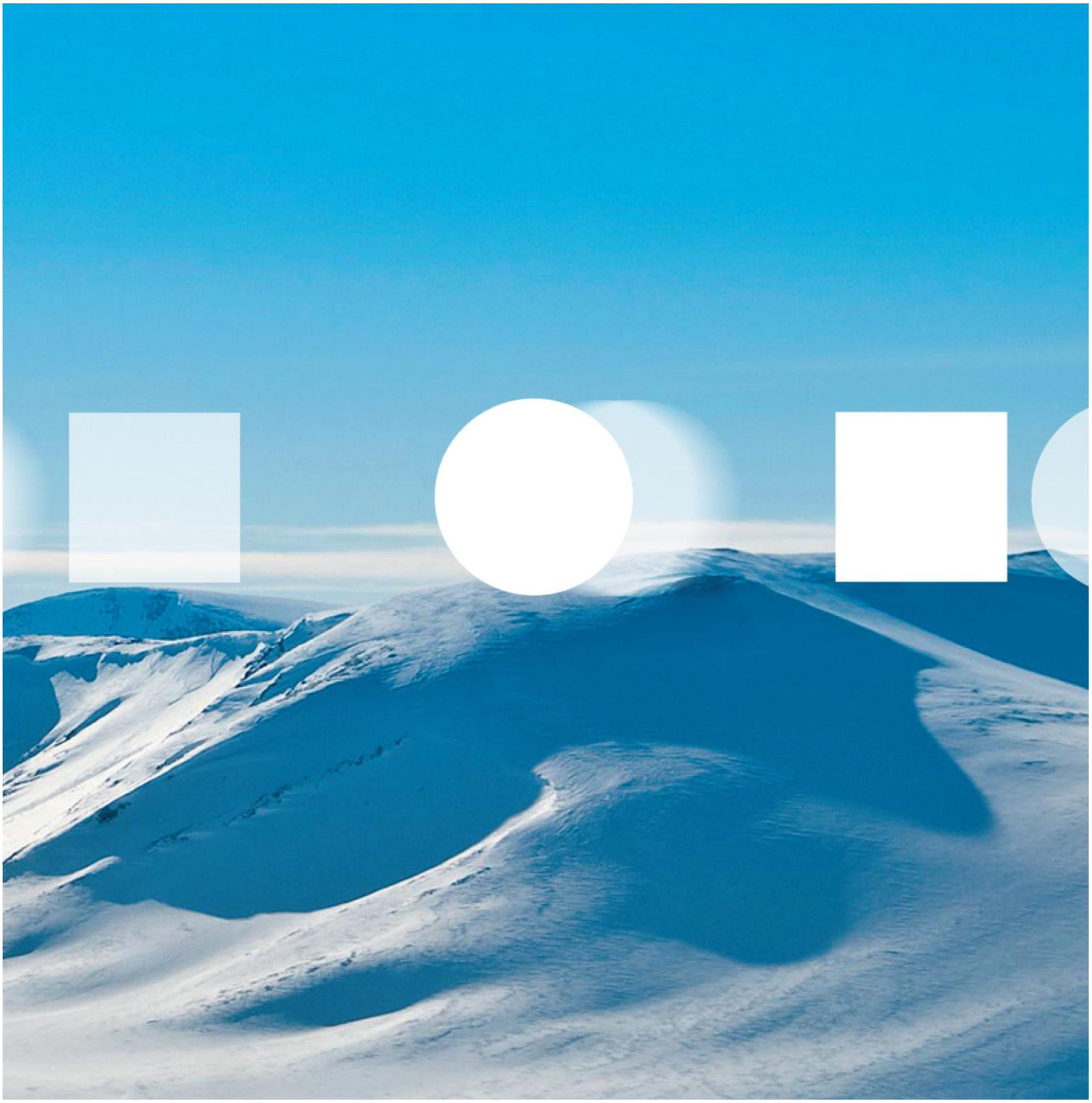
Elhub

BRS Reporting for Elcertificates



Versjon 1.8 | 08.08.2019

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1 Scope

This document discusses the reporting from Elhub to Registry Responsible for Elcertificates (NECS). Market Processes, Meter Data Management and reporting for Imbalance Settlement are described in separate documents.

1.1 References

1. Forskrift om måling, avregning og samordnet opptreden ved kraftomsetning og fakturering av nettjenester av 11. mars 1999 med til en hver tid siste endring, NVE, www.nve.no
2. Rollemodell for det norske kraftmarkedet, www.ediel.no
3. Effektivt sluttbrukermarked for kraft, www.ediel.no
4. Forskrift om elsertifikater FOR-2011-12-16-1398
5. English unofficial translation of Norwegian regulation elcertificates
6. Requirement Specification NECS

1.2 Change log

Date	Version	Change
02/27/2014	Version 0.1	First draft
03/18/2014	Version 0.2	First draft in English
04/15/2014	Version 0.4	Revision after QA
05/05/2014	Version 0.5	Step for QA by BS deleted
05/12/2014	Version 0.7	Message references included
05/16/2014	Version 1.0	Ready for distribution
12/10/2014	Version 1.1	BRS-NO-511: Reporting Produced Volume to Registry responsible: Changed message, Document type and Business process
27/07/2015	Version 1.2	Alterations with regards to timing
05/02/2016	Version 1.5	No changes
31/05/2016	Version 1.6	Added text describing that the balance suppliers can see the QOC in the portal 2 weeks before reporting date.
13/06/2017	Version 1.7	BRS-NO-511: Frequency and time for reporting added Made it more clear that the messages are not Elhub BIM messages, but a format defined by NECS Added a line in BRS-NO-511 to show that Elhub is automatically updated with the metering points to be reported. Elhub will be report marked metering

Date	Version	Change
		points from any grid area, not only metering grid areas reported to NBS, including e.g. production behind a Prosumer ("Plusskunde"). Minor changes and corrections
08/08/2019	Version 1.8	Version bump from 1.7. No changes.

2 Overview of processes in this document

This document focuses on two processes where Elhub reports metering values regarding issuing of Elcertificates and Guarantees of Origin (GoO) and for Quota Obliged Consumption (QOC). Reporting includes both produced and consumed volumes and shall be conducted per Metering Grid Area (MGA) and per Balance Supplier.

Elcertificates are issued to entitled production units with renewable energy. Issuing is made by the Registry Responsible, which in Norway is NECS (Norwegian Energy Certificate System). The same meter values could be used for the issuing of GoO if it relates to the same production unit, but the number of plants qualified for GoO is larger than the corresponding number for certificate entitled.

NECS also records the QOC. The cancellation of certificates is made in the NECS-system by the Balance Supplier.

This document includes processes:

Process	Name
BRS-NO-511	Reporting Produced Volume to Registry responsible Elcertificates
BRS-NO-512	Reporting Quota Obliged Consumption

Division into chapters for each process (BRS)

Subchapter «Overview» gives a short description of the process discussed in each main chapter, starting point and goal of the process, and illustrates it with an Use Case Diagram. This diagram uses UML-notation and specifies the roles involved and the actual use cases that is used to execute the process. In many cases there is only one use case, but in a few cases it may be necessary to perform several use cases to make the process complete.

In some cases use cases from other processes will be needed to get an overview of the total flow that the process requires.

«Process Flow and Information Exchange» will in most cases merely be one sequence diagram for each use case. Note that the use cases belonging to other processes, but which are linked into a process, are only presented in the original process.

«Starting state» is a brief description of the requirements that must be met for the process to be executed.

«Process Flow» is a verbal presentation of the flowchart with enhanced information related to each step in the chart presented earlier.

«Validation Rules» provides an overview of the parameters that are validated and where the outcome may be that the process be stopped / refused. In addition, also technical errors and syntax errors could lead to rejection. However, in this document only process error is discussed.

«Deadlines» summarizes the deadlines that are central to the current BRS

«References between the Processes and Transactions» links this document to the Elhub BIM document.

3 Business Processes

3.1 General

Grid owners are responsible for metering and quality assurance of the measurement results for all metering points (accounting points and exchange points) on their own grid area, and that these data are confirmed received by Elhub. The basis of financial settlement in electricity sales should be based on these measurements. In cases where there is no reading of the meter within the time limit for a given business process, Elhub will estimate missing values.
Incorrect volume series will initiate a correction process after Elhub received correct data. When the grid owner reports a meter reading for a profiled metering point Elhub calculates basis for a correction settlement also for this type of metering point. The settlement volumes will accumulate to an amount per month for each balance supplier.
In this document, we use the term volume series to take into account that it also can be sent series of quarter resolution, since this is mentioned in the regulation. Period Volume refers to the volume limited by two readings, or estimated meter readings with at least one day apart.

3.2 BRS-NO-511 - Reporting Produced Volume to Registry responsible Elcertificates

3.2.1 Overview

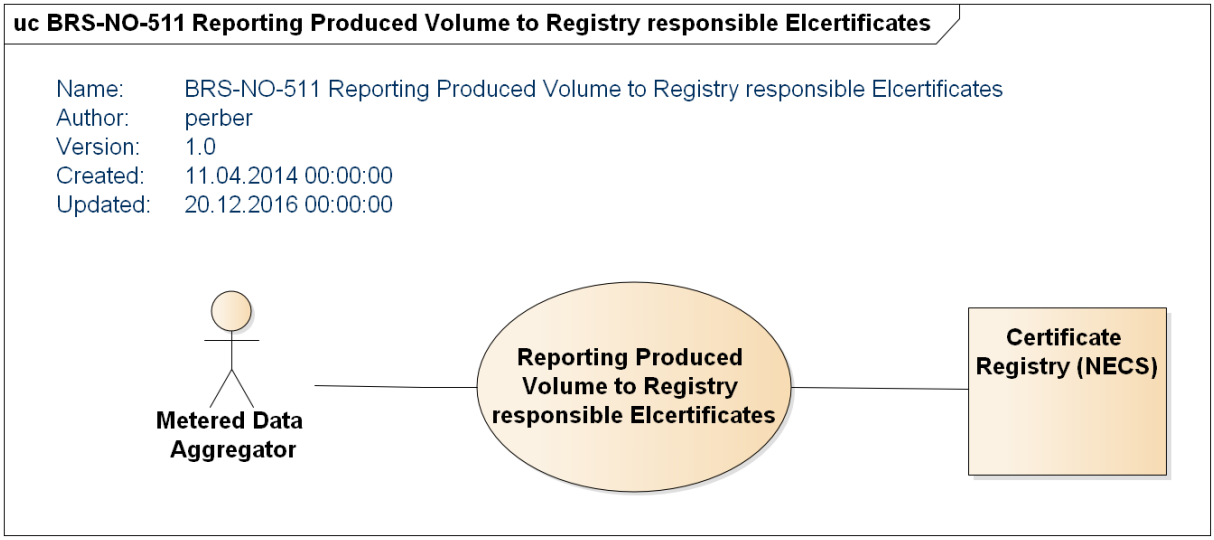

Figure 1 Use Case: Reporting Produced Volume to Registry responsible Elcertificates

Elhub reports produced volume to NECS for entitled production units. Produced volume are reported to NECS every day for the usage day 14 days back in time, volume will be specified in MWh per day based on hourly resolution.
Changes after D+13 are not reported to NECS as it is expected that data are correct on D+13. Any changes after D+13 must be handled directly between the Certificate obliged party and NECS. Reported volumes are used by NECS for issuing of both elcertificates and guarantees of origin.

Elhub can report production from any metering point defined in a grid area, not only a metering grid area settled by NBS. As long as a grid area and a metering point has been defined, and NECS have updated the reporting structure to include it, Elhub can e.g. report a production point behind a Prosumer ("Plusskunde").

3.2.2 Process Flow and Information Exchange

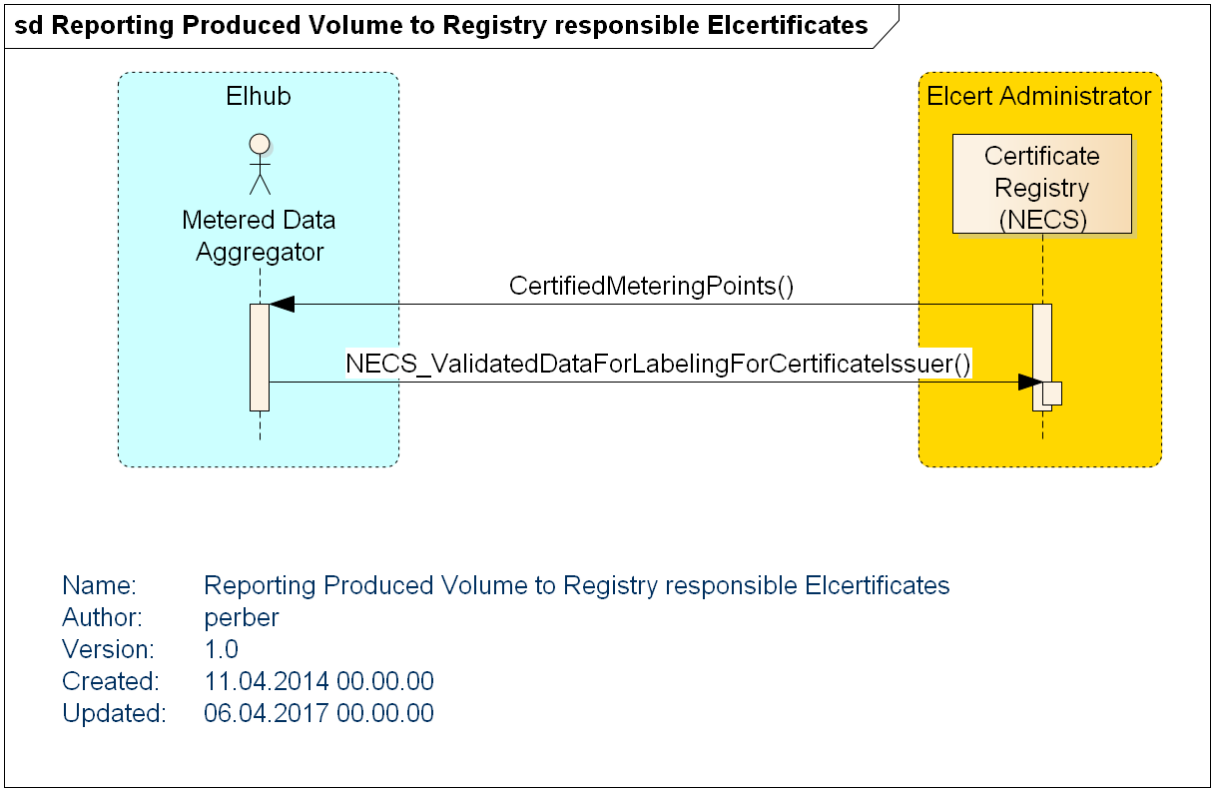

Figure 2 Sequence: Reporting Produced Volume to Registry responsible Elcertificates

3.2.3 Starting State

Elhub reports data to NECS D+14 at 3 AM. Start time can be changed by the Elhub Operator.

3.2.4 Process Flow

- Elhub receives updates of the metering points to be reported to NECS, from NECS
- Elhub reports produced volume for the defined metering points to NECS.
- In cases where the production refers to pumped storage, the consumption for pumping is reported separately but in the same file to NECS. This also applies to plants where water is pumped between reservoirs used by several production units. This means that the pump energy is not tied to a specific production unit.
- Data is reported per Metering Point in MWh per day with three decimal places.

3.2.5 Validation Rules

In this process it is only Elhub sending messages. No messages will be received for validation.

3.2.6 Deadlines for BRS-NO-511 Reporting Produced Volume to Registry responsible Elcertificates

Description	Sender	Receiver	Deadline
Produced Volume *)	Elhub	NECS	D+14 at 3 AM

*) The same also applies for consumption in the cases cited.

3.2.7 References between Process and Transactions

The table below presents all messages in the Sequence Diagrams in 3.2.2. The messages are defined by the vendor of NECS, Grexel.

Process component	Parameter	BIM sect	Message	Document type	Reason
			CertifiedMeteringPoints		
			NECS_ ValidatedDataForLabelingForCertificateIssuer		

3.3 BRS-NO-512 - Reporting Quota Obliged Consumption

3.3.1 Overview

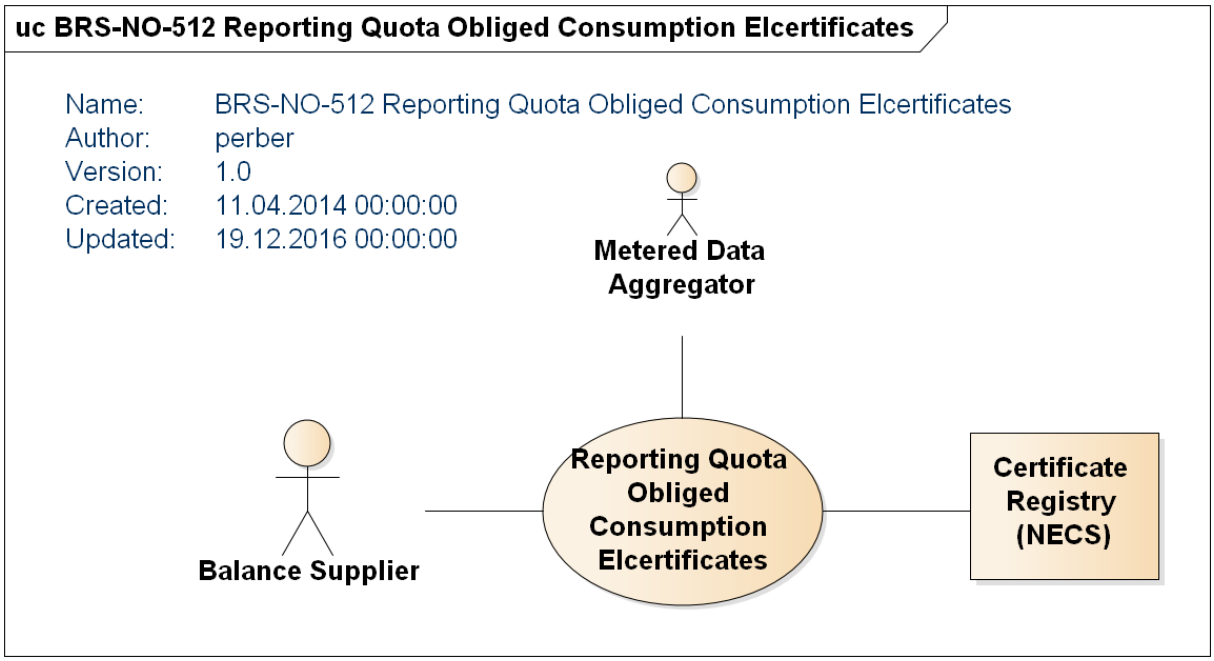

Figure 3 Use Case: Reporting Quota Obliged Consumption.

The process of reporting Quota Obliged Consumption is initiated in the middle of the second month in each quarter. Elhub calculates and reports all volumes delivered for Quota Obliged Consumption in each Metering Grid Area to NECS. This report covers the aggregate volume for the preceding calendar year, as well as the aggregate volume to the end of the previous quarter for the current year. The results are available to the Balance Supplier in the Elhub Web Portal. The Balance Supplier can also access preliminary results approximately 2 weeks before the reporting date, any errors identified in the preliminary results are sorted out in collaboration between the Balance Supplier and Metered Data Responsible before the final reporting date.

3.3.2 Process Flow and Information Exchange

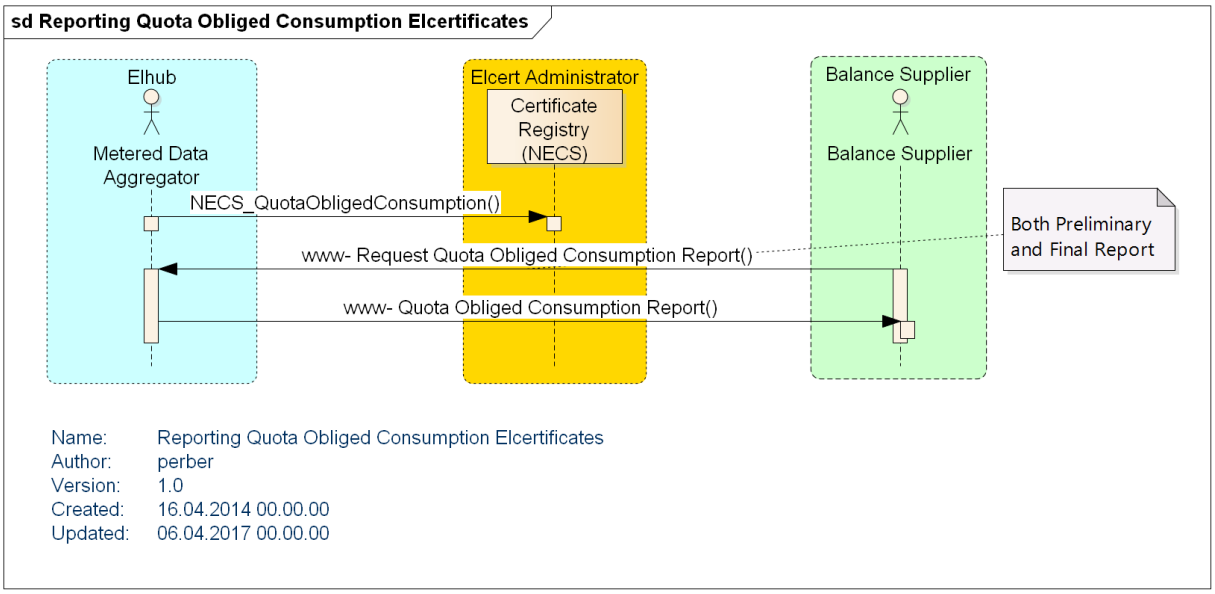

Figure 4 Sequence: Reporting Quota Obliged Consumption

3.3.3 Starting State

Elhub receives metering data from grid owners for hourly settled metering points and periodic volumes for profiled metering points. Elhub uses the preliminary estimated volume (PPC) of the profiled metering points where reading is missing for the last period.

3.3.4 Process Flow

- The process is time triggered. Elhub calculates Quota Obliged Consumption in each Metering Grid Area for each Balance Supplier. The certificate share in the master data on each metering point determines the portion of the consumption for which certificates are required.

- The report for NECS is calculated in the middle of the second month of each quarter. Preliminary results are available to the Balance Suppliers approximately 2 weeks before the reporting date.

- The report for NECS contains aggregated consumption for the preceding calendar year as well as aggregated consumption until the end of the previous quarter of the current year, for each Quota Obliged Party. This means that corrections will be reported to NECS in the normal process for current and previous year, but not further back.

- Note that reporting in mid-February will include:
  - *Aggregated Quota Obliged Consumption for the current reporting year*, i.e., for the entire previous calendar year (year-1).
  - *Aggregated Quota Obliged Consumption for the previous reporting year*, i.e., for the entire calendar year two years back in time (year-2).

3.3.5 Validation Rules

In this process there is only Elhub sending messages. No messages will be received for validation.

3.3.6 Deadlines

Description	Sender	Receiver	Deadline
Quota Obliged Consumption	Elhub	NECS	Four times a year: Feb 15, May 15, Aug 15, Nov 15

3.3.7 References between Process and Transactions

The table below presents all messages in the Sequence Diagrams in 3.2.2. The messages are defined by the vendor of NECS, Grexel.

Process component	Parameter	BIM sect	Message	Document type	Reason
			NECS_QuotaObligedConsumption		

http://confluence.elhub.org/display/MDOK/Scope