

A report commissioned by  
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# Market Entrant Processes, Hurdles and Ideas for Change in the Nordic Energy Market - the View of the Market

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## Executive Summary

The Nordic electricity market has been undergoing extensive change in recent years in order to achieve a Nordic harmonised retail market. Going forwards, NordREG has identified four areas as the most important to harmonise: combined billing; supplier switching and customer moving; information exchange; and customer interface. A Nordic harmonised retail market is intended to provide many benefits including process efficiencies and larger economies of scale, as well as a larger and more conducive arena for competition and all the benefits that competition may bring.

As part of the Nordic harmonisation process, it was decided that there is a need for a broad and unbiased mapping of the regulatory framework and other conditions that suppliers and energy service providers face, when entering the national Nordic electricity markets. The objective? To identify hurdles to entry and allow the NRA's to select (and prioritise) which they can influence and which are out of their control.

VaasaETT was commissioned by NordREG to identify these hurdles. More specifically the objective is to map out the market entry and operational processes and hurdles facing five 'Target Respondent (entrant) Types':

1. Those who have recently entered, are in the process of, or considering competing in the market (new market entrant suppliers<sup>1</sup>),
2. Those who have been market entrants and are now more established (established entrants),
3. Those who are already in the market and have been since before the liberalisation but which are actively competing in more than one Nordic market (inter-Nordic or pan-Nordic incumbent suppliers) or planning to (incumbent entrants),
4. Those who considered entering the market but then chose not to (aborted entrants)
5. New entrant ESCOs, at any stage of entry, including ESCOs that serve customers via suppliers.

In mapping market entry and operation processes the objective is not to define all Nordic market processes, but to understand what market entrants go through, when entering and operating in the market, that constitute hurdles to market entry and to those entrants subsequently remaining in the market. The emphasis is therefore on identifying the critical process principles and issues rather than creating a detailed process map. The objective is to identify common Nordic characteristics and the characteristics (where different from the common Nordic) of individual markets.

The research took place between spring and autumn 2014 through interviews and questionnaires conducted throughout Finland, Sweden, Norway and Denmark. The research is though qualitative and not quantitative. In addition to regulators, 33 organisations were interviewed (all four Nordic TSOs, NordPool Spot and the five Target Respondent Types) and usable questionnaire responses (34) were additionally received from 28 additional organisations. 18 questionnaire respondents represented the Target Respondent Types. The sample is considered representative and should be seen in the context of a market with few entrants.

The findings of the research suggest that while there are many issues of concern to entrants, the four areas of primary harmonisation focus identified by NordREG are indeed of key importance. The research also indicates that the market reforms are heading in the right direction. Conditions for competition are improving. Many processes are already largely harmonised and hurdle free. But change is not happening fast enough for many players in the market, there is a feeling that changes should not wait for other changes, and a number of fundamental hurdles to competition remain and need to be addressed urgently if competition is to flourish and truly benefit consumers in the Nordic electricity market.

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<sup>1</sup> Some suppliers have been bought by other suppliers as vehicles to build competing players and or a Nordic presence. Some such players were included in the research to take account of a broader set of related business models.

This report identifies 60 hurdles. All hurdles are rated by importance whereby 1 is the least important and 3 is the most. Ideas (not proposals) for change are also considered but should be seen only as examples of possible solutions and not the only or necessarily the optimal solutions.

Key Hurdles to Nordic Market Entry		
No.	Description of Hurdle	Importance
Market Entry Processes		
	Information gathering	
2	Size of individual markets is seen as too small for larger entrants	3
	Establishing Balancing Capability	
6	Separate BRP agreements in each Nordic market for own BRP suppliers	3
	Establishing Systems	
13	Need to have different IT systems in each Nordic market	3
	Market Entry for ESCOs	
16	Market for ESCO services immature, moves slowly / protectionism	3
Market Operation Processes		
	Balancing	
23	Balancing processes and costs not consistent (NBS may solve except for DK)	3
	Wholesale	
25	Risk from hedging (case for all competitors) - increases with size	3
	DSO Related Operations	
27	Absence of supplier centric approach	3
28	Absence of near-identical processes between Nordic markets	3
29	Data quality issues (poor or late data)	3
30	Difficulty identifying when a customer's contract will end (not Norway)	3
31	Customer information required to initiate switch is often difficult to obtain	3
32	Process of attaining customer information reveals intentions of competitors	3
33	Some DSOs may forewarn their associate suppliers of imminent switch	3
	Sales and Marketing	
34	Customer unawareness, apathy and inactivity	3
35	Current APIs for meter data are not considered sufficient for ESCO use	3
36	Absence of easy access to near real-time consumption data	3
37	Cost and difficulty of brand and offering awareness	3
38	Brand bundling (DSO, Supplier)	3
45	Limited savings potential in face of price matching	3
	Customer Switching Process	
49	Lack of combined billing or combined billing only by bundled incumbents	3
	Customer Moving Process	
50	Moving home favours incumbents	3
	Pricing	
51	Inhibition of legality or visibility of innovative tariffs	3
	Systems Management	
54	Different data formats in each Nordic market	3
	Customer Lifetime Value	
57	Inferior customer lifetime value for entrant suppliers	3
58	Easier to keep customers than to win them / Incumbent Margins Transfer	3
	Inter-Market Synergies	
59	(Current) absence of smart meters in Denmark and Norway	3

The overwhelming feeling gathered by the research is that there is complete support what has taken place so far with respect to the harmonisation process, as well as complete support for greater harmonization, a supplier centric model, simplification of data exchange and combined billing. There is

also major support for data hubs<sup>2</sup>, process cloning (from one market to another), easier access to customer information (with customers' permission), smart meters, and greater harmonisation in balancing process, agreements and costs.

There are many other hurdles facing new entrants, but despite remaining differences in processes between the Nordic markets the hurdles are mostly the same for each. The data hub (already mostly in place in Denmark) being the most significant difference. Key suggested hurdles also relate to DSO neutrality; data quality; the size of the individual Nordic markets; customer awareness; access to real time consumption data; the speed of evolution and degree of innovativeness in the energy services market; risk and hedging; and incumbent advantage.

It should be noted however, that some hurdles concern issues that are not particular to the energy market, and some may not reflect shortcomings in the market. Customers may for instance remain inactive because of satisfaction, and small margins that prevent sufficient savings may be due to low prices. The objective of this research however, is not to question the ethics of hurdles, but just to identify them.

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<sup>2</sup> Central communication via data hubs in combination with the supplier centric model could for instance anonymise companies, support standardized market processes and access to data by third parties

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## Abbreviations and Terminology

Within this report the following abbreviations and terms should be interpreted as described below.

- **BRP:** Balance Responsible Party
- **BSP:** Balancing Service Provider
- **Capacity aggregation:** The collection of consumers and sale of their controllable demand capacity/flexibility to TSOs, ancillary markets or others who may pay for it.
- **Competition:** The activity or condition of electricity suppliers striving to gain or win customers from other suppliers or acquiring added value energy business from customers in the face of realistic challenges by other suppliers. The suppliers face a genuine threat to their survival if they do not succeed and they face a genuine and significant possibility of failure.
- **Customer:** Consumers who purchase energy / have a contract with an energy supplier. Residential and small and medium commercial customers
- **Data Hub:** A central national data and process hub for the purpose of facilitating market processes such as switching, information exchange, smart meter data management.
- **Deregulation:** When a market is opened to competition. Equivalent to Liberalisation
- **DSO:** Distribution System Operator.
- **Energy:** Electricity
- **ESCO:** Energy Service Company
- **Jurisdiction:** A definable electricity market territory with a single regulatory regime. e.g. The Swedish electricity market is a jurisdiction.
- **Liberalisation:** When a market is opened to competition. Equivalent to Deregulation
- **New Market Entrant:** Supplier that has entered the market from start-up or from another jurisdiction or industry. Also includes suppliers of added value services such as energy efficiency (ESCOS). Does not include incumbent suppliers that have established new supply businesses simply as a result of the unbundling of the former business. Does not include incumbent suppliers that have simply competed for customers beyond their incumbent area or offered competitive contracts to their existing or other customers.
- **Nordic:** Denmark, Finland, Norway, Sweden, Iceland (in this report Iceland is not included in the research).
- **NordREG:** An organisation for the Nordic energy regulators, its mission is to actively promote legal and institutional framework and conditions necessary for developing the Nordic and European electricity markets.
- **NRA:** National Regulatory Authority for a national electricity market
- **Residential Customers:** Equivalent to Household or Domestic Customers
- **Switching:** When a customer actively changes from one supplier to another except for the purpose of moving from one home to another.
- **Retailer:** Equivalent to Supplier
- **Supplier Centric Model:** The customer relationship is primarily with the supplier rather than the supplier and the DSO.
- **Respondent Types:** All types of respondents included in the research including TSOs, new entrant suppliers and brokers, companies that considered entering but did not, ESCOs, incumbent suppliers in multiple markets and incumbent suppliers in just one market.
- **Target Respondent Types:**
- **TSO:** Transmission System Operator (Energinet, Fingrid, Statnett, Svenska Kraftnät)
- **Utilities:** Generally refers to a integrated or bundled energy company including supplier and DSO elements.

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# 1. Background

## 1.1. The Research Background and Objective

The Nordic electricity market has been undergoing extensive change and in recent years in order to achieve a Nordic harmonised retail market. Going forwards, NordREG has identified four areas as the most important to harmonise: combined billing, supplier switching and customer moving, information exchange, and the customer interface.

There are nearly 15 million electricity customers in the combined Nordic market of Denmark, Finland, Norway and Sweden. Of these, over 12 million are residential. If these customers were combined into a common Nordic electricity market, it would be a market similar in size (number of customers) to Australia, and similar in consumption volume to the entire Benelux region. Under such a harmonised scenario (a common Nordic end user market as it is often referred to), market models and processes would be similar if not the same across the Nordic market; competitors could operate with similar systems and approaches across the Nordic market, and the Nordic market should be able to thereby gain greater efficiencies and choice in electricity supply. It would also present a more appealing picture to those potential entrants for whom the scale of any one Nordic market is currently seen as too small. Because the four markets are already relatively similar to each other in terms of market size, structure, culture (though not language), politics and competitive maturity, harmonisation would seem a reasonable target.

As part of this harmonization, NordREG proposed a more supplier centric approach, whereby the supplier becomes the primary focal point of the customer interface: customers generally only interact with their supplier; suppliers pass on network costs to customers in the form of combined bills and take on the obligation of ensuring payments for network costs; switching and moving processes also become supplier centric and in general far simpler and quicker from the perspective of suppliers, DSOs and even customers. For instance, customers would only need to contact a supplier for most or all issues, switching would be quicker and customers would only receive one bill instead of two (one from the supplier and one from DSO) following a switch; and suppliers would not need to be directly in touch with DSOs for switching processes. The latter benefit would depend on the development of data hubs, proposed by NordREG, almost fully implemented already in Denmark and expected soon in Norway.

The new model being developed in Denmark<sup>3</sup>, is one approach to a supplier centric Nordic market that is already almost complete. The 'Wholesale Model' as it is termed, will - when completed - place the data hub at the centre of the model and allow the DSO the absolute minimum contact with the customer and suppliers. More specifically the Danish Wholesale Model will put customer data squarely in the hands of both the supplier (supplier) and the customer themselves. This will make it easier for ESCOs and new entrants to deliver energy efficiency services and it will make it easier for suppliers and brokers to get access to the data they need in order to switch and serve customers efficiently.

As part of the Nordic harmonisation process, it was decided that there is a need for a broad and unbiased mapping of the regulatory framework and other conditions that suppliers and energy service providers face, when entering the national Nordic electricity markets. The objective? to identify hurdles to entry and allow the NRA's to select (and prioritise) which they can influence and which are out of their control.

VaasaETT was commissioned by NordREG to identify these hurdles. More specifically the objective is to map out the market entry and operational processes and hurdles facing five 'Target Respondent (entrant) Types':

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<sup>3</sup> The default supplier system (the current system) will be replaced by the new 'wholesale' model by 2015-2017.

1. Those who have recently entered, are in the process of, or considering competing in the market (new market entrant suppliers<sup>4</sup>),
2. Those who have been market entrants and are now more established (established entrants),
3. Those who are already in the market and have been since before the liberalisation but which are actively competing in more than one Nordic market (inter-Nordic or pan-Nordic incumbent suppliers) or planning to (incumbent entrants),
4. Those who considered entering the market but then chose not to (aborted entrants)
5. New entrant ESCOs, at any stage of entry, including ESCOs that serve customers via suppliers.

In mapping market entry and operation processes the objective is not to define all Nordic market processes, but to understand what market entrants go through, when entering and operating in the market, that constitute hurdles to market entry and to those entrants subsequently remaining in the market. The emphasis is therefore on identifying the critical process principles and issues rather than creating a detailed process map. The objective is to identify common Nordic characteristics and the characteristics (where different from the common Nordic) of individual markets.

The focus of the research is on the perspective of the five Target Respondent Types. The opinion of incumbents that are active solely in one Nordic market was additionally used to understand some issues better and provided a valuable second opinion, as did the opinions provided as part of the public consultation process.

## 1.2. The Nordic Market in Context

The Nordic market is the most diverse electricity market in the World after Germany in terms of the number of electricity suppliers in the market. Most of these suppliers are local and many of them offer renewable energy and energy efficiency services. It is a market of choice, although many of these suppliers are in collaborative organisations of one form or another.

It is also a market where a relatively significant number of customers have exercised their choice. But more than half of the market (around half in Norway) have never exercised any choice. Most have never switched supplier.

Switching is not the only definition of success in competition. Customer choice, satisfaction and low prices may lead to customers remaining where they are intentionally. Indeed many customers are satisfied with their suppliers and feel no need to switch, and except for Denmark (due to high taxes on energy) electricity prices in the Nordic markets are relatively low. However a competitive market is one where suppliers and other entrants (and with them new business models) can, and do, enter the market to compete without undue hindrance or structural disadvantage, where incumbent suppliers must compete to succeed if not survive. Where customers are aware of their choice. In the Nordic market, new entrants are few and generally complain of significant hurdles to entry. Incumbent suppliers have never been forced to leave the market, and customer awareness remains poor.

All established markets are imperfect in this respect. All markets have barriers to entry in practice. Incumbent players often have incumbent advantages. Electricity markets are no different in this respect, except perhaps for the degree of challenge faced by entrants. But these imperfections should be limited to a point that is considered acceptable, a level that is inherently subjective.

This report accepts the above successes and positive qualities of the Nordic market. It accepts the importance of diversity and customers' right to remain where they are if they so wish, but looks at the remaining hurdles from the perspective of those who are (or have been) trying or planning to enter the market or expand across its national markets.

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<sup>4</sup> Some suppliers have been bought by other suppliers as vehicles to build competing players and or a Nordic presence. Some such players were included in the research to take account of a broader set of related business models.

### 1.3. The Importance of Ease of Market Entry and Operation

The success of a liberalised electricity market cannot be defined only in terms of the level of customer activity. In some of the most active markets in the world, including Australia and Great Britain, the vast majority of customers who have switched supplier have simply moved from one incumbent supplier to another. Many have also switched contract, but more often than not it has been with the same supplier, often with the supplier contacting the customer rather than vice versa. What's more, most customers in the market who switch supplier have switched before. Only in the case of a couple of markets have the majority of customers ever switched. Around 40-60%<sup>5</sup> of customers remain inactive even in the most competitive markets, even after many years. The market share and therefore the dominance of the incumbents<sup>6</sup> remains largely intact. In fact there is no liberalised market in the world where former incumbents have not kept the majority of customers in the market. Unless the competitors in a market face a realistic threat of losing their dominant position, it is questionable if a truly competitive situation can be said to exist.

For true competition to take place, for new innovative business models and offerings to enter the market from outside the market, new competitors are needed in the market, and for this there needs to be liquidity in customer movement between suppliers. This can take many forms, for instance: new suppliers being formed within the market or small existing suppliers being bought as growth point; existing suppliers entering the market from another Nordic jurisdiction (e.g. a Norwegian supplier entering the Danish market) or from a non-Nordic jurisdiction; an existing supplier (such as a grocery retail chain) becoming an energy supplier; or a company entering the energy market to sell additional services (such as energy savings services). In this report, the term "new entrants" essentially refers to this broad mix of alternatives.

Market entry must therefore be made as easy as possible, without creating an uneven playing field. But even if competitors can enter the market, to make a difference, they need to be able to remain in the market. The processes and requirements placed on them to survive and prosper should therefore be realistically manageable. They should be afforded a genuine opportunity to compete and succeed, without unfair hindrance.

### 1.4. The Nordic Market - Quick Facts, Liberalisation Timetables

Essentially the Nordic markets are quite similar, in size and overall market structure. Except for Denmark they were all among the first in the world to open to competition and all of them are reasonably active.

Denmark has both the highest end-user prices (because of high taxes) and lowest level of switching activity (due in part to the small share of bill that can be changed through switching and the fact that a large proportion of the Danish energy supply is carried out by district heating), but a somewhat higher level of customer satisfaction (arguably due to the co-operative nature of some of its energy utilities companies). Sweden has by far the highest number of DSOs and suppliers, but Norway has the most relative to the size of the market and currently has clearly the highest level of switching (supported in part by an historically high level of price volatility and relatively transparent prices), followed by Sweden. Finland is becoming more active and is now similar to Sweden in terms of its level of switching. Except for Denmark, the Nordic markets have low end-user prices by European standards. Norway has the lowest prices, along with Finland, but in terms of electricity costs relative to purchasing power, Sweden and Finland have the lowest since their average consumption per capita is far lower than Norway. Norway and Sweden have the largest number of new entrant suppliers, in one with their higher historical levels of switching.

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<sup>5</sup> VaasaETT Utility Customer Switching Research Project: [www.utilitycustomerswitching.com](http://www.utilitycustomerswitching.com)

<sup>6</sup> This may be considered 'normal' for many industries with an earlier status as "natural" monopolies (gas/railway/heating/telecom etc.)

Quick Facts <sup>7</sup>				
	Finland	Sweden	Norway	Denmark
Year of full liberalisation	1997	1996	1991	2003
Switch rate 2013	10%	11%	15%	7%
Level of switching	Warm active	Warm active	Hot active	Active
European switch rank 2013 (most active first)	8	7	3	11
European price rank 2014 (most expensive first)	20	13	23	1
European Customer satisfaction ranking <sup>8</sup>	10	23	11	3
Number of customers <sup>9</sup>	3.3 mln	5.2 mln	2.75 mln	3.2 mln
Number of domestic customers <sup>10</sup>	2.9 mln	4.5 mln	2.5 mln	2.7 mln
Number of DSOs <sup>11</sup>	83	170	156	77
Number of suppliers <sup>12</sup>	74	121	99	53

Table 1 - The Nordic market quick facts

Liberalisation Timetables	
	Finland
1995	All customers over 500KW
1997	All customers, but hourly KWh-metering required
1998	Residential customers (KWh-metering not required)
1998	Other small customers (e.g. farms) with main fuse 3X63A or lower
	Sweden
1996	Customers free to choose supplier but required to install an hourly meter
1999	Profiling was allowed and switching became free
	Norway
1991	Customers with hourly meters allowed to switch for a charge of NOK 5000 (€600)
1991	Customers were free to choose supplier but required to install an hourly meter
1995	The switching charge was reduced to NOK 246 (€30) and customers could switch every quarter. In 1996 the fee was eliminated.
1998	Customers were allowed to switch weekly
2000	Customers were allowed to switch any day
	Denmark
2000	Market opens for +10GWh customers
2001	Market opens for +1GWh customers
2003	Market opens for all customers

Table 2 - The Nordic market liberalisation timetables

<sup>7</sup> Source: Switching: [www.utilitycustomerswitching.com](http://www.utilitycustomerswitching.com) (VaasaETT). Prices: <http://www.energypriceindex.com> (VaasaETT, E-Control, Hungarian Energy and Public Utility Regulatory Authority)

<sup>8</sup> European consumer satisfaction survey [http://ec.europa.eu/consumers/consumer\\_research/editions/docs/monitoring\\_consumer\\_markets\\_eu\\_2012\\_en.pdf](http://ec.europa.eu/consumers/consumer_research/editions/docs/monitoring_consumer_markets_eu_2012_en.pdf) p.316

<sup>9</sup> Source: National statistics publications.

<sup>10</sup> Source: National statistics publications.

<sup>11</sup> Source: National regulators

<sup>12</sup> Source: National regulators

## 1.5. Research Methodology

The research took place between spring and autumn 2014 through interviews and questionnaires conducted throughout Finland, Sweden, Norway and Denmark.

All findings in this report represent the findings obtained through this research. Any hurdles have been suggested by respondents. The report aims to generally represent the aggregated body of opinion from the research, not the opinions of individuals, but naturally each of the findings are supported by more or less respondents. Market processes have either been described by the interviewees and questionnaire respondents, interpreted from what they said, or are simply factual descriptions of the market.

The research is not intended to be statistically significant, the response rates are too small, as would be expected in a market where the number of participants is less than the number of respondents that would normally be researched in a quantitative survey. However, the numbers are definitely considered representative and indicative due to the broad mix and proportionately large base of respondents.

The Questionnaire responses are partially presented as tables and graphs for visual interpretation only and should not be seen as quantitatively significant in any way. Sample sizes are far too small for quantitative significance. There are simply not enough Target Respondent Types in the market for a quantitative analysis.

### Processes, Hurdles and Ideas for Change

- The report focuses on the processes and hurdles in the market at present, with some consideration of the planned or expected future changes implicated with imminent data hubs (in Denmark) and the supplier centric model. The report is NOT tasked with evaluating the processes or hurdles that would exist in the event of a supplier centric model or hubs that are not yet built although such considerations are included in the 'ideas for change'.
- The report does not assume that the supplier centric model is inevitable.
- The 'ideas for change' that are identified in this report are neither proposals nor plans in any way. They are only ideas that have come from the research: opinions of new entrants and extrapolations from the hurdles. It is not in any way the plan or intention of NordREG to implement these ideas. They are merely food for thought. Possible solutions. There are other solutions that could be suggested and considered equally valid instead of these. Such ideas for change may be part of the debate stimulated by this report.
- Processes are described per market within the text and the process diagrams. Unless otherwise stated, all stated hurdles and Ideas for change relate to all markets.
- Unless otherwise stated, any hurdles based on interviews are supported by the majority of relevant interview target respondents. The exact number of respondents who stated each hurdle is not given since the exact stated hurdle is an aggregated interpretation of their statements. This is common qualitative survey research technique.

## 1.6. Sampling Method

VaasaETT conducted research on a broad sample of respondents. 41 organisations were contacted for interviews. Requests for interviewees and questionnaire respondents were additionally posted on regulators' and VaasaETT's websites, news services and social media channels, and sent to the VaasaETT database of hundreds of Nordic contacts. This sampling method provided an opportunity for nearly all stakeholders in the market to have their say.

Interviewees were chosen broadly. Most known new entrants were contacted and offered interviews. Targeting was random: no selection was made in the targeting process. The response sample described

was un-filtered: whoever agreed to participate was accepted. Relevant stakeholders had over three months time to answer the research questionnaire. Extensive attempts were made to inform the entire market of the questionnaire. The process was indiscriminant. The response rate represents around one fifth of all the suppliers in the Nordic market. The sample is considered representative and unbiased.

Questionnaire recipients were not selected but the responses shown by the graphs in this report represent only five Target Respondent Types except where otherwise stated. Relevant stakeholders had over three months time to answer the research questionnaire. Extensive attempts were made to inform the entire market of the questionnaire. The process was indiscriminant.

Overall, the response rate represents around one fifth of all the suppliers in the Nordic market. The sample is considered representative and unbiased.

## 1.7. The Sample

In addition to regulators, 33 organisations were subsequently interviewed (all four Nordic TSOs, NordPool Spot and the five Target Respondent Types) and usable<sup>13</sup> questionnaire responses (34) were additionally received from 28 additional organisations (all respondent types excluding TSOs and NordPool Spot). 18 Questionnaire respondents represented the Target Respondent Types. Some interviewees further responded to the questionnaire. In some companies multiple people were interviewed or responded to the questionnaire, representing specific markets or expertise areas. Altogether, since some organisations represented also sister companies in other Nordic markets, 84 Nordic organisations were included in the analysis (excluding regulators), 79 of them were energy companies or ESCOs.

The overall sample included a broad mix of stakeholders including new entrant suppliers and brokers (29% of all suppliers and ESCOs), ESCOs (23%), incumbent suppliers in multiple markets (20%) and incumbent suppliers in just one market (24%).

Unless otherwise stated, all questionnaire findings relate to the five Target Respondent Types (see section on Abbreviations and Executive Summary)

The sample represented all four Nordic countries extensively. Sweden was however, the most heavily represented with 39% of the companies in the overall sample, but Sweden has one third of Nordic customers. Responses from non-Nordic organisations (5%) concerned companies that were known to have seriously considered (and in one case temporarily entered) the Nordic market but then decided not to (or to leave). This is a small but important sample since it represents the international potential for entry into the Nordic electricity market. Since companies that do not enter the market having considered it generally do not tell people about it, it was not possible to identify more companies of this kind.

It is important to note that while the incumbent suppliers that operate in only one country are not new entrants, many of them can be said to (are known to) have rapidly grown through winning customers in the competitive market. Some of them are also planning or considering expansion into other Nordic markets.

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<sup>13</sup> Questionnaires were unusable if for instance they did not provide identity or were not filled in.



Respondent Sample							
Respondent Types	Denmark	Finland	Norway	Sweden	Other	Total	TOTAL% <sup>14</sup>
NordPool Spot	-	-	-	-	1 (Nordic)	1	
Regulators	1	1	1	1	-	4	
TSOs	1	1	1	1	-	4	
Electricity Supply Companies and Brokers (new entrants)	4	5	5	9	-	23	29
Electricity Supply Company that considered but decided against entering the Nordic Market	-	-	-	-	3	3	4
Former Incumbent Electricity Supply Company operating in more than one Nordic country	5	3	3	5	-	16	20
Former Incumbent Electricity Supply Company operating in only one Nordic country	3	5	2	9	-	19 <sup>15</sup>	24
ESCO (Energy Service Company) - Via TSO and Utilities or Direct to Customers	2	5	3	8	-	18	23
<b>TOTAL</b>	16	20	15	33	4	88	
<b>Total % of companies<sup>16</sup></b>	18	23	17	39	5		

Table 3 - Respondent sample

It is therefore believed that the sample provides a highly representative interpretation of the stakeholders in the market relating to market entry Hurdles and processes.

## 1.8. Anonymity

VaasaETT respects all requests for anonymity from research respondents.

All interview respondents were told that their identity would be revealed but that their responses would be treated anonymously. Therefore, no statements in the research are attributed to individual interviewees. A few of these respondents additionally stated that they preferred their company name not to be revealed in the report. Questionnaire respondents were asked about their preferences regarding the anonymity of their responses. Some chose no restrictions on their responses but most preferred to remain anonymous, either to all parties except VaasaETT, or to all parties except VaasaETT and NordREG. The names of all questionnaire respondents that chose to remain anonymous (unless they stated that they would like their company name hidden) are therefore listed in the report but no question responses are attributed to individual companies.

<sup>14</sup> Suppliers and ESCOs

<sup>15</sup> Some are planning or have intensively considered entering other Nordic markets

<sup>16</sup> Suppliers and ESCOs

## 2. Summary of Findings

### 2.1. The Right Direction

The research indicates that the market reforms are heading in the right direction. Conditions for competition are improving. Many processes are already largely harmonised and hurdle free. But change is not happening fast enough for many players in the market and a number of fundamental hurdles to competition remain and need to be addressed urgently if competition is to flourish and truly benefit consumers in the Nordic electricity market.

This report identifies 60 hurdles. All hurdles are rated by importance where 1 is the least important and 3 is the most. The rank is a combination of the number of respondents who referred to it, the importance that they appeared to attach to it and an estimate of the degree of solvability of the issue. Ideas (not proposals) for change are also considered.

The overwhelming feeling gathered by the research is that there is complete support for greater harmonization, a supplier centric model and combined billing. There is also major support for data hubs<sup>17</sup>, process cloning (from one market to another), easier access to customer information (with customers' permission), smart meters, and greater harmonisation in balancing process, agreements and costs. There are many other hurdles facing new entrants, but despite remaining differences in processes between the Nordic markets the hurdles are mostly the same for each. The data hub (already mostly in place in Denmark) being the most significant difference. Key suggested hurdles also relate to DSO neutrality; data quality; the size of the individual Nordic markets; customer awareness; access to real time consumption data; the speed of evolution and degree of innovativeness in the energy services market; risk and hedging; and incumbent advantage.

It should be noted however, that some hurdles concern issues that are not particular to the energy market, and some may not reflect shortcomings in the market. Customers may for instance remain inactive because of satisfaction, and small margins that prevent sufficient savings may be due to low prices. The objective of this research however, is not to question the ethics of hurdles, but just to identify them.

### 2.2. Supplier Centric, Now

Most active suppliers strongly support a supplier centric model, but as the industry does not know exactly how the market will look at the end of it, they are delaying their investments. Many players are frustrated at the pace of change. The supplier centric approach is seen as essential not only to help the supplier build a more focused and complete relationship with the customer, but also to reduce the opportunity for customer win-back activities by integrated suppliers.

*"In the Nordics, the most important task is to carry through the implementation of the new market model (main principles supplier centric, including combined invoicing)" Nordic Utility*

<sup>17</sup> Central communication via data hubs in combination with the supplier centric model could for instance anonymise companies, support standardized market processes and access to data by third parties

## 2.3. Combined Billing and Billing Freedom

All new entrant suppliers and those competing in or wanting to compete in other Nordic markets, and most other competitive incumbent suppliers want to be able to offer combined billing, even if it is not made mandatory - although they want it to be mandatory. Large numbers of customers won by competitive suppliers are then lost soon after because integrated incumbent suppliers are able to offer them combined bills while the competitive suppliers are not. The combined billing alone may not be enough to motivate the customer to return to their incumbent, but combined with familiarity, price matching (or price-undercutting for selective customers) and locality, the allure of their former supplier can be enough to win back the customer. If the customer is won back within one year, as often happens, the competitive supplier will probably have lost a substantial sum of money on the customer, making customer acquisition, in some cases, a no sense business.

Related to combined billing is billing freedom. In the name of transparency for customer protection, billing structures are regulated to a point that some suppliers feel inhibits innovation in tariffing and related services. Transparency and tariff variety are seen as complimentary if done in the right way.

*"The targeted market model main structure should be the same from the beginning. Differences - e.g. with regard to invoicing principles (one invoice or two invoices) will create entry Hurdles"* **Nordic Utility**

## 2.4. One Model

If the market model is not the same, the processes that take place in it can never be sufficiently similar. There are major concerns that the model will remain significantly different (with different look and feel) due to different speeds of change, differences of opinion on key issues such as combined billing and the data hub, and especially differences in national laws (beyond energy - such as national consumer laws).

To what extent are Nordic Processes the same across the Nordic market?			
	Average	Max	StdDev
Denmark and Sweden	33.33	70	24.08
Denmark and Finland	23.75	47	20.10
Denmark and Norway	30.00	30	0.00
Sweden and Norway	36.33	50	19.33
Sweden and Finland	49.00	66	20.65
Finland and Norway	27.50	40	16.39
Nordic Markets as a whole	27.67	60	14.99

Figure 1 – To what extent are Nordic processes the same across the Nordic market?

Note: this and the following table and the following table are based on a very small sample (3-7 - depending on the comparison - who responded to this question). Findings are indicative only of the opinions of those sampled and not intended to be quantitatively significant. For the sample explanation for the other graphs (typically 18) please refer to Section 2.2.

## 2.5. Process Cloning, Not Similarity

As one company put it, "we do not care which process is used, Swedish or Norwegian, we just want the processes to be the same, exactly the same".

*"The devil is in the detail. There is no way we will ever achieve similar enough processes to enable trans-Nordic systems unless one national system is transposed onto the others"* **Nordic Utility**

In order for suppliers to base their operations fully on one single system/process base, a high level of harmonization is required also on detailed level, far more than is expected under the current process of harmonization. Suppliers would strongly want them to be the same, but if they are not the same, then they should at least be very similar. The problem is that when market processes are not the same in each market, the systems used to support them are also different, or at least run separately. The forthcoming Nordic Balance Settlement system is an example of where harmonisation has been broadly successful. There is a strong desire from the suppliers for more of this degree of harmonization.

There is particular need for harmonisation in data exchange: the protocols, content and timeframes. As one company said: "our success depends on automating our systems, so that we can use the same in (one Nordic country) as (the other Nordic country). For this, the processes need to be exactly the same...communication is the biggest hurdle to competing in (the other Nordic country)".



**Figure 2 – To what extent are your company's systems the same across the Nordic market?**

Of course communications are not the only processes that need to be harmonised, all market processes do, as discussed extensively in this research report, but some are clearly more significant than others in terms of the costs that are caused by the lack of communication.

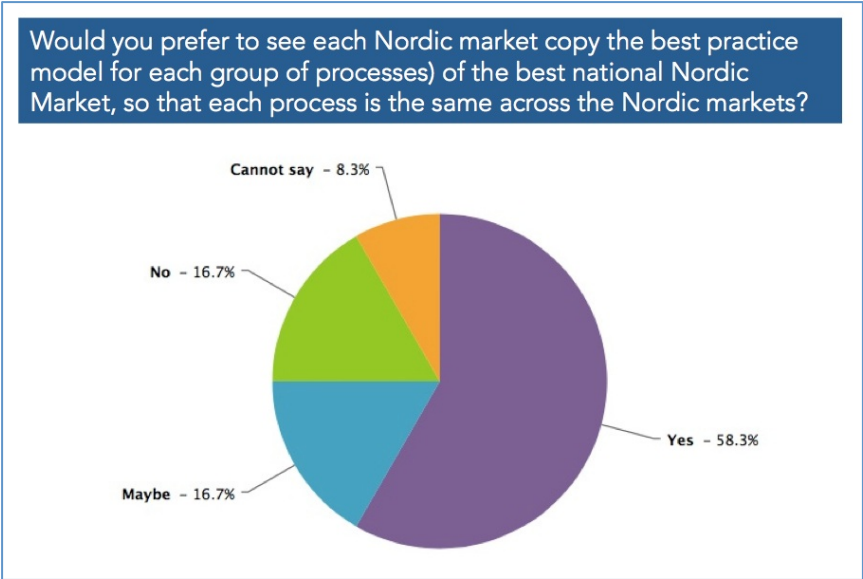


Figure 3 – Would you prefer to see each Nordic market copy the best practice model for each group of processes?

In order to achieve harmonization, extremely detailed mandated plans need to be developed. One supplier said "there will be significant differences in the detailed rules if the national implementation is based only on general frames." A Nordic market handbook would appear to be a good tool for the achievement of this.

If the market models and processes were the same, or at least similar enough, it would also enable the development of Nordic market-wide systems services to capitalise on those services, providing one stop shop systems for use in all market. This would make entry into multiple markets almost as simple as operating in one market. As one supplier put it "we want a Nordic market without borders".

*"A Nordic "Market handbook" (such as Marknadshandboken" in Sweden) is a good idea. The mind-set could be that the handbook would be a key tool for a player that is/plans to be active in several markets. Such a handbook would also bring forward the differences between the national routines and would also be a good tool for NordREG in their monitoring of the market and identification of Hurdles"*  
**Nordic Utility**

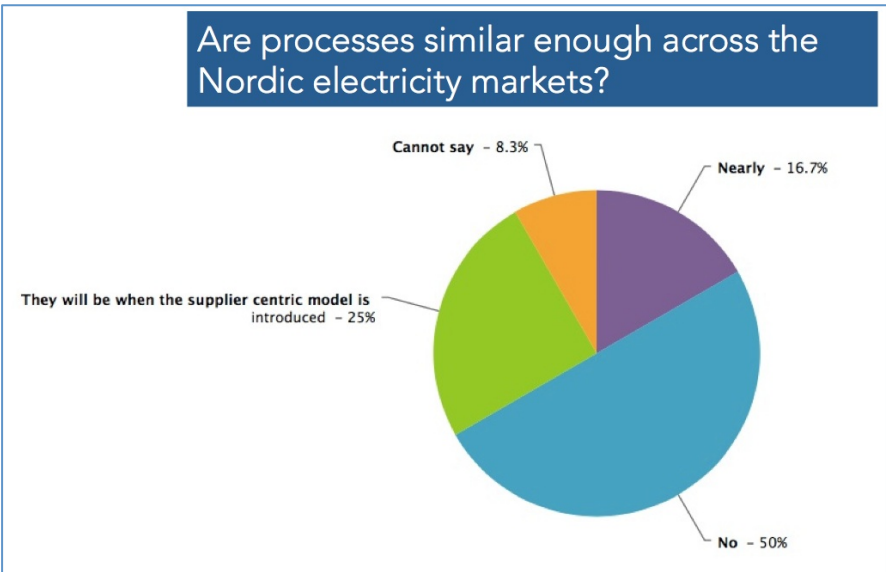


Figure 4 – Are processes similar enough across the Nordic electricity markets?

## 2.6. Easier Access to Customer Information

A major concern of new entrant suppliers tends to be the difficulty in obtaining the necessary information on a customer in order to initiate a switch. This can be due to poor data quality - for instance the information the new supplier obtains from the customer does not match out of date or inaccurate information the DSO has about the customer, and so the switch cannot be initiated - or it can (it is claimed) be due to a lack of cooperation of some (and it is only some) DSOs. In the case of Sweden, for instance, an initial concern is that the new supplier requires information from the existing supplier before a switch is initiated, and this provides the existing supplier with the opportunity to then contact the customer and pre-empt the switch from ever taking place. Data hubs, improved supervision of data quality and removing the opportunity for suppliers to be pre-warned are some of the suggested solutions to this.

## 2.7. Data Hub Imperative

There is almost universal support for central data hubs. Once again the general feeling from competitive players is that it does not matter which hub model is used, but the sooner it is introduced, the better. The data hub is seen as completely essential for simplifying the complexity of participant relationships in the market. No one transformation in the Nordic market is seen as having a bigger impact on the process of simplification of processes in the market. To support the benefits of data hubs, the supervision of data quality and associated penalties, and smart meters, are seen as important pre-requisites for the full benefits of data hubs to be realised.

Central Hub Timetable and Operator		
	Data Hub Ready	Operator
Denmark	Version 1: Operational Version 2: 1 October 2015	TSO
Finland	Hub Recommended <sup>18</sup>	Not Decided
Norway	1 October 2016.	TSO
Sweden	Hub recommended <sup>19</sup>	TSO <sup>20</sup>

Table 4 – Central hub timetable and operators in the Nordic market

## 2.8. Balancing Fragmentation

For a company that wants to be its own BRP in multiple Nordic markets, the process and costs of establishing a BRP and handling imbalance is considered very different in each market. It is suggested that balancing processes and costs (there is a need to harmonize the incentive to be in balance in the Nordics) should be more consistent and it would be much easier for inter Nordic competitors if they only needed one BRP agreement for the whole Nordic market.

## 2.9. Liquidity Issues in Wholesale

The liquidity in the financial market needs to be increased. Significant risk for competitors and a substantial proportion of the end-user price comes from financial price hedging.

<sup>18</sup> A central hub style solution has been proposed by the TSO. No date set.

<sup>19</sup> A central hub style solution has been proposed by the NRA, Ei. No date set.

<sup>20</sup> Proposed by Ei

## 2.10. Incumbency

It must be made absolutely clear. There are some excellent competitors among the incumbent suppliers in the Nordic market. Telge, Gudbrandsdal, Fortum, SEAS-NVE, Energi Midt, E.ON and Vattenfall are just a few of the many incumbent suppliers who have marketed aggressively or offered innovative or high quality services. This report in no way disrespects the achievements and commitment to competition of such incumbents and it is accepted that all kinds of suppliers need to exist in a market including the established ones that many customers appreciate and trust due to their locality, familiarity, or services.

However, after 11-18 years<sup>21</sup> of full liberalisation<sup>22</sup> of electricity markets in the Nordic region, incumbent suppliers - those that have not had to win most of their customers - still serve the majority of customers in their incumbent areas and still do not need to compete heavily in order to survive. This is not only true in energy markets, as some incumbents point out, but inactivity in one market is not a justification for inactivity in another. There are many types of incumbent suppliers ranging from highly active and innovative - some have grown massively through customer acquisition and or entry into other Nordic markets - to what could be termed relatively inactive and traditional Incumbent suppliers. But in general incumbent suppliers, especially those integrated with their local DSO business, are seen, by new entrants, as representing a barrier to the success of other players in the market. There is, perhaps unsurprisingly, complete disagreement from incumbent suppliers on this point.

It is argued that incumbent suppliers generally appear to have the most profitable customers - the ones that do not switch and the ones who have never changed to a more competitive contract - and they can use the income from their valuable customers to fund discounts for (only) the customers who might otherwise leave (price matching). The prices necessary for keeping customers do not even, it has been claimed, need to be as low as the prices necessary to win them, since it is easier (often preferable) for a customer to stay where they are than to leave. Incumbent and existing suppliers in Finland and Sweden are able to find out when brokers or winning suppliers are in the process of obtaining customer information essential for a switch - allowing them to approach that customer to give them a better offer - and it has been claimed that they sometimes even seem to know ahead of time during the switching process that a switch is taking place - allowing them to pre-empt the switch in some cases. They are often the first ones to know (it has been claimed) when a customer in their bundled DSO area moves home. Integrated bundled utilities furthermore have additional cost sharing opportunities.

New entrants' cost-to-serve may be higher (due to smaller economies of scale) or lower (due to efficient new processes and systems), but their customer lifetime value is typically far lower, their brand awareness needs to be grown from nothing, and they have to offer a better deal even to have the same customers. And this is even before the costs of entering the market and winning customers are taken into account. It is not easy competing against incumbents. Of course this is the case for any new entrant in any established market to some extent, but the situation appears relatively extreme in the energy market.

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<sup>21</sup> The Norwegian market was first in 1996, followed by Finland (1998), Sweden (1999) and Denmark (2003).

<sup>22</sup> The date at which all customers are allowed to choose their supplier without restriction (such as having to change meter or pay to switch supplier). Some restrictions on times when switching can take remained after the date of full liberalisation.

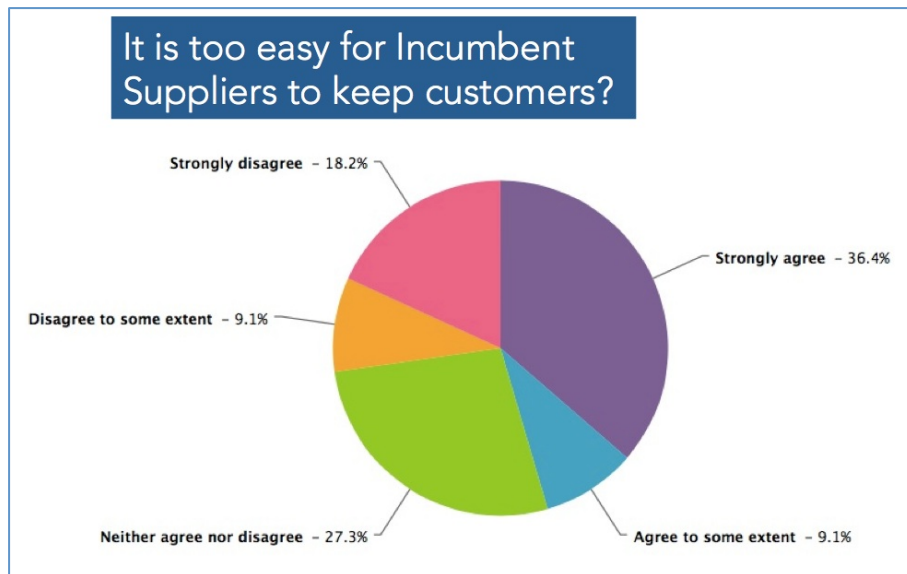


Figure 5 – Is it too easy for incumbent suppliers to keep customers?

Integrated incumbent suppliers also benefit from brand bundling - the combined awareness and familiarity generated by the supplier and a DSO having the same brand - the integrated supplier's brand is also partly paid for by the branding activities of the DSO and the years incumbent marketing that may have occurred prior to market liberalisation.

It is claimed by some incumbent suppliers that issues such as the need for brand awareness is a need for any new entrant in any market and therefore should not be considered an hurdle in the energy market. It is true that it is a hurdle in many markets, but the objective of this report is to identify the processes and hurdles regardless of whether they are specific to the energy market or the Nordics.

It is therefore arguably not sufficient in a competitive market if customers switch from one incumbent supplier to another. It is also argued that it is important that customer choose new entrants. Market share of new entrants can be said to therefore also be an important definition of successful competition. Unless incumbents lose market share, customers are just swapped between incumbents and they have, it has been claimed, not enough need to fear competition, to truly engage in it. Competition thus needs new entrants to take market share away from incumbent suppliers.

Incumbent power, including also remaining bundling of distribution and supply, and bundling of DSO and their bundled supplier brands should therefore be seen as a major and fundamental hurdle to competition that would need to be removed if a level competitive playing field is ever to exist. This is not to say that incumbent suppliers are a bad thing, but that the level playing field is still slanted too much in their favour.

## 2.11. Moving - an Opportunity for Change

When customers move property, it tends to be the competitive suppliers that lose out. It should be an opportunity for customers to exercise their choice. The moving process strongly appears to favour incumbents in the location that customers move to and active suppliers can lose large proportions of hard won customers simply because they moved home. Customers need to be more aware of their options before and after the move and incumbents should not be the default recipients of inactive customers.



## 2.12. New Blood For New Services

There is a lot of concern that DSOs are allowed to provide additional services, such as feedback, smart home and other services, either on their own or with their bundled supplier, that compete directly with the services of new entrants, unbundled suppliers or ESCOs. These activities are seen as spreading the costs of services across competitive and monopoly business and enabling the costs for suppliers' service development to be supported by benefits realised in the distribution business. The idea of spreading costs and benefits per se, is not the problem, but the possibility of it creating an un-level playing field in favour of integrated incumbents is a serious concern to those who would like to provide those same services. This concern extends also to commercial third party services that may have privileged deals with DSOs and to DSOs having a clearer view of smart meter and other DSO infrastructure timetables and roadmaps - and therefore being better able to plan smart service strategies than non-partner suppliers or other third party service providers.

It is therefore suggested that DSOs should play the role of impartial facilitators of smart services, albeit fairly incentivised for their part in the process.

## 2.13. Fair Representation

Competitive suppliers want truly competitive companies and offerings to show through. There is concern therefore that price comparison websites often seem to favour standard tariffs over innovative ones and expensive suppliers with some very cheap short-term prices for a few of their customers over suppliers that always have good prices for most or all of their customers. Price comparison sites, it is felt, should be more reflective of the true nature of the suppliers and their offerings, so that a quality new entrant or competitive incumbent, is not outshone by a single hard-to-find tariff or a fly by night supplier.

## 2.14. Customer Apathy

There is no avoiding the fact that electricity is not the most interesting product or service in the world. New entrant suppliers and ESCOs alike are faced with the challenge of overcoming customer disinterest and inertia. The easiest course of action for a customer is inactivity. Customers do not think about switching supplier, even when they are paying more than they need to or moving home when they have to choose a supplier (or receive an high default tariff). With this in mind, there have been calls for more to be done to educate the customer, both through awareness campaigns (about choice and energy efficiency) and through obligations for DSOs and even incumbent suppliers to inform moving customers of the opportunity to switch supplier.

## 2.15. Scale

For suppliers and other new entrants from outside the Nordic region, especially larger players, each of the Nordic market can appear too small to be attractive markets. Suppliers with intentions of buying often view about 100 000 customers as a minimum if they are to take over those companies and integrate their customers, a number that is not easy to achieve in a small market. The number is less (e.g. 40.000) if they are just buying the supplier as-is in order to enter a market and are not integrating that supplier or its customers. By making the market larger through allowing new entrants to treat the Nordic market as one rather than four separate markets, the potential for new entrants will increase substantially, including larger new entrants that will have the ability to challenge the larger players in the market. For this to happen, the other hurdles mentioned in this research will however, need to also be removed as far as possible.

## 2.16. Change or Fade Away

For ESCOs, the market is evolving extremely slowly. The market incentives for energy efficiency or capacity aggregation (the collection of consumers and sale of their controllable demand capacity/flexibility to TSOs, ancillary markets or others who may pay for it) for example are rarely enough to support anything but a very niche business model and so they tend to provide their services to suppliers or other participants in the market - such as TSOs or DSOs). The issue is that DSOs and suppliers tend to be slow in their own developments in this field and pass on much of their functionality to BRPs who appear to have little interest in the new business models that support ESCOs. There are exceptions, but ESCOs feel that in the absence of a market with data hubs and incentives and mechanisms for energy efficiency, capacity aggregation and other business model activities, they are at the mercy of the energy industry. The situation is made more challenging by their need to acquire a BRP or be their own BRP if they want to engage in services that influence consumption or capacity on a significant scale. Ultimately, these mostly small players do not have the financial resources to survive long without the necessary growth in the market that they are hoping for. If the market does not evolve quicker, many ESCOs will disappear.

## 2.17. A New Way of Making Decisions

There is a lot of respect for NordREG and its position as purveyor of Nordic market development is approved by the market players. There is a concern though that there is no Nordic decision making body and that some of the Nordic regulators need more teeth to prevent procrastination by the industry. There are clear calls for NordReg to take ownership and form "a Nordic 'secretariat' instead of a circulating responsibility". The issue here is that decisions are currently seen as being made based on short-term national rather than Nordic interests which will ultimately benefit the whole Nordic market. As stated by one player "NordREG has the best combination of mandate, incentives, knowledge and working structures/resources".

*"What should not set frames for the development is the protection of inherited/old positions and/or specific groups of players, cementing old structures and maintaining entry Hurdles"*

**Nordic Utility**

The market has many players and is very scattered with very different views that can never be harmonised, preventing any real agreement on many issues. There is also concern that the industry associations, representing mainly incumbent utility company interests, have too much say in the market while having insufficient incentives to promote a common Nordic retail market. Independent (non-incumbent) companies appear to have the incentive and will, but only a small voice.

The demands of the active players, contributing to a competitive market (not only new entrants), should perhaps be prioritized. In most cases it is the active players that bring forward the market development needs. This is often a consequence of higher switching, invoicing and customer service volumes compared to players that do not actively seek growth. The different "strategies" can also be recognized in the attitudes towards market development initiatives.

In the interest of driving greater harmonisation and a greater role of those who stand to participate actively in competition, there is therefore significant support for an approach whereby for each group of related processes, a panel of experts - chosen to represent a broad spread of stakeholders, including equal numbers from each Nordic market, - guided by NordREG, would aim to negotiate a preferred National process (be it a present system or one that is proposed) that is considered the best in the Nordics. That process would then, where possible, be applied to all the other Nordic markets following work by the panel to fit the processes to national (non-energy market specific) laws. This process would result in processes that are both demographic and best in class, chosen by experts with an incentive to develop the market in a way that progresses competition for the benefit of active competitors and consumers alike.

## 2.18. Harmonizing with Europe

It is not only in the Nordics that harmonisation needs to take place. If the Nordic markets were more similar to other European markets (or vice versa), it would be easier for international companies to enter the Nordic market. This is not under the control or mandate of NordREG or the Nordic markets in any way, but if the Nordic market were to develop quickly and effectively enough, it could perhaps be used as an example for other European markets to follow, as NordPool has been used as an example to others.

## 2.19. Summary of Hurdles

No.	Description of Hurdle	Importance
Market Entry Processes		
	Information gathering	
1	Obtaining pre-market entry information	2
2	Size of individual markets is seen as too small for larger entrants	3
	Licences, Registrations and Contracts	
3	Too cumbersome to establish relations with DSOs	2
	Establishing Financial Capability	
4	High risk, low margin business. Substantial capital required	2
5	Tax obligations on non-realised sales revenue is off-putting	2
	Establishing Balancing Capability	
6	Separate BRP agreements in each Nordic market for own BRP suppliers	3
7	Insufficient choice of independent BRPs	1
8	Suppliers losing demand side skills base to BRPs	1
9	BRPs as possible obstacle to demand side innovation	1
10	Denmark not part of Nordic Balance Settlement (NBS) system (disputed hurdle)	1
11	Capacity aggregators / other ESCOs need to become BRPs for some services	2
12	Different balancing services in each Nordic market. No mass market for ESCOs	2
	Establishing Access to Wholesale	
	No hurdles identified	
	Establishing Systems	
13	Need to have different IT systems in each Nordic market	3
	Adapting to local Languages and Cultures	
14	Adapting to local language	2
15	Adapting to local culture	1
	Market Entry for ESCOs	
16	Market for ESCO services immature, moves slowly / protectionism	3
17	Insufficient customer and stakeholder awareness	2
18	DSOs restricted from partnering with ESCOs for customer facing offerings	1
19	Supplier ownership of generation reduces interest in demand side services	1
	Market Entry for B to B Suppliers	
20	Need for multiple accounts at banks, for balance settlement, at NordPool, etc.	1
	Market Entry Through Acquisition	
21	Size, price expectation and other undesirable prospect characteristics	2
Market Operation Processes		
	Financing and Risk	
22	Entrants have higher proportion of customers with payment reliability issues	2
	Balancing	
23	Balancing processes and costs not consistent (NBS may solve except for DK)	3
24	Balancing is a cost-concern for ESCOs who need to provide balancing services	2
	Wholesale	
25	Risk from hedging (case for all competitors) - increases with size	3

26	Bidding area price differences	2
	DSO Related Operations	
27	Absence of supplier centric approach	3
28	Absence of near-identical processes between Nordic markets	3
29	Data quality issues (poor or late data)	3
30	Difficulty identifying when a customer's contract will end (not Norway)	3
31	Customer information required to initiate switch is often difficult to obtain	3
32	Process of attaining customer information reveals intentions of competitors	3
33	Some DSOs may forewarn their associate suppliers of imminent switch	3
	Contracts with Customers	
	No hurdles identified	
	Sales and Marketing	
34	Customer unawareness, apathy and inactivity	3
35	Current APIs for meter data are not considered sufficient for ESCO use	3
36	Absence of easy access to near real-time consumption data	3
37	Cost and difficulty of brand and offering awareness	3
38	Brand bundling (DSO, Supplier)	3
39	Price comparison sites that allow price manipulation	2
40	Price comparison sites that do not compare all the competitors	2
41	Price comparison sites that do not assist the switching process	2
42	Lack of auctioning / Poor auctioning (poor image of auctioning)	2
43	Threat to telesales	2
44	Entrant image harm resulting from misselling	2
45	Limited savings potential in face of price matching	3
	Customer Switching Process	
46	Fixed-term contracts (disputed by active incumbents)	2
47	Price matching (incumbent offers only to customers who plan to switch away)	2
48	Process obstruction from some DSOs	2
49	Lack of combined billing or combined billing only by bundled incumbents	3
	Customer Moving Process	
50	Moving home favours incumbents	3
	Pricing	
51	Inhibition of legality or visibility of innovative tariffs	3
52	Price transparency of energy component	1
	Systems Management	
53	Cost and difficulty of scaling up systems	2
54	Different data formats in each Nordic market	3
55	Bill format differences in each Nordic market	2
56	Billing process variation between different DSOs	2
	Customer Lifetime Value	
57	Inferior customer lifetime value for entrant suppliers	3
58	Easier to keep customers than to win them / Incumbent Margins Transfer	3
	Inter-Market Synergies	
59	(Current) absence of smart meters in Denmark and Norway	3
	Impact of Bundling	
60	Bundled DSO-Supplier consumption feedback services vs. ESCO services	2

Table 5 – Summary of hurdles

### 3. Market Entry Process

#### Mapping the Process

Throughout this report the key processes associated with or impacting on market entry and operation are mapped out. These processes are not intended to be detailed descriptions of every market process. Detailed maps of key market processes exist already. Rather these maps are intended to show how market entry and operation looks from the perspective of new entrants. They show the key elements, steps and issues that are prominent and relevant to new entrants. They show what new entrants go through when trying to enter and then trying to remain and grow in the market. These processes provide the focus and context for the consideration of relevant hurdles and Ideas for Change.

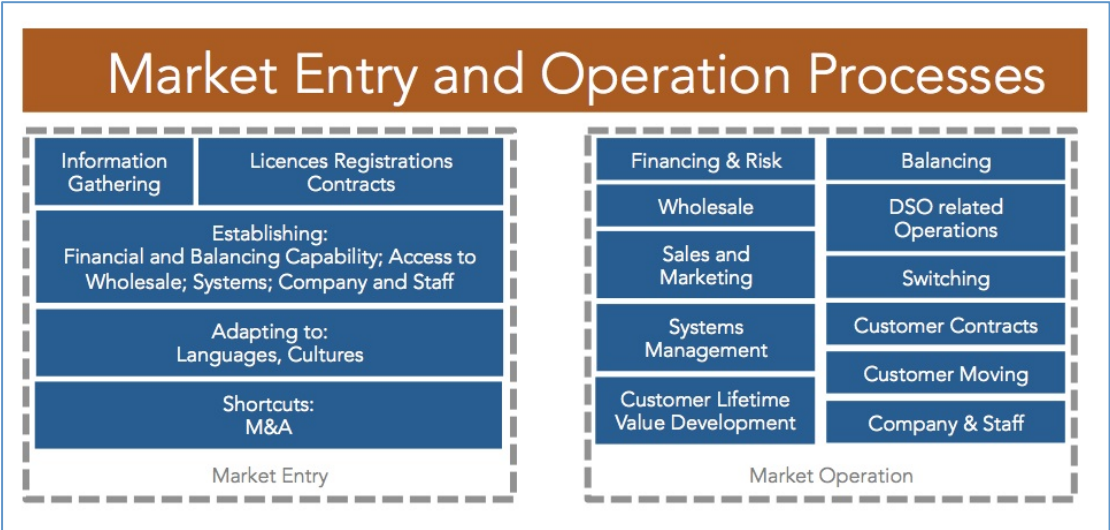


Figure 6 - Market entry and operation processes

### 3.1. Information Gathering

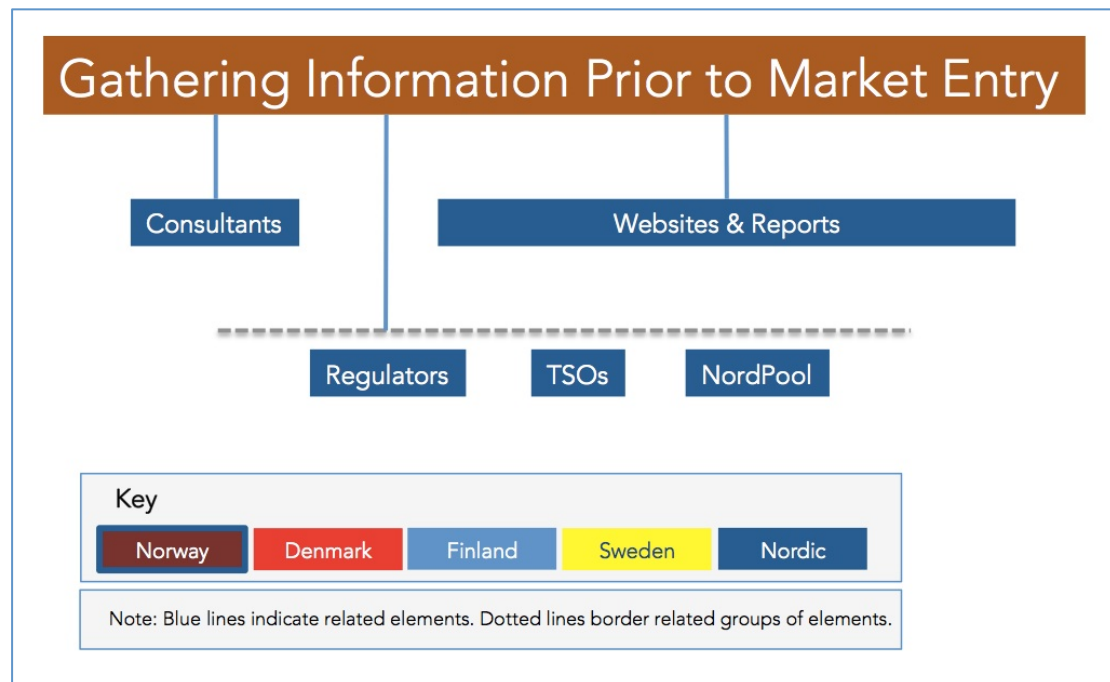
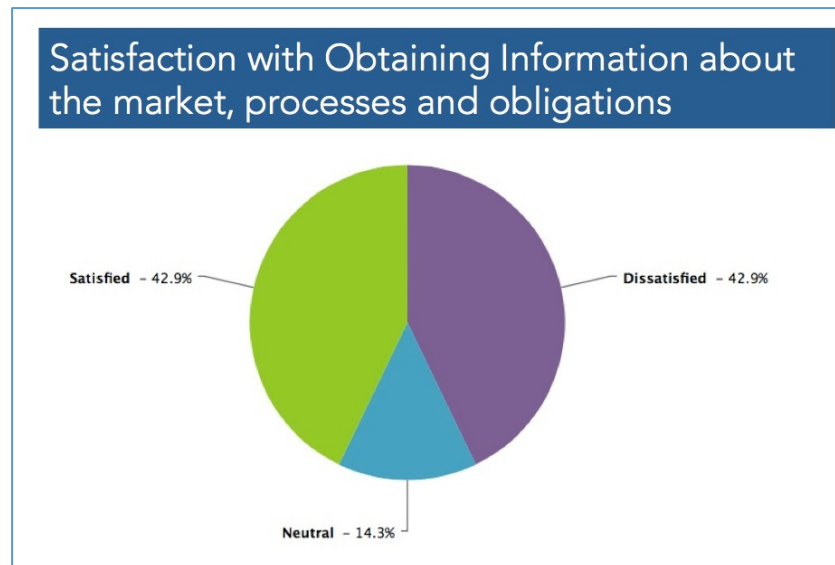


Figure 7 - Gathering information prior to market entry

In all of the Nordic markets, new entrants (less so in the case of incumbents moving from one Nordic market to another) often find it difficult to find out what they need to know about the market before entering. The general route to information is through consultants, but consultants generally do not know the whole picture since they are typically specialised. They are likely to be expert at certain aspects of the energy process, and can find out what else needs to be done but they have no experience of actually entering the market as a new entrant. It is therefore a learning process for the consultant and client and many entry procedures will only be revealed as the entry process progresses. It does not appear to be a Hurdle to market entry, the information is found eventually and new entrants expect such a process in any market they will enter, but there can be a significant cost attributed to consulting fees and the new entrant's time.

Regulators are rarely approached for more information by new entrants. If they are it is just for ad hoc questions such as supplier obligations, consumer rights, bill content and other technicalities. Regulators generally pass on the new entrants to regulator and other official reports (which address only specific legal<sup>23</sup> and technical issues and are mostly in the local market's language) or websites and rarely provide a layman's overview. They may also advise new entrants to contact (or visit the websites of) TSOs, NordPool Spot and find a consultant and balance responsible party (unless they want to be their own balance responsible party). It has been suggested however, that regulators are in a strategically advantageous position to provide overview information to new entrants about the overall entry process. Such an overview would reveal how relatively simple it is, technically, to enter the Nordic market. It would act as an enticement to new entrants considering entering the market. It would also make the process of entering the market quicker, simpler and cheaper and provide a more level playing field for smaller and larger new entrants (those who are more and less able to afford consultancy support). Highly detailed questions could still be passed on to consultants, but the more publicly specified the process, the easier that it will be for a new entrant to decide on and enter the market without confusion.

<sup>23</sup> e.g. in Finland: Finlex.fi is a source of legal information.



**Figure 8 - Satisfaction with obtaining information about the market, processes and obligations**

Concerning TSO and NordPool Spot related processes however, the information is already easily available online. The websites of the TSOs and NordPool Spot are in fact excellent. They provide clear, comprehensive and up-to-date information in the local language and in English and one does not have to be an energy expert to understand them. In this respect some of the key processes relating to market entry are already simple to find information about.

**Hurdle to Entry (No.1): Importance: 2 (1 = least important, 3 = most important)**

Pre-market entry information about how to enter and operate in the market is not as available to new entrants as new entrants would want. Basic information prior to the decision to enter and in the early stages of planning should be more readily available without the need to employ consultants.

**Idea for Change:**

Each of the Nordic regulators should produce an online high-level fact sheet detailing the various steps that a new entrant needs to go through to enter and operate in the market. The fact sheet should link each of the steps to more detailed supporting explanations and for more specialist information it should link to additional reports, other websites and even an open list of companies that could provide additional assistance. These fact sheets should link seamlessly to the websites of the TSOs and NordPool Spot.

For larger potential new entrants from outside the Nordic region or even from outside the industry, the individual Nordic markets can seem too small. For potential supplier coming from outside the whole energy industry itself, the energy market (not just the Nordic market) can also appear high risk, low-margin (typically less than they are used to in their own markets), complex, political, unpredictable, fraught with obligations and altogether too much effort for the estimated benefits. A combined market appears more appealing. The only solution to this, in reality, is the harmonisation of the market to create (effectively) a larger market.

**Hurdle to Entry (No.2): Importance: 3**

Individual Nordic markets are often seen as too small and unattractive to large non Nordic players and those from other industries.

**Ideas for Change:**

Continued Nordic market harmonisation.



### 3.2. Licences, Registrations and Contracts

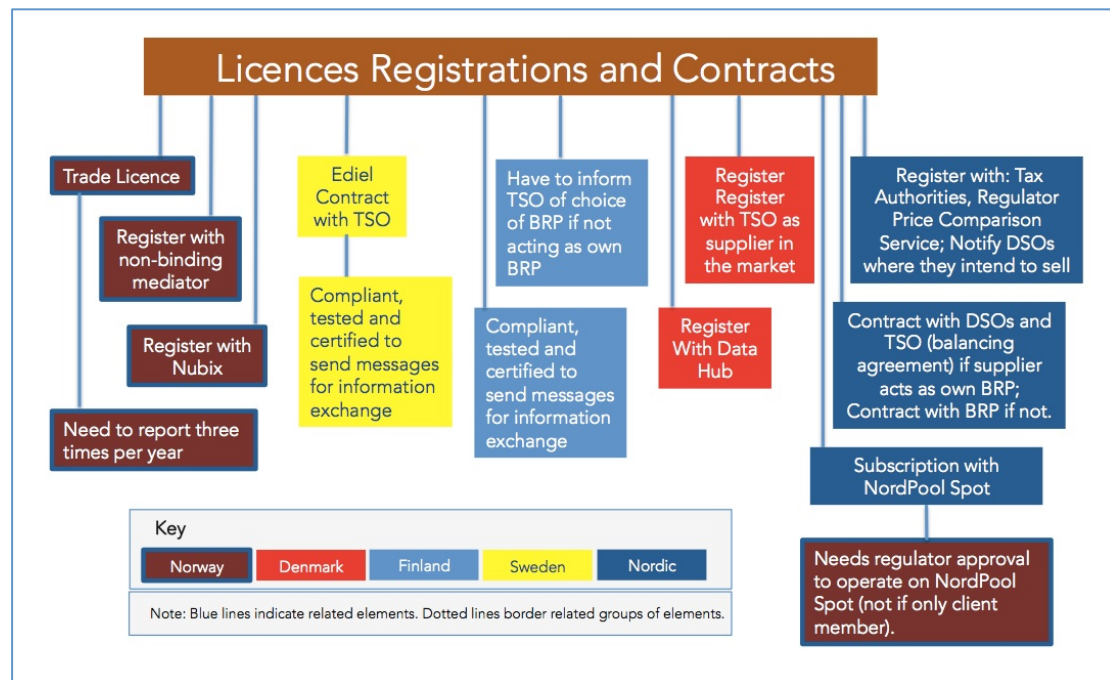


Figure 9 – Licences, registrations and contracts

Supplier Licences, Registrations and Notifications							
	Licence Required	Registration or Notifications with					
		Central Price Comparison Service	DSO (Notify) <sup>24</sup>	TSO	Information Exchange System	Business / Consumer Organization	Tax Authority
Denmark	No	Coming <sup>25</sup>	Yes	Yes <sup>26</sup>	Yes <sup>27</sup>	No	Yes
Finland	No	Yes <sup>28</sup>	Yes	Yes <sup>29</sup>	No <sup>30</sup>	No	Yes
Norway	Yes <sup>31</sup>	Yes <sup>32</sup>	Yes	Yes <sup>33</sup>	Yes <sup>34</sup>	Yes <sup>35</sup>	Yes
Sweden	No <sup>36</sup>	Yes <sup>37</sup>	Yes	Yes	No <sup>38</sup>	No	Yes

Table 6 - Supplier licences, registrations and notifications

<sup>24</sup> In areas where they sell energy

<sup>25</sup> A regulator run service will be available in October 2015 that will be compulsory for at least selected tariff types (the details of the obligation have not yet been decided). Currently a mandatory service is supplied by Danish Energy Association.

<sup>26</sup> Registration as a supplier in the market

<sup>27</sup> With the Data hub.

<sup>28</sup> Suppliers have to register with a web service where they have to inform of all tariffs generally offered to household or small customers (excluding negotiated, membership or campaign offers etc.).

<sup>29</sup> New entrants have to inform the TSO of their choice of Balancing Responsible Party (BRP) if they are not acting as their own BRP.

<sup>30</sup> But has to be compliant and tested to send messages.

<sup>31</sup> With Regulator

<sup>32</sup> For selected tariff types. New service being planned to include all tariffs.

<sup>33</sup> See section on Balancing.

<sup>34</sup> NUBIX (Norwegian Utilities Business Information Exchange). See section on Operational Connections with DSOs

<sup>35</sup> Bransjenemnd Elklagenemnda (non binding mediator in the case of conflicts).

<sup>36</sup> No official registration, but all actors have to have an EDIEL-contract with SvK. The ID-number you get to act in the market is the key to communicate between DSO and suppliers.

<sup>37</sup> Reporting tool for 13 key tariff types and also for renewable tariffs that relate to any of those same 13 tariff types.

<sup>38</sup> But has to be compliant and tested to send messages



In Denmark, Finland and Sweden suppliers do not need to have a licence to enter the market. This is a major advantage of the market entry and operation process in the Nordic markets compared to markets such as Great Britain where the licence agreement is extremely detailed and burdening. In Norway, a very simple trade licence from the regulator is required to enter and operate in the energy market. A pre-requisite is that the supplier needs to be registered as a Norwegian business or registered as a foreign company in Norway with a Norwegian business number. The company then needs to complete an application essentially explaining what the business does, and show that it has its own employees, has security for Statnett (Norwegian TSO) at least through a BRP and conforms to a number of other minor requirements. New businesses need to report three times per year and the licence can be taken away and businesses have to apply for a new licence every three years. In practice, though the licencing is a very quick and easy process for suppliers. The licencing process is likely to change a little if hubs are introduced, especially to provide security for DSOs and TSOs.

Suppliers in all Nordic markets do though need to register and make contacts for certain processes through and with certain stakeholders.

Only in Norway is a licence required, but in other markets suppliers need to send selected tariffs to the central price comparison service; need to notify and contract<sup>39</sup> with DSOs for all network areas where they plan to sell energy; need to be in contact with the TSO; need to comply with the information exchange system and have to register with the tax authority. In Norway, suppliers need to additionally register with the Bransjenemnd Elklagenemnda a non-binding mediator in cases of any future conflicts.

Suppliers must also make contracts directly with DSOs where they intend to do their own BRP activities (in Norway this is all suppliers, in other markets it is the exception), or otherwise they must make a contract with a BRP.

Supplier Contracts or Subscriptions				
	Contract with	Contract with (if operating as own BRP)		Subscription with
	BRP <sup>40</sup>	TSO <sup>41</sup>	DSO <sup>42</sup>	NordPool Spot
Denmark	Yes	Yes	Yes	Yes
Finland	Yes	Yes	Yes	Yes
Norway	Yes	Yes	Yes	Yes <sup>43</sup>
Sweden	Yes	Yes	Yes	Yes

Table 7 - Supplier contracts or subscriptions

In all markets, suppliers have subscriptions with NordPool Spot.

<sup>39</sup> In Sweden contracts are standardised (need to be approved by the regulator) and simple and only need to be made once, but present a large number of contracts to be made by suppliers in the market.

<sup>40</sup> If the supplier is not its own BRP

<sup>41</sup> If supplier does not have a BRP and is therefore acting as its own BRP.

<sup>42</sup> If supplier does not have a BRP and is therefore acting as its own BRP

<sup>43</sup> Needs regulator approval to operate on NordPool Spot (not if only client member).

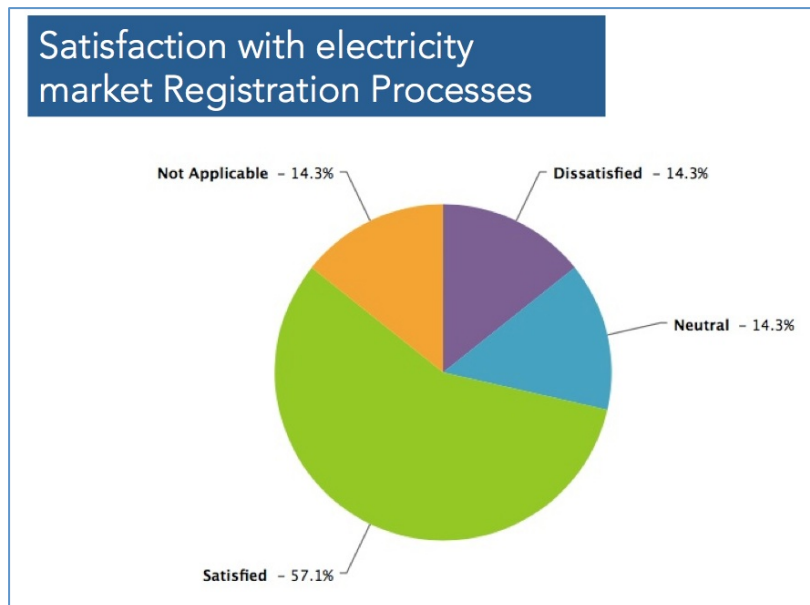


Figure 10 - Satisfaction with electricity market registration processes

There is some dissatisfaction with the market registration process, mainly relating to speed, but no major concerns. Satisfaction with the process of establishing relations with DSOs is clearly a significant area of concern.

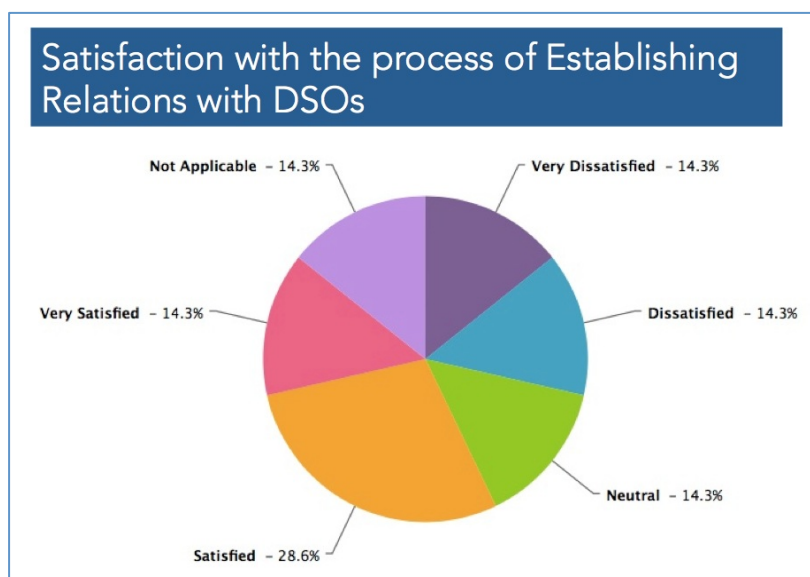


Figure 11 - Satisfaction with the process of establishing relations with DSOs

ESCOs, if not acting in a supplier capacity need to ensure that the BRP function is obtained if they are acting in a manner that significantly affects the network balance.

#### **Hurdle to Entry (No.3): Importance: 2**

It is considered too cumbersome (too many points of contact and process too slow) to establish relations with DSOs.

**Idea for Change:**

Correct implementation of the data hub or centralisation of the DSO contract and contact process and could overcome this issue.

### 3.3. Establishing Financial Capability

Cash flow is a major challenge facing any new entrant supplier, especially smaller ones. Energy needs to be purchased by the supplier before it is paid for by the customer and if the customer pays late or does not pay at all, then supplier needs to fund the cash flow or funding shortfall. Of course cash flow is a challenge faced by most energy companies (not just small new entrants) and indeed most businesses, but it is an especially major issue for a start-up or new entrant with limited capital reserves and limited financing support in a market where margins are extremely small (for customers who have switched), customers expect to pay only once per quarter, and where many customers who are switching are switching purely because of price (they are more likely than other customers to have affordability and therefore payment issues). Under a more supplier centric or wholesale approach, with combined billing, suppliers would need additional cash flow since they have the obligation to collect distribution charges on behalf of DSOs<sup>44</sup> and are expected to pay taxes for customers who have not paid. This situation is though no different to any other retail market where suppliers have to pay for goods or services even if they are not purchased or paid for.

A partial solution to this challenge would be for new entrants to obtain bridging support from banks, but this is extremely difficult, especially for small new entrants to obtain. Small new entrants therefore have to grow and tread carefully, their growth limited by their cash flow and cash reserves unless they manage to obtain bank support.

**Hurdles to Entry (No.4-5): Importance: 2;2**

- The energy supply business is considered a relatively high risk business for a new start-up or an existing small supplier entering a new market, especially given that margins are typically very small. Suppliers who cannot secure sufficient funding or do not have sufficient capital reserves may either not be able to enter the market, may decide the opportunity is too risky, or may simply have to grow very slowly to manage their cash flow and their risks.
- The expectation by tax authorities to receive taxes for energy that customers have not paid is not considered fair and presents a significant additional risk for suppliers.

**Ideas for Change:**

- Voluntary (not regulated) monthly (or even twice per month) billing, as shown for example in Australia can be an extremely popular offering for customers and provides a cash flow improvement for suppliers. Monthly or more frequent billing should be encouraged.
- If governments want competition in energy markets they may have to incur some tax revenue related risk. The obligation for suppliers to pay tax on energy they have not been paid for is arguably placing excessive risks of competition in the hands of suppliers.

### 3.4. Establishing Balancing Capabilities

A new entrant supplier needs to handle its balancing obligations with the TSO. Balancing is seen as a relatively simple part of the market entry and operation process by companies that do not do it themselves, since most new entrant suppliers choose to handle balancing requirements through making an agreement with a Balance Responsible Party (BRP) that takes care of all balancing duties. For new

<sup>44</sup> In Sweden the supplier has 45 days to find the money to pay the DSO.

entrant suppliers this is essentially no more complicated than making a subcontracting agreement with a single BRP and reporting to their BRP data from their bilateral trades and relevant measurements. The information the supplier needs to provide to the supplier depends on the contractual terms between the BRP and the supplier. Some contracts presume that the supplier delivers a forecast of consumption to the BRP (aggregated consumption and per larger user). There are no regulated or stipulated conditions concerning the relationship or processes between a supplier and a BRP.

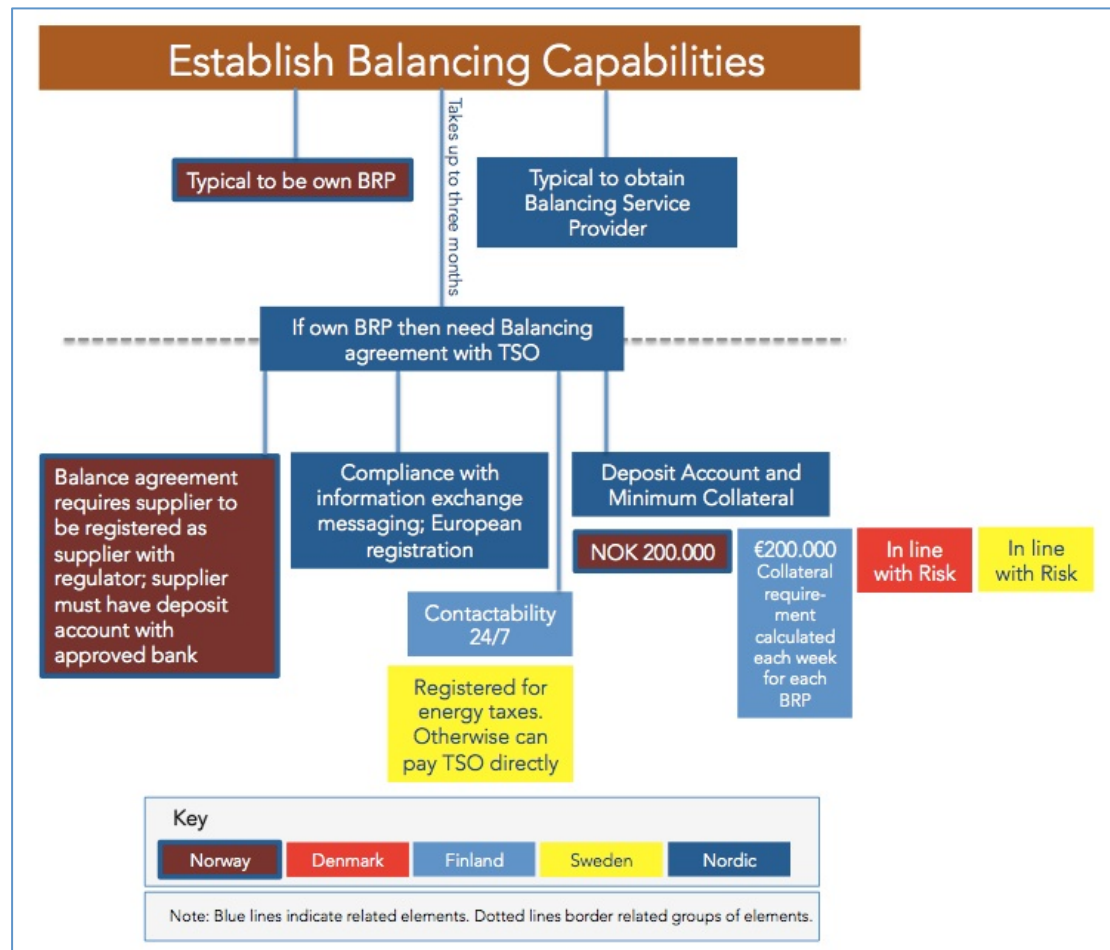


Figure 12 – Establishing balancing capabilities

#### Issues.

- Currently a supplier that does not want to be its own BRP needs a separate BRP and agreement for each Nordic market. It is possible to obtain a BRP company that has operations in more than one Nordic market, but balancing operations take place separately in each market. This is not considered a major issue of concern by new entrant suppliers who are not their own BRP, but it is an additional complication and it can be a significant issue for those suppliers that is its own BRP. The differences between the balancing prices is now small between Norway, Sweden and Finland however, due to the new Nordic Balance Settlement system and suppliers generally feel that balancing is the most integrated of the Nordic supply market processes.
- There is some concern among some new entrant suppliers that there is insufficient choice and competition in the BRP market. Most BRP are owned by incumbent utilities companies and as such are not considered appropriate partners by new entrant suppliers. The remaining BRPs are few and while new entrant suppliers are not unhappy with their BRP's some are concerned that increasing concentration in the BRP market could cause them difficulties in the future. One new entrant for instance stated that although they are happy with their BRP, they do not know

what they would do if their BRP was no longer available to them since they do not feel there are any other suitable BRPs in the market for their specific requirements.

- There is some concern that BRPs are, by their nature, opposed to capacity aggregation and ESCO services that impact on their balancing responsibilities. Such services, it has been argued, are against the interests of BRPs, which earn their revenue from balancing services for suppliers that would be both complicated and pre-empted by capacity management services. Since aggregators require BRP services to operate, since aggregators typically have insufficient funds to enable them to be their own BRP's, and since incumbent suppliers in the Nordic region typically subcontract out their balancing expertise (and arguably therefore their ability to innovate alternatives to current balancing solutions), this would appear to be a potentially significant hurdle to the development of aggregation and capacity impacting ESCO services in the Nordic market.

#### **Hurdles to Entry (No.6-9): Importance: 3;1;1;1**

- It is undesirable (especially for suppliers that are their own BRP) that suppliers need to have separate BRP agreements in each Nordic market.
- BRP costs are arguably at risk from a lack of choice and competition (re. independent BRPs).
- Suppliers may be losing too much demand side skills base to BRPs
- BRPs may be obstacle to demand side innovation.

#### **Ideas for Change:**

- Single BRP agreements across Nordic markets
- More competition should be stimulated in the BRP market
- Suppliers should be encouraged to maintain sufficient expertise in BRP and demand side issues.
- BRP role in innovation should be investigated further.

### **Common Nordic Balance Settlement system (NBS)**

Under the Nordic Balance Settlement system (NBS), to be commenced at the end of 2015 in Finland, Norway and Sweden (not Denmark), suppliers will have just one balancing system and be able to have just one balancing party (BRP) and thus one contract across the three markets. This may make the process of establishing balancing easier for suppliers operating across the three markets who can secure fewer BRPs to deal with and possibly even lower BRP costs.

#### **Hurdle to Entry (No.10): Importance: 1**

Denmark is not part of the Nordic Balancing Settlement system. It makes the Danish market less attractive than the other markets in this respect according to some respondents, although some argue that Denmark does not need to be part of the NBS if there is a Nordic hub, that it would be sufficient to have the same targets relating to the solutions for balancing, the same feel across the four markets.

#### **Ideas for Change:**

It is recommended that Denmark join the NBS or then create the same targets relating to the solutions for balancing, and the same look and feel across the four markets.

### **Establishing as an Own BRP**

If a supplier wants to be its own BRP, the challenge is considered greater and improvements are requested by such suppliers. It is considered too complicated and risky by almost all new entrant

suppliers (most large or incumbent suppliers are BRPs), except in Norway where most become one<sup>45</sup>. To be a BRP, a supplier needs to apply for a balancing (BRP) agreement with the TSO.

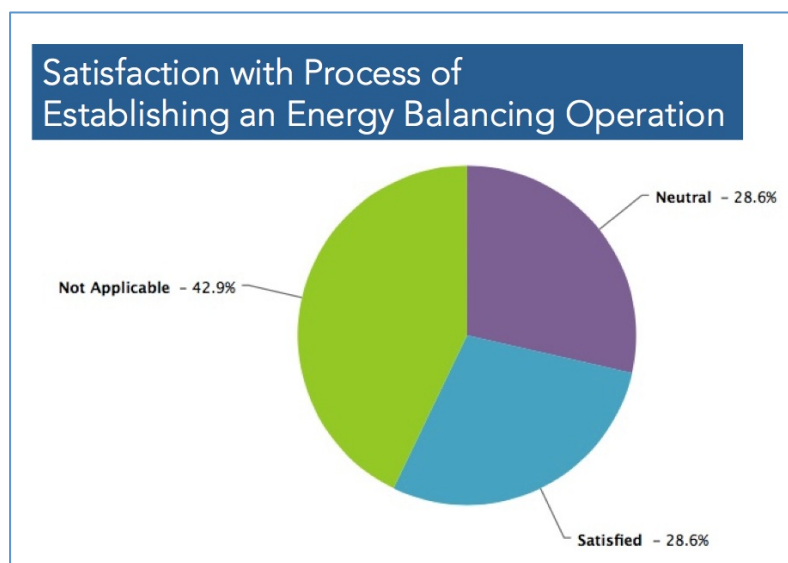


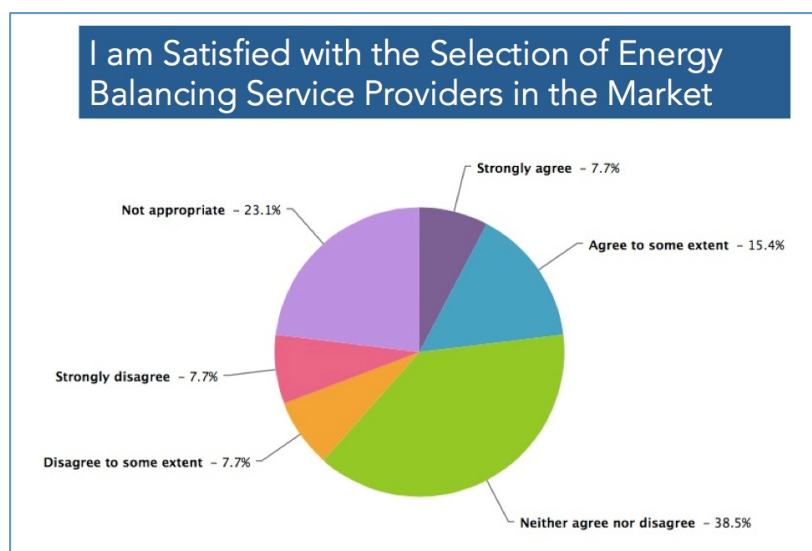
Figure 13 - Satisfaction with process of establishing an energy balancing operation

### Balancing Agreements

The balancing agreement is generally only cancelled on grounds of financial shortcomings such as non-payment or bankruptcy, but may also take place on grounds of poor balancing service delivery. The requirements for this agreement are not excessive but are clearly too great for many small new entrants. In particular, the guarantees are typically too much for a new entrant to handle: in line with risk are fixed fees and variable amounts according to the level of imbalancing, amounting to hundreds of thousands of euros for a typical new entrant<sup>46</sup>. These costs though are only a hurdle to those entrants commencing self-balancing, not a hurdle to entry into the market as a whole, since the new entrant can acquire the services of a BRP instead. The process itself in each market is considered fine except for the length of time that they can take to complete. In Sweden for instance, it can take up to approximately three months. Not a major problem, in the scale of things (setting up an entrant takes more than three months), but bothersome to some.

<sup>45</sup> There are approximately 145 BRPs in Norway, although most do not perform daily tasks, they find a company to do it for them. Some BRPs in Norway do not even know that they are BRPs because of this. There are approximately 30 BRPs in Sweden, 40 in Finland and 12 in Denmark.

<sup>46</sup> eg. Denmark: <http://energinet.dk/EN/El/Engrosmarked/Tariffer-og-priser/Sider/Balancegebyr.aspx>



**Figure 14 –Satisfaction with the selection of energy balancing service providers in the market**

The major concern with the balancing agreements is that they are very different in each of the markets. There is therefore a call from such suppliers for a single BRP agreement for the whole Nordic Market.

### Balancing Agreement Costs

The costs for acting as a BRP vary but are not considered excessive. In Finland for instance the costs charged by the TSO to a supplier or ESCO acting as a BRP are approximately €200 per month plus reserve fees. In the other markets the costs are also considered modest<sup>47</sup>. In any case the costs are not a substantial concern for new entrants.

### Capacity Aggregators

It has been stated by several respondents that for capacity aggregation companies and other ESCOs that essentially need to become BRPs (for instance in Norway) to perform certain services, it is unrealistic for them to enter the market unless they are sufficiently large or can afford to obtain a BRP. Since they are typically very small companies, it is therefore difficult for them to enter the market. This is complicated further if there are different processes for establishing BRPs in each market and if suppliers need to have separate BRP agreements in each Nordic market as referred to above.

#### **Hurdles to Entry (No.11-12): Importance: 2;2**

- Capacity aggregators and other ESCOs need to become BRPs to perform some services. This is too difficult for most small new entrant aggregators and ESCOs. It is unclear what the solution to this issue might be.
- There is a need for different balancing services in each Nordic market. It can therefore be challenging for capacity aggregation companies and other ESCOs to apply services across multiple Nordic markets. It may therefore not be logical to enter all Nordic markets.

<sup>47</sup> For instance in Sweden it is 4,5 SEK/MWh on consumption balance power; 1,4 SEK/MWh on metered production; 2,8 SEK/MWh on metered consumption. Fixed fee 1850 SEK/month. The cost for the balance power on production resp. consumption.

**Ideas for Change**

- Clarification of roles and responsibilities of aggregators, ESCOs and the other stakeholders in the balancing process
- A single Nordic BRP establishment process and agreement should be targeted.

### 3.5. Establishing Access to Wholesale

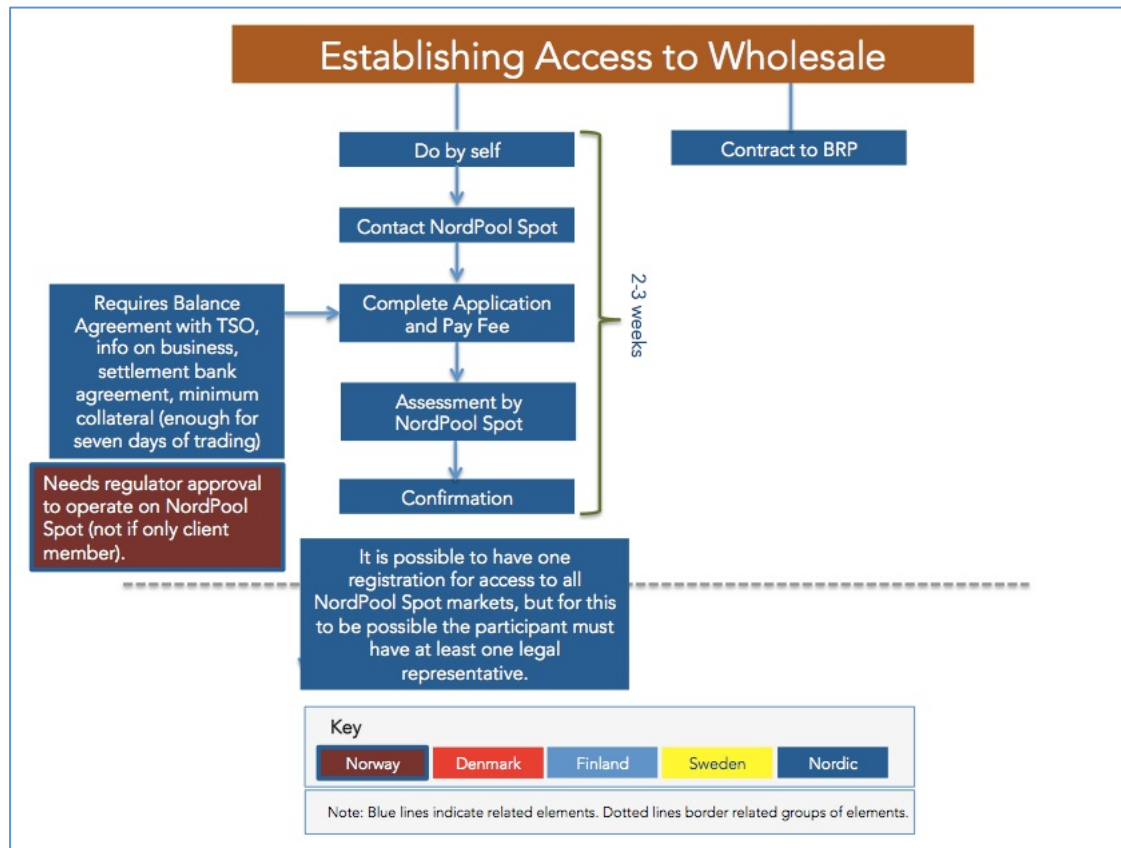


Figure 15 - Establishing access to wholesale

#### NordPool Spot

Any new supplier entering the Nordic electricity market needs access to the energy that they are going to sell. Fortunately, the Nordic wholesale market is one of the most efficient wholesale markets in the world and in general suppliers are happy with the service that it provides them with. A new supplier can either decide to subcontract this part of its business to an external specialist, such as a BRP, or can do it itself.



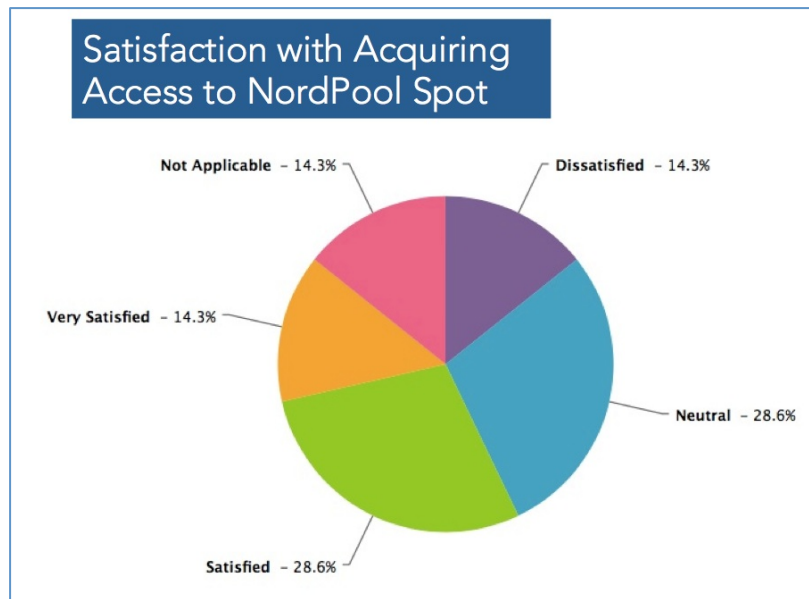


Figure 16 - Satisfaction with acquiring access to NordPool Spot

For a supplier who decides to do it itself, connecting to NordPool is relatively easy. A new entrant supplier simply needs to contact NordPool, complete an application form identifying for instance the type of trading, currency etc. and pay a fee. The process then takes approximately one week. The supplier will need a balance agreement in place with a TSO and will need a settlement bank agreement. NordPool will additionally want to know about who they are and what they plan to do on NordPool and the company will therefore need to send in an annual report, company certificate and references (proof of their organisation). A supplier will also need a minimum collateral (e.g. around €30.000), enough for seven days of trading and a Nordpool risk manager will be assigned to assess if the applicant is suitable. Security measures are strict, but it is rare for an applicant to be refused. Taking all requirements into account it is estimated that the whole process, including external processes, typically takes around two to three weeks.

It is possible to have one registration for access to all NordPool Spot markets, but for this to be possible the participant must have at least one legal representative.

Additional Requirement for Norway: In Norway, suppliers also need a licence from the regulator to trade on NordPool

Issues: while not Hurdles to market entry, some issues facing suppliers include:

- Obtaining a bank account can sometimes be a slow process.
- For some new entrants operating across Nordic markets, it is necessary to have separate bank accounts in each market. This is considered an administrative nuisance by some interviewed suppliers.

Nordpool provides all the information necessary to register with and operate on NordPool Spot on its website<sup>48</sup>. It even provides training courses (which in future will be included in NordPool subscription packages).

Fees: Fees for participants are surprisingly low at only approximately €1500 per year. For client members (who do not put in bids: approximately 2/3 of the some 370 members of NordPool spot) the fees are even lower.

<sup>48</sup> NordPoolspot.com/tas/membership

Language: The language of NordPool is English, creating a level playing field for all markets and players. This may be a small Hurdle for some players, but none of the respondents in this research stated this as a Hurdle.

Planned Improvements: Nordpool Spot is currently planning to have an online IT portal (e.g. to set up new portfolios).

Nordpool appears to provide an efficient and cost effectiveness access to all the Nordic wholesale markets. It presents no apparent Hurdles to market entry. It even provides added efficiency to other processes such as REMIT compliance, since the cost of REMIT compliance is heavily reduced through NordPool Spot.

### **Sales of Green Energy**

Suppliers often differentiate themselves through the environmental integrity of the energy they sell. For a new entrant planning to sell green energy, as for any supplier, they must have guarantees of origin of that energy. This is something that they need to plan for prior to entering the market. Interestingly, while this is a requirement for a new entrant, it was not stated as a hurdle.

## **3.6. Establishing Systems**

Suppliers entering any Nordic Electricity market will need to establish, or - if they already have systems from another Nordic or other electricity market - expand on a host of systems. The most expensive of these systems relate to customers, including systems for billing, customer information and relationship management and systems to manage market processes including switching and moving. Such systems can range from tens of thousands to millions of euros depending on the size of the customer base being targeted. While the same underlying systems can be applied across different Nordic markets, separate systems need to operate in each market. The differences between system requirements are generally small for suppliers moving from one Nordic market to another than for suppliers entering the Nordic market from a non-Nordic energy market, but it is not possible to simply run the same systems across different Nordic markets.

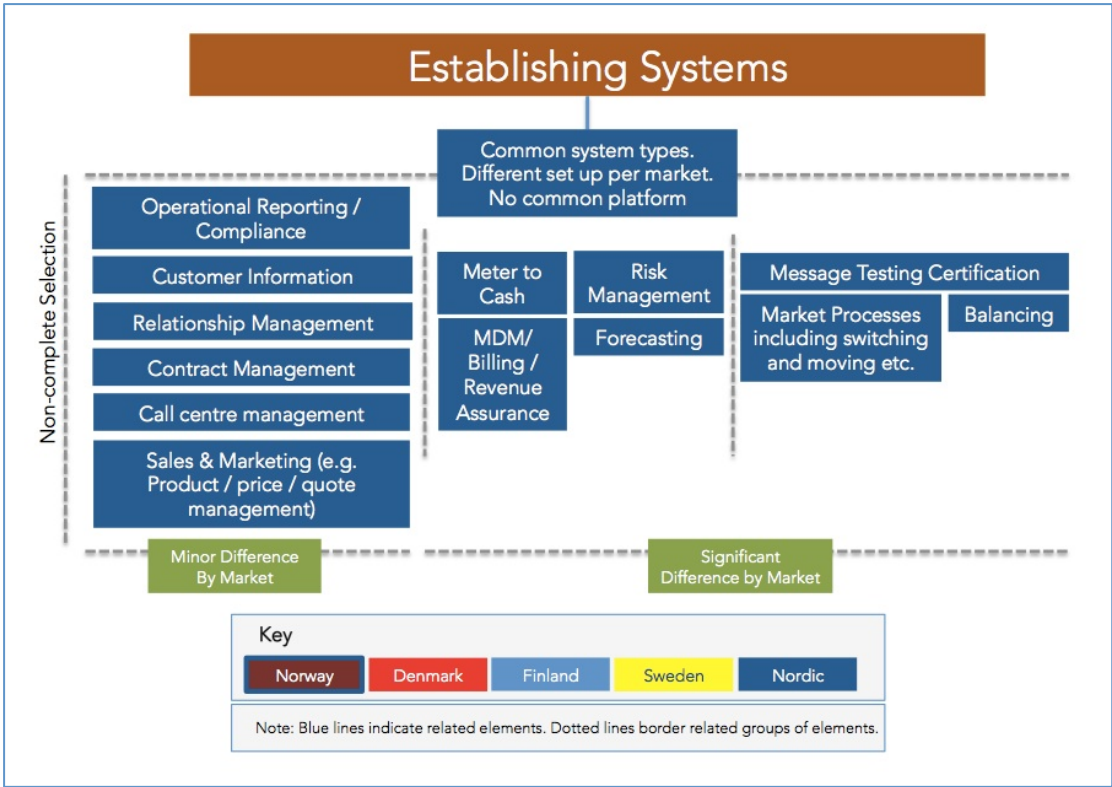


Figure 17 - Establishing systems

The reasons for this relate to the plethora of small process and other (such as different languages and requirements for the components and structure of bills) differences between the Nordic markets, examples of which are given later in this report.

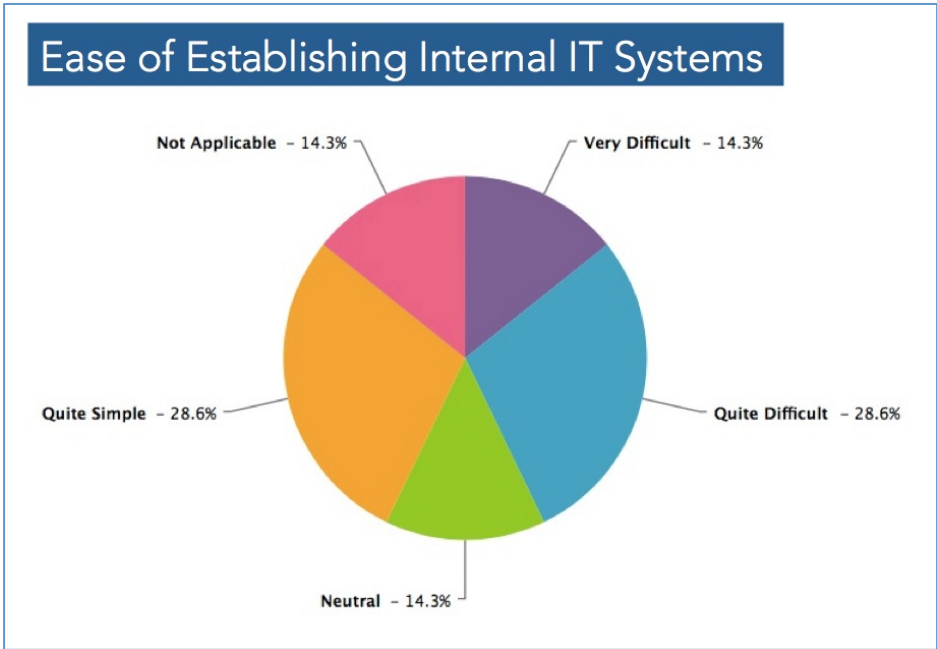


Figure 18 - Ease of establishing internal IT systems

**Hurdles to Entry (No.13): Importance: 3**

There is currently a need to have different IT systems in each Nordic market. This is both complicating and expensive. Processes would need to be almost exactly the same, especially at the lower (specific) process level. This is currently not the case.

**Ideas for Change**

Complete harmonisation of processes between markets. Possible process cloning (discussed later in the report).

### 3.7. Adapting to Languages and Cultures

Language differences present a major challenge to suppliers that operate across different markets. Numerous market entrants have stated to us that language is a key challenge. There are unlikely to be any non-English speaking energy markets in the world where alternative languages, including English, are so catered for, as in the Nordic markets. Nevertheless, language differences are pervasive throughout the market entry and operation process. Information gathering, regulatory and legal explanations, contracts and even systems are not always available in the language of the new entrant. Call centre staff need to be able to speak the language of their customers. Marketing and customer service literature needs to be created in the local language. Add this to the substantial differences in working and customer cultures and the differences in market processes and requirements, and it is not difficult to see why entrants feel that they almost need to recreate themselves in the local market.

**Hurdle to Entry (No.14): Importance: 2**

The Nordic electricity market has a lot of support for alternative Nordic languages and also English. However, new entrants still need to adapt heavily to the local language, far beyond what would simply be required by the customers in the market.

**Ideas for Change:**

It may not be considered to be worth the cost, but ultimately, if all regulations, laws and non customer-facing market processes took place in English and the local language, it would make the market more accessible to new entrants of all kinds.

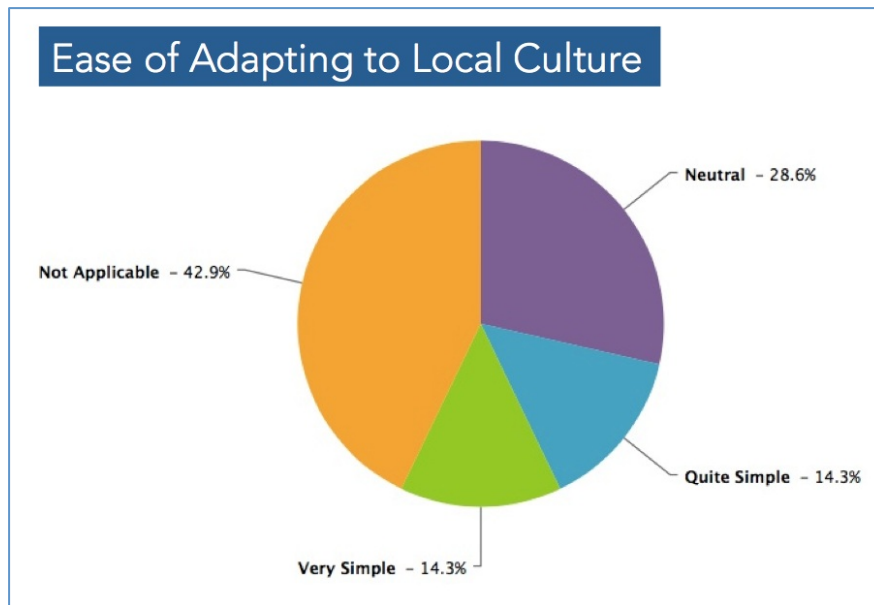


Figure 19 - Ease of adapting to local culture

Business culture can also be very different and has been stated, along with language difference as something that can cause difficulties for mergers and acquisitions. Some respondents have in fact stated that cultural differences are an even bigger Hurdle than language differences. There is not much that can be done about this, but there is a paradox to this:

**Hurdle to Entry (No.15): Importance: 1**

The business culture in the Nordic market will become more homogenous as companies operate more in each other's markets, but for now at least, entrants, especially B-to-B suppliers, find it quite difficult to interpret the cultural business nuances of those in certain other Nordic markets. As such they sometimes choose their entry markets by which market(s) feel(s) culturally most familiar.

In general, it can be said that Sweden and Norway seem to have the greatest affinity in the Nordic region, based on the similarity of processes, language and culture. Finland is seen as the most similar with Sweden and Norway in terms of model and processes, but Denmark is the most similar with them in terms of language and business culture.

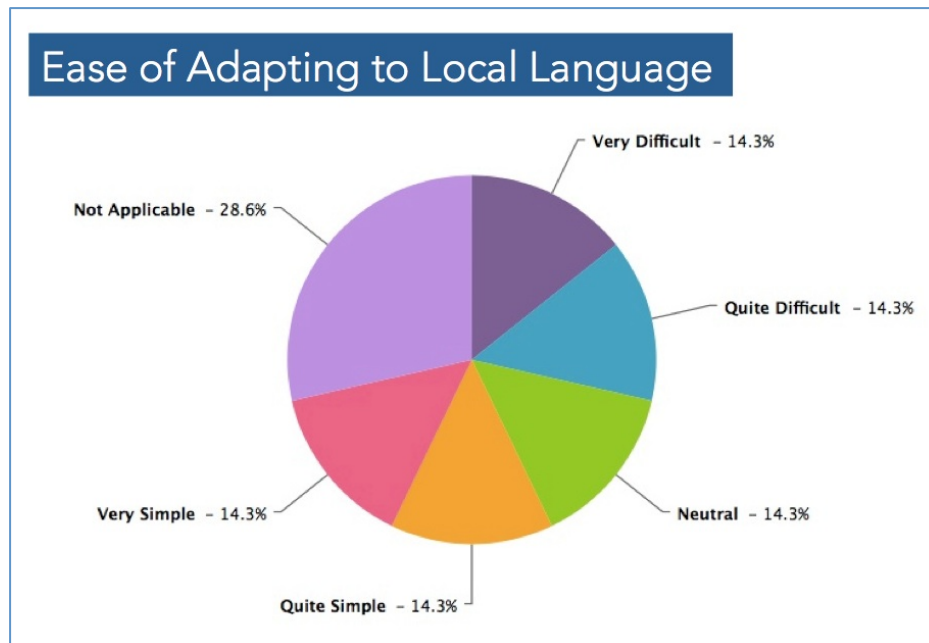


Figure 20 - Ease of adapting to local language

### 3.8. Market Entry for ESCO's

There is such a diversity of kinds of ESCOs, all with different business models, offerings styles and strategies and entry means that it is impossible to generalise as to their process of market entry. There are though some elements in the process that are can be more or less expected:

1. If they are involved in any way in the balancing process, for instance if they are an aggregator, they must either take on the role of a BRP or acquire the services of a BRP or a partner that has one such as an existing supplier. ESCOs typically do not have the resources to be their own BRP and may not even have the resources to acquire the services of one. They may therefore rely on the cooperation of an existing supplier. This is not always an easy process since incumbent suppliers generally subcontract out a lot of, if not most, of their operations to service providers who may view ESCO services as detrimental to their own operations or business models. For instance, a BRP may see a capacity aggregation provider as complicating, rather than supporting the balancing process. Likewise an incumbent supplier may not want to complicate their lives by working on new business models relating to functions that they are happy to have subcontracted out.
2. In any case ESCOs' biggest challenge is often convincing potential partners and customers alike, that their services are actually needed and then, if they succeed, to convince them that their solution works. Just as new entrant suppliers face the challenge of customer inertia in a market where it is easier to stay where they are than to switch, ESCOs face the challenge of trying to introduce change in a market where little changes, or has changed since its creation over 100 years ago. An ESCO typically needs to be able to support itself for a very long time, and support a long phase of trialling and testing before it wins any real business.
3. Nordic energy customers are not the most interested in saving energy. Norwegian and Danish appear to be the most interested in the Nordics, but Swedish energy customers in particular are some of the least interested in energy savings in Europe, although they are among the most interested in environmental issues<sup>49</sup>. Nordic energy suppliers also often do not seem very

<sup>49</sup> Source: ADVANCED FP7 project

interested in demand side, especially not demand response, solutions and services, since they see them as reducing sales revenue and they do not see major balancing challenges at the moment. Even TSOs and DSOs, typically very interested in demand response in Europe, for the most part show little interest in the issue except in Finland (though there is interest in congestion management solutions in Denmark and Sweden). In such a market, it is not an easy task for ESCOs to convince the market, in principle, of the need for their services. Without such support, little investment in such services takes place. There are many exceptions, and surprisingly Sweden is nevertheless the Nordic market with the most ESCOs, but the onus is often on ESCOs to prove their worth rather than being able to enter the market in the knowledge that there is a sufficient existing demand for their services in the market.

**Hurdles to Entry (Hurdle already addressed, Not Counted):**

- The subcontracting culture in the Nordic energy market is seen as an inhibitor of innovation and to some extent anti demand side services. There is concern that utilities no longer contain the same level of expertise in functions of the business that relate to ESCOs. Subcontractors, especially BSPs are seen arguably as having vested interest in avoiding the growth of demand side services: the kinds of services that some ESCOs need to sell to utilities, and or in partnership with BSPs. It is difficult for a demand side, especially a demand response providing entrant to sell to businesses that do not understand, appreciate or want the services they are providing, even if the services are good for the environment, customer or market as a whole.

**Hurdles to Entry (No.16-17): Importance: 3;2**

- The market moves slowly, it has been claimed that there is protectionism against change in the market and innovative solutions targeted at utilities require a lot of proof from the ESCOs. ESCOs find it difficult to survive long enough, and support enough piloting and testing to bring their offerings to market. The problem is compounded by the fact that the market, including customers, DSOs, TSOs, and the market infrastructure is not quite ready yet for some of the more advanced services being proposed or offered by ESCOs and services have no reference point in customers' minds.
- Nordic customers, especially residential customers - less so for commercial and industrial (C&I) customers, and even some of the other market stakeholders and participants, need to be educated more about energy efficiency and other demand side issues, and need to be supported more though public efforts, in their journey towards behavioural energy efficiency and active demand.

**Ideas for Change:**

- DSOs and incumbent suppliers should be encouraged to retain and develop internal expertise relating to balancing, energy efficiency and demand side issues.
- Promising ESCOs arguably need some more support to fund their survival throughout the long period of bringing their offerings to market. This does not mean putting large amount of money into pilots, but rather supporting the longevity of the ESCOs.
- Much more needs to be done to encourage customers to engage in energy efficiency and other demand side services. DSOs, suppliers and ESCOs alone cannot be relied on to single-handedly educate and support the customer journey.
- One ESCO suggested that community led demand side initiatives would also be a way to reduce the dependency of ESCOs on DSOs and suppliers.

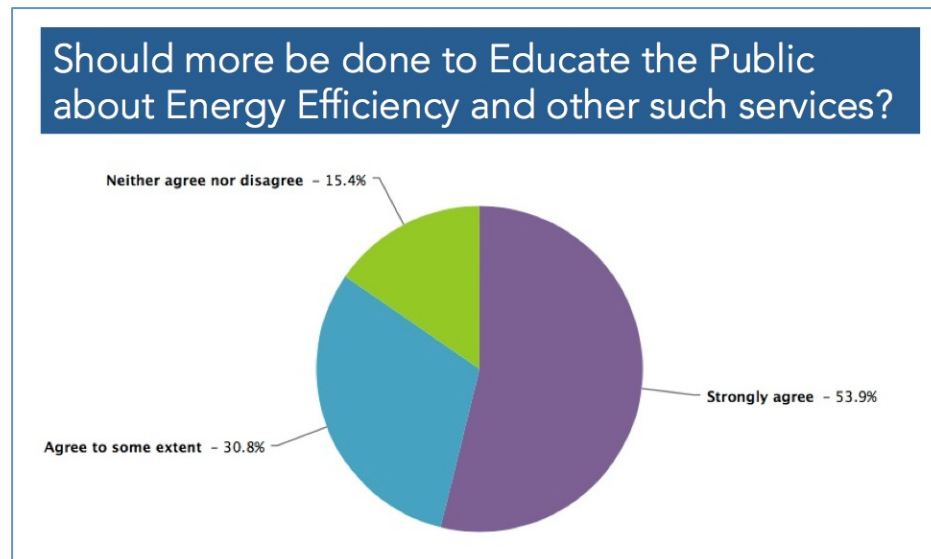


Figure 21 - Should more be done to educate the public about energy efficiency and other such services?

4. Another concern that was mentioned by one ESCO was that municipal utilities prefer to buy from local suppliers: at least. If this is the case it would reduce the opportunity for new entrants from other markets.
5. It has also been claimed by some that the unbundling process is not appropriate to the needs of the future ESCO services. On the one hand DSOs are restricted from developing ESCO related service relationships with customers even if they feel they would benefit from it, and could benefit customers.

**Hurdle to Entry (No.18): Importance: 1**

In some cases DSOs do want to develop demand side services in partnership with ESCOs, but feel that they are not able to due to the nature of their unbundled restrictions under the supplier centric model. They feel they are not able to develop customer-facing demand side services, under any circumstances. This removes a market opportunity for ESCOs who could help DSOs with their demand side issues, in a market where suppliers are not interested in doing so.

**Ideas for Change:**

If suppliers are not forthcoming in their development of customer-facing demand side services, and if DSOs can demonstrate that their demand side services would benefit the efficiency of the distribution system (e.g. enhance renewable integration) and not prevent but rather support the development of third party (ESCO) services, then they should be able to offer certain (as relevant and necessary) customer-facing demand side services to customers or at least work with ESCOs to ensure the eventual development of those services.

6. There are those who claim that ESCO services to suppliers are limited by the bundling of generation, distribution and supply under the same corporate ownership. Why would a supplier that earns a substantial proportion of its revenue from generation be interested in reducing the value of peak generation through demand side activities? The argument follows that if suppliers did not own generation, they would be more interested in demand side solutions. The exception to this would be home/commercial-distributed generation such as rooftop solar since future services are likely to need to integrate such generation directly with home energy management solutions. Small new entrant suppliers who may see renewable generation as a means of differentiation during the market entry and growth phase might also be seen as a suitable exception.



**Hurdle to Entry (No.19): Importance: 1**

Supplier ownership of generation can be seen as a potential limitation on their interest in demand side solutions from ESCOs. Some of these suppliers are though aggressively competing in the market

**Ideas for Change:**

The implications of the concentration of generation owned by suppliers might be considered in terms of the impact on the development of ESCO services, but should not forget that 'gen-retailers' are also major competitors in the market.

### 3.9. Market Entry for B to B Suppliers

The processes faced by suppliers focusing on business customers should be seen as broadly similar to those faced by suppliers to other customer groups, but hurdles to them operating across the Nordic markets seem to be far less. Especially for suppliers to large industrial and commercial customers, most are already present in at least two Nordic markets and many are present in all four.

**Hurdles to Entry (Duplicates, Not Counted):**

B to B suppliers are keen to have a single Nordic balancing settlement approach and a single market model across the Nordic markets. They are also challenged by language and cultural issues.

**Hurdle to Entry (No.20): Importance: 1**

B to B suppliers would like to be able to have single accounts at banks, for balance settlement, at NordPool and elsewhere to make administration simpler and more efficient.

**Ideas for Change:**

It would be good to work towards suppliers being able to establish single accounts at banks, for balance settlement, at NordPool and elsewhere to make administration simpler and more efficient.

### 3.10. Market Entry through Acquisition

An alternative way to enter a Nordic market is through purchasing customers through purchasing the suppliers/utility companies that serve them. This can be a very effective way to enter the market since it grows the new entrant quickly and the customers who are purchased are generally more loyal and valuable than the customers that could be won through competition/switching.

Purchasing suppliers (or integrated utility companies in the case of the Nordics) has taken place in many cases, but the purchase of customers, popular in some other (Non-Nordic) markets, has not been taking place in the Nordics.

There is little in the power of authorities or market design that can be done to influence this Hurdle to entry, but it has been argued that perhaps the ownership unbundling of medium sized incumbent suppliers would make it easier for new entrants to enter the market through purchasing customers.

**Hurdles to Entry (No.21): Importance: 2**

Purchasing suppliers and integrating their customer bases into the existing customer base of a purchasing supplier (growing the customer base that the new entrant already has organically grown), or purchasing suppliers and using those suppliers as the engine of market entry can be considered problematic if:

- The customer base is less than 100.000, since the cost of integration is considered higher than the benefit from it (less - e.g. 40.000 - if they are just buying the supplier as-is in order to enter a market and are not integrating that supplier or its customers).
- The ownership structure of the supplier is so complex that it is not possible to get all owners to agree to sell the company.
- The price that the seller expects is too high (in some cases owner has seen a high price sale in another case and expected at least the same even though the other sale was exceptional due to the strategic nature of the purchase.)
- If the company is municipality owned and therefore will only sell the company following extensive service and or price guarantees.
- The ownership or fully bundled nature of most municipal electricity companies and companies that have less than 40.000-100.000 customers means it is difficult to purchase the supply business without obtaining also the distribution and even generation business.
- The business culture and language differences are considered a major issue.

## 4. Market Operation Processes

Once an entrant is in the market, they need to remain there and grow. In fact, the challenges at this stage appear generally larger than those associated with entering the market. For those who have experience of more than one market, it is also important to note that there remains a major challenge associated with the remaining process, standard and protocol differences between the markets. As described further throughout this report, there is a general belief that similar is not enough. As long as entrants need different systems to operate in different markets, they will find it difficult to realise the potential synergies associated with pan Nordic operations.

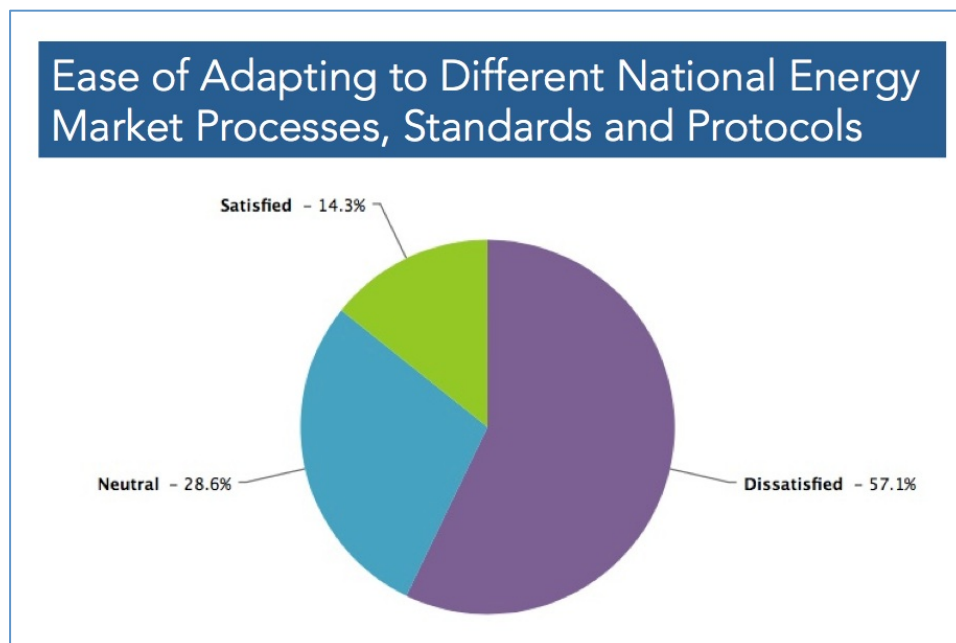


Figure 22 - Ease of adapting to different national energy market processes, standards and protocols

## 4.1. Financing and Risk

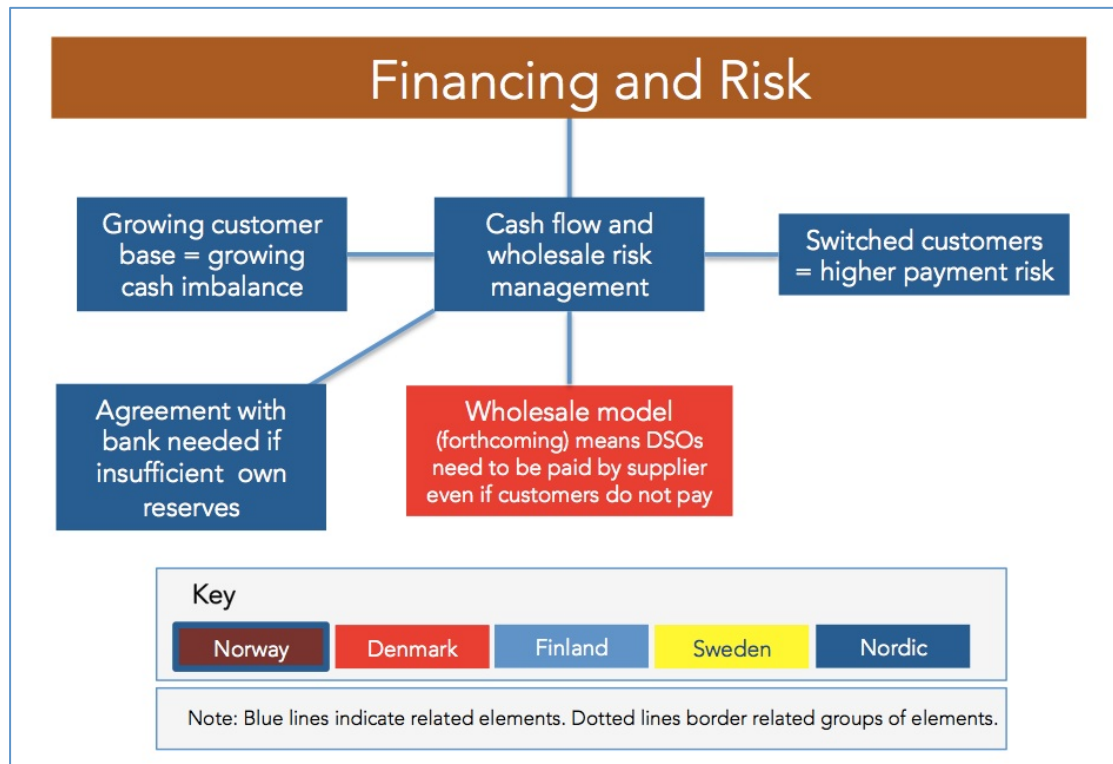


Figure 23 - Financing and risk

Cash flow is an on-going Hurdle. Wholesale risk is also significant (see Wholesale sections). The cash flow challenges that present a complication to entry never end for a supplier, and in fact for new entrant suppliers they even seem to get worse as they grow, as they struggle to replace lost customers, often with customers with modest payment reliability. There has been an additional argument that the supplier of last resort process in some markets further unbalances the playing field, thereby additionally hindering the chances of new entrant suppliers.

### **Hurdle to Operation (No.22): Importance: 2**

While incumbent suppliers in Finland, Sweden and Denmark sometimes claim that they have to carry the burden of 'obligated supplier' or 'supplier of last resort' and that competing suppliers cherry pick, the reality seems to be that competing suppliers end up with a higher proportion of customers with payment reliability issues and this leads to increases in their cost-to-serve customers relative to that faced by incumbent suppliers.

**Ideas for Change:**

- Consideration should be given to fundamental measures to re-balance the incumbent advantage of incumbent suppliers. Should it be that the task is for new entrants to challenge incumbent customers, for whom a large proportion of their customers are likely to be inactive and higher margin in the long-term, or should the task be for all competitor suppliers to compete for the same customers.
- Dominant suppliers in a network area and suppliers bundled (in any way) with the network operator should not be the default recipient of customers who have simply not chosen a supplier\* or customers on supplier of last resort tariffs who's supplier would go out of business. \*In Norway, it has been found that a large proportion of customers on supplier of last resort tariffs are in fact customers who have simply moved and not chosen a new supplier, and therefore actually more valuable than the customers that are typically obtained by new entrant suppliers.
- Make it easier for customers to choose and switch supplier, so that the market is more balanced.

Supplier of Last Resort	
Supplier of Last Resort	
Denmark	Supplier for that area (selected through public tender procedure) <sup>50</sup>
Finland	DSO <sup>51</sup>
Norway	DSO <sup>52</sup>
Sweden	DSO Nominates a supplier <sup>53</sup>

Table 8 - Supplier of last resort

## 4.2. Balancing

All suppliers need to fulfil their balancing obligations. The process of balancing does not, however, seem to be a concern of most suppliers, even new entrant suppliers, since they generally simply employ BRPs to handle the function. If they do it themselves it is normally because they are expert in balancing issues, in which case they do not have any difficulties technically. What is a significant issue for these 'own BRP' suppliers though is inconsistency between the Nordic markets. More specifically for a company that wants to be its own BRP in multiple Nordic markets, the process and costs of handling imbalance is considered very different in each market. It is suggested that balancing processes and costs (there is a need to harmonize the incentive to be in balance in the Nordics) should be more consistent.

<sup>50</sup> Under the wholesale model, the supplier of last resort obligation will be removed.

<sup>51</sup> DSO is obliged to supply residential customers. DSO can use a supplier, but is obliged to inform the customer after a few weeks that they need to find a competitive supplier. If the incumbent supplier goes out of business the regulator has the task to find a new incumbent (obligated) supplier: supplier with largest market share in the distribution area.

<sup>52</sup> DSO is not allowed to give the customer to their associated incumbent supplier. Price is deliberately high and progressively becomes higher over time (decided by DSO within regulated limits) to encourage choice. Have to remind customer at regular intervals that they should choose a competitive tariff.

<sup>53</sup> Usually the incumbent supplier

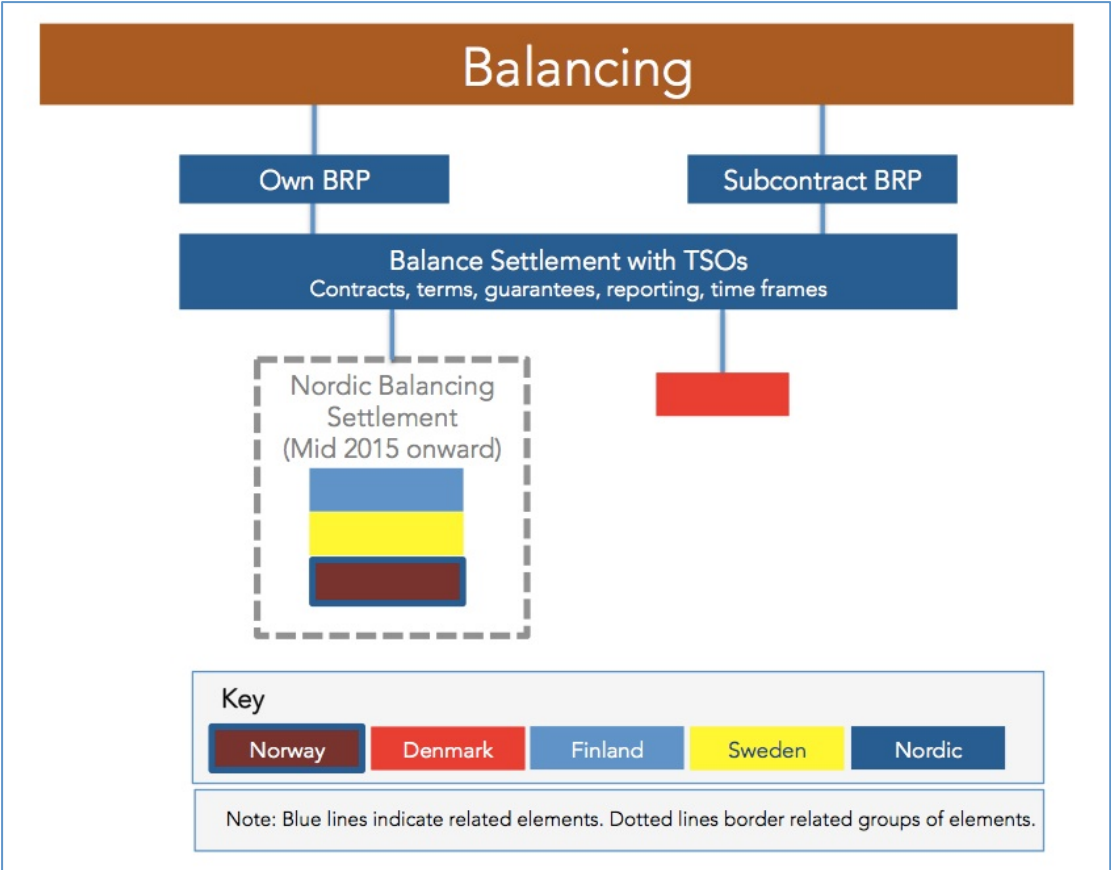


Figure 24 - Balancing in the Nordic market

ESCOs who are large enough to impact significantly on the balance of the network, also have to provide balancing. It is of course natural that if suppliers need to balance, then so should ESCOs who influence the balance. The question is, though: should it be the obligation of supplier and ESCOs to ensure balance or should that be provided entirely through TSOs, DSOs and market mechanisms that ensure the employment of the most cost-effective balancing and therefore a paid opportunity to new innovative demand-side solutions. The answer to this question is not for this report, but it can be daunting for an ESCO to have to factor in or support the effect of its service on the network and the costs that it will incur thereof. In the case of ESCOs, since their whole business is built around effects on the balance situation, the potential cost of balancing on their business model can be catastrophic.

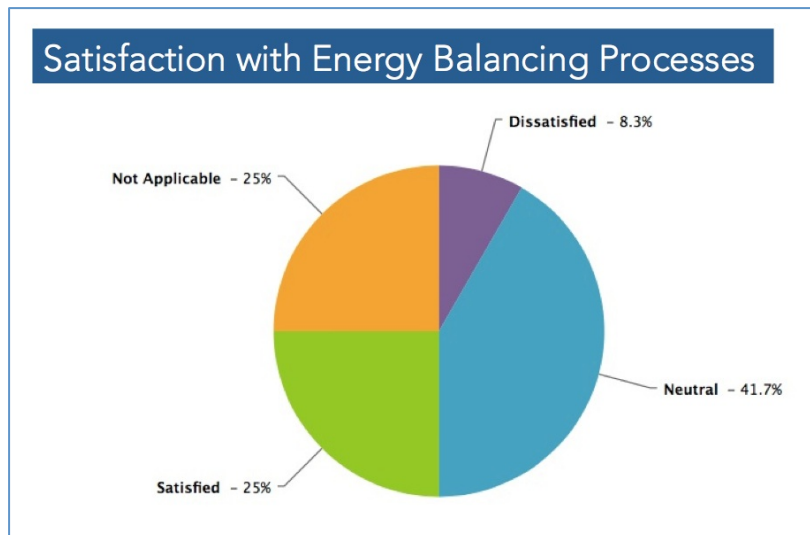


Figure 25 - Satisfaction with energy balancing processes

**Hurdles to Operation (No.23-24): Importance: 3;2**

- It is suggested that balancing processes and costs (there is a need to harmonize the incentive to be in balance in the Nordics) should be more consistent. The NBS should solve most of these issues except for Denmark.
- Balancing can be a cost-concern for ESCOs who need to provide balancing services. Ways to mitigate these costs, or rather risks, should be sought by governments, regulators and other stakeholders.

**Ideas for Change:**

Ways to mitigate these costs, or rather risks, should be sought by governments, regulators and other stakeholders.

**The Forthcoming NBS (Nordic Balance Settlement System)**

As part of the NBS in Finland, Sweden and Norway, players in each market will in future report in the same ways. This is seen as a major improvement in the market, and a major move towards market harmonization. No concerns with the NBS have been mentioned by any recipients except for the desire to reconcile the process and costs of establishing a BRP across the Nordics; to harmonize the incentive to be in balance in the Nordics.

**Perceived Advantages of NBS Include:**

- One contract
- Same terms
- Same guarantee
- Same reporting and time frames
- All BRPs can login in same interface

4.3. Wholesale

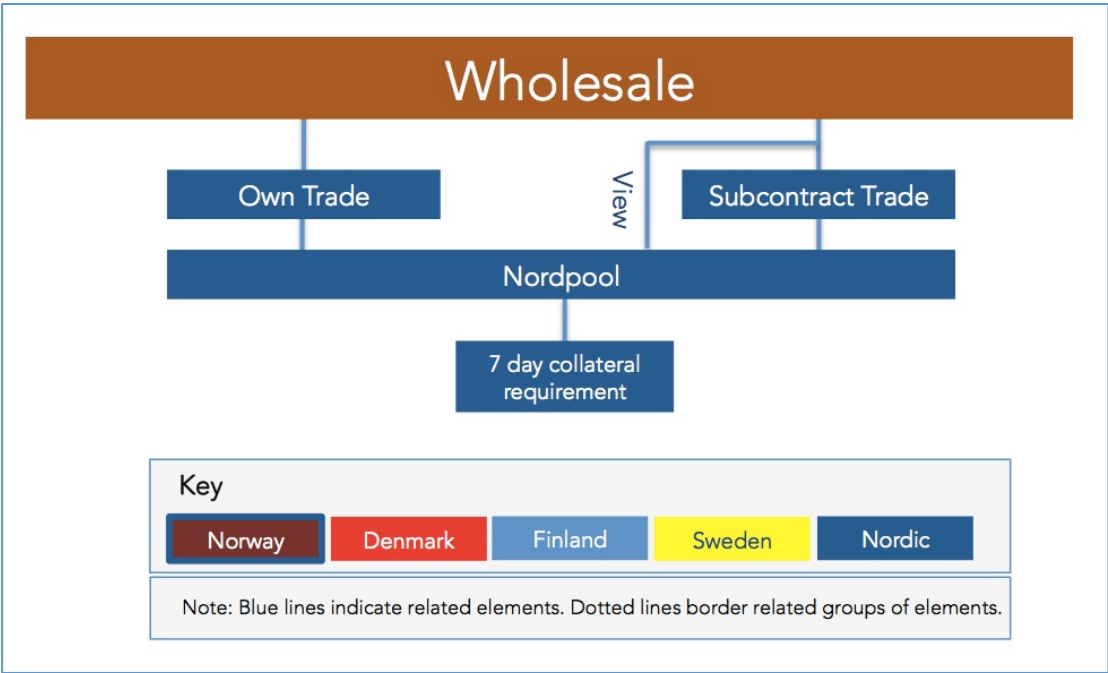


Figure 26 - Wholesale in the Nordic market

As explained further in the section on market entry processes, the Nordic market is considered extremely efficient from both a market entry and operational perspective. Respondents have little to complain about. An additional operation consideration however, is that participants that put in bids on Nordpool Spot, are required to retain sufficient collateral for at least 7 days of trading. Nordpool checks the accounts of all participants on a daily basis to ensure this collateral. This is not a large amount, nor is it considered a Hurdle to an operation, but it is a pre-requisite for market operation.

What matters more to suppliers that engage in their own trading, is that the liquidity in the financial market needs to be increased. Significant risk for competitors and a substantial proportion of the end-user price comes from financial price hedging.

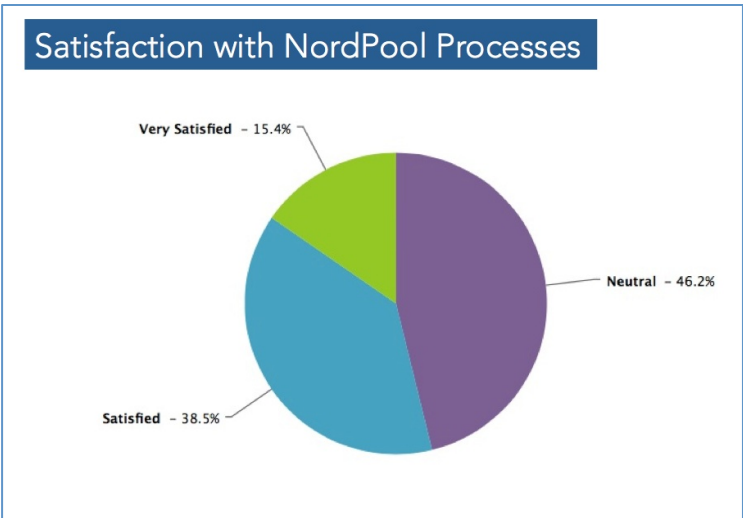


Figure 27 - Satisfaction with NordPool processes



**Hurdles to Operation (No.25-26): Importance: 3;2**

- Significant risk for competitors and a substantial proportion of the end-user price comes from financial price hedging. Becomes more challenging as suppliers become larger.
- The cost of hedging is considered too great by some, especially where there are large differences between different bidding area prices and the system price.

**Ideas for Change:**

- Some argue that the liquidity in the financial market needs to be increased.
- Reduce differences between different bidding area prices and the system price.

#### 4.4. DSO related Operations

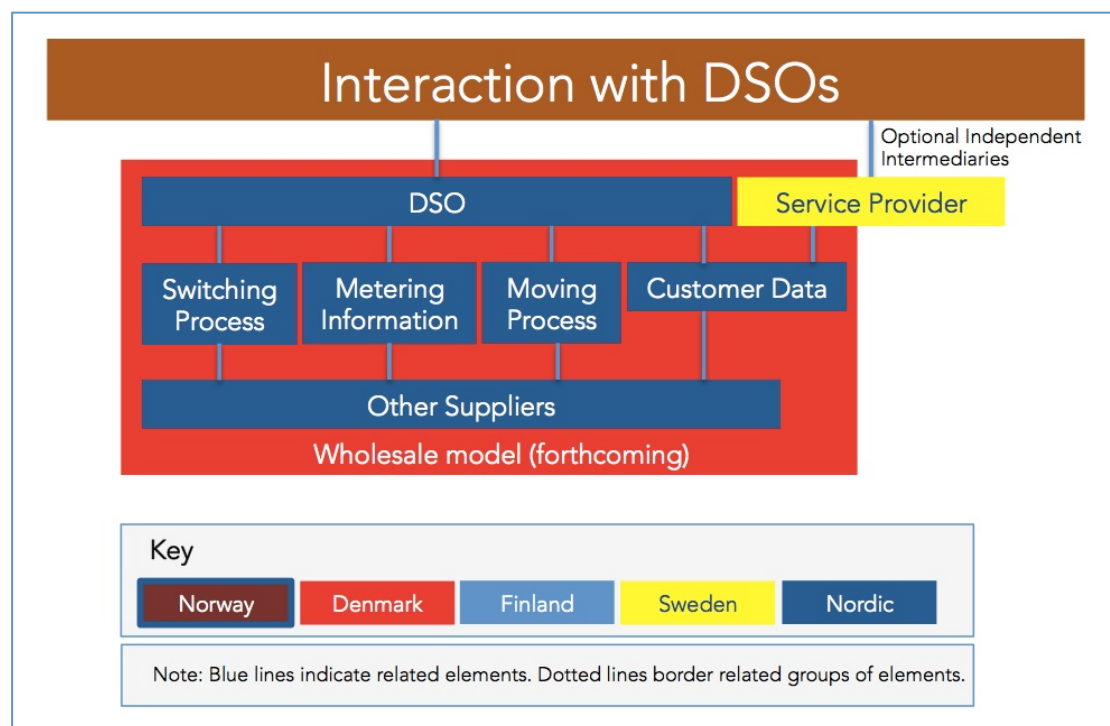


Figure 28 - Interaction with DSOs

Until the Nordic markets have hubs (all except Denmark which has a hub), each supplier needs to be in direct contact with each DSO for each customer that it wins from that distribution area. There is no need for an agreement with each DSO, but the supplier needs to be in touch primarily to facilitate the switch and for metering and master data information and for moving.

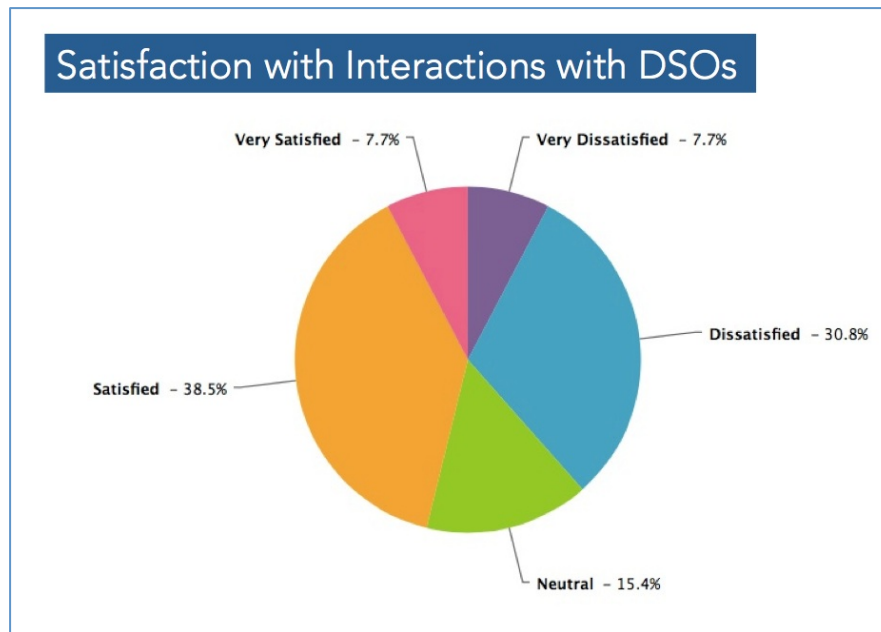


Figure 29 - Satisfaction with interactions with DSOs

### Process Complexity and Similarity

Information exchange is generally seen by suppliers, including new entrants, as not particularly difficult in itself. The processes have been developed to a point where they are in principle simple and efficient, with broadly standardised formats, all handled by off-the-shelf software. Two challenges remain however:

1. There are many market participants (DSOs and suppliers) and no central hub to streamline the interaction. This will be overcome when and if central data hubs are applied. In the absence of a centralised process hub, this is a labour intensive situation in a market with very large numbers of DSOs (170 in Sweden for instance).
2. The four Nordic markets are not similar enough in terms of information exchange. Although they use similar formats, the processes are different enough to prevent suppliers using the same company systems across multiple Nordic markets.

The following table shows the perceived degree of process difference from one market to another. It represents the opinions and feelings of those who answered the question and not a factual evaluation of the processes addressed in this report.

Process Difference Matrix (1-3 where 3= most different)			
	Sweden	Finland	Norway
Sweden			
Finland	1		
Norway	2	2	
Denmark	3	3	3

Table 9 - Process difference matrix

**Hurdle to Operation (No.27): Importance: 3**

New entrants with aspirations of being very active (winning large numbers of new customers) have told us that they intend to delay or restrict their activities in the market until after the supplier centric model is supported by a hub. They support the supplier centric approach but the current and increased (under the supplier centric approach) effort of interacting with so many DSOs is considered to inhibit the business case. An alternative for them in the meantime is to restrict their activities to just a few DSO regions.

**Ideas for Change:** The proposed central process hub should be introduced without delay in Sweden, Norway and Finland.

**Hurdle to Operation (No.28): Importance: 3**

DSO-Supplier processes in the four Nordic markets would need to be more similar if they are to enable suppliers to apply the same IT systems across multiple markets. In fact, processes have to be almost identical to truly allow trans Nordic systems.

**Ideas for Change:** For any given process, the best way to ensure process similarity between markets is to first identify the best practice process from among the four Nordic markets and then copy it to the other Nordic markets. This approach will be limited by national laws as well as national and political opposition, but it would lead to far lower costs and complexity for suppliers operating across markets. All market participants (incumbent suppliers, new entrants and even TSOs) that we suggested this approach to firmly agreed with it, at least in principle.

**Access to Data**

Within the current environment of complex interactions, there have been complaints that it is sometimes difficult for the suppliers to obtain customer information from the DSOs. Specific issues include:

1. Suppliers often complain of occasional poor quality data being provided to them by DSOs. The reason for this, it has been claimed, may be due to shortcomings - deliberate or otherwise - from DSOs or suppliers (e.g. those who are losing a customer), but there is a concern among new entrant suppliers that there is no supervision of the quality of the data, nor a system by which to penalise those who persistently provide poor data or compensate those who are affected by the receipt of poor quality data.
2. In Sweden and Finland, suppliers and brokers who have an affidavit from a customer to find them a new supplier cannot identify when the customer's contract is due to expire if the customer's contract has more than one month to run. This is not because the DSO is being obstructive but because the regulations do not mandate suppliers to provide customer information (to DSOs or otherwise) for customers who have more than one month remaining in their contracts. In Denmark if the supplier or broker needs information (if they have power of attorney), they have to approach the current supplier for the customer data. The current supplier then has to provide the data but may ask for written confirmation, and so the process may turn out to be very slow, cumbersome and therefore costly for both the new entrant and the existing supplier. In Norway the new supplier sends a message to the DSO containing relevant information. Crucial information is the meter ID (the new supplier can get this from the Nubix database, no need to get info from DSO). The DSO informs the old supplier, no later than three days before the actual switch<sup>54</sup>. In Sweden and Finland, due to smart meters, the process of obtaining essential customer consumption information for a switch is (assuming other process are the same) easier than in markets without. However, access to the information essential to know when a customer is available to switch and necessary in order to make the

<sup>54</sup> More information is available in Norwegian at: <http://lovdata.no/forskrift/1999-03-11-301/§2-1>

switch happen is clearly too restricted. It has been claimed that Nubix or a data hub solution would result in an improvement in access to data for Finland, Sweden and Denmark (Denmark will be getting a data hub).

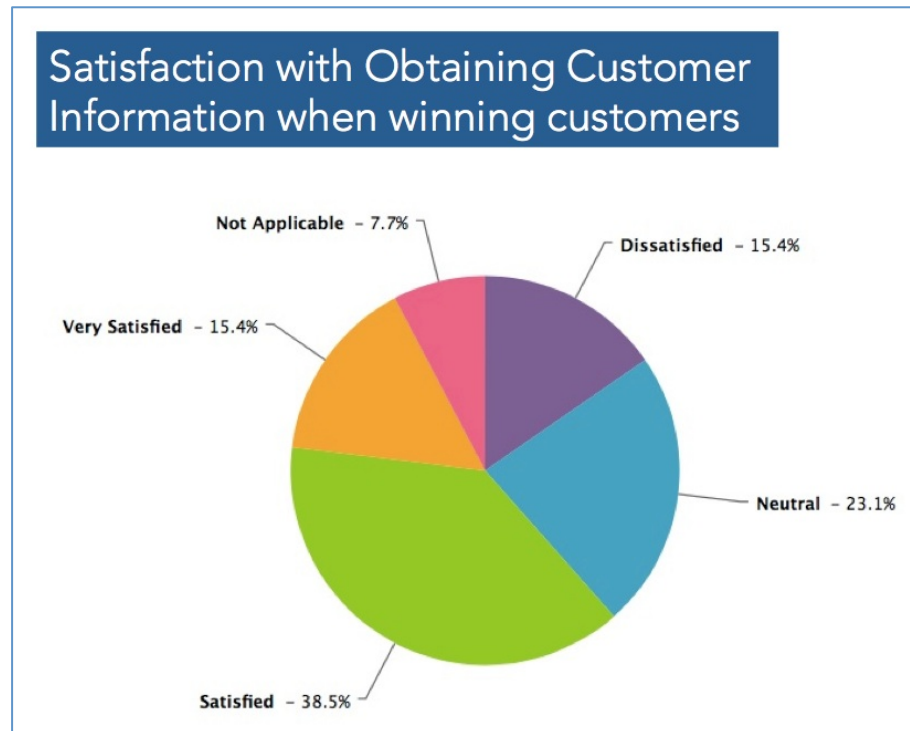


Figure 30 - Satisfaction with obtaining customer information when winning customers

#### **Hurdles to Operation (No.29-32): Importance: 3;3;3;3**

- Poor or late data costs money, for any supplier. It is not economically viable for a supplier with small margins to have to return to customers (for more information) or DSOs because either the information was not available, required excessive permissions or formatting variations/complications (required by the DSO) or because the data provided by the DSO was insufficient (in quality or comprehensiveness) to complete the process. Mistakes will happen, but there is concern that DSOs with bundled suppliers are able to inhibit the cost-effectiveness of new entrant's business operations without any independent supervision or possibility for redress. This will become more important with data hubs.
- It is very frustrating and inefficient in the opinion of respondents in Finland, Sweden and Denmark, and also in the minds of many customers, to not be able to easily identify when the customer's contract (if they have one) ends and what the consequences of ending the contract early would be.
- The customer (e.g. name, address) information and proof of power of attorney required by DSOs and existing suppliers so that new suppliers and brokers can access essential customer/meter information for a switch is often considered too difficult to obtain or match with the information held by DSOs/suppliers in the case of Sweden, Finland and Denmark, and even within Nubix in the case of Norway.
- The fact that a new entrant or broker with power of attorney has to approach the supplier or DSO in order to obtain contract information, or information necessary for the switch is not only inconvenient but also enables incumbent players to know about the intentions of the new entrant or broker before it is necessary, affording them the opportunity to take defensive action against potential switching.

**Ideas for Change:**

1. There needs to be some supervision and enforcement of the data quality within energy market processes, while not inhibiting the Nordic market's enviable desire to remain regulation light. Supervision is expected to be easier with market hubs. TSOs are considered ideal potential supervisors (Fingrid for example is already working on forcing market participants to improve data through putting data in all fields etc.).
2. Data hubs effectively present a good means of supervising data quality and even licencing those participating in the various processes. Smart meters also assist in the provision of enhanced data quality and speed of delivery of data. Supervision is not inherent in data hubs though and must be specifically incorporated into it.
3. Customer bills should very clearly (meaning that the customer can easily find the information) state, in a prominent position on the bill, when the contract ends and what the consequences of breaking the contract would be for the customer.
4. New entrants or brokers with power of attorney should not have to approach the supplier or DSO in order to obtain contract information, or information necessary for the switch. Note: It is important ensure that "phishing" customer data, such as contract expiration dates, is not possible. This kind of information should explicitly be available only if the customer has given his active consent to retrieve the data. "Mass retrievals" should not be allowed. There should be an "audit trail" in the hub for who and when the information has been accessed, so that actions can be taken by the authorities in case of misuse. Strict data protection policy should be applied by the hub, to ensure full trust.
5. Suppliers or brokers with power of attorney should, through the forthcoming data hubs, be able to find out - without the DSO or existing supplier being able to know that the data is being accessed - the time when the prospective customer's contract ends, the terms and costs of breaking the contract, and the other information that the supplier or broker needs in order to provide the service to the customer and initiate the switching process. In Denmark, the old supplier is not informed about the change of supplier until after the expiry of the cancellation period.

**ESCO access to data**

In Denmark, ESCOs have the status of 'Third Parties', whereby if customers allow third parties access to data, those third parties have access to all available data including consumption data, although they need electronic approval from the customer. Power of attorney is though not needed.

**Data Hubs**

As described extensively throughout this report, Data hubs will reduce process complexity and increase integration between markets. The ability of data hubs to integrate processes will, however, depend on the similarity of the data hubs. The more similar the data hubs, the more similar the supplier systems that will interact with and support them.

**The Danish Data Hub**

The Danish Data Hub, operated by the Danish TSO, which is partially complete (the first version has been in place since March 2013 and the second version is planned for 1st October 2015), provides the first Nordic experience of data hubs. While challenging, the experiences so far have been largely positive.

The process of getting access to the DataHub is as follows: When a supplier wants to enter the Danish retail market, an access to the DataHub is necessary. The request for access is sent to Energinet.dk (The Danish TSO). The supplier needs to have a contract with a BRP (Balance responsible party) or be a BRP themselves. When access has been given, and IP-addresses and certificates are registered, the supplier

can enter the DataHub through the Market Portal (Graphical user interface). For B2B access and communication via Ediel, the supplier's system has to get a system approval after a thorough test.

In a situation where a supplier repeatedly violates the market rules, Energinet.dk has the possibility to withdraw the supplier's access to the DataHub. Without access to the DataHub, the supplier is not able to act in the market.

### Misuses of Power

There have also been concerns from new entrant suppliers that incumbent suppliers associated (ownership bundled) with DSOs sometimes seem to find out that one of their customers has agreed to switch away from them - or is considering doing so - as soon as the DSO is informed of the switch, or as soon as the DSO is informed by a broker that it has obtained power of attorney from the customer and requests information on the customer's basic data and availability to switch (e.g. in Sweden). In such cases the outgoing suppliers, it has been claimed, approach the switching customer and provide them with a better offer, often reversing the customer's decision to switch. These claims cannot be substantiated, but such claims have been heard in other competitive markets around the world and represent a fundamental risk associated with ownership bundled competitive energy markets.

#### **Hurdle to Operation (No.33): Importance: 3**

It is likely that some DSOs assist their associated suppliers by forewarning them of an imminent switch or likely-to-switch incumbent customer, enabling the supplier to take steps to selectively protect the incumbent customer by contacting them with a good enough offer to keep them. Since the price needed to keep the customer may not be as low as the price needed to win them, and since the selected defending can be supported by the higher margins earned on inactive customers, this behaviour would amount to misuse of the DSO's/supplier's incumbent position. **Danish Exception:** In Denmark, due to the data hub, when a supplier loses a customer, the supplier will first be notified 4 days before the switch, and at that time it is not possible to cancel the switch. In the current and the coming version of the Danish DataHub the DSO cannot see who the supplier is on a metering point, and the DSO is therefore not able to interrupt a switch.

**Ideas for Change:** Full ownership unbundling would appear to be an essential characteristic of a competitive liberalised market.

## 4.5. Contracts with Customers

A supplier needs to make a contract with its customers. The customer has two contracts however, one with the supplier and one with the DSO. The contract with the DSO is an implied contract in that it does not need signing, it simply exists as a result of using the energy.

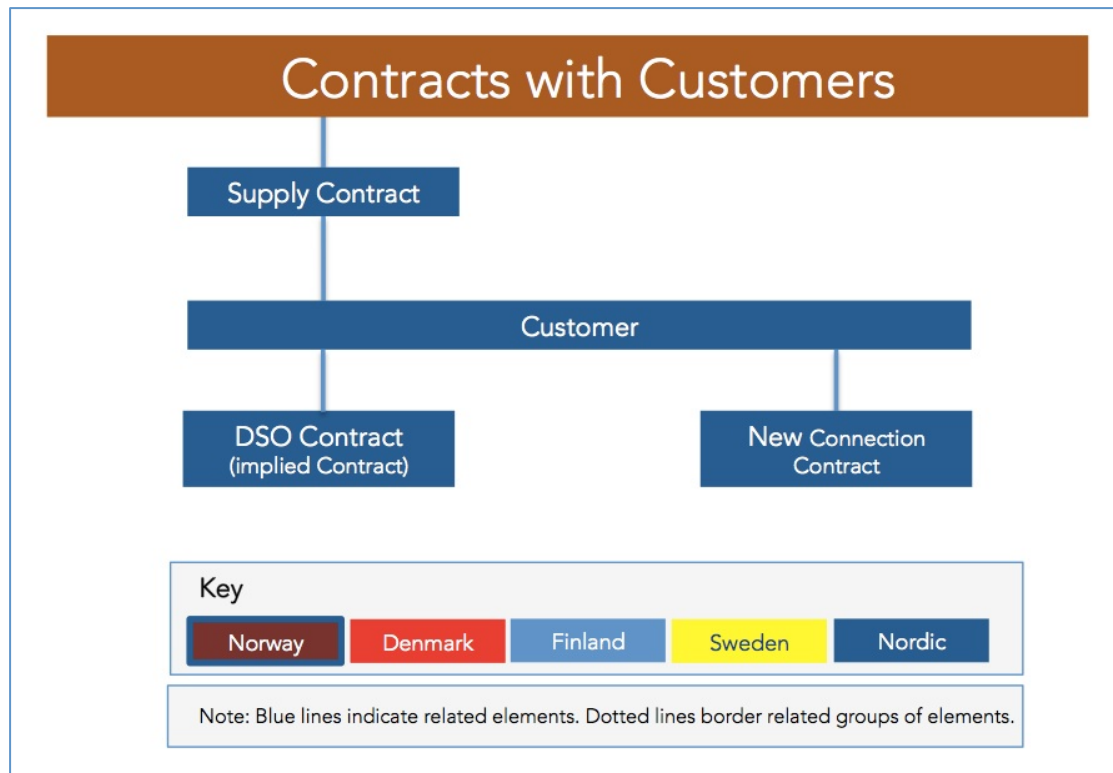


Figure 31 - Contracts with customers

The customer also has to make a contract with the DSO for any new connection if the customer installs a new meter in the process. In Denmark the wholesale model will result in the customer only needing a contract with the supplier<sup>55</sup>. Concerning the number of contracts, some suppliers seem to prefer a single contract, between the customer and the supplier. Some suppliers, however, believe that the current system, whereby customers who have switched will have contracts with both the DSO and the supplier, is better in some situations: for instance if there is a meter problem from the past which implies repayment by the supplier to the customer for revenue that the supplier never received.

Number of Customer Contracts		
	Current Approach <sup>56</sup>	Expected Changes
Denmark	2 <sup>57</sup>	1 <sup>58</sup>
Finland	2 <sup>59</sup>	-
Norway	2 <sup>60</sup>	-
Sweden	2	-

Table 10 - Number of customer contracts

<sup>55</sup> With an implied DSO contract that does not need a customer signature.

<sup>56</sup> In addition to connection contract (only once).

<sup>57</sup> Implied contract with DSO that becomes active automatically (without signing) as soon as energy is used.

<sup>58</sup> Under wholesale model

<sup>59</sup> If customers buys from the local incumbent the contract can be combined.

<sup>60</sup> Implied contract with DSO that becomes active automatically (without signing) as soon as energy is used.

**Disputed Hurdle to Operation (Not Counted): Importance: 1**

A single contract approach may present some risks to suppliers if historical DSO service shortfalls are thereby passed to a supplier who was not even the supplier at the time of the issue. There are though differences of opinion on this issue.

## 4.6. Sales and Marketing

Competing is not easy in a market where most customers do not find the product interesting, can suffice without doing anything, and do not understand much if anything about their opportunity to be active, either in their choice of supplier or through their energy consumption behaviour. New entrants have to enter into and grow in such a market where most customers (50% in Norway but more in the other Nordic markets) have never, even after so many years, been active in the market.

**Hurdle to Operation (No.34): Importance: 3**

Customer unawareness, apathy and inactivity is a characteristic of any competitive electricity market.

**Ideas for Change:**

- See section on Awareness, Image and Trust.
- A supplier centric model should assist the solving of this issue.

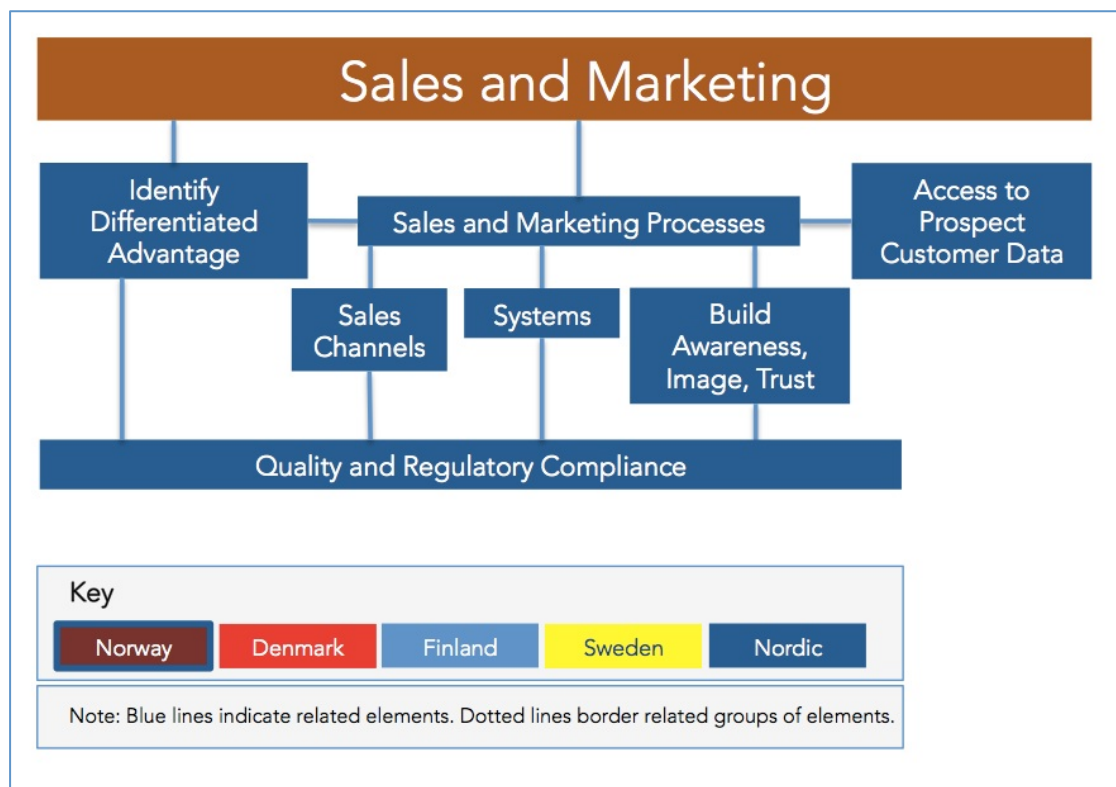


Figure 32 - Sales and marketing



## Creating a differentiated advantage and offering

Above all a new entrant supplier needs to discover a meaningful advantage in the market compared to the other competitors. This is typically seen as a price issue but there are many other ways such as service, additional offerings, a new business model or simply a fresh presentation of an existing idea. Price advantage is not seen as a particularly sustainable differentiation in the longer term and so successful new entrants need to find additional means by which to differentiate themselves.

## Sales and marketing processes

Sales and marketing processes are largely under the control of suppliers. There are some guidelines imposed by national regulations regarding sales and advertising, but the energy industry is essentially no different to any other industry in this respect. Sales costs are only incurred by those companies which intend to win customers, but all kinds of suppliers, big or small, new or incumbent are faced by the same options and challenges, except for the different context relating to awareness, image and trust. Larger competitors have the advantage of scale, but innovative new players have been known to be more able to take advantage of creative and opportunistic sales practices. New entrants are not considered to be disadvantaged by the nature of the sales processes available to them.

## Access to Customer Data

As discussed in more detail in the section on interaction with DSOs, many players complain of difficulty obtaining information about prospective customers. For instance the one month rule in Sweden whereby suppliers cannot gain access to information about when a customer's contract ends means that the customer's own supplier can take action to renew the contract before alternative suppliers even know it is going to end. Likewise, for brokers or suppliers in Sweden with power of attorney for a given customer when they request information about the customer for the purpose of notifying the relevant DSO of power of attorney and providing the service to the customer who has just given them power of attorney, the existing supplier finds out and is able to contact the customer to prevent them from switching, before the broker has even had a chance to switch the customer. This represents an unbalanced playing field in the first instance and a lot of unnecessary expenses in the second instance. The marketing needs of new entrants should not preside over the data privacy rights of customers, but it is difficult for new entrants to win new customers if the existing suppliers can see them coming and react before the new entrant has a chance to win them.

From the perspective of ESCO's access to data takes a different form. They complain that it is too difficult to obtain data in a form that is easy to use and that it is too difficult to obtain real or near real time meter data necessary for the provision of many modern ESCO services. Data available via DSOs is not real-time enough for many services. What ESCOs additionally need is for data to be available via DSOs in an easier to access form and for smart meters to be equipped with home area network transmitters so that data from the meter can be received by third parties via in-home receivers. The forthcoming Danish Data hub may simplify the first of these two issues.

### **Hurdles to Operation (Duplicate, Not Counted):**

Suppliers in Sweden, Finland and Denmark are aware of requests for contract-end time information from suppliers and brokers who have been given that right by customers. Suppliers thus know which customers to approach and protect.

### **Hurdles to Operation (No.35-36): 3;3**

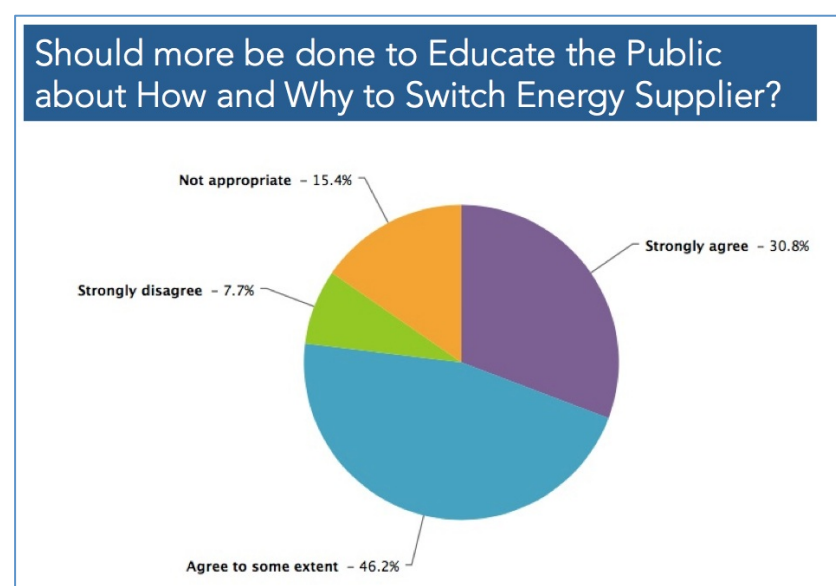
- Current APIs (application programming interfaces) for meter data are not considered sufficient for ESCO use.
- ESCOs (with customer permission) should be able to gain access to all (including real or near real-time) smart meter consumption data via in-home receivers, online or by other convenient means.

**Ideas for Change:**

- Suppliers in Sweden, Finland and Denmark should not be aware that switch-essential information about the customer has been requested by suppliers or brokers if those suppliers/brokers have the customer's permission.
- Improved APIs for consumption data via DSOs need to be developed.
- Smart meters should all be equipped with a standardised local port-based home area network communication of meter data into the home without too much variation in communication protocols.

**Awareness, Image and Trust**

There is a significant lack of trust in the electricity industry in the most, arguably all liberalised energy markets<sup>61</sup>. The Nordic markets are no exception. There are many reasons for this. Competition is only partly to blame. Combine this lack of trust with the marketing challenges facing any new entrant in any market - the building of customer awareness, differentiation and customer acceptance, in addition to the need to overcome customer inertia to switching for a homogenous product and (to them) odd market which they understand little about - and the cost of marketing become extreme. This is a cost that incumbents do not have to incur at all if they are only defending in the market, and do not have to incur so extensively even if they are trying to win customers if they already have a name in the market - likely to be limited to some large incumbents. Given, therefore that new entrant suppliers are competing in a market where most customers have only heard of their existing supplier and maybe some other high profile suppliers, the inequality between new entrant suppliers and their opponents becomes is a major valley to cross.



**Figure 33 - Should more be done to educate the public about how and why to switch energy supplier?**

It has been argued that new entrant suppliers in some cases can actually benefit from being fresh into the market - they do not carry the baggage of the incumbents and they can offer customers an alternative to the companies they have grown to dislike or feel are not giving them a good enough deal. This is true and new entrants position themselves to benefit (and do benefit) from their newness and difference. However, likewise, despite their image, incumbent suppliers benefit from their familiarity ('better the devil you know') and experience from markets around the world indicates that familiarity, in practice leads to more loyalty than differentiation leads to switching. The cost of marketing for

awareness, image and trust is therefore a burden borne mainly by those suppliers that are trying to win customers, and borne especially by new entrant suppliers.

Integrated incumbent suppliers also benefit from brand bundling - the combined awareness and familiarity generated by the supplier and a DSO having the same brand - the integrated supplier's brand is also partly paid for by the branding activities of the DSO and the years incumbent marketing that may have occurred prior to market liberalisation.

#### **Hurdle to Operation (No.37-38): Importance: 3;3**

- The cost and difficulty of marketing for awareness, image and trust is a burden borne mainly by those suppliers that are trying to win customers, and borne especially by new entrant suppliers. This is not only a major cost for new entrants but also a turn-off if they believe that they (and a few other suppliers) have to (and will therefore fail to) handle it by themselves.
- Brand bundling (of DSO and supplier brands) is seen as representing cross subsidisation of bundled incumbent suppliers by their associated DSO.

#### **Ideas for Change:**

- As shown by markets such as New Zealand (presently the most active market in the world regarding customer switching, due largely to a regulator supported information campaign), the competitive landscape in electricity markets becomes more balanced when the state and regulators takes on a key role in the awareness and education of customers. The Nordic markets should consider using New Zealand as a role model in this respect.
- Brand unbundling is a necessity for a level branding playing field.

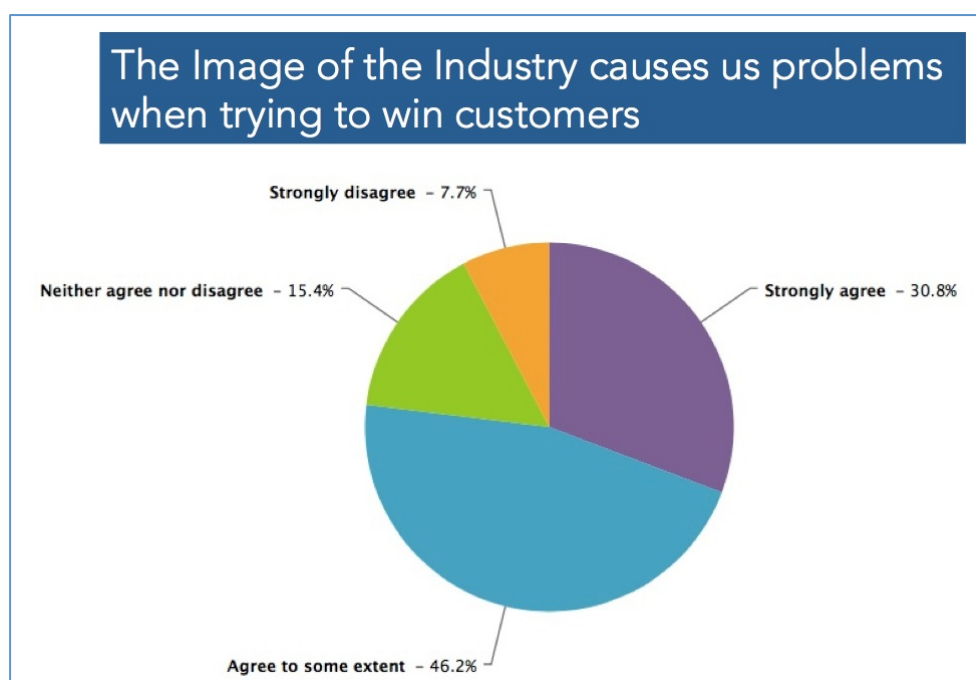


Figure 34 - The image of the industry causes us problems when trying to win customers

## Sales Channels

Two sales channels are thought to be great levellers in the competitive energy industry, namely price comparison services and the auctioning of customers. Price comparison services and customers auctions should be able to provide an equal public platform for all suppliers, subject to certain conditions, which must be ensured by best practices. However, too many price comparison services can be confusing to customers and the information on commercial price comparison services is not always of a very high quality. Prices may be misleading and not all competitors may be listed (it depends which competitors agree with the price comparison service) - which may depend on the commission of the price comparison service. A high quality independent, commercial web service can be excellent, but where there is doubt about the existence of sufficiently good price comparison services (which should allow customers to directly switch from the site), or in the event that too many customers are using sub-standard price comparison sites, it a powerful, full-service official service may be necessary. In Finland and Sweden there are currently good price comparison websites run by the regulators (in Norway by the Competition Authority), but to switch a customer needs to go through the site of the company that it is switching to (the customer is linked to it via the price comparison website). This is not optimal. The power suppliers have to report prices to this comparison services, but only on selected contract types. Over time there has been a movement towards offering more and more contracts not represented on this service. The Norwegian regulator and consumer organization, however, is establishing a new price comparison tool that hopefully will include all contracts available in the market. In Denmark, the regulator is now developing a price comparison service to take over from that run presently by the Danish Energy Association.

### **Hurdles to Operation (No.39-42): Importance: 2;2;2;2**

If the best sales channels are not optimised for the benefits of a level playing field, competition will be restricted. There is evidence that two of the most important channels - price comparison services and auctioning of customers - are sub-optimal.

- Price comparison services sometimes include prices which cannot realistically be found by customers. Some suppliers post low prices that are low enough to put them at the top of the prices compared list, but when customers actually visit the websites of the suppliers, those prices are difficult to find and less competitive prices may instead be offered to the visitors.
- Price comparison services do not necessarily contain all the competitors in the market. Customers may therefore not be able to see the best offers in the market or see clearly how their tariff or tariffs offered to them compare to the broader market.
- Price comparison services are only half baked if they do not enable the customer to directly switch through the site (as opposed to simply passing to company site) .
- There is not enough auctioning of customers in the Nordic Markets. But auctions are no use to customers unless suppliers bid for customers. Sometimes auctions lead to insufficient bidding competition and thereby result in uncompetitive offers. Such auctions can give a bad name to the whole process of auctioning, especially if the customers only find out that they received a poor deal after the switch took place.

**Ideas for Change:**

- Price comparison services should not be able to include prices which cannot realistically be found by customers.
- If price comparison services do not have all the competitors in the market, they should clearly state so.
- Official (e.g. by regulator) price comparison services should be seen as a major benefit to an active market. If they are developed they should be done well and should enable customers to switch from within the same service.
- More Auctions
- Suppliers winning auctions should be obliged to inform customers of where (e.g. a national price comparison site) they can find the comparability of the prices they are being offered. It should not be up to customers to find out for themselves.

There is also a concern that telesales is becoming ever more restricted in the Nordic market. As the mainstay of sales to win customers in the electricity market in the Nordic region, this would be disastrous to competition in the Nordic electricity market, both for new entrant and incumbent suppliers. As shown, for instance in Australia and Great Britain, when the main channel of customer sales is removed (door-to-door sales in Australia and Great Britain), levels of competition fall substantially.

**Hurdle to Operation (No.43): Importance: 2**

Sales opportunities for all suppliers would be heavily reduced if telesales is restricted in the Nordic region. Telesales is the main channel through which suppliers win new customers.

**Ideas for Change:**

Telesales must be conducted in a way that is acceptable to customers, and customers should have the opportunity to prevent unwanted sales call, but telesales should not be outlawed in the energy industry.

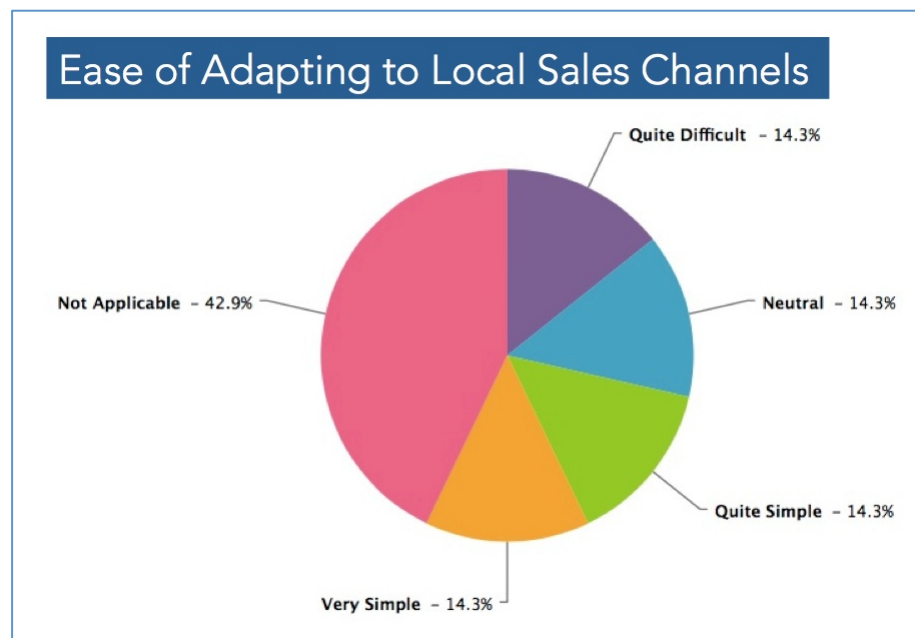


Figure 35 - Ease of adapting to local sales channels

## Mis-selling

Competitive energy markets, as other competitive markets, are subject to some mis-selling. The high profile nature of the energy industry however, means any mis-selling receives a lot of publicity. In the case of the energy industry, this has led to some customers being cautious of switching supplier, and this directly hurts all suppliers in the market that are trying to win customers. Suppliers have told us that their efforts to win customers are significantly affected by the image of the whole industry and of those suppliers who have mis-sold. It is therefore an imperative that mis-selling is minimised in the energy industry so that good new entrant suppliers are not restricted in their efforts to win customers. It is even more important for new-model entrants (including ESCOs) providing smart and other innovative energy services which require the trust of customers.

### **Hurdle to Operation (No.44): Importance: 2**

Customers are sometimes switched without their approval or knowledge, or are otherwise misled. Prices are often increased within contracts after the customer switched supplier or contract to obtain a better price. In some cases customers may be placed in fixed-term contracts without their approval or have their contracts rolled over without their awareness or consent. These and other mis-selling practices are a danger to the trust that customers in the market have in competition. Suppliers that behave in this way should have sanctions placed on them and should be removed from the market if they continue to offend.

### **Ideas for Change:**

- Sales phone calls should be recorded in full
- The Texas confirmation process could be applied. In Texas to avoid mis-selling the switching request confirmation process is applied, whereby after the customer has chosen and contacted the new supplier, the new supplier sends a switch request to ERCOT, the Texas energy regulator, which plays the role of intermediary in the customer switching process. ERCOT receives and validates it, then sends the notification letter to the customer. If the customer does not reply the switching proceeds to completion.
- The central hubs (when they come) may be a solution.
- The Nordic energy industry should consider creating a self-regulation supervisory organisation similar to that of Energy Assured in Australia which works to specify and ensure good sales practices in the energy industry by certifying all sales people. Any reports of malpractice are researched and the sales person's licence is revoked in the case of malpractice being confirmed. It could be though) that the onus is put on the sales company instead of the individual.
- A simple licensing process for extreme cases should be considered, allowing regulators to remove suppliers from the market if they are considered a danger to consumers and the future of the competitive market.

## Insufficient savings

There in fact are significant opportunities to save money by switching in the Nordic markets, but relative to incomes, the savings are considered by some new entrants as insufficient to motivate enough customers to switch. Part of the issue is caused by relatively low prices, part is caused by relatively low consumption levels per customer in Finland, Sweden and especially Denmark (Norway has high per customer consumption) for the majority of customers, and in Denmark especially, part is caused by the fact that taxes make up by far the lion's share of the cost of electricity for the consumer. Essentially the new entrants find it difficult to offer low enough prices to entice customers to switch. Of course it would not be politically acceptable, or even sensible to raise the prices of incumbent suppliers in the market in order to make it easier for new entrants to enter the market, but price matching<sup>62</sup> is one example of an issue that makes the current situation worse.

<sup>62</sup> When a supplier offers to match (or similar) a price that that customer has received from another competitor.

**Hurdle to Operation (No.45): Importance: 3**  
It is difficult for new entrants to offer sufficiently large savings to customers, especially in light of the price matching in the market.

- Ideas for Change:**
- As stated earlier, the practice of price matching should be abolished.
  - If more switching is desired by the regulators, an alternative would be to implement a price-to beat price regulation on standard incumbent prices whereby the price could not go below its present price for a given period of time. This is a highly sensitive measure politically, but one which has been successfully applied in for instance Texas and Ireland.

4.7. Customer Switching Process

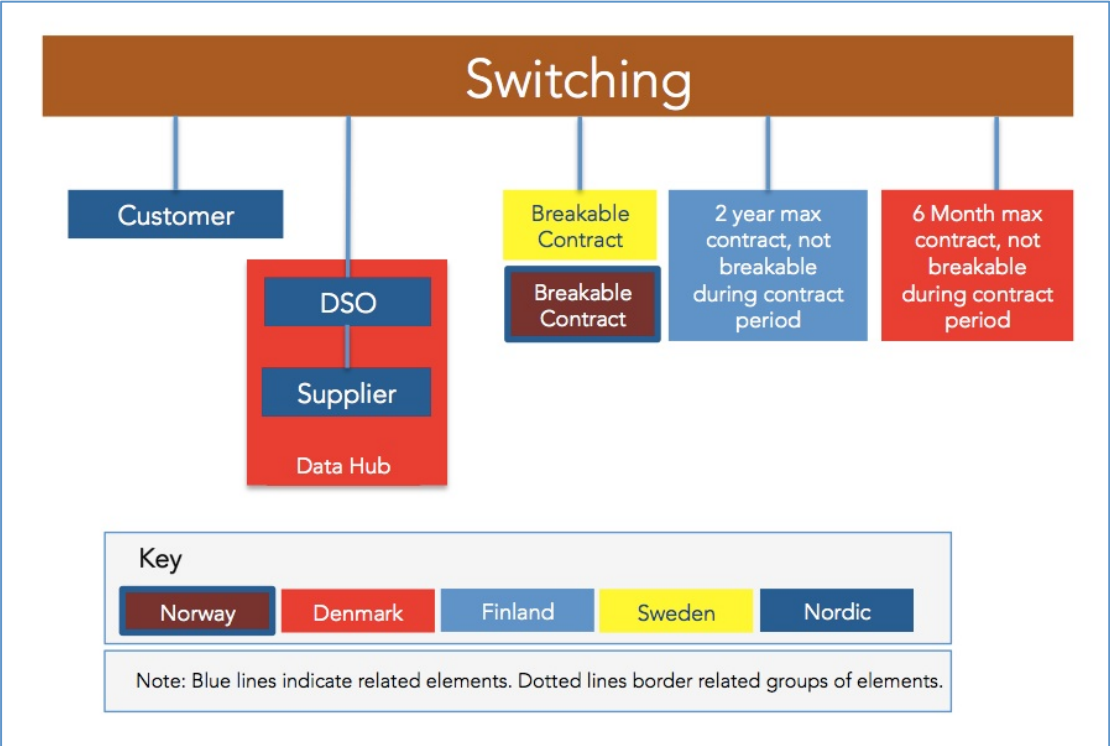


Figure 36 – Customer switching process

Switching processes are currently quite similar in each of the four Nordic markets but will differ significantly in Denmark with the coming of the wholesale model. There is a realisation among many respondents that the processes are now and will become increasingly more harmonised. Satisfaction with the switching process is consequently very high. Remaining differences between the markets relate primarily to timeframes, in particular to contract length and breakability. The small differences that remain are considered significant for the purpose of systems standardisation as explained further in the section on Systems Management. Even small differences in processes can make the automation of processes across multiple markets challenging.

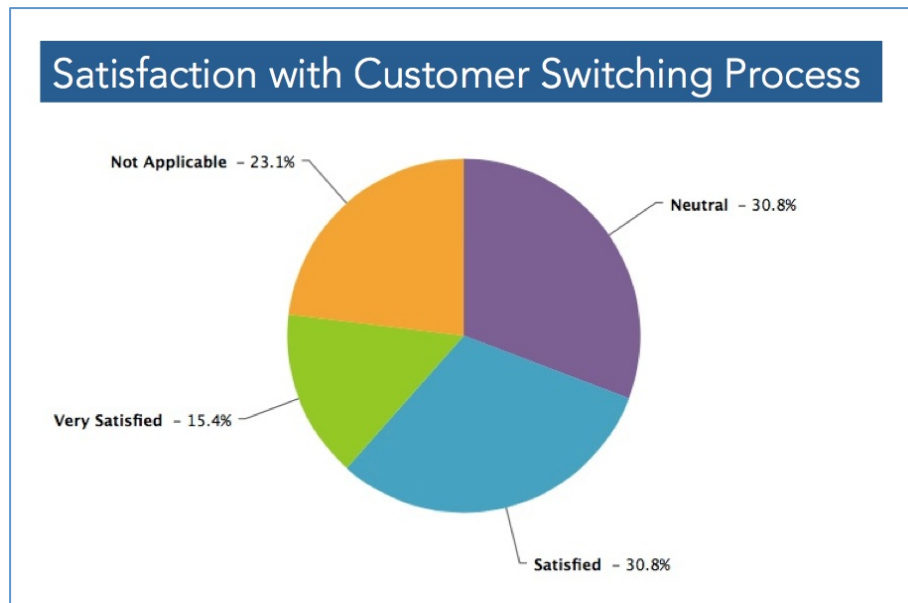


Figure 37 - Satisfaction with customer switching process

### Customer Tie-In

A competitive market should not have or need limits or controls on prices or products. But fixed-term contracts present a challenge in the minds of new entrant suppliers.

Fixed-term contracts allow suppliers to reap the benefits of their customer acquisitions (a supplier who wins a new customer is unlikely to make a profit on them unless they can retain the for at least two years), and allow customers to agree to fixed prices to avoid unpredictable or increasing prices. Customers are often not satisfied with fixed-term contracts however, often feeling trapped and duped by prices that eventually increase or turn out to be uncompetitive.

Customers in Sweden, Finland and Norway can break contracts if they are prepared to incur penalties. They therefore rarely do. Customers in Denmark cannot, but in Denmark the maximum contract period is only six months. It has been claimed that best practice should favour being able to more easily break contracts so that customers are more able to switch away from contracts that they are not satisfied with and make it easier for new entrants to succeed in the market despite large proportions of customers being tied in to existing suppliers through fixed-term contracts.

What seems to be more of an issue therefore is the length of contracts and whether fixed-term contracts should even be allowed to exist at all. It is highly questionable if customers can know if they are making the right decision on a contract that locks them in for two or three years within a market that is changing so dramatically in terms of prices, competitors and services, and what is the point of having competition if the many customers in the market are effectively not in the market because they are tied into contracts and if around half or even the majority of customers are customers who have never switched and are tied to contracts preventing them from doing so. New entrants unsurprisingly therefore tend to favour the removal of fixed-term contracts. As one supplier justified this position, "the most loyal customers are those who remain loyal because they trust the company, not because they cannot escape."



Customer Contract Length and Breakability			
	Maximum Contract Period <sup>63</sup>	Are Contracts Breakable	Consequence of Broken Contract
Denmark	6 Months. Can have longer but then non-binding for customer. <sup>64</sup>	Not during 6 month period	None after 6 months
Finland	2 Years. Can have longer but then non-binding for customer. They are binding for the supplier	Yes	Penalty payment. Moving is reason for ending earlier at no cost, or if supplier has broken the contract terms.
Norway	There are no time limits, most contracts are continuing <sup>65</sup> . Fixed price contracts are normally offered on one and three year terms (mostly one year).	Yes	Fixed price contracts normally have a breaking fee. Other contracts are breakable without penalty. Not heavily regulated – contractual freedom
Sweden	No limit	Yes	Penalty usually

Table 11 - Customer contract length and breakability

For a new entrant, the competitive challenge posed by a market where most of the active customers are tied in to a contract, is typically seen as much greater than the benefit they gain from being able to hold onto customers through fixed-term contracts, since:

- Customer acquisition is a percentage game. The more customers there are to target, the more customers you win. A smaller market is a less attractive market with less opportunity;
- It is inefficient marketing to target a largely unavailable market, approaching and even discussing with customers who, it turns out, are interested but not able to switch;
- The customers that are taken from the reach of new entrants through fixed-term contracts offered by incumbents are often of greater value than the customers who are not tied-in since the incumbent suppliers often target high value likely-to-switch customers with special offers before they switch;
- A supplier can keep a customer if they do their job well. They cannot win a tied-in customer however well they do their job. Fixed-term contracts work against better suppliers;
- A customer who switches once is likely to switch again (multiplies the size of the market and provides momentum to the activity in the market). Fixed-term contracts targeted by incumbent suppliers at incumbent customers who have never switched, prevents customers getting a taste of competition and reduces the size of the market still further.
- Some customers switch because of the predictability afforded by a perceived competitive price combined with fixed-term contract. These customers are sometimes duped into costly contracts and could be won instead by suppliers who win customer's trust in their future prices through their transparency and honesty.

<sup>63</sup> General customer protection rule

<sup>64</sup> Only applies to households.

<sup>65</sup> Few fixed-term contracts due to the "dynamic price areas" making it very difficult to hedge the sales

**Hurdle to Operation (No.46): Importance: 2**

A small and inactive market is seen as a hurdle to entry. Fixed-term contracts inhibit both the size and activity of the market, largely at the expense of new entrants, and therefore make it a less attractive and valuable market for new entrants. This hurdle is disputed by active incumbent suppliers.

**Ideas for Change:** Reduction or abolishment of fixed-term contracts in the energy market or at least the reduction of contracts to a maximum of six months as currently exists in Denmark). This has to be considered carefully in light of the objective of a liberalised market to freely offer products.

**Price Matching**

Another form of tie-in is price matching. Price matching is when a supplier offers to match (or similar) a price that that customer has received from another competitor. This can be seen as just part of natural competition. However, when it is done by an incumbent supplier to a new entrant, it represents a play on customer inertia: it is much easier to keep the customer than to win the customer since it is easier (from the customer perspective) to remain where you are than to switch. An incumbent supplier may not even have to offer quite such a low price but just enough to prevent the customer from bothering to take the effort to switch. Furthermore, by preventing the customer's first switch, the customer never gets the experience of switching and therefore does not get into the habit of exercising choice. To add to this, the incumbent supplier can use the additional margins that it earns from inactive customers to pay for the lower offers to the price-matched customers. In fact incumbent suppliers often offer lower prices to customers they expect to be offered lower prices by competitors, especially the (profiled as) most profitable and most likely to leave customers.

**Hurdle to Operation (No.47): Importance: 2**

Price matching is as preventing new entrants from acquiring customers, but more significantly it represents an uneven playing field, prevents the development of switching momentum in the market, and prevents many of the most profitable customers from ever switching in the first place.

**Ideas for Change:** Abolishment of price matching. It is prevented in some other liberalised markets including some of the most active markets in the world.

**Obstruction**

There have been some claims of DSOs as well incumbent and other suppliers being obstructive when it comes to switching processes. Examples relate, for instance, to suppliers receiving inaccurate or slow information from DSOs and other suppliers as part of the switching process. This can be to some extent said to be gaming when it is done by suppliers, but if it is done by DSOs (and it is difficult to know to what extent it actually is) or excessively by incumbent suppliers, then it can be said to be anti-competitive. There is simply no way, at present, of proving such obstruction, if it happens, nor any way to police it. The problem will be easier to identify when central hubs are in place in the Nordic markets (since at present most market processes occur through bilateral relations between suppliers and DSOs), but there would need to be a simple process of supervision, policing and redress in cases where suppliers claim obstruction.

**Hurdle to Operation (No.48): Importance: 2**

Obstruction by DSOs and suppliers within the switching process adds to incumbent advantages and makes the process of switching more expensive for suppliers as well as (potentially) less reliable for customers.

**Ideas for Change:** See Ideas for Change for DSO operations.

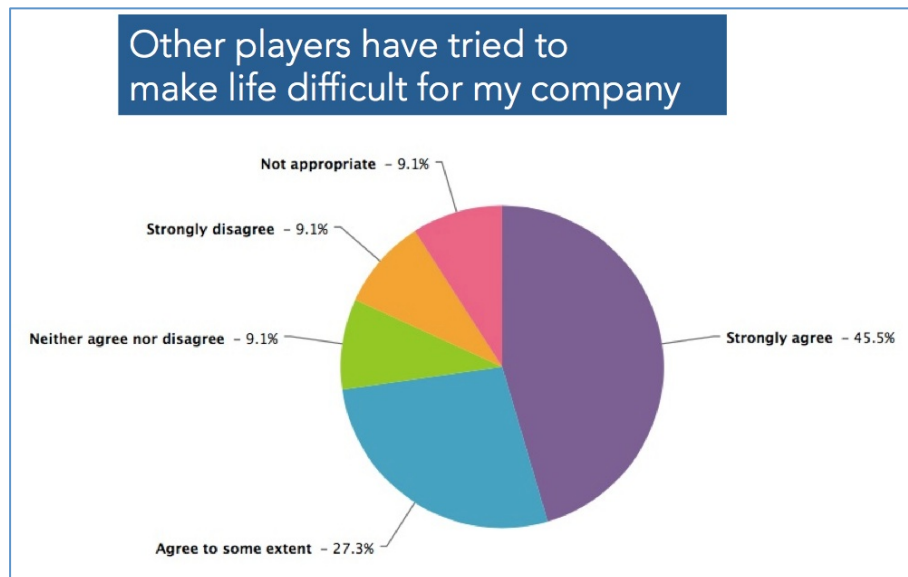


Figure 38 - Other players have tried to make life difficult for my company

### Combined Billing

Large numbers of customers won by competitive suppliers are then lost soon after because integrated incumbent suppliers are able to offer them combined bills while the competitive suppliers are not. The combined billing alone may not be enough to motivate the customer to return to their incumbent, but combined with familiarity, price matching (or price-undercutting for selective customers) and locality, the allure of their former supplier can be enough to win back the customer. If the customer is won back within one year, as often happens, the competitive supplier will probably have lost a substantial sum of money on the customer, making customer acquisition, in some cases, a no sense business.

#### **Hurdle to Operation (No.49): Importance: 3**

Combined billing being available only to bundled incumbents increases the level of win-back by incumbent suppliers and damages the business case for out-of-area organic customer acquisition (winning customers).

**Ideas for Change:** Competitive suppliers want to be able to offer combined billing, even if it is not made mandatory - although they want it to be mandatory.

### The Proposed Harmonised Nordic Model of Switching

The process of switching that is proposed for the harmonised Nordic market is seen in general as an efficient solution for the harmonisation process. The wish of most new entrants is that this process will be implemented as identically as possible across the Nordic markets so that a single process is attained. There are always going to be disputes over the exact details of any process, but what matters the most is having similarity in processes. One concern relating to the proposed process is whether, in the absence of a data hub and additional protections, existing suppliers will still be able to apply defensive marketing on customers between the time of the customer deciding to switch and the time when the customer actually switches, or between the time when the customers' brokerage service requests

customer information and the time when the customer decides to switch. In Denmark however, the old supplier will not be informed about the change of supplier until after the expiry of the cancellation period.

## 4.8. Customer Moving Process

The Nordic customer mostly does not seem to choose the supplier for the property they are moving into until after they move into it, although they may contact their existing DSO and or supplier (different tendencies in different markets) to cancel their existing (where they are moving from) supply, in which case the supplier has the opportunity to keep the customer in the new property. This is OK if the supplier has been chosen by the customer, but if it is an incumbent supplier, it means the incumbency transfers to the new location. It has also been claimed that the moving out process is sometimes abused by some DSOs (in Sweden, Norway and possibly Finland) who may pass the information of a move to their bundled supplier, which can then contact the customer to either keep or win the customer.

When the customer moves in to a property, customers are typically not advised by DSOs of their chance to switch supplier, except in Norway (in theory at least), and it has been claimed that some DSOs who are contacted by the customer on moving in to a property, assist their bundled suppliers. For whatever reason, it would seem that most customers moving into a new property end up with the local incumbent supplier (or in Norway often the DSO).

Some suppliers, such as Fortum are conducting heavy marketing to encourage moving customers to contact them before moving so that they can then switch to Fortum (or not switch away) during the moving process. It has been claimed though that many customers actually move away from competitive suppliers towards the local incumbent supplier of the distribution area to which they are switching. In fact one competitive Norwegian supplier claimed that 5% of their acquired (won) customer base moves home every year and that most of these customers leave when they move home, typically switching to the local incumbent supplier or then simply accepting the default DSO tariff because they do not understand that they are no longer being supplied by the supplier they were with before the move.

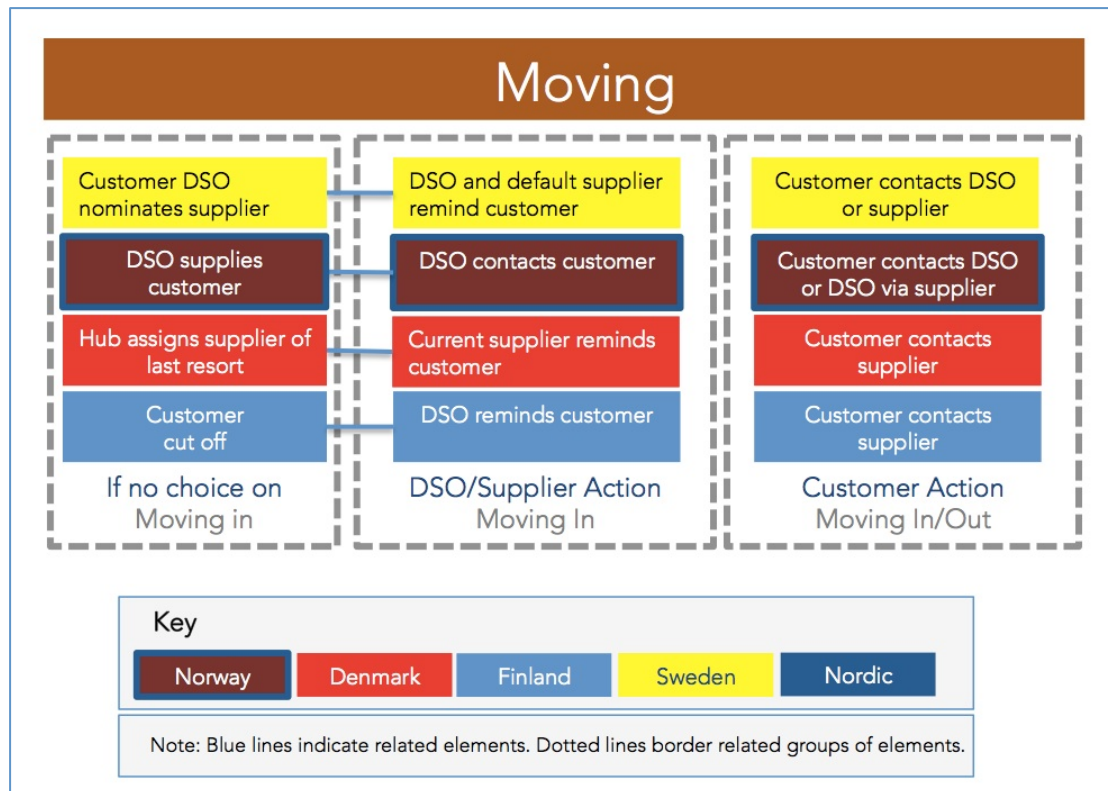


Figure 39 - Customer moving process

In Finland, if a moving-out customer ends a contract, the moving-in customer needs to make a new contract, but in such cases the chances are that the moving-in customer, who is reminded by the local DSO, will choose the local energy company if they have not already selected a supplier when they moved out of their old home. The fact that the customer will be cut off if they make no choice means though that the incumbent does not enjoy default status and may lead to more opportunity for competing suppliers.

In Sweden, the DSO and default supplier contact moving-in customers if they have not made a choice already, to inform them they will receive a default contract<sup>66</sup> if they do not choose a supplier. If no choice is made, the customer's DSO will decide on the default supplier for the customer. The default supplier and DSO of the property the customer is moving to and - to a lesser extent - the incumbent supplier associated (bundled) with the DSO of the property the customer is leaving (if the customer informs the local DSO when moving out), generally have the upper hand.

In Norway, customers who do not make an active choice are supplied by the DSO, who is obliged to inform customers that they may choose a supplier and inform about the choice of suppliers. The default prices charged by the DSO (supplier of last resort price set by DSO within limits set by regulation) are normally substantially higher than the prices of retail suppliers, thus giving the customer an incentive to search actively for a retail supplier. This can be seen as a partial solution to incumbent advantage when customers move. It is by no means certain though that customers will be bothered to choose a supplier (many are not) other than the DSO and there is some concern that some DSOs may still manage to favour their own associated (bundled suppliers).

Under the forthcoming wholesale model in Denmark, the customer will only contact a supplier (any supplier) when moving. The customer can continue with the current supplier or choose a new supplier for the new metering point – depending on the current contract. If a new supplier is not recorded in the datahub, the hub sends a message 'start of supply' to the supplier of last resort of that area. This

<sup>66</sup> 17% of customers have default contracts. Around 80% of these have them because of moving.

approach removed the DSO's influence over choice of supplier from the equation while moving. Today all move-in or move-out must be reported by the supplier. This will also be the case in the new version of the DataHub under the supplier centric model. When implementing the supplier centric model, the "supplier of last resort" is being replaced by an obligation to deliver if the customer asks for it and are able/willing to pay.

In practice, then, customers may remain with the original supplier (the supplier before the move) if they contact their own supplier to inform them of the move out, or the supplier bundled with the DSO of the location they are moving from, or the supplier that previously supplied the customer in the location they are moving to, but most likely with the incumbent supplier of the location they are moving to. If they give no notification or make no choices, they will either be supplied by the DSO on a supplier of last resort tariff (Norway), by a supplier chosen by the DSO (Sweden) - likely the DSOs bundled supplier or dominant supplier of the DSOs network area -, or then they will be cut off (Finland) after (typically) a few weeks, having been notified by the DSO.

Either way incumbent (or at least existing) suppliers have the advantage in most cases, and competitive suppliers tend to lose out, since few customers are aware of or think of their chance to switch supplier while moving, and incumbent players benefit from customer inactivity. New entrant suppliers have little opportunity to win customers as part of this process unless they are the ones with the customers already (and know the customer is moving), or can identify moving customers before they move or unless they can afford to conduct heavy marketing to all customers to catch the small percentage of moving customers.

#### **Hurdle to Operation (No.50): Importance: 3**

Moving home favours the incumbents in the area where the customer is moving to. New entrants (and incumbents with many won customers) can lose large numbers of customers to them when their customers move home, even though the customer has not done so for any competitive considerations.

#### **Ideas for Change:**

- The supplier in the place the customer is leaving AND the place the customer is moving to, should be obliged to inform the customer that they can choose any supplier, where they can choose from (e.g. a national regulator switching site) and that they may be able to get a lower price with another supplier. This obligation should apply to incumbent AND new entrant suppliers alike.
- The 100.000 customer unbundling threshold should be lowered or reduced to zero. There is also a strong case for full ownership unbundling to prevent DSOs favouring their bundled suppliers
- Inactive customers should be auctioned off rather than supplied by incumbent suppliers.
- A harmonized management between the Nordic countries of customers moving process.

4.9. Pricing

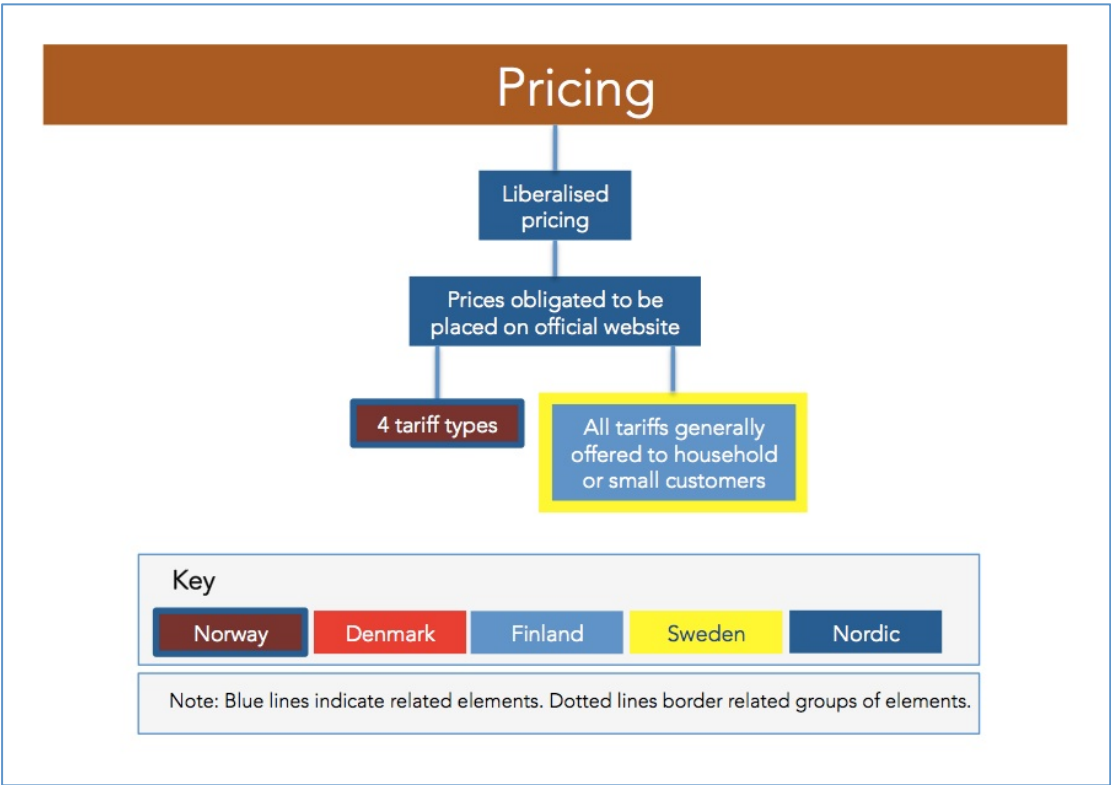


Figure 40 - Pricing

Price Information and Transparency

There is no pricing regulation in the Nordic markets, but transparency of electricity prices has arguably been more transparent in the Nordic markets than in most other electricity markets since distribution and electricity unit (supplier) prices and costs have been separated and since it is easy to compare prices to the wholesale market. In fact various researches have shown a close link between the electricity wholesale and supply prices in the Nordic markets and many tariffs are even tied to the spot market and sold as such.

In all the Nordic markets (forthcoming in Denmark) suppliers must keep at least the most typical tariffs up-to-date on the national price comparison website. This is done via easy to use online reporting tools or templates. The regulators conduct regular audits on the information contained within the service. This type of service is extremely important for market transparency, for customers to be able to compare offers in the competitive market and for a level playing field for marketing and competition for all.

A concern is that sometimes suppliers place prices on the price comparison website that are either not readily available or not available to many customers. There is also concern that in the name of transparency for customer protection, billing structures are regulated to a point that some suppliers feel inhibits innovation in tariffing and related services. Transparency and tariff variety are seen as complimentary if done in the right way.

	Regulator / Official Price Comparison Website	Obligation or Voluntary for Suppliers to provide up-to-date tariffs to Regulator (on Price Comparison Website)	Reporting Tool To Simplify Process	Audits by regulator
<b>Denmark</b>	Yes <sup>67</sup>	Obligation <sup>68</sup>	Yes <sup>69</sup>	Yes <sup>70</sup>
<b>Finland</b>	Yes	Obligation <sup>71</sup>	Yes <sup>72</sup>	Yes
<b>Norway</b>	Yes <sup>73</sup>	Obligation <sup>74</sup>	Yes	Yes <sup>75</sup>
<b>Sweden</b>	Yes	Obligation <sup>76</sup>	Yes	Yes

Table 12 – Price information and transparency

**Hurdle to Operation (Duplicate, Not Counted):**

It is difficult for companies with genuinely good offers to compete if suppliers with uncompetitive offers appear more competitive.

**Hurdle to Operation (No.51): Importance: 3**

Billing guidelines and rules and price comparison services can prevent or ignore (respectively) innovative tariffs.

**Ideas for Change:**

- Price comparison websites should highlight a supplier's track record with regard to customer satisfaction and misleading pricing. Suppliers should not be able to post prices that they cannot offer to a significant number of customers (the number should be stated). Suppliers should state the typical or average price that their customers - similar consumption - are currently paying, and should state if the price can be raised within the contract period to prevent misleading information. Supplier that offends repeatedly should be barred from the price comparison website but should still be obliged to report their prices to the regulator.
- Price comparison websites and billing guidelines should not hide or prevent innovative tariffs.

There is also concern that transparency may be reduced somewhat following any move to the supplier centric approach, since there is (even currently) and will be no mandatory split of the invoicing of electricity supply tariffs. This could be a concern if suppliers combine for instance cable TV and energy services and customers will no longer be able to compare their energy price with those from alternative

<sup>67</sup> Forthcoming service to be provided by regulator

<sup>68</sup> Details not yet decided

<sup>69</sup> When the new regulator portal is ready

<sup>70</sup> When the new regulator portal is ready

<sup>71</sup> All tariffs generally offered to household or small customers (excluding negotiated, membership or campaign offers etc.)

<sup>72</sup> Web portal

<sup>73</sup> New service being developed

<sup>74</sup> 4 types of contracts. Not obligated for other contract types.

<sup>75</sup> Audited by competition authority

<sup>76</sup> All tariffs generally offered to household or small customers (excluding negotiated, membership or campaign offers etc.)



suppliers. On the other hand, the ability of customers to see and compare also the whole amount of their energy bill (at present customers who have switched have their energy costs split between bills from the DSO and supplier) will be an improvement under a supplier centric model for active customers (customers who have switched).

In Norway and to a lesser but significant extent in Sweden, price transparency is further supported because of the popularity of commission based market prices where the price of energy is shown as the market price (aggregated for a given period) plus a commission.

**Hurdle to Operation (No.52): Importance: 1**

New entrant suppliers typically claim that the transparency and comparability of the energy component price is essential for being able to win new customers. There are some non-traditional suppliers, ESCOs and other new entrants, however, who argue that the disaggregation of price components will make it more difficult to build new business models which would provide comprehensive home energy management and aggregation services for the future. Services that mix traditional electricity supply with home energy generation, sell back (of electricity produced in the home), storage, electric vehicle charging, home energy management, capacity management and other components would for example be very difficult to price/cost disaggregate.

**Ideas for Change:**

It is difficult to balance the needs of energy price comparability with the needs of future innovative smart energy offerings, but there should be some attempt to enable the bundling of smart energy services.

4.10. Systems Management

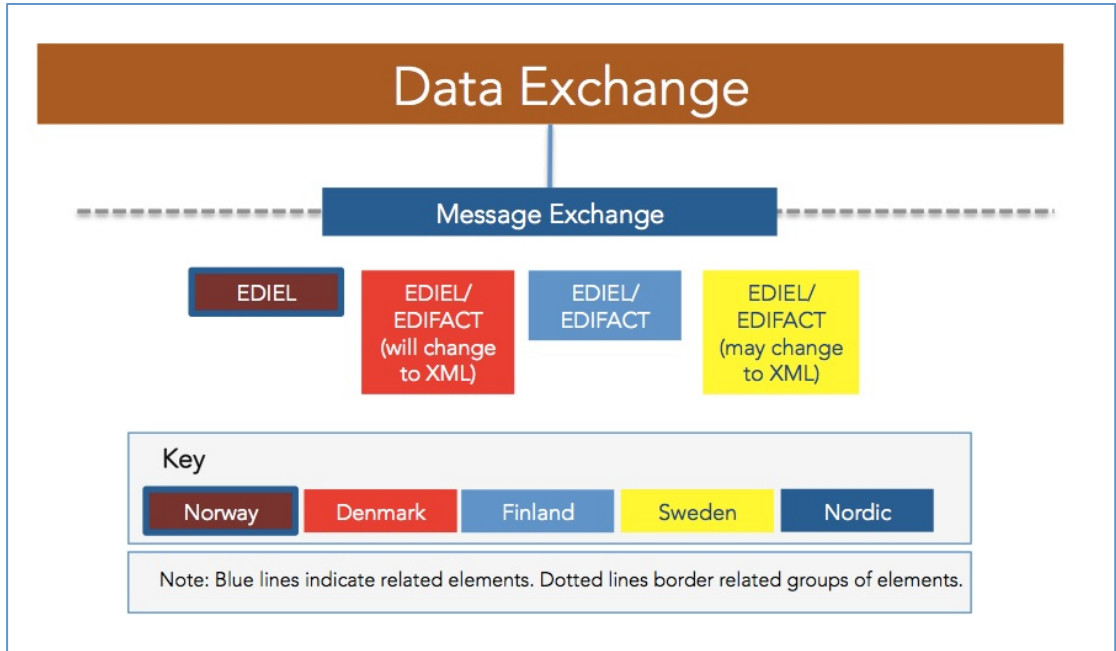


Figure 41 – Data exchange

Billing systems and the systems that connect to them, including CRM (customer relationship management); CIS (Customer Information Management); contract management; product /price/quote management; meter to cash systems (such as meter data management; billing; revenue assurance & management) represent a major part of the budget of suppliers in general. Other system components

include systems for managing switches and moving (in/out); customer analytics, marketing and call centre; operational reporting; forecasting; and demand forecasting and balancing (depending on their BRP relationship). Small suppliers, including new entrants, tend to have more simple architectures and systems, and older and larger suppliers tend to have more legacy (systems from the past), but in any case, the cost-efficiency of systems are a key aspect of the competitiveness of suppliers.

It is difficult to say if incumbents have higher per-customer system costs than new entrants. It depends on the individual supplier concerned. However, it can be said that some incumbents have very high cost-to-serve ratios and some new entrants have very efficient systems, and vice-versa. What is known though, is that small new entrants often encounter major challenges when they try to expand their businesses to a larger scale. For instance changing from a few thousand customers to a few tens of thousands of customers, to a few hundred thousand customers, can present difficult transformations for new entrants. In particular, new entrants often seem to struggle to move beyond a few hundred thousand customers. This may seem like an irrelevant threshold since there are no such new entrants in the Nordic markets, but it appears to be one of the reasons why small new entrants remain small, and why larger new entrants (such as incumbents moving from one Nordic market to another) may be more easily able to become large.

#### **Hurdles to Operation (No.53): Importance: 3**

Scaling up systems can be expensive and challenging

#### **Ideas for Change:**

- The more similar processes are between markets, the lower the system costs of operating in more than one Nordic market.
- Data hubs should improve the situation.

Regardless of how similar systems are, however, the issues of different languages, national laws and legacy systems will continue to limit the integration systems between any of the Nordic markets.

### **Information/Data Exchange**

Process interactions between suppliers and DSOs are primarily via similar but variable information exchange format in the Nordic energy market.

#### **Hurdles to Operation (No.54): Importance: 3**

It is yet to be seen how similar the processes will be under the harmonised market and under the supplier centric model, but data formats are currently different in each Nordic market. There are some concerns that the biggest challenge to making processes more similar is not protocol but information structure differences and the need to report new or additional information.

#### **Ideas for Change:**

Data formats, information structure, content and functionality should be the same in all Nordic markets if processes are to become acceptably similar for pan Nordic players. For this to happen fully it has been extensively argued that the market models will need to be the same.

### **Billing and Metering**

Typically, the largest single system cost relates to billing and related systems such as meter data management. Essentially the same billing systems can be used in all Nordic markets. The architecture behind the systems depends heavily on the market model however, and the implementation of the systems depends on the precise market processes.

Differences are often small but many. In Denmark for instance, a supplier can integrate grid and distribution fees into stated fees. In Sweden distribution fees have to be shown separately. This is in part due to variation in national laws, but it complicates market integration from the perspective of billing.

#### **Hurdle to Operation (No.55): Importance: 2**

It is an additional complication for bill format (the way they are laid out to the customer) requirements to be different in each market. This does not mean more regulation. It simply means that the different regulations in each country on this matter should be harmonised. In fact there is consensus to reduce the amount of regulation relating to bill format (how the bill looks and is laid out to the customer).

#### **Ideas for Change:**

Whichever bill format regulation is chosen by regulators, it should be the same in all markets.

In fact, the Danish combined billing provides an interesting benchmark process for combined billing that is clearly favoured by the Danish respondents.

### **Danish Combined Billing Process Under the Wholesale Model:**

The **DSOs** will feed general information into the DataHub on:

- Different grid tariffs, their prices etc.

The **DSOs** will feed the following meter-specific information into the DataHub:

- Identification of meter, including meter number and address, etc.,
- Grid tariff related to the meter,
- Metered readings specified per meter.

The **TSO** (Energinet.dk) will feed general information into the DataHub on:

- Different TSO tariffs, their prices etc.
- Costs for public service obligations (PSO-tariff),
- Tax-related issues, such as applicable tax rates etc. (from tax authorities)

The **Electricity retail suppliers** will feed meter specific information into the DataHub on:

- Customer information, name
- Customer specific exceptions for normal TSO, PSO and Tax related tariffs, e.g. tax reductions due to electrical heating

DataHub stores the different feeds and on the basis of the necessary billing information; meaning measured or calculated consumption data, general price information on DSO-, TSO-, PSO- and TAX tariffs and meter specific information on which tariffs the supplier of the meter should be billed. The DataHub then calculate aggregated amounts per supplier, per grid area and tariff and send the amounts to the relevant supplier and the tariff owner (DSO/TSO). When the DataHub receives the different information from DSO or TSO, the supplier is also immediately informed with the same information, so that the customer of the meter can be billed accordingly by the supplier.

On the basis of the information provided and received from DataHub, the DSOs and Energinet.dk will bill the electricity suppliers on a monthly basis for their services. The payment will be in a lump sum, not specified per consumer. DataHub also calculates accumulated amounts for non-consumption related fees that DSO's are allowed to bill the supplier, for example due to an extraordinary reading on a specific meter.

A concern that has been raised is that the current differences from one DSO to another relating to billing and related processes also causes issues for suppliers. Even small differences can cause significant system inefficiency and administrative inconvenience. This will not be a problem any more if

data hubs will be in place, but will be where a supplier centric model is introduced without data hubs in place.

**Hurdle to Operation (No.56): Importance: 2**

Billing related processes can vary slightly from DSO to DSO even within the same market. This presently causes additional system inefficiency for suppliers.

**Ideas for Change:**

- DSO should follow exactly the same billing related integrations with suppliers.
- Data hubs are considered extremely important as part of the supplier centric model.

**Combined Billing**

A major challenge that has faced new entrants has been the fact that customers who switch supplier end up thereafter receiving two bills: one from their supplier and one from their DSO. This is in fact not efficient for the DSOs, but it is especially inconvenient for the customer and can lead to customers preferring not to switch or then switching back to their former incumbent supplier in order to once again receive a single bill. The supplier centric approach would remove this problem by ensuring combined billing, a single bill with the DSO and supplier's element both incorporated and presented to the customer by the supplier. Every supplier interviewed for this research favoured combined billing.

**Hurdle to Operation (Duplicate, not counted)**

The two-bill situation for switched customers can result in some customers not switching or switching back to their former supplier.

**Ideas for Change:**

Combined billing should be seen as an urgent imperative for the entire Nordic market.

## 4.11. Customer Lifetime Value

Customer Lifetime Value is the financial value of a customer to a supplier or ESCO over the period which that customer is kept.

The value of a customer to a supplier is essentially determined by a simple formula:

**Profitability of the Customer X Length of the Relationship.**

The yearly profitability of the customers is determined by the formula:

**Price the customer pays (P) X Volume of energy purchased (V) - Cost to Serve the Customer (CTS)**

CTS includes the day to day cost of serving the customer, the cost of winning the customer (in the case of a won customer), the cost of retaining or winning back the customer (in the case of customers who have to be incentivised beyond price to stay or return) and all the other operational costs mentioned in this report.

A fundamental disadvantage faced by new entrants in electricity markets is that:

- An inactive customer - a customer who has never switched (the majority of the customers that make up the customer base of an incumbent supplier) can remain a customer of their supplier

for as long as they live within the distribution area of the incumbent supplier and perhaps even until they die if they do not move home or contact their supplier to inform them of a move of home. It would be conservative to estimate the average length of a relationship for an inactive customer to be around 20 years or more. The active length of a relationship for an active customer (a customer who has switched at least once) is around two to three years but varies heavily depending on the nature of the customer, the activity of the market and the length of the contract.

- New entrant suppliers typically have to offer a lower price since they live off customers they win. The price their customers pay is therefore generally less than the price paid by inactive customers that remain with incumbent suppliers. Gross margins are consequently smaller for the average new entrant supplier's customer than for the average incumbent supplier's customer. This lower margin may be moderated however for suppliers who raise their prices once customers join them but in such cases customer loyalty and therefore length of the relationship is also generally reduced.
- It costs a lot to win new (active) customers and to keep them at the end of the contract and they are more likely to default on payments or pay late than customers who are not active (although this depends to some extent at least on the way in which switchers are targeted and marketed to). The cost to serve an active customer is therefore generally far higher for new entrant suppliers and therefore their net supplier margins on customers are substantially lower.
- The customer lifetime value of a new entrant supplier is therefore far lower than that of an incumbent supplier.



Figure 42 - Is it difficult for new entrant suppliers to compete against incumbent suppliers because they have the most profitable customers?

**Hurdle to Operation (No.57): Importance: 3**

It can be extremely difficult for a new entrant supplier to compete if they are competing with suppliers who are selling the same commodity but making much more money doing so and able to use those additional profits on defensive marketing or transfer the profits from the inactive customers to protect their potentially active customers (especially those that they do not want to lose) from being acquired by new entrants, while not protecting the customers that they deem less or unprofitable. There are those who claim that the opposite is true, that new entrants can cherry pick the best customers since they do not have an incumbent obligation to supply, but the reality is that inactive customers are on average, worth much more than active ones.

**Ideas for Change:**

If the objective is a level playing field for competition, the opportunity for new entrants to acquire a similarly profitable customer base should be sought. Possible courses of action might include auctioning off non-switcher incumbent customers and spreading them among a broad mix of 'best bidders' (including incumbent suppliers if their bids are sufficient), or neutralising incumbent supplier advantages (perhaps through something like 'price-to-beat' as used in the past to some extent in Ireland, Texas and Great Britain), at least until new entrants are able to develop a similar average CLV and customer base. \*Price-to-beat is the process of restricting incumbent supplier pricing so that they cannot lower their prices below a given level in order to compete with new entrant offers. This provides new entrants with the chance to offer sustainable discounts. These suggestions should be carefully considered in the light of the objective of freedom of product and offering creation in a liberalised market.

**Hurdle to Operation (No.58): Importance: 3**

It is much easier to keep customers than to lose them, especially when a supplier can use the larger margins it receives on inherently loyal customers (those who have never and are unlikely to ever switch) to fund targeted pre-emptive discounts (discounts just large enough to stop otherwise active customers from switching - these can be smaller than the discounts offered by the supplier that is trying to win them) on the smaller number of customers who they are in the process of losing or likely to lose. If new entrants' efforts to win customers are scuppered in process by incumbents utilising margins transfer, then the business case for organically acquiring customers fundamentally reduces.

**Ideas for Change:** It has long been our belief, based on the body of international evidence surrounding the dynamics of customer switching in liberalised energy markets, that:

- DSO's should be ownership unbundled from supply businesses. This argument is supported by the research conducted for this investigation.
- Price transfer, in all its forms should be prevented in energy markets. Incumbent suppliers should not be able to offer prices to active customers (customers they stand to lose or are trying to win) that are lower than the prices being given to equivalent inactive customers that they have never had to win. This argument is supported by the research conducted for this investigation.

## 4.12. Inter-Market Synergies

### Smart Metering

Smart metering makes competition easier for new entrants. Through smart metering, suppliers are able to more easily obtain customer information for the purpose of switching when smart meters are in place. For this reason and the expectation that smart meters will afford new opportunities for added

value differentiable service for suppliers and ESCOs, new entrant suppliers and ESCOs tend to consider the existence of smart meters to be an element of market attractiveness.

Smart meters are now installed across Sweden and Finland. In Norway, they will be rolled out mostly by January 2019. In Denmark they are in the process of being rolled out voluntarily. The partial approach presents additional complication to suppliers and ESCOs that do not have a consistent base of metering infrastructure to build efficient processes and business models on.

**Hurdle to Operation (No.59): Importance: 3**

The absence of smart meters in (partially) Norway and Denmark is considered a negative market characteristic.

**Ideas for Change:**

It is up to each state to decide on the pace and the nature of smart meter rollout, but consistency of smart meter implementation across the Nordic region will enhance the appeal of the market and facilitate easier integration of pan-Nordic business models.

## 4.13. Customer Protection

The importance of customer protection was not challenged by any of the respondents taking part in this research. On the contrary, a number of the most successful new entrants in the market are positioned on the strength of their transparency, trustworthiness and overall quality of service.

Customer protection in the Nordic markets takes place, however, primarily through the application of national consumer laws that are not specifically intended for the electricity market. As such the findings of this report are unlikely to have much bearing on those laws.

Specific consumer protection actions however can be seen especially in billing and pricing regulations however. In the structure of bills and the transparency of prices.

One consumer protection regulation that was of concern to a very actively competing supplier that operates in several Nordic markets, was that in Norway, a customer who was falsely switched can have their switch reversed up to three years after the switch took place. While the logic behind this rule makes sense, it was claimed that rules like this can be seen as reducing the value of the customer base since suppliers may not have the information required to challenge such claims. This should not be seen as a Hurdle to entry, or even a Hurdle to operation, but a common feeling among a large proportion of respondents is that customer protection can sometimes go too far, and can in so doing increase costs for suppliers and ultimately customers.

## 4.14. Impact of Bundling

As alluded to throughout this report, there are concerns that some legally unbundled utilities companies, or those which are not unbundled due to their small size, may be utilizing their position as DSOs to benefit their related suppliers. Bundled suppliers can also be accused of subsidizing their supply activities through the use of their regulated non-competitive revenues. This is not substantiated by this report and should be assumed only with caution, but it seems difficult to justify the ownership bundling of incumbent DSOs with incumbent suppliers in a market where any biased relationship between the two would be counter-competitive. The current combined billing situation and bundled brands are forms of accepted advantages incurred from bundling. The argument follows that if it is worth doing it is worth doing right. As long as incumbents DSOs have a (even theoretical) motive to be partial, there is surely a risk of partiality.

**Hurdle to Operation (Duplicate, Not Counted):**

As described in various hurdles mentioned above, any competitive advantage that would be gained by an incumbent supplier through its relation to a DSO would be detrimental to the competition and market entry by new competitors.

**Ideas for Change:** Opportunities for DSOs to favour related suppliers should therefore be closed as has been done in the most active markets in the world (e.g. Australia, New Zealand and Texas). Ultimately, ownership unbundling might therefore bring greater appeal to the market. e.g. Less vertical integration.

There is also a lot of concern that DSOs are allowed to provide additional services, such as feedback, smart home and other services - either on their own or with their bundled supplier - that compete directly with the services of new entrants, unbundled suppliers or ESCOs. These activities are seen as spreading the costs of services across competitive and monopoly business and enabling the costs for suppliers' service development to be supported by benefits realised in the distribution business. The idea of spreading costs and benefits per se, is not the problem, but the possibility of it creating an un-level playing field in favour of integrated incumbents is a serious concern to those who would like to provide those same services. This concern extends also to commercial third party services that may have privileged deals with DSOs and to DSOs having a clearer view of smart meter and other DSO infrastructure timetables and roadmaps - and therefore being better able to plan smart service strategies than non-partner suppliers or other third party service providers.

**Hurdle to Operation (No.6o): Importance: 2**

Bundled incumbent suppliers and privileged DSO suppliers may have an unfair advantage when providing feedback and ESCO services.

**Ideas for Change:** DSOs should play the role of impartial facilitators of smart services, albeit fairly incentivised for their part in the process.



## 5. What are the Biggest Costs For New Entrants?

It is extremely difficult to detail specifics about what drive the biggest costs for new market entrants. Relative costs will depend on the nature of the business, the historical context (the existence of legacy systems), strategy, the scope of services to be supported and many other factors. One company interviewed for the research stated that they had only eight staff to support 90.000 customers. Other companies with fewer customers and similar context employ far more. Some suppliers employ vast numbers of systems to do what others do with few. Some companies are extremely expert at managing risk or wholesale matters, some are highly efficient with automating processes. Some companies put an emphasis on marketing, others state that they do not do much marketing even though they have won large numbers of customers.

Ranking costs is therefore no more than a summary of averages and does not necessarily represent any company in particular, nor implicate the outcome for any future new entrant into the market. It is nevertheless valuable to get a feel for the overall picture. Where are costs, on average going. Where is the money being spent, from an aggregated perspective, based on, and only on, the responses given by those interviewed for this research.

The following ranking is based primarily on answers obtained through the interviews with suppliers (not ESCOs), supported additionally by the questionnaire<sup>77</sup>. The ranking is therefore an aggregated and assumed interpretation of the stated relative cost of different business operations as stated by interview respondents and the incidence of top five costs stated by questionnaire respondents. It should merely be seen as an indicative ranking of the costs that were mentioned in the

New Entrant Cost Rank	
Cost	Significance (1-3 where 3 is the highest)
Customer acquisition (including sales, marketing and switching process costs)	3
Obtaining customer information	3
Billing, collection and revenue assurance	3
Wholesale and Risk management	3
Salaries	3
Customer management/Information Systems	2
Other Marketing costs	2
Other Systems costs	2
Balancing	2
Moving process	2
Financing	2
Pre-entry information gathering	1
Company setup costs	1
Other company operation costs: rents etc.	1
Forecasting and pricing	1
Other: Trademarks etc.	1

**Table 13 - New entrant cost rank**

Based on the above description, it can be seen that the biggest costs facing new entrants, especially the more active new entrants, are the costs of acquiring customers and obtaining information on customers, thought to be lower in a market with a data hub. Any wasted effort in trying to obtain

<sup>77</sup> Non-prompted, open question: "What are the FIVE biggest COSTS facing your company when OPERATING in the market of primary focus in this questionnaire? Please rank in order with most important first"

information on customers - for instance in order to start the switching process - or through an existing supplier reversing the switch before it is completed, or through a customer switching again within a year or two of being won by a supplier, can be devastating to the profitability of a new entrant.

Systems and process related costs are also a major component of the costs of a new entrant. Where market processes and systems are not uniform between markets, these costs are multiplied in proportion with the level of variation that needs to be coped adjusted to. For instance a company may need to only increase staff and system costs by 10% to handle two markets that are identical, but may need to increase those costs many times more if the markets are not similar enough to facilitate synergies.

## 6. About the Author



**Dr Philip E. Lewis**  
**CEO and Founder, VaasaETT**

Dr Lewis is a World leading expert in competition and customer behaviour issues in the energy utilities (electricity and gas) market globally. During 17 years in the liberalized utilities industry Dr Lewis has conducted research and strategic support in over 60 countries in five continents for a diverse array of over 500 organizations (utilities, governments, regulators and other stakeholders).

Dr Lewis' World Energy Retail Market Rankings report is the leading authority on competition and customer switching levels, trends and analysis around the world, and his definition of customer switching was adopted as the norm within Europe and Australia (by the European Energy Regulators Group for Electricity & Gas, CEER, as well as the Energy Suppliers of Australia Association). He is also founder and director of The Utility Customer Switching Research Project (see: [www.utility-customer-switching.com](http://www.utility-customer-switching.com)) and Switchstats Australia (the only long-term Australian project collecting and analysing competition level / switching data directly from all the leading Australian energy suppliers – conducted in close collaboration with the ERAA and Australian suppliers).

A member of World Economic Forum Global Agenda Council on the Future of Electricity 2014-2016. Named among the most influential people in Smart Grid in Europe by Metering International 2014. Dr Lewis has led and written many major Nordic and European level reports focusing on competition issues including two national competition reviews for the Finnish Government, three European wide benchmarking reports for the then ERGEG, an official public consultation report on Billing for NordREG, and numerous other projects.

On a scientific level, Dr Lewis holds a PhD in Marketing (specialising in service marketing, customer psychology and behaviour issues) from the University of Edinburgh, Scotland, was formerly an Assistant Professor of Marketing at the University of Vaasa business school in Finland, has written in numerous academic publications and has been on the editorial board of the European 'Energy Efficiency' Journal published by Springer, a reviewer for the International Journal of Energy Sector Management, and is a Faculty Member for the Diploma of Advanced Studies programme in Renewable Energy Management at the University of St Gallen Executive School in Switzerland.

Dr Lewis has also been on various influential committees for e.g: 'WWF (European Policy Office) Green Power Partnership Advisory Committee', the International Utility CIO of the Year Awards, and many leading conference committees, and has frequently been a keynote speaker or keynote chairman at some of the world's largest and most prominent events such as European Utility Week.

He was also founding chief editor of the book 'The Energyforum Global Report', the world's first comprehensive review of competition in liberalised markets around the globe, and has for many years been a co-writer of Capgemini's European Energy Markets Observatory.

Formerly head of Marketing Research and Analysis for UK based retailing subsidiary of (now) BP Amoco and (now) Edf, during the onset of competition in the British retail energy market, he was then founder and chief of Finland's leading energy markets think-tank at the University of Vaasa.

## 7. About VaasaETT

VaasaETT is a world leading international specialist research and advisory company. We analyse and model experience and thought leadership from over 60 markets around the globe to drive end-customer focus into the energy utilities value chain. We build value for customers, the energy industry and the environment through expertise in marketing, competition and the development of Smart and other services, backed by our world class market monitoring, unmatched insight into customers and our global information network.

VaasaETT are world's leading experts in utility customer behaviour and psychology; the world's leading source of global customer switching data & analysis; the source (Dr Lewis) of the EU's definition of electricity & gas customer switching; the world's most extensive source of smart grid / smart energy demand and demand response program benchmark data (>500 analysed); Europe's best source of comparative up-to-date retail energy price data; and the world's only organisation to have tracked every competitive energy markets since full market opening, including the markets covered in this report. Our internal experts have provided research, analysis and consulting for over 500 clients globally.

More information at: [www.vaasaett.com](http://www.vaasaett.com)

## 8. About NordREG

NordREG is an organisation for the Nordic energy regulators. Its mission is to actively promote legal and institutional framework and conditions necessary for developing the Nordic and European electricity markets.

### Areas of work

The basis for the co-operation within NordREG is to identify areas of work where cooperation can take the following forms:

- Exchange of views
- Working together to map and analyse energy market issues
- Producing reports and statements
- Taking common action to influence the development of the Nordic or the European energy markets

### Mission

In cooperation, we actively promote legal and institutional framework and conditions necessary for developing the Nordic and European electricity markets.

### 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.

More information at: [www.nordicenergyregulators.org](http://www.nordicenergyregulators.org)