

## IMPLICATIONS OF REGULATORY CHANGES OF THE MARKET MODEL ON THE DISTRIBUTION BUSINESS

Lee RUD

Vattenfall Eldistribution AB - Sweden

[lee.rud@vattenfall.com](mailto:lee.rud@vattenfall.com)

### ABSTRACT

*This paper describes how regulatory driven changes of the market model can affect key areas of the distribution business. Today customers in the Nordic countries interact with both their Supplier and Distribution Company. If the market model changes to a model where the major part of all customer contacts is with the Supplier, a so called Supplier Centric Model (SCM) the role and responsibility of the Distribution company changes drastically. If the new model also encompasses several countries with the aim to create an easy accessible enlarged electricity market with extended products and service offerings for all customers, the demand for harmonization is an important success factor to achieve the targets set.*

*The areas identified as important for the Distribution company are described, how they will be affected by changes in the market model, how the responsibility for these areas will change, how these areas can be organized in a SCM and why harmonization of network tariffs could be of benefit. The areas that will be included are Billing and network tariffs, Outage Management and Customer Service.*

### INTRODUCTION

For many years the electricity market in Europe consisted of vertically integrated monopolies that many times were state owned. The customers had one company to turn to regarding all electricity related questions. There was no distinction between the distribution and sales part of the customer contacts. As a consequence of the first EU directive on electricity there was demand for unbundling of the distribution and sales for companies active in the whole value chain of electricity and the electricity market was exposed to competition. Within Europe this development has led to different set up of the customer interface in different countries. IT systems and business processes has been adapted to the legal demands. For the last 15 years electricity and distribution companies in the Nordic countries has been struggling to get customers insight in the unbundling of distribution and electricity sales, hence the separate customer interfaces, with varying success and this is now to be changed.

### POLITICAL AMBITIONS FOR AN IMPROVED ELECTRICITY MARKET

For many years the Nordic Energy Regulators (NordREG) have been working to promote a Nordic End-user market and during 2010 the political support to achieve this increased. The idea is to create one single market out of four national markets, see figure 1. An integrated market is believed to be more efficient than having four national markets and it is also seen as a step towards an integrated European market.



**Figure 1.** The new market model will encompass four countries: Norway, Sweden, Finland and Denmark (blue marked)

The goal is to create a more efficient and customer oriented market with a high degree of competition between suppliers. There should also be low entry barriers in order for suppliers to be active in all four countries. The expectation is that the Distribution System Operator (DSO) will benefit from a common market through improved efficiency and automated processes. Clear definitions of roles and responsibilities for different market actors are expected to reduce the risk for DSOs.

In order to achieve an efficient market there should be common procedures for key processes as supplier switches and moving. It should also be possible to use the

same IT system when operating in all four countries which implies harmonized businesses processes in all countries. The harmonization must also follow the development of the EU electricity market and it should be as future proof as possible. Furthermore, there should not be a need for Suppliers to have subsidiaries in each country, it should be possible to operate in all four countries but be based in one.

One very important aspect when designing the new market model is the customer interface set up. In many deregulated European countries there is a market model where the Supplier has the main contacts with the customer. However, in the Nordic countries this is divided between the DSO and Supplier.

## THE CUSTOMER INTERFACE IS A VITAL PART OF THE NEW MARKET MODEL

### Customer interface in Sweden today

The distribution operators (DSO) main task is to run a network, distribute electricity to the customers without any interruptions and with good quality of electricity supply and finally to guarantee a well functioning open electricity market with customer meter reading and administration of customer switching etc. In order to invoice the customers for the service provided and strive for satisfied customers the DSO must, as well as the electricity Supplier, run a customer service. This means that the customer has two different interfaces to turn to regarding electricity related matters, in Sweden a so called dual point of contact model.

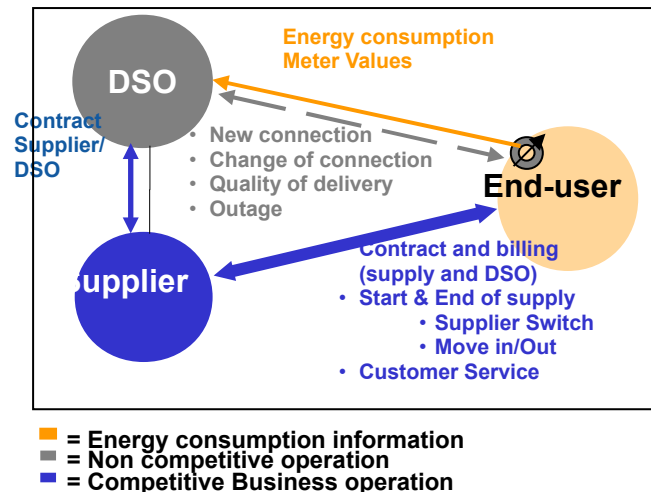
The customer is in contact with the DSO for many areas in the present market model. These areas are related to outage, invoicing, network tariffs, move in move out, supplier switching, quality of supply, field services, changed connection agreement, meter values etc. The DSO is also responsible for new connections and complaints related to the DSO services. Overall, the DSO is responsible for the physical electricity market and thus metering, and also for the master data for each connection point.

The customer contacts the Supplier when he/she want to make a supplier switch, has questions about the product, price or invoice, move in/move out or have any other complaints.

### Customer interface in the new market model

The customer interface proposal in the new market model is based on a so called Supplier Centric Model (SCM). See figure 2.

## Supplier Centric Market Model



**Figure 2.** The proposed new market model called Supplier Centric Model.

This is the most common customer interface model in Europe today. This model indicates that most customer issues will be handled by the Supplier instead of the DSO as today. For example questions regarding invoice, price and products, moving, switching, start end of supply, complaints, will the responsibility of the Supplier. Issues strictly related to network business will still be the responsibility of the DSO. This means that the DSO will be handling outages, quality of supply, technical aspects of metering, new connections and compensations and questions related to these areas. The DSO is responsible to ensure that there is a customer service for these areas. However, in the SCM the DSO is seen as a market facilitator while the Supplier is given the main role towards the customer.

## STRATEGIC AREAS FOR THE DSO

### Billing and network tariffs

There are presently two alternatives in the implementation plan of the new market model when it comes to billing. This is a crucial area and the consequences of both alternatives needs to be fully analyzed before the final design of the model is decided.

Alternative A: It is mandatory that the customer only receive one bill from the supplier including both the electricity and network fee, so called combined billing.

Alternative B. The Supplier is not obliged to offer combined billing. The customer can receive one bill from

the supplier including both the electricity and network fee or separate bills from the Supplier and DSO.

If the A alternative is assumed this will have large implications on the billing process and IT system set up for the DSO. If the DSO does not need to send an invoice to each customer there is no need of an IT system which supports billing of end-customers. The demand that will remain is the need for calculation of the network fees in order to invoice the Supplier. Each Supplier will then receive a bill from the DSO on an aggregated level. However, in order for the Supplier to invoice the customer, detailed consumption data per connection point must be available. If instead the B alternative is assumed the DSO must still have processes and IT system supporting billing of network customers and billing information to the Supplier for customers with a combined invoice. Hence, this is a key issue since it has large impact on the possible cost savings and efficiency potential for the DSO.

The question regarding transparency of network fees to the end-customer is also related to this area. In the final model set up, the transparency must be taken into account since this will have an effect on the data exchange between the DSO and Supplier and also the need for IT system support.

### **Customer Service**

If the customer only receives one invoice from the Supplier with both the fee for electricity and the network fee (mandatory combined billing as in alternative A) and the Supplier also takes over the responsibility for the areas which previously was the responsibility of the DSO, the need for DSO customer service will be changed. The customer service provided by the DSO will be more strictly related to pure network errands as outage management, quality of electricity supply, new connections and compensations related to these areas. In total, the demands on the DSO Customer Service will change in terms of types of services, demand for IT system support and organization.

### **Outage Management**

If the demand for DSO customer service will be reduced due to the transfer of responsibilities, there is a need to solve the irregular demand for customer service in connection to outages in a cost efficient way. This might lead to outsourcing or other organization forms for customer service in order to keep the costs on a reasonable level. It will not be justifiable from a macro economic perspective to maintain a full-scale customer service for each DSO. If the Supplier bills all end-customers, the question regarding how to give outage compensation to customers when needed, must be solved.

### **Harmonization of network tariffs**

In order to achieve an efficient and well functioning market the need of harmonization of network tariffs must be considered. Network tariffs in the Nordic countries today consists of several different combinations. If the cost for billing and customer service in total is to decrease, harmonization of network tariffs is one area to take into account. Small Suppliers situated in different countries must also be able to handle the network tariffs in terms of IT-system support for invoicing of end-customers and in order to handle customer questions. Harmonized network tariffs might also be a prerequisite to achieve combined billing. If this is proven to be necessary for an efficient market, the consequences for the DSO revenues and development of Smart Grids must also be analyzed further. So far, Vattenfall's internal analysis has found that if the network fees in the short-term are to be harmonized, a network fee consistent of a fixed part and one variable part should be possible to handle by all Suppliers despite various size and independently of nationality.

### **STRATEGIC PREPARATIONS FOR FUTURE CHANGES IN THE MARKET MODEL**

The implementation of a new market model will reshape the playground for the actors on the Nordic electricity market. This will be the largest change of the electricity market since the deregulation 15 years ago. It will also have an effect on other businesses such as the IT industry since the demand for new or changed IT systems will be very intensive over a period of time. The development within the EU must be taken into consideration when analyzing long-term development and consequences of the new model. It is also important to have a long-term perspective which takes the market model in account when developing future business strategies and starting to prepare the business for the new model. IT strategies needs to be carefully revised in order to meet the expectations of the model and procurement of IT systems are large investments which are not easily altered. The present communication strategies of the DSO will need to be evaluated and adjusted to the new market conditions. Future competence needs and set up of the DSO organization need to be considered due to the change of responsibility.

### **CONCLUSIONS**

The market model set up will lead to a changed business environment for the DSO. The new market model will also render the possibility to affect the regulatory model for revenues, i.e. the allowed revenue frame in the regulatory model might be adjusted due to changed

conditions in the new market model. There is also the question of what responsibility the DSO have to contribute to energy efficiency with regard to information to customers.

The Regulators and the governments in the Nordic countries have not yet made the final decision about the model set up. The decision must be in line with the development driven within the EU. The internal work done so far is aiming to create awareness and preparedness for coming regulatory changes of a market model which reshapes the playground for the Distribution companies, and also to create insight in the consequences for the Distribution business in order to influence the final design of the new market model.

It is important to start to consider the consequences of the new Nordic market model in an early stage since it will affect the playground for all actors and it takes time to successfully adapt to new market conditions.

## REFERENCES

- [1] Nordic Energy Regulators (NordREG) 2010, "Implementation Plan for a common Nordic Market"