customer identification	3	1.1		

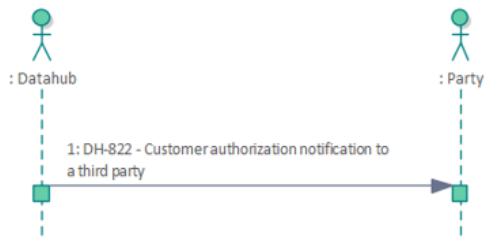
## DH-822 Customer authorization notification to a third party

Event description

Parties

Forwarding of information

Significant errors and consequences



Customer authorization notification to a third party

### Event description

Datahub notifies an authorized party of changes to a customer's authorization or of a new authorization received from a customer when:

- The customer has agreed on a service with the party and enters the authorization information in the customer portal.
- The customer terminates an active authorization in the customer portal.
- As a result of other market processes, the authorization information for the party needs to be updated.

### Parties

- Datahub
- Third party

### Forwarding of information

Party	Description	Message
Third party	Authorization details	<a href="#">DH-822</a>

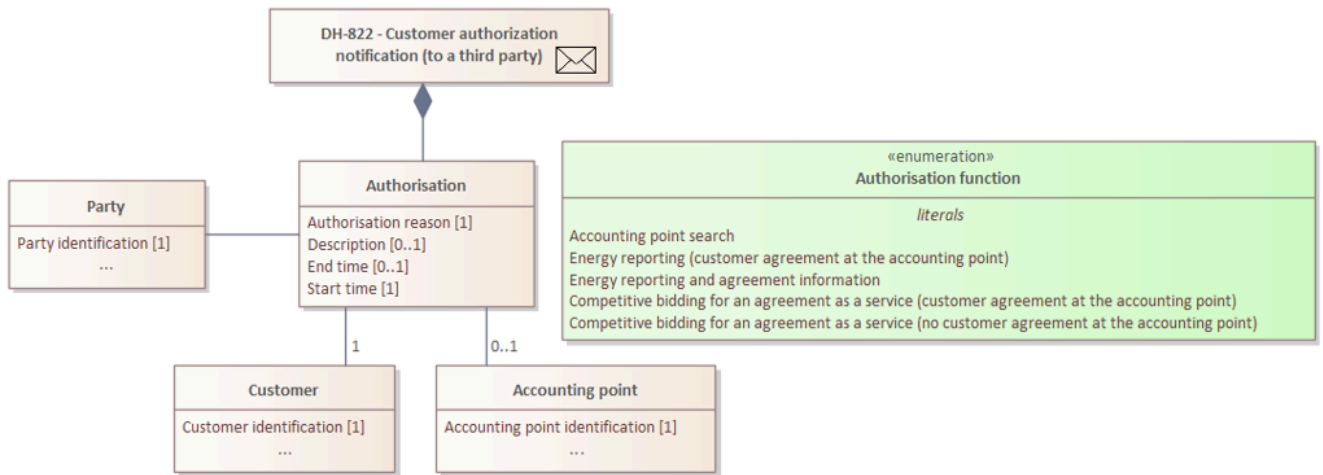
### Significant errors and consequences

Error	Consequence
-------	-------------

The authorization is reported for the wrong accounting point.

The party receives information it is not entitled to.  
The party must cancel the authorization and delete the information that it has already retrieved from Datahub.

## DH-822 Customer authorization notification (to a third party)



Details of customer authorization notification

Message DH-822 is of message type [F15](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Authorization period	2	1..1		
Start time	3	1..1		
End time	3	0..1		An authorization of type 'Competitive bidding for an agreement as a service' always has an end time. Other types of authorizations can be valid until further notice, in which case no end time is returned.
Authorization reason	2	1..1	<ul style="list-style-type: none"> <li>Energy reporting (customer agreement for the accounting point)</li> </ul>	



			<ul style="list-style-type: none"> <li>• Competitive bidding for an agreement as a service (customer agreement for the accounting point)</li> <li>• Competitive bidding for an agreement as a service (no customer agreement for the accounting point)</li> <li>• Energy reporting and agreement information</li> <li>• Accounting points</li> </ul>	
Description	2	0.1	Free-form description	
Party identification	2	1.1	Identification of the reporting party	
Accounting point identification	2	0.1		No accounting point identification is returned if authorization reason is 'Accounting points'.
Customer information	2	1.1		A customer can issue an authorization only to their own information.
Customer identification	3	1.1		

## DH-823 Customer authorization notification to DSO

No authorization type for DSOs is in use at the moment.

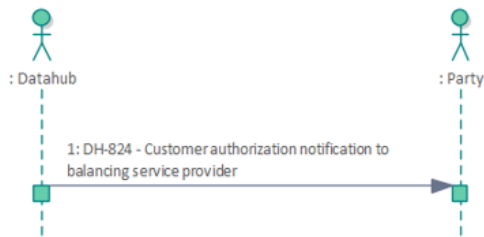
## DH-824 Customer authorization notification to balancing service provider

Event description

Parties

Forwarding of information

Significant errors and consequences



Customer authorization notification to balancing service provider

### Event description

Datahub notifies an authorized party of changes to a customer's authorization or of a new authorization received from a customer when:

- The customer has agreed on a service with the party and enters the authorization information in the customer portal.
- The customer terminates an active authorization in the customer portal.
- As a result of other market processes, the authorization information for the party needs to be updated.

### Parties

- Datahub
- Balancing service provider

### Forwarding of information

Party	Description	Message
Third party	Authorization details	<a href="#">DH-824</a>

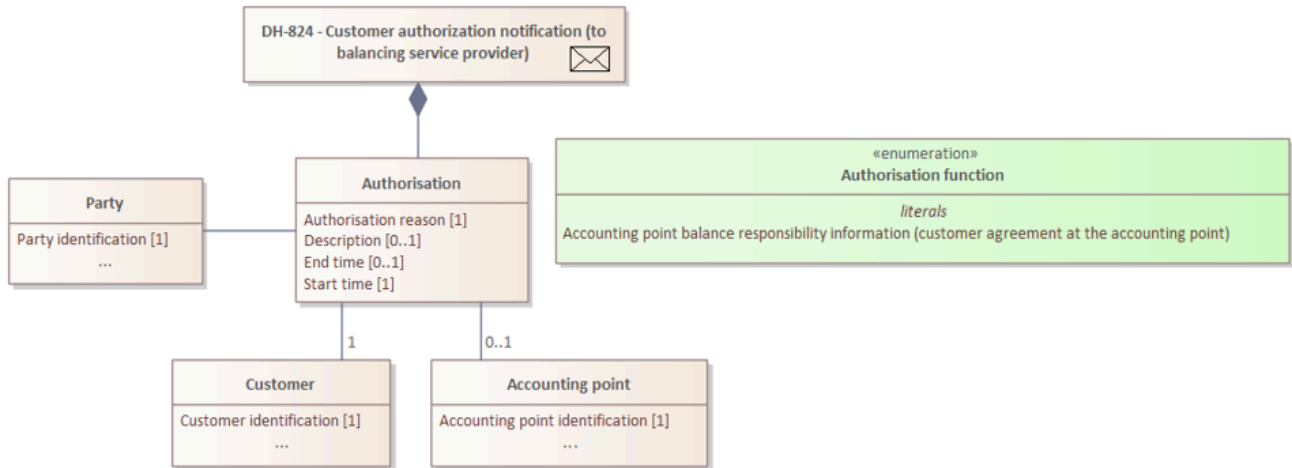
### Significant errors and consequences

Error	Consequence
-------	-------------

The authorization is reported for the wrong accounting point.

The party receives information it is not entitled to.  
The party must cancel the authorization and delete the information that it has already retrieved from Datahub.

## DH-824 Customer authorization notification (to balancing service provider)



Details of customer authorization notification

Message DH-824 is of message type [F15](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Authorization period	2	1..1		
Start time	3	1..1		
End time	3	0..1		An authorization can be valid until further notice, in which case no end time is returned.
Authorization reason	2	1..1	Accounting point balance responsibility information (customer agreement for the accounting point)	
Description	2	0..1	Free-form description	
Party identification	2	1..1	Identification of the reporting party	

Accounting point identification	2	0..1		No accounting point identification is returned if authorization reason is 'Accounting points'.
Customer information	2	1..1		A customer can issue an authorization only to their own information.
Customer identification	3	1..1		

## DH-840 Notification by party of termination of authorization

- [DH-840 Process maps](#)
- [DH-840 Examples](#)
- [DH-841 Notification by party of termination of authorization – supplier](#)
- [DH-842 Notification by party of termination of authorization – third party](#)
- [DH-844 Notification by party of termination of authorization – balancing service provider](#)

# DH-840 Process maps

No content yet.

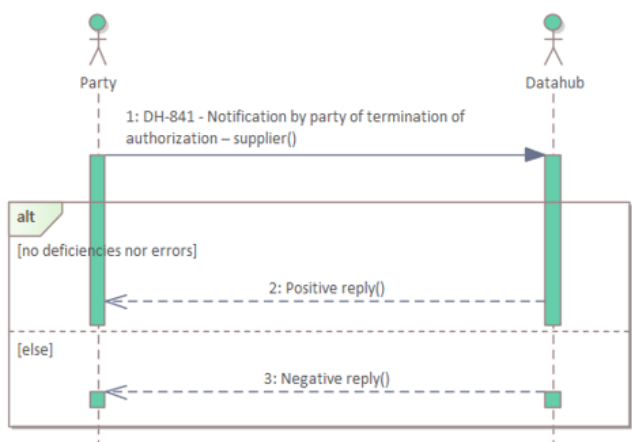


## DH-840 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

# DH-841 Notification by party of termination of authorization – supplier

- Event description
- Parties
- Time limits
- Event processing in Datahub
- Information storage
- Return of information
- Significant errors and consequences
- Validation rules



Notification by party of termination of authorization – supplier

## Event description

A supplier notifies Datahub of the termination of a customer’s authorization.

## Parties

- Datahub
- Supplier

## Time limits

Effective time of the update
The end time may be the current date at the earliest.
The end time cannot be further than 90 days into the future.

## Event processing in Datahub

Step	Description
------	-------------

Termination of authorizations	If the reported termination involves multiple accounting points, Datahub terminates the authorization for each customer's reported accounting points.
	If no accounting point is associated with the reported termination, Datahub terminates the authorization for all of the customer's accounting points where the authorization is valid.
	If one or more authorization types are associated with the reported termination, Datahub terminates only authorizations of these types.
	If no authorization type is associated with the reported termination, Datahub terminates authorizations regardless of authorization type.
	If the authorization for an accounting point starts in the future it is cancelled.
Asynchronous data processing	The termination of authorizations is processed asynchronously.

## Information storage

Origin of information	Information stored
Information reported by the party	End time for the authorization.
Information processed by Datahub	Terminated and/or cancelled authorizations.

## Return of information

Party	Description	Message
Supplier	Notification of successful or rejected notification. Datahub issues a warning if it was not possible to terminate/cancel all authorizations for the accounting points listed in the request.	<a href="#">ACK</a>

## Significant errors and consequences


Error	Consequence
-------	-------------

An authorization for the wrong accounting point or customer is terminated.	The party no longer receives information and the customer does not receive the service agreed upon.
--	---

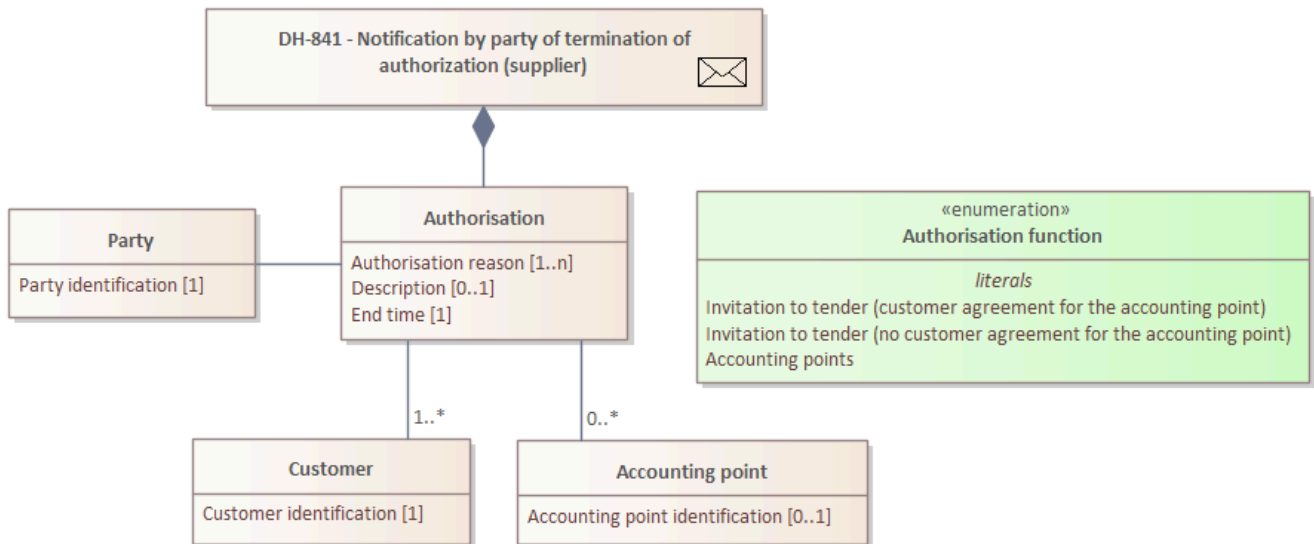
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The reported accounting points are recorded in Datahub.	EC.MPT.1 15	
The end time may be the current date at the earliest and it must not be further than 90 days into the future.	EC.AGR.2 02	
The description field may only contain the characters 0–9, a–z, A–Z and spaces.	EC.AGR.4 23	
The authorization(s) is (are) recorded in Datahub.	EC.AGR.4 26	
The authorization(s) is (are) valid at the notified termination time or enter into force in the future, at which time they are cancelled.	EC.AGR.4 28	
The customer must be recorded in Datahub.	EC.CUS.1 13	

 Please observe that the list is not complete.

## DH-841 Notification by party of termination of authorization (supplier)



Details of notification by party of termination of authorization

Message DH-841 is of message type [F29](#).

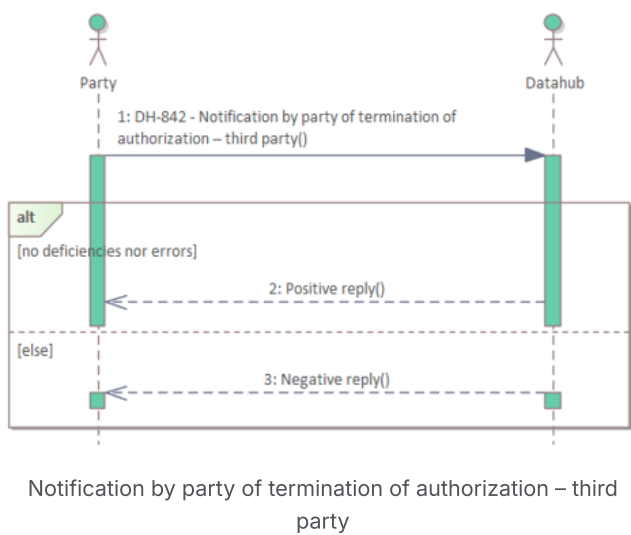
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
End time	2	1.1		
Authorization reason list	2	0.1		
Authorization reason	3	1..n	<ul style="list-style-type: none"> <li>• Invitation to tender (customer agreement for the accounting point)</li> <li>• Invitation to tender (no customer agreement for the accounting point)</li> <li>• Accounting points</li> </ul>	If present in the message, only the listed type or types of authorizations are terminated. If left empty, Datahub terminates all authorization types.
Description	2	0.1	Free-form description	

Party identification	2	1.1	Identification of the reporting party	
Accounting point identification	3	0..1		If present in the message, only authorizations for the listed accounting points are terminated (multiple accounting points means multiple transactions in the message). If left empty, Datahub terminates authorizations for all of the customer's accounting points.
Customer identification	3	1..1		

# DH-842 Notification by party of termination of authorization – third party

- Event description
- Parties
- Time limits
- Event processing in Datahub
- Information storage
- Return of information
- Significant errors and consequences
- Validation rules



## Event description

A third party notifies Datahub of the termination of a customer’s authorization.

## Parties

- Datahub
- Third party

## Time limits

Effective time of the update
The end time may be the current date at the earliest.
The end time cannot be further than 90 days into the future.

## Event processing in Datahub

Step	Description
Termination of authorizations	If the reported termination involves multiple accounting points, Datahub terminates the authorization for each customer's reported accounting points.
	If no accounting point is associated with the reported termination, Datahub terminates the authorization for all of the customer's accounting points where the authorization is valid.
	If one or more authorization types are associated with the reported termination, Datahub terminates only authorizations of these types.
	If no authorization type is associated with the reported termination, Datahub terminates authorizations regardless of authorization type.
	If the authorization for an accounting point starts in the future it is cancelled.
Asynchronous data processing	The termination of authorizations is processed asynchronously.

### Information storage

Origin of information	Information stored
Information reported by the party	End time for the authorization.
Information processed by Datahub	Terminated and/or cancelled authorizations.

### Return of information

Party	Description	Message
Third party	Notification of successful or rejected notification. Datahub issues a warning if it was not possible to terminate/cancel all authorizations for the accounting points listed in the request.	<a href="#">ACK</a>


### Significant errors and consequences



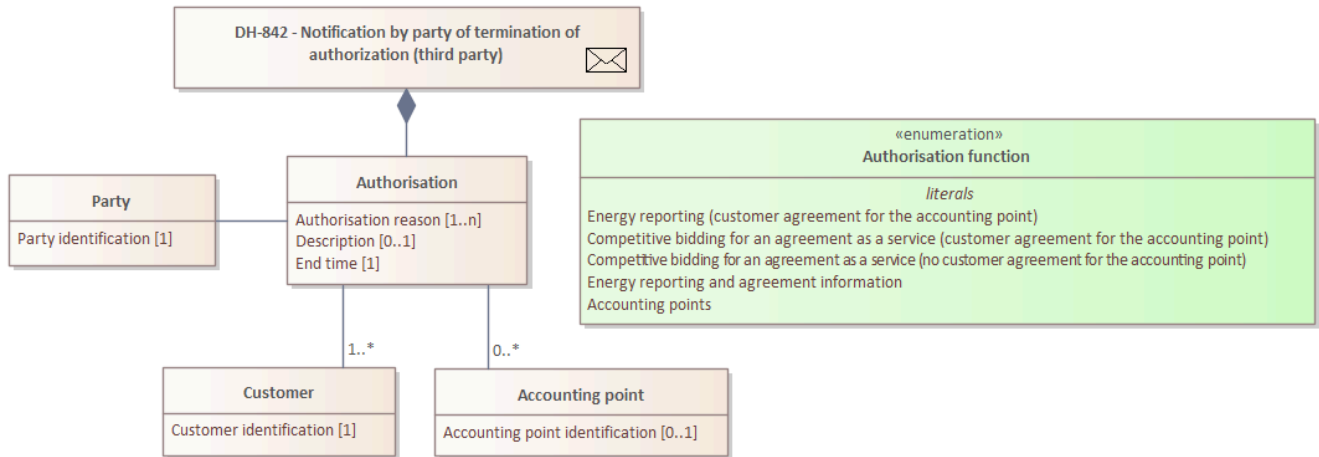
Error	Consequence
An authorization for the wrong accounting point or customer is terminated.	The party no longer receives information and the customer does not receive the service agreed upon.

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The reported accounting points are recorded in Datahub.	EC.MPT.11 5	
The end time may be the current date at the earliest and it must not be further than 90 days into the future.	EC.AGR.2 02	
The description field may only contain the characters 0–9, a–z, A–Z and spaces.	EC.AGR.4 23	
The authorization(s) is (are) recorded in Datahub.	EC.AGR.4 26	
The authorization(s) is (are) valid at the notified termination time or enter into force in the future, at which time they are cancelled.	EC.AGR.4 28	
The customer must be recorded in Datahub.	EC.CUS.11 3	
<div>  Please observe that the list is not complete. </div>		

## DH-842 Notification by party of termination of authorization (third party)



Details of notification by party of termination of authorization

Message DH-842 is of message type [F29](#).

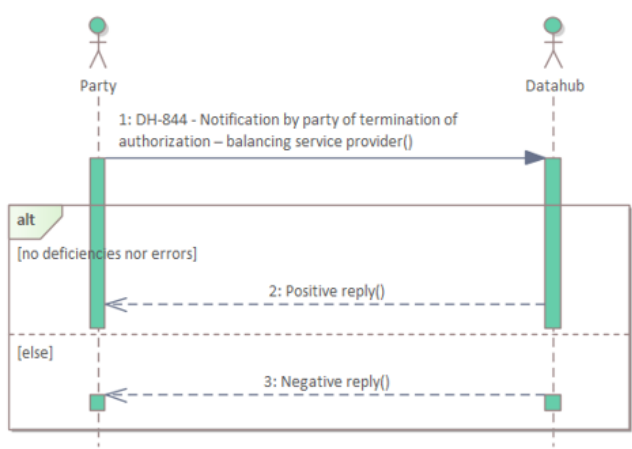
Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
End time	2	1..1		
Authorization reason list	2	0..1		
Authorization reason	3	1..n	<ul style="list-style-type: none"> <li>Energy reporting (customer agreement for the accounting point)</li> <li>Competitive bidding for an agreement as a service (customer agreement for the accounting point)</li> <li>Competitive bidding for an agreement as a service (no customer agreement for the accounting point)</li> </ul>	If present in the message, only the listed type or types of authorizations are terminated. If left empty, Datahub terminates all authorization types.

			<ul style="list-style-type: none"> <li>• Energy reporting and agreement information</li> <li>• Accounting points</li> </ul>	
Description	2	0..1		
Party identification	2	1..1		
Accounting point identification	3	0..1		If present in the message, only authorizations for the listed accounting points are terminated (multiple accounting points means multiple transactions in the message). If left empty, Datahub terminates authorizations for all of the customer's accounting points.
Customer identification	3	1..1		

# DH-844 Notification by party of termination of authorization – balancing service provider

- Event description
- Parties
- Time limits
- Event processing in Datahub
- Information storage
- Return of information
- Significant errors and consequences
- Validation rules



Notification by party of termination of authorization – balancing service provider

## Event description

A balancing service provider notifies Datahub of the termination of a customer’s authorization.

## Parties

- Datahub
- Balancing service provider

## Time limits

Effective time of the update
The end time may be the current date at the earliest.
The end time cannot be further than 90 days into the future.

## Event processing in Datahub

Step	Description
Termination of authorizations	If the reported termination involves multiple accounting points, Datahub terminates the authorization for each customer's reported accounting points.
	If no accounting point is associated with the reported termination, Datahub terminates the authorization for all of the customer's accounting points where the authorization is valid.
	If one or more authorization types are associated with the reported termination, Datahub terminates only authorizations of these types.
	If no authorization type is associated with the reported termination, Datahub terminates authorizations regardless of authorization type.
	If the authorization for an accounting point starts in the future it is cancelled.
Asynchronous data processing	The termination of authorizations is processed asynchronously.

### Information storage

Origin of information	Information stored
Information reported by the party	End time for the authorization.
Information processed by Datahub	Terminated and/or cancelled authorizations.

### Return of information


Party	Description	Message
Balancing service provider	Notification of successful or rejected notification. Datahub issues a warning if it was not possible to terminate/cancel all authorizations for the accounting points listed in the request.	<a href="#">ACK</a>

### Significant errors and consequences

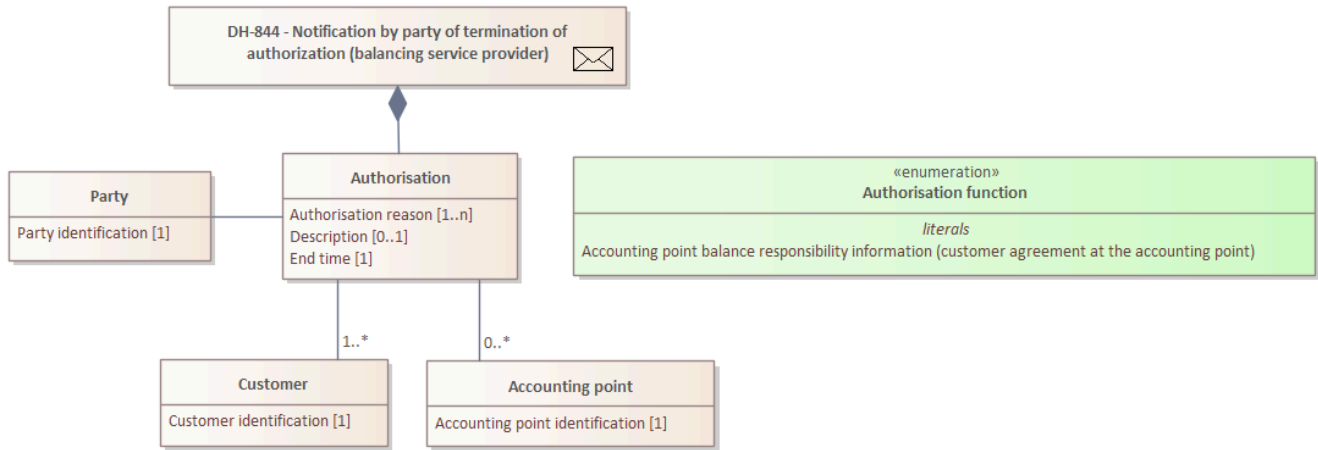
Error	Consequence
An authorization for the wrong accounting point or customer is terminated.	The party no longer receives information and the customer does not receive the service agreed upon.

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The reported accounting points are recorded in Datahub.	EC.MPT.11 5	
The end time may be the current date at the earliest and it must not be further than 90 days into the future.	EC.AGR.2 02	
The description field may only contain the characters 0–9, a–z, A–Z and spaces.	EC.AGR.4 23	
The authorization(s) is (are) recorded in Datahub.	EC.AGR.4 26	
The authorization(s) is (are) valid at the notified termination time or enter into force in the future, at which time they are cancelled.	EC.AGR.4 28	
The customer must be recorded in Datahub.	EC.CUS.11 3	
<div>  Please observe that the list is not complete. </div>		

## DH-844 Notification by party of termination of authorization (balancing service provider)



Details of notification by party of termination of authorization

Message DH-844 is of message type [F29](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
End time	2	1.1		
Authorization reason list	2	0..1		
Authorization reason	3	1..n	Accounting point balance responsibility information (customer agreement for the accounting point)	If present in the message, only the listed type or types of authorizations are terminated. If left empty, Datahub terminates all authorization types.
Description	2	0..1	Free-form description	
Party identification	2	1.1	Identification of the reporting party	

Accounting point identification	3	0..1		If present in the message, only authorizations for the listed accounting points are terminated (multiple accounting points means multiple transactions in the message). If left empty, Datahub terminates authorizations for all of the customer's accounting points.
Customer identification	3	1..1		



## DH-900 Party information maintenance

Party information is maintained in Datahub for the needs of both market parties and the Datahub operator. The market parties need each other's contact and billing information. The Datahub operator needs information about the market parties for the service agreements. As part of the service agreement process, the operator maintains the the market party's mandatory information.

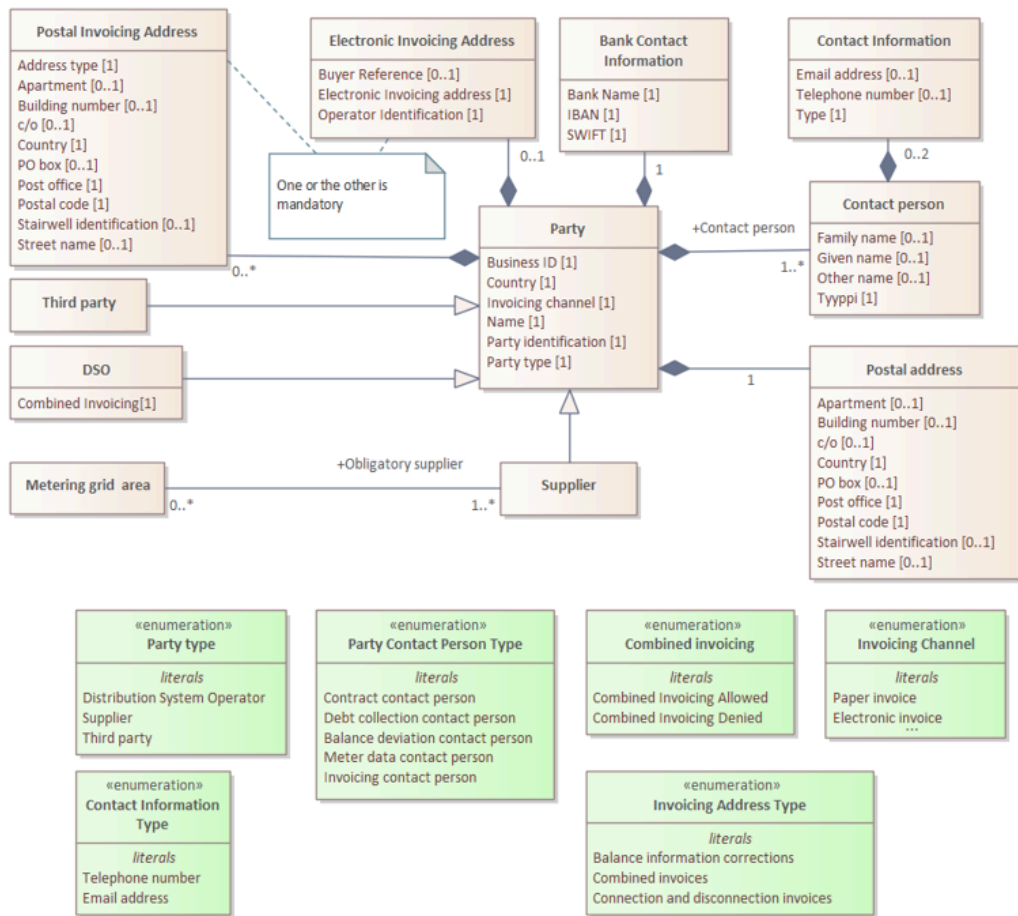
Although information is submitted from one party to another through Datahub, there may be situations when direct contact between the parties is required. For these purposes, the market parties maintain their contact information in Datahub regarding agreements, billing, metering data, balance deviations and debt collection. These contact types are linked to a contact person and their phone number or email address.

Market parties maintain information of their invoicing addresses in Datahub. These invoicing addresses in the party information are meant for other market parties or the Datahub operator. Datahub maintains invoicing addresses for different types, such as balance deviation costs, combined billing and connection and disconnection costs. The parties can use paper invoice and electronic invoice as invoicing channels.

New market parties are always created in Datahub by the operator. However, the market parties may maintain their own information in the CMS user interface provided by Datahub. Datahub notifies all market parties of new party registrations, terminations and party information updates. The DSO also receives the necessary information for the billing of balance deviation.

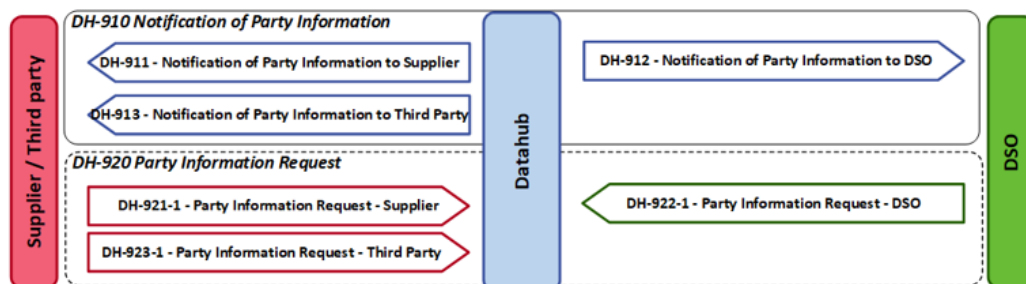
Party information can be retrieved using a request event, either using the GLN code of the requested party or using the market role (when requesting multiple parties). Party information can also be requested in the CMS user interface.

Information about the parties is maintained in accordance with the class diagram below.



Party information in Datahub

## Party information maintenance events



## DH-910 Notification of party information

- [DH-910 Process maps](#)
- [DH-910 Examples](#)
- [DH-911 Party information notification to supplier](#)
- [DH-912 Party information notification to DSO](#)
- [DH-913 Party information notification to a third party](#)

DH-910 Process maps

No content yet.

## DH-910 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

## DH-911 Party information notification to supplier

Event description

Parties

Forwarding of information

Significant errors and consequences



### Event description

Datahub reports new and changed party information to all Datahub parties.

### Parties

- Datahub
- Supplier

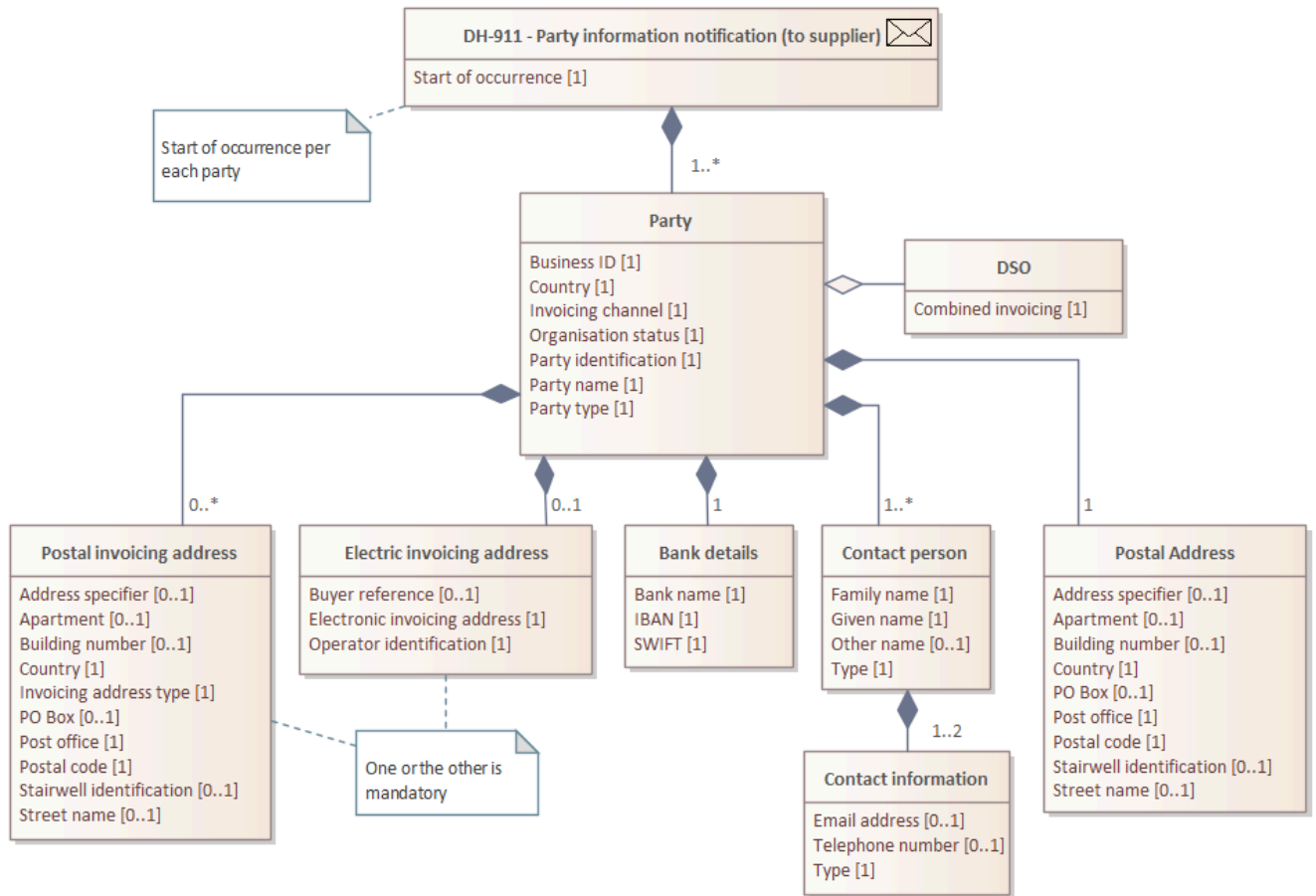
### Forwarding of information

Party	Description	Message
Supplier	New and changed party information	<a href="#">DH-911</a>

### Significant errors and consequences

Error	Consequence
The party information is entered incorrectly in Datahub.	Invoices do not arrive or the contact information is wrong.

## DH-911 Party information notification (to supplier)



Details of party information notification

Message DH-911 is of message type [F16](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Party's basic information	2	1..1		
Start of occurrence	3	1..1		
Party identification	3	1..1	GS1 code	

Party type	3	1..1	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• Third party</li> </ul>	
Organization status	3	1..1		
Business ID	3	1..1		
Party name	3	1..1		
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> </ul>	
Country	3	1..1	ISO 31661 code	
Combined invoicing	3	0..1	Yes/No	
Contact person	3	0..n		
Type	4	1..1	<ul style="list-style-type: none"> <li>• Contract contact person</li> <li>• Invoicing contact person</li> <li>• Meter data contact person</li> <li>• Balance deviation contact person</li> <li>• Debt collection contact person</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other Name	4	0..1		
Contact information	4	1..2		
Type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	5	1..1		
Email address				



Postal invoicing address	3	0..n		
Invoicing address type	4	1..1	<ul style="list-style-type: none"> <li>• Balance information corrections</li> <li>• Combined invoices</li> <li>• Connection and disconnection invoices</li> </ul>	
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Bank details	3	0..1		
IBAN	4	1..1		
Bank name	4	1..1		
SWIFT	4	1..1		

Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code	

## DH-912 Party information notification to DSO

Event description

Parties

Forwarding of information

Significant errors and consequences



### Event description

Datahub reports new and changed party information to all Datahub parties.

### Parties

- DSO
- Supplier

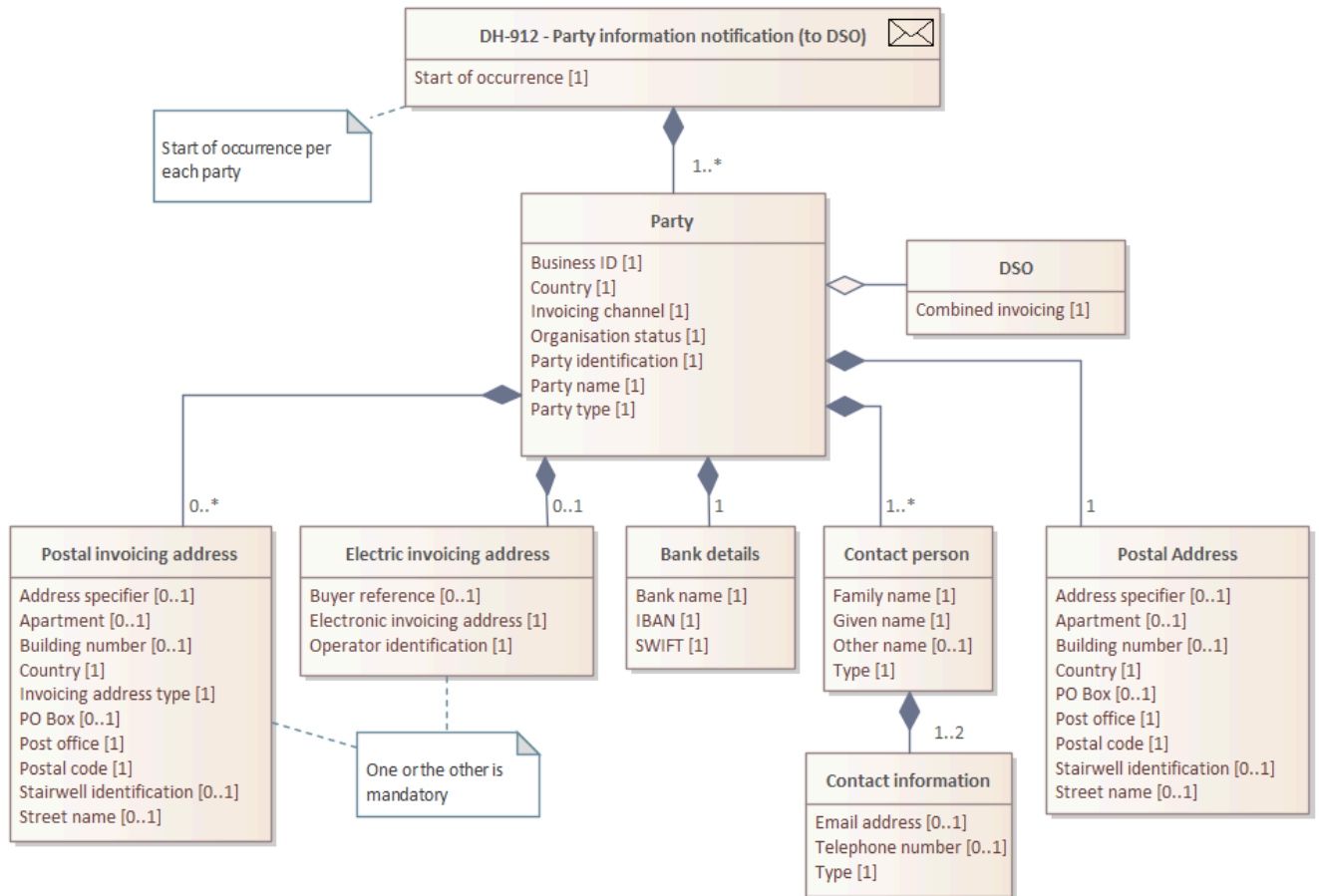
### Forwarding of information

Party	Description	Message
DSO	New and changed party information	<a href="#">DH-912</a>

### Significant errors and consequences

Error	Consequence
The party information is entered incorrectly in Datahub.	Invoices do not arrive or the contact information is wrong.

## DH-912 Party information notification (to DSO)



Details of party information notification

Message DH-912 is of message type [F16](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Party's basic information	2	1.1		
Start of occurrence	3	1.1		
Party identification	3	1.1	GS1 code	

Party type	3	1..1	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• Third party</li> </ul>	
Organization status	3	1..1		
Business ID	3	1..1		
Party name	3	1..1		
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> </ul>	
Country	3	1..1	ISO 31661 code	
Combined invoicing	3	0..1	Yes/No	
Contact person	3	0..n		
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Contract contact person</li> <li>• Invoicing contact person</li> <li>• Meter data contact person</li> <li>• Balance deviation contact person</li> <li>• Debt collection contact person</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other Name	4	0..1		
Contact information	4	1..2		
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	5	1..1		

Email address				
Postal invoicing address	3	0..n		
Invoicing address type	4	1..1	<ul style="list-style-type: none"> <li>• Balance information corrections</li> <li>• Combined invoices</li> <li>• Connection and disconnection invoices</li> </ul>	
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Bank details	3	0..1		
IBAN	4	1..1		

Bank name	4	1..1		
SWIFT	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code	

## DH-913 Party information notification to a third party

Event description

Parties

Forwarding of information

Significant errors and consequences



Party information notification to a third party

### Event description

Datahub reports new and changed party information to all Datahub parties.

### Parties

- Datahub
- Third party

### Forwarding of information

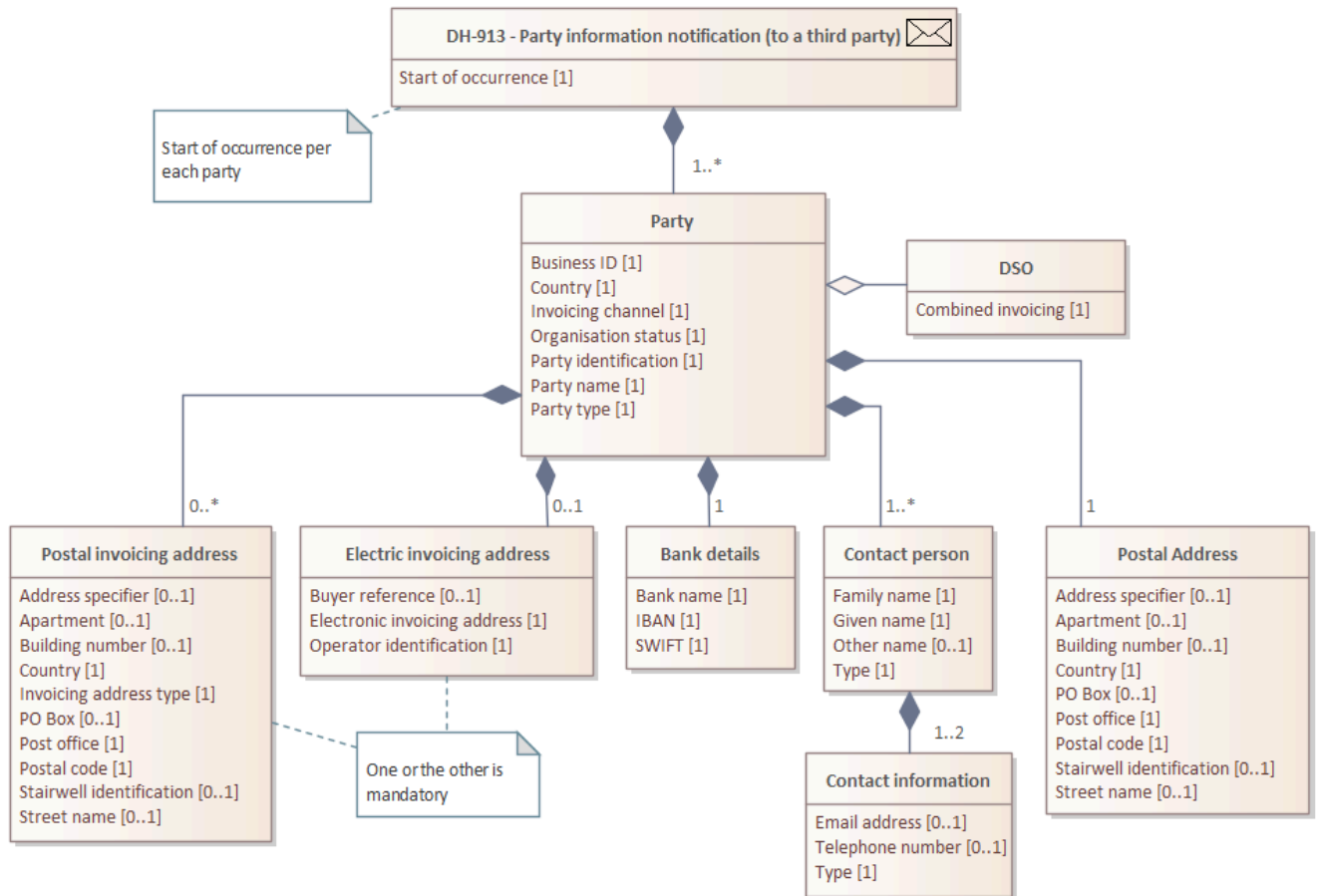
Party	Description	Message
Third party	New and changed party information	<a href="#">DH-913</a>

### Significant errors and consequences

Error	Consequence
The party information is entered incorrectly in Datahub.	Invoices do not arrive or the contact information is wrong.



## DH-913 Party information notification (to a third party)



Details of party information notification

Message DH-913 is of message type [F16](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Party's basic information	2	1.1		
Start of occurrence	3	1.1		
Party identification	3	1.1	GS1 code	

Party type	3	1..1	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• Third party</li> </ul>	
Organization status	3	1..1		
Business ID	3	1..1		
Party name	3	1..1		
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> </ul>	
Country	3	1..1	ISO 31661 code	
Combined invoicing	3	0..1	Yes/No	
Contact person	3	0..n		
Contact person type	4	1..1	<ul style="list-style-type: none"> <li>• Contract contact person</li> <li>• Invoicing contact person</li> <li>• Meter data contact person</li> <li>• Balance deviation contact person</li> <li>• Debt collection contact person</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other Name	4	0..1		
Contact information	4	1..2		
Contact information type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	5	1..1		

Email address				
Postal invoicing address	3	0..n		
Invoicing address type	4	1..1	<ul style="list-style-type: none"> <li>• Balance information corrections</li> <li>• Combined invoices</li> <li>• Connection and disconnection invoices</li> </ul>	
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Bank details	3	0..1		
IBAN	4	1..1		

Bank name	4	1..1		
SWIFT	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code	

## DH-920 Party information request

- [DH-920 Process maps](#)
- [DH-920 Examples](#)
- [DH-921 Party information request – supplier](#)
- [DH-922 Party information request – DSO](#)
- [DH-923 Party information request – third party](#)

DH-920 Process maps

No content yet.

## DH-920 Examples

Examples will be added to this section as needed. Feel free to suggest what kind of examples you would like to see here!

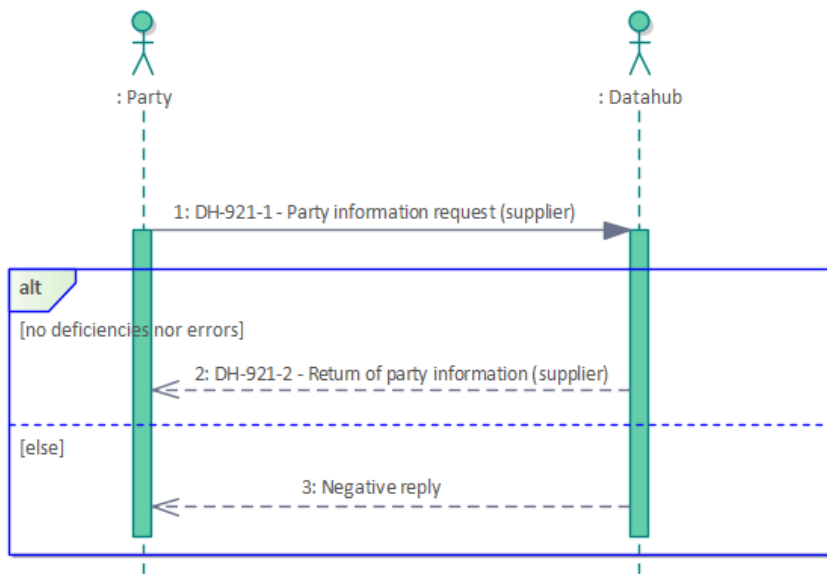
## DH-921 Party information request – supplier

Event description

Parties

Return of information

Validation rules



Party information request – supplier

### Event description

A supplier registered in Datahub requests party information from Datahub.

### Parties

- Supplier
- Datahub


### Return of information

Party	Description	Message
Supplier	Party information for the requested parties, or a rejected request. The request is rejected if there are no parties matching the search criteria.	<a href="#">DH-921-2</a>

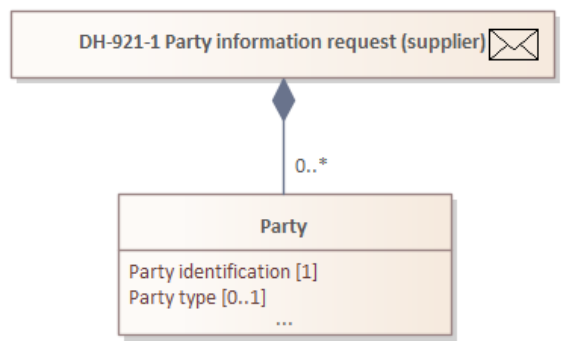
### Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.



Rule	Error code	Note
The requested organization must be recorded in Datahub.	EC.ORG.200	
The market role used in the request must be registered in Datahub.	EC.ORG.201 EC.ORG.203	
The requested organization must be of active status.	EC.ORG.202	
When searching, the organization's identifier or market role must be given.	EC.ORG.204	
<div>  Please observe that the list is not complete. </div>		

DH-921-1 Party information request (supplier)



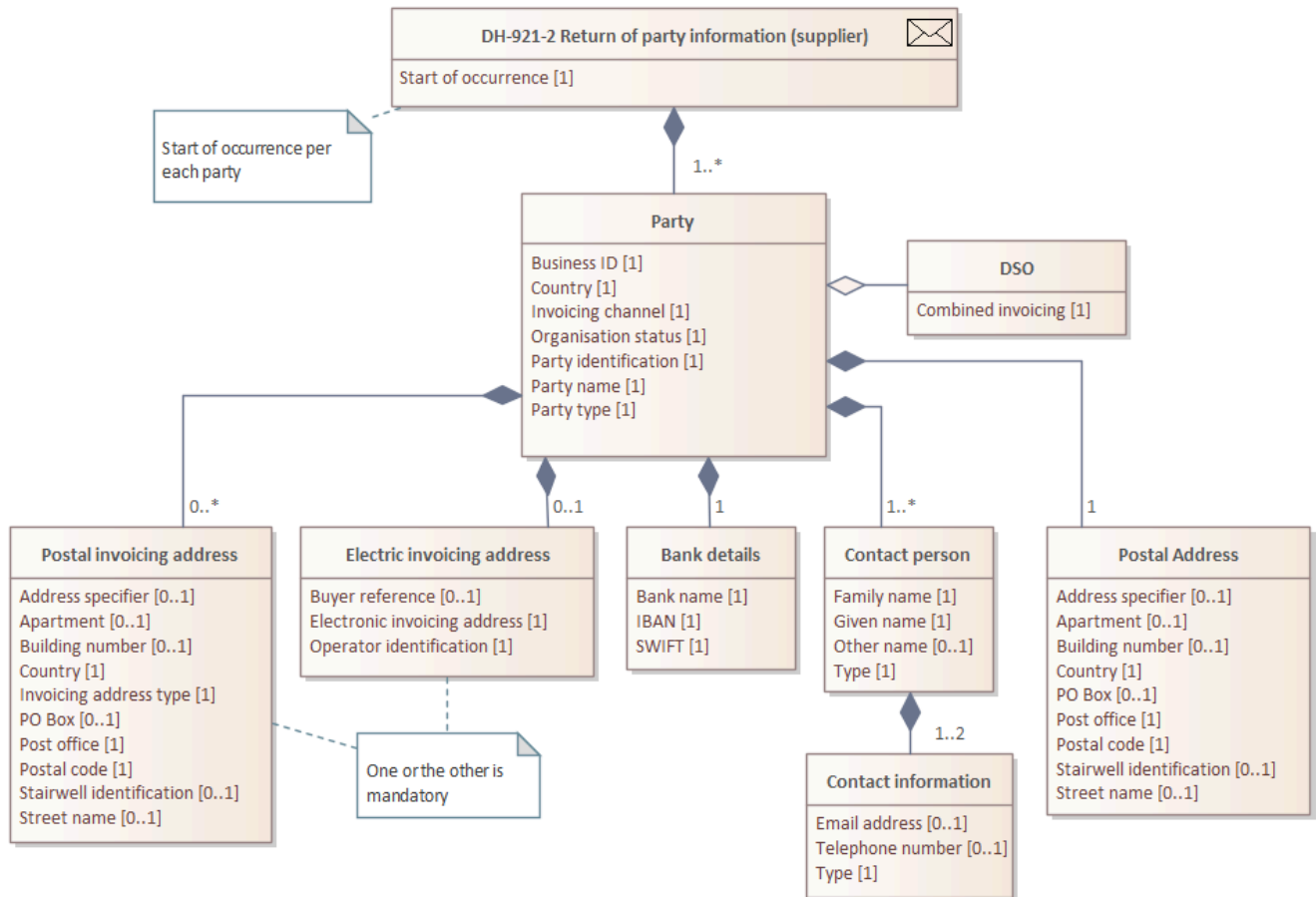
Details of party information request

Message DH-921-1 is of message type [F17](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..1		
Party information	2	0..n		
Party identification	3	1..1	GS1 code	
Party type	2	0..1	<ul style="list-style-type: none"><li>• Supplier</li><li>• DSO</li><li>• Third party</li></ul>	

## DH-921-2 Return of party information (supplier)



Details of the return of party information

Message DH-921-2 is of message type [F16](#). Returned information is the same as in the party information notification ([DH-911](#)).

Message payload includes the following information:

Information field	Level	Necessity	Comment	Note
Payload	1	1..n		
Party's basic information	2	1..1		
Start of occurrence	3	1..1		
Party identification	3	1..1	GS1 code	

Party type	3	1..1	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• Third party</li> </ul>	
Organization status	3	1..1		
Business ID	3	1..1		
Party name	3	1..1		
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> </ul>	
Country	3	1..1	ISO 31661 code	
Combined invoicing	3	0..1	Yes/No	
Contact person	3	0..n		
Type	4	1..1	<ul style="list-style-type: none"> <li>• Contract contact person</li> <li>• Invoicing contact person</li> <li>• Meter data contact person</li> <li>• Balance deviation contact person</li> <li>• Debt collection contact person</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	5	1..1		

Email address				
Postal invoicing address	3	0..n		
Invoicing address type	4	1..1	<ul style="list-style-type: none"> <li>• Balance information corrections</li> <li>• Combined invoices</li> <li>• Connection and disconnection invoices</li> </ul>	
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Bank details	3	0..1		
IBAN	4	1..1		

Bank name	4	1..1		
SWIFT	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code	

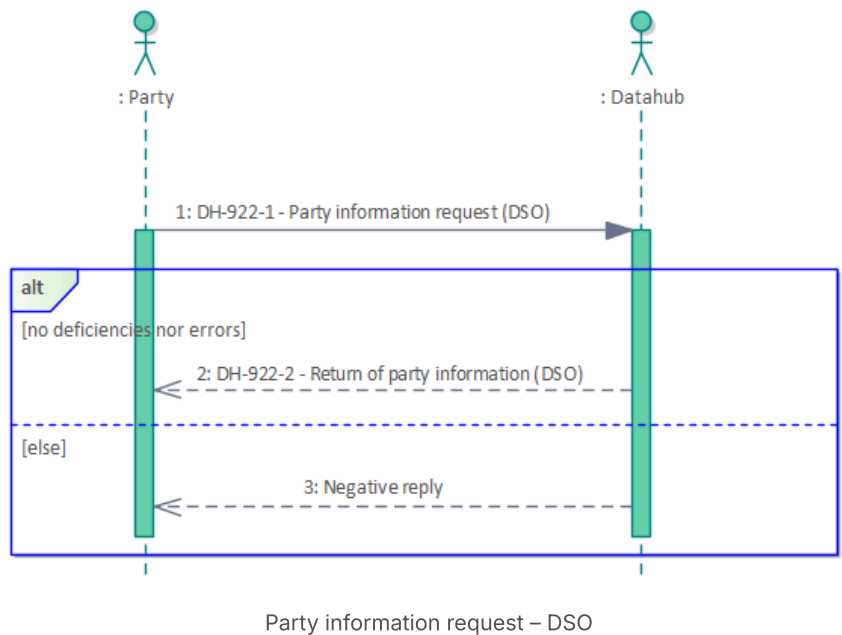
# DH-922 Party information request – DSO

Event description

Parties

Return of information

Validation rules



## Event description

A DSO registered in Datahub requests party information from Datahub.

## Parties


- DSO
- Datahub

## Return of information

Party	Description	Message
DSO	Party information for the requested parties, or a rejected request. The request is rejected if there are no parties matching the search criteria.	<a href="#">DH-922-2</a>

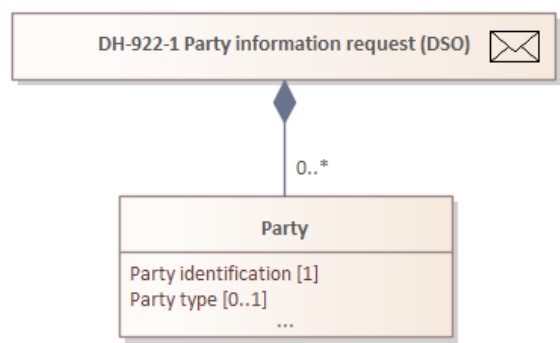
## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The requested organization must be recorded in Datahub.	EC.ORG.20 0	
The market role used in the request must be registered in Datahub.	EC.ORG.20 1  EC.ORG.20 3	
The requested organization must be of active status.	EC.ORG.20 2	
When searching, the organization's identifier or market role must be given.	EC.ORG.20 4	
 Please observe that the list is not complete.		



# DH-922-1 Party information request (DSO)



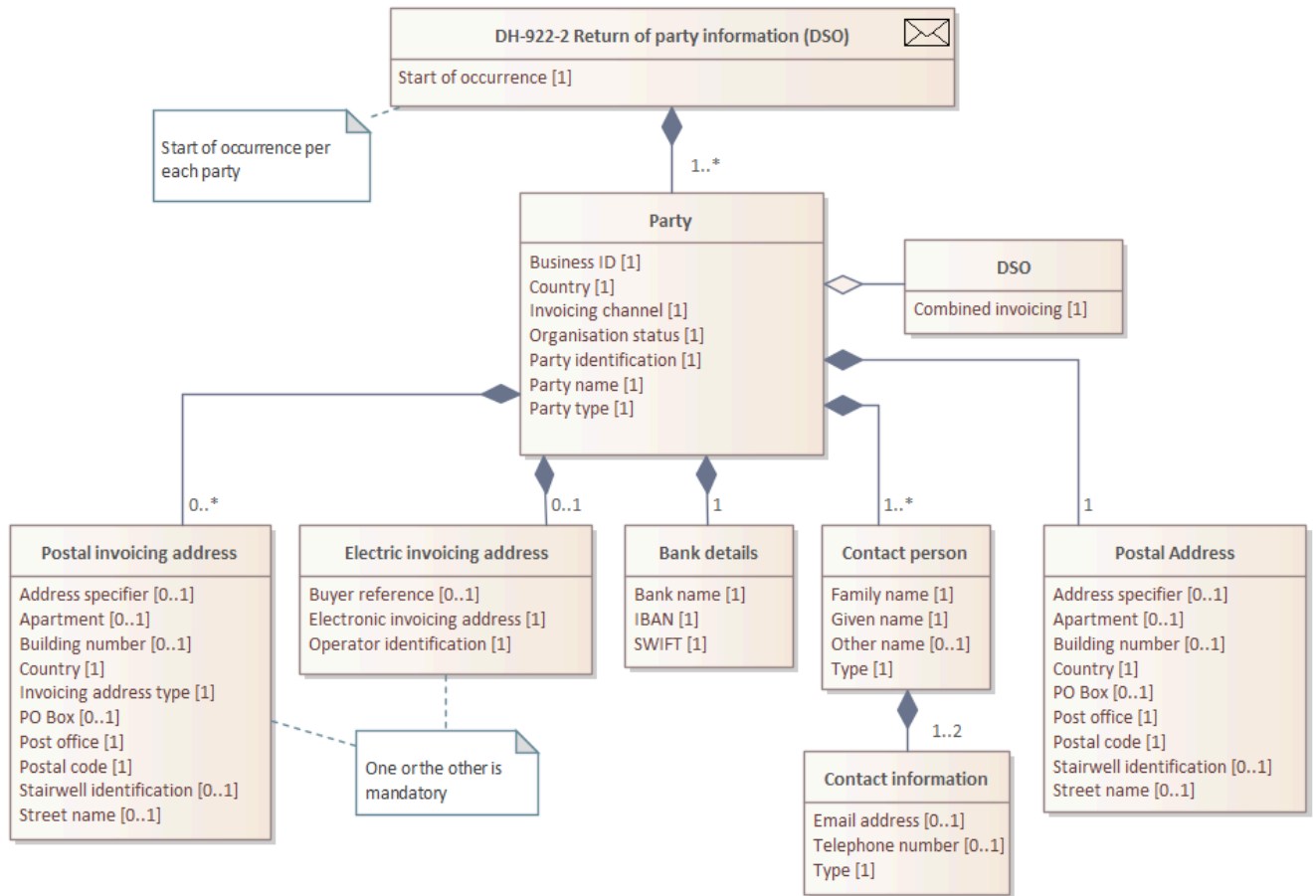
Details of party information request

Message DH-922-1 is of message type [F17](#).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1.1		
Party information	2	0..n		
Party identification	3	1.1	GS1 code	
Party type	2	0..1	<ul style="list-style-type: none"><li>• Supplier</li><li>• DSO</li><li>• Third party</li></ul>	

## DH-922-2 Return of party information (DSO)



Details of the return of party information

Message DH-922-2 is of message type [F16](#). Returned information is the same as in the party information notification ([DH-912](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Party's basic information	2	1..1		
Start of occurrence	3	1..1		
Party identification	3	1..1	GS1 code	

Party type	3	1..1	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• Third party</li> </ul>	
Organization status	3	1..1		
Business ID	3	1..1		
Party name	3	1..1		
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> </ul>	
Country	3	1..1	ISO 31661 code	
Combined invoicing	3	0..1	Yes/No	
Contact person	3	0..n		
Type	4	1..1	<ul style="list-style-type: none"> <li>• Contract contact person</li> <li>• Invoicing contact person</li> <li>• Meter data contact person</li> <li>• Balance deviation contact person</li> <li>• Debt collection contact person</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	5	1..1		

Email address				
Postal invoicing address	3	0..n		
Invoicing address type	4	1..1	<ul style="list-style-type: none"> <li>• Balance information corrections</li> <li>• Combined invoices</li> <li>• Connection and disconnection invoices</li> </ul>	
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Bank details	3	0..1		
IBAN	4	1..1		

Bank name	4	1..1		
SWIFT	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code	

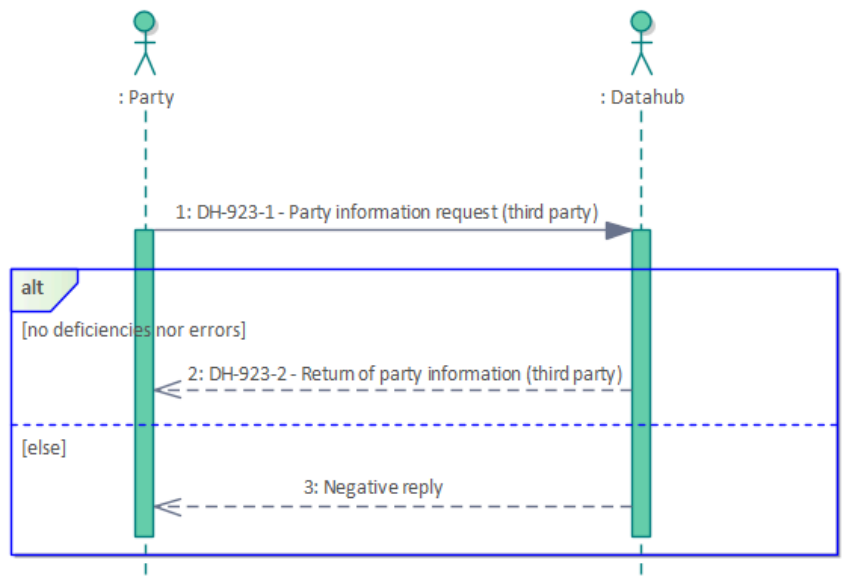
# DH-923 Party information request – third party

Event description

Parties

Return of information

Validation rules



Party information request – third party

## Event description

A third party registered in Datahub requests party information from Datahub.

## Parties


- Third party
- Datahub

## Return of information

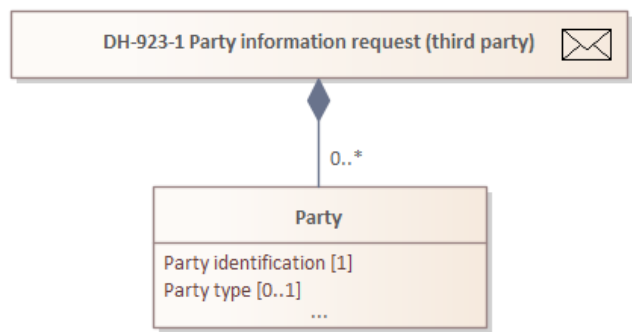
Party	Description	Message
Third party	Party information for the requested parties, or a rejected request. The request is rejected if there are no parties matching the search criteria.	<a href="#">DH-923-2</a>

## Validation rules

Please see [Datahub Validation Rules](#) for a more thorough list.

Rule	Error code	Note
The requested organization must be recorded in Datahub.	EC.ORG.200	
The market role used in the request must be registered in Datahub.	EC.ORG.201 EC.ORG.203	
The requested organization must be of active status.	EC.ORG.202	
When searching, the organization's identifier or market role must be given.	EC.ORG.204	
<div>  Please observe that the list is not complete. </div>		

# DH-923-1 Party information request (third party)



Details of party information request

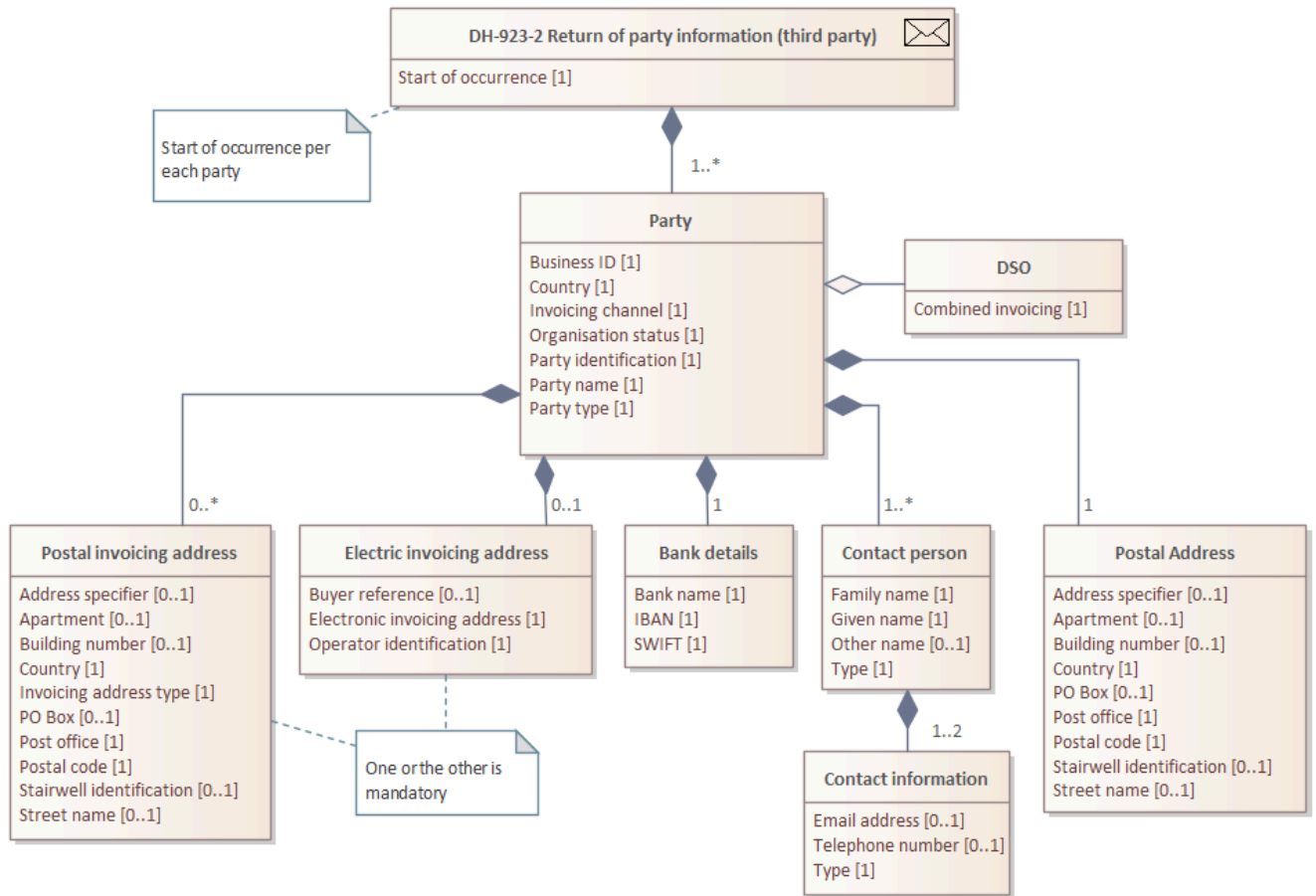
Message DH-923-1 is of message type [F17](#).

Message payload includes the following information:

Information field	Level	Necessity	Comment	Note
Payload	1	1.1		
Party information	2	0..n		
Party identification	3	1.1	GS1 code	
Party type	2	0.1	<ul style="list-style-type: none"><li>• Supplier</li><li>• DSO</li><li>• Third party</li></ul>	



## DH-923-2 Return of party information (third party)



Details of the return of party information

Message DH-923-2 is of message type [F16](#). Returned information is the same as in the party information notification ([DH-913](#)).

Message payload includes the following information:

Information field	Level	Necessity	Field content	Note
Payload	1	1..n		
Party's basic information	2	1..1		
Start of occurrence	3	1..1		
Party identification	3	1..1	GS1 code	

Party type	3	1..1	<ul style="list-style-type: none"> <li>• DSO</li> <li>• Supplier</li> <li>• Third party</li> </ul>	
Organization status	3	1..1		
Business ID	3	1..1		
Party name	3	1..1		
Invoicing channel	3	1..1	<ul style="list-style-type: none"> <li>• Paper invoice</li> <li>• Electronic invoicing</li> </ul>	
Country	3	1..1	ISO 31661 code	
Combined invoicing	3	0..1	Yes/No	
Contact person	3	0..n		
Type	4	1..1	<ul style="list-style-type: none"> <li>• Contract contact person</li> <li>• Invoicing contact person</li> <li>• Meter data contact person</li> <li>• Balance deviation contact person</li> <li>• Debt collection contact person</li> </ul>	
Given name	4	0..1		
Family name	4	0..1		
Other name	4	0..1		
Contact information	4	1..2		
Type	5	1..1	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail address</li> </ul>	
Telephone number	5	1..1		

Email address				
Postal invoicing address	3	0..n		
Invoicing address type	4	1..1	<ul style="list-style-type: none"> <li>• Balance information corrections</li> <li>• Combined invoices</li> <li>• Connection and disconnection invoices</li> </ul>	
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code in accordance with alpha-2	
Electronic invoicing address	3	0..1		
Buyer reference	4	0..1		
Electronic invoicing address	4	1..1		
Operator identification	4	1..1		
Bank details	3	0..1		
IBAN	4	1..1		

Bank name	4	1..1		
SWIFT	4	1..1		
Postal address	3	1..1		
Address specifier	4	0..1	c/o	
Street name	4	0..1		
Building number	4	0..1		
Stairwell identification	4	0..1		
Apartment	4	0..1		
Postal code	4	1..1		
PO Box	4	0..1		
Post office	4	1..1		
Country	4	1..1	ISO 31661 code	

## DH-1000 Retrieving data via the data interface

This chapter describes data interface resources, input parameters and responses. Each resource (or interface) has its own table that contains information about the required parameters, performed validations and an example of the request path.

After the table describing the resource, there is a table presenting the content of the response. The purpose of this table is only to present the information provided by the resource; it is not meant to exactly match the structure of the response.

## DH-1000 Accounting point information retrieval

[POST method](#)

[GET method](#)

[Returned accounting point information](#)


### POST method

Resource description			
Definition	Interface for requesting accounting point information		
Path parameters			
{function}	GetAccountingPointDataPost		
Query string parameters			
Name	Type	Obligati on	Note
{organisationUse r}	String	Mandat ory	
{meteringPointE AN}	String(18)	Mandat ory	
{customerIdentifi cation}	String(50)	Mandat ory	
{ViewDate}	DateTime	Mandat ory	For terminated contracts use ContractEndDate. For confirmed contracts use CurrentDateTime
Validation rules			
The requesting party must have a valid agreement (sales/grid agreement or authorisation agreement) with the customer on the view date.			
Response			
Accounting point information			
Request example			
1 https://{hostname}/rest/FGR/GetAccountingPointDataPost			

Content of the posted message:

```
1 {
2   "GetAccountingPointDataRequest": {
3     "organisationUser": "{organisationUser}",
4     "Filters": {
5       "meteringPointEAN": "{meteringPointEAN}",
6       "customerIdentification": "{customerIdentification}",
7       "ViewDate": "{ViewDate}"
8     }
9   }
10 }
```

## GET method

 The GET method will be discontinued when version 2.6 is deployed.

### Resource description

Definition	Interface for requesting accounting point information
------------	---

### Path parameters

{function}	GetAccountingPointData
------------	------------------------

### Query string parameters

Name	Type	Obligation	Note
{OrganisationUser}	String	Mandatory	
{MeteringPointEAN}	String(18)	Mandatory	
{CustomerIdentification}	String(50)	Mandatory	
{ViewDate}	DateTime	Mandatory	For terminated contracts use ContractEndDate. For confirmed contracts use CurrentDateTime

### Validation rules

The requesting party must have a valid agreement (sales/grid agreement or authorisation agreement) with the customer on the view date.

### Response

## Accounting point information

### Request example

```
1 https://{hostname}/rest/FGR/GetAccountingPointData?organisationUser={OrganisationUser}&meteringPointEAN={MeteringPointEAN}&customerIdentification={CustomerIdentification}&ViewDate={ViewDate}
```

## Returned accounting point information

### DH-1000 – Get accounting point data return

Name	Obligation
AccountingPoints	0..1
AccountingPointType	1..1
AccountingPointSubtype	1..1
ElectricPower	0..1
EnergyCommunityIdentifier	0..1
EnergyCommunityName	0..1
FuseSize	0..1
IsHeatingDependentOnElectricity	0..1
IsReactiveEnergyTimeSeriesAvailable	0..1
IsRemotelyConnectable	1..1
IsRemotelyReadable	0..1
Latitude	0..1
Longitude	0..1
MeteringGridAreaCode	1..1
MeteringMethod	0..1
MeteringPointEAN	1..1



MeteringPointStatus	1..1
MeteringTimeDivision	1..1
MeteringTimeStep	1..1
MeterNumber	0..1
UserGroup	0..1
EstimatedYearlyUsages	0..1
EstimatedYearlyUsage1	0..1
EstimatedYearlyUsage2	0..1
MeteringPointAddresses	1..8
AddressType	1..1
Apartment	0..1
BuildingNumber	0..1
CountryCode	1..1
Language	1..1
PostalCode	1..1
PostOffice	1..1
StairwellIdentification	0..1
StreetName	0..1
MeteringPointDevices (ControlledLoad)	0..n
ControlledLoadName	0..1
ControlLimits	0..1
Description	0..1
DeviceType	1..1
MaximumPower	0..1

MaximumPowerUnit	0..1
Timings	0..1
MeteringPointDevices (ProductionDevice)	0..n
DeviceType	1..1
MaximumPower	0..1
MaximumPowerUnit	0..1
ProductionDeviceName	1..1
ProductionType	1..1
MeteringPointDevices (StorageDevice)	0..n
Capacity	0..1
CapacityUnit	0..1
DeviceType	1..1
MaximumPower	0..1
MaximumPowerUnit	0..1
StorageDeviceName	1..1
StorageDeviceType	1..1

## DH-1001 Contractual information retrieval

[POST method](#)

[GET method](#)

[Returned contractual information for sales agreements](#)


[Returned contractual information for grid agreements](#)

### POST method

Resource description		
Definition	Interface for requesting contractual information	
Path parameters		
{function}	GetContractDataPost	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{meteringPointEAN}	String(18)	Mandatory
{customerIdentification}	String(50)	Mandatory
Validation rules		
<p>The requesting party must have a valid agreement (sales or grid agreement) with the customer at the time of request. Also, agreements starting in the future and agreements that have ended up to 6 weeks before the time of request are returned.</p>		
Response		
<p>Contractual information valid at the time of request</p>		
Request example		
<pre>1 https://{hostname}/rest/FGR/GetContractDataPost</pre>		
<p>Content of the posted message:</p>		
<pre>1 { 2   "GetContractDataRequest": { 3     "organisationUser": "{OrganisationUser}", 4     "Filters": { 5       "meteringPointEAN": "{MeteringPointEAN}", 6       "customerIdentification": "{CustomerIdentification}", 7     } 8   } 9 }</pre>		

```
8     }  
9 }
```

## GET method

 The GET method will be discontinued when version 2.6 is deployed.

Resource description		
Definition	Interface for requesting contractual information	
Path parameters		
{function}	GetContractData	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{meteringPointEAN}	String(18)	Mandatory
{customerIdentification}	String(50)	Mandatory
Validation rules		
The requesting party must have a valid agreement (sales or grid agreement) with the customer at the time of request. Also, agreements starting in the future and agreements that have ended up to 6 weeks before the time of request are returned.		
Response		
Contractual information valid at the time of request		
Request example		
<pre>1 https://{hostname}/rest/FGR/GetContractData?organisationUser={organisationUser}&amp;meteringPointEAN={meteringPointEAN}&amp;customerIdentification={customerIdentification}</pre>		

## Returned contractual information for sales agreements

**DH-1001 – Get contract data return for sales agreement**

<b>Name</b>	<b>Obligation</b>
Agreements	0..n
AgreementEndDate	0..1
AgreementIdentification	1..1
AgreementStartDate	1..1
AgreementStatus	1..1
AgreementType	1..1
ContactMethod	1..1
CustomerNote	0..1
FixedTermEndDate	0..1
FixedTermStartDate	0..1
InvoicingChannel	1..1
InvoicingMethod	1..1
IsDeliveryAgreement	1..1
IsFixedTermAgreement	1..1
IsInterruptionCritical	1..1
IsSpecialTerminationAgreement	1..1
MarketRole	1..1
MeteringPointEAN	1..1
OrganisationIdentifier	1..1
ReasonForAgreementEnd	0..1
ReasonForAgreementStart	1..1
SpecialTerminationPeriod	0..1
TerminationPeriodStartDate	0..1

TerminationPeriodEndDate	0..1
AgreementContacts	0..n
ContactPersonType	1..1
EmailAddress	0..1
FamilyName	0..1
GivenName	0..1
OtherName	0..1
TelephoneNumber	0..1
InvoiceAddresses (PostalInvoicingAddress)	1..1
AddressNote	0..1
Apartment	0..1
BuildingNumber	0..1
CountryCode	1..1
InvoicingAddressType	1..1
POBox	0..1
PostalCode	1..1
PostOffice	1..1
StairwellIdentification	0..1
StreetName	0..1
InvoiceAddresses (ElectronicInvoicingAddress)	0..1
BuyerReference	0..1
ElectronicInvoicingAddress	1..1
InvoicingAddressType	1..1
OperatorIdentification	1..1

InvoiceAddresses (OtherInvoicingAddress)	0..1
EmailAddress	0..1
InvoicingAddressType	1..1
TelephoneNumber	0..1
Products	0..n
ProductCode	1..1
ProductName	1..1
ProductNameLanguage	1..1

#### Returned contractual information for grid agreements

DH-1001 – Get contract data return for grid agreement	
<i><b>Name</b></i>	<i><b>Obligation</b></i>
Agreements	0..n
AgreementEndDate	0..1
AgreementIdentification	1..1
AgreementStartDate	1..1
AgreementStatus	1..1
AgreementType	1..1
ContactMethod	1..1
CustomerNote	0..1
InvoicingChannel	1..1
InvoicingMethod	1..1
IsDeliveryAgreement	1..1
IsInterruptionCritical	1..1

MarketRole	1..1
MeteringPointEAN	1..1
OrganisationIdentifier	1..1
ReasonForAgreementEnd	0..1
ReasonForAgreementStart	1..1
TaxCategory	1..1
AgreementContacts	0..n
ContactPersonType	1..1
EmailAddress	0..1
FamilyName	0..1
GivenName	0..1
OtherName	0..1
TelephoneNumber	0..1
InvoiceAddresses (PostalInvoicingAddress)	1..1
AddressNote	0..1
Apartment	0..1
BuildingNumber	0..1
CountryCode	1..1
InvoicingAddressType	1..1
POBox	0..1
PostalCode	1..1
PostOffice	1..1
StairwellIdentification	0..1
StreetName	0..1



InvoiceAddresses (ElectronicInvoicingAddress)	0..1
BuyerReference	0..1
ElectronicInvoicingAddress	1..1
InvoicingAddressType	1..1
OperatorIdentification	1..1
InvoiceAddresses (OtherInvoicingAddress)	0..1
EmailAddress	0..1
InvoicingAddressType	1..1
TelephoneNumber	0..1
Products	1..n
ProductCode	1..1
ProductName	1..1
ProductNameLanguage	1..1

## DH-1002 Time series data retrieval

[POST method](#)

[GET method](#)

[Returned metering data](#)

### POST method

Resource description			
Definition	Interface for requesting metering data		
Path parameters			
{function}	GetTimeSeriesDataPost		
Query string parameters			
Name	Type	Obligation	Note
{organisationUser}	String	Mandatory	
{meteringPointEAN}	String(18)	Mandatory	
{customerIdentification}	String(50)	Mandatory	
{periodStartTS}	Timestamp	Mandatory	Start of time series
{periodEndTS}	Timestamp	Mandatory	End of time series
{resolutionDuration}	String(25)	Optional	<ul style="list-style-type: none"><li>• If not provided, the data is returned at the resolution at which it was stored.</li><li>• If the provided resolution is lower than the stored resolution, no data is returned.</li><li>• If the provided resolution is higher than the stored resolution, Datahub sums the data to match the requested resolution.</li></ul>

{productType}	Text(25)	Optional	8716867000030 = Active energy 8716867000047 = Reactive energy (all)
{readingType}	String(4)	Optional	BN01 = Metered BN02 = Netted BN03 = Energy community If not provided, all reading types are returned.

### Validation rules

The requesting party should have a valid agreement (sales, grid or authorisation agreement) with the customer for the full data period (start time → end time) of the request. Data outside the agreement period is not returned.

### Response

Metering data for the selected time period, accounting point and time step. Reactive energy is returned too, if that type of reading is available for the accounting point. (Note: Missing metering data values within the requested period will result in gaps in the timeline).

If time series type is not given in the request, then both active and reactive energy time series are returned. For the time step input parameter, the following rules apply:

- If not provided, the data is returned at the resolution at which it was stored.
- If the provided resolution is lower than the stored resolution, no data is returned.
- If the provided resolution is higher than the stored resolution, Datahub sums the data to match the requested resolution.


### Request example

```
1 https://{hostname}/rest/FGR/GetTimeSeriesDataPost
```

Content of the posted message:

```
1 {
2   "GetTimeSeriesDataRequest": {
3     "organisationUser": "{OrganisationUser}",
4     "Filters": {
5       "meteringPointEAN": "{MeteringPointEAN}",
6       "customerIdentification": "{CustomerIdentification}",
7       "periodStartTS": "{PeriodStartTS}",
8       "periodEndTS": "{PeriodEndTS}",
9       "resolutionDuration": "{ResolutionDuration}",
10      "productType": "{ProductType}",
11      "readingType": "{ReadingType}"
12    }
13  }
```

## GET method

 The GET method will be discontinued when version 2.6 is deployed.

Resource description			
Definition	Interface for requesting metering data		
Path parameters			
{function}	GetTimeSeriesData		
Query string parameters			
Name	Type	Obligation	Note
{organisationUser}	String	Mandatory	
{MeteringPointEAN}	String(18)	Mandatory	
{CustomerIdentification}	String(50)	Mandatory	
{PeriodStartTS}	Timestamp	Mandatory	Start of time series
{PeriodEndTS}	Timestamp	Mandatory	End of time series
{ResolutionDuration}	String(25)	Optional	<ul style="list-style-type: none"><li>• If not provided, the data is returned at the resolution at which it was stored.</li><li>• If the provided resolution is lower than the stored resolution, no data is returned.</li><li>• If the provided resolution is higher than the stored resolution, Datahub sums the data to match the requested resolution.</li></ul>
{ProductType}	Text(25)	Optional	8716867000030 = Active energy

			8716867000047 = Reactive energy (all)
{ReadingType}	String(4)	Optional	BN01 = Metered BN02 = Netted BN03 = Energy community If not provided, all reading types are returned.

### Validation rules

The requesting party should have a valid agreement (sales, grid or authorisation agreement) with the customer for the full data period (start time → end time) of the request. Data outside the agreement period is not returned.

### Vastaus

Metering data for the selected time period, accounting point and time step. Reactive energy is returned too, if that type of reading is available for the accounting point. (Note: Missing metering data values within the requested period will result in gaps in the timeline).

If time series type is not given in the request, then both active and reactive energy time series are returned. For the time step input parameter, the following rules apply:

- If not provided, the data is returned at the resolution at which it was stored.
- If the provided resolution is lower than the stored resolution, no data is returned.
- If the provided resolution is higher than the stored resolution, Datahub sums the data to match the requested resolution.

### Esimerkkiyyntö

```
1 https://{hostname}/rest/FGR/GetTimeSeriesData?organisationUser=
  {OrganisationUser}&meteringPointEAN={MeteringPointEAN}&customerIdentification=
  {CustomerIdentification}&periodStartTS={PeriodStartTS}&periodEndTS=
  {PeriodEndTS}&resolutionDuration={ResolutionDuration}&productType={ProductType}&readingType=
  {ReadingType}
```

## Returned metering data

DH-1002 – Get time series data return	
Name	Obligation
TimeSeries	0..n

MeteringPointEAN	1..1
PeriodEndTS	1..1
PeriodStartTS	1..1
ProductType	1..1
ReadingType	1..1
ResolutionDuration	1..1
UnitType	1..1
Observations	1..n
PeriodStartTime	1..1
Quality	1..1
Quantity	1..1

## DH-1003 Authorization information retrieval

[POST method](#)

[GET method](#)

[Returned authorization information](#)

### POST method

Resource description

Definition

Interface for requesting authorization information

Path parameters

{function}

GetAuthorisationDataPost

Query string parameters

Name	Type	Obligation
{organisationUser}	String	Mandatory
{meteringPointEAN}	String(18)	Mandatory
{customerIdentification}	String(50)	Mandatory

Validation rules

The requesting party must have a valid authorization with the customer at the time of request.

Response

Authorization information valid at the time of request.


Esimerkkiyyntö

1https://{hostname}/rest/FGR/GetAuthorisationDataPost

Content of the posted message:

```
1 {
2   "GetAuthorisationDataRequest": {
3     "organisationUser": "{OrganisationUser}",
4     "Filters": {
5       "meteringPointEAN": "{MeteringPointEAN}",
6       "customerIdentification": "{CustomerIdentification}"
7     }
8   }
9 }
```

## GET method

 The GET method will be discontinued when version 2.6 is deployed.

Resource description		
Definition	Interface for requesting authorization information	
Path parameters		
{function}	GetAuthorisationData	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{meteringPointEAN}	String(18)	Mandatory
{customerIdentification}	String(50)	Mandatory
Validation rules		
The requesting party must have a valid authorization with the customer at the time of request.		
Response		
Authorization information valid at the time of request.		
Esimerkki pyyntö		
<div>1 https://{hostname}/rest/FGR/GetAuthorisationData?organisationUser={organisationUser}&amp;meteringPointEAN={meteringPointEAN}&amp;customerIdentification={customerIdentification}</div>		

## Returned authorization information

DH-1003 – Get authorisation data return	
Name	Obligation
Agreements	0..n
AgreementEndDate	1..1



AgreementStartDate	1..1
AgreementStatus	1..1
AgreementType	1..1
AuthorisationDescription	0..1
AuthorisationReason	1..1
MarketRole	1..1
MeteringPointEAN	1..1
OrganisationIdentifier	1..1

## DH-1005 Customer information retrieval

[POST method](#)


[GET method](#)

[Returned customer information](#)

### POST method

Resource description		
Definition	Interface for requesting customer information	
Path parameters		
{function}	GetCustomerDataPost	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{customerIdentification}	String(50)	Mandatory
Validation rules		
The requesting party must have a valid agreement or authorization with the customer at the time of request. Agreements starting in the future and agreements that have ended up to 6 weeks before the time of request are also returned.		
Response		
Customer information plus a list of the customer’s agreements, metering point identification and address valid at the time of request.		
Request example		
1 https://{hostname}/rest/FGR/GetCustomerDataPost		
Content of the posted message:		
<pre>1 { 2   "GetCustomerDataRequest": { 3     "organisationUser": "{OrganisationUser}", 4     "Filters": { 5       "customerIdentification": "{CustomerIdentification}", 6     } 7   } 8 }</pre>		

## GET method

 The GET method will be discontinued when version 2.6 is deployed.

Resource description		
Definition	Interface for requesting customer information	
Path parameters		
{function}	GetCustomerData	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{customerIdentification}	String(50)	Mandatory
Validation rules		
The requesting party must have a valid agreement or authorization with the customer at the time of request. Agreements starting in the future and agreements that have ended up to 6 weeks before the time of request are also returned.		
Response		
Customer data, a list of the customer’s agreements, metering point identification and address valid at the time of request.		
Request example		
1 https://{hostname}/rest/FGR/GetCustomerData?organisationUser={organisationUser}&customerIdentification={customerIdentification}		

## Returned customer information

DH-1005 – Get customer data return		
Name	Obligation	Note
Customers	0..1	

AdditionalIdentification	0..1	
CompanyName	0..1	
CustomerIdentification	1..1	
CustomerIdentificationType	1..1	
CustomerSubtype	1..1	
CustomerType	1..1	
DateOfBirth	0..1	
EmailAddress	0..1	
FamilyName	0..1	
GivenName	0..1	
IsInformationRestricted	1..1	
Language	1..1	
MiddleNames	0..1	
TelephoneNumber	0..1	
CustomerPostalAddress	1..1	
AddressNote	0..1	
Apartment	0..1	
BuildingNumber	0..1	
CountryCode	1..1	
POBox	0..1	
PostalCode	1..1	
PostOffice	1..1	

StairwellIdentification	0..1	
StreetName	0..1	
Agreements	1..n	
AgreementEndDate	0..1	
AgreementStartDate	1..1	
AgreementStatus	1..1	
AgreementType	1..1	
MeteringPoint	1..1	Metering point for the contract
MeteringPointEAN	1..1	
MeteringPointStatus	1..1	
MeteringPointAddress	1..1	Main address for the metering point
AddressNote	0..1	
Apartment	0..1	
BuildingNumber	0..1	
CountryCode	1..1	
Language	1..1	
PostalCode	1..1	
PostOffice	1..1	
StairwellIdentification	0..1	
StreetName	0..1	

# DH-1006 Market party information retrieval

[POST method](#)


[GET method](#)

[Returned market party information](#)

## POST method

Resource description		
Definition	Interface for requesting organisational (market party) information	
Path parameters		
{function}	GetOrganisationDataPost	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{organisationID}	String	Optional
{marketRole}	String	Optional
Validation rules		
No validation		
Response		
Market party information valid at the time of request. If no input parameters are given, information for all market parties is returned.		
Request example		
<pre>1 https://{hostname}/rest/FGR/GetOrganisationDataPost</pre>		
Content of the posted message:		
<pre>1 { 2   "GetOrganisationDataRequest": { 3     "organisationUser": "{organisationUser}", 4     "Filters": { 5       "organisationID": "{organisationID}", 6       "marketRole": "{marketRole}" 7     } 8   } }</pre>		

## GET method

 The GET method will be discontinued when version 2.6 is deployed.

Resource description		
Definition	Interface for requesting organisational (market party) information	
Path parameters		
{function}	GetOrganisationData	
Query string parameters		
Name	Type	Obligation
{organisationUser}	String	Mandatory
{organisationID}	String	Optional
{marketRole}	String	Optional
Validation rules		
No validation		
Response		
Market party information valid at the time of request. If no input parameters are given, information for all market parties is returned.		
Request example		
<pre>1 https://{hostname}/rest/FGR/GetOrganisationData?organisationUser={organisationUser}&amp;organisationID={organisationID}&amp;marketRole={marketRole}</pre>		

## Returned market party information

DH-1006 – Get organisation data return	
Name	Obligation

Organisations	0..n
CountryCode	1..1
MarketRole	1..1
Name	1..1
OrganisationIdentifier	1..1
RegistrationCOC	1..1
OrganisationAddresses	1..n
AddressSpecification	0..1
AddressType	1..1
BuildingNumber	0..1
CityName	1..1
CountryCode	1..1
FloorID	0..1
Postcode	1..1
PostOfficeBox	0..1
RoomID	0..1
StreetName	0..1
OrganisationContacts	1..n
EmailAddress	1..1
FirstName	0..1
FullName	0..1
LastName	0..1
PhoneNumber1	1..1
WebAddressURL	0..1