Framework for a harmonized model for moving

-status report

Report 3/2014

Framework for a harmonized model for moving

Report 3/2014

NordREG
c/o Energimarknadsinspektionen
Box 155, 631 03 Eskilstuna, Sweden
Telephone: + 46 16 16 27 00
E-mail: registrator@ei.se
Internet: www.nordicenergyregulators.org

Table of content

List of Tables:

1 Executive summary

The Nordic Energy Regulators (NordREG) have for several years been promoting the idea of a harmonised Nordic electricity market with the support of the Nordic energyministers. The main goal is to create common Nordic solutions for the retail market and eliminate the biggest entry barriers for a supplier entering the Nordic market. Business processes was pointed out as important to harmonise in order to reach that goal and this report focuses on the harmonisation of the moving process.

The recommendations of NordREG focuses on the regulatory framework for the move-in and move-out processes. This relates to back office procedures, so the customer may well have moved before the processes are done.

NordREG suggest nine recommendations for the Move-in process. These recommendations are described in fifteen messages that should be sent between the supplier and DSO/NPI.

NordREG suggest seven recommendations for the Move-out process. These recommendations are described in seven messages that should be sent between the supplier and DSO/NPI.

The move-in and move-out processes can be conducted simultaneously.

The final moving report from NordREG includes both fully harmonised elements and some exceptions that could not be harmonised so far. Based on the findings from the independent consulting firm as well as the input from the stakeholders it is NordREGs firm view that this report for a harmonised moving process has been taken as far as it has been possible under the current circumstances.

NordREG concludes the current moving report provides a continuation towards a harmonised Nordic solution for the retail market and it contributes to eliminate some of the entry barriers for a supplier entering the Nordic market.

Workprocess

The drafting of this report started the spring 2013. The stakeholders have been giving input through workshops 10th of April 2013 and the 11th of Sept. 2013 as well as a public hearing the 26th of February 2013.

The project group consisted of a project leader, a drafting team with experts from the national regulators and an input team with representatives from the industry (suppliers and DSOs) and TSOs. NordREG has received many comments during the work with this report.

In the process of writing the moving report all the input from the stakeholders were discussed and considered very carefully. In appendix II you will find a summary of the most important comments from the stakeholders at the workshops and the public hearing

2 Introduction

NordREG has identified key business processes that need to be harmonised as a part of the development towards a common Nordic retail market. The focus in this report is the moving process, and the report will provide recommendations on how the moving process should be carried out.

Even if the moving processes in the Nordic countries are similar today, some of the regulatory, commercial and technical differences constitute an obstacle for a successful realisation of a common Nordic retail market, as the differences may reduce the supplier's potential gains from operating in another Nordic country. The recommendations in this report should be used as background for the development of a common Nordic regulatory framework, such that similar operating conditions can be established.

In the NordREG report 4/2013 *Harmonised Model for Supplier Switching*, NordREG underlined that in order to implement the recommendations successfully and in the most efficient manner, each country should implement a highly efficient information exchange system and also ensure that a full scale deployment of smart meters is taking place.

While there are concrete plans for the implementation of smart meters in all of the Nordic countries, the future choice of information exchange system is still not decided upon in Finland and Sweden. In Finland, Sweden and Norway there is currently a system with point-to-point communication between the DSOs and suppliers when exchanging information. In Denmark, there is a centralised information storage unit ("data hub") that have taken over the DSOs role as responsible for exchanging information between the market actors. Norway has decided to implement a centralised information storage unit ("data hub") from October 2016. The regulator in Sweden has received an assignment from the government to investigate what model for information management is best suited for the future supplier centric market. The report shall set the framework for the information model and shall be handed over to the government in the middle of June 2014. In Finland the TSO has got a mandate from the Ministry of Employment and the Economy to investigate the implementation of a centralised data exchange and storage unit. The investigation started in January 2014.

In this report the term national point of information ("NPI") will be used to denote the centralised information storage unit existing in Denmark and planned in Norway. Thus, the recommendations for messages exchanged in a NPI-system will only apply to countries where a NPI is already implemented or where concrete plans for implementation exist[1].

[1] The recommendations for NPI-countries does not necessarily serve possible future data hub solutions in the Nordic area. Data hubs can be planned and run according to national rules as long as the functions are carried out in time to meet the requirements of moving process. However, as with all other changes in the end user market, Nordic harmonisation is a goal.

NordREG has decided to implement a *supplier centric model* in the future Nordic retail market, which means that the suppliers will be the primary contact point for the customers in the moving process. Since the design of the future market models are not decided upon, the following report do not have a clear description of the different contractual agreements involved in the moving process. Today the customer must enter into a supply contract with the supplier and a grid connection and grid use contract with the DSO, but whether this still will apply in the future are not settled yet. In this report we assume that when the customer enters into a supply contract with a supplier, the customer simultaneously provide the supplier with a power of attorney that lets the supplier launch a grid use contract between customer and DSO or to enter into a grid use contract with the DSO on behalf of the customer.[2]

In the following, we present a framework model that takes into account both a NPI system and a system with point-to-point communication between DSOs and suppliers. Included in the model are the involved participants, transactions, messages (with minimum content) and time frames, i.e. issues that will be regulated by the national regulators.

When developing a harmonised model for the moving process the following four principles should be taken into account[3]:

1. Procedures for starting and ending electricity supply should be as smooth, easy, quick and secure as possible and should be designed for a fully automated process.

2. It is truly important that the distribution system operators (DSOs) and the national point of information (NPI)[4] act neutral towards all market participants in relation to moving.

3. Meter readings should be as accurate as possible at the start or end of supply in a metering point. All Nordic countries have either already installed or are planning to install AMRs.

4. Customer's rights should always be protected. It is important for market functioning that the customers keep trusting the liberalised electricity markets.

Customers doesn't only have rights but are also responsible for providing the supplier(s) and in some countries also the DSO(s) with information. Further,

[2] The Danish supplier centric model (the wholesale model) by Oct. 2015 states that there will only be *one* agreement (a supply contract) present for the customer and that is in relation to the supplier. Between the supplier and the DSO a standard contract will be present. The DSO (and the TSO) will sell their services to the supplier but not to the customer. Each supplier then bills the customer for "delivered electricity" - that is electricity supply *including* net and system services, taxes, VAT etc.

[3] NordREG: Harmonised supplier switching model, report 2/2008, page 9, with some modifications

[4] NordREG: High level suggestions for common Nordic processes for information exchange obstacles and possibilities, report 1/2012

the customer is responsible for the electricity consumed in a metering point until the electricity supply contract for the metering point is terminated. This means that the customer is responsible for notifying the supplier when he/she moves either by contacting the supplier in question or by contacting the supplier customer has chosen for the metering point customer is moving in to.
If the contract allows, the customer can keep the existing contract terms with its current supplier when moving. If the contract doesn't allow that the customer can keep its current contract terms in the new metering point, the contract is terminated and the customer must enter into a new contract with the current or a new supplier.

2.1 Scope

The focus of the report is on the regulatory aspects of the moving process, and the report will point out which elements of the moving process that needs to be harmonized by the regulators in the Nordic countries. The report also points out elements that cannot be harmonized at this point or which are national exceptions not in line with the common model.

This report will give recommendations on the following issues:

- What are the roles and responsibilities in the moving process?
- What should be the time frames for the processes in question, such as sending and responding to messages, collecting and distributing meter readings etc.?
- What should the minimum content required in the messages exchanged during the moving process?

The main target groups for this report are national governments, legislators and the stakeholders in the electricity market (TSOs/DSOs/suppliers/IT-providers).

As is done today at national levels the final detailed business processes and technical issues should be developed by the stakeholders. This work is currently carried out in a separate project.

2.2 Objectives

NordREG has set up a number of objectives that the recommendations for the future Nordic retail market should be in line with. The overall target is to integrate the Nordic retail markets by harmonising the rules, and at the same time create a more efficient market. The recommendations in this report have therefore been designed with these objectives[5] in mind:

[5] NordREG: Rights and obligations of DSOs and suppliers in the customer interface, 4/2011, Page 10-11

- *Customer friendliness*. One of the objectives of the common Nordic retail market is to increase the customer friendliness of the market and to make it easier for the customer to be active in the market.

- *Well-functioning common market*. The goal is to have a well-functioning common electricity market (wholesale and retail).

- *Improved competition*. To improve competition among suppliers, for instance through low entry and exit barriers, is an important objective.

- *Improved efficiency*. Customers will benefit from improved efficiency in the market.

- *Compliance with EU regulation and development*. The suggested solutions comply with the general development in the EU and with existing and coming EU regulation.

- *Neutrality of DSOs*. DSOs should function as market facilitators.

3 Harmonised model for the moving process

NordREG is recommending the following framework model with few national exceptions for the moving process to be used as a basis for the development of a common Nordic retail market. In a moving process there are potentially two processes carried out - a move-in and a move-out. The move-out is not necessarily followed by a move-in, and when a customer move in to a metering point, this does not necessarily mean that the customer moves out from another metering point at the same time.

Chapter 3.1 presents the business processes carried out if a customer moves into a metering point and perhaps out from another metering point. Chapter 3.1 presents also the business processes carried out if a customer only moves in to a metering point i.e. a customer needs start-up of supply in a new metering point but in that case not all steps are valid. Chapter 3.2 presents the business processes carried out when a customer only moves out.

The cancellation messages are left out of this report. To increase customer friendliness and efficiency in the future market a possibility to cancel or roll back a faulty move should be in place and harmonized.

Roles for the move-in and –out processes

Following terms and abbreviations are used in the report to denote the different roles and metering points in the report:

- Customer A is the customer moving in to a metering point, Metering Point 2.
- Customer B is the customer that is moving out from Metering Point 2.
- Metering Point 2 is the metering point where Customer A moves in to. In the report MP2 is used to denote Metering Point 2.
- Metering Point 1 is the metering point where customer A is possibly moving out from. In the report MP1 is used to denote Metering Point 1.
- The supplier can either be a new supplier for Customer A in MP2 or the same as in MP1. Further, the supplier can also be Customer B's supplier in MP2. To denote the role of which supplier that are referred to in the report the term "Customer A/B's supplier of MP1/MP2" is used.
- Since the DSO can either be the same or a different DSO for MP1 or MP2, we only use "DSO of MP1 or MP2" to denote the role of the DSOs.

The figure below illustrates how MP1, MP2 Customer A and Customer B are used in the report[6]:

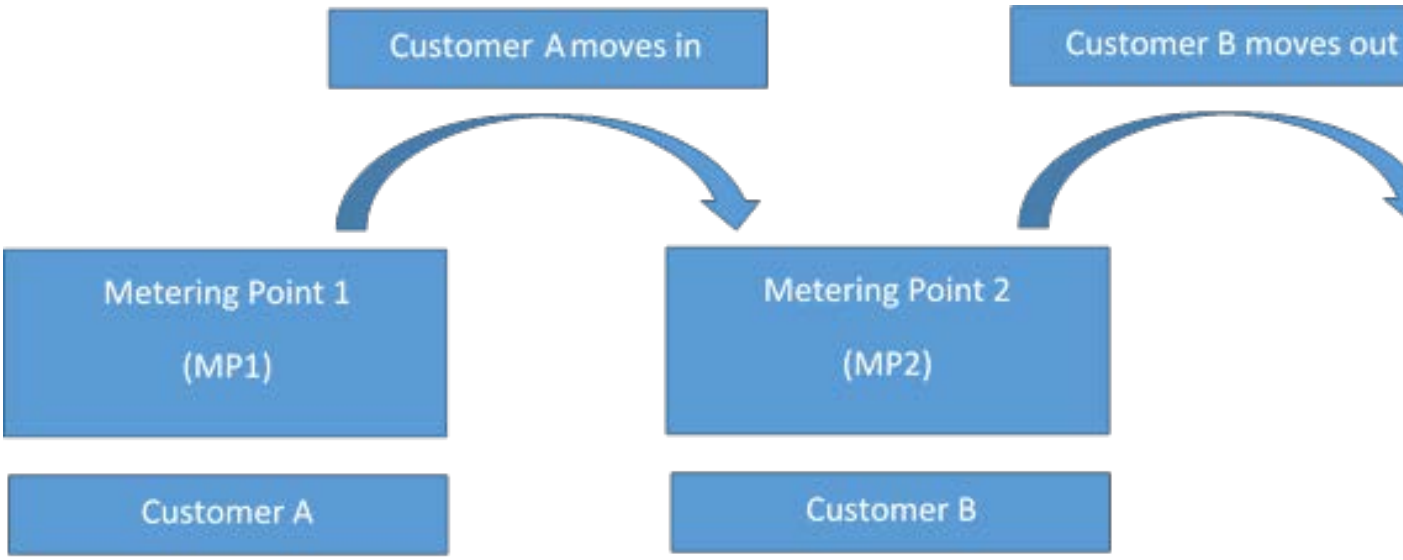

Figure 1 Customer A moves in at Metering Point 2 (MP2), but is not necessarily moving out from Metering Point 1 (MP1). Customer B moves from MP2.

Since the regulators in the Nordic countries do not have detailed regulations of all parts of the moving processes, suggestions for how special use-cases should be handled are already prepared by the Nordic electricity industry and will not be a part of the recommendations from NordREG.[7]

3.1 The move-in process

This chapter describes the move-in process either with or without a move-out from a previous metering point (MP1). The following steps explain the move-in process by giving an overview of the flow of information. Each of the steps corresponds to the sub-chapters of chapter 3.1. Some of the steps only apply to countries with a NPI and it should be noticed that the b)-steps of chapter 3.1 are not valid in Denmark. If Customer A informs the supplier chosen for MP2 about a move-out of MP1, this information must be passed to the current supplier of MP1, which then notifies the NPI. The Danish move-out is handled with the move-out process described in chapter 3.2. Following list describes the steps for the move-in process:

1) **Customer contacts the supplier to report the move-in and supplier can obtain information:** Customer A contacts a supplier to report the move-in to MP2. This supplier can be either a new supplier for customer A or a supplier that the customer already has an agreement with in MP1.

6 In Denmark the move out of Customer A from Metering Point 1 is handled as a separate process and not as a part of the move in process at Metering Point 2. The move out of Customer B from Metering point 2 is a part of the move in process at Metering Point 2.

7 A use-case is a list of steps, typically defining interactions between a role (an "actor") and a system of participants, to achieve a goal (for instance a move). See appendix 1 for more information.

Customer A enters into a supply contract for MP2, either by continuing with contract terms from MP1 or by signing a new contract.

2) Message 2. Notification from supplier of Customer A in MP2 to DSO/NPI about customer A moving:

a) After collecting necessary information about Customer A and MP2, the supplier informs the DSO in MP2/NPI about Customer A *moving in* and the starting date of supply in MP2.

b) If Customer A at the same time *moves out* from MP1, the supplier must also inform DSO in MP1/NPI about Customer A *moving out*.[8]

3) **Message 3. Response to notification of Customer A moving:**

a) The DSO in MP2/NPI confirms or rejects the start of supply / the move in to MP2 to the supplier of Customer A in MP2.

b) If 2b) is sent the DSO in MP1/NPI confirms or rejects the termination of supply in MP1 to the supplier of Customer A in MP2.

4) **Message 4. Notification to supplier about termination of supply:**

a) In Denmar and in Finlandk, the information about termination of supply is sent to the supplier of Customer B in MP2. In addition, any already scheduled supplier switches for Customer B in MP2 will also be cancelled.

b) If 2b) is sent the DSO in MP1 informs the supplier in MP1 that the Customer A is moving out and ending contract.

5) **Message 5. NPI sends updated master data to Customer A's supplier in MP2:** After the confirmation of Customer A moving in to MP2 the DSO in MP2/NPI sends updated master data[9] to the Customer A's supplier in MP2.[10]

6) Message 6. Information to DSO about customer A moving (only in NPI-countries).

a) NPI informs the DSO in MP2 about customer A moving-in and the move-in date

b) if 2b) is sent NPI informs the notification about the customer A moving-out and the move-out date to DSO in MP1

[8] The moving-out processes labelled b) in this subchapter are not relevant for the Danish NPI system.

[9] See appendix 1 for description on the term master data.

[10] In return from the NPI Customer A's supplier will also receive a web access code to be forwarded to the customer In addition the NPI checks name (and new address?) of the customer moving-in in relevant public registers. If errors are discovered a message is sent to the supplier of the customer moving in (only relevant for DK).

7) **Message 7. Meter reading from DSO to NPI (only in NPI-countries):**

   a) The DSO in MP2 sends meter reading of move-in date to NPI after the DSO has received a move-in notification from NPI.

   b) If DSO in MP1 has received notification 6b) the DSO in MP1 sends meter reading of move-out date to NPI

8) **Message 8. End meter reading from DSO to supplier:**

   a) The DSO of MP2/NPI sends the meter reading or equivalent information of ending date of supply in MP2 to Customer B's supplier.

   b) If confirmation of move-out 4b) is sent the DSO in MP1/NPI sends the meter reading or equivalent information of ending date of supply in MP1 to Customer A's supplier.

9) **Message 9. Start meter reading of MP2 to supplier of Customer A:** The DSO in MP2/NPI sends the meter readings or equivalent information for starting date of supply in MP2 to Customer A's supplier.

Figure 2 and 3 below illustrates the time frame for the move-in process step-by-step. Figure 2 shows the move-in process between Customer A, Suppliers and DSOs/NPI without presenting the information flow between DSO and NPI in detail:

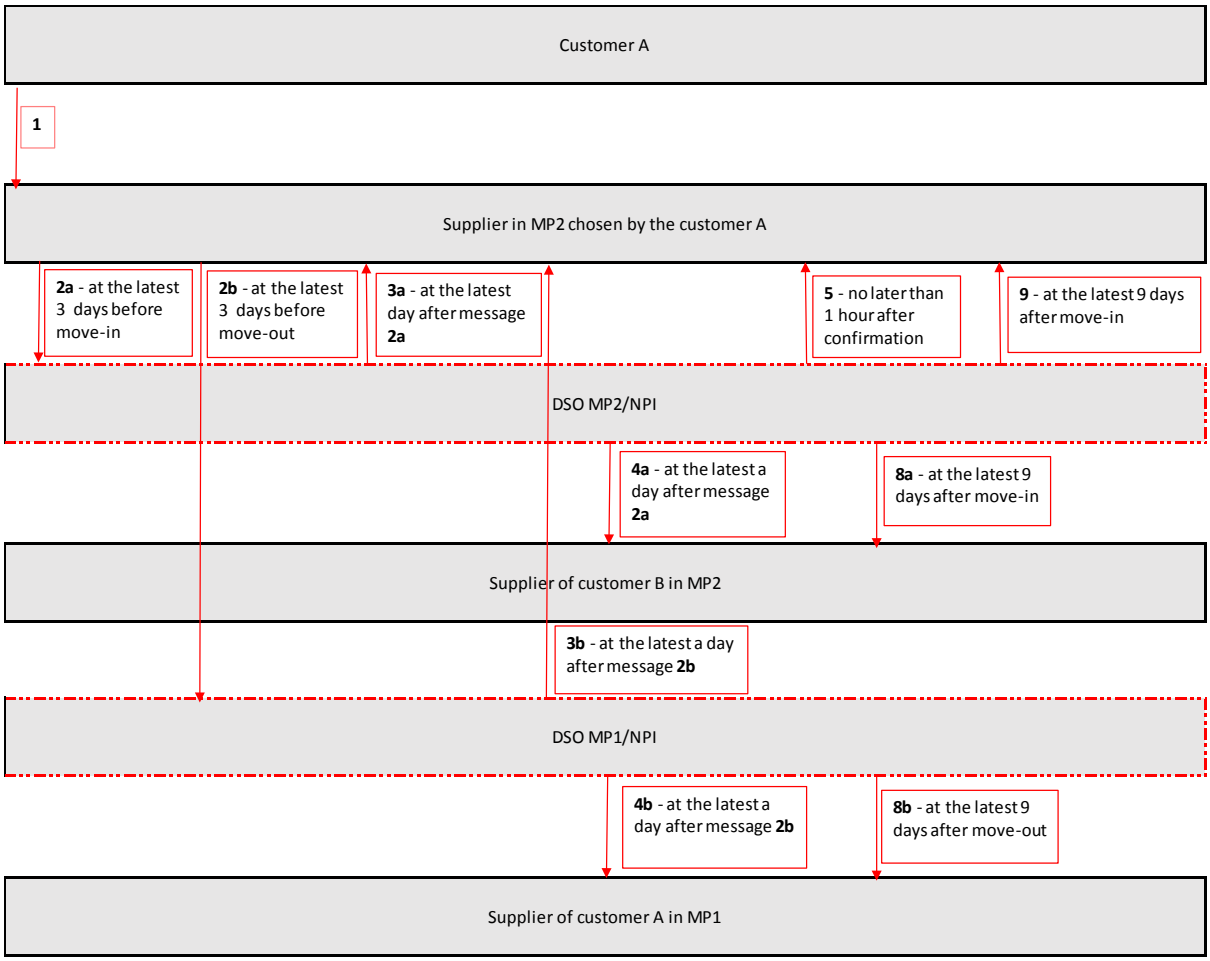

Figure 2: Move-in process where customer A is moving out from MP1 and moving in to MP2.

Figure 3 shows NPI country specific information exchange between DSOs and NPI:

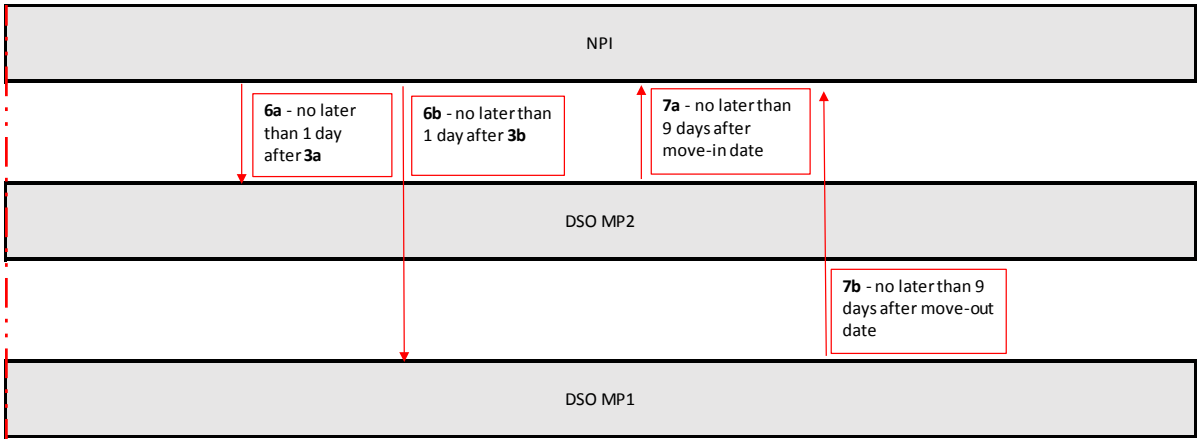

Figure 3. The NPI-country specific information exchange between DSO and NPI for the Move-in process.

3.1.1 Customer contacts the supplier to report the move-in and supplier can obtain information

Customer A contacts a supplier to report the move-in and enters into a supply contract for the metering point that the customer moves in to (MP2), either by continuing with same contractual terms from MP1 or by signing a new contract.

The supplier may, if the customer cannot provide it, gather relevant information about MP2 in order to identify the metering point and receive information needed to exchange messages with the DSO/NPI. In a system with a NPI, the DSOs must ensure that the information about the metering points always are up to date so that the suppliers can gather the information they need from the NPI instead of directly from the DSO.

The query of metering point information should function smoothly across the borders. Metering point information should be available for suppliers in all countries, and be obtained from the DSO, a web service or a NPI. Below is a list of information that at the minimum is needed in order to start the moving process. It must be ensured that information query only is carried out when the supplier has a fair cause to query this information, i.e. that the customer may intend to enter into a contract with the supplier. This requires a power of attorney from the customer to the supplier. The power of attorney doesn't need to be a written consent. It can be an oral consent given via the telephone.

Metering point information query	
Output of query on metering point information:	• Customer ID[11] • Metering Point ID • Metering Point Address • Estimated annual consumption
Time Frame:	Requested information should be accessible at any point on demand.
Responsibility:	Supplier in MP2 chosen by the customer is responsible for carrying out the query. DSO is responsible for providing up-to-date information on the metering point to the NPI.

Table 3.1.1 Metering point information query

[11] Customer ID is to be understood as a generic term for necessarily data for identifying a specific customer. Customer can be physic person or legal person.

3.1.2 Notification from supplier of Customer A in MP2 to DSO/NPI about customer A moving

Notification from supplier to DSO/NPI about customer moving consist of two messages sent to the DSO in MP1/NPI and MP2/NPI.

a) After the Customer A has an electricity supply contract for MP2 in place, the supplier Customer A has chosen must inform the DSO in MP2/NPI about Customer A *moving in* to MP2.

Message 2 a: Notification of customer move-in	
Content of message:	• Customer Name • Customer ID[12] • Move-in date (Date of start of supply) • Metering Point ID • Supplier ID
Time Frame:	Should be sent as soon as possible, but no later than three calendar days before the move-in date.[13]
Recipient:	DSO in MP2/NPI
Responsibility:	Supplier customer has chosen for MP2

Table 3.1.2 Message 2 a: Notification of customer move-in

b) If Customer A at the same time is moving out from MP1 and moving in to MP2 and wants the supplier chosen for MP2 to end the current contract in MP1, the supplier Customer A has chosen in MP2, must inform DSO in MP1/NPI that Customer A is *moving out* from MP1.

Message 2 b: Notification of customer move-out	
Content of message:	• Customer ID • Move-out date (Date of termination of supply) • Metering point ID
Time Frame:	Should be sent as soon as possible, but no later than three calendar days before the move-out date.
Recipient:	DSO in MP1/NPI
Responsibility:	Supplier customer has chosen in MP2

Table 3.1.3 Message 2 b: Notification of customer move-out

[12] Customer ID is to be understood as a generic term for necessarily data for identifying a specific customer. Customer can be physic person or legal person.
[13] The possibility to handle a retroactive move-in should be handled on national levels.

3.1.3 Response to notification

a) After the DSO in MP2/NPI has received the notification message of a *move-in* to MP2, a response to this message is sent to the supplier customer A has chosen in MP2.

Message 3 a: Response to notification of customer move-in	
Content of message:	• Confirmation of customer move-in • Rejection / reason for reject
Time Frame:	Should be sent as soon as possible but no later than one calendar day after the message "Notification of customer move-in" has been received[14].
Recipient:	The supplier customer A has chosen in MP2
Responsibility:	DSO in MP2/NPI

Table 3.1.4 Message 3 b: Response to notification of customer move-in

b) If the DSO in MP1/NPI has received the notification message 3.1.2 b), a response to this message is sent to the supplier that customer A has chosen in MP2.

Message 3 b: Response to notification of customer move-out	
Content of message:	• Confirmation of customer move-out • Rejection / reason for reject
Time Frame:	Should be sent as soon as possible but no later than one calendar day after the message "Notification of customer move-out" has been received[15].
Recipient:	The supplier customer A has chosen in MP2
Responsibility:	DSO in MP1/NPI

Table 3.1.5 Message 3 b: Response to notification of customer move-out

[14] Not later than 1 hour after message "Response to notification of move-in" has been received in the Danish NPI

[15] Not later than 1 hour after message "Response to notification of move-out" has been received in the Danish NPI

3.1.4 Notification to supplier about termination of supply

a) In Denmark and Finland, the information about termination of supply in MP2 is sent to the supplier of Customer B.

In addition, previously (or earlier) agreed supplier switch/switches for Customer B in MP2 will also be cancelled in Denmark.

Message 4 a: Notification to Customer B's supplier in MP2 about termination of supply	
Content of message:	• Customer ID • Move-out date (Date of termination of supply) • Metering Point ID
Time Frame:	No later than one calendar day after receiving the move-in message.
Recipient:	Supplier of Customer B in MP2. In Denmark also any supplier with an agreed supplier switch for Customer B.
Responsibility:	NPI/DSO in MP2

Table 3.1.6 Message 4 a: Notification to Customer B's supplier in MP2 about termination of supply

b) If message 3.1.2 b) is sent the DSO in MP1/NPI must inform the supplier in MP1 about the termination of supply in MP1[16].

Message 4 b: Notification to Customer A's supplier in MP1 about termination of supply	
Content of message:	• Customer ID • Move-out date (Date of termination of supply) • Metering Point ID
Time Frame:	No later than one calendar day after receiving the move-out message.
Recipient:	Supplier in MP1
Responsibility:	DSO in MP1/NPI

Table 3.1.7 Message 4 b: Notification to Customer A's supplier in MP1 about termination of supply

[16] Note that the supplier in MP1 and MP2 can be the same supplier.

3.1.5 DSO in MP2/NPI sends updated master data to Customer A's supplier in Metering Point 2

After the confirmation of a move-in the DSO in MP2/NPI sends updated master data to Customer A's supplier in MP2.

The move-in of Customer A to MP2 demands that the supplier gets updated facts regarding the customer and the metering point (for billing etc.).

Message 5: Data from DSO in MP2/NPI to Customer A's supplier in MP2	
Content of message:	• Updated master data
Time Frame:	Should be sent as soon as possible but no later than one calendar day after message "Response to notification of move-in" has been received.
Recipient:	Supplier of MP2
Responsibility:	The DSO in MP2/NPI

Table 3.1.8 Message 5: Data from DSO in MP2/NPI to Customer A's supplier in MP2

3.1.6 The NPI forwards information to DSO about Customer A moving (only in NPI-countries)

a) The NPI forwards the notification of Customer A moving in to MP2 to the DSO in MP2, e.g. by sending master data for MP2 in order to get a meter reading for a non-hourly settled metering points.

Message 6 a: NPI forward information to DSO in MP2 about Customer A moving	
Content of message:	• Customer ID • Move-in date (Date of start of supply) • Metering Point ID
Time Frame:	Should be sent as soon as possible but no later than one hour after message "3.1.3 a Response to notification of move-in" has been received.
Recipient:	DSO in MP2
Responsibility:	NPI

Table 3.1.9 Message 6 a: NPI forward information to DSO in MP2 about Customer A moving

b) If the NPI has received the notification message 3.1.2 b) the NPI forwards the notification of Customer A moving out from MP1 to the DSO in MP1 also in order to get a meter reading for a non-hourly settled metering point.

Message 6 b: NPI forward information to DSO in MP1 about customer A moving	
Content of message:	• Customer ID[17] • Move-out date (Date of end of supply) • Metering Point ID
Time Frame:	Should be sent as soon as possible but no later than one hour after message "3.1.3 b Response to notification of move-out" has been received.
Recipient:	DSO in MP1
Responsibility:	NPI

Table 3.1.10 Message 6 b: NPI forward information to DSO in MP1 about customer A moving

3.1.7 Meter reading from DSO to NPI (only in NPI-countries)

a) The DSO in MP2 forwards the meter reading of move-in date in MP2 to the NPI.

Message 7 a: Meter readings from DSO to NPI	
Content of message:	• Customer ID • Move-in date (Date of start of supply) • Metering Point ID • Meter reading /consumption
Time Frame:	Should be sent no later than nine calendar days[18] after the move-in date.
Recipient:	NPI
Responsibility:	DSO in MP2

Table 3.1.11 Message 7 a: Meter readings from DSO to NPI

b) If the DSO in MP1 has received the notification about Customer A moving out from MP1 3.1.6.b) the DSO in MP1 forwards the meter reading of move-out date in MP1 to the NPI.

Message 7 b: Meter readings from DSO to NPI	
Content of message:	• Customer ID • Move-out date (Date of end of supply) • Metering Point ID • Meter reading /consumption
Time Frame:	Should be sent no later than nine calendar days[19] after the move-out date.
Recipient:	NPI
Responsibility:	DSO in MP1

Table 3.1.12 Message 7 b: Meter readings from DSO to NPI

[17] Customer ID is to be understood as a generic term for necessarily data for identifying a specific customer. Customer can be physic person or legal person.
[18] Today 35 days in Denmark.
[19] Today 35 days in Denmark.

3.1.8 End Meter reading from DSO/NPI to supplier

a) A message containing end meter reading or equivalent information is sent from the DSO in MP2/NPI to the supplier of Customer B in MP2.

Message 8 a: Meter reading from MP2	
Content of message:	• Meter reading/consumption at 00.00 of the move-out date
Time Frame:	Should be sent at latest nine calendar days after the move-in date.[20]
Recipient:	Supplier of Customer B in MP2.
Responsibility:	DSO in MP2/NPI

Table 3.1.13 Message 8 a: Meter reading from MP2

b) If DSO in MP1/NPI has sent the confirmation about Customer A moving out from MP1 3.1.3 b) a message containing end meter reading or equivalent information is sent from the DSO in MP1/NPI to the supplier of Customer A in MP1.

Message 8 b: Meter reading from MP1	
Content of message:	• Meter reading/consumption at 00.00 of the move-out date
Time Frame:	Should be sent at latest nine calendar days[21] after the move-out date.
Recipient:	Supplier of Customer A in MP1.
Responsibility:	DSO in MP1/NPI

Table 3.1.14 Message 8 b: Meter reading from MP1

3.1.9 Start Meter reading of Metering Point 2 to the supplier Customer A has chosen

A message containing start meter reading or equivalent information is sent from the DSO in MP2/NPI to the supplier Customer A has chosen for MP2.

Message 9: Message containing start Meter reading from MP2	
Content of message:	• Meter reading/consumption at 00.00 of the move-in date[22].
Time Frame:	Should be sent at latest nine calendar days[23] after the move-in date[24]
Recipient:	Supplier of Customer A in MP2.
Responsibility:	DSO in MP2/NPI

Table 3.1.15 Message 9: Message containing start Meter reading from MP2

[20] Today 35 days in Denmark.

[21] Today 35 days in Denmark.

[22] If needed, the meter value can be calculated for the move-in using interpolation. In order to interpolate, there must be a meter reading before and after the move-in date.

[23] Today 35 days in Denmark.

[24] In Sweden the meter value for the move-in is accompanied with the following meter value for the month shift. This means that in Sweden a meter value for a move-in earliest can be sent after the month shift after the move-in date.

3.2 The move-out process

When a customer moves out from a metering point without moving into another one, a move-out process is carried out to inform the relevant parties about the termination of supply. This case is described as Customer B moves out from MP2. Figure below illustrates the terms used for the move-out process:

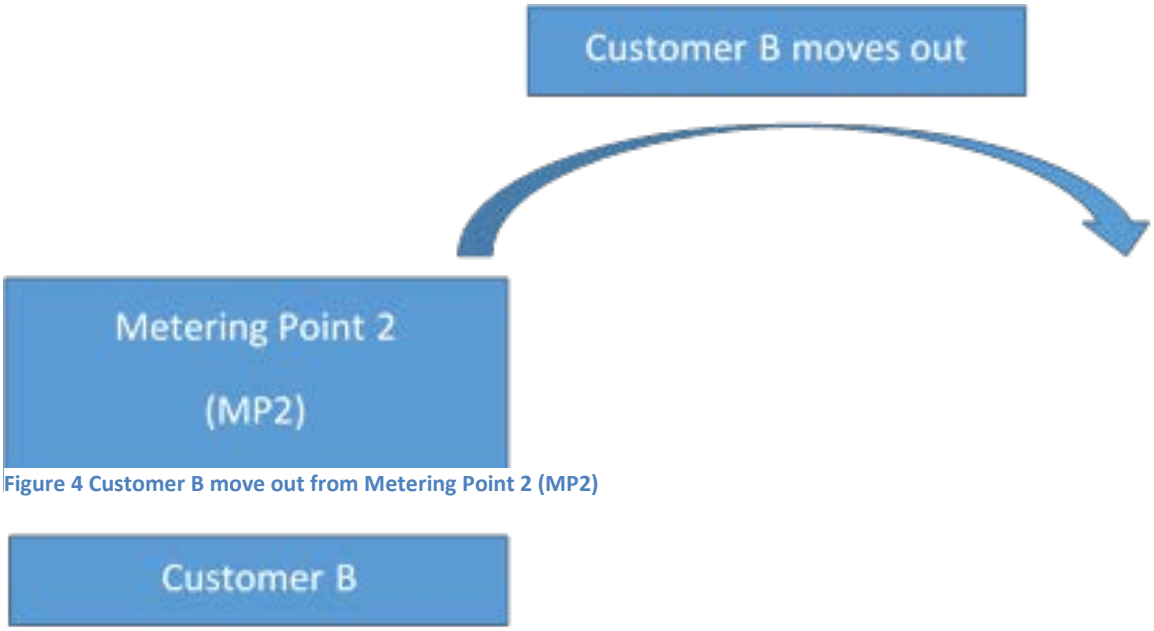

Figure 4 Customer B move out from Metering Point 2 (MP2)

- **Customer B informs the supplier about the move-out:** The Customer B contacts its supplier to report the move-out and termination of supply.
- **Message 2. Notification from supplier to the DSO/NPI about customer moving out:** The supplier informs DSO in MP2/NPI about the move-out.
- **Message 3. Confirmation of the notification about move-out:** DSO in MP2/NPI responds by confirming or rejecting the termination of supply.
- **Message 4. Notification to supplier about termination of supply:** In Denmark information about cancelation of any scheduled supplier switch/switches for Customer B in MP2 will be sent to the suppliers.
- **Message 5. End meter reading from NPI to DSO (only in NPI-countries):** In countries with an NPI, the NPI forwards the move-out notification to the DSO in order to get a meter reading.

- **Message 6. End meter reading from DSO to NPI (only in NPI-countries):** In countries with a NPI, the DSO sends meter readings for the move-out date/date of the termination of supply to the NPI.
- **Message 7. End meter reading of the customer's MP2:** The DSO/NPI sends the meter readings for the move-out date/date of termination of supply to the supplier in MP2.

The figures below illustrates the move-out process step-by-step as it is described in the following chapters. Figure 5 shows the move-out process between Customer B, Suppliers and DSOs/NPI without presenting the information flow between DSO and NPI in detail:

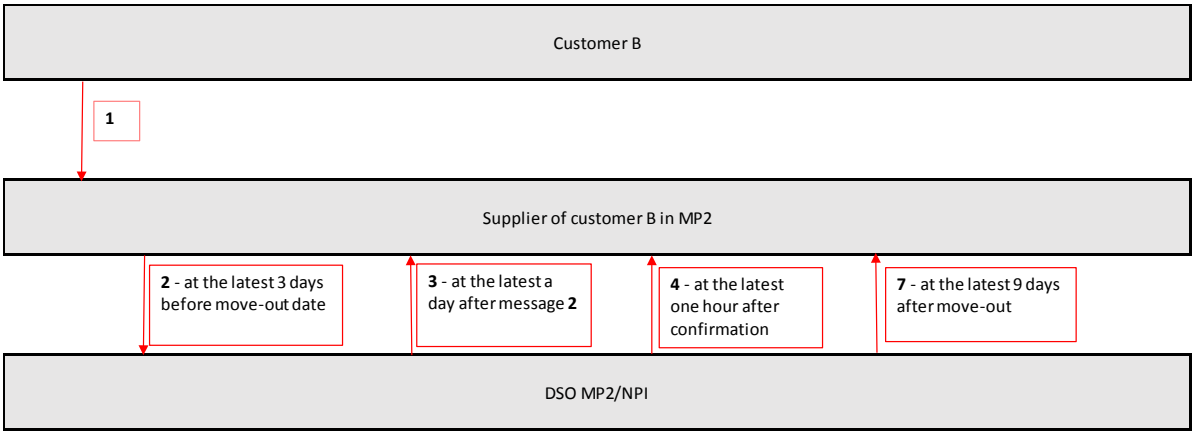

Figure 5 Move-out process where customer B is moving out from MP2.

Figure 6 shows NPI country specific information exchange between DSOs and NPI:

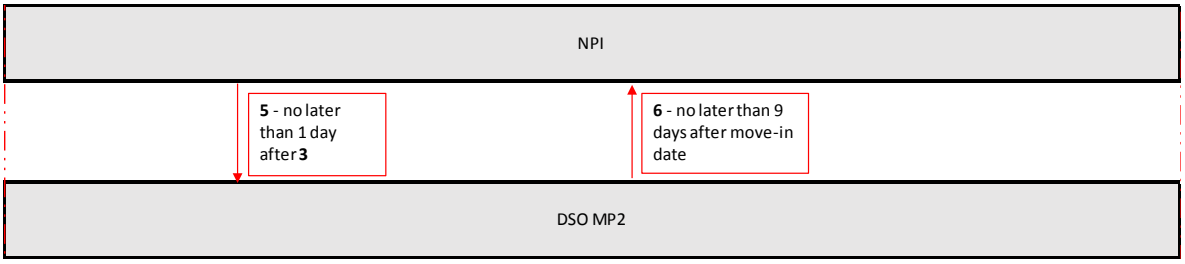

Figure 6. The NPI-country specific information exchange between DSO and NPI is presented for the Move-out process

3.2.1 Customer B informs the supplier about the move-out

The Customer B contacts current supplier (supplier in MP2) and informs about the date of the move-out, customer ID and if possible the metering point ID. [25]

3.2.2 Message 2. Notification from supplier to the DSO/NPI about Customer B moving out

The supplier informs the DSO in MP2/NPI about the Customer B moving out from MP2.

Message 2: Notification of customer move-out	
Content of message:	• Customer ID • Date of termination of supply • Metering point ID
Time Frame:	Should be sent as soon as possible after the customer has informed the supplier about the move-out, but no later than three calendar days before the date of termination of supply.
Recipient:	DSO in MP2/NPI
Responsibility:	Supplier of Customer B in MP2

Table 3.2.1 Message 2: Notification of customer move-out

3.2.3 Confirmation of the notification about move-out

The DSO in MP2/NPI responds to the notification from the supplier by confirming the termination of supply.

Message 3: Confirmation of the Notification of customer move-out	
Content of message:	• Confirmation of customer move-out
Time Frame:	Should be sent as soon as possible but no later than one calendar day after the message "Notification of customer move-out" has been received
Recipient:	Supplier of Customer B in MP2
Responsibility:	DSO in MP2/NPI

Table 3.2.2 Message 3: Confirmation of the Notification of customer move-out

[25] The possibility to handle a retroactive move-out should be handled on national levels.

3.2.4 Notification to supplier about termination of supply

In Denmark, scheduled supplier switch/switches for Customer B in MP2 will be cancelled.

Message 4: Notification to Customer B's supplier in MP2 about termination of supply	
Content of message:	• Customer ID • Move-out date (Date of termination of supply) • Metering Point ID
Time Frame:	No later than one calendar day after receiving the move-in message.
Recipient:	In Denmark any supplier with an agreed supplier switch for Customer B
Responsibility:	NPI/DSO in MP2

Table 3.2.3 Message 4: Notification to Customer B's supplier in MP2 about termination of supply

3.2.5 Customer B moving-out (only in NPI-countries)

In countries with a NPI, the NPI forwards the move-out notification to the DSO in order to get a meter reading.

Message 5: Meter reading	
Content of message:	• Meter reading/consumption at 00:00 of move out date
Time Frame:	Should be sent at the latest nine calendar days[26] after the move-out date.
Recipient:	DSO in MP2
Responsibility:	NPI

Table 3.2.4 Message 5: Meter reading

3.2.6 End meter reading from DSO to NPI (only in NPI-countries)

In Denmark with a NPI, the DSO forwards the meter reading to the NPI.

Message 6: End Meter reading	
Content of message:	• Meter reading/consumption at 00:00 of move out date
Time Frame:	Should be sent at the latest nine days[27] after the move-out date.
Recipient:	NPI
Responsibility:	DSO in MP2

Table 3.2.5 Message 6: End Meter reading

[26] Today 35 days in Denmark.
[27] Today 35 days in Denmark.

3.2.7 End meter reading of the customer's Metering Point B

A message containing meter reading or equivalent information is sent from the DSO in MP2/NPI to the supplier of customer B in MP2.

Message 7: Message containing Meter reading	
Content of message:	• Meter reading/consumption at 00.00 on the move out date
Time Frame:	Should be sent at latest nine calendar days[28] after the move out date/date of termination of supply.
Recipient:	Supplier of Customer B in MP2
Responsibility:	DSO in MP2/NPI

Table 3.2.6 Message 7 containing Meter reading

[28] Today 35 days in Denmark.

4 Appendix I, Glossary

In this document the following definitions is used:

- *Customer*: With customer we mean all customers regardless consumption or legal status e.g. businesses or households. Customers and those customers that are deemed to be protected by Annex 1 (and Article 3) of the 2009 Electricity and Gas Directives, when implementing the 3rd Package. Each individual Member State may in addition choose to enlarge the scope from only household customers to also include small and medium-sized businesses. The national definition should be used when implementing the recommendations.

- *Customer A*: Customer A is the customer who moves in to Metering Point B (the new place for the customer) but not necessarily move out form Metering Point A.

- *Customer B*: The customer who moves out from Metering Point B (the customers current place)

- *Customer ID*: Customer ID is to be understood as a generic term for necessarily data for identifying a specific customer. Customer can be physic person or legal person.

- *DSO:* Distribution System Operator. The operator of the local or low voltage electricity network.

- *National point of information:* In this report the term national point of information ("NPI") will be used to denote the centralised information storage unit existing in Denmark and planned in Norway. Thus, the recommendations for messages exchanged in a NPI-system will only apply to countries where a NPI is already implemented or where concrete plans for implementation exist.

- *Master data:* Information about the individual metering points which the grid company and/or the supplier have at their disposal, e.g. information about customer, settlement type, etc. Some master data is related to the metering point, to the customer, to the supplier or to the meter. The grid company and/or supplier must store such data electronically so that they can be exchanged (normally via Ediel). In countries where a NPI is applied the NPI will be the data exchange point.

- *Metering point:* A consumption and/or production point which the network concessionaire is obliged to measure consumption and/or production.

- *Metering Point B:* The metering point in the place Customer A moves in to and Customer B moves out from.

- *Metering point A:* The metering point in the place the Customer A possible moves out from.

- *Supplier:* The market actor who sells and delivers electricity within the network to customers.

- *Use cases:* A use-case is a list of steps, typically defining interactions between a role (an "actor") and a system of participants, to achieve a goal (for instance a move). The Nordic stakeholders (suppliers, DSOs etc.) have already prepared a proposal for use-cases for the moving processes. The purpose of that document is to support the main NordREG moving report and to provide guidelines for how specific situations (18 cases) that occur in the moving process are expected to be handled in the future Nordic harmonised end-user market. The document has not been published yet.

5 Appendix II, stakeholders views

NordREG has started the drafting of this report in spring 2013. The stakeholders have been giving input through workshops 10th of April 2013 and the 11th of Sept. 2013 as well as a public hearing the 26th of February 2013.

NordREG has received many comments during the work with this report.

Below you will find a summary of some of the more important comments from the stakeholders at the workshops and the public hearing:

In general all stakeholders could agree on that the supplier is the starting point (contact point) for the customer in line with the supplier centric model. A customer can only report a move to a supplier.

There was also some discussion on how long ahead can you send a message for move in and what fees can applied on moving to the NPI/DSO. The recommendation about the time frame should be that as a main rule the message must be sent as soon as possible but no later than one day (DK 3 days) before the move in date.

An interesting issue was related to situations if a customer breaks a contract and what fee that may be used. Some stakeholders stated that a move gives you the right to break an existing contract and normally without a fee. Other stakeholders stated that the customer cannot move without keeping a contract if the supplier provides it in the area where the customers move to. In general NordREG stated that the moving report will no go into discussion on contract related matters.

With regard to the question of timeframes and extra payment when moving in “fast”, the customer might have to pay extra in one country if you move in today and need a "fast connection". In other countries the connection fee does not exist. NordREG stated that the moving report will have a regulatory perspective and be similar to the switching report with time frames, and a minimum list of content and responsibilities. It will not be a very detailed report on all aspects of the moving process nor will it consider al types of fees. There will most likely be a need for the market to harmonise some practical issues also.

NordREG also stated that the moving process needs to be divided into a move-in and a move-out process in the report.

The question of introducing a list of use cases was also touched and the stakeholders asked if NordREG would point out a leader for the work.

Retroactive move was also a topic in the discussions and it was agreed that the report should not make any recommendation on for example how many days back in time you can move in a customer. Of course sometimes a retroactive move in needs to be done but as the Nordic countries handles

retroactive move in differently it was decided not to harmonise this issue on a Nordic level today but at a later stage.

There was also some debate on what type of Customer ID to be used. It should be social security number or equal but definitely not internal Customer ID's within the companies as unique identification is better. The term customer ID is used as a generic term and is not defined in detail.

Also the use of calendar days vs working days was touched – in general the report suggest the use of calendar days even though Nordic working day calendar also still may be used nationally. NordREG finds that the use of working days probably is difficult as the public holidays differ among the countries.

In general it was agreed that all confirmation messages from DSO/NPI need to include also the possibility of a rejection. Then also the reason for rejection so that supplier can address the issue.

Cancellation message information was part of the discussions but it was decided to remove them. The cancellation is a process of its own where all the actors involved get the information that the move-in and related move-out(s) are cancelled. NordREG concluded that the cancellation messages should be left out of the moving report but to increase customer friendliness and efficiency in the future market a possibility to cancel or roll back a faulty move should exist and should be harmonised.

Many of the questions raised during the meetings with the stakeholders could not be solved but were instead supposed to be harmonised in the technical work that was started in June 2013.

After recommendations from some of the stakeholders the moving report also introduced a process flow chart to make the report easier to understand.

It was generally accepted that a moving should only be allowed once per day (at the shift of day at 00:00).

After some discussions also a process of termination of supply has been introduced as well as a process for cancellation of earlier agreed supplier switches of the customer moving away.

Since the public consultation in November 2013 the report has also been updated with changes like these: Footnotes regarding recommendations for NPI-countries, a restructure of some of the messages so that they are clearer and easier to understand, and new pictures describing the processes. In addition, the messages concerning NPI countries have been made more explicit and the explanations/definitions has been added in a glossary. The Use Cases prepared by the industry has been exclude from the report but is supposed to publish in a separate report.

NordREG c/o Energimarknadsinspektionen
Box 155, 631 03 Eskilstuna, SwedenTelephone: + 46 16 16 27 00
E-mail: registrator@ei.se
Internet: www.nordicenergyregulators.org