NordREG
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TARGET MARKET MODEL

According to NordREG's vision 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. At the NordREG report "The Integrated Nordic End-user electricity Market (2/2006)" it has been stated that the objective for the end-user market integration is to minimize the regulatory and technical obstacles for the suppliers willing to operate in the different Nordic countries. Also commercial obstacles have been recognized, even if the regulators do not have power to influence them. In that way the end users are eligible to take part in the Nordic market.

Nordic ministers for energy decided in their meeting on October 27, 2009 to strengthen their support for the NordREG's suggestion on the common Nordic end user market for electricity by 2015. The ministers also asked for a detailed implementation plan of the required moves that must be taken to achieve this goal before the next ministerial meeting in 2010.

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, Nordenergi and Nordic TSOs on December 9, 2009 it was decided to establish a separate task force to prepare the target market model. This task force has been chaired by NordREG. The objective of this task force 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.

The aim of this paper is to provide objectives for the common Nordic end user market model and the main definitions of the target market model. A special emphasis has been put on how consumers and other small customers could participate in the common Nordic end user market and buy electricity from suppliers coming from other Nordic countries.

This paper on the target market model has following parts:

- Expectations for the common Nordic end user market
- General objectives
- Customer interface
- Customer protection
- Data exchange
- Balancing issues
- Future development

1. Expectations for the common Nordic end user market

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

A prerequisite for the common Nordic end user market is that it should bring added value to all stakeholder groups. However, the preferences differ between the stakeholders.

The common Nordic end user market will most likely increase competition among the suppliers. This will improve the efficiency in the market and bring benefits for the customers by increasing the pressure on end-user prices. It is also anticipated that the larger market will provide customers with a wider choice of offerings and products to meet their needs. For example, more specialized products could be offered through the expanded end-user markets.

For suppliers the common Nordic end user market without any significant regulatory or technical obstacles will provide an opportunity to operate on a larger electricity market, leading to improved efficiency and reduction in suppliers' unit costs. The integrated Nordic end user market is also likely to be more attractive for new entrants. A common Nordic end user market will reduce the possibility to develop end user market regulation only from a national perspective. Suppliers are as such expected to benefit from a relatively stable regulatory environment with more predictable rules as future changes have to be implemented the same way in all Nordic countries. In sum this will reduce the so-called regulatory risk for the market actors.

By introducing new players, products and business models into the national markets the common Nordic end user market will strengthen the connection between wholesale and retail markets, especially in Denmark and Finland. It is anticipated that in these markets price signals from the wholesale market will be reflected in the retail prices so that it follows the price development in the wholesale market. The strengthened connection between the wholesale and retail market will also increase the demand side response and have a positive impact on the wholesale market.

DSOs and TSOs will benefit from the common Nordic end user market through improved efficiency and automated processes. Expected improvement in data quality will reduce use of manual work in most processes. Stable end user market regulation including clear definitions of the roles and responsibilities of different market actors will reduce regulatory risk also for the network operators.

The society will also benefit from increased competition and improved efficiency at all levels.

2. General objectives

There are some general issues that form the basic requirements for the definition of the target market model. We should keep these general objectives in mind when defining the detailed models for the common Nordic end user market.

The first objective is that the common Nordic end-user market shall be open for all customers. The national end user markets are already open for all customer groups. Restricting the common Nordic end user market only to e.g. hourly/monthly metered customers or commercial and industrial customers would introduce unnecessary confusion and possibly barriers of entry. To sum up, the market model for the common Nordic end user market shall provide solutions to allow all customers to take part in the common market.

Customers' confidence is essential for the development of the end user market. Thus the second objective is that consumers must have the same protection independent of the origin of the supplier. A lack of confidence in this regard will act as a barrier for cross-border supplier switching. Therefore customer protection must be ensured, no matter which supplier the customer chooses.

There are differences between the Nordic countries in how the obligation to supply and the supplier of last resort schemes are implemented. However, NordREG has found that these differences do not prevent establishment of a common Nordic end-user market. Therefore NordREG does not suggest harmonization relating to the obligation to supply or supplier of last resort. However, NordREG is familiar with the fact that these schemes may also have negative impact the market's functioning. These schemes may maintain the old market structures where customers under these schemes remain passive and as such, such markets may not be considered attractive to a non-incumbent or to a foreign-based supplier. Likewise, those suppliers who are encompassed by these schemes may get competitive advantages compared to other suppliers. Therefore, it would be necessary to analyse if the existing schemes include elements that have relevant negative impacts the market's functioning.

Furthermore, low entry barriers should be ensured by making it easy for suppliers to operate in all Nordic countries. Implementation of common processes and systems is vital for creating a common market. Suppliers that are already operating in one country should also easily be able to establish their business in the Nordic countries, having regard to the national requirements to registration and licensing of legal entities (and of course to all other national laws and regulations common to all suppliers in the country). However, national regulations regarding taxation could make it necessary for suppliers to have some sort of formal representation in all countries. [1] In one Nordic country, suppliers are by law also required to have a supply license, but it is however possible to register as a foreign legal entity and then apply for a supply licence.

[1] It should also be possible for suppliers to operate online only.

One important way to achieve an efficient common Nordic end-user market is to implement common procedures for key processes like supplier switching and moving etc. with common messages and data formats. Standardisation and automation will then contribute to create a more effective communication between market players and improving the IT-systems that they use. The Nordic model will take the standards of the existing and forthcoming data hubs into consideration.

It is important for a supplier to be able to use a single IT-system inside the same company while operating in all Nordic countries. In order to lower the costs of suppliers and entry barriers for new entrants, common message formats etc. must be developed, with this overall goal in mind.

When designing the common Nordic end-user market it is important to keep in mind and follow the harmonization process of the EU electricity market. Recommended market model and business process solutions should be as future proof as possible.

3. Customer Interface

One essential part of the market design is how the customer interface is organised. The customer interface defines how the market actors and different processes appear from the customer angle. This definition has a significant influence on several processes and on the roles and responsibilities of different market actors.

The customer interface model for the common Nordic end user market for 2015 should be based on the supplier centric model. In this model most issues from a customer perspective are handled by the supplier. Examples of such issues could be billing, moving in/out, supplier switching and questions about consumption, fuel mix etc.

The supplier centric model doesn't mean that all customer issues should be handled by the suppliers. There are also strictly network related issues which will remain in the responsibility of DSOs. Such issues are for example interruptions, technical aspects of metering and metering devices, quality of supply, new connections and compensation for interruptions.

The purpose of the supplier centric model is to make it easier for the customers to operate in the electricity market, by providing them with the opportunity to in most processes only to be in direct contact with the supplier. This will give the suppliers the main role in the market, while the DSOs have the role of a market facilitator.

NordREG finds that it is preferable for the common Nordic end-user market that the customer interface model is the same in all the Nordic countries. Different customer interface models bring extra costs for market players and as such create market entry barriers.

NordREG finds that the choice of billing regime is a key issue for the future common Nordic end user market. NordREG suggests that the suppliers should have the right, but not any obligations to provide combined billing for customers. This approach will leave room for the market to develop solutions that are preferred by the customers. To make the process of combined billing as smooth and effective as possible the regulation should include obligations on the DSOs to facilitate combined billing for suppliers. While developing processes and regulations it is also important to ensure that in this context DSOs may not discriminate between suppliers. NordREG has seen that the details and design of this approach brings some questions (eg. how the changes in costs and risks for different market actors are taken into account and compensated and what kind of arrangements and processes this will require). The details and the costs of this billing regime should be investigated at a later stage

4. Customer protection

Customers' confidence is essential for well-functioning end user markets. Therefore customer protection issues – dispute settlement and complaint handling procedures – should be organised in the common Nordic end user market in such way that the customers' rights are secured regardless of suppliers.

Dispute settlement

The Nordic countries have already well-functioning processes for dispute settlement in each country and therefore there are no needs for major changes. In the common Nordic end user market customers should be protected by fair and efficient national dispute settlement rules stemming from their home country. There is no need for harmonising the dispute settlement processes. Each Nordic country has established good dispute settlement systems with either a specific energy complaint board, or a more general consumer body which takes care of these disputes. Therefore it would not be proportional or critical to fully harmonize the dispute settlement process. Nevertheless, all Nordic dispute settlement processes must be market conformal with a future common Nordic end user market.

Complaint handling procedures

Harmonised minimum standards should be developed and followed by all companies participating on the Nordic end user market. All customers should enjoy a high service regarding complaint handling procedures – regardless of country of residence.

Common standards would bring transparency and give customers confidence in a Nordic end user market which is important for the well-functioning of the Nordic end user market.

Therefore, minimum harmonisation with common standards is needed. However, it is not critical for the well functioning of a common market to fully harmonise the customer complaint handling procedure. Nevertheless, all customers should expect a fair and efficient service with regards of complaint handling procedures.

5. Access to information/Data exchange

One important question for common Nordic end-user market is how the access to information that a market actor needs to handle for example billing, supplier switching and moving processes, should be organized in the common Nordic retail market.

For the common Nordic end-user market it is crucial that market actors have easy and safe access to high quality market data. Good quality of data (which will reduce incorrect billing, switches going wrong etc.) improves the customer confidence in the market, which in turn will benefit the well functioning of the market.

Below are listed three main solutions to organise the data exchange and the access to information. These options could also be combined.

Bilateral communication. In this solution market actors are in contact bilaterally. For example supplier sends messages directly to the DSO and vice versa. This solution requires that the same data exchange format is used in every Nordic country.

National hubs/databases. In this solution some of or all information exchange is done within one country via one hub or data is stored in national databases. Actors are in contact with their national hub/database. National hubs/databases are discussing between countries and are able to translate messages. This solution doesn't require a common Nordic data format.

One Nordic hub/database. In this solution all information exchange in the Nordic area is done via one hub or data is stored in a Nordic database. This solution requires that a common data format is in use in every Nordic country or the Nordic hub/database understands and translates different data formats.

One feasible way of doing data exchange in the Nordic end user market until 2015 might be to have national hubs or databases which are discussing between each other. The hubs or databases would need to be able to "speak" to each other or translate messages sent between countries. This solution would also lower long term costs and lower the market entry barriers since market actors would only need to contact one system for accessing information/data in each country. However, this requires deeper analysis and the final decision on the organisation of the data exchange and the access to information could be done after a cost-benefit analysis.

6. Balancing issues

To the extent that different balancing rules create barriers for the players in the retail market, who wish to be active in several Nordic countries, there is a strong case to harmonize these rules.

In every Nordic country there is a requirement for each player on the market to assume balancing responsibility – either directly through an agreement with the TSO, or through a proxy. In Norway, balancing agreement is a precondition for access to the wholesale market. Therefore, the number of balancing responsible parties is larger in Norway than in other Nordic countries, where this is not required. Still, in all countries direct balancing responsibility is a prerequisite for direct trading on Nord Pool Spot. Direct trading gives more possibilities to affect the price trough flexible bidding both on the supply and demand side.

The balance responsible parties are obliged to plan themselves into balance, meaning that planned outtake of electricity needs to match infeed in each bidding area. Furthermore, the balance responsible parties are economically responsible for the difference between planned and actual production and for the difference between planned and actual consumption. The principles for how imbalances are calculated and priced were harmonized in the whole Nordic area during 2009. In order to facilitate retail operation in all Nordic countries further harmonization would be beneficial.

Balance responsible parties need to submit collaterals to the TSO in order to cover their exposure in the balancing market in each country. These collaterals differ between the countries. One of the reasons for differences is that the invoicing intervals vary between the TSOs. Harmonized invoicing and transparent and harmonized collaterals would simplify pan-Nordic operation.

One of the important differences between countries relates to the rules for measurement and settlement of smaller customers which are not hourly measured. Firstly, which customers are hourly measured differs between countries. Secondly, smaller customers are profiled, and the profiling methods differ. In all Nordic countries there is an intention to increase the use of AMR, which also means that more customers can be hourly metered. This means a) that profiling will give better predictions using better metering data, and b) that the number of profiled customers can be reduced. The progress in this area can be expected to be gradual over a number of years. Profiling does not necessarily have to be harmonized. However, it should be noted that without harmonization of load profiling methods suppliers might not see it feasible to offer electricity in other countries to the costumers without hourly measurement.

Hourly metered and settled customers have a better possibility to actively affect their electricity consumption and -costs. On the part of the retailer, more correct settlement means a more predictable economic situation. This is also affected by better processes for supplier shifting. One important issue is to harmonize the identification of each connection point.

Balancing risks are also affected by the use of regulating power and the pricing of this power. Here the Nordic market is already working to a large extent as one market, which means that the favourably priced resource for up-or-down-regulation in all Nordic countries is used as long as bottlenecks do not hinder. Recent harmonization has covered issues like the activation time for regulation resources, better IT-support for the common merit order list (NOIS) and increased transparency about how resources are used for different purposes and common pricing principles for regulation power.

The Nordic TSOs and regulators share a vision of common balance settlement. NordREG has expressed this vision in the following way: It shall be possible for a supplier to sell to the whole Nordic market using one system for customer management and reporting. The system must facilitate a well functioning market – e.g. making it attractive even for smaller suppliers and some end-users to be a balance responsible party.

This vision implies that both pricing and other conditions are harmonized or at least compatible. This would be facilitated by Harmonised balance agreements between the TSO’s and the BRP’s. The Nordic TSO’s should develop a common standardised balance agreement template. For the time being, Statnett and Svenska Kraftnät are working on a project for common balance settlement. Energinet.DK and Fingrid have been invited to participate.

The harmonization of balance settlement implies a need for harmonising the most important issues regarding the balance settlement processes, such as the frequency for balance settlement and invoicing. In addition to that, sufficient harmonisation of procedures for reconciliation is needed. It is also important to harmonize the roles and responsibilities of the involved parties, especially regarding the roles of the BRPs and the level of unbundling of DSOs.

7. Future Development

The market is continuously developing and the 2015 target should not be the ultimate goal for the common end user market. It is important that the harmonisation towards 2015 does not impede future development, but rather that the harmonisation takes future issues into account, making it easier to implement more efficient solutions in the Nordic end user market even beyond 2015. Most importantly, this opportunity to adopt open available standards that are efficient, flexible, secure and as such more likely to be part of future systems should be taken. Flexible solutions should be promoted to reduce the chance of taking irreversible steps that inhibits the further development of the Nordic end user market.

The long term goal should always be more efficient market processes, meaning a high level of automation related to metering, supplier switching, balancing and settlement. This will lead to faster switching and lower transaction costs for all actors in the market. Low entry barriers must be ensured to promote competition in the end user market.

In the longer run it is more likely that the level of smart metering in the Nordic countries will be harmonised so that most end users will be hourly metered. Investments in metering infrastructure, especially in IT, should take this into account. Suppliers will then be able to offer more advanced products, and customers will be better informed of their actual consumption. In addition to the end users, other third parties (including suppliers) must be granted access to consumption data in order to offer additional services such as consumption management or other smart house services. This means that third parties must have direct access to the meter (required for real-time data) or to the DSOs metering systems.

Furthermore, increased amount of load control systems, micro generation and distributed generation etc will both increase the complexity and the volume of metering, communication and messaging systems between DSOs, suppliers and customers.

8. Future Process

It is essential that the future work towards common Nordic end user market is organized professionally and permanently in order to ensure efficient use of participants resources, steering and use of necessary external expert resources. Nordic energy regulators and stakeholders are not able to carry out this project Ad hoc efficiently enough. However, they should actively take part to the future work.

The work should continue as early as in the fall of 2010, even before the meeting of Nordic ministers for energy.