

**Report May 31, 2010**


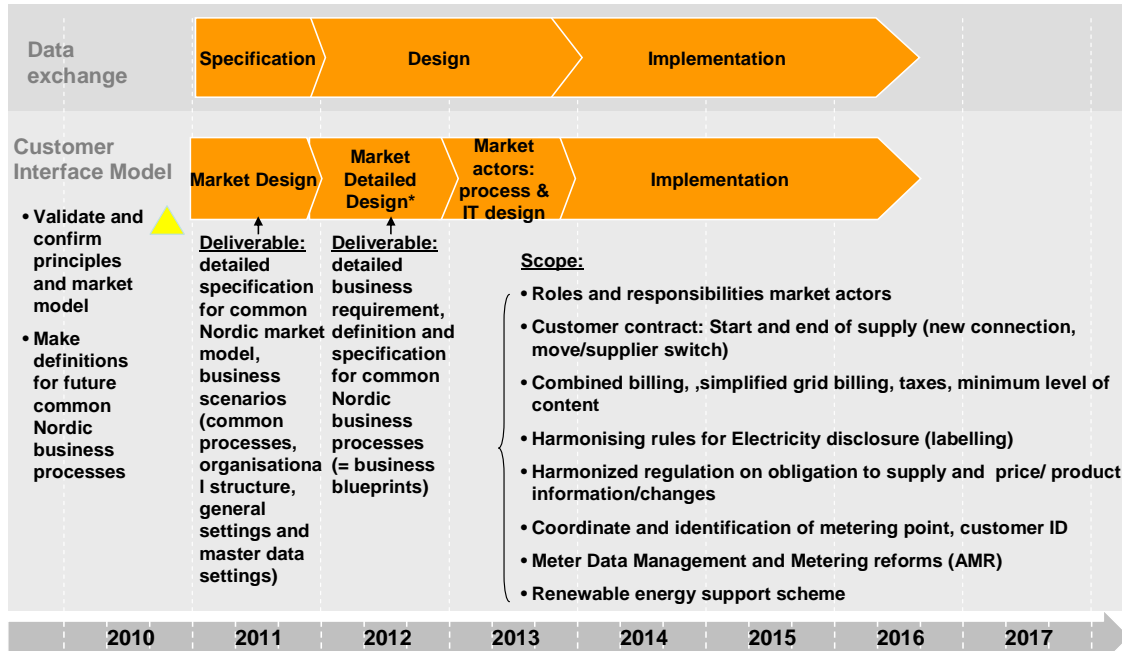
**Customer Interface in a  
Common Nordic electricity retail market**

**Analysis on the Supplier Centric Model**

**Task Force Customer Interface Model, a part of NordREG's project**

## Content

Content .....	2
Initial Comments .....	4
1 Executive Summary .....	6
2 Background.....	8
3 Introduction .....	8
3.1 Guiding Principles.....	9
3.2 Vision.....	9
3.3 Targets .....	10
4 Limitations.....	10
5 Definition Market Models and Unbundling .....	11
5.1 Models in short .....	11
5.2 Definition Supplier Centric Model (SCM) .....	12
5.3 Unbundling.....	12
5.3.1 Legal Unbundling .....	12
5.3.2 Functional Unbundling.....	12
5.3.3 Ownership Unbundling .....	13
5.3.4. Third Energy package and Unbundling.....	13
6 Analysis.....	13
6.1 The Report Structured by Two Perspectives.....	13
6.2 Customer Point of View .....	13
6.2.1 SCM.....	14
6.2.2 Comparison between SCM and current DPCM .....	15
6.3 Industry Point of View .....	16
6.5 Other Considerations SCM.....	17
6.5.1 Roles and responsibilities between Supplier and DSO .....	17
6.5.2 Combined billing.....	18
6.5.3 Metering and Settlement .....	18
6.5.4 Data exchange and controlling authority.....	19
6.6 Basic Cost Analysis .....	19
7 Conclusion .....	20
8 Road map .....	20


**NORDENERGI** Road map - Changes in a step vice implementation scenario Supplier centric model


\*) Detailed business rules and principles; like: general term of conditions, industrial guidelines/recommendations, etc. <sup>14</sup>

8 Appendix .....	21
8 Appendix .....	22

## Initial Comments

The Customer Interface Model Task Force (tfCI) consists of:

Chairmanship/responsible party: Nordenergi

Timo Jutila, Fortum Distribution  
Peter Kornmann, Vattenfall (chairman)  
Vesa Mäkilä, Oy Turku Energia  
Magnus Sjøvik, Lunds Energi  
Erland Smidt, Hafslund Strøm AS  
Gunilla Stawström, Svensk Energi (secretary)  
Karin Thorst, Nordjysk Elhandel  
Christine Ravnholt Hartmann, DONG Energy

NordREGs original defined task/mandate as of December 9<sup>th</sup>, 2009 for the tfCI was:

*Task: TF shall focus on customer interface issues. TF shall define a so-called supplier-centric model and study would it be possible to keep available both supplier-centric and present customer interface models available, what kind of changes this would require in different processes, regulation etc and what kind of practical questions lies with these. In its work TF could take into account the previous work done in the Nordic countries. During its work TF shall consult market players (eg. suppliers, TSOs, DSOs), regulators and customer organizations.*

NordREG changed the mandate February 17<sup>th</sup>, 2010, stressing that the TF should only focus on the Supplier Centric Model:

*Task: TF shall focus on customer interface issues. TF shall define a so-called supplier-centric model and, what kind of changes this would require in different processes, regulation etc. and what kind of practical questions lies with these. In its work TF could take into account the previous work done in the Nordic countries. During its work TF shall consult market players (eg. suppliers, TSOs, DSOs), regulators and customer organizations.*

Hence, our work, debates and this report has focused primary on the Supplier Centric Model and the many issues related to implementing this model.

Nevertheless we would like to stress, that the benefits of and challenges derived from the Supplier Centric Model as described in the report are based on theories, assumptions and various experience from the TF CI personal gallery. Still missing before we can line up any conclusions and recommendations is the collection of empiric data from the four Nordic countries involved. Questions like “What do the customers want“? “Which business case will move the Supplier into foreign markets?“ and “what are the costs for the DSO, the Supplier and the Customer?“ “what impact does it have on national climate policy?“ need answers before we can go on in the process and make decision about the future model.

We have realized that a full implementation goal in 2015 is not realistic. What is realistic before 2015 and some few years ahead must be further investigated and is therefore not a part of this first version. Furthermore, we need to go deeper into the core issues which have derived from our work in tCI i.e. cost benefit analysis from both the DSO, Supplier and customer angles and risk issues and analyses of the consequences related to Supplier Centric Model and one bill approach needs to be analyzed. As an appendix to our report we have listed issues still needed to be further investigated before the picture of pros and cons is clear. Nevertheless, this version report will give a direction and pre-analysis of a future customer interface model recognized as a Supplier Centric Model.

## 1 Executive Summary

The Nordic electricity market has been a prosperous model in a European context. However, the Nordic countries as well as the European Union (EU) are acting firmly to establish a larger harmonized energy market.

Politicians and thereby regulators have for a long time worked for a well functional market for electricity. The Nordic energy cooperation shall be a strong and active force informing energy policy in the Nordic region and in Europe, according to a statement done by the Nordic Council of Ministers (NCM) vision.

The ministers have asked the energy organization of NCM, the Energy Market Group (EMG) for a detailed implementation plan of the required moves that must be taken. EMG has assigned the Nordic regulators (NordREG) for this task. At the meeting between NordREG, Nordic industry association (Nordenergi) and Nordic transmission system operators (TSO's) on December 9, 2009 it was decided to establish a separate project chaired by NordREG, to prepare the target market model.

The objective of this project has been to prepare a general definition for the target level of Nordic end user market integration by 2015 (target model). NordREG has established four task forces to support the overall project. One of these is task force Customer Interface Model (tfCI).

This report will give the analysis of the tfCI in defining the future Nordic market model.

In this report some values and stakeholders are more important than others.

Specifically customer focus and benefits for society in general is the most important aspects. This since these stakeholders have the most external perspective (outside in). Now when politicians, regulators and industry have the chance to create a market even more customer friendly than today, it is of great importance to start in the right end. To create a more effective electricity market it is vital to start with the part that uses the product. If not, Ministers for Energy within NCM, NordREG and Nordenergi faces the risk of developing and implementing a new market that not will satisfy the customers.

The tfCI have the perspective that the electricity market should work like most other markets in the future. The product electricity is special since it is vital for customers as well as for the society as a whole. However, comparable markets and industries have come much longer than electricity in terms of customer centricity and focus, for example telecom.

The guiding principles for the tfCI's work have been customer simplicity, market competition and energy efficiency. These three principles are essential for enabling a functional deregulated Nordic market for electricity.

The vision for the tfCI and this report is that all Nordic electricity customers will enjoy free choice of supplier, efficient and competitive prices and reliable supply through the internal Nordic and European electricity market.

It is important to not only state a vision, but to point out important targets for a new electricity market in the Nordic countries. Therefore, the tfCI have set a number of qualitative targets.

The initial conclusions of this work are that there are pros and cons for the Supplier Centric Model (SCM). Before we can make the final conclusions and recommendations we need further investigations of various issues listed in the appendix to our report.

The SCM is based on the same basic principals used in commodity business, such as telecom, brown goods and food. Whether the customers recognition will be achieved if the energy industry adapts to the principals as in the commodity business (easy to contact, purchase, pay and complaint handling), is subject for further analyses.

## 2 Background

The Nordic electricity market has been a prosperous model in a European context. As such the harmonization of the electricity market is a success story, and it has been a success story over a period of several years.

However, the Nordic countries as well as the European Union (EU) are acting firmly to establish a larger harmonized energy market.

Politicians and thereby regulators have for a long time worked for a well functional market for electricity. The Nordic energy cooperation shall be a strong and active force informing energy policy in the Nordic region and in Europe, according to a statement done by the Nordic Council of Ministers (NCM) vision.

Furthermore, the ministers have asked the energy organization of NCM, the Energy Market Group (EMG) for a detailed implementation plan of the required moves that must be taken to achieve this goal before the next ministerial meeting in 2010. EMG has assigned the Nordic regulators (NordREG) for this task.

One part of preparing the implementation plan for the common Nordic end user market is to define the target market model. At the meeting between NordREG, Nordic industry association (Nordenergi) and Nordic transmission system operators (TSO's) on December 9, 2009 it was decided to establish a separate project, chaired by NordREG, to prepare the target market model. The objective of this project has been to prepare a general definition for the target level of Nordic end user market integration by 2015 (target model). This definition should act as guiding principles for further work in this process. NordREG has established four task forces to support the overall project. One of these is customer interface. It includes representatives from the industry in Nordic.

## 3 Introduction

When defining a target market model it is important to consider the stakeholders' needs and expectations on a common Nordic end user market. The target market model should then provide solutions that meet these expectations and needs.

The first prerequisite for the common Nordic end user market is that it should bring added value to all stakeholder groups. It is important to connect these values and stakeholders to a vision and target. In other words, what is the outcome of these values? Another important issue is to decide if one or a number of values and stakeholders is more important than others and should be prioritized. In this report some values and stakeholders is more important than others.

Specifically customer focus and benefits for society in general is the most important aspects. This since these stakeholders has the most external perspective (outside in).

Now when politicians, regulators and industry have the chance to create a market even more customer friendly than today, it is of great importance to start in the right end. To create a more effective electricity market it is vital to start with the part that uses the product, in this case the product electricity. If not, Ministers for Energy within NCM, NordREG and Nordenergi faces the risk of developing and implementing a new market that will not satisfy the customers.

### 3.1 Guiding Principles

In all our work in the tfCI we have had three guiding principles. The principles have been our guiding stars, meaning that we have consulted these principles during discussions and before making decisions. The three principles are the following.

Guiding Principles
Customer simplicity
Market competition
Energy efficiency

The principles have been chosen since they enjoy a big interest of the electricity market stakeholders. Customers have for many years expressed that they have problems understanding the electricity market and ways for contacting market actors, understanding the invoice etc. However, the impression that customers find it difficult to understand the market may not be related to the model or the customer interface, but rather to difficulties related to the understanding of pricing in the wholesale market.

When it comes to competition it is one of the most important factors for creating a highly functional deregulated market. Competition is a prerequisite for competitive prices on a market.

One of the most important issues for the Nordic as well as for European societies is the environment. The European energy industry is one important actor to overcome the climate change and has for example within Eurelectric announced that it will take responsibility for its part of the needed change, i.e. climate neutral by year 2050. One relevant and effective area in doing this is to improve energy efficiency in every society. Therefore the coming electricity market in the Nordic must support the work of making the energy consumption more efficient.

### 3.2 Vision

The tfCI have the perspective that the electricity market should work like most other deregulated markets. Comparable markets and industries have come much further than electricity in terms of customer centricity and focus, for example telecom. The product electricity is special since it is of great importance for customers as well as for the society as a whole. Nevertheless, electricity products and services should be possible to purchase on a market with high degree of competition.

The vision for the tCI and this report is the same as the one NordREG has stated.

Vision
Nordic electricity customers will enjoy free choice of supplier, efficient and competitive prices and reliable supply through the internal Nordic and European electricity market

### 3.3 Targets

It is important to not only state a vision, but also point out important targets for a new electricity market in the Nordic. The targets below are qualitative, not quantitative. Qualitative targets are the most important ones at this point. They show important parts to use in the design of a new market model. Quantitative targets are relevant but today's data is not feasible, why no such targets can be set.

Guiding Principles	Targets
Customer simplicity	<ul style="list-style-type: none"> <li>• Market trust</li> <li>• Simple (understandable) market design</li> <li>• Easy to choose suppliers and products for the customers at any time</li> <li>• Simple contact ways for the customers</li> <li>• Simple (understandable) invoice</li> <li>• Simple invoice handling (e.g. e-invoice)</li> </ul>
Market competition	<ul style="list-style-type: none"> <li>• Highly competitive market</li> <li>• Low market entry barriers</li> <li>• Competitive products, services and prices</li> <li>• Harmonized market (regulation)</li> </ul>
Energy efficiency	<ul style="list-style-type: none"> <li>• Simple and sufficient information to use for energy efficiency actions</li> <li>• New products and services</li> <li>• Enable new technology introduction</li> </ul>

## 4 Limitations

The first limitation in this report is related to price and cost estimations (simulations).

One important part of using the principles of this report and achieving the vision and targets is the price issue. It is vital to create a Nordic market that has competitive prices, especially since it is of great interest for stakeholders in general and the customers specifically.

Eurelectric writes in a report from year 2007 on the topic retail market model "the creation of regional retail markets might bring important benefits in terms of lower costs of supply for electricity companies and should result in greater price competition and

product innovation for customers”.<sup>1</sup> That statement is something that the tfCI strongly supports.

When that is said, it is also important to state that the price setting mechanism is dependent of many factors, for example the gross market, price areas, competition (entry barriers), generation in terms of supply and demand, only to mention a few. Therefore it is very complex to estimate price levels when it comes to a Nordic electricity market.

The complexity when it comes to the price issue makes it difficult for the tfCI to carry out price simulation, especially at this point. However, the tfCI for customer interface is convinced that simulations and estimations when it comes to costs related to a new market model are possible. That is why this report is limited to only focus on costs rather than prices in the cost section.

The second limitation is related to the focus of this report. The analysis is focusing on “main stream customers”. A mainstream customer is defined as a customer with a fuse size less than 80 ampere. Unique demands will appear from large and special customers. These have to be analyzed and handled separately.

## **5 Definition Market Models and Unbundling**

Today two models are relevant for a Retail market model (RMM). One implies that all or most customer contacts go via the supplier (sales company) and the other that the customer must have contacts with both the supplier and the Distribution system operator (DSO)<sup>2</sup>. In this report, the model where the customer have all or a majority of the contacts with the supplier will have the term Supplier centric model. For the model where the customer have contacts with both the supplier and the DSO the term Dual point of contact model (DPCM) will be used.

In this section, as well in this report, the focus will be on the SCM.

### **5.1 Models in short**

One market model is more mentioned than others within Europe. It is the SCM. It is a model existing in parts or more in many countries in continental Europe. Countries using the SCM in some ways worth to mention are Netherlands, Germany and United Kingdom (UK). In short, the model implies that the customer should have contact with the supplier<sup>3</sup>. Another model that is rather like SCM is the so called Single point of contact model (SPCM). The difference is that SPCM states that all contacts rather than a majority should go via the supplier.

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<sup>1</sup> Eurelectric, Reference “Retail Market Model”, 2007.

<sup>2</sup> Distribution (grid) company.

<sup>3</sup> The terms retailer and supplier will be used synonymous.

One other existing model is the RMM using a dual point of contact model (DPCM). One of its versions is the one Nordic countries are currently using. It means that the customer has to contact the supplier and the distribution (grid) company (distribution system operator, DSO) depending on the subject. More detailed information about the DPCM can be found in section 6.2.2.

## 5.2 Definition Supplier Centric Model (SCM)

SCM can be defined as a market model where the supplier is responsible to handle all contacts with the customer, except in matters regarding:

- New and change of connection
- Quality of delivery
- Outage

This means that suppliers have the major parts of all contacts with the end customers. The supplier handles contract, billing (both supply and grid), start and end of supply, supplier switch, move in/out, questions, complaints etc. in the supplier customer service. It is only when a customer has outage, quality problems in the delivery or when he/she wants a new or changed installation he/she has to contact the DSO.

## 5.3 Unbundling

One issue that frames the electricity market discussion is unbundling. It is legally based and stipulates how large energy companies must act when it comes to governance and organizational issues.

### 5.3.1 Legal Unbundling

Legal unbundling states that the DSO's shall neither deal with sale nor generation of electricity.<sup>4</sup> This means that vertical integrated companies must separate the DSO into a company of their own.

The DSO must have an independent role vis-à-vis the parent company, which normally is a generation and/or supplier company. The management and the Board of directors cannot have a similar role in the parent company. The management of the DSO may not be exposed for intervention from the mother company in the day-to-day steering of the DSO.

### 5.3.2 Functional Unbundling

A definition of functional unbundling could be:

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<sup>4</sup> In Sweden there is an exception for limited generation used to cover the net losses.

- No confidential business information flow from the DSO to the supplier company within a vertical integrated company.
- No actions within the DSO that favour the own supplier company at the expense of their competitors
- No cross subsidies between the supplier company<sup>5</sup> and the DSO.

### **5.3.3 Ownership Unbundling**

Ownership unbundling means that it is not allowed to have both distribution/transmission and sales/generation in the same group. Today there are no directives about ownership unbundling for DSO's and TSO's. However, there is an ongoing discussion about ownership unbundling in the EU.

### **5.3.4. Third Energy package and Unbundling**

According to the Third directive, the Second directive is not sufficiently implemented in all EU member states. This will lead to complementary regulations regarding functional unbundling affecting incentives and governance. The focus will be on companies within groups with more than 100.000 customers.

## **6 Analysis**

In this chapter, the SCM, unbundling etc. will be analysed.

### **6.1 The Report Structured by Two Perspectives**

This analysis is divided into two parts, from a customer point of view and an industry point of view. The rationale for this structure has already been motivated above. By starting in the customer angle, the work with a new market model for electricity has the best chance of being successful. The analysis will comprise pros and cons for SCM regarding the following "customer contact areas":

- Start/end of supply (incl. move in/move out)
- Invoice handling
- Questions and Complaints
- Contracts
- Price and product matters

### **6.2 Customer Point of View**

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<sup>5</sup> Sales company corresponds to the terms supplier and retailer.

As mentioned above the main guiding principles in the work to get a fully harmonised Nordic electricity market is:

- Secure customer simplicity and set up a market that ensure that the total electricity cost is held as low as possible.
- Create the best possible competitive market by eliminating as many entrance barriers as possible.
- Create a market that encourages and drives the environmental progress.

Since the tICI's ambition is to have an external view (outside in), i.e. customer focus, the report start by investigating how the customer gets in touch with the electricity company. A customer survey needs to be carried out to review customer needs and interests.

In this section, the SCM will be analyzed as a pre study from the guiding principles, vision, targets and "customer contact areas" (stated above).

### 6.2.1 SCM

A table presenting the arguments for and against (pros and cons) can be found below.

**Table 1. Pros and cons for a fully implemented SCM from a customer point of view**

Model	Pros	Cons
SCM	<ul style="list-style-type: none"> <li>• (All five "customer contact areas") It is simple for customer to only to receive one invoice and have one counterpart to contact for most common issues, e.g. contractual matters, start/end of supply</li> <li>• (Price and product matters) Avoiding cost for double functions on supplier and DSO side for CRM, Billing and Customer service</li> <li>• (Price and product matters) One contact = simplicity Less calls to Customer Service by confused customers.</li> <li>• (Start/end of supply) Standardised interfaces between different roles (actors) gives shorter lead times in processes</li> </ul>	<ul style="list-style-type: none"> <li>• (Price and product matters) Entrance barrier for small actors to establish customer service with responsibility and billing for all DSO's</li> <li>• (All five "customer contact areas") Customers still need to contact DSO in case of e.g. new connection, outage and quality of delivery</li> <li>• (All five "customer contact areas") Since this is a change from today's model it can be perceived as negative.</li> <li>• High administration costs in the transitional period (long perspective)..</li> </ul>

Regarding creating an understandable market, SCM is more favourable than today due to simplified contact ways for the end customers. However, it is probably more complex and demands a high cost level to implement due to larger changes compared with the DPCM and the SCM contain a few entrance barriers that limit the competition in the market.

### 6.2.2 Comparison between SCM and current DPCM

The SCM has many similarities to the development on the large EU markets<sup>6</sup> (Germany, Netherlands and United Kingdom).

**Table 2. Differences in responsibility for Supplier and DSO in a DPCM and SCM**

	DPCM	SCM
Supplier	<ul style="list-style-type: none"> <li>• Price and Product questions</li> <li>• Supplier switch</li> <li>• Contract – supply, move in/out</li> <li>• Invoicing customers supply</li> <li>• Questions and complaints</li> <li>• Hedging and sales portfolio handling</li> <li>• Customer service</li> </ul>	<ul style="list-style-type: none"> <li>• Price and Product questions</li> <li>• -</li> <li>• Contract – start/end supply</li> <li>• Invoicing customers supply + grid</li> <li>• Questions and complaints</li> <li>• Hedging and sales portfolio handling</li> <li>• Customer service</li> </ul>
DSO	<ul style="list-style-type: none"> <li>• Price and Product questions</li> <li>• Supplier switch</li> <li>• Contract – grid</li> <li>• Move in/out</li> <li>• Contract – new connection</li> <li>• Invoicing <u>customers</u> – grid</li> <li>• Invoicing <u>customers</u> – new connection</li> <li>• Questions and complaints</li> <li>• Outages, interruptions</li> <li>• Quality of supply</li> <li>• Metering and meter value reporting</li> <li>• Customer service</li> </ul>	<ul style="list-style-type: none"> <li>• -</li> <li>• -</li> <li>• - (only terms of reference on internet)</li> <li>• -</li> <li>• One time contract – new connection</li> <li>• Invoicing <u>supplier</u> – grid</li> <li>• Invoicing <u>customers</u> – new connections</li> <li>• -</li> <li>• Outages, interruptions</li> <li>• Quality of supply</li> <li>• Metering and meter value reporting</li> <li>• -</li> </ul>

In a DPCM both DSO and supplier are involved in contractual issues and processes such as supplier switch, move in/out. They also have to be able to invoice customers separately and to have customer service functions. The supplier can take responsibility of all parts (if wanted) and send one invoice to end customer covering both the supply and grid costs.

From a customer point of view the SCM means that the customer have one counterpart for all (major part of the) matters, start and end of supply, invoice, questions, complaints, contractual issues, price and product matters.

Except from a simplified customer contact situation a SCM will also have other effects. Table 2 shows five other areas, potential cost drivers, that are affected depending on whether a SCM or DPCM Model is chosen, everything else the same.

The table below shows graphically how SCM most likely will affect cost driving areas in different directions compared with today's model (DPCM), yet in an elementary way.

<sup>6</sup> This can be argued being a benefit for the large market actors like Vattenfall

**Table 3. SCM effects compared with current DPCM**

	No. of direct customer contacts	No. of third party contacts	No. of bills	No. of hand over's/errors	Process and system complexity
Totally	Down	Up	Down	Unchanged	[unknown]
DSO	Down	Up	Down	Unchanged	Down
Supplier	Up	Up	Unchanged	Unchanged	Up

In the table we can see that the number of calls related to customer not understanding the market (confused customers) will be reduced compared with a DPCM Model. The number of contacts a DSO or supplier has to have with other DSO's/suppliers will increase, the number of invoices sent to end customers will decrease. The numbers of errors due to hand over are the same and it is not possible to conclude about the process and system cost.

### 6.3 Industry Point of View

In this part we analyse the SCM from an industry point of view, from the guiding principles, vision, targets and customer contact areas (stated earlier).

A table presenting the arguments for and against (pros and cons) can be found below.

**Table 4. Pros and cons for SCM from an industry point of view**

Model	Pros	Cons
SCM	<ul style="list-style-type: none"> <li>• Avoiding cost for double functions on supplier and DSO side for CRM, Billing and Customer service</li> <li>• Less calls to Customer service by confused customers</li> <li>• DSO can handle all suppliers in the same way, clear process for all cases – alternatives drive cost</li> <li>• Standardised interfaces between different roles (actors)</li> <li>• Creates values for suppliers customer service organisation</li> <li>• New business opportunities for the supplier, e.g. product and service development (energy efficiency)</li> <li>• Closer to the development on the large EU markets (Germany, Netherlands, Great Britain) – avoiding new large change when Nordic moves towards the European market.</li> </ul>	<ul style="list-style-type: none"> <li>• Threshold and costs to overcome in the beginning, could lead to a more complex and longer implementation process</li> <li>• Increase in 3rd part contacts (Supplier – DSO)</li> <li>• Entrance hinder for small actors to establish customer service with responsibility and billing for all DSOs</li> <li>• Requires new efficient common information services in order for small suppliers to enter market</li> </ul>

## 6.5 Other Considerations SCM

The following areas are identified as core issues that are essential for designing a functional SCM according to the fixed guiding principles, vision and targets in this report.

### 6.5.1 Roles and responsibilities between Supplier and DSO

A changed market model will change the roles and responsibilities for suppliers and DSO's. A direct consequence is that existing business processes have to be changed and new must be designed. Changes in the responsibilities also affects the risks for the market participants (e.g. supplier will have the financial risk of the total invoiced amount to the end customer, grid and supply. On the other hand the DSO will take the financial risk towards the suppliers etc.).

Another issue to sort out is the obligation to supply. An important question is who has the obligation to supply and bill the customer. In the current Nordic market there are four different solutions for this. When it comes to obligations to supply the Swedish and Finnish models have variations of a default supplier. In Norway the DSO becomes the

default supplier and sells the electricity directly to the customer. Denmark has a default supplier model and the price is regulated.

Changes in responsibilities and business processes put new demands of information availability. To meet this new market conditions equivalent information must be available for all market participants. This could be achieved by introducing central data storage for certain key information. One example is a fully harmonized process for start of supply in the common Nordic market. Here a central Metering point directory on a national level would simplify the process by making necessary key information easily available. A national central outage information service (web, "112 number", sms etc.) is another example of simplifying information availability for end customers and market participants

### **6.5.2 Combined billing**

The SCM model requires the supplier to invoice both supply and grid costs to the end customer. The DSO will invoice the grid costs to the supplier who then invoice the end customer. As a consequence the supplier will handle taxes, fees and certificates for both supply and grid. This makes the suppliers' tasks and IT systems more complicated and increases the importance of automated processes. Although SCM basically means obligatory combined billing, further analyses have to be done before any recommendations of SCM can be done.

The grid billing today is much diversified and can be rather complicated. By simplifying the DSO billing process to just invoice suppliers and not end customers it would be possible to handle in a simple billing system. This gives the possibilities to reduce the IT cost for the DSO.

The supply billing process can also be made more simple. Today the invoice to the end customer is often calculated on meter stands in the suppliers systems. If the process is changed and the DSO calculate and sends the consumption value to the supplier and this value is the basis for the invoice to the customer then it would be possible to reduce complexity in the suppliers systems and thereby cost for the supplier.

Another issue to sort out is which currency to use on invoices and payments.

### **6.5.3 Metering and Settlement**

The metering is one of the key processes and the meter values are used among other things to invoice the end customer and in settlement. Today meter values are sent from the DSO to suppliers, TSO and Customer. In all four countries, there are some differences in the rules for how and when the meter values are reported.

In the SCM the metering and meter values are the responsibility of the DSO. In the future market the meter values, like today, have to be made available to the market participants when they are needed. One way to do this is via centralized national meter data storage. However, this functionality does not exist in today's models although one of the four countries has plans for centralizing some functionality. One issue to solve is

the meter reading frequency, how often will the DSO collect meter values and when are they to be sent on to the other market participants?

The settlement is another area where harmonization is needed to reach a truly common Nordic market. This area will be further detailed by the workgroup Balance Settlement. From this workgroup the settlements requirement on metering will have to be taken in to account in designing the metering process.

Although the metering and settlement issues are very important and essential processes, it is not crucial in the choice of market model.

#### **6.5.4 Data exchange and controlling authority**

In a common and harmonized Nordic market a lot of information has to be exchanged between the market participants, nationally and over national borders. Therefore the information exchange has to be designed in such a way that it supports the business processes and needs. That means there has to be a high level of harmonization so that there is one Nordic standard for each business processes, i.e. one set of rules for example Supplier Switch.

To keep the market harmonized and stable for the market participants as well as for the end customer it is important to also harmonize the way to follow up and change the rules in the future. Therefore, a common controlling mechanism is needed after implementation of the common Nordic market. This could be a common controlling authority on a Nordic level.

The workgroup data exchange will go into this further in their report.

## **6.6 Basic Cost Analysis**

As earlier stated, the complexity when it comes to the price issue makes it difficult for the tfCI to carry out price simulation, especially at this point. However, the tfCI for customer interface is convinced that simulations and estimations when it comes to costs related to a new market model are possible and necessary prior to the decision making process.

Except from a simplified customer contact situation a SCM will have other effects. Five areas (number of direct customer contacts, number of third party contacts, number of bills, no hand over's/errors, process and system complexity), being potential cost drivers, are affected depending on whether a SCM or DPCM is chosen, everything else the same.

The number of calls related to customer not understanding the market (confused customers) will be reduced compared with a DPCM. The number of contacts a DSO or a supplier has to have with other DSO's/suppliers will slightly increase, the number of invoices sent to end customers will decrease. The numbers of errors due to hand over are the same and it is not possible to conclude about the process and system cost.

## 7 Conclusion

In a DPCM both DSO and supplier are involved in contractual issues and processes. They also have to be able to invoice customers separately and to have customer service functions.


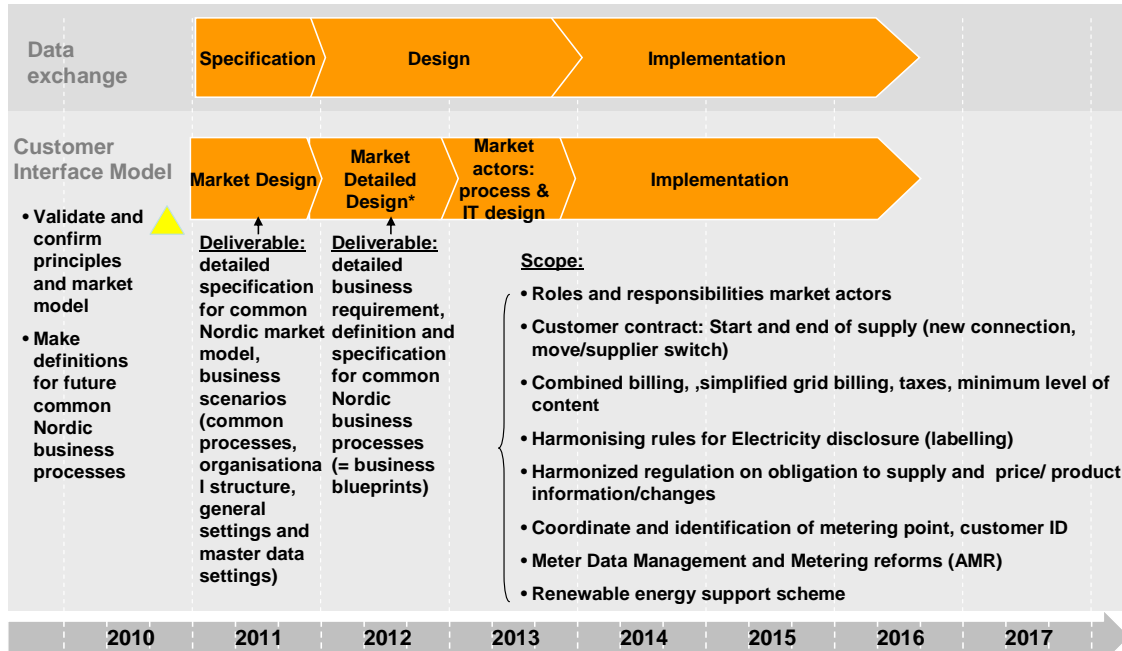
From a customer point of view the SCM means that the customer have one counterpart for all (major part of the) matters. Our assumption is that this can lead to a simpler world for electricity customers. Still we need to understand the needs and demands from the electricity consumers before we can design the future model for the future common market.

However, the SCM is probably more difficult to implement due to changes from today's model compared with the DPCM.

The conclusions of this report are that a Supplier Centric Model (SCM) in many ways will represent a simpler model from the customer's point of view. On the other hand the SCM will switch complexity from the DSO to the supplier, which might create market barriers and thus restricted competition. Furthermore, a new market model will of course require many changes for all market actors.

Despite the conclusion of this report, more analysis is needed. In this report, an issue list is included in the appendix. The issues need to be investigated in order to make a general evaluation. An evaluation that can lead to a decision on Nordic level, establishing a harmonized retail market for electricity in the Nordic.

## 8 Road map


**NORDENERGI** Road map - Changes in a step vice implementation scenario Supplier centric model


\*) Detailed business rules and principles; like: general term of conditions, industrial guidelines/recommendations, etc. 14

## 8 Appendix

### Appendix to the report: “Customer Interface in a Common Nordic electricity retail market, Analysis on the Supplier Centric Model”

Task Force Customer Interface Model, a part of NordREG’s project

Introduction:

As the work on defining and analyzing a Supplier Centric Model in a common Nordic electricity market has progressed in TF CI it has become more and more clear to the group that further analysis is needed before the group is able to draw up some main conclusions and recommendations.

In the following schedule we have tried to sum up the issues, which need to be further investigated and when, at the latest. The list is a combination of the findings within TF CI and comments from various stakeholders involved in the NordReg project. We have allocated each issue due to Nord REGs main categories: General objectives, Customer Interface (billing and contract), Customer Protection, Acces to data/data exchange and Balancing Issues.

The time frame for further analyses is divided in three periods:

- 1) From end of May till September 1<sup>st</sup> 2010 (deadline for delivery of final report to EMG) = 3 months.
- 2) From September 1<sup>st</sup> till medio November 2010 (Nordic Council energy ministers meeting) = 2½ months
- 3) From December 2010 till end of 2011 (the TF IC defined business process period ) = 13 months.

Hence, the following issues should be addressed, analyzed and incorporated in the final recommendation for a future Nordic Market customer interface model in the next 18 ½ months.

Issue	Comments	Should be analyzed before
<b>General objectives</b>		
Mapping of the current regulatory regimes in the Nordic countries	We need a picture of the current regulatory situation before we can make a detailed implementation plan.	September 2010
Mapping of the current market and number of actors in the Nordic countries	In a European perspective, Nordic market is special with its large number of network companies and suppliers in the Nordic market. This means other challenges than other European countries have both regarding market model and implementation.  Will the number of companies make the implementation easier or harder etc.?	September 2010
Standard agreements	What to be defined in common legislation and additional need of standard agreements between	November 2010

	Supplier and DSO on a Nordic level? Need of pointing out who will be responsible for the Nordic system and Nordic standard agreement.	
Meter standards	Is AMR a prerequisite for SCM?	September 2010
Passive customers (and corresponding obligation to supply)	Analyze the need for harmonization and if yes, which model? If no, how to interact between various models ?	End of business process 2011
<b>Customer Interface</b>		
Customer definition	If any, what is the market model for those customers, not fulfilling the definition of the retail market solution and which impact has it on DSO processes, billing systems etc?	November 2010
SCM	The NordREG proposal of SCM as the future model is based on the assumption that the model will be beneficial to the Customer, Supplier and DSO. We need knowledge, and must collect empirical data on a common Nordic retail market and cost benefit analysis on the SCM from Customer, Supplier and DSO perspectives	November 2010
	What are the consequences of NordREGs redefined SCM set up: National legislation can make exemptions from the SCM/combined bill on a national level, but cross border relations must refer to the SCM/combined bill.	November 2010
Rights and obligations of DSO and Supplier	Who will be responsible for what i.e. <ul style="list-style-type: none"> <li>• move in/move out situation ?</li> <li>• Complaint/compensation issue on the DSO e.g. compensation for damages, outage compensation, quality, lack of information etc.</li> <li>• information of the electricity price (grid fee) ?</li> <li>• information of energy efficiency and energy savings ?</li> <li>• Voluntary for Supplier to add DSO services ?</li> </ul>	November 2010
Regulatory limitations on the Supplier	There might be a risk for regulatory limitations on the Supplier as a result of the proposed SCM.	November 2010
<b>CI Billing</b>		
Combined bill invoiced by the Supplier	Risk analyses addressing:	
	A model where the Supplier shall be responsible for/cover total risk towards customers incl. non-received payment for the	November 2010

	DSO customers will be an additional risk for the Supplier. Further analysis on risk and consequences is needed.	
	What are the consequences if the Supplier runs into financial problems? In case of insolvency by the Supplier the risk of the DSO needs to be further analyzed. The analysis should describe the national legislation on insolvency and reviewing the differences. What models can be used to reduce risks?	November 2010
	Is it possible to design a security payment system that is not creating a market barrier for the Supplier? – and if not – then what ?	End of business process 2011
	Will the electricity prices automatically reflect the increased administration and the risk for the Supplier/DSO?	November 2010
Tax, VAT, collected by the Supplier	Analyse if/how national tax structure will /or will not allow the (foreign) Supplier to collect taxes and fees?	End of business process 2011
Harmonization of Grid fee	Is it a prerequisite for a combined billing? - If yes, what are the consequences of a harmonized grid fee structure for the DSO? Will harmonized grid fees influence Smart Grid ? Smart Grid = a sustainable energy system, where dynamic grid fee is a tool to regulate energy consumption.	November 2010
<b>CI Contract</b>		
One or two contracts	Analyze if a dual contract model in combination with clear roles and responsibilities, preferably in legislation can help out.	September 2010
<b>Customer Protection</b>		
Standard agreements	Same comments as under General objectives.	September 2010
	Harmonized customer protection regulation – what is needed?	November 2010
<b>Access to data/data exchange</b>		
Harmonization of Datahub	Analyse if datahubs in each Nordic country are prerequisites for SCM?	September 2010