A step change – New market place

Introduction
The landscape for servicing our electricity grid and network is rapidly changing and there are new demands to develop the infrastructure across the Nordics. End-consumers and regulators place increasing demands on network reliability. During the last decade storms such as Gudrun, and recently Simone, have hit the Nordic grid owners resulting in major expenditure on repairing and renewing the networks.

Current power networks approaching end of technical life combined with the expansion of renewable electricity production require large investments in new connections and new power capacity.

Integration of the European electricity market and introduction of grid codes and homogenized practices across the EU is also driving new expenditure and changing the business environment.

The above leads to a market that is set for a step-change in expenditure levels and new ownership structures – what will this imply for the PT&D industry?

Furthermore the industry as a whole is in a state of flux with Fortum having announced that it will divest its grid and on-going regulatory uncertainty with respect to the overall revenue for distribution companies.

Finally, how much consumers should pay to reinvestment is a key topic in several Nordic countries with regulation driving how Transmission System Operators (TSOs) and Distribution System Operators (DSOs) can invest in building, upgrading and renewing the networks.

Coupled together this creates new business opportunities in a changing market.

In particular the major investment program in the Nordics create opportunities for PT&D service providers and other related market players.

The PT&D service market has during the last years mainly been a low-margin industry in fierce competition. New entrants and owners of PT&D service companies need to realize higher than historic EBITDA-margins by developing new business models and achieving economies of scale to fully tap a rapidly growing total market.

In this report we outline how we view the current and coming market, opportunities and impact on the Power Transmission and Distribution (PT&D) industry

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Key messages

The PT&D industry is becoming more complex through technology developments and rapid introduction of intermittent power sources such as wind and solar.

Capex in the transmission grid is expected to grow significantly over the coming years – national TSOs estimate total expenditure in the Nordics to be approximately EUR 10 bn in 2013-2017 which is significantly higher than the historical spend.

The investment wave in the Nordics has just been initiated but may be delayed caused by regulatory delays in concessions resulting in the operators inability to materialise the current expenditure plans on time. PwC estimated that the investments can be delayed at least 1-2 years leading to a shift in the wave.

The power distribution market is in for a similar shift as in power transmission driven by similar trends.

However the Nordics is a highly fragmented market with different structures in each country with respect to DSO ownership and level of outsourcing.

Main players on the power service market have had low profitability and many have been acquired by private equity expecting to realising higher future margins.

The coming expenditure wave and market flux will have a significant impact on the industry but it will vary depending on market participant with key areas being:

- Deliverability of capex – prioritising and managing the capex build-out
- Managing complex grids – integrating renewables into the system and prioritising investments
- Driving higher margins – how service companies can focus on profitable projects
- Reducing expenditure level – creating competition in PT&D service market
- Procurement strategy – how to procure service efficiently
- Balance between increasing outsourcing or maintaining control inhouse

The investment wave will lead to a significant increase in expenditure in renewing the Nordic electricity grid in the next decade which represents a step-change. This will lead to new market opportunities and impact all participants from owners and regulators to service providers. However there is a significant risk that plans may be delayed, postponed or create bottlenecks resulting in a challenging future.

About electricity networks

Electricity networks comprise of both transmission infrastructure and distribution infrastructure.

Transmission can be defined as the transfer of large amounts of power around a country or region or between countries, from generating power plants to substations located near where it is consumed. Power transmission is carried out via the national grid (or transmission grid) which consists of high-voltage power lines.

Distribution is the final stage in the delivery of electricity from to end users via smaller power lines at medium and/or lower voltage. Power distribution includes both medium-voltages power lines forming the regional grids and low-voltage local grids.

Electricity is very valuable – especially when it is not there”

Ståle Eirik Johansen, Head of Energy & Utilities PwC Norway
The power transmission and distribution industry is becoming more complex

### 90’s
- **Beginning of electricity market de-regulation**
  - Few and dominating state owned players
  - Market regulated with few private enterprises
  - Not seen as a “growth market”

### 2000
- **New players due to unbundling**
  - Unbundling in some markets begins
  - Creating a new service industry and new players to take advantage of a new market
  - Emergence of a new outsourcing and service industry

### Today and tomorrow

#### Complexity & Scale
- Technology developments are making the market increasingly complex
- Cross border initiatives drive the need for international players
- Increased need for advanced services and know-how
- Higher demands on system security and availability also drive complexity
- Suppliers are consolidating to benefit from scale and scope advantages

Increased complexity and the need for scale advantages is characterising the PT&D service industry today and going forward increasing the demand for players with a broad competence base and geographic reach.
Power transmission

Transmission of electricity in the Nordics is challenging. An electric future requires stronger grids, availability and faster communication.

Transmission of electricity
The Nordic Power system is dominated by hydropower accounting for approximately 50% of the total Nordic generation capacity. The rest of the generation consists of a mixture of sources: nuclear power, thermal power and renewables.

Electricity production differs considerably among the Nordic countries. Hydropower stations are located mainly in northern areas, while the majority of our electricity consumption occurs in the south.

Just as there can be traffic congestions in the road network, constraints can also arise in the power network.

A constraint arises where the electricity system is unable to transmit the power supplied to the location of demand due to congestion at one or more parts of the transmission or distribution network.

Physical limits on power lines and transformers create bottlenecks in the transmission system. The bidding areas are divided into a number of bidding areas, the Nordic region is divided into a number of bidding areas.

The complexity of managing balance in the system has increased given the rapid introduction of renewables – and peak prices will be ever more frequent.

The different bidding areas help indicate constraints in the transmission systems, and ensure that regional market conditions are reflected in the price.

The bidding areas may get different prices, due to bottlenecks in the transmission system.

As such, bidding areas give a signal where investing in additional transmission capacity is required.

A significant amount of Nordic power production is in the Northern regions with consumption in urban southern areas.

Source: Nordpool

2013 The Investment wave – today and tomorrow
The Finnish transmission system is operated by Fingrid owned by the State of Finland (54%), Mutual Pension Insurance Company Ilmarinen (19%) and other institutional investors (27%).

The system consists of 4,300 km 400 kV grid, 2,600 km 220 kV grid, 7,500 km 110 kV grid, and over 100 substations. Fingrid's outsources all construction and maintenance to service providers and contractors.

The Swedish Transmission system, covering approx 15,000 km of 220 kV and 400 kV lines and stations, is operated by SvK, which is a fully state-owned entity.

All service contracts are subject to public tender as state-owned entity. However, some minor maintenance work is procured within existing framework agreements.

**Energinet.dk**

Energinet.dk operates the 400 kV transmission grid in Denmark. Unlike the other Nordic countries, the Danish TSO also operates the regional distribution network, consisting of 119 stations and a total of 3,367 km of lines. In total, energinet.dk’s asset base encompasses 177 stations and 7,448 km of lines. Approximately 90% of investments and 80-90% of maintenance work is outsourced to service providers and contractors.

**Fingrid**

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**Statnett**

The Norwegian government owns 90% of the transmission grid, through Statnett, while 10% is held by publicly owned utilities or the private sector.

Statnett operates the transmission system in Norway, consisting of approx 10,000 km high-voltage overhead lines and 100 substations. All construction work is outsourced, but most maintenance work is handled in-house.

**Svenska kraftnät**

The Swedish Transmission system, covering approx 15,000 km of 220 kV and 400 kV lines and stations, is operated by SvK, which is a fully state-owned entity.
Market integration, grid reliability and rapid integration of renewable energy are important drivers of capex in the Nordic transmission grid

Investment drivers in the Nordics

The rapid integration of RES is spreading all over Europe and c. 80% of the aggregated investments are estimated to contribute to RES. The key drivers of increased capex is in many ways similar in the Nordics to rest of Europe.

The Nordic electricity market is increasingly connected to continental Europe and Germany in particular – the current rapid introduction of RES coupled with nuclear decommission is placing increased dependency on the Nordic market to act as ‘back-up’ and balancing power, requiring more efficient transfer of electricity.

The growth in demand of more accessible renewable energy will be an important driver of grid investments in the Nordics where the majority will come from windpower.

A brief mapping of drivers and how they affect the investment level is presented in Appendix 1.

SvK’s planned investments in the short term, indicates, shows that only 47% is driven from investing in grid reliability. The remaining investments are driven by cross-border integration and additional capacity. 15% are directly connected to investments in wind power.

Energinet.dk estimates that 40% of investments will be driven by grid reliability while the remaining 60% will be divided equally between cross-border integration and wind power.

Only 16% of Statnett’s planned investments will be driven by reinvestments the coming 10 years. Grid reliability is expected to stand for 31%, cross-border integration for 23% and additional connection of renewable energy for 15%.

Fingrid does not specify the drivers of its planned investments.

Consequences for market players

From the outlook of the investment plans PwC predicts that:

- Increased demand for cross border capabilities and abilities to take on larger and more complex projects
- Difficulties in balancing build and maintenance capabilities
- Increased interest in market consolidation, partnerships and outsourcing

National TSOs expect large capex the coming years

The Nordic transmission operators expects large investments in the transmission grid the coming years which can be seen in the official investment plan in each country summarised in the graph below.

As shown in the graph an investment wave in the Nordic transmission network has been initiated. The growth in expenditures up to 2012 were as high as 18% annually. Looking forward the plans indicate a growth in capex of 4% annually leaving the period 2010 - 2017 with a CAGR of 17%.

National TSO’s expected investment cost 2010-2017

Summarising the investment plans of the four Nordic countries’ TSOs the capex to be spent on the transmission network will be more than EUR 10 bn 2013-2017.

There are however indications that the investments will not be carried out to the full amounts initially planned for. By October 2013 SvK is communicating tangible delays in many of their ongoing projects due to problems in finding contractors and receiving necessary permits.

Large capex in the transmission grid is communicated by the Nordic TSOs
The national TSO, SvK, plans to make yearly investments during 2013-2016 corresponding to more than four times total annual investments during the last decade. The peak investment is expected to occur around 2014 which is earlier than other Nordic neighbours. The Swedish market can therefore be seen as an indication of how the market players may respond to coming market conditions.

The Norwegian transmission market is undergoing significant change due to stronger market integration and upgrade of aging grids. The cost in Norway is higher than the rest of the Nordics partly driven by difficult projects in complex geographies.

The national TSO, Statnett, have upgraded their investment forecast significantly and expects a steady growth the coming years until the peak around 2018. High activity and cost levels is likely to require a flexible investment portfolio and strong collaboration with customers and suppliers.

Finland recently made large investments in the cross-border interconnector Estlink2. The completion of this project will lead to a declining aggregated investment level that peaked in 2013. However, looking at the coming investments in the national transmission grid, Fingrid is expected to increase spend in the coming years and peak around 2019/2020.

A shift in the investment level has already been seen in Denmark. However, in the new forecast from energinet.dk, the local TSO, another will peak in 2016. Looking at the last five years energinet.dk, has shown a higher expected investment level than the previous years, in their five-year investment plan. This indicates that the future investment need has been underestimated. Therefore the expected decline in investments 2017 might be postponed.

The Norwegian transmission market is undergoing significant change due to stronger market integration and upgrade of aging grids. The cost in Norway is higher than the rest of the Nordics partly driven by difficult projects in complex geographies.

The national TSO, Statnett, have upgraded their investment forecast significantly and expects a steady growth the coming years until the peak around 2018. High activity and cost levels is likely to require a flexible investment portfolio and strong collaboration with customers and suppliers.

The planned peaks in capex-level are expected at different times in the Nordic countries
Since the deregulation of the Swedish electricity market in 1997, SvK’s planned investments have been reached in year 2000

Project delays – a normality in Sweden

The yearly investment plans from SvK tend to be optimistic looking at the history of actual delivered capex. The average yearly outcome has been 25% lower than the initial plans which have been reached only once. At most the actual outcome has been less than 50% of the planned investment cost. At PwC we term the concept deliverability of capex or rather as is the case – the undeliverability of capex.

The main reasons for the inability to deliver planned capex are due to delays caused by the following reasons:
1. SvK’s project plans have been built on too optimistic, and thus not feasible scenarios.
2. An extended process in receiving necessary permissions for executing the planned projects, and
3. Problems in finding contractors that have the knowledge to handle the increasing complexity to carry out the projects as well as finding enough contractors to meet the demand.

SvK themselves claim that the investment plan is supposed to be interpreted as the maximum, but not always intended, investment level.

In essence deliverability of capex means that financing of the major TSO projects is usually not the main issue. Rather there are other constraining factors that prevent capex plans for materialising on time.

PwC predicts that the planned rapid increase in capex will be delayed at least 1-2 years

A majority of the investments in the upcoming ten years are driven by increased integration of the European electricity market. Cross-border projects add an additional layer of complexity and risk for delays if other countries will not be able to keep up on their respective side.

Projecting the historical inability to deliver planned capex in the Nordic countries PwC expects the investment wave to be delayed at least 1-2 years. Therefore the expected CAGR is expected to be 13-19% in the period 2013-2017.

PwC expect the investment wave to be delayed

The graph illustrates a two-year delay scenario projected on the Nordic market.
The delay of capex in the transmission grid can have major consequences for the industry – service providers will most likely be the winners, or losers?

**Market impact**
PwC concludes that there is a significant chance that future capex will be both lower and realized later than planned by each country’s TSO. Inability to deliver capex may delay the Nordics contribution to achieving a fully integrated European electricity market and may have a slowing effect on the introduction of RES. Consequences for the market players can be:

- There is a significant risk that future large increase of capex will be both lower and realized later than planned by each country’s TSO.
- Inability to deliver capex may delay the Nordics contribution to achieving a fully integrated European electricity market and may have a dampening effect on the introduction of RES.
- If the investment wave is delayed the existing PT&D service players will temporarily face increased competition and lower margins due to lower tender volumes hence putting further burden on some of the service players with strained finances.
- Several scenarios could play out – if some TSO’s fulfill their plans and others are delayed it could lead to dramatic highs and lows in the overall tender volumes and need of resources in the Nordic market.
- The importance of optimized resource planning and utilization, flexible operations, contract and bid management among the service players will dramatically increase.
- Service players with sound finances, scalable and adoptable operations can look forward to a booming but volatile demand driven by the anticipated investment wave.
The investment wave – today or tomorrow

In Norway several companies have both distribution and regional grid, and a few also own parts of the central grid.

There are more than 600 DSOs in the Nordic countries (2012)

A massive potential for economies of scale and scope benefits

Nordic distribution network

Electricity distribution networks in the Nordics are natural monopolies and therefore regulated and supervised.

The distribution industry is characterized by many independent network companies with differences in both size and density of the underlying customer base.

DSOs own the regional and local electrical networks*. They are responsible for ensuring that the electrical energy reaches consumers. The voltage in regional grids is 40 kV – 130 kV, and in local grids 40 kV and lower.

Revenues are typically based on distributed amount of electricity and a tariff set, based on an allowed revenue by the regulator, and through connection fees.

The cost base is mainly composed of operation and maintenance, costs for electricity losses in the grid and cost for electricity flows from and to higher voltage connected grids.

An ageing network and increased government demands on network availability and reliability have led DSOs to increase annual capex on network modernisation projects. When constructing new network, DSO’s typically opt for investments in measures that reduce the network vulnerability to severe weather (such as underground cabling) and smart grids.

As these investments are associated with higher equipment costs and workload than reinvestments, capex levels are generally higher than historical rates which implies a larger market. However, as more and more of the network is modernised, the long-term need for maintenance is expected to decrease.

Fewer DSOs leads to better asset management and lower maintenance costs.

*All the Nordic DSOs except Denmark operate the regional and/or local grids. In Denmark, Energinet.dk also operates the regional distribution network in addition to the national grid.
Main DSO players

Country overview
The relevant market shares of the DSOs in the Nordics vary depending on country.

- The Danish DSO market is more consolidated than the rest of the Nordic markets, top 10 DSOs cover approx. 80% of total customers.

- In Finland, the three largest DSOs hold a combined market share of 42% of customers. The large DSOs generally have networks covering voltage levels from 0.4 kV – 110 kV although, 110kV customers are very rare.

- The Norwegian distribution market consists of a few larger players and a large number of local DSOs. The large DSOs are geographically concentrated to the South around Oslo region, Stavanger, Bergen and Trondheim.

- The Swedish market is dominated by the three largest DSOs with a total estimated market share of 55%. In total there are 170 DSOs.

Many small DSOs are owned by municipalities
In the Nordics local DSOs are generally owned by municipalities while ownership of large DSOs differ between the countries. In Norway, the ownership of large DSOs is generally a mix of government, municipalities and private entities while in Finland private companies or a combination of municipalities own the larger DSOs.

- Local DSOs in Denmark generally own and operate low voltage grids.

- In Finland, there are about 80 local DSOs and they generally have customers ranging from a few hundreds up to 8,000.

- In Norway, many of the local municipality owned DSOs perform services in-house. About 4,000 customers on average.

- In Sweden, local DSOs carry out maintenance and building work in-house to a larger extent than the large utilities.

Outsourcing levels in the Nordics
Slightly more than half of the Nordic power distribution market is currently outsourced to service companies such as Eltel, Relacom, Empower, Infratek and One.

However, the split varies significantly within the Nordic countries, with Finland outsourcing nearly 80%, Sweden and Norway outsourcing less than half of the total service market and Denmark running its network services in-house to a large extent.

- Denmark is regarded as a rather immature market for network services, with many of the DSOs still running in-house departments for field work.

- In Finland, DSOs have increased the use of external providers, with regards to both construction and maintenance projects. Thus, the performance by the providers is growing in importance.

- Sweden is moving towards competitive tendering and is increasingly using outsourcing in both maintenance and build of DSO networks, but smaller DSOs still carry out service work in-house.

- In Norway, large investments and lack of resources are expected to drive outsourcing. Small DSOs generally do not tend to outsource at present.

We expect to see a market growth for outsourcing services in all the Nordic countries except Finland going forward. Increased focus on core business in Sweden and large investments in Norway is expected to increase the outsourcing levels especially among the local DSOs in the coming years. In Finland, high level of outsourcing but still some potential where in-house service companies lack skills.
Consequences for the market players

This report has outlined the current market situation and future potential and given a brief overview of a market in change. The changes described will lead to a changing business and new opportunities but these differ depending on market player. Below we highlight the key challenges:

**TSOs**
- Implement better and more precise asset management
- Procurement strategy – how to optimise procurement of service providers
- Tendering process to ensure competitive bids
- How to incentivise market while keeping costs down
- Deliverability of capex
- Availability of service providers – how to develop good service provider relationships?
- Managing increased complexity of grid and forecasting build out of renewables to prioritise investments

**DSOs**
- Implement better and more precise asset management
- Procurement strategy
- Tendering process to ensure competitive bids
- Balance between increasing outsourcing or maintaining control in-house
- Availability of service providers – how to develop good service provider relationships?
- Integration of new generation capacity, network optimisation and planning
- Uncertainty on tariff and regulation impacts expenditure plans

**PT&D service providers**
- Bid management – which contracts to focus on and how to increase margins on won projects
- Contract prioritisation – should the company target certain niche markets?
- Industry consolidation – will it happen and if so is there a first mover advantage and economies of scale that can be achieved by procuring small local providers?
- Scalable and adoptable operations, strong skills in resource planning and utilization
- Ability to deliver more complex and cross border projects
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APPENDIX 1 – investment drivers of the Nordic transmission grid

The shift in investments levels in the Nordics are mainly driven by aging grids, rapid integration of renewables and increased demands on load management.

- Current transmission lines approaching technical life and in significant need of reinvestments
- Several lines older than 60 years requiring replacement to allow for network reliability and safety
- ENTSO-E, regional and national regulators have identified several key projects to reduce grid congestion and allow for higher degree of electricity market coupling (i.e. increasing transmission flow between countries).
- Construction of new lines to reduce identified transmission bottlenecks
- Large part of TSO capex plans relates to interconnectors
- Higher load variability is driving investments in transmission network upgrade
- Peak load power to increase significantly through intermittent RES power (particularly wind and solar power) coming online until 2020
- Total installed energy capacity to increase across EU due to expansion of RES
- Increased significance of RES, smart meters, electrical vehicles will increase need for congestion management and load variability due to intermittent power sources, requiring modern transmission network as well as driving reinvestments and maintenance needs
- All TSOs have presented significant increases in investments over the next decade, but even assuming full financing is in place, significant local bottlenecks remain to achieving envisaged roll-out plan
- Key bottlenecks are particularly planning and permitting processes and local public objections to large scale new transmission lines and stations

APPENDIX 2 – investment drivers of the Nordic distribution grid

Aging networks is a key driver for investments. Higher demands and requirements for reliability of the network will require more maintenance and reinvestments.

- Age of local and regional distribution networks approaching end of technical life
- Ageing networks will not be able to cope with new requirements on effective load management driven by rapid introduction of intermittent power sources (particularly RES)
- Stricter requirements by regulators to increase network availability and reliability drives reinvestments and maintenance of existing networks. One example is the Norwegian N-1-criteria.
- Vulnerability in distribution infrastructure, e.g. in connection to extreme weather conditions, driving investments to increase security of supply
- General trend towards DSOs viewing maintenance and repairs as non-core business and increased use of external providers
- DSOs looking to make more use of turnkey solutions and EPC contracts (engineering, procurement, construction)
- Connection of renewable energy sources (particularly wind and solar) will drive investments in regional and local distribution networks
- Planned roll-out of RES across EU may however be slower than envisaged due to low or insufficient subsidies and slow permitting processes
- Wind power connection is a significant growth area, even with reduced subsidy levels
- RES also poses a challenge from so called “prosumers” i.e. micro producers of electricity connecting to the networks (e.g. solar power)
- Networks approaching end-of-life, driving increased maintenance spend
- Energy regulators’ requirements on DSOs to increase network reliability and safety driving increased use of underground cables which reduces maintenance over time. However, it will take time before an effect is seen on the maintenance spend, and it will not materialize during the forecast period (2013-2015)
- Introduction of new technologies to manage increasing demands on networks
- Particularly in the Norwegian market, some uncertainty regarding RES subsidies slows down market growth

APPENDIX 1 – investment drivers of the Nordic transmission grid

Aging grids
Integration of the European electricity market
Rapid introduction of renewable energy sources
Increased demands on load management
Deliverability of capex

Power Transmission market

APPENDIX 2 – investment drivers of the Nordic distribution grid

Aging networks
Network availability and reliability
Outsourcing & contracting of services
Connection of RES
Change in maintenance spend
Smart grids
Regulatory uncertainty

Power Distribution market

Driver strength
### APPENDIX 3

Main players on the power service market have had low profitability and many have been acquired by private equity expecting to realising higher future margins.

<table>
<thead>
<tr>
<th>Company</th>
<th>Type of Player</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eltel</strong></td>
<td>Finnish player owned by PE company 3i. Eltel was established in the carve-out of IVO Transmission Engineering by Fortum in 2001 and made a significant number of acquisitions in 2001-2010. Construction &amp; maintenance within electricity, telecom and IT. Nordic geographical presence: DE, NO, FI and SE.</td>
</tr>
<tr>
<td><strong>Relacom</strong></td>
<td>Owned by Nordea, DnB Nor and HSH Nordbank. Previously owned by Altor Equity Partners. Its services are divided into Telecom, Power Supply and M2M Systems. Launched Orion Consulting in 2011 with services in telecom and energy. Has decreased its geographical footprint from 17 to 5 countries. Nordic geographical presence: DE, NO, FI and SE.</td>
</tr>
<tr>
<td><strong>Empower</strong></td>
<td>Owned by PE company AAC Capital Partners. Delivers construction, maintenance and services within Energy, Telecom, and Industry sectors. 3200 employees. Decreasing margins and cash problems in recent years. Has lost position within maintenance in SE. Nordic geographical presence: FI and SE.</td>
</tr>
<tr>
<td><strong>Infratek</strong></td>
<td>Owned by PE company Triton. Its services include power supply, railway systems, fibre-optic networks, district heating, lighting and technical high-security solutions. Nordic geographical presence: NO, FI and SE.</td>
</tr>
<tr>
<td><strong>ONE</strong></td>
<td>Owned by PE company Altor (90.5%) &amp; E.ON (9.5%), previously operated as E.ON ES. Strong within Power in Sweden and Norway. Nordic geographical presence: NO and SE.</td>
</tr>
<tr>
<td><strong>Vattenfall</strong></td>
<td>Company within Vattenfall group providing services in the PT&amp;D. More than 70% of the Vattenfall Services Nordic’s total revenue in 2011 derives from internal sales within the Vattenfall Group. Among its key customer are E.ON and Svenska kraftnät. Nordic geographical presence: SE.</td>
</tr>
</tbody>
</table>

**Type of player**

- The large players on the PT&D market typically have a turnover in the region of EUR 300 – 1,100 million.
- However, the service companies differ in their service offering and geographical presence.
- Recent years the trend has been declining EBITDA margins with most of the companies reporting margins less than 5%.
- The majority of the service companies are owned by PE companies.
- The major energy companies such as Fortum and E.ON have divested its service companies, only Vattenfall has maintained its service company within the Group.
- Within the overall PT&D service market there are additional large players such as for instance ABB, Siemens, Dalekowd etc that typically focus on large scale integration projects such high-voltage transmission and subsea cables.
PwC Sweden is the market leader within auditing, accounting, tax and advisory services, with 3,800 people at 130 locations spread across the country. Using our experience and unique business knowledge, we enhance value for our 66,000 clients, who are comprised of global companies, major Swedish companies and organizations, smaller and medium-sized companies, primarily local, and the public sector.

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