FINGRID

Annual Report 2007

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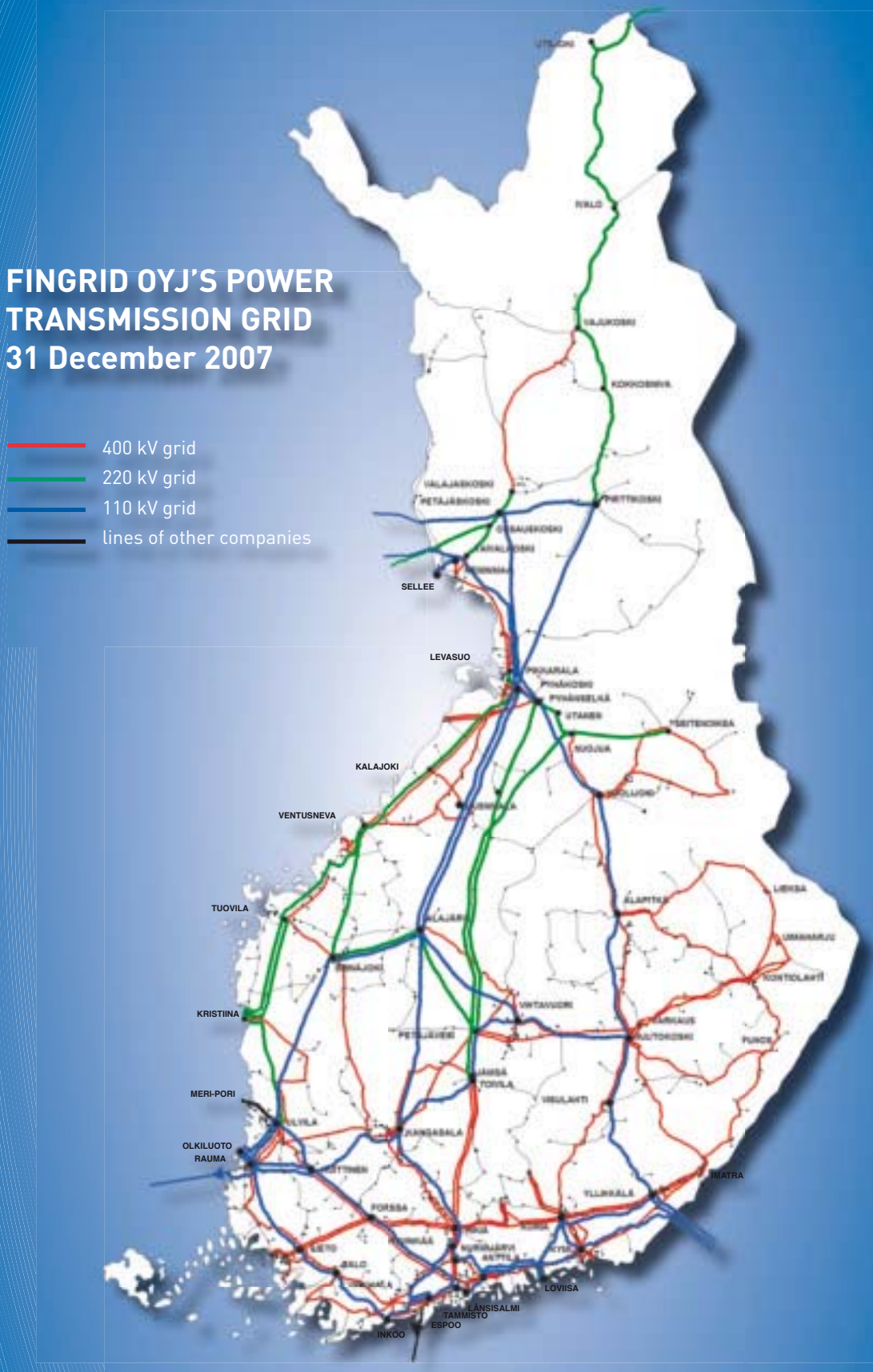
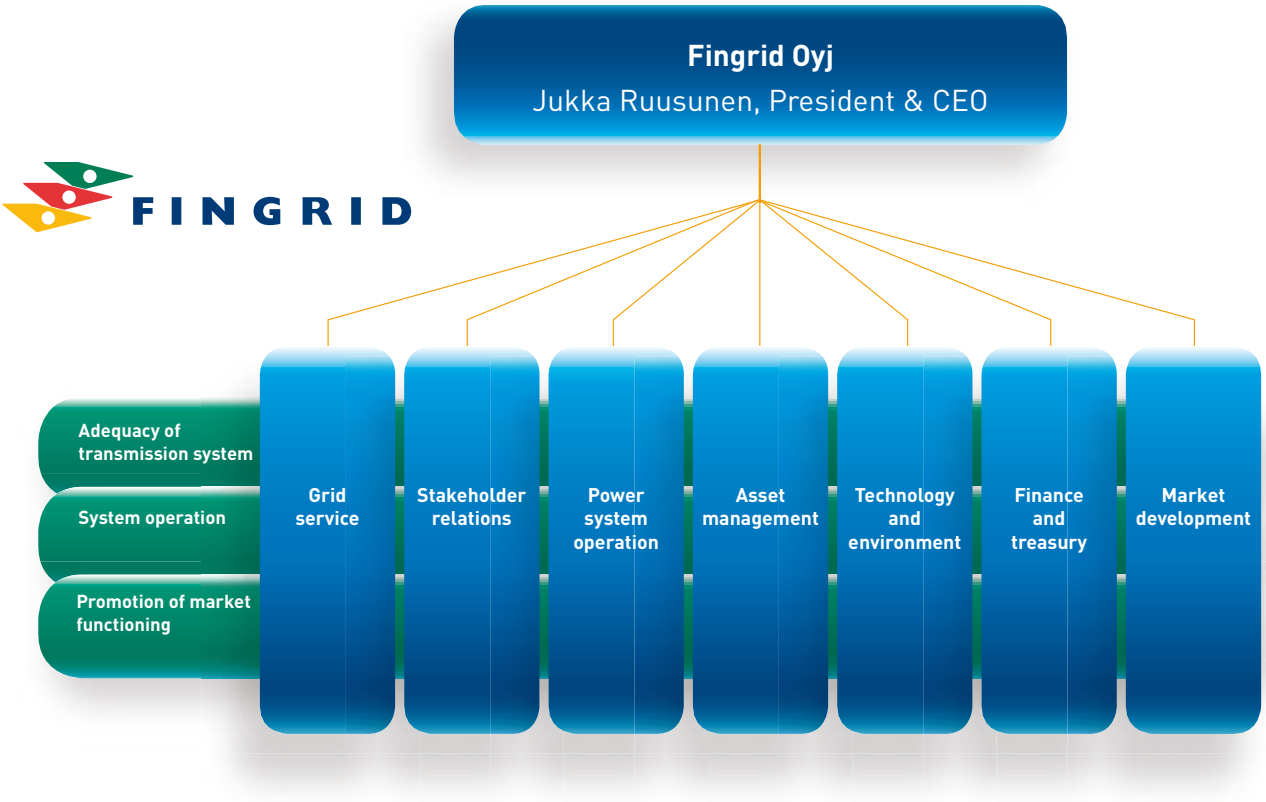
FINGRID OYJ'S POWER TRANSMISSION GRID 31 December 2007





FINGRID IN BRIEF

- Established on 29 November 1996
- Started operations on 1 September 1997
- Owns the Finnish main grid and all significant cross-border connections
- Approximately 14,000 kilometres of transmission lines and 106 substations
- Customers comprise electricity producers, electricity market parties, major industrial enterprises, and regional and distribution network companies
- Revenue 335 million euros
- Balance sheet total 1,565 million euros
- Owns 20 per cent of electricity exchange Nord Pool Spot AS
- Number of personnel at the end of the year: 248 (238 in permanent employment)

FINGRID'S MISSION

As the transmission system operator in Finland, Fingrid's mission is to:

- develop the electricity transmission system
- transmit electricity reliably
- promote the functioning of the electricity market.

Fingrid's values

- transparency
- impartiality
- efficiency
- responsibility

Fingrid's vision

Fingrid's vision is to be the international forerunner in transmission system operation.

REVIEW BY THE CEO

Having reached the age of 10 years, Fingrid is moving into a new era. The energy business is undergoing a huge process of change, where the simultaneous goals include fighting climate change, keeping the price of electricity at a reasonable level, and securing an increasingly better supply of electricity. These goals are shared all over the world. We all use the same energy resources and resources for developing the power system. This is why the challenges imposed on transmission system operators (TSOs) are shared by all countries in Europe and partly also on a global scale.

Fingrid's foremost mission is to retain a high system security – to "keep the lights on in Finland". It is easy for Fingrid to find the motivation for this, because society will call for an increasingly reliable electricity supply in the future.

Fingrid's mission is not simple, because there are threats to security of supply in sight. Uncertainty concerning imports of electricity from Russia is increasing as the power balance in the St Petersburg region becomes more complicated and as Russia will need the electricity produced there for its own needs. Fighting climate change will also pose challenges for security of supply. With the exception of hydropower, the forms of electricity production which create only small carbon dioxide emissions are such that they cannot really be adjusted on the basis of variations in electricity demand.

Demand for electricity will continue to fluctuate based on the season of the year and prevailing weather. On the other hand, the fact that power plants may have technical faults must be accepted in power production. This also concerns electricity transmission connections between countries. Against this context, it is difficult to perceive that the high system security of the power system could be retained without adjustable condensing power production. This production can be located in Finland, or a corresponding production volume needs to be imported into Finland from outside our national borders. However, in the future condensing power production needs to be cleaner than now, and the carbon dioxide emissions created must be recovered. This calls for considerable input in technology improvements.

Wind power will certainly play a role in combating climate change, but in view of system security, its use in Finland in particular is not without problems. Peak consumption situations do not usually coincide with favourable wind conditions. Unfortunately, it is not possible to store electricity, but electricity production must match electricity consumption at all times.

Fingrid's other main mission is to promote the functioning of the electricity market. This is a very natural role for Fingrid, because the TSOs together with electricity exchanges are in a key position in the development of the wholesale market for electricity. This is also reflected in the legislative package proposal published by the European Commission in September 2007, aiming to expedite the integration of the European electricity market.

In the future, the market will impose even greater requirements on the TSOs. We are expected to make considerable capital investments to eliminate transmission congestions, efficiency and reliability in power system operation, and transparent performance. In 2007, Fingrid contributed actively to the electricity market at the European level, in the Nordic countries and in the Baltic states. Nordel's chairmanship facilitated Fingrid in this endeavour. At Fingrid's initiative, the development of a market-focused approach in electricity transmission was also launched between Russia and Finland.

Continued high system security and promotion of electricity market mechanisms will require considerable capital investments in the transmission grid and system reserves. Annual capital expenditure by Fingrid will double and even triple as compared to the capital expenditure level in recent years.

The grid additions required by the new nuclear power unit being built at Olkiluoto will be ready in 2008. Another significant project is the reinforcement of AC connections in Lapland in the coming years. Fingrid is also making preparations for connecting the potential sixth nuclear power unit in Finland to the grid by launching the necessary environmental impact assessment processes. Fingrid's largest capital investment project to date, the Fenno-Skan 2 submarine cable connection between Finland and Sweden, will be postponed by one year due to the delivery schedules of cable manufacturers. The connection will be brought to commercial operation in 2011. Moreover, Fingrid will construct approx. 200 megawatts of new reserve power capacity.

Implementing our capital expenditure programme is not only a significant financial undertaking but also a challenge to Fingrid's own organisation and our partners. The coming years will put our team spirit to the test.

The elevating level of capital investments together with an increase in other costs will create a pressure to raise the grid fees. The rise in the prices of electricity caused by emission trading alone brings additional expenses through the purchasing costs of loss energy, corresponding to about 10 per cent of Fingrid's annual grid revenues. In accordance with its strategy, the company still aims to keep the grid fees at an as favourable level as possible. Fingrid attempts to influence domestic regulation of grid revenues so that the supervision models created would not jeopardise the sensible management of grid operation.

Responding to the future challenges calls for a well-defined strategy. In 2007, Fingrid implemented significant strategy work based on the foreseeable changes in the operating environment over the next few years and decades. Our strategy is built around our corporate values: transparency, impartiality, efficiency, and responsibility. Our solid, shared values constitute the foundation from which we can achieve our vision of being "the international forerunner in transmission system operation". Finland can rely on Fingrid providing its customers with the best transmission system services in the world: reliable electricity supply, good transmission connections, and active contribution to electricity market promotion.

Jukka Ruusunen

An all-time record,
14,914 megawatts,
was reached in
electricity consumption
in Finland in February 2007.

Antinportti, Hämeenlinna

POWER SYSTEM OPERATION

Total electricity consumption in Finland in 2007 was 90.3 terawatt hours (90 terawatt hours in 2006), which was 0.3 per cent more than in the previous year. With temperature and calendar adjustment, electricity consumption rose by 1 per cent. A total of 68.4 terawatt hours (67.3 terawatt hours) of electricity was transmitted in Fingrid's grid. This was 1.4 per cent more than in the previous year.

An all-time record, 14,914 megawatts, was reached in electricity consumption in Finland in February 2007. Almost all electricity production capacity in Finland was in use then, and no significant problems were encountered in electricity production. Fingrid's grid together with its support systems worked as planned in all respects during the peak load situation. Fingrid signed agreements on power reserves of a total of 600 megawatts. During peak consumption, power reserves were started once to secure continued power balance.

During the early part of the year, electricity transmissions between Finland and Sweden consisted mainly of imports into Finland. Exports from Finland became dominant in the autumn. The replacement of aluminium towers between the Huutokoski and Vuolijoki 400 kilovolt substations together with the line outages required by the grid reinforcements for the connection of the new nuclear power unit at Olkiluoto to the grid caused restrictions in the transmission capacity made available to the market during early 2007. Failure in the Fenno-Skan submarine cable at the end of 2006 restricted transmission capacity between Sweden and Finland until February 2007. Despite the limitations in transmission capacity between Finland and Sweden, Finland was separated into a price area of its own in the Nordic electricity market only for 5 per cent of the time.

The Estlink connection between Estonia and Finland, which combines the Baltic and Nordic electricity markets, was brought to commercial operation in early 2007. The capacity of this cable connection is 350 megawatts. Electricity imports from Estonia to Finland over the cable connection were 1.9 terawatt hours and exports from Finland to Estonia 0.02 terawatt hours in 2007. Fingrid took care of the operation of the connection together with Põhivõrk, the transmission grid operator in Estonia.

Imports of electricity from Russia to Finland in 2007 totalled 10.2 terawatt hours. Transmission capacity was limited by annual maintenance at the Vyborg DC substation and by maintenance work at the North West Power Plant near St Petersburg, which continued throughout the latter part of the year. The capacity utilisation rate was 82 per cent.

A fault in the Russian grid near Moscow in September confined electricity imports to Finland by 900 megawatts. In order to maintain power balance in the St Petersburg region, the Russian party used restrictions in electricity transmission to Finland as the disturbance reserve in the Russian power system. Revised agreements between Fingrid and the Russian transmission and system operator concerning the use of cross-border connections from Russia came into effect as of the beginning of 2008. The new agreements also specify the management of extraordinary situations in electricity transmission.

The Finnish grid experienced less disturbance situations in 2007 than on average in the previous years. However, work errors in conjunction with grid construction projects caused short-term disturbance situations in the Lahti region in August and in the Oulu region in October.

The new gas turbine power plant completed at Olkiluoto at the end of the year added to the fast disturbance reserves available to Fingrid. The protection system for power shortfall, installed at Fingrid's substations, was commissioned in the spring. The system is the last protection step in serious disturbance situations, preventing frequency from decreasing so low that power plants would be disconnected from the grid.

The updating project for the operation control system of the grid, costing approx. 8 million euros, was brought to conclusion in October. The system is now highly user friendly and provides facilities for increasingly versatile utilisation of grid data. The new system structure also further improves operation control reliability.

Fingrid purchases the loss energy created in electricity transmission from the Nordic electricity market. The average volume of electric energy needed annually to cover the losses is approx. 1 terawatt hour, which corresponds to the electricity consumption of a large Finnish town. The increase in the market prices of electricity was also reflected in the purchasing costs of loss energy, which totalled 46 million euros in 2007.

The Olkiluoto gas turbine power plant was inaugurated on 19 November 2007. The 100 megawatt plant raised the total capacity of Fingrid's own reserve power plants to 615 megawatts. The construction project was carried out together with TVO.

As electricity consumption in Finland rose to record figures in February, Fingrid had the Mussalo 2 power plant, which is covered by the power reserve system, started for potential problems. The power transmission system worked without disturbance throughout the period of cold weather.

Glued laminated tower, Jyväskylä

There was very little congestion in electricity transmission between Finland and Sweden, and the two countries had the same market price for 95 per cent of the time.

PROMOTION OF ELECTRICITY MARKET

The Nordic electricity market reacted to the changes which took place in the fundamental market factors. Very low water reservoirs in 2006 gave way to abundance, which reduced the level of the market price. A collapse in the price of emission rights also had an impact in the same direction. The average spot price (system price) of electricity in 2007 was 28 euros per megawatt hour, while it had been 49 euros per megawatt hour in 2006.

Congestions in the transmission grid in the southern parts of the Nordic countries restricted the transmission of the high volume of hydropower electricity in the Nordic system. This led to some great price differences between various market areas. As an example, an average difference of 10 to 20 euros per megawatt hour prevailed in the spot price of electricity between Southern Norway and the remaining market area in the summer and early autumn. On the other hand, there was very little congestion between Finland and Sweden, and the two countries had the same market price for 95 per cent of the time.

The markets in the Baltic and Nordic countries were connected for the first time by the new Estlink cable between Finland and Sweden. As expected, most of the transmissions took place from the Baltic countries to Finland, although there were occasional exports from Finland.

Market development efforts were boosted through co-operation between transmission system operators (TSOs); there has been public criticism that these efforts have slowed down in recent years. Nordel, the organisation of the Nordic TSOs, published its strategy for the coming years, highlighting several focal issues. Among other things, there will be more emphasis on the planning of the transmission grid and on capital expenditure. The Nordic market will be brought to closer integration with the market in Continental Europe. At the same time, the transparency of market information will be increased, and balance service procedures needed in balancing electricity production and consumption will be harmonised.

The establishment of a Nordic independent system operator as a solution to expedited regional market developments was suggested in public debate. According to Fingrid's view, the market developments have already expanded beyond the Nordic countries, and a Nordic independent transmission system operator would not bring anything new to this set-up.

In the European market, TSOs reached an agreement on the compensation mechanism for transit transmissions for 2008–2009. As a result of this, the area with no internal cross-border tariffs was expanded to cover for the first time the entire single market area within the EU and the Balkans. ETSO (European Transmission System Operators) developed models for issues such as harmonisation of balancing power market and intraday market. ETSO also launched the ETSOVista service for market information publication on the Internet.

The so-called third legislative package proposal of the Commission of the EU contains many issues affecting TSOs. In line with the proposal, voluntary co-operation within ETSO would give way to detailed and binding agreements both in terms of market rules and technical rules. The requirement concerning the ownership unbundling of production and transmission system operation is politically the most difficult item in the package. If implemented, it would also influence Fingrid's ownership structure.

The possibility of integrating the Baltic market with the Nordic market was surveyed. In the first phase, the goal is to channel available capacity on the Estlink cable to Nord Pool Spot's Elspot market place in the summer of 2008.

The Russian electricity market is opening gradually. This extensive reform will have an impact on the way in which electricity trade will be conducted between Russia and Finland in the future. Fingrid and the Russian TSO have launched a project where the rules of electricity transmission between the two countries are being streamlined to a more market-focused direction.

Electricity exchange Nord Pool Spot AS, of which Fingrid owns one fifth, together with the Nordic TSOs has actively promoted the integration of the Nordic market towards Continental Europe. Preparations have been made to link the spot market with Germany and the Netherlands. The linking with Germany will probably take place in the summer of 2008, and with the Netherlands in 2009.

The Nordic and Baltic electricity markets were connected for the first time by the Estlink cable connection between Finland and Estonia. The main transmission direction of electricity was from Estonia to Finland, but in the summer power was also transmitted in the other direction.

Fingrid's capital expenditure totalled 79 million euros. The capital expenditure level will rise to well over 100 million euros per year in the coming years.

Pirkanpylväs, Lempäälä

CAPITAL EXPENDITURE AND GRID MAINTENANCE

The five separate priority cross-sections defined by Nordel, intended to enhance the functioning of the Nordic market, are due to be complete at the beginning of the next decade. Related to the situation following the completion of these projects, Nordel continued the project which analyses the development of transmission connections between the Nordic countries and their neighbouring areas. This report will be ready in the spring of 2008.

Parallel with the Nordic analysis, engineering co-operation was launched between the Baltic countries and Poland as well as between the Baltic countries and Nordel. The goal of this joint engineering is to adapt the development plan for the grid in the Baltic countries to corresponding plans concerning Poland and the Nordel area. This project is a good example of the way in which the Nordic market area is expanding and becoming more integrated with its neighbouring areas.

In recent years, there has been much discussion concerning new import projects from Russia. The discussion has culminated in the sufficiency of electricity production capacity in North-Western Russia. At the end of the year, an analysis was launched concerning the modification of one HVDC bridge at the Vyborg DC converter station to a two-way bridge, which would also enable exports to Russia at a capacity of approx. 300 megawatts.

Fingrid's capital investments in 2007 totalled 79 million euros. The capital investment level will rise to well over 100 million euros per year in the coming years. The foremost reasons for the increased capital expenditure are reinforcements of cross-border connections carried out to ensure the operating conditions of the electricity market, need to increase reserve power capacity, and increased need for renovations due to the ageing of the grid. The significant rise in the prices of raw materials and cost of labour is also apt to elevate the level of capital investments.

Fingrid's capital expenditure programme progressed as planned in 2007, and several projects were brought to conclusion. A 400 kilovolt transmission connection from Olkiluoto to Huittinen was introduced in Western Finland at the end of October. The new line will reinforce the transmission grid and enable the connection of the upcoming Olkiluoto nuclear power unit to the grid and the transmission of electricity from the power plant to consumption. The project with a total value of approx. 36 million euros included almost 100 kilometres of new transmission line with various line arrangements. In the same conjunction, two landscape towers were erected on the line in Eurajoki.

In the late autumn, the Ministry of Trade and Industry granted a cross-border line permit to Fenno-Skan 2, doubling of the submarine cable interconnector between Finland and Sweden. Western Finland Environmental Permit Authority granted a water management permit to the project in January 2008. The completion of the connection will be postponed by one year from the original plan due to the delivery schedules of cable manufacturers. The connection will be brought to commercial operation at the end of November 2011.

The Olkiluoto gas turbine power plant was commissioned at the end of 2007. The plant constructed jointly by Fingrid and Teollisuuden Voima serves as a fast reserve for the grid. The project elevated the total capacity of Fingrid's own reserve power plants by 100 megawatts to 615 megawatts. Fingrid also projects to construct another 200 megawatts of new reserve power capacity.

A decision was made in 2007 to replace the steel ground wires on certain 400 kilovolt lines with steel-aluminium wires. This project will be implemented in stages in 2008 to 2012, during which time ground wires on a total of approx. 1,500 line kilometres will be changed.

The replacement of aluminium towers with steel towers on 400 kilovolt lines progressed to Vuolijoki, and now all aluminium towers north of Vuolijoki have been replaced. The replacement work, which has continued for several years, will progress south of Vuolijoki to the Varkaus region in 2008.

In order to increase transmission capacity in the north, Fingrid launched a project for constructing a 400 kilovolt connection between Keminmaa and Petäjäskoski, and purchased a reactive power compensation unit for the Kangasala substation to secure the transmission capacity. The unit to be commissioned in the winter of 2009 will dampen low-frequency power oscillations in the grid.

Approximately 16 million euros were used for the maintenance and local operation of the Finnish grid in 2007. The repair of the Fenno-Skan 1 DC link between Finland and Sweden accounted for more than 3 million euros of this. Approx. 6 million euros were used for the renovations and maintenance of Fingrid's gas turbine plants. A significant project contributing to the availability of reserve power was the renovation of the Tolkkinen reserve power plant.

Representatives of transmission system operators in Finland, Sweden, Estonia, Latvia, Lithuania and Poland sat together around the same table in Helsinki in November to discuss the joint issues concerning grid planning in the area around the Baltic Sea. The objective is to accomplish an optimum playing field for the single electricity market of the future.

Fingrid, the Central Union of Agricultural Producers and Forest Owners (MTK), the Central Union of Swedish-Speaking Agricultural Producers in Finland (SLC), and Finnish Road Association accepted a compensation recommendation concerning the use of private roads as service roads for transmission lines for 2007 to 2016. In the previous agreement period, Fingrid concluded more than 6,000 usage fee agreements for service roads and paid the agreed compensations. The usage fee for a service road covers the necessary use of the road in conjunction with the normal inspections and maintenance of transmission lines.

In the traditional fashion, the new contract period was prepared through direct negotiations with customers and discussions in various customer events and within Fingrid's Advisory Committee.

LED-illuminated towers, Eurajoki

CUSTOMERS AND STAKEHOLDERS

The three-year contract period for the grid service came to an end in 2007, and a new four-year contract period commenced at the beginning of 2008. In line with a general increase in the cost level and as Fingrid's extensive capital expenditure programme has been launched, it is necessary to raise the price level of the transmission service in the new contract period.

The terms of the grid service were specified and limited in terms of mutual liabilities for damages. Similarly, the liability for damages was expanded to cover material damage and personal injury inflicted on electricity users connected to a regional network. The preparatory stages again utilised direct negotiations with customers as well as discussions conducted in customer events and within Fingrid's Advisory Committee.

The updating of regional network plans, which serve the development of the grid and customers' connection solutions, was launched in close co-operation with Fingrid's customers. The regional development needs in South-Western Finland, Satakunta, Ostrobothnia and Central Finland were surveyed in 2007, extending over a time span of about 20 years. The detailed discussions with customers related to these needs will continue during the winter of 2008. The objective is to review all 110 kilovolt network plans at intervals of about 5 years so that timely preparations can be made for potential development needs concerning the grid.

There was increasingly lively public discussion concerning the potential sixth nuclear power unit in Finland, and Fingrid continued studying the technical connection of such a unit to the grid.

Fingrid's Specifications for the Operational Performance of Power Plants (VJV2007), including the Connection Code for Wind Turbines and General Connection Terms (YLE2007), were updated. The new guidelines clarify in many ways the engineering procedures for grid connections as well as the technical principles and instructions for the connections.

The balance service agreements were extended by one year. Discussions were conducted with the balance providers concerning the Nordic harmonisation of balance service, to be introduced at the beginning of 2009.

The customers' Extranet service was expanded in 2007. The service now provides better coverage of customer-specific agreement and invoicing information as well as technical reports. The renewal of the company's grid invoicing and balance settlement system was started. The revised system will also offer better service to the customers, and it will be introduced in the spring of 2008.

The system agreement for the transmission connection from Russia finished at the end of 2007. A new agreement structure was negotiated during the year under review. It is composed of a long-term connection agreement and of more short-term operation and capacity agreements. The one-year agreements for electricity imports from Russia were confirmed for 2008. The objective is to amend the transmission terms for electricity imports from Russia so that they serve the electricity market better than now. There is ongoing development work with the Russian parties, and the goal is to introduce the new, increasingly market-focused import conditions at the beginning of 2009.

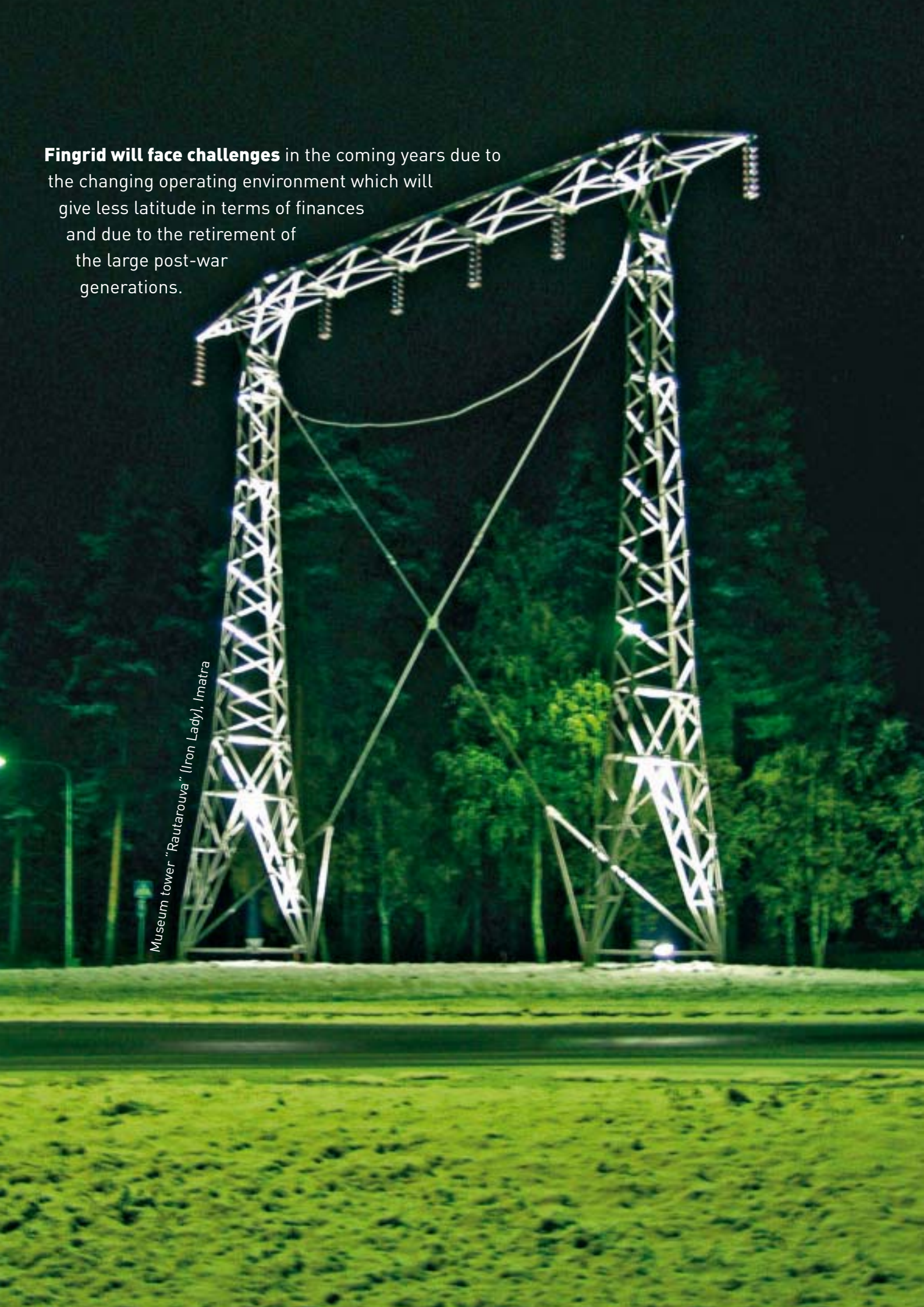
Throughout its history, Fingrid has founded its efforts with its customers and other main stakeholders on specialists and on an expert approach. Fingrid's Advisory Committee, which consists of the representatives of its grid customers and market players, has continued its valuable work. This has been supported by versatile preparatory co-operation relating to operative procedures within the Power System Committee and Network Operation Committee. Towards the end of 2007, the Advisory Committee launched an analysis into how interaction with the various customer groups can be enhanced in the changing operating environment.

In addition to the customer forums, Fingrid's stakeholder forums also continued their active work. The technology forum assembled twice, focusing on information exchange between the parties and on the further processing of R&D projects which had derived their ideas from within Fingrid. The forum on transmission lines and the environment discussed the results of projects studying the nature impacts of transmission lines, and visited nature attractions in the Tampere region. The forum on transmission lines and environmental legislation discussed the impacts of transmission lines on land use and scenery, and studied the relevant situation in Hyvinkää.

The tariff structure and preliminary price level of grid service introduced at the beginning of 2008 were discussed during Fingrid's theme day arranged for the company's customers and other stakeholders in March.

As in the previous years, Fingrid participated in the Farmari agricultural fair in Kuopio at the end of July. Fingrid, which highlighted its theme "keeping the lights on in Finland", was one of the main sponsors of the event.

Fingrid will face challenges in the coming years due to the changing operating environment which will give less latitude in terms of finances and due to the retirement of the large post-war generations.



Museum tower "Rautarouva" (Iron Lady), Imatra

PERSONNEL AND EXPERTISE

Fingrid's new strategy is implemented by means of an organisation which supports the three main processes, i.e. adequacy of transmission system, system operation, and promotion of market functioning. The matrix structure calls for new kind of leadership and efficient mutual interaction of personnel. Fingrid will face challenges in the coming years due to the changing operating environment which will give less latitude in terms of finances and due to the retirement of the large post-war generations. Ensuring the continuation of expertise and development of the skills of supervisors and management systems will have a crucial role as Fingrid addresses these challenges. The company focuses on the versatile development of its personnel both by means of internal induction and by utilising selected external training resources. The goal is to make development efforts and learning an increasingly integral part of the job description of each specialist in the company.

Fingrid has an objective of establishing a training system which provides sustainable support for continued expertise in transmission system operation in Finland. One part of this is co-operation conducted with educational establishments in the field. Research and teaching co-operation, which has become more advanced as a result of the professorship donated by Fingrid to the Helsinki University of Technology, represents the pinnacle of this co-operation.

One important part of Fingrid's personnel strategy is the transfer of expertise accumulated through experience to the younger generations. This is reflected in a slight increase in the number of permanent personnel in Fingrid. At the end of 2007, Fingrid employed 238 permanent employees. The corresponding figure a year before was 228.

The control room of Fingrid's Power System Control Centre was renovated in the summer and early autumn. The facilities are now considerably more functional than before. The Control Centre operates the power system 24 hours a day, 7 days a week. The revision also covered the updating of the operation control system.


Steel tower, Kaakkuri, Oulu

Many of Fingrid's R&D projects are carried out in co-operation between the Nordic TSOs.

RESEARCH AND DEVELOPMENT

In 2007, Fingrid financed some 50 research and development projects, using a total of more than 1.2 million euros for these. The projects often involved the drawing up of a final thesis for higher education studies. About a dozen persons who wrote their university theses worked in the employment of Fingrid or through its funding in 2007.

The foremost R&D projects were related to the real-time monitoring of low-frequency power oscillations in the grid, development of an electricity market model, analysing corrosion damage in guy rods of transmission line towers, studying the condition of transmission line joints, and measuring and limiting electric and magnetic fields. Several of these projects were carried out in co-operation between the Nordic TSOs.

Power oscillations in the grid were studied by means of WAMS (Wide Area Monitoring System) purchased in 2007. It is based on synchronised measurement instruments installed in the various parts of the grid. The goal is to establish a monitoring system covering all Nordic countries. Related information exchange was launched with the Norwegian party in 2007. A Doctoral thesis relating to this project is also being prepared, and an agreement was made with the system supplier on the further development of the calculation method used.

The goal in the inter-Nordic development work for the electricity market model is to improve the modelling of thermal power plants, electricity consumption and wind power stations.

Corrosion in guy rods was studied by excavation surveys and by analysing available reference material. The project also ascertained methods for defining the condition of guy rods without excavation. In the future, all guyed tower locations in the Finnish grid will be subject to a corrosion risk analysis, and potential measurement methods will be tested in more detail.

The survey of transmission line joints is a long-term inter-Nordic project involving thermographic tests in 2007. This was found to be the most cost-effective inspection method. Even though the success of thermographic imaging depends on the ambient conditions, it reveals the faults at an earlier stage than before.

The study concerning electromagnetic fields continued earlier research on this topic. In 2007, focus was on measurements in the reactor switching stations of substations.

The focal areas in R&D were also verified in conjunction with the development of the business processes. Three to five focal areas were defined for each of the three business processes. These areas describe the objectives of R&D, and R&D efforts will be allocated to them in the future.

Analysing the impacts of electromagnetic fields has a major role in Fingrid's R&D programme. Measurements of electric fields have studied the impacts of exposure for example in persons living adjacent to transmission lines and in persons carrying out maintenance and service work on transmission lines.

Electricity Museum Elektra located in conjunction with Fingrid's Hämeenlinna office offered an opportunity to learn about Nikolai Tesla, a universal genius and one of pioneers of electrical engineering. The Tesla exhibition included a Tesla coil producing arc discharge more than half a metre in length. The Museum also housed a department for children, where Voltti the electric rabbit instructed children to make safe experiments with electricity.

The fulfilment of corporate social responsibility is monitored systematically by means of indicators specified for each dimension.

Steel towers, Kaakkuri, Oulu

CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENT

Fingrid's nation-wide grid is an integral part of the power system in Finland. Fingrid's performance has a direct impact on the functioning of Finnish society, in other words on the everyday life and welfare of all Finns.

Corporate social responsibility is included in Fingrid's foremost business principles. The dimensions of Fingrid's corporate social responsibility are responsibility for the functioning of the power system at a national level, economic responsibility, responsibility for the environment, and social responsibility. The fulfilment of corporate social responsibility is monitored systematically by means of indicators specified for each dimension.

Corporate social responsibility also involves open and comprehensive interaction with various stakeholders. This is implemented as part of our practical work and also in stakeholder forums which enhance interaction.

The environmental impact assessment (EIA) process for the 400 kilovolt transmission line between Seinäjoki and Tuovila was completed in 2007, and EIA reports of the 400 kilovolt transmission lines between Hyvinkää and Hikiä as well as Länsisalmi and Vuosaari were announced. Fingrid launched the updating of EIA for the second 400 kilovolt connection planned between Yllikkälä and Huutokoski, originally carried out in 1998. Moreover, environmental reports for five different 110 kilovolt transmission lines were completed.

Six background reports were drawn up for regional councils so that planned transmission line routes could be included in regional land use plans. Fingrid also started analyses of the grid reinforcements and line routes required by new large power plants and wind power stations.

A set of transmission line towers in Espoo, referred to as "Sinikurjet" (Blue Cranes), were given a new coat of blue paint to brighten their surface which had been discoloured by the sun. Landscape tower "Pirkanpylväs" in Lempäälä on the 400 kilovolt Ulvila-Kangasala transmission line, which reinforces the main transmission grid in the Satakunta and Pirkanmaa regions, was provided with illumination. Red landscape towers of type "Virkkala" were erected beside Fingrid's Petäjävesi office.

In environmental research, there were ongoing research projects in 2007, focusing on issues such as significance of transmission line areas for biodiversity, and biological coppice growth prevention by using the fungus Chondrostereum purpureum. Fingrid and the Finnish Environment Institute have a joint project studying the identification of transmission line areas which are valuable for meadow species. This project progressed by field work in about 100 locations in the regions of Uusimaa and Pirkanmaa.

The project studying the suitability of bird houses installed in transmission line towers for use by kestrels came to an end. The four-year project showed that the bird houses can offer kestrels shelter from pine martens and other enemies.

Fingrid's corporate social responsibility is described in more detail on the Internet (www.fingrid.fi –> Company info –> Corporate social responsibility).

Transmission line areas can provide partially replacing habitats for traditional meadow species which are becoming increasingly rare. A joint project by Fingrid and the Finnish Environment Institute concentrates on identifying transmission line areas which are valuable to meadow species. This study will be carried out by utilising remote mapping methods.

Fingrid produced a concise exhibition of the three-masted galliot St. Michel, which is among the most important wrecks in Finland in terms of its antiquarian value, at the National Museum of Finland. The exhibition displayed the most famous finds recovered from the wreck, such as golden and silver snuffboxes and pocket watches as well as rare Meissen porcelain tableware and figurines.

Sinikurjet, Espoo

In addition to the Finnish Companies Act, Securities Markets Act and corresponding general regulations, Fingrid's decision making is subject to obligations prescribed by the Electricity Market Act.

CORPORATE GOVERNANCE

In its business, Fingrid Oyj adheres to the recommendation concerning Corporate Governance, given in December 2003.

Fingrid's Board of Directors decides on significant strategic policy decisions and approves the principles of the management system which guides the company's business. The Board approves the action plan and budget and annually reviews the risks relating to the company's operations and the management of such risks. Moreover, the Board appoints the CEO of the company and approves its basic organisation and composition of the executive management group. The working order of the Board specifies the course of procedure of the above issues in more detail.

The Board of Directors has two committees: control committee, and reward and appointment committee. The committees have rules of procedure confirmed by the Board of Directors. The Board of Directors had six meetings during the year under review. The attendance rate of the members was 95 per cent.

The members of the control committee in 2007 were Arto Lepistö (Chairman), Ritva Nirkkonen, Anja Silvennoinen and Jorma Tammenaho. The control committee had three meetings during the year. This committee is appointed by the Board of Directors and it assists the Board. The committee prepares, guides and assesses internal control, auditing, risk management, and financial reporting. In accordance with the recommendation on Corporate Governance, the members of the control committee should be independent of the company. The Board of Directors considers it important that practical expertise in the energy industry is also represented in the control committee, which is why it is deemed necessary that Anja Silvennoinen is a member of the control committee.

The reward and appointment committee consists of Tapio Kuula (Chairman), Arto Lepistö and Timo Rajala. The reward and appointment group is appointed by the Board of Directors and it assists the Board. This committee approves the remuneration to be paid to the CEO and other members of the executive management group on the basis of principles specified by the Board of Directors. The committee also prepares the appointments of the CEO, deputy CEO and persons belonging to the executive management group as well as surveys their successors. The reward and appointment committee had five meetings during the year.

Deviation from recommendation: The recommendation concerning the Corporate Governance of listed companies requires that more than half of the Board members should be members independent of the company. Fingrid's Board of Directors has considered that of the seven Board members, Arto Lepistö, Ritva Nirkkonen and Jorma Tammenaho are independent of the company. The Board of Directors considers that the objective and professional handling of matters by the Board has been ensured.

In addition to the stipulations laid down in the Finnish Companies Act, Securities Markets Act and corresponding general regulations, Fingrid's decision-making is especially subject to obligations prescribed by the Electricity Market Act concerning the unbiased treatment of customers and an obligation to develop the market with a view to the overall interests.

Vital matters having bearing on Fingrid's customer interface are prepared by the company's Advisory Committee. Moreover, Fingrid's Articles of Association, ownership contracts and principles concerning the work of the Board of Directors ensure objective handling of matters.

The tariff reduction and slow increase in electricity consumption decreased the grid revenues. Fingrid's financial position continued to be good.

Tower encased in sheet metal, Nummela, Vihti

CORPORATE FINANCES

Revenue of the Fingrid Group in 2007 was 335 million euros (351 million euros in 2006). Due to the 5 per cent tariff reduction carried out at the beginning of the financial year and a small increase in electricity consumption, grid revenues decreased on the previous year. Revenue from the sales of balance power decreased on the previous year to 64 (95) million euros. Depreciation costs, reserve power costs and costs of loss energy purchases increased. Moreover, the repair of the submarine cable between Finland and Sweden added to the costs.

Operating profit of the Group was 91 (80) million euros, which contains 12 (-18) million euros of positive change in the fair value of electricity derivatives. The Group's profit for the year was 42 (38) million euros. The return on investment was 7.3 (6.4) per cent and the return on equity 10.3 (10.4) per cent. The equity ratio was 27.5 (25.5) per cent at the end of the review period.

The financial position of the Group continued to be good throughout the review period. The net financial costs excluding the change in the fair value of derivatives decreased slightly to 31 (32) million euros.

The company acquired financing from the international and domestic money and capital markets. The company covers the need for short-term funding with the Euro Commercial Paper Programme, and long-term funding has been arranged through the international Debt Issuance Programme.

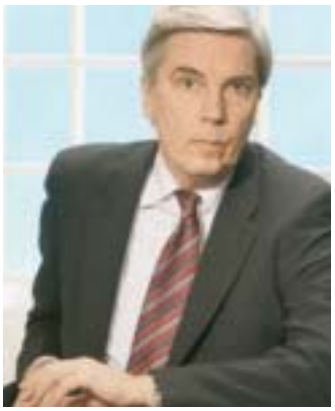
Electricity consumption in Finland only grew by 0.3 per cent on the previous year to 90.3 terawatt hours. A significant reason for the slower growth rate was the warm weather, which reduced the need for heating.

BOARD OF DIRECTORS

Tapio Kuula

Chairman of the Board
President
Fortum Power and Heat Oy

Chairman of the Board of Kemijoki Oy, Deputy Chairman of the Board of Teollisuuden Voima Oyj and JSC Territorial Generating Company 1 (TGC-1), member of the Supervisory Board of Varma Mutual Pension Insurance Company, member of the National Board of Economic Defence, member of the Energy Policy Committee of the Confederation of Finnish Industries EK.



Arto Lepistö

1st Deputy Chairman
Deputy Director General
Head of the Energy Market Division
Ministry of Employment and the Economy,
Energy Department

Involved in the development of the energy market and related regulations in various duties. Participated in the work of various committees and task forces as their chairman and member, and served as Finland's representative in the organisations of the EU and IEA.

Timo Rajala

2nd Deputy Chairman
President & CEO
Pohjolan Voima Oy

Chairman of the Board of Teollisuuden Voima Oyj. Chairman of the Boards of Oy Alholmens Kraft Ab and the subsidiaries of Pohjolan Voima Oy. Chairman of the Energy Policy Committee of the Confederation of Finnish Industries EK, member of the National Board of Economic Defence and its Central Section, member of the Finnish Section of the International Chamber of Commerce (ICC), member of the Economic Policy Committee of the Central Chamber of Commerce of Finland, member of the Board of Savon Voima Oyj.

Timo Karttinen

Senior Vice President
Fortum Oyj
Responsible for the company's
business development

Chairman of the Board of AB Fortum Värme Holding (co-owned with the City of Stockholm), Deputy Chairman of the Board of the Association of Finnish Energy Industries, member of the Supervisory Board of Gasum Oy, member of the Supervisory Board of AS Eesti Gaas, Chairman of the Supervisory Board of Fortum Wroclaw S.A., member of the Trade Policy Committee of the Confederation of Finnish Industries EK.

Anja Silvennoinen

Senior Vice President, Energy
UPM-Kymmene Oyj

Since 2004 worked at UPM-Kymmene Oyj as Senior Vice President, Energy, being responsible for global energy issues. Before UPM worked in several positions within the energy industry, management consulting, and Ministry of Trade and Industry of Finland. Member of the Supervisory Board of Kemijoki Oy, and member of the Boards of various subsidiaries of Pohjolan Voima Oy. Member of the National Board of Economic Defence, Energy Sector. Chairperson of the Energy Committee of the Finnish Forest Industries Federation and Vice Chairperson of CEPI Energy Committee.

Jorma Tammenaho

Portfolio Manager, appointed by investor shareholders
Ilmarinen Mutual Pension Insurance Company
Investments in private equity funds and unlisted shares in Finland.

Member of the Board of Enfo Oyj, Osuuskunta KPY and Leverator Oy, deputy member of the Board in Tornator Oy. Previously worked e.g. as Director, Investment Operations, and as the deputy Managing Director at Finnfund and as Quality Control Manager at Nokia Corporation's Cable Machinery unit.

Ritva Nirkkonen

Managing Director
Jyväskylä Regional Development Company
Jykes Ltd

Since 1995, served as the Business Director for the Jyväskylä region and as the Managing Director of Jykes Oy established in 1996. Worked previously at the Ministry of Trade and Industry as Commercial Counsellor responsible for international expansion of enterprises. Honorary Consul of the Federal Republic of Germany in Central Finland, deputy Chairperson of the Advisory Committee of Nordea, member of the Board and Working Committee of EURADA (European Association of Development Agencies), deputy member of the Boards of the University of Jyväskylä and Invest in Finland, member of the Industrial Committee of the Chamber of Commerce of Central Finland. Expert member in several business policy organisations in Central Finland.

Tarmo Rantalankila

Secretary of the Board
General Counsel
Fingrid Oyj

DEPUTY MEMBERS OF THE BOARD OF DIRECTORS

Juha Laaksonen,
Chief Financial Officer, Fortum Oyj

Timo Ritonummi,
Senior Engineer, Ministry of Employment and the Economy

Jussi Hintikka,
Executive Vice President,
Pohjolan Voima Oy

Ari Koponen,
Vice President, Region Finland,
Fortum Sähkönsiirto Oy

Pekka Kettunen,
Senior Specialist, Prime Minister's Office, State ownership steering

Timo Koivuniemi,
Vice President, Energy,
Stora Enso Oyj

Risto Autio,
Director, Alternatives, appointed by investor shareholders

Jukka Ruusunen
President & CEO,
Doctor of Technology, born in 1958

Served in various duties at the Helsinki University of Technology and Helsinki School of Economics since 1982. Worked as specialist at the Department of Strategic Planning at Imatran Voima Oy in 1996–1998, and as Vice President for Development at Fortum Power and Heat Oy in 1998–2006.

Positions of trust: Involved in the work of several energy organisations in Europe, the Nordic countries and Finland (Eurelectric, Nordenergi, Baltrel, Association of Finnish Energy Industries). Chairman of the Board of Nordel. Member of the Board of Association of Finnish Energy Industries. Adjunct Professor at the Helsinki University of Technology and Helsinki School of Economics.

Reima Päivinen
Senior Vice President,
responsible for power system operation,
M.Sc. (Tech.), born in 1958

Served in the present position since 2005. Before that, worked at Fingrid, IVO Voimansiirto Oy and Imatran Voima Oy in various grid operation and maintenance duties since 1983.

Positions of trust: Chairman of Fingrid's Power System Committee, member of Nordel's Operations Committee 2005-.

Matti Tähtinen
Senior Vice President,
responsible for stakeholder relations, B.Sc. (Tech.),
born in 1957

Served in the present position since 2007. Before that, worked at Fingrid in the development and management of customer and stakeholder processes, and at Imatran Voima Oy as Specialist and Project Manager in international operation control projects of power companies in 1981–1997.

Positions of trust: Member of ETSO Steering Committee 2001–2003, Member of UNIPEDE/Eurelectric Network Regulation/Issues 1995–1999, Secretary of Fingrid's Advisory Committee 1997–.

Kari Kuusela
Executive Vice President,
responsible for asset management, M.Sc. (Tech.),
born in 1955

Been responsible for Fingrid's asset management since 1999. Before that, worked at Fingrid as Technical Director and Construction Manager, as Engineering Manager at IVO Voimansiirto Oy 1993–1997 and IVO International Oy 1991–1993, at IVO Transmission Engineering Oy 1988–1991 as Chief Engineer, at Imatran Voima Oy as Relay Protection and Cable Specialist 1983–1987, and at Nokia Metalliteollisuus (Kaapeli) as Development Engineer 1981–1983.

Positions of trust: Finland's representative in Cigre (Conseil International des Grands Réseaux Electriques) Study Committee B3, "Substations" 2000–2006, member of Cigre working group B3 WG 01 1999–2005, member of Finergy's Network Committee 2003, member of the Board of Electric Power Department (SIL-S) of the Association of Electrical Engineers in Finland 1990–1992.

EXECUTIVE MANAGEMENT GROUP

Jussi Jyrinsalo
Senior Vice President,
responsible for technology and the environment,
Licentiate in Technology, born in 1964

Served in the present position since 2005. Before that, worked at Fingrid as Technology Manager, Engineering Manager and Sales Manager, at IVO Voimansiirto Oy as Sales Manager, Project Manager and Design Engineer, at the Lappeenranta University of Technology as Assistant Professor, and at the Tampere University of Technology as deputy Senior Assistant and Researcher.

Positions of trust: Finnish regular member of Cigre Study Committee B4 and convener of its communication group.

Tom Pippingsköld
Chief Financial Officer,
B.Sc., MBA, born in 1960

Served in the present position since 2001. Before that, worked at Fingrid as Financial Manager and Financial Director 1999–2001, at Postipankki Bank's investment bank as Investment Analyst and in project financing as Financial Manager 1990–1994, and at the European Bank for Reconstruction and Development (EBRD) in London as Principal Evaluation Officer 1994–1998.

Positions of trust: Deputy member of the Board of Nord Pool Spot AS.

Juha Kekkonen
Executive Vice President,
responsible for market development,
M.Sc. (Tech.), born in 1950

Served in the present position since 1997. Before that, worked at the Energy Department of the Finnish Ministry of Trade and Industry in specialist duties and as Head of Office 1975–1988, at Finland's permanent representative office at the OECD as Industrial Counsellor 1988–1990, and at the Energy Department of the Ministry of Trade and Industry as Head of Group 1990–1996.

Positions of trust: Member of the Board of Kemijoki Oy 1992–1997, member of the Board of Nord Pool Spot AS 2002–2006, Chairman of the Board of Nord Pool Spot AS 2006–, member of Nordel's Market Committee 2001–, Chairman of Nordel's Market Committee 2004–2006, Chairman of Nordel's Board 2006–2007, member of ETSO Steering Committee 1999–, Chairman of ETSO Steering Committee 2001–2003, Chairman of Power and District Heat Pool 2001–.

Pertti Kuronen
Senior Vice President,
responsible for grid service, M.Sc. (Tech.),
born in 1953

Served in the present position since 2003. Before that, worked at IVO Voimansiirto Oy and at Imatran Voima Oy as well as in grid operation and planning duties at Fingrid.

Positions of trust: Member of Nordel's Planning Committee 2000–, member of the Board of Porvoon Alueverkko Oy.

ADVISORY COMMITTEE

Front row from the left:

Esa Hagman, Manager, Power Transmission, Fortum Power and Heat Oy

Jukka Ruusunen, President & CEO, Fingrid Oyj

Hannu Linna, Managing Director, Vaasan Sähkö Oy (Chairman)

Erik Mälkki, Vice President, Power Generation, Vattenfall Oy

Matti Tähtinen, Senior Vice President, Fingrid Oyj (Secretary)

At the back from the left:

Ilkka Latvala, Vice President, Energy, M-real Oyj

Risto Vesala, Senior Vice President, Pohjolan Voima Oy

Aimo Takala, Managing Director, Kemijoki Oy

Tuula Loikkanen, Managing Director, Korpelan Voima KL

Mikko Rintamäki, Vice President, Energy, Outokumpu Oyj

Matti Rintanen, Managing Director, Pori Energia Oy

Pertti Leppänen, Managing Director, Leppäkosken Sähkö Oy

Jorma Korhonen, Managing Director, Pohjois-Karjalan Sähkö Oy

Matti Pihko, Power Plant Manager, Stora Enso Oyj

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