



Annual report 2018

FINGRID

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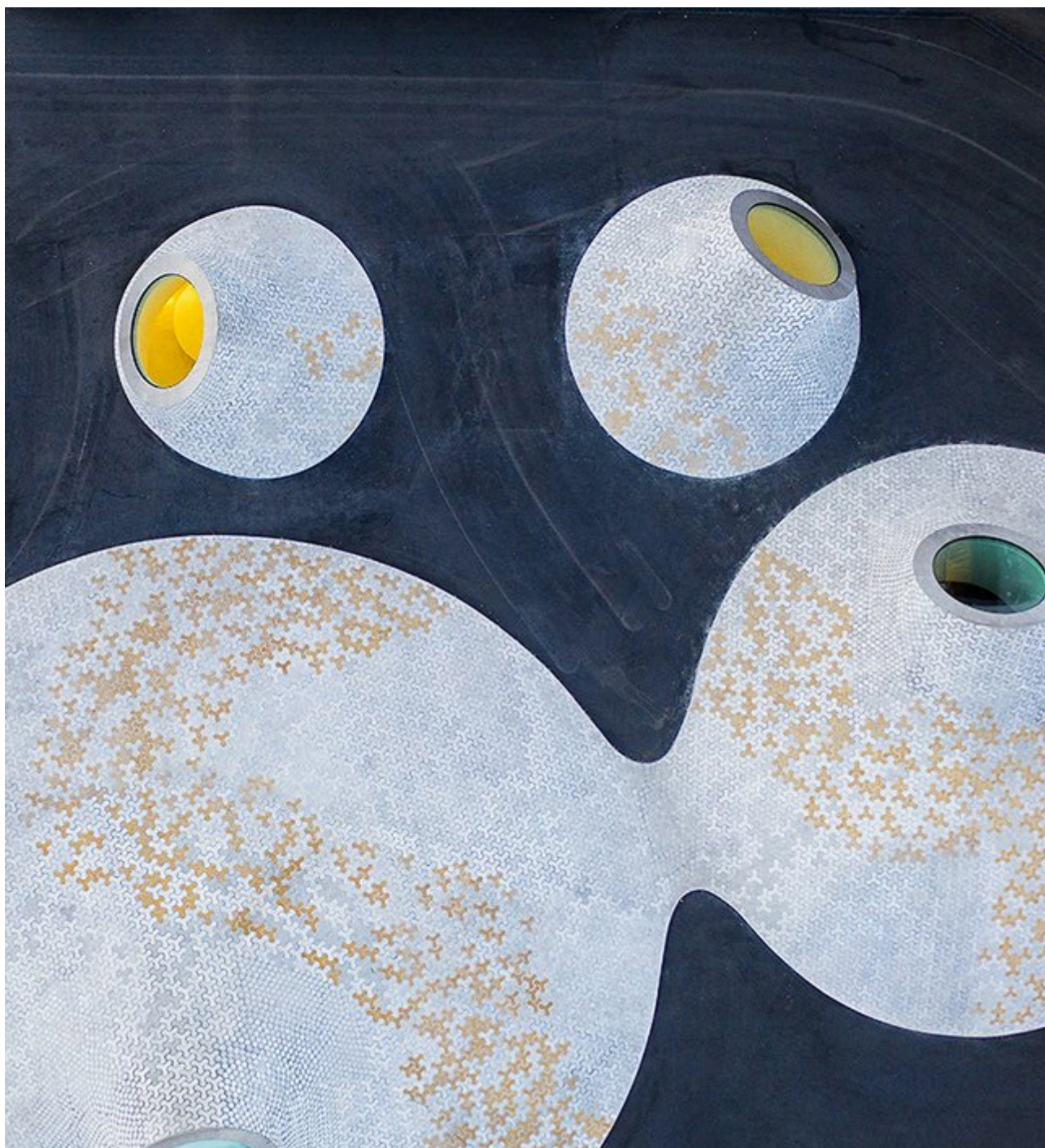
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Operating environment and strategy

Contents of the annual report and reporting principles

Fingrid's annual report for 2018 will be published in electronic format on the company's website. The annual report also includes Fingrid's corporate responsibility reporting and the corporate governance statement.

Fingrid draws up the consolidated financial statements and the half-year report in accordance with IFRS reporting standards accepted by the European Union and in accordance with the Finnish Securities Market Act. The consolidated financial statements include the parent company Fingrid Oyj and its wholly owned subsidiaries Finextra Oy and Fingrid Datahub Oy. The consolidated associated companies are Nord Pool AS (ownership 18.8%) and eSett Oy (ownership 33.3%). The annual review and the financial statements of the Group's parent company and its subsidiaries are prepared in accordance with the Finnish Accounting Act and the guidelines and statements of the Finnish Accounting Standards Board. The information on personnel is based on the calculation systems used by human resources management, and the calculation of the relevant information is in compliance with the general guidelines of the Finnish Accounting Standards Board concerning the preparation of annual reviews. The environmental data is collected from the information reported to the authorities and from Fingrid's own data collection systems. An external emissions trading verifier has verified the company's carbon dioxide emission report.

Corporate responsibility reporting focusses on the main economic, social and environmental impacts of Fingrid Group's operations. The reporting applies integrated reporting principles, is in compliance with the Global Reporting Initiative (GRI) guidelines (Core requirements) and has been verified by an independent third party. The boundaries of the social and environmental data do not include the associated companies. Requirements for corporate responsibility reporting by state-owned companies and environmental, social and governance (ESG) reporting guidance for stock exchanges are also taken into account. The annual report stands for a Communication on Progress (COP) report in compliance with the UN's Global Compact initiative.

Fingrid in brief





- Fingrid Oyj is a Finnish public limited company responsible for electricity transmission in the high-voltage transmission system in Finland.
- The company was established on 29 November 1996.
- Operations started on 1 September 1997.
- Turnover amounts to EUR 852.8 (672) million.
- The balance sheet total is EUR 2.1 (2.1) billion.
- Fingrid's nationwide grid is an integral part of the power system in Finland. The main grid is the high-voltage trunk network that covers all of Finland. Major power plants, industrial plants and electricity distribution networks are connected to the grid.
- Fingrid guarantees a disturbance-free electricity supply in Finland. Fingrid ensures that the generation and consumption of electricity are always in balance. Between 2018 and 2027, some 1,600 kilometres of new transmission lines and 20 substations will be built.
- Fingrid's customers include grid companies, electricity producers, major electricity consumers and electricity market parties. The services the company offers its customers are electricity transmission, balance services, guarantee-of-origin certificates, electricity market information and retail market information exchange.
- The Finnish power system is part of the common Nordic power system. The Nordic system is connected to the system in Central Europe via high-voltage direct current (HVDC) transmission links. Finland also has HVDC links with Russia and Estonia.
- The transmission system owned by Fingrid encompasses approx. 14,300 kilometres of 400-, 220- and 110-kilovolt transmission lines, plus 114 substations, four HVDC connections and 10 of the company's own reserve power plants.
- Fingrid's statutory tasks include developing the electricity market. Fingrid also actively participates in the activities of the ENTSO-E, the European Network of Transmission System Operators of Electricity. Fingrid furthermore engages in regional TSO co-operation in the Nordic countries and in the Baltic Sea area. TSO co-operation takes place for grid planning, grid operations and electricity market development alike.
- Fingrid Datahub Oy selected the supplier for the Datahub system in June. The procurement is valued at EUR 41.9 million. The Finnish Government proposed a bill to Parliament on 20 September 2018 concerning amending the Electricity Market Act and related legislation. The Datahub is a centralised information exchange system for retail markets that stores data from all of Finland's 3.5 million places of electricity consumption. The Datahub will go live in 2021.
- Fingrid is owned by the State of Finland (direct holding 28.2%), the National Emergency Supply Agency

(24.9%), Aino Holding Ky (26.4%), Ilmarinen Mutual Pension Insurance Company (19.9%) and other institutional investors (0.6%). Aino Holding Ky is owned by OP Insurance and pension entities (Pohjola Insurance Ltd, OP Life Assurance Ltd., OP Pension Fund and OP Pension Foundation), the State Pension Fund and Elo Mutual Pension Insurance Company.

- Fingrid's debt issues on the capital markets are listed on the London and Irish stock exchanges (Euronext Dublin).
- Fingrid owns 18.8 per cent of electricity exchange Nord Pool AS.
- Fingrid owns the balance services company eSett Oy together with Statnett and Svenska Kraftnät. eSett provides imbalance settlement services to Finnish, Norwegian and Swedish electricity market parties. The company's operations commenced in May 2017, when eSett Oy took over imbalance settlement. At the same time, the markets transitioned to using a harmonised Nordic imbalance settlement model.
- The joint Nordic operational planning office, Nordic RSC, has been operating in Copenhagen, Denmark, since 2017. Fingrid has sent three employees to the office.
- At the end of the year, Fingrid had 380 (355) employees, 327 (308) of whom were permanent.
- Fingrid is headquartered in Helsinki, and the company also has offices in Hämeenlinna, Oulu, Petäjävesi, Rovaniemi and Varkaus.

Jukka Ruusunen, President & CEO

							
Grid services and planning	Asset management	Power system operations	Market	Finance and treasury	ICT	HR and Communications	Legal and administrative affairs
Jussi Jyrinsalo	Kari Kuusela	Reima Päivinen	Asta Sihvonen-Punkka	Jan Montell	Kari Suominen	Tiina Miettinen	Marina Louhija

	Customers		
	Finance and business development		
	Adequacy of the transmission system	System operation	Promoting the electricity market
	Personnel and expertise		

Review by the President & CEO

We are creating a platform for a clean power system

Combatting climate change will call for concrete actions from us in the coming years. The transition to a cleaner power system and electrification of society are important elements of the change. Taking this immense task forward requires that the 'platforms' of the power system, in other words the transmission and distribution networks, are in good repair and ready to reliably transmit electricity also in the new operating environment.

Fingrid's role as a platform builder and maintainer of the clean power system includes taking care of Finland's grid system and developing it to meet future needs. The grid is currently in good repair. However, we need to keep our eyes open and be able to anticipate future power transmission needs. Finland's power system will soon include one of the world's largest nuclear power plants, and wind power has evolved from its role as a challenger into a financially highly competitive way of producing clean electricity. We welcome all clean forms of energy production as our customers.

Transformation of the electricity market

The electrification of society will further increase the significance of the reliability of the electricity supply. Fingrid's duties include uninterrupted monitoring and operating of the power system such that society can trust in a reliable supply of electricity. This work must be developed constantly as the power system becomes more and more complex and dynamic. The utilisation of data and digitalisation will be more and more important tools for us.

In the future power system, there will be less flexibility in production than there is now. In that respect, the importance of hydroelectric power will grow further, and demand side management will be increasingly needed on the consumption side. The 'operating system' of the power system, i.e. the electricity market, requires a 'version update' of immense proportions to be capable of balancing power production and consumption also going forward. Extensive changes are under way and will be implemented in the early 2020s. Electricity trading will take place in 15-minute periods, the balancing power and reserve markets will function more effectively under the steering of Europe-wide trading platforms and, in Finland, the Datahub implemented by Fingrid will digitalise the electricity retail markets and boost their efficiency as well as open the door for regular consumers to become active operators on the marketplace. We have been given the task of project manager in this massive project. We realise that we cannot do it all on our own, and that the project requires close co-operation with other market operators and the authorities.

Customer work at the core

Well-functioning stakeholder engagement is a vital key to the success of a TSO. The situation right now looks good. Fingrid received global attention for its customer focus and transparency, which are exceptionally strong for a monopoly company, as we were chosen as the world's best transmission system operator in the CHARGE Awards 2018, an international energy sector brand competition. The message is corroborated by our customer survey: 87 per cent of our customers are willing to endorse Fingrid's approach to customer engagement. Stakeholder co-operation is challenging our organisations to further foster interaction with people, with humility and in a spirit that builds trust. We must earn our stakeholders' trust every day. This is something we ensure through our responsibility work, which is integrated into our strategy, and by requiring responsible operating practices from our contractual partners, in accordance with the principles of the UN Global Compact initiative.

Fingrid has an essential mission in Finnish society. The power system is in the midst of a major transformation, making the role of the TSO even more important. Here at Fingrid, we are ready to face the challenges that the

future will bring us. We work for Finland with our hearts and our minds.

Jukka Ruusunen

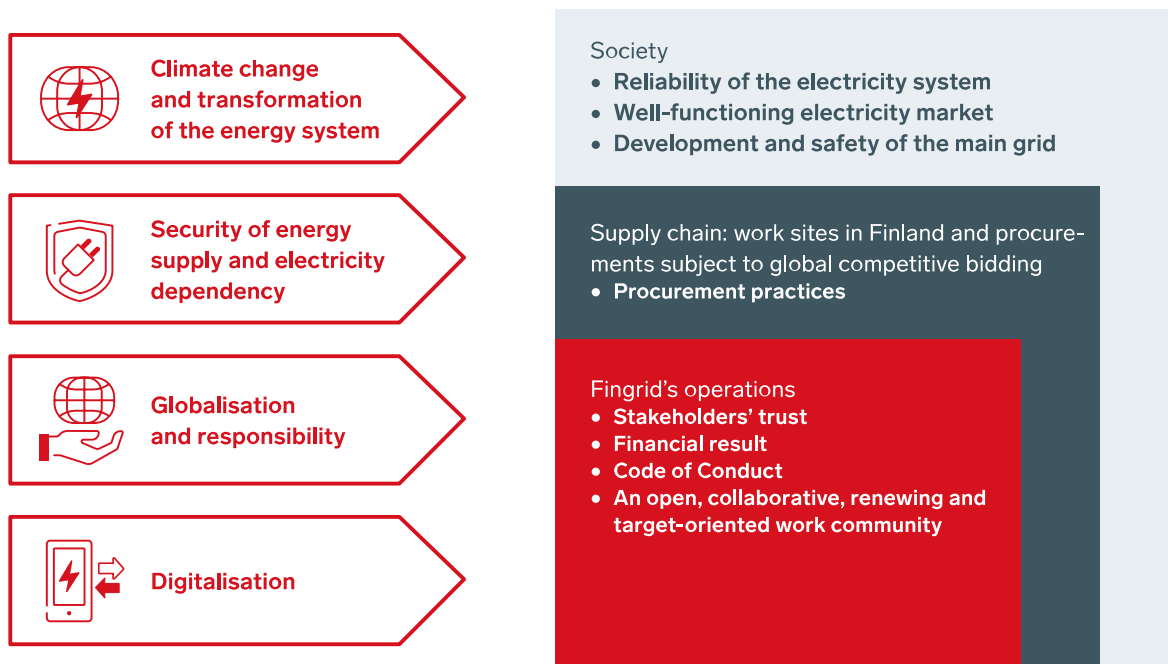
CEO



Operating environment

Megatrends steer Fingrid’s operations. The impacts can be seen throughout society and in the procurement and supply chains used by the company.

Megatrends and key issues for Fingrid’s operations



The following four megatrends of the operating environment steer Fingrid's operations:

Climate change and transformation of the energy system

The energy sector plays a key role in combatting climate change. The structure of electricity production is changing as the share of renewable energy grows and adjustable fossil-fuel condensing power production decreases. Wind and solar energy will soon be profitable without subsidies.

An increase in wind and solar power will result in a scarcity of power, flexibility and system inertia. Price fluctuations will increase, which will bring business opportunities to flexible production and consumption and energy storage technologies.

Fingrid does its part to combat climate change by building and maintaining the main grid. The transformation in the structure of electricity generation due to the efforts to mitigate climate change results in changes in the power system. We make it possible to connect new forms of energy production to the grid. We ensure the sufficiency of system reserves also in the future and prepare for a decline in flexible production capacity while at the same time developing the electricity market to meet the needs of a low carbon power system.

Our role is to actively propose improvements to the electricity market model that will make it possible to stay on a

market-based and clean path. We seek new solutions for grid operations to ensure that the power system functions reliably and, with support from the markets, to find a balance between production and consumption.

Security of energy supply and electricity dependency

Society is becoming increasingly dependent on electricity. At the same time, society's tolerance for disruptions to the availability of electricity is weakening: serious disturbances in electricity supply are among society's greatest safety threats. Electricity sector risks are being prepared for as part of the European Commission's clean energy Winter Package. The aim is to improve the security of electricity supply at the EU level and reinforce regional co-operation. According to the Winter Package, measures related to crises must be compatible with the rules for the common electricity markets.

For Fingrid's part, implementing our investment programme, promoting the markets and developing our grid operations improve the reliability of the electricity supply and our preparedness in the face of crisis situations. In risk and continuity management, we continuously prepare for serious disturbances to the power system in different threat scenarios.

We are actively involved in international co-operation to develop European rules, and we are preparing for power system disturbances in co-operation with the Baltic Sea region's TSOs.

Globalisation and responsibility

In addition, increased workforce mobility is making energy companies more international. The global financial market offers a well-managed company with a high credit rating a flexible and affordable way of procuring financing.

Responsibility is a key component of our corporate image. Regulations concerning corporate finance and social corporate responsibility are increasing on both a national and global scale. The importance of openness is growing.

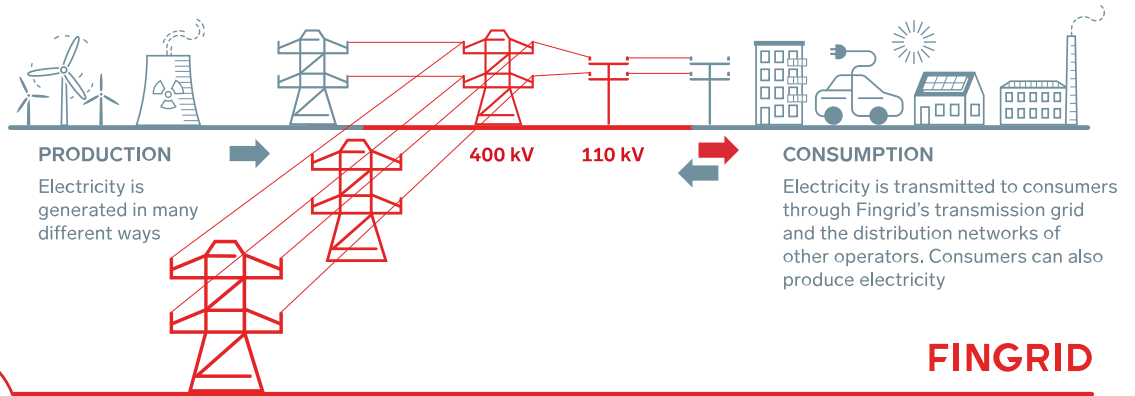
For Fingrid, globalisation brings new opportunities, thanks to our expertise related to outsourcing services and international co-operation. We have also been successful for some time now in making use of the international financing markets. Responsible procurement of goods and services can globally promote sustainable development and ethical practices.

Digitalisation

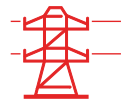
Digitalisation brings opportunities to improve the profitability of operations and creates a wide range of new e-services. On the other hand, an integrated network of everything can become an avenue for targeted attacks, in the most extreme case, a weapon in cyberwarfare. This also imposes specific cybersecurity requirements on Fingrid's IT systems.

From Fingrid's perspective, digitalisation enables even more productive operational processes, better customer service and more efficient sharing of market information. It also provides new tools for managing a changing and increasingly complex power system. Smart grid technology opens up new business opportunities for both current and new operators and, in turn, shapes our customer field.

Fingrid's role in the electricity system



Transmission connections to Sweden, Estonia, Russia and Norway



Electricity transmission



Balance services



Guarantee-of-origin certificate



Electricity market information



Information exchange in the retail markets

Mission and business model

Our mission

Fingrid is Finland's transmission system operator. We secure reliable electricity for our customers and our society and we shape the clean and market-oriented power system of the future.

Our values

Transparency, Efficiency, Impartiality, Responsibility in all our operations.

Our vision

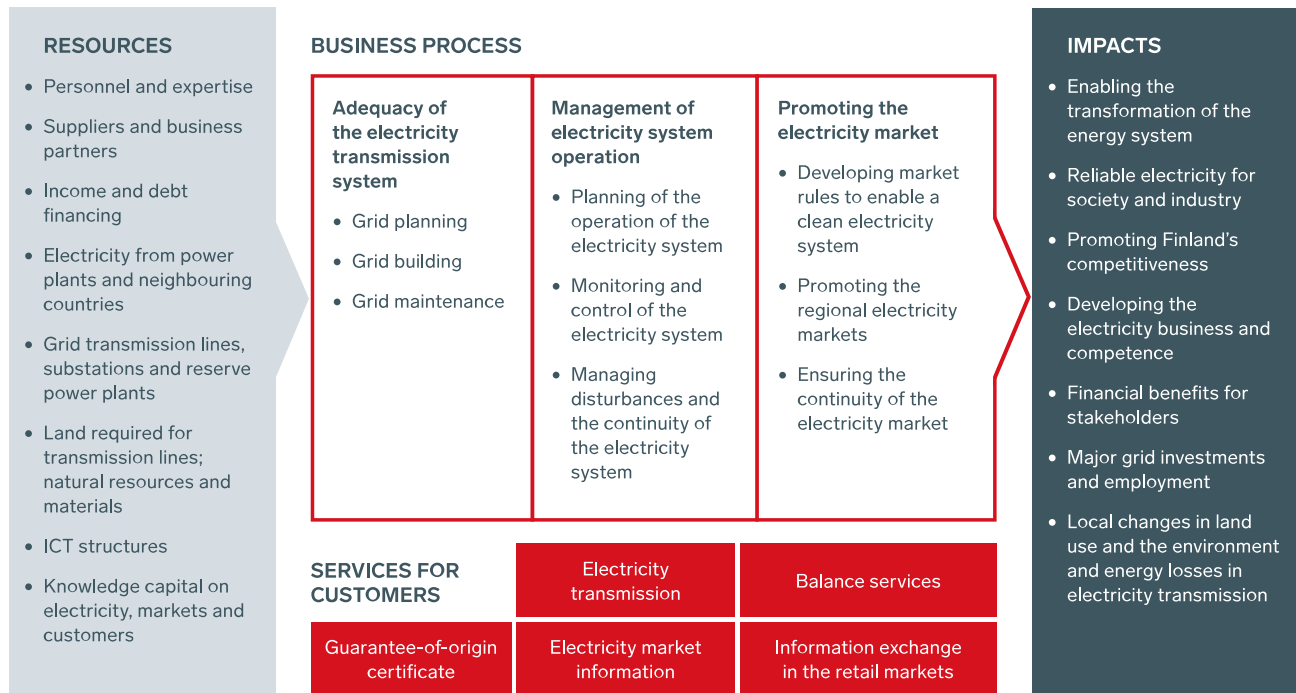
We are an exemplary transmission system operator.

- A highly esteemed energy influencer in Finland and across the globe.
- Known for its responsibility, efficiency and expertise.
- Capable of renewal and boldly adapts to change.

Fingrid's business model

The purpose of the business model is to describe the most important material and immaterial resources at our disposal that are necessary for the business processes. The result is services for our customers. The impact of Fingrid's operations and the significant added value they generate show in various ways throughout Finnish society.

Fingrid's business model



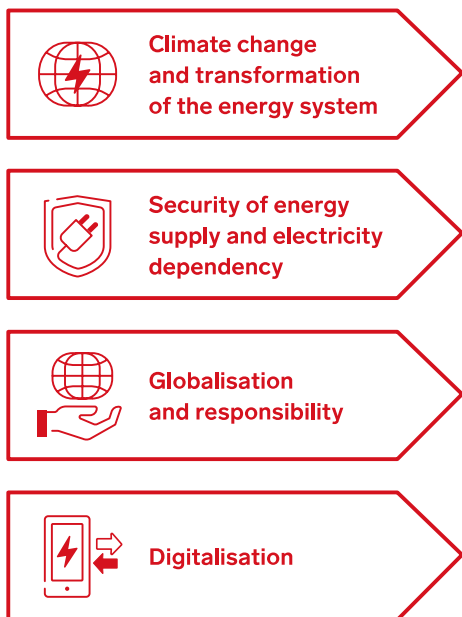
Materiality assessment

We have identified aspects that are material to Fingrid's business and corporate social responsibility, and we have assured sufficient management practices, targets and indicators for them. The need for updates to the materiality analysis is assessed annually as part of the strategy process, based on an operating environment and stakeholder analysis and on the strategy update. Achieving the targets is the starting point for executive management's and personnel's remuneration.

Strategy process, materiality analysis and target monitoring as an integrated whole



Megatrends and key issues for Fingrid's operations



Society

- Reliability of the electricity system
- Well-functioning electricity market
- Development and safety of the main grid

Supply chain: work sites in Finland and procurements subject to global competitive bidding

- Procurement practices

Fingrid's operations

- Stakeholders' trust
- Financial result
- Code of Conduct
- An open, collaborative, renewing and target-oriented work community

Stakeholder engagement

Open, honest and equal stakeholder engagement

As a transmission system operator, we engage with many parties who may have different expectations of our operations. Being responsive to stakeholders and open to their expectations is an essential part of our sustainability approach. We regularly chart our stakeholders' opinions, and engage in dialogue and co-operate with them in a number of ways. An appointed executive is in charge of our customer perspective, and the heads of functions oversee stakeholder activities within their own areas of responsibility.

Fingrid's key stakeholders and channels of engagement

Stakeholder	Stakeholder's expectations	Fingrid's measures	Communication channels
 POLICYMAKERS	<ul style="list-style-type: none"> Reliable electricity Shaping the clean and market-oriented power system of the future Well-functioning electricity markets Participation in the electricity markets 	<ul style="list-style-type: none"> Contact with decision-makers Reputation&Trust survey of policymakers 	<ul style="list-style-type: none"> Direct contacts Seminars by Fingrid and others Press releases Media publications Website Social media
 CUSTOMERS	<ul style="list-style-type: none"> Reliable electricity and a well-functioning electricity market Services that meet customers' needs Affordable pricing Predictable operations 	<ul style="list-style-type: none"> Co-operation in grid operations, maintenance and planning Customer service planning and continuous engagement Customer committees Customer events Customer and stakeholder questionnaires 	<ul style="list-style-type: none"> Seminars by Fingrid and others Press releases Website Customer magazine Media publications Social media Newsletter Info sessions and meetings
 PERSONNEL	<ul style="list-style-type: none"> Equal treatment and rewards Well-being in the work community Occupational safety Professional development opportunities Stable employment 	<ul style="list-style-type: none"> Employee rewards and benefits Daily interaction, performance reviews and personnel events Personnel surveys Personnel association activities Alumni collaboration 	<ul style="list-style-type: none"> Direct contacts Intranet Official info sessions and other events Website Social media
 SHAREHOLDERS	<ul style="list-style-type: none"> Responsible business and good governance Improvement in profitability Preservation of shareholder value and stable return development 	<ul style="list-style-type: none"> General meetings Board work Dividends 	<ul style="list-style-type: none"> Direct contacts Fingrid's seminars Press releases Media publications Website Social media Official info sessions and other events
 FINANCERS AND CREDIT RATING AGENCIES	<ul style="list-style-type: none"> Debt service consistent with agreements Responsible business and good governance Transparent reporting 	<ul style="list-style-type: none"> Regular engagement and co-operation 	<ul style="list-style-type: none"> Direct contacts Website Media publications Stock exchange releases Official info sessions and other events
 CONTRACTORS AND SERVICE PROVIDERS	<ul style="list-style-type: none"> Occupational safety Responsible treatment of suppliers Predictability and continuity 	<ul style="list-style-type: none"> Training and audits Promoting occupational safety Joint development projects 	<ul style="list-style-type: none"> Direct contacts Fingrid's seminars Website Media publications Social media
 LANDOWNERS AND NEIGHBOURS	<ul style="list-style-type: none"> Responsible operating methods in land-use and environmental matters to reduce negative impacts Proactive and reliable contact 	<ul style="list-style-type: none"> Operating methods that reduce land-use and environmental impacts Map feedback service Feedback surveys about completed investment projects 	<ul style="list-style-type: none"> Direct contacts Landowner bulletins Events for the public and other events Official info sessions and other events Website Media publications Social media
 AUTHORITIES AND ORGANISATIONS	<ul style="list-style-type: none"> Promotion of common matters Clear, reliable and timely communication Expertise 	<ul style="list-style-type: none"> Working groups, committees and co-operation forums Statements Participation in the Power and District Heat Pool Regular contact 	<ul style="list-style-type: none"> Direct contacts Fingrid's seminars and other seminars Press releases Media publications Website Social media
 OTHER PARTNERS	<ul style="list-style-type: none"> Expertise Promotion of common matters 	<ul style="list-style-type: none"> Engagement with TSOs Collaboration with ENTSO-E, RSC and other industry players R&D projects Collaboration with learning institutes Trade shows 	<ul style="list-style-type: none"> Direct contacts Fingrid's seminars and other seminars Press releases Media publications Website Social media Newsletter Info sessions and meetings

Strategy

The foundation of our operations

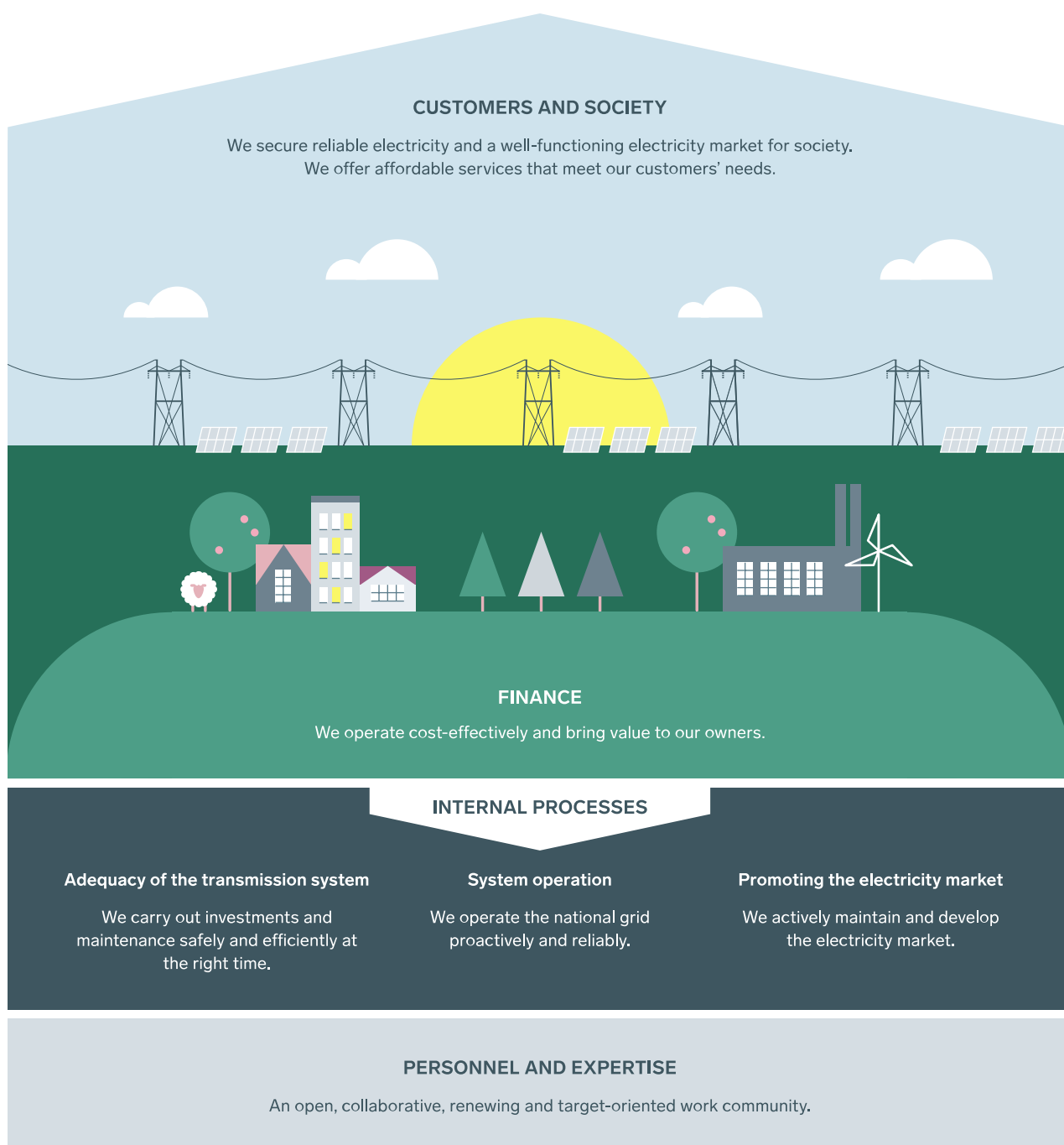
Our operations are based on Finnish and EU legislation. In accordance with the Finnish Electricity Market Act, we develop the main grid, maintain a balance between electricity consumption and generation and promote the preconditions for a well-functioning electricity market. The EU Electricity Regulation obligates us to co-operate within ENTSO-E, and regionally to improve the functioning of the internal electricity market. Our task is to participate in the drawing up and implementation of the market, operating and connection codes and the proposals prescribed in them.

We develop the power system and the electricity market rules together with our **customers**. We keep our customers informed of the development of European rules concerning the electricity industry, and we listen to our customers' views on European, regional and national proposals being prepared. We keep abreast of our customers' requests through Fingrid's Advisory Committee and three customer committees.

Our strategy is based on four perspectives

We develop our operations for the long term, taking the perspectives of our customers, society, finances and personnel into account. We seek quality and efficiency by combining our core expertise with that of the best players. By operating responsibly we earn the trust of our customers, society, shareholders and the work community.

In preparing and executing Fingrid's strategy, we have examined the requirements set by our vision as fairly as possible from four different perspectives. Our organisation model is based on a matrix structure which supports effective implementation and comprehensively engages the personnel.



Listening to our customers and stakeholders



“We develop our business operations with our customers in mind and for the benefit of the entire country.”

Fingrid is Finland’s transmission system operator. Taking care of our mission demands listening to our customers. Fulfilling our mission means having a profound understanding of the current and future needs of our various

customers and taking them into account in all our operations.

We develop our services together with our customers, according to their needs and business challenges. We promote the creation of new services and we strive to enable new players to enter the electricity market.

Cost-effective player



“We operate cost-effectively and bring value to our owners and all of society.”

We operate based on the premise that we respond to the expectations of society in the long term, that we operate cost-effectively and that we provide value to our owners. Our decision-making and operations are based on the right information at the right time and on the desire to be efficient, profitable and responsible. Our governance is transparent and of a high standard. We are a forerunner in transmission system operation on the increasingly international electricity market, which requires continuous development of our operations and our productivity.

We pro-actively and thoroughly plan our investments according to financial and societal requirements. Successful financing activities secures our capital investments and operational maintenance.

Our internal processes are described according to Fingrid's main duties.

Reliably and responsibly



“During the energy sector transformation, we will maintain the current good level of system security. Sustainability and safety are highlighted in everything we do.”

We develop the operations of the Nordic electricity system as a comprehensive whole. We are also deepening co-operation, especially with the Baltic countries. We oversee control centre operations, which demands strong knowledge of grid operations. We purchase service when they are cost-effectively available. We own most of the reserve power plants, which serve as fast disturbance reserves.

Targeting a clean and reliable market-based electricity system



“We rely on well-functioning markets to produce the best and most innovative solutions.”

We want to lead the change in the European electricity market. We actively develop the electricity market in co-

operation with our stakeholders. Ensuring a market-based approach benefits customers and enables the cost-effective transition to a clean power system. European legislation and regional solutions on market rules have a significant impact on the markets. We want to have an influence on the preparation of European and regional regulations and market solutions, and our goal is to maintain sufficient electricity transmission connections between neighbouring countries and within Finland. We develop structures to support operating models and the real-time market, enabling the realisation of a market-based, clean power system.

Transformation of the power system increases the need for transmission capacity



“We actively foster the integration of the electricity markets in Europe and the Baltic Sea area.”

We are designing and building the transmission grid as flexibly as possible and with solutions that suit various future scenarios to meet society’s power production and consumption needs. Our operations are based on continuous operational improvement and cost-awareness. We also seek to minimise outages in electricity distribution through investments. In terms of future investments, our aim is to engage in co-operation with the authorities, our customers and landowners such that each party is able to approve the investments. Development projects to ensure the sustainability of our operations and our supply chain, as well as occupational safety development projects, are an important part of maintaining the grid.

A small and efficient Fingrid



“We innovatively utilise the best technologies and opportunities enabled by digitalisation. We keep the necessary core competence in-house. We co-operate with the best partners.”

Our HR vision is based on our corporate culture. We want to be an open, collaborative, renewing and target-oriented work community. For Fingrid employees, that means that we are at the leading edge of change and we are prepared for the future with our world-class expertise. The members of our work community are customer-focused renewers, responsible results achievers, go-getting team players and international networkers. We also want to ensure an excellent employer image for our company and that the best experts in their field work for us.

Strategic projects

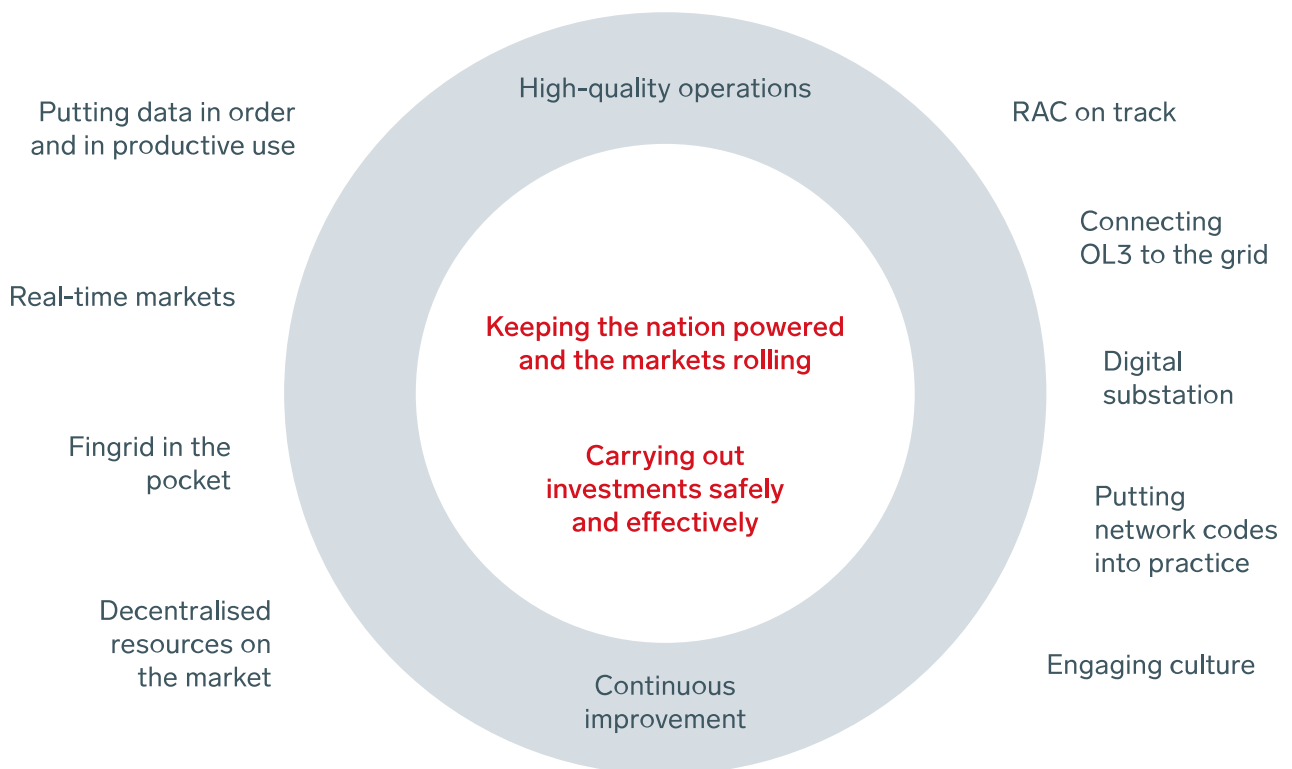
In implementing our strategy, our aim is to continuously improve our operations. Alongside that work, our multi-year strategic projects at the company level are:

- Putting network codes into practice: well-functioning electricity markets and practices that ensure system security
- Connecting the Olkiluoto 3 nuclear reactor to the grid: secure connection of one of the world’s largest nuclear power plants to the grid

- Real-time markets in the Nordics: secure balance between consumption and production in common markets
- Fingrid in the pocket: Fingrid at your service, regardless of time and place
- Putting data in order and in productive use: correct and essential information in efficient use
- Engaging corporate culture: Fingrid employees capable of renewal and boldly adapting to change
- Decentralised resources on the market: electricity users participating in and benefitting from the electricity market




We have assigned a person responsible on the Executive Management Group level to each strategic project. We implement strategic projects as part of our annual action plans, and the progress of projects is monitored regularly by the Board of Directors and the Executive Management Group.

Strategy implementation – continuous improvement and change initiatives



Fingrid's strategic targets and indicators

- The set target was achieved/exceeded
- The set target was nearly achieved; still a good outcome
- Fell short of the set target, average outcome
- Fell clearly short of the set target, unsatisfactory outcome
- Failure to meet the set target, weak outcome

	Our target in 2018	How did we do?	What are our targets in 2019?	UN Sustainable Development Goals
CUSTOMERS AND SOCIETY				
Impact of disturbances on the macro economy and customers	Economic disadvantage to customers caused by disturbances in the transmission grid less than EUR 7.5 million.	The economic disadvantage was EUR 3.6 million. ●●●●●	Target unchanged.	 
Customers' trust in Fingrid	Trust KPI in the customer survey: 4.0.	The result was 4.1 ●●●●●	Target unchanged.	




				 
Tariff level	<p>ENTSO-E Overview of Transmission Tariffs in Euro- pe: top three in the benchmark group of 16 countries.</p>	<p>Fingrid ranked 4th.</p> 	<p>Target unchan- ged.</p>	
FINANCES				
Credit rating	<p>To maintain Fingrid's credit rating at least at the A- level.</p>	<p>Fingrid's credit ra- ting remained at the A level.</p> 	<p>Target unchan- ged.</p>	 

<p>Dividend pay-out capacity</p>	<p>Dividend income in line with shareholders' targets.</p>	<p>Dividend income in line with shareholders' targets was achieved.</p> <p>● ● ● ● ●</p>	<p>Target unchanged.</p>	 
<p>Cost-effectiveness</p>	<p>To maintain the current solid cost-effectiveness and to continuously improve productivity.</p>	<p>Good cost-effectiveness was maintained.</p> <p>● ● ● ●</p>	<p>Target unchanged.</p>	 
<p>INTERNAL PROCESSES</p>				
<p>Implementation of capital investments</p>	<p>Implementation of the capital investment programme concerning the transmission grid to support the Finnish climate and energy strategy: investment projects on schedule and within budget.</p>	<p>The capex projects proceeded on schedule and within budget.</p> <p>● ● ● ● ●</p>	<p>Target unchanged.</p>	  

<p>Electricity market</p>	<p>Customer survey grade of 3.8 for Fingrid's success in promoting the electricity markets.</p>	<p>The result was 4.1</p> 	<p>Target 4.0</p>	 
<p>Procurement chain</p>	<p>No significant deviations or problems in contractor obligation or employment relationship matters.</p>	<p>No significant deviations or problems in contractor obligation or employment relationship matters.</p> 	<p>Target unchanged.</p>	  
<p>Occupational safety</p>	<p>LTIF less than 5 by the end of 2018 (both Fingrid personnel and service providers).</p>	<p>LTIF was 3.2</p> 	<p>LTIF less than 5 by the end of 2019.</p>	

<p>Land use and environment</p>	<p>No significant environment-related deviations.</p>	<p>No significant environment-related deviations.</p> <p>● ● ● ● ●</p>	<p>Target unchanged.</p>	 
	<p>General grade of 'good' in landowner surveys.</p>	<p>The result was 3.8</p> <p>● ● ● ●</p>	<p>Target unchanged.</p>	
<p>Efficiency in maintenance and physical asset management</p>	<p>Top three in international benchmark studies (ITOMS, ITAMS).</p>	<p>Placed in the top three.</p> <p>● ● ● ● ●</p>	<p>Target unchanged.</p>	 
<p>System security</p>	<p>System Average Interruption Duration Index less than 3 minutes.</p>	<p>SAIDI was 12.0</p> <p>● ●</p>	<p>Target unchanged.</p>	 

	Sufficiency of the system reserves at least 99.5%.	Sufficiency was 99.7%. 	Target unchanged.	 
PERSONNEL AND EXPERTISE				
Workplace atmosphere	Top grade in the personnel survey.	The top grade was achieved. 	Target unchanged.	 
Leadership	Great Place to Work Finland survey, general series: Among the top 10 (survey every two years).	No survey in 2018.	Target unchanged.	 

<p>Responsible operating methods</p>	<p>Grade 'good' for responsible operating methods in the personnel survey.</p>	<p>The grade was 'excellent'.</p> <p>● ● ● ● ●</p>	<p>Target unchanged.</p>	  
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Management system

The aim of Fingrid's management and leadership is to implement the strategy approved by the Board of Directors and achieve the business goals effectively, responsibly and sustainably. The company's management complies with internal control procedures, which ensure good governance.

Matrix

We have organised the company's operational strategy as an efficiently implemented matrix of four perspectives: customers & society, finances, internal processes, and personnel & expertise. The internal processes consist of: adequacy of the transmission system, system operation and promoting the electricity market.

The target setting and operational control for each strategic perspective is managed by an owner appointed by the President & CEO, supported by a steering group approved by the Executive Management Group. The perspective owner acts as chair of the steering group and rules over any necessary teams and working groups under the control of the steering group. The targets and guidelines for each perspective are based on Fingrid's strategy and require the Executive Management Group's approval.

The perspective owner is responsible for all major costs, revenue and investment forecasts related to the perspective, risk management, communications and stakeholder relations as well as for ensuring the quality and cost effectiveness of the IT system, information management and business solutions supporting the operations. The company's ICT is organised in a similar manner. A steering group made up of key persons from the company's businesses and ICT function supports the ICT Director.

Personnel is organised according to function such that managers are in charge of the annual planning and budgeting of the tasks in their respective area of responsibility and of implementing the action plans according to the business target set in the strategy.

The heads of functions are in charge of ensuring appropriate governance and decision-making procedures for their functions, as well as corporate responsibility, quality and cost effectiveness, correctness of the information required for monitoring the operations, controls, risks and implementing practical risk management measures in compliance with the principles of internal control and risk management and Fingrid's other guidelines.

Instruction system

Fingrid's instruction system is composed of three levels: policies approved by the Executive Management Group specify the principles approved by the Board of Directors and are complemented by the more detailed guidelines given by the perspectives and the business areas. Management principle documents approved by Fingrid's Board:

- Fingrid's Code of Conduct
- Management principles
- Corporate Finance and Financing Principles
- Internal control and risk management principles
- Main grid development and maintenance management principles
- Principles for managing system security
- Principles for promoting the electricity market
- Insider guidelines



Business operations

Customers

Fingrid is an independent actor that serves all its customers equally. Fingrid offers grid, cross-border transmission and balance services to its customers, i.e. electricity producers, network operators and industry. Fingrid serves the electricity market by developing the market, maintaining adequate electricity transmission capacity, by removing bottlenecks in cross-border transmission links and by providing market data. We are also responsible for granting guarantee of origin certificates in Finland for electricity that has been generated using renewable energy sources or combined heat and power. In addition to being able to offer affordable services that meet customer needs, we value openness, trust and active interaction with our customers.

Although Fingrid's operations are largely based on fulfilling a statutory obligation, we strive to live up to that task with a customer-focused approach as much as possible. We develop both the power system and the ground rules for the electricity market together with customers, and in 2018, customers were involved in various development projects as part of several customer working groups. In addition, the Advisory Committee and three customer committees help give a voice to customers.

We lowered grid service fees for 2019 by an average of eight per cent. The decrease in fees is made possible by the positive earnings development in the first part of 2018, excellent cost-effectiveness, a moderate investment rate and predicted slight growth in electricity consumption. Grid service fees are very cheap in Finland compared to the general level in Europe. Fingrid's operations have a solid foundation and thus grid service fees are expected to remain stable also in the future.

In 2018, a study on capacity-based consumption fee options in grid service pricing was conducted. Behind it is the Ministry of Economic Affairs and Employment's smart grid working group's interim report, which proposes that the possibility of power-based tariffs should be looked into not just for distribution networks, but also for the grid. Fingrid asked its customers to comment on the different pricing options. The majority of the feedback supported retaining the current pricing model. Power-based tariffs were seen to be linked to various problems, for instance, in relation to reserve connections, demand-side management and the transition to a 15-minute imbalance settlement period.

During the year, we organised two major customer events and several info sessions and webinars targeted at smaller audiences concerning, among other things, the Datahub project and the 15-minute imbalance settlement project. The themes of the Fingrid Current event held in the spring were the transformation of the power system and market changes, and the autumn event featured the themes of climate change mitigation and the transition to a clean power system.

During the year, training was organised for personnel working at the customer interface, focussing on increasing their overall understanding of customers and improving their interaction with customers.

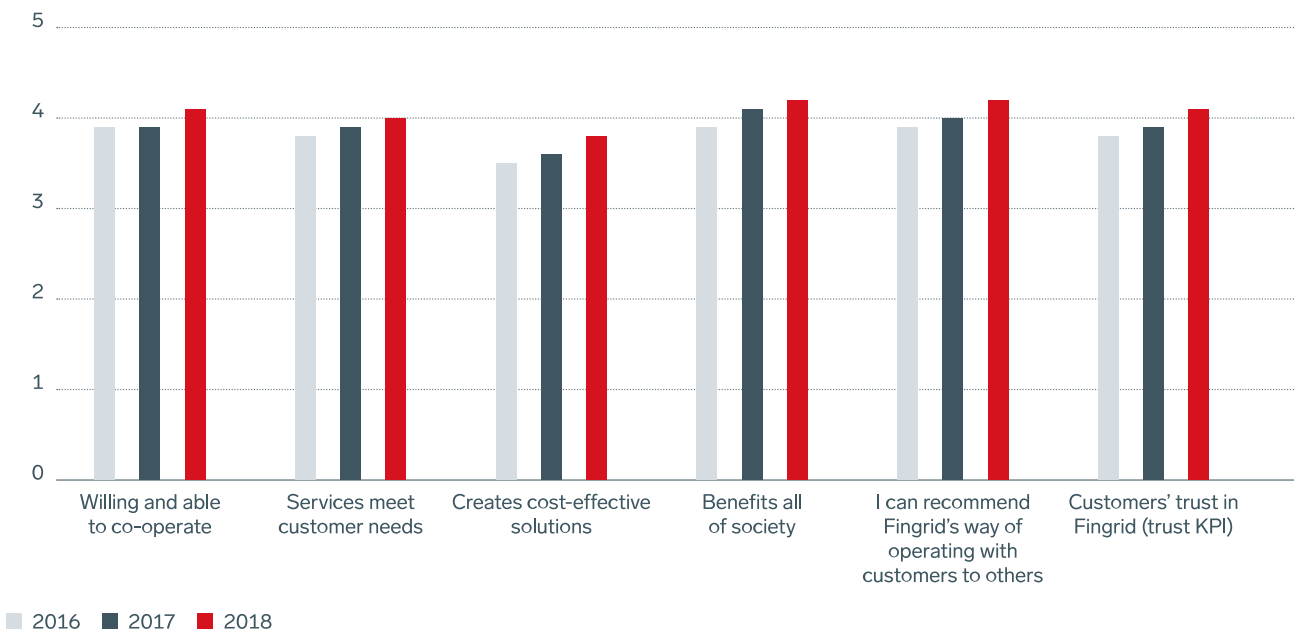
For 2019, we set the target of developing customer dialogue and communication throughout our operations. Our first step is to renew our newsletter, and during the year we will provide comprehensive information about various electricity market development projects, the schedules for them and their interdependencies. In addition to the

above, we will introduce new online services for our customers.

Customer satisfaction at Fingrid growing strongly by all measures

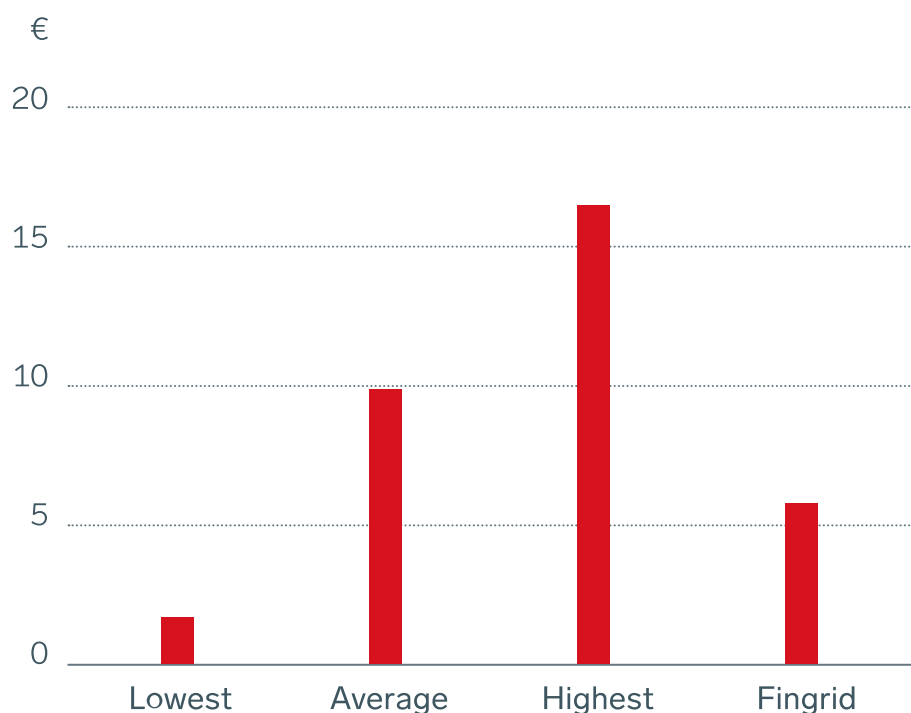
Customer satisfaction towards Fingrid has continued to develop in a positive direction since the previous year. Satisfaction with Fingrid’s operations has improved by all measures, and the grade given for various services has risen yet again. Fingrid’s approach to customer engagement was endorsed by 87 per cent of customers. The open-ended feedback and improvement proposals we receive are especially useful in terms of developing our operations. They will also form the basis for steering our operations in an even more customer-focused direction.

Customers’ trust in Fingrid



Trust KPI: Average of customer satisfaction survey questions measuring implementation of the customer strategy and customers’ confidence. (scale: 1=poor...5=excellent)

Price of electricity service



■ 2018

Figure: Price of electricity service. Costs related to transmission system operation, such as investments, loss power, system services, but not directly related to transmission system operation, such as public service obligations, feed-in tariff for renewable energy, and peak load capacity. The comparison includes the EEA countries with a transmission system operator in charge of both a 110-kilovolt and 400-kilovolt structure.

The 15 countries included in the comparison are: Belgium, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Iceland, Ireland, Lithuania, Norway, Poland, Romania, Slovakia and the UK.

Key events of 2018

Fingrid named world's best transmission system operator in CHARGE 2018 branding competition



Fingrid was selected as the world's Best Transmission Brand in the international energy sector's CHARGE 2018 branding competition. The competition was held for the third time in conjunction with the Branding Energy seminar in Iceland. The competition jury particularly valued Fingrid's clear core messages, innovation and the national monopoly's exceptional customer focus and openness.

The energy sector is becoming increasingly prominent in society. At the same time, the sector's brands are gaining more and more attention. There were five categories in the CHARGE 2018 competition, which is aimed at companies in the sector, and Fingrid came out on top in the category of the world's best transmission companies.

The winners were selected by a panel of experts, based on their analysis of consumer research and case studies. The panel of experts is made up of dozens of energy sector and branding experts, as well as business consultants, who come together to nominate the world's best energy brands.

Customer engagement during the year



Fingrid organised several customer events during the reporting year. The biannual Fingrid Current event gathered close to 400 influencers under one roof. Our other events included meetings of the Advisory Committee and other committees, Reserve Day at Postitalo in Helsinki in May, Asset Management Development Days, 15-min imbalance settlement and Datahub regional meetings, and electricity market info on future changes in the sector.

Customer committees and Advisory Committee

The Advisory Committee and three customer committees help Fingrid hear its customers' voice. The Advisory Committee serves as a channel of interaction between the company and its customers. Fingrid uses the committee to distribute information on its current affairs and plans. The representatives of the customer groups, in turn, can take a stand on the matters discussed within the committee.

The Advisory Committee deals with the company's entire field of operations and services offered to customers. The information dealt with by the Advisory Committee is openly available to all stakeholders. The matters dealt with by the Advisory Committee in 2017 were related to assessing Fingrid's operations, digitalisation, market development, challenges in grid operations, Nordic imbalance settlement and the opportunities and challenges in the operating environment of each Advisory Committee member.

The customer committees deal with matters in their respective sectors. The Operations Committee discusses and expresses opinions on matters related to the development of procedures used for the operation of the power system and maintenance of system security. The Market Committee is an advisory discussion forum which assists Fingrid in the development of the Nordic and European electricity markets. The Grid Committee serves as a co-operation body in system development and in the management of system-related property.

Advisory Committee



Members

Jarmo Kurikka (Chairman), Nurmijärven Sähkö Oy

Riikka Hirvisalo-Oja, Caruna Oy

Timo Honkanen, Turku Energia Oy

Esa Hyvärinen, Fortum Oyj

Timo Jokinen, Inergia Oy

Elina Kivioja, Vattenfall Oy

Mika Lehtimäki, Boliden Oy

Tony Lindström, Outokumpu Oyj

Pekka Manninen, Helen Oy

Juha Rintamäki, Vaasan Sähköverkko Oy

Matti Ryhänen, Savon Voima Verkko Oy

Mikko Vuori, UPM Paper ENA

Fingrid's members

Jukka Ruusunen, Fingrid Oyj

Jussi Jyrinsalo, Fingrid Oyj

Rami Saajoranta (secretary), Fingrid Oyj

Grid Committee



Members

Arto Gylén, PKS - Sähkösiirto Oy

Hannu Halminen, Boliden Harjavalta Oy

Ismo Heikkilä, Kemijoki Oy

Risto Lappi, Vantaan Energia Sähköverkot Oy

Jukka Rajala, EPV Alueverkko Oy

Esa Ukkonen, Stora Enso Oyj

Tommi Lähdeaho, Elenia Oy

Fingrid's members

Kari Kuusela, Fingrid Oyj (chairman)

Petri Parviainen, Fingrid Oyj

Meri Viikari, Fingrid Oyj (secretary)

Absent: Arto Nikkanen, LE-Sähköverkot Oy

Operations Committee



Members

Tommi Hietala, TuuliWatti Oy

Teppo Härkönen, Helen Sähköverkko Oy

Petri Kopi, Kemira Chemicals Oy

Heikki Paananen, Elenia Oy

Pekka Pollari, UPM Energia

Ismo Reinikka, Loiste Sähköverkko Oy

Harri Salminen, Turku Energia Sähköverkot Oy

Fingrid's members

Reima Päivinen, Fingrid Oyj (chairman)

Jonne Jäppinen, Fingrid Oyj (secretary)

Market Committee



Members

Mikko Lepistö, SSAB (Chairman)

Olli Hagqvist, Taaleri Oyj

Mikko Halonen, S-Voima Oy

Johanna Haverinen, Keravan Energia Oy

Jan Segerstam, Empower Oyj

Harri Sirpoma, HELEN

Matti Sohlman, Pohjolan Voima Oyj

Sebastian Sundberg, Fortum Oyj

Seppo Tuomisto, Kemira Oyj

Fingrid's members

Asta Sihvonen-Punkka, Fingrid Oyj

Satu Viljainen, Fingrid Oyj / Heini Ruohosenmaa, Fingrid Oyj (secretary)

Absent: Jouni Pylvänäinen, Elenia Oy; Heikki Rantamäki, Pohjois-Karjalan Sähkö Oy

Finance and treasury

From a financial standpoint, 2018 was an excellent year. The positive earnings development, excellent cost-effectiveness, systematic and moderate investment rate and the predicted slight growth in electricity consumption give us the opportunity to reduce grid transmission fees by an average of eight per cent from the start of 2019, whereas transmission fees in 2018 remained unchanged. According to the company's own calculations, 2018 resulted in somewhat of a surplus in relation to the result permitted in regulation.

Fingrid is still one of the lowest-priced TSOs in Europe, while the company's transmission reliability is among the best in the world. The company's long- and short-term debt management and hedging against financing risks in the international capital markets continued according to plan. The effective use of capital employed is a key success factor for uninterrupted and continuously developing grid operations, and that will remain in our focus. Overall, the company's finances and financing are on a stable footing, which enables a controlled transition to a clean power system.

The Group's turnover was EUR 852.8 (672.0) million. Grid service income increased to EUR 423.2 (412.1) million, as a result of the growth in electricity consumption. Electricity consumption in Finland totalled 87.4 (85.5) terawatt hours during the year. Fingrid transmitted 68.6 (66.2) terawatt hours of electricity in its grid, which represents 75.5 (75.5) per cent of all electricity transmitted in Finland. Imbalance power sales amounted to EUR 348.8 (214.0) million. The increase in imbalance power sales was partly the result of increased balance power prices and partly the result of the transfer of imbalance settlement to eSett Oy*, following which the imbalance power sold to cross-border imbalance responsible parties is reported as external turnover. Cross-border transmission income from the connection between Finland and Russia increased to EUR 35.5 (20.7) million, as a result of increased cross-border transmissions and the higher cross-border transmission tariff. The transmission tariff used in imports from Russia is based on the difference between Finland's and north-western Russia's area prices. Fingrid's congestion income from connections between Finland and Sweden increased to EUR 28.2 (25.5) million, which was used for the Hirvisuo–Pyhänselkä grid investment, in line with the regulations. EUR 1.3 million in congestion income was left unused and will be used for investments earmarked for financing with congestion income. Other operating income totalled EUR 10.8 (2.9) million. The increase in other operating income resulted from an EUR 8.0 million increase in the capital gains from the sale of fixed assets.

The Group's total costs amounted to EUR 659.0 (499.0) million. Imbalance power costs grew from the previous year's level, to EUR 320.0 (185.7) million, due to the increase in balance power prices and the above-mentioned transfer of imbalance settlement to eSett Oy. Loss power costs amounted to EUR 47.7 (47.5) million. The realised average price of loss power procurement was EUR 37.88 (37.62) per megawatt hour. The cost of reserves to safeguard the grid's system security increased to EUR 56.7 (51.5) million due to an increase in procurements for the frequency regulating reserve. Depreciation totalled EUR 99.7 (96.9) million. Grid maintenance costs decreased to EUR 21.2 (24.5) million; the change is due to updates to the protection and control scheme for Keminmaa's series capacitor and to substation access control systems carried out in 2017. Personnel costs amounted to EUR 32.2 (29.4) million, and EUR 3.6 (2.6) million was used for R&D projects.

The company's credit rating remained high, reflecting its strong overall financial situation and debt service capacity. The Group's net financial costs in 2018 were EUR 15.2 (22.8) million, including a change of EUR 6.7 million (-8.2) in the fair value of financial derivatives.

Interest-bearing borrowings totalled EUR 1,059.6 (1,082.7) million, of which non-current borrowings accounted for EUR 771.5 (813.4) million and current borrowings for EUR 288.1 (269.3) million.

The company’s liquidity remained good. Financial and cash assets recognised at fair value through profit or loss totalled EUR 85.3 (83.8) million on 31 December 2018. The company additionally has an undrawn revolving credit facility of EUR 300 million to secure liquidity (until 11 December 2022) and EUR 50 million in uncommitted overdraft facilities.

The counterparty risk arising from derivative contracts relating to financing was EUR 14 (8) million. Fingrid’s foreign exchange and commodity price risks were hedged.

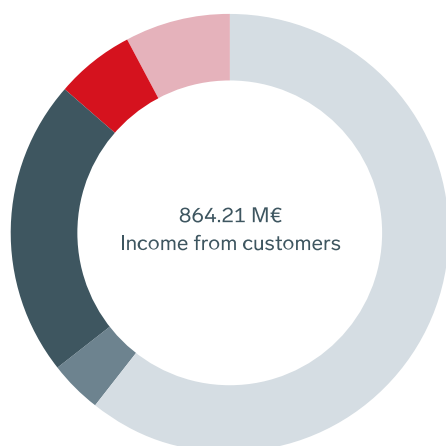
Fingrid has credit rating service agreements with S&P Global Ratings (S&P) and Fitch Ratings (Fitch).

- On 2 November 2018, S&P maintained the rating for Fingrid Oyj’s unsecured senior debt and long-term company rating at ‘AA-’ and the short-term company rating at ‘A-1+’, with a stable outlook.
- Fitch’s rating for Fingrid’s unsecured senior debt at the end of the year was ‘AA-’, for the long-term company rating ‘A+’, and ‘F1’ for the short-term company rating, with a stable outlook. The rating received by Fingrid was, at the time of issuing (5 December 2017), the highest valid rating given by Fitch to any European regulated TSO.

Fingrid reports on its tax footprint and does not carry out special arrangements to minimise taxes. Dividends are mainly paid to the State of Finland and to Finnish pension insurance and insurance companies.

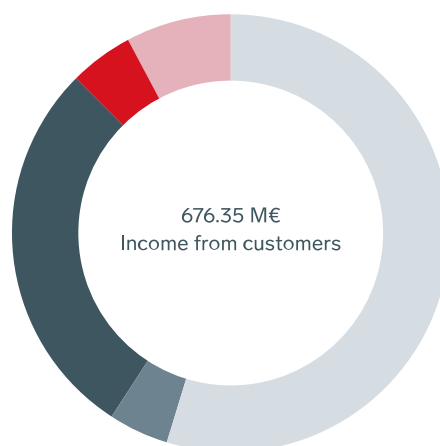
Direct economic value generated and distributed, M€

2018



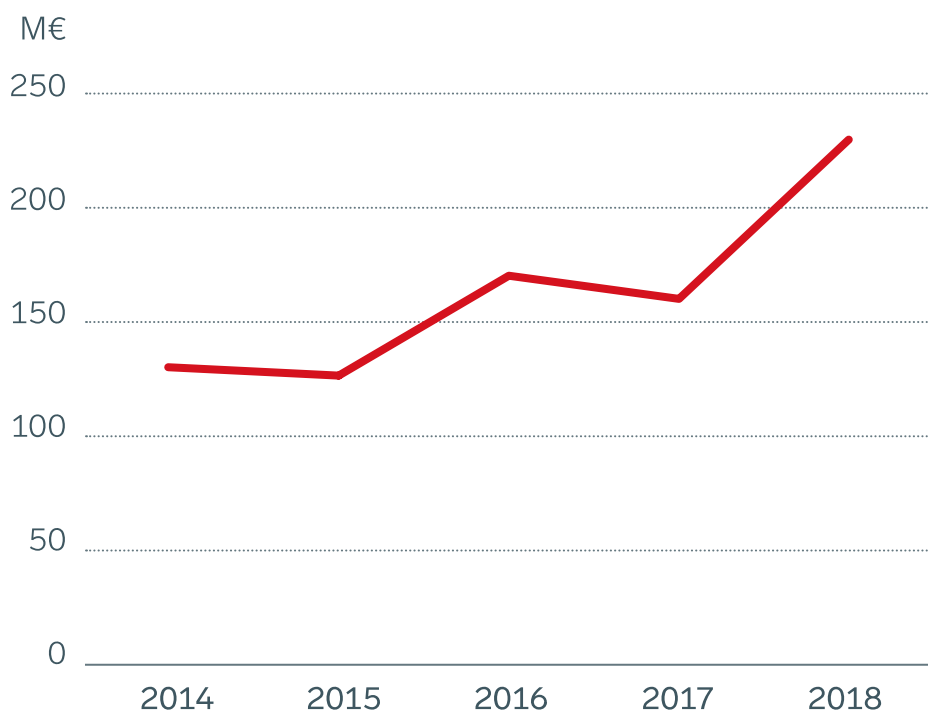
■ Payments to suppliers	525.03
■ Remuneration to personnel	33.89
■ Remuneration to financiers and shareholders	188.74
■ Support in public interest and taxes	50.86
■ Undistributed added value for developing Fingrid's operations	65.69

2017



■ Payments to suppliers	370.68
■ Remuneration to personnel	31.00
■ Remuneration to financiers and shareholders	192.18
■ Support in public interest and taxes	39.88
■ Undistributed added value for developing Fingrid's operations	42.61

Profit before taxes



Fingrid's tax footprint, MEUR		2018	2017	2016
Taxes payable				
	Income tax	50.42	39.42	25.78
	Unemployment insurance contributions	0.73	0.74	0.85
	Social security contributions	0.19	0.22	0.46
	Real estate tax	0.42	0.42	0.41
	Electricity tax on auxiliary power	-0.001	0.005	0.02
Taxes payable total		51.75	40.80	27.52
Taxes to be collected and remitted				

	Value added tax, net remitted	75.05	62.00	50.41
	Electricity tax (incl. emergency-preparedness contribution)	44.81	35.71	38.47
	Tax prepayments	7.70	7.23	6.97
	Taxes to be remitted total	127.56	104.95	95.85

The summary includes taxes and charges that Fingrid is under legal obligation to pay or to collect the tax or payment in question. However, taxes that are included in the purchase price of a product or service and which Fingrid is not under legal obligation to declare are not included in the summary data. Most of the summary's taxes and charges concern Finland. The Group has had little business operations in Denmark since 2018, as a consequence of which a low amount of income tax has been paid to Denmark and a low amount of tax prepayments on the salaries paid to personnel in Denmark have been remitted. The Group's operations mainly concern Finland. Payable income taxes reported for 2017 have been restated more accurately.

Key events of 2018

Fingrid wins award for climate friendly bonds

Climate Bonds Initiative granted Fingrid a certificate in recognition of creating the first corporate Green Bond in Finland. Fingrid uses the proceeds from the Green Bond, issued in November 2017, to finance its investments with expected long-term net positive environmental impacts.

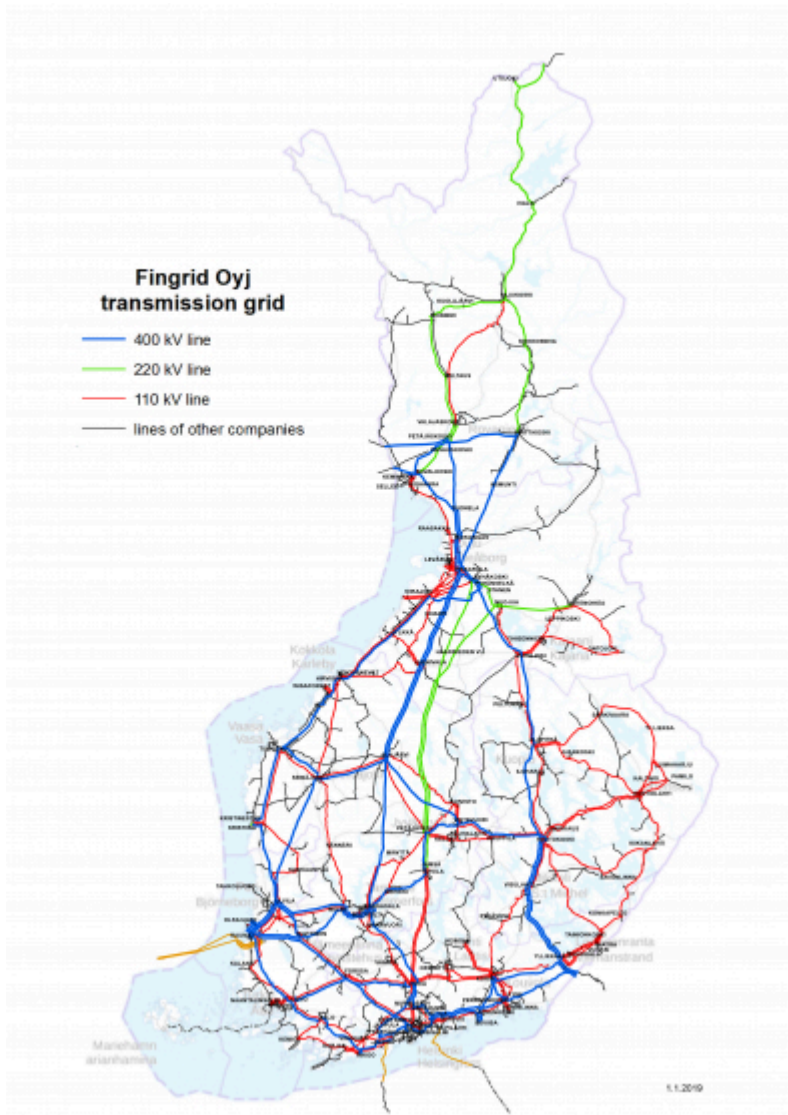
The Green Bond Awards are given in recognition of organisations, financial institutions, government bodies and private individuals who have led the development of green finance and green bond markets, and through their pioneering initiatives have set a positive example of climate friendly and low carbon investment. Fingrid was presented with the award in May 2018, in London.



Power system

Climate change is changing both the power system and customer behaviour. As a consequence of the structural change in production and consumption, power production and consumption are increasingly dependent on the weather. Evolving technology, real-time data and situational awareness enable and demand new ways of operating. European network codes, a clean energy package, forms of Nordic co-operation and data protection requirements guide our grid operations, which we develop together with our customers.

Fingrid Oyj transmission grid



It is crucial for society that the power system functions reliably and that electricity is available every second for industry and citizens. The increase in renewable energy production, which varies according to the weather, and the simultaneous decline in adjustable condensing power pose a challenge on the supply of electricity. Flexible condensing power has traditionally been the cornerstone of energy supply in Finland. New solutions for balancing production and consumption must be found and have indeed been successfully introduced. Perspectives related to emergency supply and exceptional situations must also be reassessed.

No real change in electricity consumption, increase in disturbances

Finland's electricity consumption rose by roughly 2 (0.5) per cent compared to the previous year, and totalled 87.4 (85.5) terawatt hours in 2018. Fingrid transmitted a total of 68.6 (66.2) terawatt hours of electricity in its grid, representing 78.5 (75.5) per cent of the transmission volume in Finland (consumption and inter-TSO).

The electricity import and production capacity was sufficient to cover the peak consumption during the year. The average hourly power rating of electricity consumption peaked on 28 February 2018, when consumption reached 14,062 (14,300) megawatts. During the peak consumption hour, Finland generated 10,600 megawatts of electricity, and the remaining 3,460 megawatts was imported from neighbouring countries.

Draught was the hallmark of the summer of 2018, and the lack of water resources increased the price of electricity in the Nordic countries. One of the impacts of the high Nordic prices was increased transmission of electricity from Russia to Finland. In 2018, electricity transmissions between Finland and Sweden consisted mostly of large imports to Finland. The bulk of electricity transmission between Finland and Estonia was from Estonia to Finland during the spring and the autumn. During other times, the dominant direction was from Finland to Estonia. The transmission was steered by the markets and the weekly transmission direction varied according to the current market situation.

Electricity imports from Russia increased compared with the previous year, and the intraday variations were large. The maximum transmission capacity was available almost throughout the year, with the exception of the annual maintenance work carried out at the Vyborg DC station and on the Russian grid. No export capacity to Russia was available. There was an increase in planned maintenance shut-downs on the connections between Sweden and Finland compared to the previous year, but the connections to Estonia and Russia were only subject to normal annual maintenance.

Countertrade	1-12/18	1-12/17	10-12/ 18	10-12/ 17
Countertrade between Finland and Sweden, €M	1.9	0.4	1.8	0.1
Countertrade between Finland and Estonia, €M	0.0	0.1	0.0	0.0
Countertrade between Finland's internal connections, €M	2.2	1.3	0.2	0.0
Total countertrade, €M	4.1	1.8	2.0	0.1

Finland's main grid operated reliably in 2018. The importance of electricity transmission reliability is illustrated by the fact that the cost of a nationwide major disturbance to customers and society at large would be in the region of EUR 100 million for each hour of outage.

Our transmission reliability rate reached a historical high of 99.9999 (99.9997) per cent. The most significant event that affected transmission reliability was a fire at Fingrid's Olkiluoto substation on 18 July 2018, which resulted in damage to a 400-kilovolt current transformer. The fire and the resulting repairs at the substation prevented the nuclear power plant units 1 and 2 at Olkiluoto from supplying the grid with electricity. Fingrid issued a warning on 19 July 2018 that the domestic production and imports of electricity may possibly be insufficient to meet consumption. The electricity shortage was avoided, however.

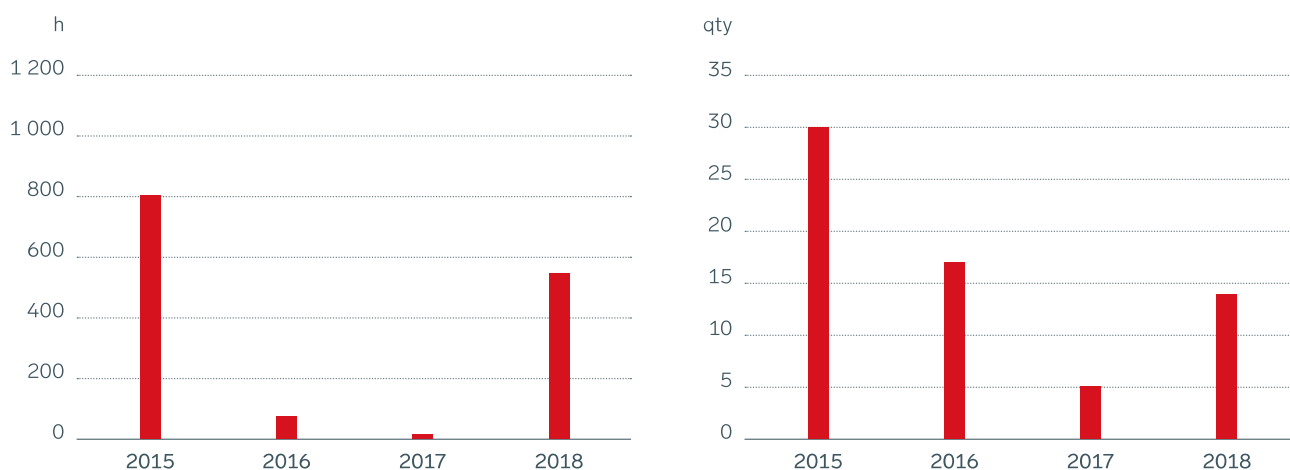
In October, the Petäjäsoski–Letsi transmission line that runs between Finland and Sweden was damaged on the Swedish side. It took longer than normal to repair the damage due to poor weather conditions and caused significant countertrade costs.

During the review period, we raised our disturbance-clearing readiness twice. We pro-actively raise our readiness in situations where, for example, difficult weather is expected to pose challenges to grid maintenance. This enables us to resolve and provide information on disturbances as quickly as possible.

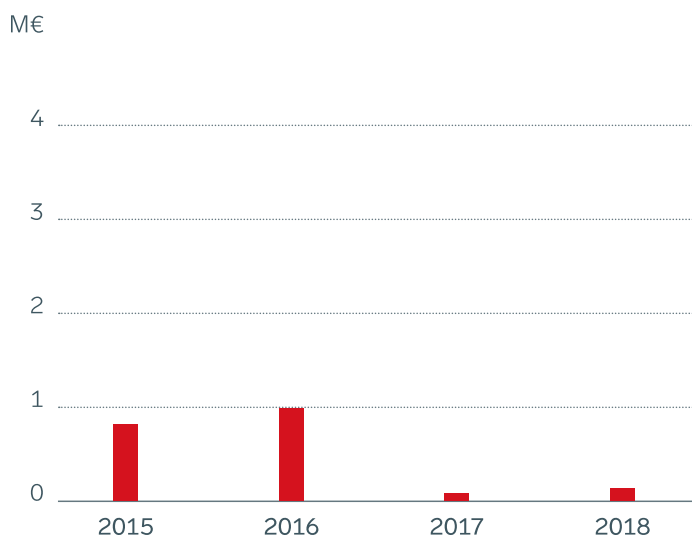
An outage in a connection point in the grid caused by a disturbance in Fingrid's electricity network lasted an average of 12.0 (2.2) minutes, which clearly exceeds the ten-year average. The biggest reason for the increase was the fire at Fingrid's Olkiluoto substation. The cost of the disturbances (regulatory outage costs) was EUR 1.5 (2.8) million, and including the quick reconnections, EUR 3.6 million.

The reliability and usability of DC connections were at an excellent level in 2018. The number of disturbances and the total duration of disturbances were significantly above the 2017 levels. Except for the single most serious disturbance during 2018, the connections were restored very quickly after disturbances. Thus the countertrade costs in 2018 were only around EUR 140,000, close to the exceptionally good level of 2017. The most serious disturbance occurred in the EstLink 1 connection in November and took around 23 days to repair.

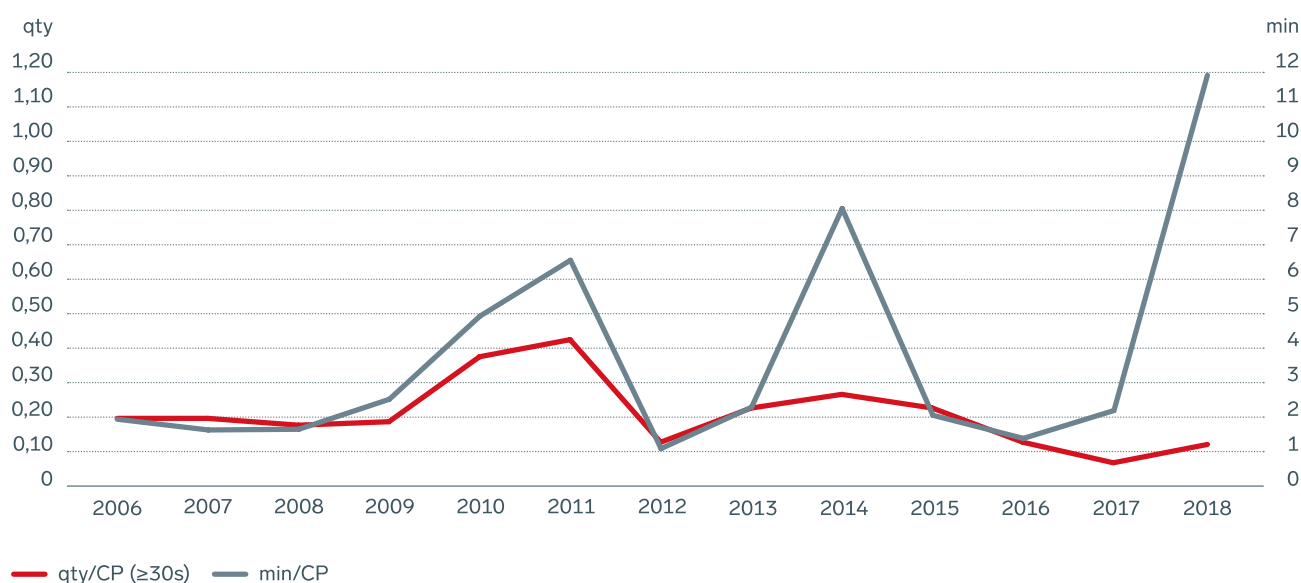
HVDC disturbances, total duration and quantity



Countertrade costs caused by HVDC disturbances



Interruptions at connection points due to grid disturbances



Countertrade costs totalled EUR 4.1 (1.8) million. The increased countertrade costs can be attributed to the fire at Fingrid’s Olkiluoto substation and the disruptions in the Petäjäsoski–Letsi transmission line. Countertrade refers to special adjustments made to manage electricity transmission which are used to eliminate short-term bottlenecks i.e. areas where electricity transmission is congested from the grid. Fingrid guarantees the cross-border transmission it has confirmed by carrying out countertrades, i.e. purchasing and selling electricity, up until the end of the 24-hour usage period. The need for countertrade can arise from, for example, a power outage or disruption in a power plant or in the grid.

Transmission outages in connection with investment projects took place throughout Finland. Demanding outages require careful advance planning and close co-operation with customers.

Reserves required to maintain the power balance of the power system were procured from Finland, other Nordic countries, Estonia and Russia. Fingrid’s directly controllable reserve power plant capacity increased along with the

addition of the Kyrökoski power plant at the start of the year. The availability of reserves was good, with the exception of the spring floods, which limited the availability of hydropower plants to reserve maintenance. New supply, mostly consumption, was available, especially for the frequency-controlled disturbance reserve, the market price level of which fell clearly from the previous year's level. Sales of frequency-controlled reserves to Sweden grew compared to the previous year. In accordance with the agreement between the Nordic TSOs, hours for maintaining the automatic frequency-regulating reserve were added, and the procurement costs for the reserve type correspondingly increased compared to the previous year.

The volume of transmission losses in the grid remained at the level of the previous year, 1.2 (1.2) terawatt hours. This is 1.3 (1.4) per cent of the total volume of transmitted electricity. The annual variation of losses is affected by the Nordic electricity production situation, such as the sufficiency of hydropower.

Power system operation	2018	2017	2016	2015	2014
Electricity consumption in Finland, TWh	87.4	85.5	85.1	82.5	83.4
Fingrids transmission volume, TWh	68.6	66.2	68.5	67.9	67.1
Fingrid's loss power volume, TWh	1.2	1.2	1.3	1.4	1.3
Electricity transmission Finland–Sweden					
Exports to Sweden, TWh	1	0.4	0.3	0.2	0.15
Imports from Sweden, TWh	14.5	15.6	15.7	17.8	18.1
Electricity transmission Finland–Estonia					
Exports to Estonia, TWh	2.4	1.7	3.1	5	3.6
Imports from Estonia, TWh	0.9	0.9	0.7	0.05	0.05
Electricity transmission Finland–Norway					
Exports to Norway, TWh	0.1		0.1	0.1	0.1
Imports from Norway, TWh	0.2	0.3	0.2	0.1	0.1
Electricity transmission Finland–Russia					
Exports to Russia, TWh	0			0.02	
Imports from Russia, TWh	7.9	5.8	5.9	3.9	3.4

Key events of 2018

Jäätyvä exercises cascaded to regions

In the nationwide Jäätyvä exercise held in Kuopio in 2017, co-operation between different parties was put to the test in a mock widespread power outage caused by weather conditions, affecting both the local and the main grid. Encouraged by the positive experiences gained in the exercise, the National Emergency Supply Agency, Fingrid, various authorities and local operators arranged a regional Jäätyvä exercise in eastern Finland in 2018. Three similar regional exercises will take place in 2019.

In a disturbance situation, co-operation becomes much more difficult when communication lines break down. Therefore, co-ordination of operations and joint action must be planned and practiced beforehand. The regional exercises have proved that the lessons learned in previous nationwide major exercises have been put into practice. Processes for mutual help between authorities have become clearer, situational awareness and tools for maintaining contact have been developed, and use of such tools is smooth. The use of the Virve administrative security radio network has become routine and the KRIVAT system is in active use. KRIVAT is a joint ICT and situational awareness system maintained by the State Security Networks Group Finland for critical operators of infrastructure.

Joint disturbance exercise of Nordic TSOs and sector authorities

The Nordic countries operate on a common electricity market. This means it is essential to prepare for various threats and disturbances that could have wide-reaching repercussions on all Nordic countries. The EU regulation on risk-preparedness in the electricity sector will require regional co-ordination, so the Nordic countries are already forerunners in this matter. The Black Screen II exercise in November involved encountering cyber-threats and engaging in joint communication. The exercise is an extension of the Black Screen I exercise held in Oslo, Norway, in autumn 2017.

A key objective of the exercise was to find, in addition to actual fault clearing techniques, also communication models and means applicable across national borders. Black Screen II highlighted the vital importance of cross-border electricity transmission among the Nordic countries. At the exercise, the scenario built around a cyber-threat was very challenging, but also realistic. The aim was also to actually resolve the fault, but above all, it was about collaborating on joint communication with organisations and the media. Considerable valuable experience was gained from the exercise.



What is an electricity shortage?

The disturbance at Fingrid's Olkiluoto substation presented a real threat of an electricity shortage. Situations related to managing electricity shortages are divided into three levels based on their severity:

- 1. An 'electricity shortage possible' situation** (strained power balance) describes a situation where domestic production and imports are not expected to be sufficient to cover electricity consumption within the next few hours or the next 24-hour period.
- 2. A 'high risk of electricity shortage' situation** (power shortage) is considered to exist when all of the electricity production available in Finland is in use and it is not possible to import more electricity from neighbouring countries. Fingrid has therefore had to start up reserve power plants to secure the electricity supply.
- 3. An 'electricity shortage' situation** (serious power shortage) is considered to have occurred when electricity production and imports are not enough to cover consumption and some electricity consumption has to be switched off. Distribution system operators switch off consumption so that power outages last no more than two hours and outages are not targeted at society's key functions.

Joint Nordic operational planning services introduced

The joint Nordic operational planning office, Nordic RSC, has been operating in Copenhagen, Denmark, since 2017. Fingrid has sent three employees to the office. In 2018, the activities of the office included defining requirements for a transmission capacity calculation system, and the materials necessary for preparing quotations were sent to suppliers.



Electricity market

The transformation of the power system calls for major changes in the current structures of the electricity markets. The inflexibility and increasing unpredictability of production must in the future be balanced by more extensive demand-side management and expanding electricity markets. In terms of demand-side management, Finland is a forerunner in Europe. Fingrid is currently carrying out several projects to increase the flexibility of the electricity markets and to enable the participation of consumers and the producers of intermittently available renewables. One example of this is the transition to a 15-minute imbalance settlement period.

The wholesale prices of electricity were clearly on a higher level in 2018 compared with previous years in Nordic countries. The annual average price was at its highest level since 2011 for both the Nordic system price and the Finnish area price. The drivers behind the higher prices include, above all, the increased prices of emission rights and fuels, as well as the lower than normal precipitation affecting hydropower production in the Nordic production areas.

Electricity market	2018	2017	2016
Day-ahead system price €/MWh	43.99	29.41	26.91
Area price Finland, average €/MWh	46.8	33.19	32.45
Congestion income in Nordic countries, €M	281.98	265.8	276.8
Congestion income between Finland and Sweden, €M	56.47	50.98	74.98
Congestion hours between Finland and Sweden %	20.6	24.0	32.7
Congestion income between Finland and Estonia, million €M	2.79	0.52	4.4
Congestion hours between Finland and Estonia %	5.4	1.4	9.7

Net electricity imports to Finland diminished slightly from the previous year, yet remained at a high level. More than a fifth of the electricity consumed in Finland was imported. Imports from Sweden shrunk, while imports from Russia grew.

Nordic balance settlement project

In March, the TSOs signed a co-operation agreement on developing the new Nordic balancing concept. The agreement establishes a commitment between the five Nordic TSOs to follow a joint roadmap for implementing the new balancing concept and a joint balancing market.

The Nordic agreement on joint imbalance settlement will help to keep Finland closely aligned with the Nordic power market also in future.

European intraday markets

The European intraday markets started up in June 2018. They enable more extensive European electricity markets for continuous trading. The Cross-Border Intraday (XBID) project created a European intraday marketplace for continuous trading. Along with XBID comes a Shared Order Book (SOB) which makes it possible to merge bids left through various exchanges and enables more extensive intraday markets.

The introduction of intraday markets was realised through 10 local implementation projects. The joint market currently includes Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, the Netherlands, Norway, Portugal, Spain and Sweden. Regional expansion of the new marketplace will make trading possible throughout Europe.

Smart grids within consumers' reach

The Ministry of Economic Affairs and Employment's smart grid working group was wrapped up after two years of solid work. The working group's task was to present concrete measures for promoting customers' participation opportunities and for improving transmission reliability in a power system based on clean energy generation. The working group's final report describes the possibilities of a smart power system and makes several proposals to develop the electricity market.

The working group has an ambitious schedule for the implementation of the proposals, and most of the changes are scheduled to be implemented between 2019 and 2021. Some of the working group's suggestions rely on the completion of the centralised data exchange solution, the Datahub.

These policies are a good start towards customer-focused and real-time power markets. Finland must ambitiously invest in launching decentralised resources in the markets, also in the future. Further development areas include new marketplaces for decentralised flexibility, promoting new energy-related technologies, and making electricity, heat and gas systems compatible. Finland is in a position to lead the way both regionally and within the EU.

Datahub

The Datahub is a centralised information exchange system for retail markets that stores data from all of Finland's 3.5 million places of electricity consumption. Fingrid Datahub Oy selected the supplier for the Datahub system in June. The Finnish government presented a proposal to the parliament in September on amending the Finnish Electricity Market Act and certain related acts. The Datahub will go live in 2021.

The Datahub will compile data from all Finnish electricity consumers. The system will simplify, speed up and enhance the efficiency of the data exchange required by the retail electricity market. The information contained in the Datahub will be used by approximately 100 electricity suppliers and over 80 distribution network companies

serving electricity consumers.

Building the system is a laborious reform for Fingrid and the whole sector. The system will boost the consumer market and bring new opportunities to the electricity market. The Datahub holds a key role in the electricity market's shift from the current one-hour trading period to a fifteen-minute period.

The project has been carried out as a close collaborative effort between various stakeholders. The centralised information exchange model will make business processes more efficient and enable new ways of developing the exchange of information. The rules will become simpler and the quality of information will improve. In future, it will be possible to examine data and utilise it for a number of purposes.

What happens in the Datahub?

The Datahub is a system for managing data exchange in the electricity retail markets when electricity consumers change their electricity supplier or move to a new address.

The Datahub will handle the imbalance settlement and balance error correction process that is currently handled by the distribution system operator.

End customers will have the opportunity to authorise other service providers to retrieve their electricity consumption data from the Datahub, for example, in consumption monitoring services.

The Datahub speeds up, simplifies, improves and boosts the efficiency of the operations of all parties involved.

The Datahub's business processes help ensure that data is transmitted reliably and securely between the parties.

This is the **Datahub**

Key events of 2018

Fingrid helps to build a flexibility market platform

Finland, Estonia and Latvia will test out a flexibility market platform as a part of a broad-ranging EU project, Horizon 2020. The European Commission decided in early July to fund the four-year programme that is a step towards real-time, distributed electricity markets and will create new business opportunities in the industry. Fingrid is one of the project partners.

The broad EU project consists of several sub-projects. Fingrid participates in a sub-project lead by the Estonian TSO, Elering, that involves testing a flexibility market platform in Finland, Estonia and Latvia. The platform is envisioned to enable the utilisation of distributed power system resources for both maintaining power system balance and the needs of distribution system operators as well as balance responsible parties.

The entire project consortium has 42 participants from 15 countries. In addition to Fingrid, the other Finnish participants are Elenia, Empower and Tampere University of Technology.

Finland joins the 15-minute imbalance settlement period

15-MINUTE ISP

Finland is transitioning, along with the rest of the Nordic countries, to a 15-minute imbalance settlement period by the end of 2020. The 15-minute imbalance settlement period is an enabler in the change towards a clean energy system, which will mean increased variations in the production and consumption of electricity.

In Finland, the project is proceeding under Fingrid's co-ordination, in collaboration with the entire industry. Fingrid has established a reference group composed of stakeholders tasked to recognise the implications of the 15-minute imbalance settlement period for the industry, to look for implementation solutions, to communicate on the change and to promote the implementation of the 15-minute cycle in the decided schedule.

Electricity market video simplifies complexity

Fingrid has published an easy to understand video that explains the intricacies of the electricity markets. It looks at why electricity must be produced and consumed in equal amounts at all times, how electricity is bought and sold on the wholesale market and how consumption peaks are managed.

The video also helps to understand the complicated process that takes place before electricity is available in homes and businesses.

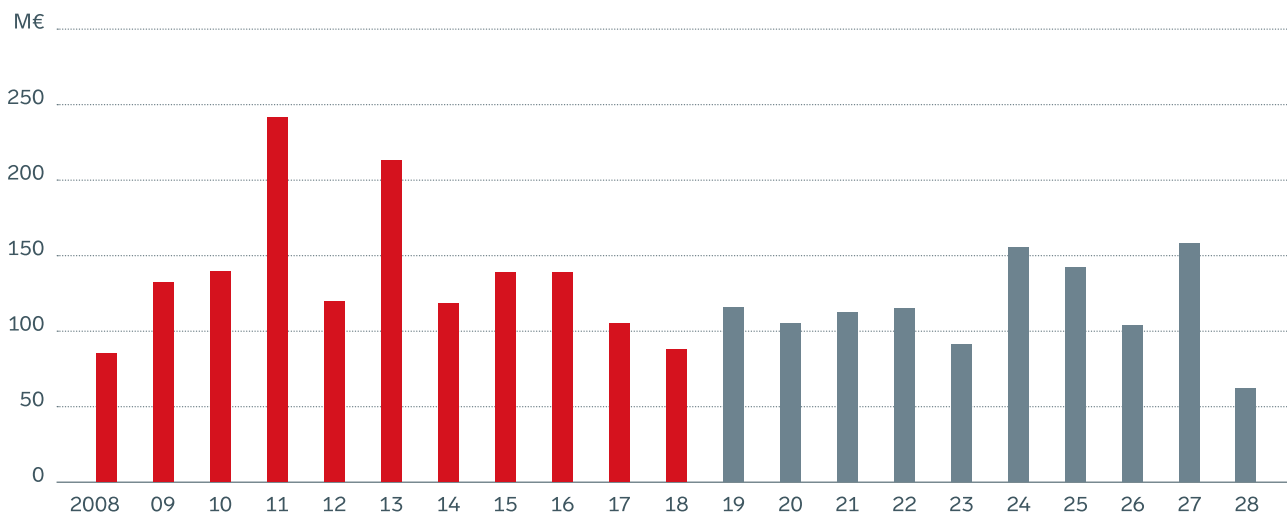
Watch the video on our YouTube channel via this [link](#)

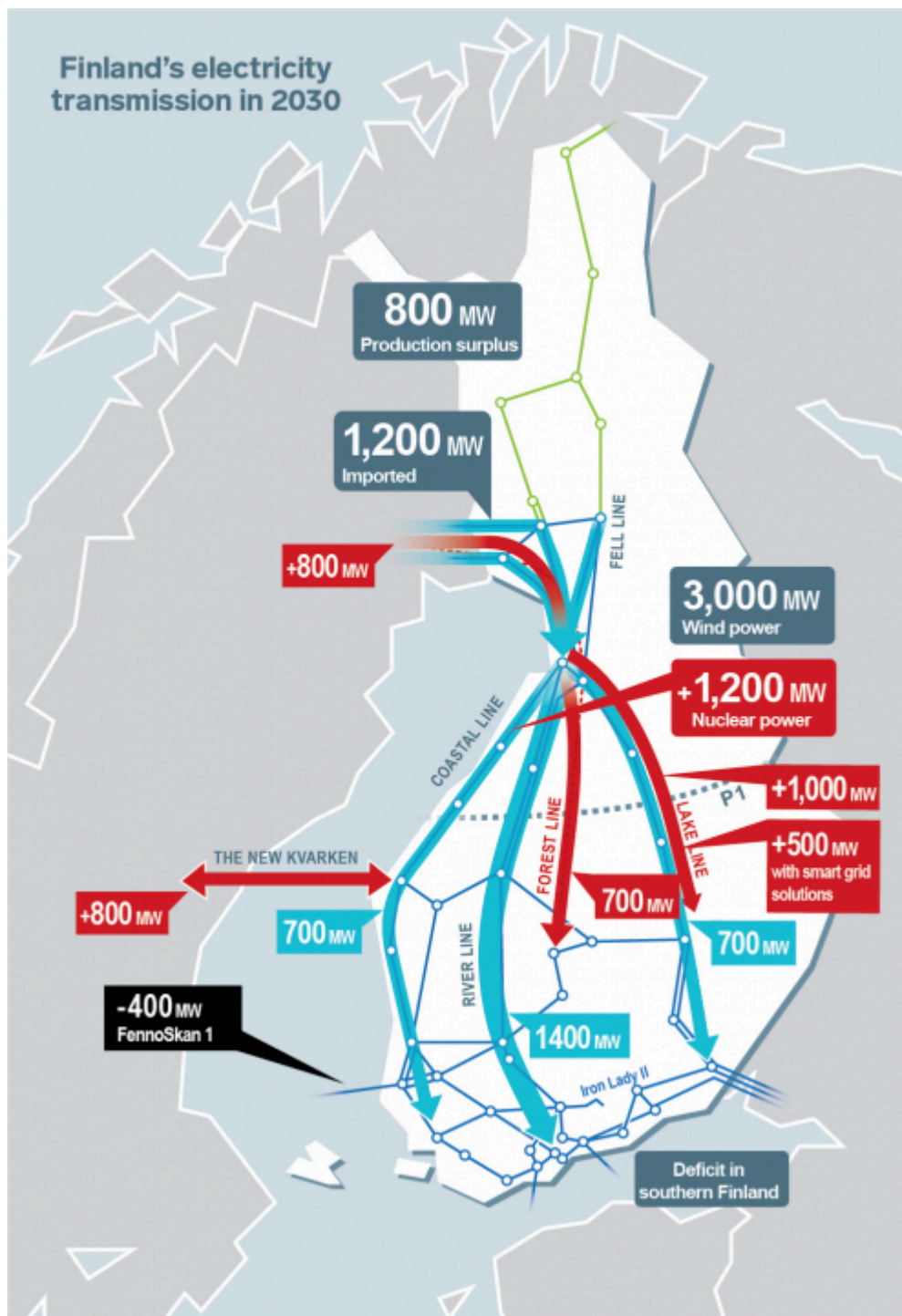
Grid development and maintenance

National grid planning always has a holistic and forward-looking approach. Fingrid’s current grid vision extends to 2040. The grid vision is insight into the long-term development needs of the main transmission grid, including follow-up plans for the current projects. Our objective is to carry out the investments in the transmission grid in an effective and timely manner, both in terms of the national economy and grid maintenance. Transmission grid planning anticipates future needs decades in advance, as we build and maintain the grid safely and in a flexible manner to meet society’s electricity production and consumption needs.

The vision is based on anticipated future challenges as well as requirements for the transmission of electricity due to changes in production and consumption. The current grid vision is dominated by the transition from fossil fuels to renewable forms of energy that are becoming more competitive by the day. This means growing transmission needs that also vary in time, particularly between northern and southern Finland.

Fingrid’s capital expenditure in the main grid





Grid planning has a market-oriented approach. A well-functioning electricity market benefits all: extensive

international markets and strong transmission connections boost competition and ensure that electricity is always produced in the most efficient way. A bottleneck in the transmission link between Finland and Sweden, for example, may cost consumers several million euros a day. Reinforcing the domestic and cross-border transmission systems in Finland will improve the operations of the electricity market. In a strong transmission network, electricity can freely flow to where demand is highest.

Completed and ongoing projects

Power lines and substations were built extensively throughout Finland in 2018. The following transmission lines were commissioned: Lieto–Forssa, Elovaara–Pinsiö, Onnela–Vuoksi, Vanaja–Tikinmaa, Vihtavuori–Koivisto and Korja–Yllikkälä. A total of approximately 250 kilometres of new transmission lines were built. Seven substation projects were completed (Hikiä, Huutokoski, Lieto, Porvoo, Iisalmi, Vuoksi and Rännäri).

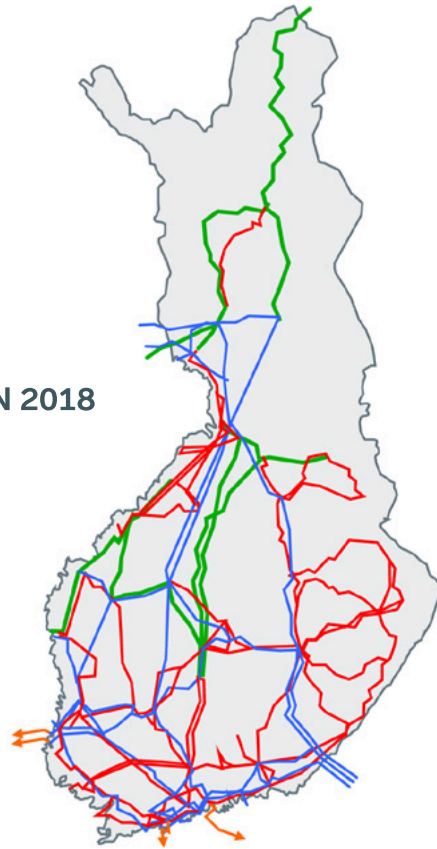
SUBSTATION PROJECTS COMPLETED IN 2018

1. Hikiä
2. Huutokoski
3. Lieto
4. Porvoo
5. Iisalmi
6. Vuoksi
7. Rännäri

TRANSMISSION LINE PROJECTS COMPLETED IN 2018

1. Lieto–Forssa 400 kV+110 kV
2. Vanaja–Tikinmaa 110 kV
3. 110 kV Elovaara-Pinsiö
4. Onnela–Vuoksi 2x110 kV
5. Korja–Yllikkälä 110 kV
6. Vihtavuori–Koivisto 110 kV (City of Jyväskylä, Municipalities of Laukaa and Äänekoski)

- 440-kV grid
- 220-kV grid
- 110-kV grid



New Vihtavuori–Koivisto connection vital for bioproduct mill

In January 2018, we commissioned a 110-kilovolt transmission line between Vihtavuori and Koivisto. The line extends roughly 26 kilometres and was built parallel to the existing Jyväskylä/Vihtavuori–Äänekoski/Koivisto transmission line to serve Metsä Group's new Äänekoski bioproduct mill.

Iron Lady II

The transmission line system from Imatra to Turku received a name that celebrates history, Iron Lady II. In the early years of Finland's independence, after 1917, it was thought that the Imatra hydropower plant alone would be sufficient to supply the entire country with electricity. However, its current output, 192 megawatts, only covers a small percentage of Finland's peak consumption of around 15,000 megawatts. The grid has adapted to changing times.

This transmission link is being modernised stage by stage, between Lieto and Forssa, Koria and Yllykkälä, and Hikiä and Orimattila. The final sections of the first high-voltage transmission line in Finland, between Imatra and Turku, 'Iron Lady', will be dismantled next year.

The 400-kilovolt + 110-kilovolt line between Lieto, close to Turku, and Forssa, totalling 67 kilometres, is already in use. The modernised 110-kilovolt and 82-kilometre transmission connection from the Kouvola Koria substation to Yllykkälä, close to Lappeenranta, was completed and successfully commissioned during the review period.

The last section of the old line will be replaced by a new line to be built between Hikiä and Orimattila, which will be completed by the end of 2019. The new transmission will run from Hikiä to Iso-Henna, following the old Iron Lady's right-of-way. A 16-kilometre section of transmission line from Iso-Henna to Orimattila will be built on a new right-of-way, loosely following the Lahti highway.

Transmission lines starting from the Vuoksi substation

A new Vuoksi substation has been built between Joutseno and Imatra, and the transmission lines east and west of there will be modernised. The new 110-kilovolt substation was commissioned in 2018 and the new transmission lines will be completed in stages in 2018 and 2019. As the need for energy grows in the future, a 400-kilovolt substation will be built at Vuoksi, with a possibility to link it to Fingrid's 400-kilovolt network via the 400/110-kilovolt Lempiälä–Vuoksi transmission line currently under construction.

The new substation and the transmission line routes to the east (to Onnela) and west (to Lempiälä) became topical when Kemira decided to expand the production capacity at its chlor-alkali site in Joutseno. The area, in general, is highly industrialised, and the grid investment will improve the operating conditions for other companies as well.

Third AC connection to Sweden

The new 400-kilovolt connection from Pyhänselkä in Muhos to Keminmaa and further on to the Messaure substation in Sweden is a strategic transmission link for us. The detailed planning of the right-of-way and the environmental impact assessment (EIA) for the project are currently underway. The transmission link will be built in stages simultaneously in both countries. The agreed border crossing site is at Vuennonkoski on the Tornionjoki river. A total of around 200 kilometres of new powerline will be built on the Finnish side. The goal is to use the existing power line right-of-ways as much as possible. EU support will be applied for, and all stages of the connection are expected to be completed in 2025. The busiest construction stage will be in 2023 and 2024.

The need to build a third AC connection between Sweden and Finland is a telltale sign of the ongoing energy transformation. Finland has a growing need to link up with its neighbours and at the same time reinforce the north–south transmission connections. While helping to scale down the use of fossil fuels for electricity production, these capacity upgrades will also enable the transmission of wind power produced in northern Finland to southern Finland.

Investment decisions and planned investments

A record-breaking 600 kilometres of new transmission lines are in the general planning stage in 2019. Our projects will proceed to the construction stage within the next few years.

Forest Line to reinforce north–south transmission connections

The bulk of electricity consumption in Finland is in the south, which is the destination of electricity transferred from northern Finland and Sweden to serve the needs of energy consumers. The electricity production of the thermal power plants in the south of Finland is decreasing and being replaced with affordable and carbon-neutral energy production from the north. Moreover, Fingrid is planning, in co-operation with the Swedish TSO, a third transmission link between the countries, to be completed in 2025. These changes will further increase the need for north–south transmission capacity.

The transmission line that is currently in the general planning stage, which we have named the Forest Line, is more heavy duty and modern than the previous transmission line from central Finland to Oulu. This is a 310-kilometre-long 400-kilovolt transmission line.

The planned start of construction of the Forest Line is autumn of 2019, and it is expected to be completed by the end of 2022.

Grid reinforcing measures in North Karelia

We are replacing 110-kilovolt transmission lines between Uimaharju and Pamilo, Kontiolahti and Uimaharju, and Kontiolahti and Pamilo in North Karelia. These transmission lines built in the municipality of Kontiolahti and the city of Joensuu in the 1960s are rather aged and no longer have sufficient transmission capacity. After the grid reinforcing measures, the lines will be better positioned to meet future needs.

The grid reinforcing measures in North Karelia are in the general planning stage. The first section, from Uimaharju to Pamilo, will be built between January and September of 2019. The second stretch to be replaced, from Kontiolahti to Uimaharju, is scheduled to start in summer 2019. The third stage will replace the Kontiolahti–Pamilo transmission line. A total of 112 kilometres of transmission lines will be replaced. A new substation will be built at Pamilo, and the Kontiolahti and Uimaharju substations will be updated. The entire project is due for completion in 2022.

Investment decisions

Developing the grid on the Oulujoki river

We are modernising the power grid around the river Oulujoki, which was built in the 1950s and is approaching the end of its service life. The grid upgrade will start with the modernisation of two substations and the expansion of one substation, and with the construction of new 400-kilovolt + 110-kilovolt transmission lines between Pyhänselkä and Nuojakangas.

The grid development measures have been planned in close co-operation with our customers; more specifically, with the local electricity producers and regional distribution network companies. The local electricity production mainly consists of hydropower, while there are also new wind power projects to boost the existing wind power production.

The upgrades will change the regional grid voltage from 220 to 110 kilovolts. Voltage compatibility with the rest of the grid will enable a simpler and, from a systemic point of view, more efficient grid structure.

The Oulujoki grid will be modernised in stages. The first stage, to be completed in 2020–2022, will include the construction of the transmission line section between the Pyhänselkä substation in Muhos and the Nuojua substation in Vaala. The Pyhänselkä substation will be expanded, and the Nuojua and Utanen substations will be modernised during this stage. A new, approximately 45-kilometre-long transmission line will be built between Pyhänselkä and Nuojua, with most of this right-of-way situated west of the current transmission lines. This connection will be built in such a way that part of it can later be upgraded to the 400-kilovolt voltage level, when more transmission capacity is again needed between northern and southern Finland.

Modernisation of the historical Imatra substation respects landscape values

The first substation of Finland's grid system, in the historical Imatrankoski rapids landscape, continues to be an important component of the transmission system in South Karelia. The substation serves the local hydropower plants and industries, and is the starting point of a cross-border transmission connection to Russia. The 110-kilovolt Imatra substation, originally completed in 1929, has been expanded and modernised over the years. Some foundations and other structures of the original station still remain.

The modernisation of the historical Imatra substation will be carried out with due respect for the historical, protected site. The original buildings of the Imatra hydropower plant, which have architectural-historical value and are protected by the municipal master plan, are located next to the substation. The project is due for completion in 2020.

Ongoing search for a transmission solution for Helsinki

In order to secure the Helsinki region's electricity supply, we are pursuing a new type of operating model in which the City of Helsinki, the region's distribution network company Helen Sähköverkko and Fingrid collaborate to carry out an infrastructure project that will serve the Helsinki region's electricity supply and facilitate land use. In connection with this, Fingrid is preparing to build a new 400-kilovolt cable link from Länsisalmi to Viikinmäki, with plans to have it up and running as soon as the mid-2020s.

The parties have committed to drawing up a joint review of the transmission solution to prepare for the implementation of Helsinki master and city plans and Vihdintie boulevard and to enable a smooth planning process. According to tentative calculations, an overall cost-effective solution would be to build a new 400-kilovolt cable link from Länsisalmi to Viikinmäki, which would enable other solutions in the 110-kilovolt distribution network that promote more effective land use. In several cases the solution is an underground cable.

Based purely on electricity production and consumption predictions in Helsinki, the cable link would be needed by around 2035. However, Fingrid is ready to speed up the construction of the new 400-kilovolt grid cable link and the new substation if the City of Helsinki and Helen Sähköverkko participate in the costs that the project entails.

The common goal of the parties is to carry out the area's electricity network projects in a way that is compatible with urban development projects during the 2020s. Alternative right-of-ways for the cable link were planned and an environmental impact study was carried out in 2018.

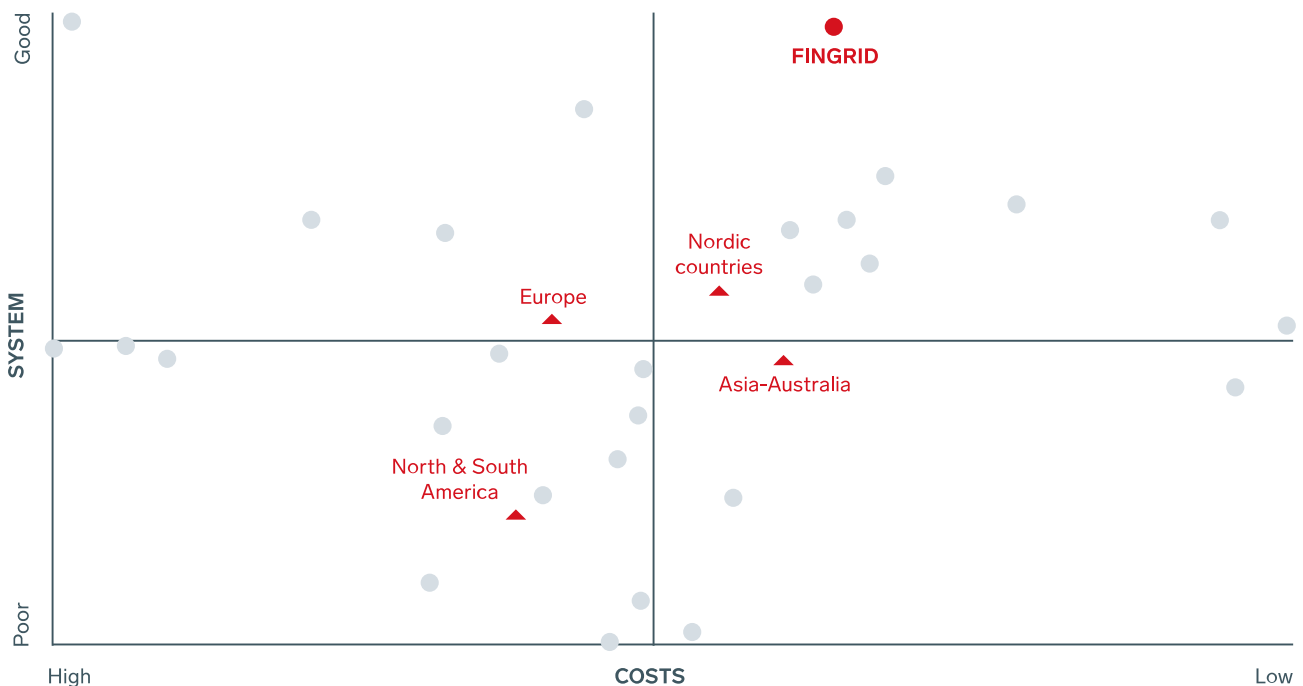
Maintenance

The three-year contracts on basic maintenance of substations and power lines and on basic and special maintenance of secondary equipment tendered by Fingrid in 2017 started on 1 January 2018.

The first year of the basic maintenance period included fault repair exercises to maintain fault repair capabilities both on transmission lines and substations. Some 40 people participated in the exercise on transmission lines and around 110 people participated in the substation exercise.

Top achiever in maintenance

Fingrid again scored excellent results in the International Transmission Operations & Maintenance Study (ITOMS), being the only TSO to achieve a Top Performer mention both in the substation and transmission line maintenance categories. ITOMS looks into the effectiveness of maintenance based on criteria such as maintenance costs and disturbance statistics. A total of 28 TSOs from all over the world participate in the comparison study. Fingrid achieved particularly good results in the inspections and maintenance of transmission lines and in the maintenance of switchgear and substation areas.



Fingrid is in a class of its own in maintenance efficiency.

Developing occupational safety, digitalisation and smart systems are some of Fingrid’s strong focus areas. Digitalising grid substations is one of our strategic development programmes, aiming at a substantial increase in component status data and optimised investment and maintenance costs.

Occupational safety

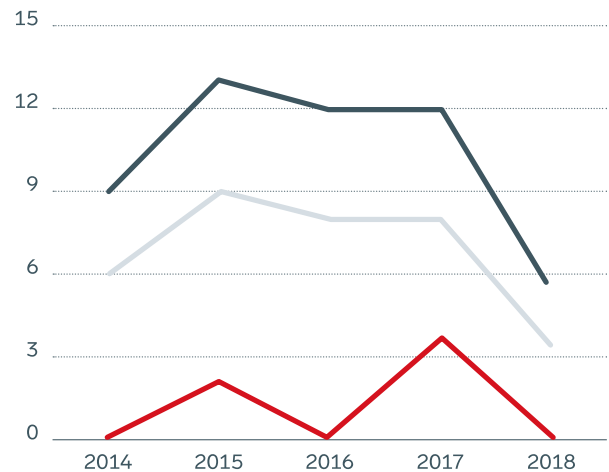
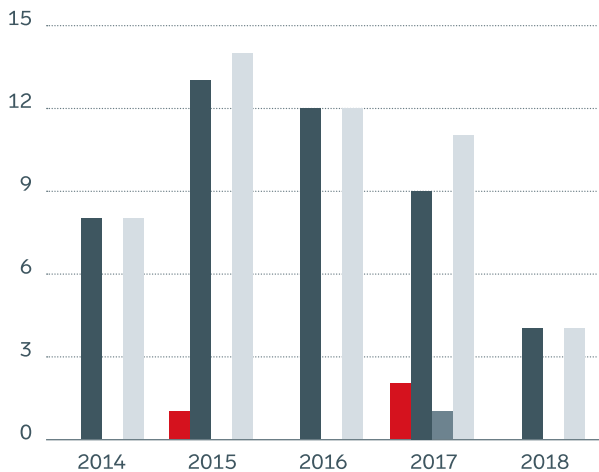
One of Fingrid’s long-term goals is to improve the safety culture at work sites and in this way achieve its zero accident objective.

In 2018, Fingrid's own personnel had no workplace accidents resulting in absence from work (2). A total of 4 (9) lost-time accidents were recorded among Fingrid's service providers. None of the lost-time accidents resulted in an absence of more than 30 days. The suppliers' and Fingrid's combined accident frequency rate decreased significantly from the previous year, to 3.2 (8.5).

Results from Fingrid's OHS development project:

- Safer work practices
- Production of training animations on additional worksite earthing and work at heights
- Fingrid's online training was updated and translated into five additional languages
- Occupational safety training for personnel
- Development of our mobile reporting system for occupational safety, quality and environmental issues was continued
- Two issues of our occupational safety magazine "Safety on the lines" were published
- Safety observation campaign and OHS seminar

LTIF and workplace accidents



- No. of workplace accidents, Fingrid's personnel
- No. of workplace accidents, service providers
- No. of fatal accidents among service providers
- Total no. of workplace accidents
- LTIF, Fingrid's personnel
- LTIF, service providers
- Combined LTIF (Fingrid personnel & service providers)

Key events of 2018

A grid substation can be art – architecture awards for Fingrid’s Länsisalmi substation



Our Länsisalmi substation was the winner in its category at the respected World Architecture Festival in Amsterdam, Netherlands. The City of Vantaa also granted the Länsisalmi station its Kehäkukka award. According to the jury, the substation is a high-quality and inventive architectural achievement. The overall concept was praised for its clear and strong architecture.

The Länsisalmi substation has a key role in the supply of electricity to Helsinki. The attractive shell and stunning arch house cutting-edge technology and massive power capacity for transmitting electricity to nearly 800,000 people in the capital area.

There has been a substation at Länsisalmi already since 1994, but the **new station built** in 2016–2017 makes a whole new presence of itself for the motorists driving on Ring Road III and Porvoo motorway. A nearly 50-metre landscape portal from steel was raised to become the landmark of the substation, and the buildings are clad with glass tiles with background lighting that is switched on in the evenings.

Digital substation makes maintenance easier

Fingrid’s strategic projects also include the digital substation concept, with IoT solutions to improve maintenance management in particular.

The digital project is aimed at more proactive fault monitoring and thus more transparent equipment and asset management. More secure maintenance also improves the quality of grid service. The new technology

lessens the impact of disturbances due to maintenance work and faults, and enables maintenance work to be more precisely targeted to actual needs. This results in better cost-effectiveness.

The enablers of this development project include modern sensor technology and wireless data transfer solutions. These technologies have achieved a sufficient performance and cost level to enable the adoption of new operational practices. Cloud platforms, analytics, and visualisation and reporting tools additionally offer good methods of using new as well as existing condition data from various data storages for various applications.

The first version of functional architecture was developed and rolled out in 2018. It enables the provisioning of IoT monitoring units into the system, management of messaging and metadata, analytics solutions, remote control as well as initial visualisation of the results with applicable tools.

We have started the engineering design process for the first digital substation pilot in Fingrid's history. The project aims at forward-looking digital solutions for the Pernoonkoski substation close to Kotka. The goal is to create a digitalised substation that is compact, safe, environmentally sustainable, remote controlled and provides excellent cost-effectiveness both in terms of capex and operational costs.

Research and development

Breakdown of R&D costs

2018



■ Adequacy of the transmission system	57%
■ System operation	16%
■ Promoting the electricity market	25%
■ Other projects and administration	3%

2017



■ Adequacy of the transmission system	41%
■ System operation	27%
■ Promoting the electricity market	28%
■ Other projects and administration	5%

The volume of research and development (R&D) activities increased substantially during the year under review, amounting to EUR 3.6 (2.6) million. Most of the research activities were outsourced to universities, research institutions and other players. Fingrid’s own work mainly consisted of thesis projects and steering of R&D projects. Fingrid’s role in R&D activities is increasingly becoming that of an expert in national and international research consortiums, bringing to the table a point of view that serves the entire power system and society’s needs. On the other hand, R&D co-operation with start-ups, technology providers and research institutions is an effective way of gaining access to the best expertise.

The biggest R&D involvements were in grid asset maintenance management and grid development within the framework of securing transmission capacity (57% of the total R&D costs). The second most important target for resources (25%) was the development of the electricity market. The development of system security management received 16% of the expenditure. The rest of the costs were allocated to several projects. The biggest overall project is the digitalisation of grid substation maintenance management, utilising affordable sensors and smart analytics for equipment monitoring. Other extensive R&D projects included, as in 2017, the development of flexible markets and the development of calculation methodologies in compliance with European network codes to make transmission capacity available to the markets.

Fingrid also participated in Nordic R&D co-operation, where one of the goals is to secure future system security in Nordic grids. The results from the R&D projects completed in 2018 include updated requirements for frequency-controlled disturbance reserves and new system defence plans in case of decreasing system inertia of the grid (kinetic energy). The Nordic development project for a control scheme to avoid power shortage additionally proceeded to the roll-out planning stage. The updated power shortage control scheme improves the system defence against very serious disturbances that place the system security of the Nordic grid system at risk as a consequence of several simultaneous faults.

Corporate responsibility

Responsible and sustainable business practices are a strategic choice for Fingrid. Responsibility is one of our values. We take care of people and the environmental impacts of our operations, and comply with good governance practices while securing a reliable supply of electricity for everyone in Finland and enabling the achievement of climate goals. In particular, through our operations we promote the UN's global Sustainable Development Goals (SDGs) related to climate actions, energy and infrastructure.

The starting point for Fingrid's responsibility and sustainability work is our strategy where responsibility is an integrated goal and a corporate-level strategic choice. Corporate responsibility and compliance management is integrated with Fingrid's management system and risk management practices.

Fingrid's Board of Directors approves the company's Code of Conduct and monitors compliance in operating responsibly. Furthermore, the Board is in charge of arranging corporate responsibility management and its integration into business operations.

The CEO and the heads of functions are each responsible for compliance management and corporate responsibility issues within their areas of responsibility. Alongside profitability, social issues and environmental impacts are taken into account in a well-balanced way in decision-making and when assessing operations. The Compliance and Responsibility team, which was reorganised in 2018, handles the corporate-level development and reporting. The General Counsel oversees the activities of the team. An appointed development manager is in charge of co-ordinating corporate responsibility reporting.

We have recognised the key issues in terms of accomplishing Fingrid's strategy and functioning daily business. Any need to update the materiality analysis is assessed annually, and the Executive Management Group reviews such needs as part of the strategy process. All the requirements affecting the value chain, the strong link between corporate responsibility and the strategy, and Fingrid's value creation capabilities are accounted for in this process. No changes in the materiality analysis were identified in 2018.

The **issues essential** for Fingrid were as follows:

- Success in the company's mission, which is vital to society
- Safety and security
- Procurement practices
- Stakeholders' trust
- Financial result
- Code of Conduct
- Caring for the working community

Our goal is for Fingrid's personnel to be known in their day-to-day work for their responsible operating methods, which are developed continuously in the company. Responsibility is reflected in the level of Fingrid's personnel satisfaction and commitment, in positive feedback from customers and stakeholders, in responsible purchasing practices and responsibility audits, and in honouring tax liabilities. In 2017, Fingrid was Finland's 17th largest corporate income tax payer. We improve occupational safety in many ways and offset the climate and

environmental impacts of our operations, from planning to maintenance, according to the principle of precautionary action.

Fingrid's work is highly meaningful and our operations create value for Finnish society as a whole by securing highly reliable electricity transmission, a vital service for a well-functioning society. Through our affordable and stable grid fees we help promote Finland's economic competitiveness. Even in the energy transformation, we have a key mission in ensuring that the grid and electricity markets enable effective action to combat climate change. We have set targets for the key issues in Fingrid's operations and corporate responsibility, and [here](#) we give a summarised account of how they have been accomplished. More examples of our responsibility and sustainability are available in our annual report, which applies integrated reporting principles.

Value created by Fingrid 2018

IMPACTS	CREATION OF VALUE	
<ul style="list-style-type: none"> • Enabling the transformation of the energy system • Reliable electricity for society and industry • Promoting Finland's competitiveness • Developing the electricity sector and expertise • Financial benefits for stakeholders • Major grid investments and employment • Local changes in land use and the environment and energy losses in electricity transmission 	<p>Fingrid's national grid creates a platform for a clean power system. 250 kilometres of new grid transmission lines and 7 substations.</p> <p>Electricity transmission reliability: 99,9999%.</p> <p>Fourth cheapest in ENTSO-E's European price comparison. 87% of customers are happy to recommend Fingrid's way of operating.</p> <p>Employee engagement: AAA (PeoplePower). LTIF 3,2. Absences from work 1%. Training: average of 5 days/employee.</p> <p>Finland's 17th largest corporate income tax payer. Remuneration to financiers and shareholders EUR 189 mill.</p> <p>Investments in the grid approx. EUR 88 mill. Fingrid personnel's person-years 338 and service suppliers' person-years 413.</p> <p>Direct CO₂ emissions and indirect emissions due to the company's own electricity consumption and losses amounted to 212,200 tonnes of CO₂. 71% utilisation rate and 62% recycling rate for demolition material.</p>	

Every Fingrid employee makes a commitment to work in compliance with our Code of Conduct, which is based on the United Nations' Global Compact initiative and the principles guiding business operations and human rights. Fingrid is committed to the UN Global Compact initiative's principles on human rights, labour, the environment and anti-corruption. This strengthens the strategic and operational integration of corporate social responsibility in our operating methods and supports the co-operation with our agreement partners in promoting sustainable development and corporate responsibility.

Under our Code of Conduct, we are committed to respecting people and human rights. To ensure that we understand our impacts on human rights, we have carried out an assessment in compliance with the due diligence process recommended in the UN's Guiding Principles on Business and Human Rights, and we update our action plan annually.

Our managers and the entire work community ensure compliance with the Code of Conduct. We require that all new employees, as well as the entire personnel, commit to completing our online induction course on the Code of Conduct. The online course was updated in 2018. The updated online training takes into account the new General Data Protection Regulation, and data security was one of the topics in internal audits, in addition to compliance management issues. A confidential reporting channel managed by an independent third party is available to employees who suspect a breach of the Code of Conduct. Preparations were made during the year to make the reporting channel available to external stakeholders as well. We achieved an excellent AAA rating in a survey

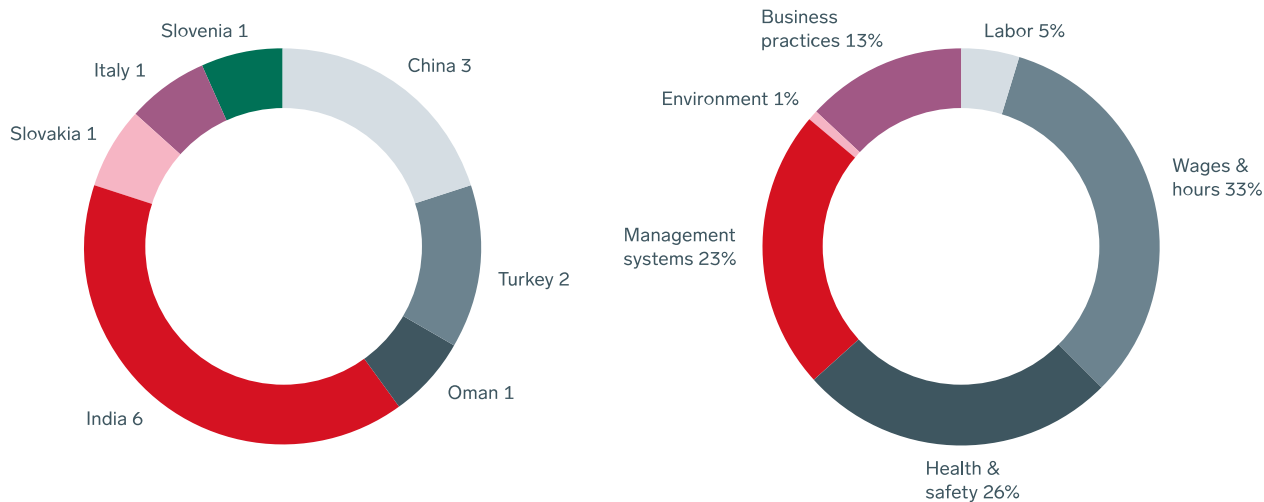
where our personnel assessed the sustainability of our ways of operating.

Responsible procurement practices are impactful in Fingrid’s outsourcing-based business model. We also require all contractors to comply with Fingrid’s Supplier Code of Conduct, and we monitor their compliance based on risk assessments. Fingrid is prepared to commit, through similar principles, to the corporate responsibility requirements set by contractual partners.

Grid infrastructure construction and maintenance is subject to competitive bidding, and our work sites around Finland employ a competent workforce also from abroad. We ensure that we meet our obligations to investigate and our responsibility when using an external workforce. During the year, we developed our processes by securing compliance with social obligations for new suppliers according to the public procurement procedure applied to special sectors, such as criminal register data, and by implementing continuous monitoring of international sanctions. We audited ten of our work sites to verify compliance with contractor obligations, occupational safety and environmental management. The audits revealed that operations and induction at the work sites are generally on a good level and continuously improving. We additionally introduced an external service for monitoring the payroll and employment issues of foreign workforce.

To ensure compliance with the Supplier Code of Conduct in international goods sourcing, we audited 15 production plants in seven countries through a third-party auditor. Follow-up audits were also carried out. The audited companies included both Fingrid’s direct contractual partners and their suppliers. The deviations mainly concerned fire safety, working hours, payroll practices and management systems. The shortcomings were addressed collaboratively according to the related action plans. Our experts observed occupational safety and working conditions also in connection with technical factory tests.

Audits related to international material sourcing by country and distribution of findings



Reporting on corporate responsibility is one of the topics in Fingrid’s annual report, in compliance with the principles of integrated reporting. To ensure transparency and comparability, our reporting has complied with the international Global Reporting Initiative (GRI) framework since 2011. Our reported data is compiled in a **GRI Content Index**. We also take into account the requirements for corporate responsibility reporting by state-owned companies and ESG reporting guidance for stock exchanges. The annual report stands for a Communication on Progress (COP) report in compliance with the UN’s Global Compact initiative. The Report of the Board of Directors includes also non-financial information. The corporate responsibility reporting for 2018 was verified by a third party.



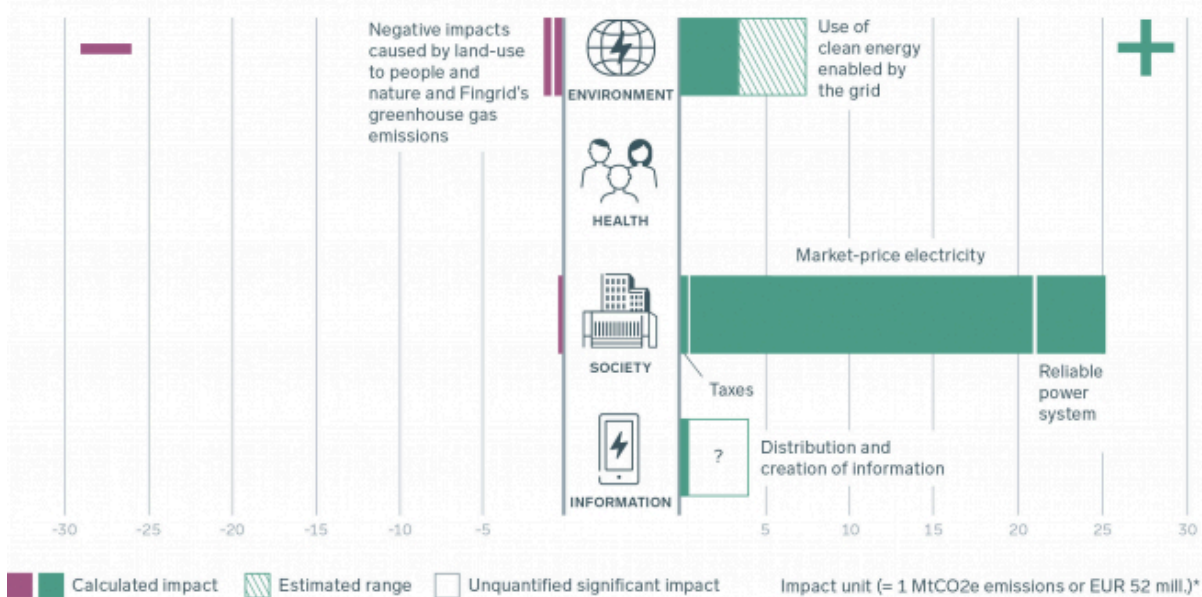
Key events of 2018

Net impact assessment shows that Fingrid's operations have significant positive impacts on society and the climate

One of the most debated topics in corporate responsibility is value creation. It attracts a lot of interest from boards of directors, investors and other stakeholders alike. The value created by a company and maintaining it in the future are parameters often gauged visually, but they can more and more often also be evaluated numerically.

Together with Upright Oy, we carried out an exercise to evaluate the added value Fingrid creates for society, in other words our net impact, using data from 2017. Upright's model evaluated the positive and negative impacts of Fingrid's operations in four dimensions: the environment, health, society and information. The data for the key impacts was processed into so-called impact units to achieve comparability. The purpose of this approach is to create an understanding of the scale of the various impacts, instead of accurately gauging individual impacts.

Fingrid's business has significant positive impacts on society and the climate



*One impact unit selected to correspond with a million tonnes of CO₂ equivalent emissions or approx. EUR 52 million; the conversions use Finland's average carbon dioxide emission tax 64 USD/tCO₂e (World Bank) Source: Net Impact Analysis, The Upright Project/Upright Oy, Fingrid's 2017 data.

According to the net impact analysis, Fingrid creates significant positive impacts on climate and society. The evaluation of the environmental and climate dimension shows that the positive impact of Fingrid's operations clearly outweigh the resulting environmental harm, as the electricity transmission grid provides a platform for a clean power system. The positive impact resulting from the grid's enabling role in clean power production and consumption clearly exceeds the harm to biodiversity and people caused by the transmission lines and Fingrid's own greenhouse gas emissions.

When evaluating the social dimension, Fingrid also creates a significant positive impact by enabling electricity supply at market prices and by ensuring the system security of the Finnish power system. Well-functioning electricity markets and cross-border connections ensure effective price formation for electricity. High system security of the grid helps to avoid financial losses. System security is vital to a society that is dependent on a large supply of electricity, a fact that is further highlighted by the increasing electrification of our society in the future.

The information dimension of Fingrid's operations is also highly significant, as data on the electricity markets and the power system becomes openly available and free of charge to citizens and various operators in society. This enables the development of new and innovative digital solutions. Datahub, the centralised information exchange solution for retail markets, offers quality information exchange services, provides a platform for future innovations, and enables a development leap in the retail markets for electricity.

Personnel

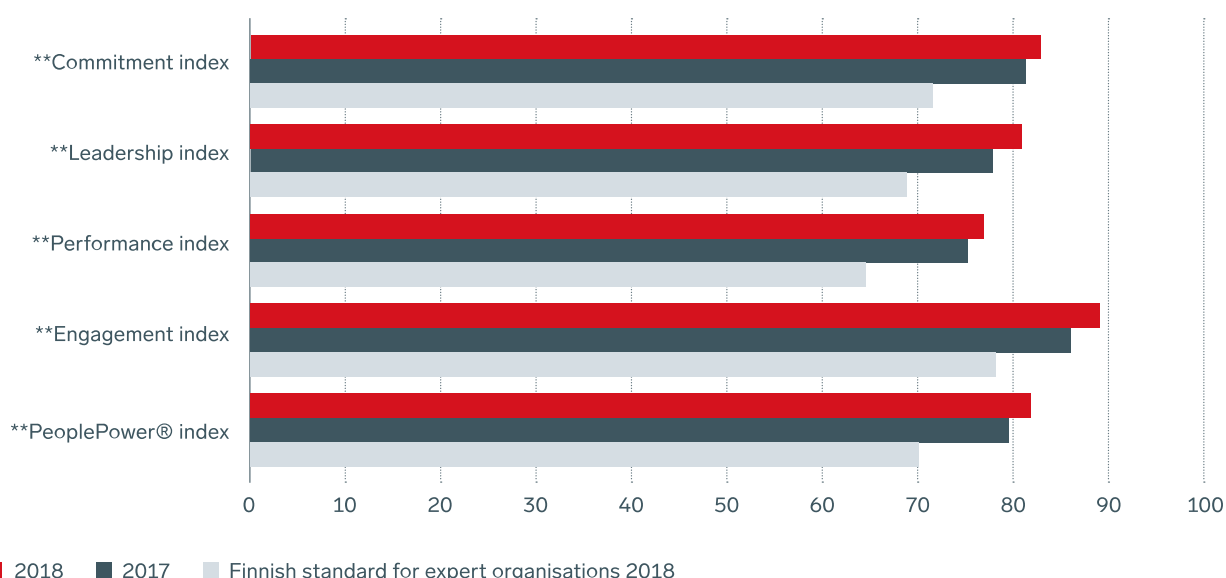
According to Fingrid’s HR vision, our corporate culture is open, collaborative, renewing and target-oriented. We are at the leading edge of change and we are prepared for the future with our world-class expertise. The members of our work community are customer-focused renewers, responsible result achievers, go-getting team players and international networkers. Our company has an excellent employer image, and the best experts in their field work for us. Work still needs to be done to advance our vision, but we are on the right track.

Open dialogue fosters trust

Openness has long been one of Fingrid’s basic values. Openness means dialogue and mutual sharing of information. Employees’ input has a visible role in personnel meetings, and their views are heard. The topics of employer/employee dialogue include remote work, corporate culture and working-hour practices, and we carry out an annual personnel survey to receive feedback for continuous improvement.

Corporate Spirit carried out Fingrid’s third PeoplePower personnel survey during the year. Compared to other expert organisations, our results were excellent. Fingrid scored the highest rating, AAA, which is achieved only by around six per cent of all surveyed organisations annually. The survey not only indicates employee satisfaction in a specific company, but also compares the results with those of peer companies.

PeoplePower®-index



*Statistically significant difference (95%) **Very significant difference (99%) from the applied standard level Scale 0–100, 100 = best

The commitment index describes the starting points created by the employee’s work, immediate work

community and perception of the whole organisation and its future outlook for personnel retention and commitment in the current labour market situation.

The leadership index describes the quality of leadership based on the employees' feelings of being valued, trusted and treated fairly.

The performance index describes the conditions that the available information and tools, organisation of operations and day-to-day practices create for efficient operations.

The engagement index describes how positively and unfalteringly employees feel about their work, the organisation and the values it represents and on how prepared they are to go the extra mile to achieve the organisation's goals where required.

The PeoplePower® index gives an overall picture of the organisation's state and its capability to meet internal and external challenges.

The indices are calculated so that their minimum value would be 0 if all of the respondents were extremely critical, and the maximum value would be 100 if all of the respondents were extremely positive in answering all of the questions included in the index.

An additional aspect of openness is that all information in the company is internally openly available and that the personnel are authorised to communicate with one another. All employees are responsible for communication. Accordingly, the employees are expected to respond to matters related to their own work and to comment on them internally, and to contribute to the internal flow of information within the company.

Everyone at Fingrid should have good communication and interaction skills. A tailored training programme called Loikka (i.e. 'Leap') was started during 2018 to increase the understanding of expert staff concerning changes in Fingrid's operating environment and stakeholders' expectations, and to increase the capabilities to act as Fingrid's ambassadors. The training was very successful and the positive feedback from the participants provides incentive to continue similar activities. Our experts felt that they had in particular learned about the importance of interaction and presence: how everyone can have an impact and create progress by communicating understandably and taking other people into consideration.

Joint progress

Caring and well-being are the goals of our HR policy. In practice, caring means solutions to support the individual, such as flexible working hour arrangements, support for recreational activities and overall well-being. In accordance with Fingrid's HR policy, employees are treated with respect and fairness, based on the company's values and in compliance with the principles of equal opportunity and non-discrimination. Equal opportunity and non-discrimination are part of the corporate culture. Alongside responsibility, openness and efficiency, impartiality is one of Fingrid's values.

We value the possibility to gather all our employees in one place every year. Three personnel days were organised during the year, the main aim of which is to initiate shared discussion and awareness of current affairs relating to the company's operations. Apart from business talk, it is also important to boost team spirit and have a bit of fun. We cherish our connections with former colleagues and retired employees on Fingrid's Alumni Day.

An overall aim of Fingrid's management system and facilities is to foster co-operation and community spirit – a culture of caring for one another. Our slogan, 'Fingrid delivers', has multiple meanings, but above all, it refers to caring about people. We aim to secure the overall well-being of our personnel by offering meaningful work, by nurturing a good workplace atmosphere and through exemplary leadership. We offer flexible job solutions and

promote possibilities for enriching recreation.

Fingrid's employees have access to a wide range of comprehensive occupational healthcare and well-being services that aim to support their work capacity and well-being, regardless of the location. Our goal-oriented well-being activities bring results, and our people understand the value of self-care. The number of absences due to illness has been remarkably low for many years now, and the high age of retirement and the lowest possible disability pension contribution category bear further testimony to the well-being of our employees. As in previous years, the number of occupational accidents at Fingrid remained low. A total of 6 (6) accidents took place, one of which led to a short absence from work. Absences due to accidents or illnesses accounted for 1 (1) per cent of working time during the year.

Renewal and innovation

As technology and the entire operational environment evolves, working life changes continuously. Jobs are being replaced by robotics, but at the same time, new professions and tasks are emerging and competence requirements are changing. Social and interaction skills, as well as the capacity for renewal and critical thinking, will be increasingly highlighted in future. Independent decision-making by experts, and responsibility for work efficiency and personal development will increase.

Fingrid responds to changes by offering its employees opportunities to develop and grow their competence. The approach of securing expertise as a strategic choice improves the quality of personnel planning and helps the company to better prepare for future needs. Fingrid takes a broad view of learning and development: we offer opportunities precisely for on-the-job learning with the help of demanding tasks, diverse projects and job rotation.

We invest more than a million euros annually to develop both the work community and each employee's personal development. In addition to common training provided by the company, personnel can take initiative by proposing specific training to boost their know-how. The topics covered in company-level training events during the year include language instruction, presentation and communication coaching, customer service coaching as well as training support to units and teams amid various changes and in developing their operations. In 2018, each Fingrid employee received an average of 5 (4) days of training.

Fingrid's innovation activities aim to improve the company's ability to respond to changes in the operating environment. Continuous brainstorming, constructive criticism of existing operations, and development through trial and error are some of the innovation activities aimed at improving the productivity and quality of the operations. More radical innovations have been sought in co-operation with start-ups, research institutions and other top experts. An example of this is the Radicamp project, which started already in 2017. The project involves five workshops where new innovations for creating a more modern power system monitoring room were sought after in co-operation with stakeholders. The aim is to achieve real-time status of the power system and to better communicate this situational awareness to stakeholders. Another example of using external resources for innovation are the open innovation competitions organised to develop the maintenance management of substation equipment. The competitions have resulted in activities to develop new solutions with the four most successful companies.

Target-oriented CEO of one's own work

In addition to securing expertise, we focus on the ability of the employees to lead themselves. We speak about being one's own CEO. In practice, this means that each employee is independently in charge of his or her own tasks and areas of responsibility. In order for every employee to be the CEO of his or her own work, the management approach throughout the company must focus on coaching and engaging people. This is promoted particularly in supervisor trainings, but also through our communications to the entire personnel. Continuous

interaction between an employee and the supervisor is something that Fingrid especially values. The dialogue is ongoing daily, and formal performance reviews are held twice a year. The performance reviews include a discussion on personal goals and results as well as an individual long-term and short-term development plan. Performance reviews apply to all permanent employees.

In leadership, we primarily monitor work results rather than working hours. We are strongly in favour of flexible working arrangements and we further increased flexibility based on employee feedback in 2018. All of this requires solid trust.

Fingrid's personnel increased, as in several previous years, due to the company's new responsibilities and growth in the volume of the operations. New professionals were hired both in grid operation business processes and in IT tasks. At the end of the year, Fingrid Oyj employed 365 industry experts and Datahub Oy employed 15.

In a bid to find new talent, we are making long-term efforts to develop our employer image. Our activities during the year included several recruitment fairs and student events, produced videos to present our professions and clarified our employer branding communications.

Young students are an important target group for us, which is why we offer a relatively high number of summer jobs and trainee opportunities across Finland, considering our size – in 2018 to around 40 young people. For a few years now, we have actively participated in, for instance, the Responsible Summer Job campaign to give a good example of a responsible employer for young people.

Key events of 2018

GDPR tested in cyber-security exercise

Fingrid organised a cyber-security exercise focusing on the EU's new General Data Protection Regulation (GDPR). The Incident Response (IR) team established at Fingrid practiced the GDPR-compliant procedures to follow in the event of a cyber attack. In addition to Fingrid's data security unit, the IR team includes the key functions involved in the initial stages of any cyber attack response: legal counsel services, HR, corporate communications, shop steward and company security service. The IR team exercise revealed several areas that require further development, including the team composition and instructions. The exercise boosted Fingrid's capabilities to react in exceptional circumstances.



One of Finland's best places to work

For the second time, Fingrid came in 10th in the mid-sized companies category of the Great Place to Work Finland 2018 survey in February. The Great Place to Work Finland award recognises organisations with excellent workplace cultures based on both an employee survey and an HR assessment. A total of 156 organisations participated in the 2018 survey. Fingrid was also included in the list of Finland's Most Inspiring Workplaces published on 6 February 2018.

The top scores in various employee surveys bear witness to successful development of the operations. Employees' views are heard on key topics, and the personnel is energetic, motivated and feel they are doing important and meaningful work.



Running and walking for children in Helsinki

The theme for the training day for the entire personnel was communication and influencing: How do we, as a company, influence society and, as individuals, each other? Realising the importance of one's own role as part of the company's strategy was strongly highlighted. Customers need to be able to trust that our operations are cost-effective and that we are not wasting their money. Even though we are experts in our field, we need a more personal approach and more personalised messages in all our communications and activities. After the business talk, we exercised for a good cause: for every lap around the bay of Töölölahti in Helsinki, a contribution was made to the non-profit organisation Hope ry.



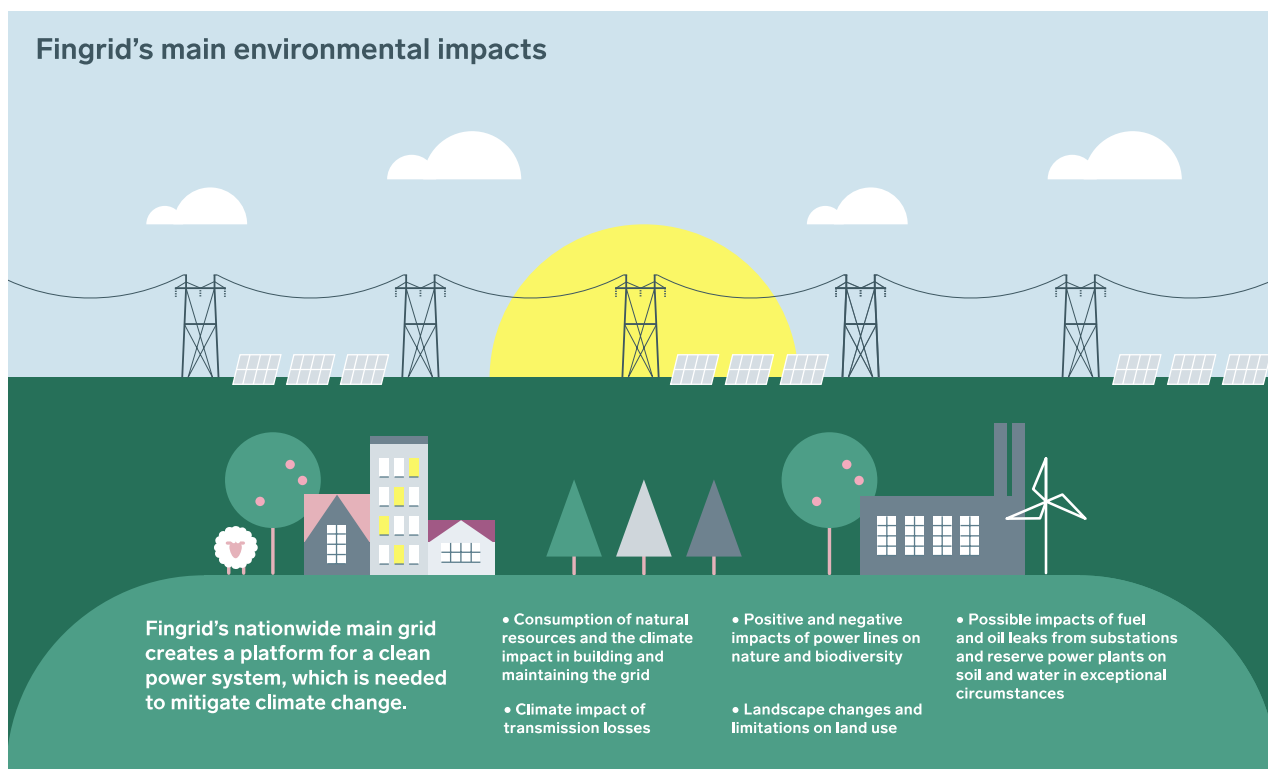
Great summer job experience

Fingrid again participated in the Responsible Summer Job campaign, where our goal was to support fair recruiting practices. The feedback we received indicated that the people working our summer jobs felt they had been treated fairly. The majority were happy with their summer jobs and with Fingrid as an employer. People felt that their tasks were pleasant and the colleagues were friendly. Summer jobs were seen as a good way to gain work experience in a company that operates in one's own field of study.



Environment

Fingrid’s operations have a significant positive impact on the environment and climate. Our nationwide main grid creates a platform for a clean power system, which is needed to mitigate climate change. When we build and maintain power lines, substations and reserve power plants, we make sure that environmental and land-use issues are taken into account for the long term. We also relate our principles for reducing our environmental impacts in our land use and environmental policy. Key aspects include a thorough environmental impact assessment (EIA) and preparedness for environmental risks. Our reserve power plants have an ISO 14001 environmental certification.

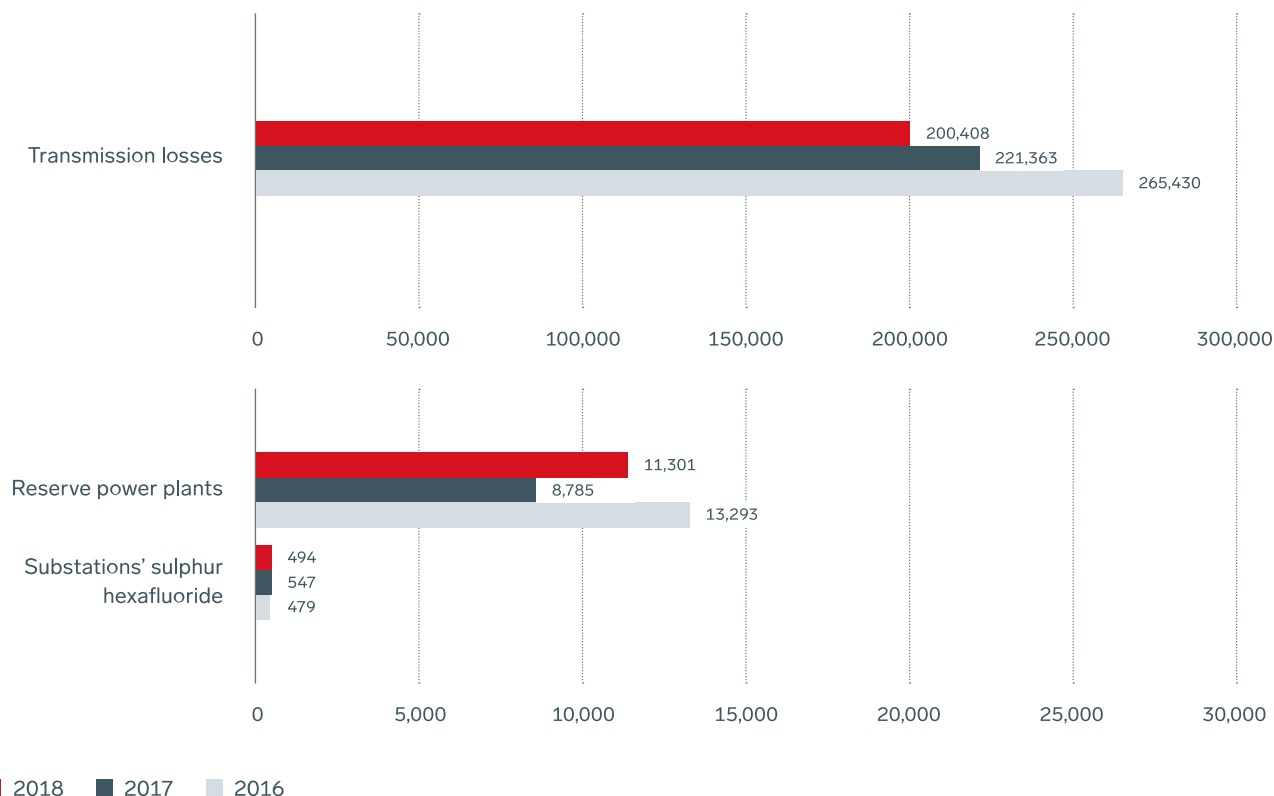


Achieving climate goals requires impactful actions and collaboration. Building and maintaining the transmission grid contributes to the production and consumption of clean electricity and makes Fingrid a key player in combatting climate change. However, our grid investments that enable the transition to a clean power system also contribute to our carbon footprint. We also work to reduce these negative climate impacts of our operations, even though Fingrid’s positive climate impact heavily outweighs them.

Fingrid has been reporting on the climate impact of its operations according to the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) since 2011. Fingrid’s direct CO2 emissions and indirect CO2 emissions, due to the company’s own electricity consumption and transmission losses, totalled 212,202 tonnes of

CO₂ in 2018. The majority of the emissions (approx. 94%) was caused by the electricity production required to replace power losses taking place during electricity transmission. We minimise losses by keeping the voltage of the transmission grid as high as possible and by making grid investments and equipment procurements that promote energy efficiency. The carbon footprint of the losses diminishes with the changing production mix of electricity, as we enable the transmission of clean electricity in the main grid. Roughly 0.4 per cent of Finland's greenhouse gas emissions are Fingrid's emissions. Fingrid is one of the participants in the energy efficiency agreement of Finnish industries for 2017–2025 with a target of cutting energy use by six per cent.

Greenhouse gas emissions, tCO₂



In addition to transmission losses, some climate impact is caused by the reserve power plants used in serious disturbances of the power system and by the powerful greenhouse gas used in substation equipment, sulphur hexafluoride (SF₆). Our SF₆ gas emissions were approximately 21 (24) kilograms. At the end of 2018, there was a total of approximately 49 (45) tonnes of SF₆ gas at the substations, and the long-term annual leakage rate has been very low, less than 0.2 per cent on average. Fingrid's head office building has the international LEED (Leadership in Energy and Environmental Design) environmental certificate at the gold level.

A thesis study on Fingrid's indirect greenhouse gas emissions was completed during the year, focusing on the quantities of emission sources other than those owned or controlled by Fingrid. After the transmission losses, the second most important source of indirect greenhouse gas emissions turned out to be the materials used in the grid, in the transmission lines in particular, and the transportation of ready-to-use components. Steel and aluminium production especially increase the carbon footprint of the material production. We will evaluate appropriate measures to further develop our regular greenhouse gas reporting and any additional measures to decrease our negative climate impact on the basis of the thesis results.

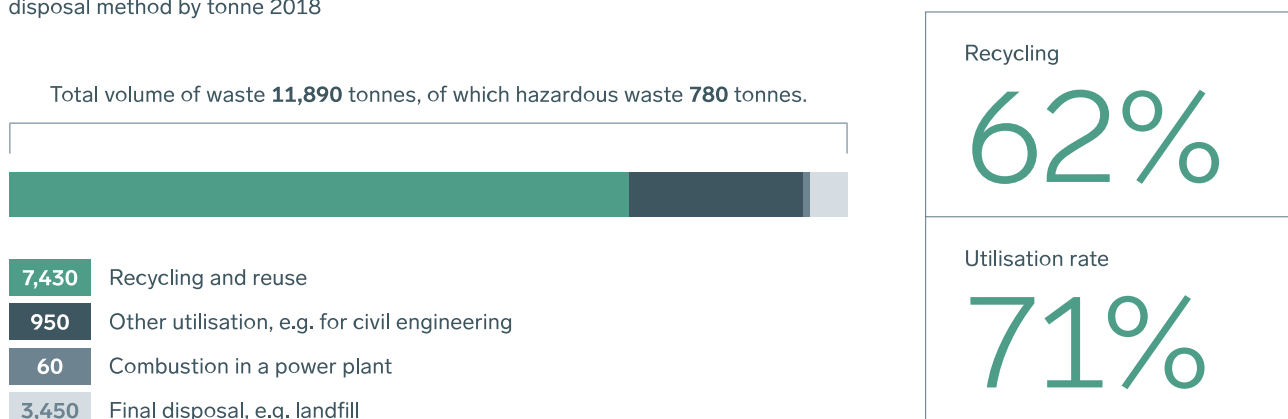
Contractors' and service suppliers' commitment to our operating practices is ensured with the help of contractual terms, environmental training and auditing related to environmental matters. All personnel working at Fingrid's

work sites complete online training on environmental matters. The service providers employed during the year received training in the updated waste management and recycling practices, as well as environmental training at the start of investment projects and maintenance contracts. Environmental aspects were monitored as part of work site monitoring. Compliance with environmental requirements, occupational safety and contractor obligations were verified in a total of 10 audits. Two audits on overall safety and several audits related to the environmental management system were carried out at reserve power plants.

Our goal is to complete grid investment projects and maintenance without any significant environmental deviations. Such deviations did not occur during the year under review. Materials discarded when building new grid sections and substations or dismantling from old structures are recycled as efficiently as possible. The total volume of waste during the year was approximately 11,890 tonnes, of which 71 per cent was utilised in some way and 62 per cent was recycled.

Material volumes generated by Fingrid’s operations in 2018

Total volume of waste by type and disposal method by tonne 2018



Fingrid actively participates in land-use planning to ensure safety and land-use reservations for the grid. In 2018, Fingrid issued about 290 statements on land-use plans and environmental impact assessments. In addition, we directed the construction taking place near grid installations by issuing roughly 450 statements that included safety instructions and land-use restrictions.

The impacts of transmission line projects on people and on the environment are determined according to an EIA procedure as required under the legislation on the environmental impact assessment procedure or, for projects with minor impacts, by means of an environmental study. Consultations with landowners are very important in terms of ensuring that the power line adapts to the environment, taking into account various perspectives and stakeholders. The existing transmission line right-of-ways are primarily used in our projects, in accordance with the nationwide land-use objectives stipulated in the Land Use and Building Act. When planning transmission line routes in a new right-of-way, a key aspect is to avoid residential areas and other sensitive sites.

In 2018, environmental assessments were drawn up for the 400-kilovolt underground cable connection planned in Helsinki and for the transmission line project from Kangasala to Tampere. The environmental assessment procedure is ongoing for the Pyhänselkä–Nuojua transmission line and for the Pyhänselkä–Keminmaa and Keminmaa–Tornionjoki transmission lines linked with the third AC connection to Sweden. The projects were presented in four public events during 2018. Fingrid also promoted landowner engagement during the planning stages of these projects through a mailing campaign and an online feedback system.

In order to be able to build, operate and maintain a transmission line, Fingrid expropriates a right-of-use to the transmission line area. Expropriation permit rulings were received for the Elovaara–Pinsiö and Pamilo–Uimaharju transmission lines. Expropriation permit applications were drawn up for the Forest Line, Pamilo–Uimaharju and

Kontiolahti–Uimaharju transmission line projects. The compensation process for compulsory purchase was completed for the Hikiä–Forssa, Lavianvuori re-routing, Vihtavuori–Koivisto and Vuoksi–Onnela transmission line projects as well as for the nearly completed Hirvisuo–Pyhänselkä project. Fifteen hearings in accordance with the Finnish Expropriation Act were held with landowners.

Our goal is successful interaction with landowners and neighbours of transmission line right-of-ways. We received good grades from landowners in three surveys on recently completed transmission line projects. On a scale from 1 to 5, our average grade was 3.8. The landowners' expectations were related to mutual agreements on the use of access roads and movements of our site teams, and to communications on the progress of work. We have taken note of the feedback in developing our project communications, and we continued our experiments with new communication channels and social media.

Legislation on protection of the public from non-ionised radiation from the electromagnetic fields of power lines was updated in December 2018. Fingrid participated in the preparations of the new legislation. The changes do not affect Fingrid's operations. We continued to publish, jointly with an independent expert party, status reports on global, medically oriented research on electromagnetic fields. While there is no new, conflicting evidence of the health impacts, we understand that people are concerned about the electromagnetic fields of power lines and will monitor the research on this topic. Fingrid also participated in the monitoring group of the review of the Finnish Expropriation Act. The purpose of the review was to determine if changes are necessary to the expropriation legislation from 1978. There has been some discussion on the grounds for compensations, for example. Fingrid has proposed practical changes to make the expropriation procedure more efficient.

We seek to reduce environmental impacts in all stages of the grid lifecycle. The service providers working on maintenance and vegetation trimming along power line right-of-ways are instructed to pay attention to landowners and site-specific environmental values. Landowners were also kept informed. In addition to climate change, degradation of habitats and loss of biodiversity are serious causes of concern both in Finland and globally. People often feel that the clearings made for transmission lines mean a negative change in the local land usage and landscape, but in terms of biodiversity, these open and sunny environments can also have positive impacts. Being cleared regularly, the transmission line areas can act as a replacement habitat for species threatened by disappearing meadows or the drainage of peatlands. Fingrid promotes the usability of transmission line areas by offering landowners idea cards containing information on safe practices for utilising the powerline right-of-ways both for ecological and financial benefits. We also grant initial funding and advisory services for managing the right-of-way as a heritage habitat.

Widening transmission line clearings can prevent the movements of flying squirrels, a species under strict protection. Measures were taken to secure the passage of flying squirrels in the Vihtavuori–Koivisto transmission line project commissioned during the year. Special poles were erected in the transmission line clearing to provide flying squirrels a passage across the clearing. Over time, trees growing at the crossing area will form the permanent passage.

Key events of 2018

Procedure for increasing decayed wood and biodiversity in forests next to transmission lines

Many of the endangered species living in forest habitats depend on decaying wood. We have evaluated our possibilities to take into account the crucial role of decaying wood in biodiversity and to leave more of it in the

forest when clearing the edges of power line right-of-ways to secure reliable transmission of electricity. In our model, we ask the landowners for permission to artificially make dead trees close to the edge of the right-of-way when we contact them to agree on the clearing work.

The trees are cut off at a height of 2 to 4 metres and left to rot standing up. Also the crowns are left decaying in the forest. Trees of low financial value or ones that are already drying up are primarily used for the purpose. Many insects, fungi, lichens and moss species depend on decaying wood. Dried up trees offer nesting hollows for birds.

Corporate responsibility GRI disclosures

GENERAL DISCLOSURES

Standard	GRI content	Location	Additional information	Global Compact
Organisational profile				
GRI 102-1	Name of the reporting organisation		Fingrid	
GRI 102-2	Activities, brands, products and services	Fingrid in brief		
GRI 102-3	Location of the organisation's headquarters		Fingrid's headquarters are located in Helsinki.	
GRI 102-4	Number of countries where the organisation operates, and names of countries where it has significant operations and/or that are relevant to the topics covered in the report	Fingrid in brief		
GRI 102-5	Ownership and legal form of the organisation	Fingrid in brief		
GRI 102-6	Markets served	Fingrid in brief		
GRI 102-7	Scale of the organisation	Fingrid in brief		
GRI 102-8	Number of employees by employment type and employment contract, by region and by gender			6

TOTAL NUMBER OF EMPLOYEES	2018			2017			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Permanent	251	76	327	237	71	308	220	71	291

	86 %	77 %	23 %	87 %	77 %	23 %	87 %	76 %	24 %
Temporary	53	40	13	47	34	13	43	30	13
	14 %	75 %	25 %	13 %	72 %	28 %	13 %	70 %	30 %
Full-time	349	268	81	328	249	79	302	226	76
	92 %	77 %	23 %	92 %	76 %	24 %	90 %	75 %	25 %
Part-time	31	23	8	27	22	5	32	24	8
	8 %	74 %	26 %	8 %	81 %	19 %	10 %	75 %	25 %
Total	380	291	89	355	271	84	334	250	84
Average	376			352			336		

PERSONNEL BY LOCATION

	2018	2017	2016
Helsinki	325	303	285
Hämeenlinna	16	16	16
Oulunsalo	11	11	9
Petäjävesi	15	14	13
Rovaniemi	2	1	2
Varkaus	11	10	9

Number of contractors' employees by employment type, contract and region

Reporting covers the service providers' working hours included in Fingrid's internal monitoring. In 2018, grid building and maintenance operations amounted to roughly 700,000 work hours, equalling 413 man-years.

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PERSONNEL AND SERVICE PROVIDERS, MAN-YEARS

	2018	2017 ¹	2016 ¹
Man-years, Fingrid's personnel	338	321	305
Man-years, service providers	413	440	580

Man-years total	751	761	885
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¹ The work hours and man-years of the suppliers' and Fingrid's own personnel were restated more accurately for 2016–2017

GRI 102-9

The organisation's supply chain

Fingrid requires that its service and goods suppliers commit to Fingrid's Supplier Code of Conduct or with their own similar code. The Code covers issues such as business practices, human rights, labour rights, occupational safety and the environment. The Supplier Code of Conduct is applied to procurements worth at least EUR 30,000 and they are linked to material, equipment, ICT etc. purchase agreements. Fulfilment of the requirements is monitored on a risk basis. The Code of Conduct is a condition for being included in supplier registers used in recurring substation and power line procurements. In addition, contractual partners are subject to separate contract terms related to the use of subcontractors and workforce, and to occupational safety and environmental matters.

Building work on the grid is carried out on a project basis, in separate substation and transmission line projects as well as in so-called turn-key contracts. The main contractor, acting in the role of Fingrid's contractual counterparty, is in charge of the detailed design, the procurement of material and equipment as well as building and installations until commissioning. The main contractor on a specific project may have several subcontractors; the contractual partner must submit the most significant subcontractors for approval by Fingrid.

The qualifications of the contractors and service suppliers carrying out grid construction and maintenance are verified primarily by means of various supplier registers and shortlisting procedures. A validation system to ensure the proper qualifications of employees for performing maintenance on power lines and substations is also in place. Fingrid has around 50 direct contractual partners, the 15 biggest of which account for roughly 95 per cent of the total financial value of the procurements. There are two companies with regional contracts on transmission line maintenance and four companies with regional substation maintenance contracts. Both the contractors' and subcontractors' use mostly Finnish workforce for grid building work. A substantial number of non-Finnish workers, from countries such as Spain, Italy, Croatia, Latvia, Lithuania, Poland and Estonia, work mainly on transmission lines, but to some extent also at substations. Grid maintenance suppliers and their suppliers use Finnish workforce. Some non-Finnish personnel is used in

clearing of rights-of-way under the transmission lines and in areas requiring special expertise.

GRI 102-10	Significant changes to the organisation's size, structure, ownership, or supply chain during the reporting period	Report of the Board of Directors	No significant changes
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Number of residential, industrial, institutional and commercial customer accounts

CUSTOMERS CONNECTED TO THE GRID	December 2018		December 2017		December 2016	
	Customers	Connection points	Customers	Connection points	Customers	Connection points
Distribution networks	62	406	62	412	62	412
Production	30	58	34	58	32	56
Industry	25	50	24	48	24	48
Institutional customers	1	43	1	43	1	43
Total	118	557	121	561	119	559

	Length of above and underground transmission and distribution lines		The transmission grid owned by Fingrid encompasses approximately 14,300 kilometres of 400-, 220- and 110-kilovolt transmission lines, plus 114 substations, and 4 HVDC stations.
	Allocation of CO2e emissions allowances or equivalent, broken down by emissions trading scheme	Report of the Board of Directors	Fingrid's reserve power plants are included in the European Union's emissions trading system. The accuracy of the measuring and reporting systems for fuel consumption is verified by an accredited emissions trading verifier. A total of 8,506 (5,817) units (tCO2) of emission allowances were returned, 100% of which consisted of acquired emission right units. Fingrid has not been granted free-of-charge emission rights for the emissions trade period 2013–2020. Purchased emission rights units amounted to 10,000 in 2018. Emissions trading had minor financial significance for Fingrid.
GRI 102-11	Application of the precautionary principle	Corporate Governance Statement Environment	The precautionary principle is included in Fingrid's Code of Conduct and the UN's Global Compact initiative, which Fingrid has committed to. The environmental impacts of new transmission lines are determined according to an EIA procedure as required under the legislation on the environmental impact assessment procedure or, for projects with minor impacts, by means of an environmental study. Fingrid's reserve power plants are subject to an environmental permit.
GRI 102-12	Externally developed principles or other initiatives to which the organisation subscribes or which it endorses	Review by the President & CEO Report of the Board of Directors Report of the Board of Directors	Global Compact initiative Energy efficiency agreement of Finnish industries 2017–2025
GRI 102-13	Memberships in associations and advocacy organisations		ENTSO-E (European Network of Transmission System Operators – Electricity), Finnish Energy Industries, Cigré (International Council on Large Electric Systems), FIBS Corporate Responsibility Network

Strategy and analysis

GRI 102-14	Review by the President & CEO	Review by the President & CEO	
GRI 102-15	Key impacts,	Strategy	

risks, and opportunities
Operating environment Report of the Board of Directors

Ethical business principles

GRI 102-16	Values, principles, standards, and norms of behaviour	Corporate responsibility		1–10
GRI 102-17	Mechanisms for advice on ethical and lawful behaviour and for reporting concerns about unethical or unlawful behaviour		Advice in applying Fingrid’s Code of Conduct is available to Fingrid’s employees from the company’s legal services. Suspected behaviour that goes against Fingrid’s Code of Conduct must be reported to a supervisor or Fingrid’s management without delay. An independent reporting channel is also in use. No reports were made via the channel during the year. Suspected breaches are investigated with confidentiality and discretion, ensuring that no negative consequences befall the person reporting the behaviour. Behaviour that goes against the Code of Conduct will lead to a discussion with the supervisor and, if necessary, other disciplinary measures.	1–10

Governance

GRI 102-18	Governance structure and committees	Corporate Governance		
GRI 102-19	Delegating authority	Corporate Governance Corporate responsibility		
GRI 102-20	Executive-level responsibility	Corporate responsibility		
GRI 102-22	Composition of the highest governance body	Corporate Governance	The report includes the composition of the Board of Directors and independence of Board members.	
GRI 102-23	Chair of the highest governance body	Corporate Governance		
GRI 102-24	Nominating and selecting the highest	Corporate Governance	The report accounts for the selection of Board members and the related criteria.	

	governance body		
GRI 102-25	Avoidance of conflicts of interest	Corporate Governance	
GRI 102-26	Role of the highest governance body in setting purpose, values and strategy	Corporate Governance Corporate responsibility	
GRI 102-29	Highest governance body's role in identifying and managing risks	Corporate Governance Report of the Board of Directors	The reports account for the Board of Directors' responsibilities in the arrangement of risk management.
GRI 102-30	Effectiveness of the risk management processes	Corporate Governance Report of the Board of Directors	
GRI 102-31	Frequency of risk reviews	Corporate Governance Report of the Board of Directors	The reports account for the Board of Directors' role in the approval of risk management principles and in the definition of risks and their management measures as well as implementation.
GRI 102-32	Approval of the sustainability report	Corporate Governance	The executive management group approves the corporate responsibility reporting.
GRI 102-35	Remuneration policies for the highest governance body and senior executives	Remuneration statement	The statement accounts for the principles of remuneration policies and systems for the Board of Directors and senior executives.
GRI 102-36	Process for determining remuneration	Remuneration statement	The report describes the approval process of remuneration systems and forms of remuneration.

Stakeholder engagement

GRI 102-40	List of stakeholder groups	Stakeholder engagement	
GRI 102-41	Employees covered by collective bargaining agreements		Fingrid complies with the collective labour agreement for salaried employees and senior professional employees in the energy industry. These agreements cover the entire personnel excluding top management.
	Fingrid's contractors' personnel covered by the collective labour agreements by country		According to the Act on the Contractor's Obligations and Liability when Work is Contracted Out, the entire chain of contractors at Fingrid's work sites is obligated to operate in compliance with applicable Finnish collective labour agreements both regarding Finnish and non-Finnish workforce.
GRI 102-42	Identifying and selecting stakeholders	Stakeholder engagement	
GRI 102-43	Approach to stakeholder engagement	Stakeholder engagement	
GRI 102-44	Key topics and concerns raised through stakeholder engagement	Stakeholder engagement Customers Corporate responsibility Environment	
Report profile			
GRI 102-45	Entities included in the consolidated financial statements	Contents of the annual report and reporting principles	
GRI 102-46	Defining report content	Strategy	Fingrid's materiality analysis is evaluated annually to ensure that it is up to date as a part of the strategy process, and the executive management group confirms the most important issues concerning Fingrid's operations as well as the adequacy of the management approach for these issues. The assessment of the economic, social and environmental impacts of Fingrid's operations, as well as the impacts on stakeholders' decision-making, takes into account the strong connection between sustainability, strategy and business and its impact on Fingrid's ability to create value, as well as the value-chain-wide

			requirements of the GRI reporting guidelines. A thorough materiality analysis was conducted in 2014, which included a broad background analysis, meetings attended by dozens of experts from Fingrid, and a stakeholder survey sent out to roughly 700 individuals.
GRI 102-47	Material topics	Strategy Operating environment	The matters prioritised as material for Fingrid and their corresponding GRI reporting aspects are presented in the GRI Content Index.
GRI 102-48	Restatements of information		Any changes to information from previous reports are stated in connection with the relevant information.
GRI 102-49	Changes in reporting		There were no significant changes in the material topics and topic boundaries from previous reporting periods.
GRI 102-50	Reporting period		The reporting period covers the financial period 1 January to 31 December 2018.
GRI 102-51	Date of most recent report		The previous annual report was published on 20 March 2018.
GRI 102-52	Reporting cycle		The annual report is published every year.
GRI 102-53	Contact point for questions regarding the report or its contents		Feedback and questions about the annual report and Fingrid's corporate responsibility can be sent to viestinta@fingrid.fi .
GRI 102-54	Claims of reporting in accordance with the GRI Standards		Fingrid's corporate responsibility reporting is realised in accordance with the Core requirements of the GRI standards.
GRI 102-55	GRI content index	GRI disclosures	
GRI 102-56	External assurance		Corporate responsibility reporting is assured externally.

MATERIAL TOPICS

MATERIAL TOPICS FOR FINGRID	MANAGEMENT PERFORMANCE PROCEDURE AT FINGRID	FINGRID'S MANAGEMENT INDICATORS	MATERIAL TOPICS FOR FINGRID'S OPERATIONS	DISCLOSURE OF MATERIAL INFORMATION FOR FINGRID'S OPERATIONS
Reliability of the electricity system	Principles for managing system security Reserve policy Contingency policy Reserve power plant management policy	Grid disturbances: financial harm to customers	GRI: Indirect economic impacts	GRI 203-2 Significant indirect economic impacts
		System security: System Average Interruption Duration Index in connection	Electricity availability and transmission reliability	Power outage frequency Average power outage duration

		points		
		Sufficiency of the system reserves	Demand-side management System efficiency Research and development GRI: Energy GRI: Emissions	Transmission and distribution losses R&D activities and expenses related to electricity supply GRI 302-2 Energy consumption GRI 302-2 Energy consumption outside of the organisation GRI 302-3 Energy intensity Allocation of CO2e emissions allowances or equivalent, broken down by emissions trading scheme GRI 305-1 Direct greenhouse gas (GHG) emissions (Scope 1) GRI 305-2 Energy indirect greenhouse gas (GHG) emissions (Scope 2) GRI 305-3 Other indirect greenhouse gas (GHG) emissions (Scope 3) GRI 305-4 GHG emissions intensity GRI 305-7 NOx, SOx and other significant air emissions
Stakeholder engagement	Fingrid's Code of Conduct Land use and environment policy Communications policy	Trust KPI in the customer survey ENTSO-E: ranking in price level comparisons Landowner survey grade	GRI: Stakeholder engagement GRI: Local communities GRI: Marketing and labelling	GRI 102-43 Approach to stakeholder engagement GRI 102-44 Key topics and concerns raised Number of residential, industrial, institutional and commercial customer accounts Results of surveys measuring customer satisfaction
Financial result	Management principles Corporate Finance and Financing Principles Financing policy	Credit rating Dividend payout capacity Cost-effectiveness	GRI: Economic performance	GRI 201-1 Direct economic value generated and distributed GRI 201-4 Financial assistance received from government
Procurement practices	Fingrid's Supplier Code of Conduct Procurement policy	Deviations or problems in contractor obligation or employment relationship matters	GRI: Procurement practices	GRI 102-9 Description of the supply chain
Development and safety of the transmission grid	Main grid development and maintenance management principles Contingency policy Company security policy Grid planning, construction,	Implementation of capital investments Maintenance efficiency: ranking in international benchmarks (ITOMS,	GRI: Occupational health and safety GRI: Customer health and safety	GRI 403-2 Type of injury and rates of injury (LTIF), occupational diseases, lost days and absenteeism, and total number of work-related fatalities Number of injuries and fatalities to

	maintenance management policies	ITAMS) LTIF		the public involving company assets, including legal judgments, settlements and pending legal cases of diseases
		Environmental deviations	GRI: Environmental Compliance	GRI 307-1 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations
			GRI: Biodiversity	GRI 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
			GRI: Waste	GRI 306-2 Waste
Well-functioning electricity market	Principles for promoting the electricity market Loss power procurement policy Transmission capacity allocation and congestion management policy	Grade for developing the electricity market in the customer survey	GRI: Stakeholder engagement	GRI 102-43 Approach to stakeholder engagement GRI 102-44 Key topics and concerns raised
An open, collaborative, renewing and target-oriented work community	Management principles HR policy Equal opportunity and non-discrimination plan	Workplace atmosphere: result of personnel survey Management: ranking in the Great Place to Work Finland survey	GRI: Employment	GRI 102-8 Number of employees and contractors by employment type and employment contract, by region and by gender GRI 102-41 Employees covered by collective bargaining agreements GRI 401-1 Total number and rate of new employee hires and rate of employee turnover by age group, gender and region Percentage of employees retiring within the next 5 and 10 years
			GRI: Education	GRI 404-1 Average hours of training per year per employee by gender, and by employee category GRI 404-2 Programmes for upgrading employee skills and transition assistance programmes
			GRI: Diversity and equal opportunities	GRI 405-1 Diversity of governance bodies and employees GRI 405-2 Ratio of basic salary and remuneration of women to men
The company's Code of Conduct	Fingrid's Code of Conduct Management principles Internal control and risk management principles HR policy Data security policy Data protection policy Document management policy	Grade for responsible operations in personnel survey	GRI: Business ethics	GRI 102-16 Values, principles, standards, and norms of behaviour GRI 102-17 Mechanisms for advice on ethical and lawful behaviour and for reporting concerns about unethical or unlawful behaviour
			GRI: Non-discrimination	GRI 406-1 Incidents of discrimination and corrective actions taken
			GRI: Anti-corruption and anti-bribery	GRI 205-3 Confirmed incidents of corruption and actions taken

			GRI: Public policy	GRI 415-1 Political contributions
			GRI: Anti-competitive behaviour	GRI 206-1 Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes
			GRI: Customer privacy	GRI 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data
			GRI: Socioeconomic compliance	GRI 419-1 Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations

Standard	GRI content	Location	Notes	Global Compact
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Management approach

GRI 103	Disclosures on Management Approach	Strategy Fingrid's strategic targets and indicators Personnel Corporate responsibility Environment Corporate Governance Statement Report of the Board of Directors		
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ECONOMIC RESPONSIBILITY STANDARDS

Economic performance

GRI 201-1	Direct economic value generated and distributed (€)			
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Income from customers	2018	2017	2016
Turnover	852 784 056	671 992 154	586 119 500
Other operating income	10 799 688	2 933 448	12 688 847
Contributions received	-186 387	-170 141	-282 023
Dividend income	644 877	1 119 088	564 840

Income from investments and loans	170 274	478 062	688 991
Total	864 212 507	676 352 612	599 780 155

Payments to suppliers ²

Purchases, materials and services	482 873 473	331 838 555	278 075 433
Electricity tax on auxiliary power	1 250	-4 818	-18 978
Other costs	7 211 442	32 027 392	868 592
Changes in fair value	37 082 763	8 884 281	35 444 373
Voluntary additional personnel expenses and compensation for expenses (excl. training)	-1 697 147	-1 617 363	-1 533 407
Real estate tax	-417 088	-421 385	-409 145
Contributions	-24 974	-28 014	-32 424
Total	525 029 719	370 678 649	312 394 445

Remuneration to personnel

Salaries, remunerations, social security contributions	32 189 844	29 384 630	28 597 902
Voluntary additional personnel expenses and compensation for expenses (excl. training)	1 697 147	1 617 363	1 533 407
Total	33 886 991	31 001 993	30 131 309

Payments to providers of capital

Dividend ¹	171 439 950	173 518 010	97 999 992
Finance costs	17 298 995	18 662 591	21 058 652
Total	188 738 945	192 180 601	119 058 645

Payments to government and community investment

Income tax for the financial year ³	50 421 418	39 422 683	25 780 172
Real estate tax	417 088	421 385	409 145
Electricity tax on auxiliary power	-1 250	4 818	18 978
Contributions and sponsoring	24 974	28 014	32 424
Total	50 862 230	39 876 900	26 240 719

Economic value retained for developing Fingrid's operations ⁴

65 694 622	42 614 469	111 955 038
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The reporting on economic impacts does not include Fingrid's capital expenditure, which has been accounted for elsewhere in this annual report.

¹ The dividend for 2018 is the Board of Directors' proposal to the Annual General Meeting

² 2016–2017: Due to changes in reporting, certain costs from 2017 and 2016 have been transferred from Other costs to Purchases, materials and services

³ Payable income taxes reported for 2017 are restated more accurately

⁴ The figure for 2016 has been corrected

GRI 201-4 Financial assistance received from government Financial statements, note 2, other operating income

	2018	2017	2016
Tekes	0	25 141	75 714
EU: Horizon 2020 Framework Program	28 250	0	41 309
National Emergency Supply Agency	145 000	145 000	145 000
Total	173 250	170 141	262 023

Indirect economic impacts

GRI 203-2 Significant indirect economic impacts **Power system**

Procurement practices

GRI 103 Management approach **Report of the Board of Directors Strategy Corporate responsibility GRI disclosures** See GRI 102-9

Anti-corruption

10

GRI 205-3 Confirmed incidents of corruption and actions taken No incidents of corruption during the reporting period.

Anti-competitive behaviour

GRI 206-1 Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes No legal actions during the reporting period.

Electricity availability and transmission reliability

GRI 103 Management approach
Grid development and maintenance
Power system

Demand-side management

GRI 103 Management approach
Power system
Electricity market

Research and development

GRI 103 Management approach
Research, development and innovation

System efficiency

GRI 103 Transmission and distribution losses
Power system See also GRI 302-1

ENVIRONMENTAL RESPONSIBILITY STANDARDS 7, 8

Energy

GRI 302-1, 302-2 Energy consumption within and outside of the organisation

ENERGY CONSUMPTION		2018	2017	2016
Direct				
Light fuel oil	t	2 878	1 801	3 217
	GJ	123 768	77 425	138 320
Indirect				
Electricity transmission energy losses	GWh	1 222	1 223	1 270
	GJ	4 399 200	4 402 800	4 572 000
Energy produced with the fuels consumed by leased	GWh	1,3	1,0	1,3

reserve power plants ¹				
	GJ	4 594	3 162	4 676
Reserve power plants' auxiliary energy	GWh	8,8	10,3	9,9
	GJ	31 788	37 080	35 724
Reserve power plants' district heating	GWh	0,6	0,6	0,6
	GJ	2 100	2 272	2 319

Fingrid's environmental data reporting encompasses the entire company except for the data on substation electricity consumption, electricity and heating for premises, and the related carbon dioxide emissions. The compilation of this data will be developed in the coming years.

¹ The data on leased reserve power plants is restated more accurately for 2017

GRI 302-3		Energy intensity	2018	2017	2016
ENERGY INTENSITY					
Fingrid's total energy consumption divided by net sales	GJ/1000€		5,35	6,73	8,11

Biodiversity		2018	2017	2016
GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas			
Grid transmission lines in protected areas and Natura sites ¹⁾	km	257	258	257

Reported transmission line kilometres in protected and Natura areas.

¹ Approx. 2% of Fingrid's transmission lines are located in a nature reserve or Natura site. Protected areas amounted to around 10 per cent of Finland's total area in 2018.

Emissions 7, 8

GRI 305-1 Direct greenhouse gas (GHG) emissions (Scope 1)

Direct emissions (Scope 1)	2018	2017	2016
Reserve power plant fuels, tCO ₂	8 506	5 817	10 326
Substations' sulphur hexafluoride, tCO ₂ e	494	547	479
Total, tCO₂-e¹	9 000	6 364	10 805

¹ According to Statistics Finland, the total CO₂ equivalent emissions in Finland in 2017 were 56.1 million carbon dioxide tonnes. Fingrid's share of all Finnish CO₂ emissions amounted to approximately 0.2% in 2017. Fingrid's carbon dioxide emissions calculations are based on the EU emissions trading system (EU-ETS) and on the international Greenhouse Gas (GHG) Protocol standards. The emission factors used in Fingrid's CO₂ calculations are based on the latest factors from Statistics Finland, the average emission factors of electricity procurement and district heat production for Finland, and IPCC 2007 (AR4) Global Warming Potentials (GWPs). The calculation of electricity CO₂ emissions applies a rolling average of the last five years recorded in statistics; the presented Scope 2 emissions figure is location-based. Emissions in 2018 were calculated using Statistics Finland's emissions factor of 164 kg CO₂/MWh. District heating CO₂ emissions were calculated using the emissions factor of 188 kg CO₂/MWh published by the Finnish Energy Industries for the last three statistical years.

GRI 305-2 Energy indirect greenhouse gas (GHG) emissions (Scope 2)

Energy indirect emissions (Scope 2)	2018	2017	2016
Transmission losses, tCO ₂ e	200 408	221 363	265 430
Energy produced with the fuels consumed by leased reserve power plants, tCO ₂ -e ¹	1237	993	775
Reserve power plants' auxiliary energy, tCO ₂ e	1 448	1 864	2 074
Reserve power plants' district heating, tCO ₂ e	110	111	118
Total, tCO₂e	203 203	224 331	268 397

¹ The data on leased reserve power plants is restated more accurately for 2017

GRI 305-3 Other indirect greenhouse gas (GHG) emissions (Scope 3)

Other indirect emissions (Scope 3)	2018	2017	2016
Business travel (flights and kilometre-reimbursed business trips), tCO ₂ e	620	640	694
Total, tCO₂e	620	640	694

GRI 305-4 GHG emissions intensity

GREENHOUSE GAS EMISSIONS INTENSITY		2018	2017	2016
Fingrid's direct (Scope 1) and indirect (Scope 2) GHG emissions divided by amount electricity transmitted	tCO ₂ e/ TWh	3 093	3 485	4 076

GRI 305-7 NO_x, SO_x and other significant air emissions

Reserve power plants' sulphur dioxide and nitrogen oxide emissions	2018	2017	2016
	tonnes	tonnes	tonnes
Sulphur dioxide, SO ₂ ^{1,2}	1,4	0,9	0,7
Nitrogen oxide, NO _x	51	30	61

¹ The figure for 2018 is preliminary, the conclusive figure will be contained in the reporting to the authorities

² The sulphur dioxide data from 2016 for the reserve power plants is restated more accurately

Effluents and waste 8

GRI 306-2 Total weight of waste by type and disposal method

Total weight of waste by type and disposal method ¹	2018	2017	2016
	tonnes	tonnes	tonnes
Total waste volume	11 894	9 941	9 559
Hazardous waste	872	500	959
Recycling and reuse	7 430	8 538	6 579
Other utilisation, e.g. for civil engineering	952	897	1 389
Combustion in a power plant	63	24	50
Final disposal, e.g. landfill	3 449	482	1 541
Recycling rate, %	62	85	68
Utilisation rate, %	71	95	84

¹ The waste volume data and recycling rates are restated more accurately for 2017 and 2016

GRI 306-3 Significant spills **Report of the Board of Directors Environment** No significant environmental incidents took place during the review year.

Environmental compliance 8

GRI 307-1 Monetary value of significant fines and total number of non-monetary sanctions for non- **No fines or sanctions during the reporting period.**

compliance with environmental laws and regulations

SOCIAL RESPONSIBILITY STANDARDS

Employment

6

Total number and rate of new employee hires and rate of employee turnover by age group, gender and region

GRI 401-1

TYPES OF EMPLOYMENT	2018	2017	2016
New permanent employment contract	24	18	15
Number of expired employment contracts, incl. retired employees	12	8	10
Retired	4	1	3
Average retirement age	66	63	65
Average length of employment* (y)	12	12	10
Number of persons made redundant	0	0	0
Incoming turnover rate	7,3 %	5,8 %	5,2 %
Outgoing turnover rate	3,7 %	2,6 %	3,4 %

Incoming and outgoing turnover rates not reported by age group and gender. The report accounts for absolute values; percentage rates not reported due to a low turnover rate. The calculation formulas for the outgoing turnover rate and average length of employment were modified for more accuracy for 2016 and 2017.

* Fingrid was established in 1996 and its operations started in 1997. The personnel were transferred to the company as serving employees.

NEW, PERMANENT EMPLOYMENT	2018	2017	2016
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CONTRACTS, BY AGE GROUP			
	No. of people	No. of people	No. of people
Under 29 yrs.	2	5	2
30–39 v.	17	7	7
40–49 v.	4	4	5
50–59 v.	1	1	1
60–69 v.	0	1	0

NUMBER OF EXPIRED PERMANENT EMPLOYMENT CONTRACTS BY AGE GROUP			
	2018	2017	2016
	No. of people	No. of people	No. of people
Under 29 yrs.	1	0	1
30–39 v.	6	3	5
40–49 v.	3	3	1
50–59 v.	1	1	0
60–69 v.	1	1	3

Percentage of employees retiring within the next 5 and 10 years:	Percentage of employees retiring within the next 5 years:	13 %
	Percentage of employees retiring within the next 10 years:	25 %
	The estimate is based on the lowest possible retirement age for old-age pension according to the statutory pension system.	
Number of work days of contractors' and contractors' employees working in construction, operation and maintenance duties	The report accounts for the total working hours of service providers, see GRI 102-8	
Proportion of suppliers' and contractors' employees who have taken part in occupational safety training	Grid development and maintenance	The source of the report is the OHS development project.

Occupational health and safety 6

GRI 403-2	Type of injury and rates of injury (LTIF), occupational diseases, lost days, and absenteeism, and total number of	Grid development and maintenance Personnel Report of the Board of Directors
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work-related fatalities, by region and by gender

NUMBER OF OCCUPATIONAL ACCIDENTS AND ABSENCES DUE TO ILLNESS	2018		2017		2016	
	Workplace	Business travel	Workplace	Business travel	Workplace	Business travel
Absences due to illness	1% (3.2 days/person)		1% (3.2 days/person)		1% (3.4 days/person)	
Accidents resulting in absence from work	0	1	2	0	0	0
Accidents not resulting in absence from work	2	3	0	4	1	1
LTIF (accidents/million work hours)*	0	2	4	0	0	0
Work-related fatalities	0	0	0	0	0	0
Occupational diseases	No cases		No cases		No cases	

* LTIF in line with Zero Accidents criteria. No occupational diseases diagnosed in 2018. The report accounts for the number of accidents, LTIF, fatalities and percentage of absences due to illness.

Contractors' and suppliers' OHS-related performance **Grid development and maintenance** The report accounts for the number of accidents, LTIF and fatalities

Training and education 6

GRI 404-1 Average hours of

training per
year per
employee by
gender, and
by employee
category

NUMBER OF TRAINING HOURS BY EMPLOYEE GROUP AND GENDER	2018	2017	2016
	h	h	h
Number of training hours by gender, women	40	34	40
Number of training hours by gender, men	39	32	34
Number of training hours by employee group, salaried employees	13	19	21
Number of training hours by employee group, senior salaried employees	43	34	38
EDUCATION LEVEL OF PERMANENT PERSONNEL	2018	2017	2016
Basic and secondary education	20	20	21
Lowest level of tertiary education	32	33	34
Bachelor's degree	116	109	104
Master's degree	150	137	123
Second stage of tertiary education	9	9	9
Training days per person	5	4	5

GRI 404-2 Programmes for upgrading employee skills and transition assistance programmes that **Personnel**

facilitate continued employability and the management of career endings

Diversity and equal opportunities 6

Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity **Corporate Governance Statement**

GRI 405-1

AGE DISTRIBUTION OF PERMANENT PERSONNEL	2018	2017	2016
Under 29 yrs.	28	27	25
30–39	98	86	80
40–49	99	91	91
50–59	67	75	76
60–69	35	29	19
Average age	44	44	44

GENDER DISTRIBUTION BY EMPLOYEE GROUP	2018		2017		2016	
	Men	Women	Men	Women	Men	Women
Board of Directors	3	3	3	2	3	2
Management	6	3	6	3	6	2

Senior salaried employees	244	64	230	59	213	57
Salaried employees	1	9	1	9	1	12

The Board of Directors and personnel groups reported by gender. The age distribution of permanent personnel reported. (number of people)

GRI 405-2 Ratio of basic salary and remuneration of women to men **Remuneration statement**

Non-discrimination 6

GRI 406-1 Incidents of discrimination and corrective actions taken No incidents of discrimination during the reporting period.

Local communities 1

Result of landowner survey **Environment**

Public policy 10

GRI 415-1 Total value of political contributions by country and recipient/beneficiary Fingrid does not provide any direct or indirect support, including non-monetary support, to political activities.

Customer health and safety

Number of injuries and fatalities to the public involving company assets, including legal judgments, **Power system** No cases of personal injury to the public during the reporting period. No claims related to incidents of this kind were presented to the company during the reporting period.

settlements
and pending
legal cases of
diseases

Availability

Power outage frequency **Power system**

Average power outage duration **Power system**

Customer privacy

GRI 418-1	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	No incidents during the reporting period.
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Socioeconomic compliance

GRI 419-1	Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations	No significant fines or sanctions during the reporting period.
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Independent assurance statement

To the Management and Stakeholders of Fingrid

Scope and Objectives

The Management of Fingrid Oyj commissioned us to perform a limited assurance engagement over the responsibility information presented in Fingrid's Annual Report 2018 ("the Report") and specified in the Corporate responsibility GRI disclosures for the reporting period 1st January to 31st December 2018. The assurance engagement was conducted in accordance with the AA1000 Assurance Standard (2008) with 2018 addendum, and as a type 2 engagement.

We have duly performed an independent external assurance, the objective of which was to evaluate:

- Fingrid's adherence to the AA1000 Accountability Principles (2018) of inclusivity, materiality, responsiveness and impact;
- the reliability of performance information presented in the Report according to the Principles for defining report quality defined the GRI Standard 101 Foundation (2016); and
- the compliance with the GRI Standards in accordance criteria at the Core option.

Responsibilities

Fingrid's Management is responsible for the preparation of the Report and the performance data and statements presented therein, which the Executive Management Group of Fingrid has approved. Our responsibility as assurance providers is to express a conclusion based on our work performed. The criteria used for our assessment include the GRI Standards (2016) and Fingrid's own internal reporting guidelines.

Assurance Provider's Independence and Competence

We have conducted our assessment as independent and impartial from the reporting organisation. We were not committed to any assignments for Fingrid that would conflict with our independence, nor were we involved in the preparation of the Report. Our team consists of competent and experienced corporate responsibility reporting experts, who have the necessary skills to perform an assurance process.

Basis of Our Opinion

Assurance providers are obliged to plan and perform the assurance process to ensure that they collect adequate evidence for the necessary conclusions to be drawn. The procedures selected depend on the assurance provider's judgement, including their assessment of the risk of material misstatement adhering to the reporting criteria.

Our opinion is based, among other things, on the following procedures performed:

- Interviews with senior management representatives to gain an understanding of the major impacts, risks and opportunities related to Fingrid's corporate responsibility agenda;

- Assessment of the procedures Fingrid has in place to ensure the inclusivity of stakeholder engagement processes, the identification of material stakeholder expectations and the responsiveness to stakeholder concerns;
- Interviews with Fingrid’s specialists responsible for corporate responsibility performance data collection and calculations;
- Review of systems and procedures to generate, collect and report corporate responsibility performance data for the Report;
- Reviewing data at source and following this through to the responsibility information presented in the Report;
- Reviewing whether the evidence, measurements, and scope of the performance data is prepared in accordance with the Criteria; and
- Reviewing the Report and narrative accompanying the performance indicators in the Report with regard to the Criteria.

Inherent limitations

Our assurance relies on the premise that the data and information provided by Fingrid to us as part of our review procedures have been provided in good faith. Because of the selective nature (sampling) and other inherent limitations of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities may not have been detected. For instance, greenhouse gas (GHG) emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. Finally, the selection of different but acceptable measurement techniques may result in materially different measurements.

Conclusions

Adherence to AA1000 Accountability Principles

- *Inclusivity:* Fingrid has a stakeholder engagement process in place in order to understand stakeholder expectations, and it has committed to active stakeholder dialogue.
- *Materiality:* Fingrid has defined material corporate responsibility reporting topics as a part of the strategy process.
- *Responsiveness:* Fingrid has policies and procedures in place to respond to stakeholder’s expectations.
- *Impact:* Fingrid has identified impacts related to the material corporate responsibility topics and has committed to manage and disclose comprehensive and balanced information on these impacts.

Corporate responsibility performance data

We have reviewed the basis of the corporate responsibility information provided in the Report. Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Report is not fairly stated and has not been prepared, in all material respects, in accordance with the reporting criteria.

GRI Standards in accordance criteria

The Report complies with the GRI Standards: Core option.

Observations and Recommendations

Based on our limited level assurance engagement, we present the following observations and recommendations, which do not affect the conclusions presented above.

- Fingrid has integrated corporate responsibility in its business. Corporate responsibility targets are a part of Fingrid's strategic targets and indicators. In 2018 Fingrid has progressed mainly in the line with the targets set. We recommend that Fingrid develops even more challenging and longer-term corporate responsibility targets
- Fingrid has established a corporate responsibility governance and management approach and discloses comprehensive information on material topics. Fingrid has also defined responsibility requirements for its suppliers. We recommend that Fingrid continues efforts to evaluate responsibility in the supply chain and develop procedures to promote responsible business practices among suppliers
- Fingrid has an important role in society and as an enabler of the energy system transition to mitigate climate change in the line with national and international goals. We recommend that Fingrid develops its own target-setting related to climate change mitigation in accordance with the company's role.

Helsinki, Finland, 1st February 2019

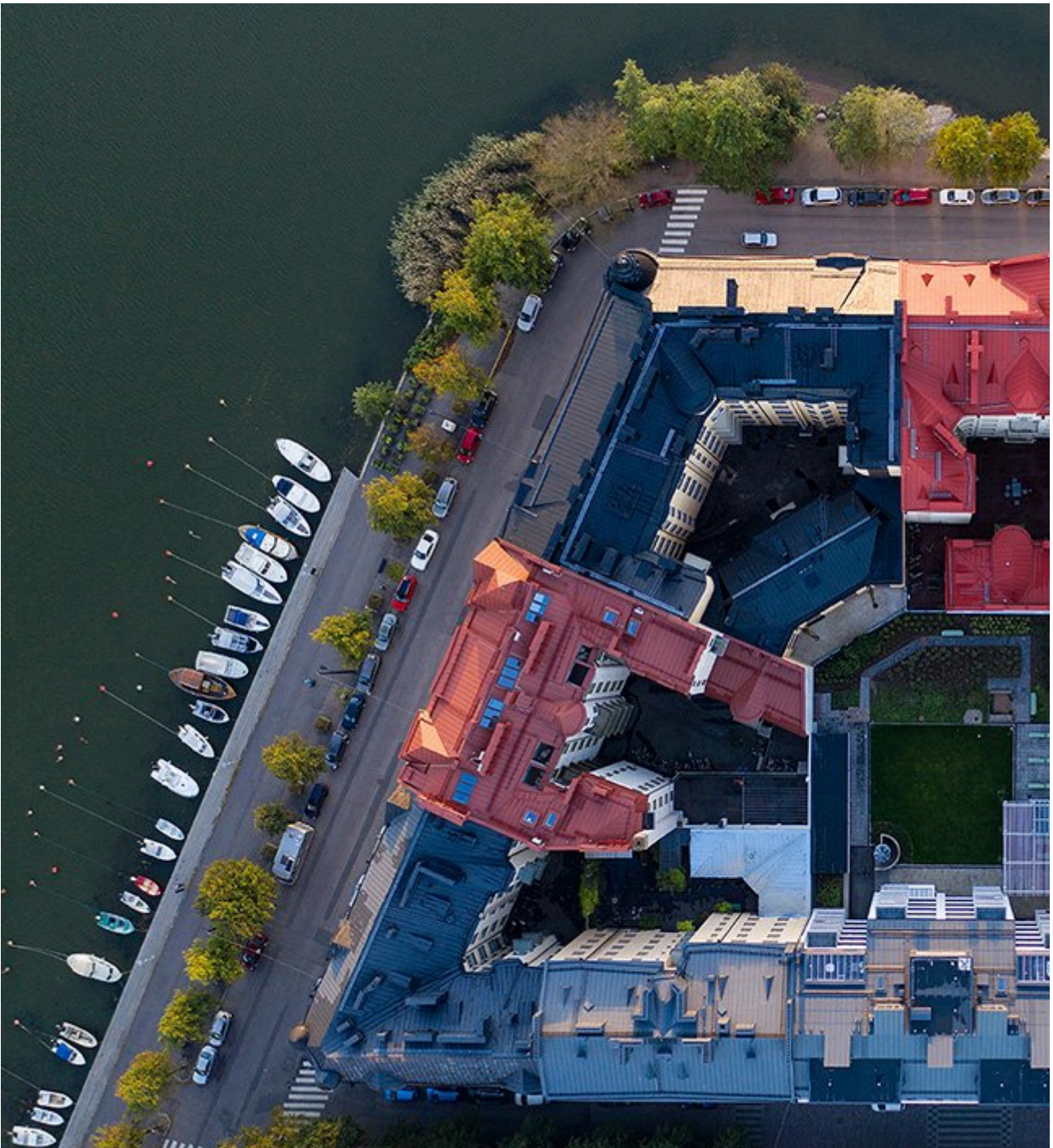
Mitopro Oy

Mikael Niskala

Independent Sustainability Practitioner

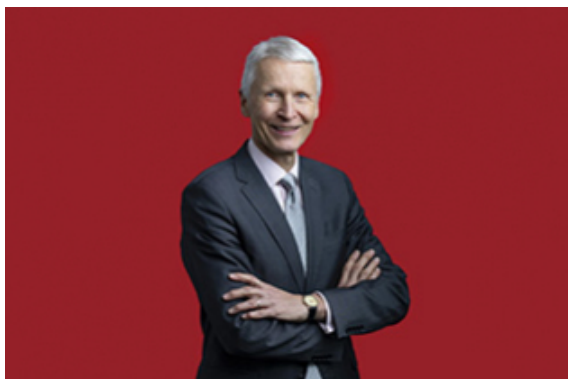
Tomi Pajunen

Independent Sustainability Practitioner



Governance

Board of Directors



Juhani Järvi, Chair

M.Sc. (Finance), born in 1952
Board member as of 6 June 2014
Main position: Board work



Päivi Nerg, Deputy Chair

M.Sc. (Agr. & For.), born in 1958
Board member as of 28 March 2018
Main position: Permanent Under-Secretary, The Ministry of Finance 2018-



Anu Hämäläinen

Master of Science (M.Sc.), Economics, born in 1965
Board member as of 6 April 2016
Main position: Wärtsilä Corporation, Vice President, Group Treasury and Financial Services & Support



Sanna Syri

Doctor of Science in Technology, born in 1970
Board member as of 14 April 2015
Main position: Aalto University, Professor, Energy Technology and Energy Economics, School of Engineering 2010-



Esko Torsti

Lic.Pol., born in 1964
Board member as of 22 March 2012
Main position: Ilmarinen Mutual Pension
Insurance Company, Head of Non-listed
investments 2006-

Marina Louhija

LLM, born in 1968
Secretary of the Board
General Counsel, Fingrid Oyj

Executive management group



Jukka Ruusunen

Doctor of Technology, born in 1958
President & CEO since 2007
Member of the executive management group
since 2007, employed by Fingrid since 2007



Kari Kuusela

M.Sc. (Tech.), born in 1955
Executive Vice President since 2007,
Asset Management
Member of the executive management
group since 2005, employed by Fingrid
since 1997



Jussi Jyrinsalo

Licentiate in Technology, born in 1964
Senior Vice President since 2005, Customers and
Grid Planning
Member of executive management group
since 2005, employed by Fingrid since 1997



Marina Louhija

LLM, General Counsel since 2013, legal and
administrative affairs, born in 1968
Member of the executive management group
since 2017, employed by Fingrid since 2009
Secretary of the company's Board of Directors
since 2013



Tiina Miettinen

M.Sc (Politics), M.Sc (Knowledge Management), born in 1963
Senior Vice President since 2013,
HR and communications
Member of the executive management group since 2013, employed by Fingrid since 2007



Jan Montell

M.Sc. (Finance), born 1968
Chief Financial Officer (CFO), since 2013
Member of the executive management group starting since 2013



Reima Päivinen

M.Sc. (Tech.), born in 1958
Senior Vice President since 2005,
Power System Operations
Member of the executive management group since 2005, employed by Fingrid since 1997



Asta Sihvonen-Punkka

Licentiate in Economics, M.For, born in 1962
Senior Vice President since 2016,
Markets
Member of the executive management group since 2016, employed by Fingrid since 2016



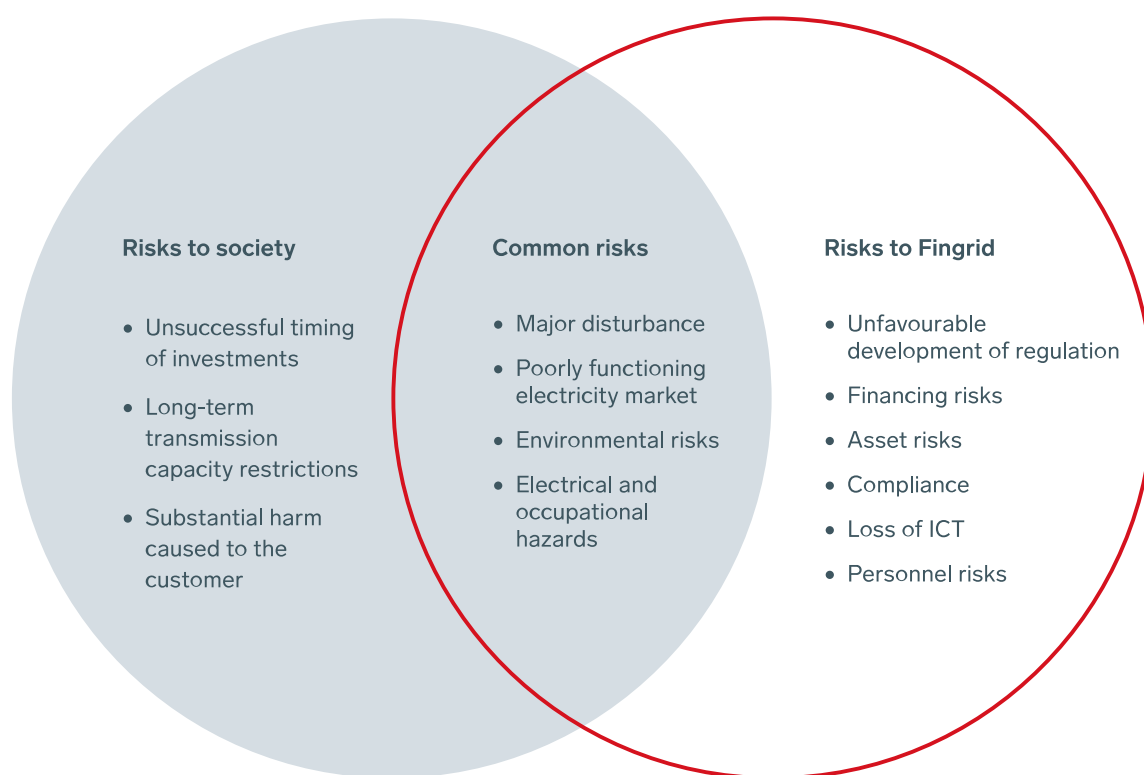
Kari Suominen

M.Sc. (Tech.), MBA, born in 1964
CIO since 2013, ICT
Member of the executive management
group since 2013

Foremost uncertainty factors and risks

Since Fingrid plays a significant role in Finnish society, the impact of risks is assessed from both the company's and society's perspective. The following have been identified as strategic risks, either for society, for Fingrid or for both:

Foremost uncertainty factors and risks to Fingrid and society



Risks to society and Fingrid

Major disturbance

One of the company's biggest business risks and the biggest risk, where society is concerned, is a major disturbance related to the functioning of the power system. Extensive disturbances to the power system can be caused by a technical malfunction, an unexpected weather event, an accident or vandalism. A major disturbance can result in a situation where most of the grid is out of power, which paralyses society's functions and causes major damage to the economy. We have prepared for a major disturbance through grid investments and reserve power plants and by keeping our IT systems up-to-date. The contingency plans enable continued grid operations at all times in the event of one major disturbance and, if necessary, two simultaneous disturbances. Alternative

methods for restoring the grid voltage are continuously developed. The key components of disturbance management include accurate real-time control of the power system, clear roles and responsibilities of Fingrid's personnel in the event of a major disturbance, and securing the competence of the personnel and deputy systems. Operations control has been continuously developed, and contingencies are planned for various crisis situations. The potential duration of a major disturbance is kept in check through regular major disturbance exercises and measures to secure effective crisis communications. Fingrid limits its financial claims liability in all cases of disturbances through contracts and insurance policies.

Poorly functioning electricity market

A poorly functioning electricity market is a significant risk for Fingrid and society. From Fingrid's point of view, the risk may be realised if the electricity transmission capacity is not sufficient for the markets' needs. Extended limitations on transmission capacity can also result in significant harm to the markets. The reasons that may lead to the materialisation of this risk also include a lack of regional energy policy co-ordination and market-distorting state subsidies. Poorly functioning electricity markets directly reflect on Fingrid's operations by making it increasingly difficult to balance demand and supply. The risk is mitigated by long-term development of the transmission grid according to the electricity markets' needs and by ensuring the continuous operational efficiency of the grid through effective maintenance management. Other means for managing this risk include the development of market rules and operational practices in international co-operation.

Environmental risks

The most significant environmental risks for society and Fingrid include changes in the regulations on electromagnetic fields, and environmental damage, such as accidents with work machinery and worksite equipment containing chemicals. Other recognised risks include changes in the requirements of the environmental legislation resulting in deviations from the company's current practices, and potential impacts of ecoterrorism. The potential impacts include rising costs, delays in investment projects, injury or death of personnel, damage to the environment, and reputation risks. The risks are managed by determining the investment needs proactively and sustainably and by assessing the environmental impacts in connection with investments. Responsible operating methods and continuous development of environmentally sustainable land-use and environmental policies mitigate the risk. Other means for managing the risk include securing environmental expertise, advocacy in the preparation of legislation, and providing correct information.

Serious workplace accidents

Serious accidents are linked to the electrical safety of the transmission grid, especially in connection with construction and repair work. Causes that can result in a realised risk include human error or an accident close to live components, an error occurring in construction work, damage or vandalism to live structures, and carelessness. Accidents can result in bodily harm or, in the worst-case scenario, death. Workplace accidents may cause local interruptions of electricity supply or interruptions of work. We constantly improve the safety of the transmission grid by promoting safe ways of working and developing, for example, technical solutions, work methods, skills and communications, and by increasing risk awareness.

Risks to society

Unsuccessful timing of investments

The potential reasons for incorrect timing of capital investments include changes in the overall economic situation and in electricity consumption and production, delays in the permit process, lack of resources, or a strike.

Changes in energy policy goals can affect the necessity of investments. The construction of cross-border transmission connections may be postponed if the neighbouring countries are not able to reach a mutual understanding. Unsuccessful timing may result in decreased system security and restrictions to the electricity market whereby the market fails to operate efficiently. Unsuccessful timing of investments may also make it more difficult to connect electricity production and consumption to the grid. Achieving the set climate goals and renewable energy goals also becomes more difficult. We carefully plan and build key projects to strengthen the cross-border transmission connections and the grid and consider the long-term effects on the market through regularly updated grid plans. This requires close co-operation with customers and the TSOs of the neighbouring countries. A predictive view of future transmission needs and the related uncertainties decreases the risk of failure in investment timing. Promoting grid investments on the EU-level and advocacy in grid planning in the Baltic Sea area also affects national grid investment decisions.

Long-term transmission capacity restrictions

The reasons for drawn-out transmission capacity restrictions include technical failures or system security problems. Dysfunctionality of the power system results in inefficiencies and decreased system security. Restrictions and outages in power transmission may cause regional price differences and financial harm to customers and society. The risks are managed through co-operation between the TSOs of neighbouring countries. System security can be improved by developing the terms of grid connection and by adopting the EU grid codes. Effective utilisation of technical best practices and building a third cross-border transmission connection to Sweden will mitigate transmission capacity problems.

Major harm to customers

A problem or error in the production of a service or the functioning of technology can cause significant harm to a customer. A problem or error resulting from the failure of Fingrid's operations or technology may cause harm to customers. The risk is managed through excellent and reliable customer service. The means for ensuring well-functioning co-operation include holistic development of the customer operations model, effective communication of the company's Code of Conduct and policies, and continuous customer engagement.

Risks to Fingrid

Unfavourable development of regulation

Fingrid's operations are subject to official regulation and supervision by the Energy Authority. The risks related to unfavourable development of regulation include negative development in the EU's grid codes, more stringent financial or other regulation, an official decision that prevents Fingrid from reaching its goals, or a serious error on the company's part concerning its obligations. Financial regulation directly impacts shareholder value, financing and credit ratings. Regulation related to the environment, Fingrid's operations or technology may impede the company's basic mission or construction of transmission lines. We aim to establish effective co-operation and interaction models with stakeholders and to contribute actively to the reports and working groups of authorities and to increase understanding of grid operations. The means for diminishing unfavourable development of regulation include active advocacy, and open interaction and communication with stakeholders.

Financing risks

Fingrid sees financing risks in events such as the realisation of the interest rate risk and extended low interest rates on fixed income markets, which bring down the WACC (Weighted Average Cost of Capital). Another risk in our view is a situation where the company cannot obtain debt financing or the price of debt financing increases

substantially on the debt and money markets due to an extended disruption. The realisation of counterparty risks is a genuine possibility with derivatives or direct investments, and a defaulting customer, for example, may cause the realisation of operational credit risks. Financing risks also include interruptions in payment transactions. The impacts from the above risks manifest themselves in the decrease in the allowable earnings resulting from the lower WACC, increased financing costs or weaker solvency. Further impacts include delayed investments or weaker development of shareholder value. The refinancing risk is offset by efforts to keep the company's credit rating high and by creating a stable maturity profile for the debt programme. Fingrid obtains debt capital diversely and from various sources. Liquidity is managed by obtaining a sufficient amount of low-risk financial assets, by issuing commercial papers, and with overdraft facilities. Solvency is secured with long-term committed credit lines and revolving credit facilities. Even cash flow is managed by creating flexibility in the costs of investment projects. The counterparty risk related to obligations of parties having a contractual relationship with Fingrid is limited contractually, by defining limits and by regularly monitoring the financial position of the counterparties. Fingrid's financing risks are described in more detail in sections 6.2 and 6.3 of the consolidated financial statements (IFRS).

Asset risks

Asset risks refer to the risk of major damage to Fingrid's assets, such as irreparable failures. A permanent failure of the transmission grid, a reserve power plant or a submarine cable may cause extensive damage. Potential causes of damage also include unanticipated events such as violent storms or other forces of nature, vandalism, protests by stakeholders or war. The impacts can include extensive physical damage, disruptions in the grid, or increased complexity in or inability to carry out damage control or maintenance management. This could result in significant disruption to the electricity markets. Asset risks can be managed through grid safety planning, geographical diversification, preventive maintenance management, detailed specifications for and quality control of projects and maintenance management, and by using proven technology and suppliers with extensive expertise. The risk can also be managed by obtaining insurance based on the replacement value for key grid components, such as the transmission lines, transformers, submarine cables and reserve powerplants.

Compliance

Compliance breaches may be the result of ignorance of or disregard for the applicable legislation or regulations. The risk exists that the company fails to recognise the requirements of changed regulations. The most significant recognised corporate responsibility risks involving major implications are related to the following: REMIT, Market Abuse Regulation (MAR), GDPR (General Data Protection Regulation), obligations related to debt programmes (e.g. sanctions, money laundering and corruption), and public procurement legislation. Non-compliance can result in loss of reputation or internal trust. The risks are managed by behaviour in compliance with the requirements and by developing a corporate culture that always takes into account good governance practices and responsible behaviour.

Serious ICT disturbance

ICT-related risks can be realised through a failure in a critical ICT system or a breach of data security. Potential causes of ICT risks include a serious accident in an ICT facility, extended interruption in data communications or an error in the maintenance of the ICT environment. The potential impacts of ICT risks include a disruption in the grid, and increased difficulty or complete failure in accomplishing successful disruption management. This could result in significant disruption to the electricity markets or Fingrid's reputation. The risks are managed by maintaining sufficient and solid in-house ICT expertise. The ICT environment is secured in terms of hardware facilities, data communications and systems. The critical systems have dedicated continuity plans, instructions and testing routines to ensure continued operations in exceptional circumstances. The impact of cyber-security threats on Fingrid's operations is monitored continuously and proactively, and any necessary preventive measures are taken early on. Solidifying Fingrid's ICT assets and expertise in the selected technologies is a part of the

company's risk management policies.

Personnel risks

Fingrid's personnel risks concern the narrowing down of employees' expertise within the company specifically and in the industry in general. Personnel risks additionally include intentional unethical or unlawful behaviour. The means for limiting personnel risks include long-term personnel planning, training programmes targeted at personnel and high-quality stakeholder communication. Developing deputy systems and occupational safety is part of Fingrid's HR planning. Proactive recruiting to replace retiring key personnel, and creating a positive employer image also help to mitigate personnel risks. Increasing the competence of the work-force is a common effort of the entire energy industry.

Corporate Governance Statement

1. General

Fingrid is a public limited company whose governance is based on the Finnish Limited Liability Companies Act, the Market Abuse Regulation, the Securities Market Act, its articles of association and its shareholder agreements. Fingrid complies in its operations with the 2015 Corporate Governance Code for Finnish listed companies (“Corporate Governance Code”) published by the Securities Market Association because the company has issued bonds listed on the London Stock Exchange. This Corporate Governance Statement has been drawn up in accordance with the recommendations of the Corporate Governance Code. Fingrid’s shares are not subject to public trading.

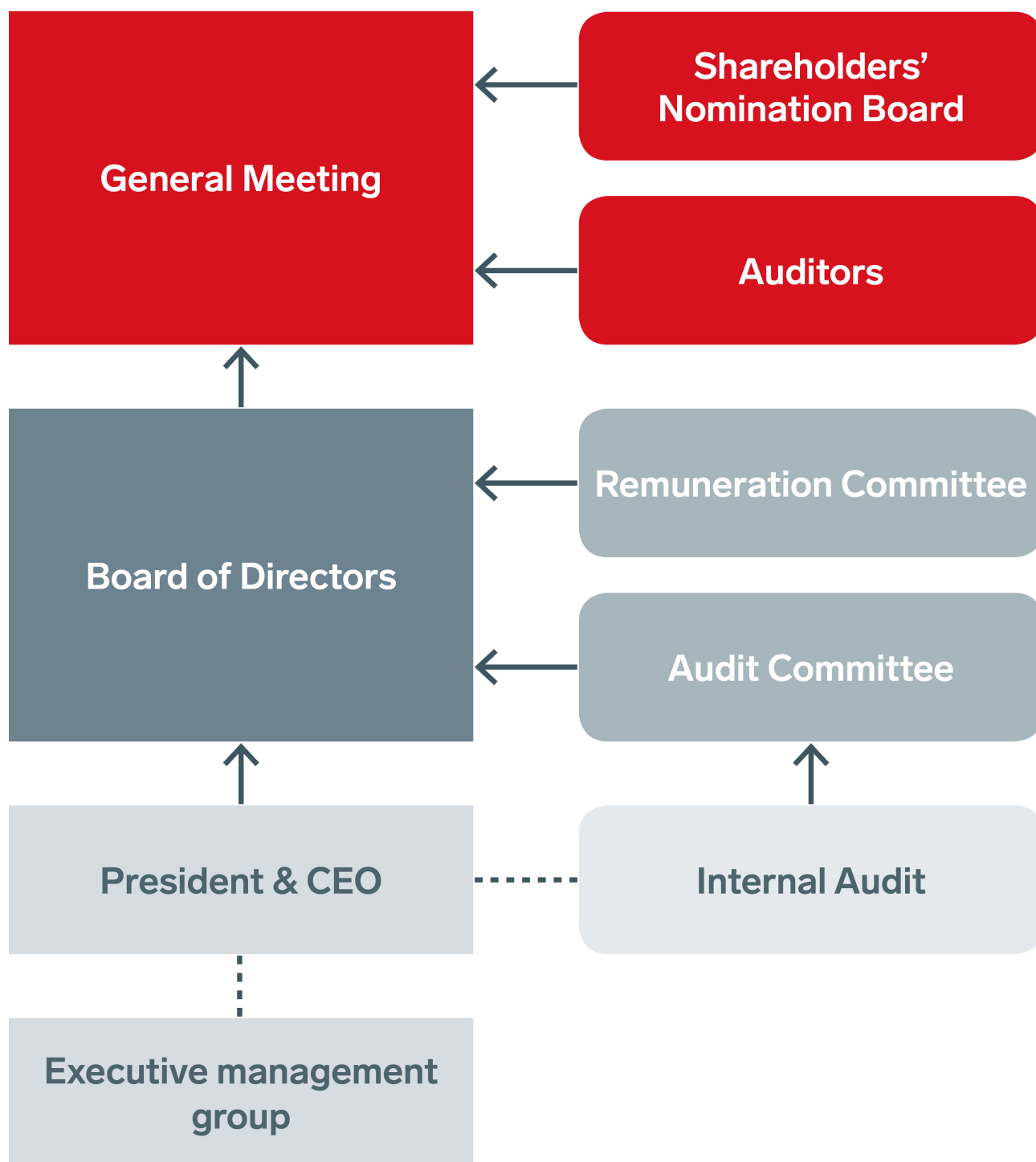
The company’s activities are primarily regulated by the Electricity Market Act. The Electricity Market Act stipulates that Fingrid’s governance and its grid operations must be independent of the production and sale of electricity and natural gas. Fingrid’s owners must ensure that they keep separate decision-making which concerns Fingrid and decision-making concerning companies which practice the production or sale of electricity or natural gas. The confirmed regulatory methods allow the Energy Authority to monitor the reasonableness of the prices of Fingrid’s electricity transmission operations, as well as its capabilities to make sufficient investments in its grid and cover its costs. The Energy Authority confirms the allowed earnings for each regulatory period. The current regulatory methods for the regulatory periods 2016–2019 and 2020–2023 entered into force on 1 January 2016.

Fingrid’s corporate governance statement has been drawn up in accordance with the reporting requirements of the Corporate Governance Code. The statement was drawn up as a separate report from the annual report and has been processed by Fingrid’s Board and the Board’s audit committee. Fingrid’s auditing organisation PricewaterhouseCoopers Oy has verified that this statement has been provided and that the description of the internal control and risk management systems pertaining to the financial reporting process is consistent with the financial statements of the company.

The Finnish Corporate Governance Code is available in full at www.cgfinland.fi.

2. Description of Fingrid's administrative bodies

Fingrid's administrative system is described below, and the tasks of the administrative bodies are described later in sections 3-7.



3. General meeting

The general meeting is the company's supreme decision-making body. Each shareholder has the right to participate in the general meeting and to exercise their right to vote. The shares of the company are divided into Series A shares and Series B shares. Series A shares confer three (3) votes each at the general meeting and Series B shares one (1) vote each. When electing members of the Board of Directors, Series A shares confer ten (10) votes each and Series B shares confer one (1) vote each.

Decisions at the general meeting are primarily made with a simple majority vote. Certain changes to the articles of association nevertheless require support from a qualified majority. In addition, Series B shareholders have the right to elect one (1) member of the Board. Up-to-date information on the total number of shares and voting rights in each share class is published on Fingrid's website.

The general meeting adopts the financial statements, decides on the distribution of profits and elects an auditor and the company Board, elects a Chair and Deputy Chair of the Board and decides on discharging members of the Board and the President & CEO from liability. In addition, the general meeting decides on the remuneration paid to the Board of Directors and its committees. The annual general meeting is held once a year, no later than in June. An extraordinary general meeting shall be held if the Board so decides or if the Limited Liability Companies Act (Osakeyhtiölaki, 324/2006) so requires.

The general meeting is convened by the company Board. In accordance with the articles of association, invitations to general meetings and other notifications shall be sent at the earliest four (4) weeks and at the latest two (2) weeks before the meeting as a registered letter to each shareholder to the address entered in the share register of the company.

The notice of the general meeting and the following information is published on the company website at least 21 days before the general meeting:

- The documents to be submitted to the general meeting
- Board proposals for decisions
- Proposals concerning the composition and remuneration of the Board
- The methods complied with while preparing the proposal for the election of the Board
- Procedure according to which the Board members are to be appointed in compliance with the articles of association
- Information on the proposed Board members and an assessment of their independence
- Proposal for the election of financial auditors
- Other proposals made by the shareholders and to be addressed by the general meeting

The company publishes the minutes of the general meetings on its website no later than two (2) weeks after the meeting.

As a rule, Fingrid's President & CEO, Chair of the Board and other Board members, together with the auditor, are present at the general meeting. Also, a person proposed for the first time as a Board member shall participate in the general meeting that decides on his or her election unless there are well-founded reasons for the absence.

Fingrid's annual general meeting was held on 28 March 2018. The minutes of the annual general meeting have been published on the company's website.

3.1. Shareholders' Nomination Board

Fingrid's annual general meeting held on 28 March 2018 decided to establish a Shareholders' Nomination Board. The Nomination Board's tasks are defined in the Nomination Board's rules of procedure approved by the general meeting and they are in line with the Corporate Governance Code's recommendation 18b. The Nomination Board's task is to prepare proposals concerning the appointment and remuneration of the members of the Board of Directors for the annual general meeting and to assess the operations of the Board of Directors. The Nomination Board was established to operate until further notice.

The Nomination Board shall include three (3) representatives of the Company's shareholders and the Chairman of the Board of Directors, who shall serve as an expert member in the Nomination Board. The three (3) shareholders with the largest share of the votes have the right to appoint one (1) member each to the Nomination Board. If a shareholder does not wish to use their right to appoint a member, the right shall be transferred to the next largest shareholder who would otherwise not be entitled to appoint a member.

The Nomination Board must give its proposal to the company's Board of Directors annually, and no later than the 31st of January preceding the next annual general meeting.

The members of the Shareholders' Nomination Board as of 28 March 2018 were Helena Tarkka, Director-General, Ministry of Finance, nominated by the State of Finland; Jukka Reijonen, Head of Private Equity, Debt and Infrastructure, Ilmarinen, nominated by Mutual Pension Insurance Company Ilmarinen; and Erkkö Ryyänen, Director, OP, nominated by Aino Holdingyhtiö Ky. The term of office of the Nomination Board's members ends at the closing of the Annual General Meeting following the appointment of the member.

In 2018, the Nomination Board convened two (2) times and the meeting attendance percentage was 100. The Nomination Board prepared a proposal on the number of members and the composition of the Board of Directors to be submitted to the Board of Directors and evaluated the activities of the Board of Directors.

4. Board of Directors

Fingrid's annual general meeting elects a Board of Directors once per year. In accordance with the articles of association, the Board of Directors consists of five (5) members. Shareholders who hold Series B shares in the company are entitled to elect one (1) member of the Board through a simple majority decision in accordance with the quantity of Series B shares held. Individuals who are Board members in a company which practices the sale or production of electricity or natural gas, or in a body which represents such a company, may not be elected as a member of the Board. The general meeting elects one (1) Board member to serve as the Chair of the Board and one (1) member to serve as the Deputy Chair of the Board. The Board is convened by the Chair or Deputy Chair of the Board.

The Board constitutes a quorum when more than half of its members are present, and one (1) of these is the Chair or the Deputy Chair. The decisions of the Board of Directors are made through a simple majority on the basis of the Board members present in the meeting. New Board members are familiarised with the company's operations. A Board member's period of office expires at the closing of the next annual general meeting following his or her election.

4.1. Duties of the Board of Directors

The tasks and responsibilities of Fingrid's Board are set out by the Limited Liability Companies Act and other applicable legislation, as well as the articles of association. The Board of Directors is responsible for the administration and appropriate organisation of the operations of the company. The Board of Directors makes sure that the company adheres to the relevant rules and regulations, articles of association of the company, and guidelines provided by the annual general meeting. The primary duties and principles of the Board of Directors are also specified in the Board's working order, according to which the Board:

- Decides the company strategy.
- Approves the annual action plan and budget on the basis of the strategy and supervises its implementation.
- Approves Fingrid's management system and other business principles to be determined on the Board level.
- Confirms the values to be followed in Fingrid's operations.
- Approves the total amount of purchases and capital investments and its distribution on the various sectors, and decides separately on budgeted purchases, capital investments and sales in excess of 10 million euros, and on purchases, capital investments and sales outside the budget in excess of 2 million euros.
- Reviews and approves the audit plan, financial statements, the half-year report and the related stock exchange releases, as well as the annual review.
- Addresses and decides on the proposals to be presented to the annual general meeting in accordance with the regulations of the Limited Liability Companies Act and the recommendations in the Corporate Governance Code.
- Annually reviews the risks relating to the company's operations and the management of such risks.
- Decides on the operating model and annual plan of the internal audit and reviews the internal audit reports.
- Addresses the company's corporate social responsibility report at least once a year.
- Appoints and dismisses the President & CEO of the company and his/her deputy.
- Approves the basic organisation and composition of the executive management group of the company.
- Decides on appointments to the boards of the company's subsidiaries and associated companies and addresses the nominations for the CEOs of subsidiaries and associated companies.
- Decides on the principles of the remuneration system and on the remuneration of the President & CEO and the executive management group.

- Holds part of the meeting at least once a year without the presence of executive management.
- Holds part of the meeting at least once a year with the auditor without the presence of executive management.
- Assesses its activities, work methods and efficiency once a year.
- Appoints from amongst its own members the audit committee and remuneration committee.
- Appoints an advisory committee whose task is to act as a link between the Board and the company management and customers. The advisory committee has 10–14 members who represent electricity producers, transmitters, sellers, users and other electricity market actors. The term of office is three (3) calendar years. The Board confirms the advisory committee's regulations.
- Addresses other business which the Chair of the Board, a Board member or the President & CEO has proposed for inclusion in the agenda.

4.2. Board of Directors in 2018

The Board of Directors in 2018 was represented by Juhani Järvi (Chair), Juha Majanen (Deputy Chair) until 28 March 2018, Päivi Nerg (Deputy Chair) as of 28 March 2018, Anu Hämäläinen, Sanna Syri and Esko Torsti.

Of the Board's members, Juhani Järvi, Anu Hämäläinen and Sanna Syri are independent from the company and its significant shareholders; the other members are independent from the company. The company's President & CEO, CFO and general counsel, who is the Board's secretary, participate in Board meetings. Board members do not own shares in the company.

The Board convened [12] times over the course of the year and approved the financial statements and annual review for 2017, and decided on, among other things, Fingrid's new strategy, the budget and annual action plan for 2019, the grid service pricing for 2019, new investments in the grid and ICT, the principles of risk management and continuity management, the remuneration of executives and all significant policies affecting the company. In its meetings, the Board additionally addressed how the third alternating current (AC) connection between Finland and Sweden and the Datahub project are progressing, as well as the proposal by the Norwegian and Swedish TSOs concerning balance management in the real-time markets.

Fingrid's Board of Directors 2018

Name	Year of birth	Education	Main position and independence	Attendance at Board meetings	Attendance at committee meetings
Chair Juhani Järvi	1952	M.Sc. (Finance)	Board work, independent from the company and significant shareholders	12/12	Audit committee 5/ 5 Remuneration committee 3/ 3
Deputy Chair Juha Majanen	1969	LL.B.	Ministry of Finance, Budget	1/12 (until 28 March)	Remuneration committee 1/ 3 (until 28

			Counsellor, Deputy Head of Budget Department, independent from the company, non- independent of significant shareholders	2018)	March 2018)
Deputy Chair Päivi Nerg	1958	M.Sc. (Agr.&For.)	Permanent Under- Secretary, The Ministry of Finance, independent from the company, non- independent of significant shareholders	10/12	Remuneration committee 2/ 3 (as of 28 March 2018)
Anu Hämäläinen	1965	M.Sc. (Finance)	Wärtsilä Corporation, Vice President, Group Treasury and Financial Services & Support, independent from the company and significant shareholders	12/12	Audit committee 4/ 5 (as of 28 March 2018) Remuneration committee 1/ 3 (until 28 March 2018)
Sanna Syri	1970	D.Sc. (Technology)	Aalto University, Professor, independent from the company, independent from the significant shareholders	12/12	Audit committee 1/ 5 (until 28 March 2018) Remuneration committee 2/ 3 (as of 28 March 2018)
Esko Torsti	1964	Lic. Pol.	Ilmarinen Mutual	12/12	Audit committee 5/

			Pension Insurance Company, Vice President, independent from the company and non-independent from significant shareholders		5
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4.3. Diversity of the Board of Directors

The Board of Directors' diverse composition supports the accomplishment and development of the goals and targets set by the company for its operations. An aim of the company is for all Board members to have adequate and mutually complementary experience and expertise in the areas essential for both the operations and societal role of the company. Fingrid additionally strives to assess the composition of the Board in terms of age and gender and to comply with the gender equality targets recommended by the state ownership steering. The proposal for the composition of the Board of Directors is prepared by the Nomination Board, which includes three (3) representatives of the Company's shareholders and the Chairman of the Board of Directors, who shall serve as an expert member in the Nomination Board.

Fingrid Board members possess wide-ranging business and management expertise, also outside of Finland. The sectors and areas of expertise represented in the Board include industry, energy sector, financing and accounting as well as state administration. Sixty per cent of the Board members are female and 40 per cent male. The ages of the Board members range between 48 and 67 years.

5. Board committees

The Board has two (2) committees: the audit committee and the remuneration committee. The Board approves the committees' working orders, which are regularly updated. The Board appoints members of the committees from amongst its own members. Each committee has at least three (3) members. The requirements of the Corporate Governance Code are complied with when appointing members of the committees.

The committees appointed by the Board assess their operations once a year.

5.1. Audit committee

The audit committee is appointed by the Board of Directors and it assists the Board. The Board has specified the duties of the audit committee in its working order in accordance with recommendation 16 of the Corporate Governance Code, in addition to which the audit committee should also assess the audit plans of the auditor and internal auditor, review the auditor's and the internal audit reports, supervise compliance with legislation (incl. requirements set in the EU's Audit Regulation) and with the governance principles set by the Board as well as the financial reporting process and prepare the process for the selection of the auditor.

The Audit Committee consisted of Esko Torsti (Chair), Juhani Järvi, Sanna Syri (until 28 March 2018) and Anu Hämäläinen (as of 28 March 2018). The committee convened five (5) times in 2018. The President & CEO, the CFO and general counsel participated in the committee's meetings. In its meetings, the audit committee addressed issues such as the draft half-year report, the auditor's reports, the internal audit's reports on the key observations on the company's data security, investment management and continuity management audits, the principles of internal control and risk management, and the corporate governance statement. The committee additionally prepared matters up for decision by the Board concerning the company's financial reporting and bond programmes.

5.2. Remuneration committee

The remuneration committee is appointed by the Board of Directors and it assists the Board. The Board has specified the duties of the remuneration committee in its working order in accordance with recommendation 17 of the Corporate Governance Code. Accordingly, the remuneration committee, among other things, prepares for the Board of Directors the principles of the remuneration system applied to the executive management and other personnel. The committee also prepares for the Board, on the basis of accepted principles, a proposal concerning the remuneration to be paid to the President & CEO and other members of the executive management group. The committee furthermore prepares matters concerning the election of the President & CEO and members of the executive management group and successor planning.

The remuneration committee consisted of Juhani Järvi (Chair), Anu Hämäläinen (until 28 March 2018), Juha Majanen (until 28 March 2018), Päivi Nerg (as of 28 March 2018) and Sanna Syri (as of 28 March 2018). In 2018, the remuneration committee convened three (3) times. The President & CEO and the Senior Vice President, HR and Communications, participated in the committee's meetings. Topics discussed in the meetings included the remuneration systems for the executive management group and the President & CEO as well as management successor planning and deputising arrangements.

6. President & CEO

The President & CEO, in compliance with the Limited Liability Companies Act, attends to the administrative routines of the company in accordance with guidelines provided by the Board of Directors. In accordance with the Limited Liability Companies Act, the President & CEO is responsible for ensuring that the company's bookkeeping complies with legislation and that financial management is reliably organised. Assisted by the executive management group, the President & CEO is responsible for the operations of the company and the implementation of the Board of Directors' decisions and serves as the Chair of the Board of the subsidiaries. The President & CEO is not a member of the company's Board of Directors.

Jukka Ruusunen (D.Sc. Tech., born 1958) has acted as Fingrid's President & CEO since 2007. He does not own Fingrid shares nor does he have share-based rights in Fingrid or in a company that belongs to the same group as Fingrid.

7. Company management

Fingrid holds key responsibility for the transmission of electricity in the main grid in Finland and thereby for the functioning of society as a whole. In its operations, Fingrid complies with the applicable legislation and international conventions as well as the principles approved by the Board of Directors and the policies approved by the President & CEO and discussed by the executive management group. Fingrid's Code of Conduct is published on the company's website.

The primary duty of Fingrid's executives is to ensure that the company's basic tasks are managed efficiently. The operations are based on meeting the needs of customers and society, taking into account the obligations laid down in the articles of association, shareholder agreements, electricity system license and Electricity Market Act.

Fingrid's operations are managed in a matrix of four perspectives. These are: customers and society, finance, internal processes (adequacy of the transmission system, system operation and promoting the electricity market), and personnel and expertise.

The operational organisation has been organised into functions. The heads of the functions make up the executive management group of the company. The Board of Directors approves the basic organisation of the company on the level of functions.

Significant special tasks are separated and organised as necessary in a separate company. Such tasks include e.g. special electricity market services, such as the management of peak load capacity and taking care of the guarantees of origin for electricity, which are carried out by Finextra Oy, a wholly owned subsidiary of the parent company Fingrid. Another subsidiary wholly owned by the parent company Fingrid, Fingrid Datahub Oy, is in charge of providing the electricity markets' centralised data exchange service and related services to electricity market parties and is responsible for the management of the registered information required by the electricity market and the development of these functions.

7.1. Executive management group

The executive management group supports the President & CEO. Its tasks are:

- To define, communicate, implement and follow up the strategy.
- To draw up an action plan and budget.
- To implement financial control and risk management.
- To implement resource planning, procurement and control.
- To implement external communications and stakeholder dialogue.
- To prepare matters for the Board of Directors.
- To develop the work of the executive management group.

Each member of the executive management group is responsible for the day-to-day business operations of the organisation in his or her area of responsibility and for implementing operative decisions.

In addition to Jukka Ruusunen, President & CEO, the executive management group in 2018 consisted of:

- Kari Kuusela, M.Sc. (Tech.), born in 1955, Executive Vice President, asset management,
- Jussi Jyrinsalo, Licentiate in Technology, born in 1964, Senior Vice President, Customers and Grid Planning
- Marina Louhija, LL.M., born in 1968, General Counsel, Legal and Administrative Affairs
- Tiina Miettinen, M.Sc. (Politics), M.Sc. (Knowledge Management), born in 1963, Senior Vice President, HR

and Communications

- Jan Montell, M.Sc. (Finance), born in 1968, Chief Financial Officer (CFO)
- Reima Päivinen, M.Sc. (Tech.), born in 1958, Senior Vice President, Power System Operations
- Asta Sihvonen-Punkka, Licentiate in Economics, M.For, born in 1962, Senior Vice President, Markets
- Kari Suominen, M.Sc. (Tech.), MBA, born in 1964, Chief Information Officer (CIO).

The members of the executive management group do not own Fingrid shares nor do they have share-based rights in Fingrid or in a company that belongs to the same group as Fingrid.

The executive management group convened 15 times in 2018.

8. Advisory committee

Fingrid's Board of Directors appoints an advisory committee with 10 to 14 members to serve as a link between the company, its customers and other stakeholders. The advisory committee is an advisory body which provides perspectives on the company's grid operations and customer services from a customer point of view. The advisory committee widely represents electricity producers, transmitters, sellers, users and other electricity market actors.

The advisory committee is set out in Fingrid's articles of association. The Board annually confirms the regulations concerning the work of the advisory committee. The term of office of the members of the advisory committee is three years. The President & CEO and Vice President responsible for the company's customer relationships participate in the advisory committee's meetings.

The composition of the advisory committee is set out on the company's website.

The advisory committee convened four times during the year. The topics discussed in the advisory committee's meetings included, among other things, the power system's future scenarios, Nordic imbalance settlement and Fingrid's activities in the international environment. In several meetings, one of the topics discussed was a study on the introduction of a capacity-based consumption fee in grid service pricing.

9. Internal control and risk management

9.1. Internal control and risk management principles

Fingrid's internal control is a permanent component of the company's operations and addresses all those operating methods and procedures whose objective it is to ensure

- effective and profitable operations that are in line with the company's strategy,
- the reliability and integrity of the company's financial and management information,
- that the company's assets are protected,
- that applicable legislation, guidelines, regulations, agreements and the company's own governance and operating guidelines are complied with, and
- a high standard of risk management.

Risk management is planned as a whole, with the objective of comprehensively identifying, assessing, monitoring and safeguarding the company's operations, the environment, personnel and assets from various threats and risks. Due to the nature of the company's core mission, risks are also assessed from the perspective of society in general.

Continuity management is a part of risk management. Its objective is to improve the organisation's capacity to prepare and to react in the best possible way should risks occur, and to ensure the continuity of operations in such situations.

Further information on internal control, risk management and the foremost risks and factors of uncertainty is available on the company's website and in the Board of Directors' annual review.

9.2. Arrangement of internal control and risk management and distribution of responsibility

9.2.1. Board of Directors

The company's Board is responsible for organising internal control and risk management, and it approves the principles of internal control and risk management every two years or more often, if required. The Board defines the company's strategic risks and related management procedures as part of the company's strategy and action plan, and monitors their implementation. The Board decides on the operating model for the company's internal audit. The Board regularly receives internal audit and financial audit reports as well as a status update at least once a year on the strategic risks and continuity threats relating to the company's operations and their management and realisation.

9.2.2. Line management and other organisation

Assisted by the Executive Management Group, the President & CEO is responsible for executing and steering the company's governance, decision-making procedures, control and risk management, and for the assessment of strategic risks and continuity threats at the company level, and their related risk management.

The heads of functions are responsible for the practical implementation of the governance, decision-making procedures, controls and risk management for their areas of responsibility, as well as for the reporting of deviations and the sufficiency of more detailed guidelines. Directors appointed in charge of the threats to continuity management are responsible for drawing up and maintaining continuity management plans and guidelines, and for arranging sufficient training and practice.

The CFO is responsible for arranging procedures, controls and monitoring at the company level as required by the harmonised operating methods of internal control and risk management. The company's general counsel is responsible at the company level for assuring the legality and regulation compliance of essential contracts and internal guidelines, taking into account the company's interests, as well as for the procedures these require. Each Fingrid employee is obligated to identify and report any risks or control deficiencies she or he observes and to carry out the agreed risk management procedures.

9.3. Arrangement of internal control and risk management related to the financial reporting process

The internal control systems relating to the financial reporting process are part of a more extensive overall system of Fingrid's internal control.

9.3.1. Control environment of financial reporting process

The Group comprises the parent company Fingrid Oyj and its wholly owned subsidiaries Finextra Oy and Fingrid Datahub Oy. The associated companies are eSett Oy (holding 33.3%) and Nord Pool AS (holding 18.8%). The Group has no joint ventures.

The financial administration of the company is responsible for the Group's centralised financial reporting and for the internal control and risk management of financial reporting. The executive management group and those with budget responsibility as well as the heads of units and functions receive a monthly report of the financial situation. These reports include information on the proceeds, costs and capital investments in the relevant area of responsibility. In addition to financial accounting reports, the reporting covers comprehensive reports which contain business information. These are produced by means of cost accounting and the financial control system.

The interpretation and application of the standards governing financial statements are centralised at the Group's financial administration, which monitors the accounting standards (IFRS, FAS), maintains an account scheme, draws up internal guidelines for the financial statements, and is responsible for the financial reporting process. The process is documented and it specifies how, when and on what schedule the month-end accounts are drawn up.

Fingrid draws up the consolidated financial statements and the half-year report in accordance with IFRS reporting standards accepted by the European Union and in accordance with the Finnish Securities Market Act. The annual review and the financial statements of the Finnish companies included in the Group are prepared in accordance with the Finnish Accounting Act as well as the guidelines and statements of the Finnish Accounting Standards Board.

The internal control and risk management systems and procedures related to the financial reporting processes, described in more detail below, have been devised so as to make sure that financial reporting by the company is reliable, coherent and timely and that the financial reports published provide an essentially true and fair view of Fingrid's finances.

9.3.2. Roles and responsibilities of the financial reporting process

Fingrid's Board of Directors is primarily responsible for defining the principles of internal control and risk management related to financial reporting, and the Board makes sure that these principles are followed in the company. The Board reviews and approves the half-year report, the annual review and the financial statements. The audit committee assists the Board in this by monitoring the efficiency of the company's internal control, internal audit and risk management systems.

The finance department of the Group is responsible for developing the financial reporting process through means such as monitoring the development needs of controls related to financial reporting, by supervising the sufficiency and efficiency of these controls, and by making sure that external reporting is correct and up to date and that the regulations pertaining to reporting are followed.

The company's financial auditor and internal auditor carry out inspections relating to financial reporting in accordance with the plan approved by the Board.

9.3.3. Risk management, control procedures and monitoring of the financial reporting process

Controls pertaining to risk management are set throughout the Group, at all levels and units of the Group. Examples of the controls include internal guidelines, acceptance procedures and authorisations, cross-checking with cost accounting, matching, verifications, assessment of operative efficiency, securing of assets, and differentiation of tasks. The financial administration of the Group is responsible for the control structures relating to the financial reporting process.

The control of the budgeting process is based on the budgeting guidelines, with the financial administration of the Group being responsible for their specification, centralised maintenance, and for monitoring compliance with them. The principles are applied uniformly throughout the Group, and there is a common reporting system in use.

The monthly financial reporting to the executive management group together with the related analyses constitute the primary control and monitoring process in securing the efficiency and purposefulness of the functions and the accuracy of financial reporting. The analyses compare the realised proceed and cost components with the budget and to the previous year, and the budget is compared to the quarterly forecast. The monitoring of cash flow and capital investments is part of this process.

Verification of the accuracy of monthly reporting employs the company's financial control system, which the controllers and heads of units of the company can use to find essential errors and deviations. The accuracy of financial reporting is also ensured through good data security and data protection. The goal is to avoid risky work combinations wherever possible. User rights are checked regularly, and user rights are determined by the position of a person in the organisation. The databases used in the financial control system and accounting system are backed up regularly. The company has a data security manager who is responsible for the management and development of data networks and data security, as well as for providing personnel with guidance concerning data security matters.

Controls for the financial reporting processes are developed as part of internal control. Personnel is given training in how to monitor the correctness of the information produced by the financial reporting process of the company, concerning cost allocation, posting, acceptance procedures for invoices and receipts, as well as for budgeting and actual result follow-up.

The company's auditor and internal audit carry out regular inspections on the functionality of controls concerning the financial reporting process and on the accuracy of information.

10. Financial audit and internal audit

10.1. Financial audit

An authorised public accounting company selected by the general meeting acts as auditor for the company. The company’s financial auditor inspects the accounting, financial statements and financial administration for each financial period and provides the general meeting with reports required by accounting legislation or otherwise stipulated in legislation. The financial auditor reports on his or her work, observations and recommendations for the Board of Directors and may also carry out other verification-related tasks commissioned by the Board or management.

The annual general meeting of 2018 elected authorised public accountants PricewaterhouseCoopers Oy as the auditor of the company. Authorised public accountant Heikki Lassila serves as the company’s responsible auditor. The general meeting decided that the auditor’s fee and expenses are paid on the basis of a reasonable invoice accepted by the company.

Auditor’s fees, EUR 1,000	2018	2017
Auditing fees	89	68
Other fees	94	61
TOTAL	183	130

10.2. Internal audit

The Board of Directors decides on the operating model for the company’s internal audit. The internal audit acts on the basis of plans processed by the audit committee and approved by the Board. Audit results are reported to the object of inspection, the President & CEO, the audit committee and the Board. Upon decision of the Board, an internal audit outsourced to an authorised public accounting company acts within the company. From an administrative perspective, the internal audit is subordinate to the President & CEO. The internal audit provides a systematic approach to the assessment and development of the efficacy of the company’s risk management, monitoring, management and administrative processes and ensures their sufficiency and functionality as an independent party. The internal audit has the authority to carry out reviews and to access all information that is essential to the audit. Fingrid’s internal audit carries out risk-based auditing on the company’s various processes.

In 2018, Deloitte & Touche Oy served as Fingrid’s internal auditor and carried out a total of three (3) audits. The audits concerned the company’s compliance management, preparation of investment proposals and the implementation of the EU’s General Data Protection Regulation in the company. The total fees paid to Deloitte & Touche Oy for auditing tasks amounted to EUR 67,500.

11. Related party transactions

The Group's related parties include, in addition to the parent company Fingrid Oyj, subsidiaries Finextra Oy and Fingrid Datahub Oy, and the associated companies Nord Pool AS and eSett Oy, the shareholder entities listed in section 6.5 of the company's financial statements, and senior management and their related parties. The senior management is composed of the Board of Directors, the President & CEO, and the executive management group. Other related party transactions include transactions concluded with entities in which the State of Finland has a holding in excess of 50 per cent. Fingrid's related party transactions are accounted for in section 7.1 of the financial statements.

In the decision making concerning related party transactions, Fingrid sees to it that any conflicts of interest are taken into account, and no one included in the related parties or a representative of a related party participates in deciding on a related party transaction. Business with related parties is conducted at market prices. Fingrid maintains a list of its related parties.

12. Main procedures relating to insider administration

Fingrid complies with the Market Abuse Regulation (MAR), Nasdaq Helsinki Oy's insider guidelines as well as the UK's Financial Conduct Authority's (FCA) and the Financial Supervisory Authority's (FIN-FSA) up-to-date guidelines on the governance and management of insider information. Fingrid additionally has insider guidelines approved by the Board of Directors, which describe the key principles for insider issues to be applied within the company. The company's general counsel, Marina Louhija, is in charge of insider administration.

Fingrid's permanent insiders consist of the Board of Directors, President & CEO, members of the executive management group as well as any person considered to regularly have access, due to their duties, to insider information concerning Fingrid. Project-specific lists of insiders are drawn up as necessary; such lists include any persons in charge of preparations for the project who have access to insider information related to the project. Fingrid additionally applies a so-called extended closed window to the persons who participate in the preparation of the half-year report, management reviews and/or financial statements, including any external consultants and experts.

The lists related to Fingrid's insider administration are not public; only the person in charge of insider administration and his/her assistants have access to them.

According to Fingrid's insider guidelines, permanent or project-specific insiders and the persons under the extended closed window rules may not, on their own account or on the account of a third party, trade in Fingrid's financial instruments within thirty (30) days prior to the publication of Fingrid's financial statements release and the regularly published half-year report release and management reviews.

Remuneration statement

13. Arrangement of remuneration decision-making

The annual general meeting decides on the remuneration for Board members and the financial auditor. Fingrid's Board of Directors approves the remuneration for the President & CEO and the members of the executive management group, the remuneration systems for a given year, and the principles of remuneration for personnel.

14. Key remuneration principles at Fingrid

14.1. Remuneration and other benefits for the members of the Board of Directors

Each member of the Board is paid a fixed monthly fee and a meeting fee for each meeting that they have attended. The meeting fee is also paid for committee meetings. The members of the Board have no share or share-related remuneration schemes or supplementary pension schemes. Fingrid does not pay pension fees for the Board's remuneration.

14.2. Remuneration of the President & CEO

The service terms of the President & CEO have been specified in a separate President & CEO service contract which is approved by the Board of Directors. The retirement age and pension accrual of the President & CEO are determined in accordance with general pension legislation.

The total remuneration of the CEO consisted in 2018 of a fixed total salary, a one-year bonus scheme (max. 40 per cent of the annual pay for the earnings year), and a three-year long-term incentive scheme (max. 35 per cent of the annual pay for the earnings year). There is no share or share-based remuneration scheme or supplementary pension scheme in place for the President & CEO on behalf of the company.

The criteria for the President & CEO's one-year bonus scheme in 2018 were the company's results, customers' confidence, success in developing the electricity market, functionality of the workplace community, and leadership. An additional criterion was the realisation of a strategic project, i.e. success in developing the electricity market. The criteria for the long-term incentive scheme are system security, electricity market functionality and shareholder value. Corporate social responsibility is taken into account in both the year-long and long-term incentive schemes.

The mutual period of notice for the President & CEO is six months. If the company dismisses the President & CEO, an amount of money corresponding to nine months' fixed salary is paid to the President & CEO in addition to the salary for the period of notice.

14.3. Remuneration of executive management

The total remuneration of the members of the executive management group consisted of a fixed total salary, a one-year bonus scheme, and a three-year long-term incentive scheme. The maximum amount of the one-year bonus scheme was 20 per cent of the annual pay for the earnings year. The annual maximum amount of the long-

term incentive scheme was 25 per cent of the annual pay for the earnings year.

The criteria for the executive management’s one-year bonus scheme in 2018 were the company’s results, customers’ confidence, functionality of the workplace community, and leadership. The criteria additionally comprised the attainment of the key objectives of each member of the executive management group. The criteria for the long-term incentive scheme are operational reliability, electricity market functionality and shareholder value. Corporate social responsibility is taken into account in both the year-long and long-term incentive schemes.

There is no share or share-based remuneration scheme or supplementary pension scheme in place for Fingrid’s executive management group on behalf of the company.

14.4. Remuneration of the personnel

Personnel salaries comprised the basic salary determined according to the content of the task, competence, experience and results, an annual quality bonus that encourages the effective implementation of the strategy, and an incentive bonus to support personal performance. Remuneration was supplemented by other benefits and worktime flexibility organised by the company. Results which form the basis of quality bonuses are measured using annually defined company and function-level indicators. Incentive bonuses are paid for good performance as part of the daily management of personal performance.

The CEO-to-employee annual median income ratio in 2018 was 6:1, and the female-to-male annual median income ratio was 0.8:1.

15. Remuneration report

15.1. Board of Directors

The annual general meeting confirmed, on 28 March 2018, the following monthly fees for the Board members:

- Chair of the Board EUR 2,400
- Deputy Chair of the Board EUR 1,300
- Board members EUR 1,000

In addition, it was decided that Board members will be paid a meeting fee of EUR 600 for each meeting and committee meeting attended by the member. In 2018, the Board convened 12 times, the audit committee convened five times and the remuneration committee convened three times.

Fees paid to the Board of Directors for the financial year 2018 in total:

	On the Board in 2018	Fees total 2018**	On the board in 2017	Fees total 2017*
Chair Juhani Järvi	1.1.-31.12.	40,800	1.1.-31.12.	39,000
Deputy Chair Juha Majanen	1.1.-28.3.	5,100	1.1.-31.12.	24,000

Deputy Chair Päivi Nerg	28.3.-31.12.	15,600	-	-
Sanna Syri, Board member	1.1.-31.12.	21,000	1.1.-31.12.	19,200
Esko Torsti, Board member	1.1.-31.12.	22,200	1.1.-31.12.	20,400
Anu Hämäläinen, Board member	1.1.-31.12.	21,600	1.1.-31.12.	19,200

* Including monthly fees and meeting fees for meetings attended in 2018

15.2. President & CEO and executive management group

The table below indicates the salaries and benefits of Fingrid's President & CEO and other members of the executive management group in 2018:

	Salaries and benefits	Variable merit pay*	2018	2017
President & CEO	302,000	150,000	452,000	416,000
Executive management group	1,180,000	293,000	1,473,000	1,304,000
TOTAL	1,482,000	443,000	1,925,000	1,720,000

Stock exchange releases 2018

12 December 2018

Fingrid Oyj's financial reports in 2019

25 October 2018

Fingrid Group – Management's Review 1 January–30 September 2018: Excellent results

14 August 2018

Fingrid Group's Half-year report 1 January–30 June 2018

25 July 2018

Fingrid Oyj: Change to earnings guidance for 2018

26 April 2018

Fingrid Group – Management's Review 1 January–31 March 2018

28 March 2018

Resolutions of the Annual General Meeting of Fingrid Oyj

1 March 2018

Fingrid Group's Financial Statements Bulletin January–December 2017: The transmission reliability rate remained at an excellent level

Fingrid's stock exchange releases are published on the company's website



Annual review and financial statements

1 Report of the board of directors

Financial result

Fingrid's consolidated financial statements have been drawn up in accordance with the International Financial Reporting Standards (IFRS). Unless otherwise indicated, the figures in parentheses refer to the same period of the previous year.

Fingrid's consolidated financial statements have been drawn up in accordance with the same accounting principles as in 2017, taking into account the changes due to IFRS 9 and IFRS 15.

The Group's turnover was EUR 852.8 (672.0) million. Grid service income increased to EUR 423.2 (412.1) million, as a result of the growth in electricity consumption. Electricity consumption in Finland totalled 87.4 (85.5) terawatt hours during the year. The increase in imbalance power sales was partly the result of increased balance power prices and partly the result of the transfer of imbalance settlement to eSett Oy, following which the imbalance power sold to cross-border imbalance responsible parties is now reported as external turnover. Cross-border transmission income from the connection between Finland and Russia increased to EUR 35.5 (20.7) million, as a result of increased cross-border transmissions and the higher cross-border transmission tariff. The transmission tariff used in imports from Russia is based on the difference between Finland's and north-western Russia's area prices. Other operating income totalled EUR 10.8 (2.9) million. The increase in other operating income resulted from an EUR 8.0 million increase in the capital gains from the sale of fixed assets.

The Group's total costs amounted to EUR 659.0 (499.0) million. Imbalance power costs grew from the previous year's level, to EUR 320.0 (185.7) million, due to the increase in balance power prices and the above-mentioned transfer of imbalance settlement to eSett Oy. Loss power costs amounted to EUR 47.7 (47.5) million. The realised average price of loss power procurement was EUR 37.88 (37.62) per megawatt hour. The cost of reserves to safeguard the grid's system security increased to EUR 56.7 (51.5) million due to an increase in the procurements for the frequency regulating reserve. Depreciation totalled EUR 99.7 (96.9) million. Grid maintenance costs decreased to EUR 21.2 (24.5) million due to access control system updates carried out in 2017. Personnel costs amounted to EUR 32.2 (29.4) million, and EUR 3.6 (2.6) million was used for R&D projects.

Turnover and other operating income, € million

[1] *eSett Oy is a company owned jointly by the Finnish, Swedish and Norwegian transmission system operators, responsible for imbalance settlement in Finland, Sweden and Norway. Imbalance settlement transferred to eSett Oy on 1 May 2017.

Turnover and other operating income, € million				
	Jan-Dec/18	Jan-Dec/17	July-Dec/18	July-Dec/17
Grid service revenue	423.2	412.1	193.8	191.8
Sales of imbalance power	348.8	214.0	184.0	129.1

Cross-border transmission income	35.5	20.7	15.3	9.9
Peak load capacity income*	14.0	8.3	4.7	4.7
ITC income	13.1	8.6	7.8	4.8
Other turnover	18.2	8.2	10.4	5.6
Other operating income	10.8	2.9	10.4	5.6
Turnover and other income total	863.6	674.9	425.7	347.8

Costs, € million				
	Jan-Dec/18	Jan-Dec/17	July-Dec/18	July-Dec/17
Purchase of imbalance power	320.0	185.7	170.6	116.1
Cost of loss energy	47.7	47.5	22.3	26.2
Depreciation	99.7	96.9	50.4	48.4
Cost of reserves	56.7	51.5	27.1	26.6
Personnel costs	32.2	29.4	15.6	14.7
Maintenance management costs	21.2	24.5	13.2	14.9
Cost of peak load capacity*	13.7	8.0	4.6	4.6
ITC charges	13.8	13.0	7.2	6.4
Other costs	54.0	42.6	30.9	21.2
Costs total	659.0	499.0	342.0	279.1
Operating profit excluding the change in the fair value of commodity derivatives	204.6	175.9	83.7	68.7
Operating profit of Group, IFRS	241.6	184.8	91.2	81.0

* Peak load capacity income and costs are related to the securing of sufficient electricity supply during peak consumption hours in compliance with the Finnish Peak Load Capacity Act.

The Group's operating profit was EUR 241.6 (184.8) million. EUR 371 (8.9) of changes in the fair value of electricity derivatives and the currency derivatives related to capital expenditure and other operating expenses was recorded in operating profit. The Group's profit before taxes was EUR 229.0 (163.7) million. The biggest differences from the previous year are explained by changes in the market value of derivatives (EUR +34.9 million), the increase in grid transmission income and in cross-border transmission income (EUR +25.9 million in total), and the growth in other operating income (EUR +7.9 million). Profit for the financial year was EUR 183.2 (130.8) million. The equity ratio was 36.6 (37.8) per cent at the end of the year.

The parent company's turnover was EUR 844.6 (665.4) million, profit for the financial year EUR 194.6 (123.4) million and the distributable funds EUR 222.4 million.

By the company's own calculations, the result according to the regulatory model that governs grid operations

amounts to a surplus of around EUR 40 million for 2018.

Financing

The company's credit rating remained high, reflecting its strong overall financial situation and debt service capacity. The Group's net interest expenses on borrowings in 2018 were EUR 16.3 (17.1) million. The Group's net financial costs were EUR 15.2 (22.8) million. Change in the fair value of financial derivatives was EUR 6.7 million (−8.2).

Interest-bearing borrowings totalled EUR 1,059.6 (1,082.7) million, of which non-current borrowings accounted for EUR 771.5 (813.4) million and current borrowings for EUR 288.1 (269.3) million.

The company's liquidity remained good. Cash and financial assets on 31 December 2018 totalled EUR 85.3 (83.8) million. The company additionally has an undrawn revolving credit facility of EUR 300 million to secure liquidity (until 11 December 2022) and EUR 50 million in uncommitted overdraft facilities.

The counterparty risk arising from derivative contracts related to financing was EUR 14.3 (7.6) million. Fingrid's foreign exchange and commodity price risks were hedged.

Fingrid has credit rating service agreements with S&P Global Ratings (S&P) and Fitch Ratings (Fitch). The credit ratings valid on 31 December 2018 were as follows:

- S&P's rating for Fingrid's unsecured senior debt and long-term company rating at 'AA-' and the short-term company rating at 'A-1+', with a stable outlook.
- Fitch's rating for Fingrid's unsecured senior debt at 'AA-', the long-term company rating at 'A+', and 'F1' for the short-term company rating, with a stable outlook.

Capital expenditure

Fingrid's total capital expenditure in 2018 amounted to EUR 92.7 (111.1) million. This included a total of EUR 85.1 (91.1) million invested in the transmission grid and EUR 2.9 (14.2) million for reserve power. ICT investments amounted to EUR 4.0 (5.7) million. The capital expenditure will remain at the current order of magnitude over the next few years.

Main grid planning always has a holistic and forward-looking approach. Fingrid's current grid vision extends to 2040. The grid vision is insight into the long-term development needs of the main transmission grid, including plans following the current projects. The objective of the vision is to accomplish the investments in the transmission grid effectively and timely, both in terms of the macro economy and grid maintenance.

By international standards, grid maintenance at Fingrid is world-class. Fingrid scored top results in ITOMS (The International Transmission Operations & Maintenance Study) and was the only TSO to achieve a Top Performer nomination both in the substation and transmission line maintenance categories. ITOMS looks into the effectiveness of maintenance based on criteria such as maintenance costs and disturbance statistics.

Power lines and substations were built extensively throughout Finland in 2018. The total kilometres of new power lines amounted to around 250. Seven substation projects were completed. The biggest ongoing projects are related to the modernisation of the aging 'Iron Lady' transmission line, connecting industry and power plants to the grid, and reinforcing the link with Sweden.

- The 26-kilometre Vihtavuori–Koivisto power line between Laukaa's Vihtavuori and Äänekoski's Koivisto substations was commissioned in January 2018.
- The modernised 82-kilometre transmission line connection from the 'Iron Lady' link at the Kouvola Koria substation to Yliskälä, close to Lappeenranta, was completed and commissioned during the period under review.
- The last section of the old 'Iron Lady' line will be replaced by a new line to be built between Hikiä and Orimattila and to be completed by the end of 2019. The new transmission line runs from Hikiä to Iso-Henna, following the old 'Iron Lady's' right-of-way. A 16-kilometre section of transmission line from Iso-Henna to Orimattila will be built on a new right-of-way.
- A new Vuoksi substation has been built between Joutseno and Imatra, and the transmission lines east and west of there will be modernised. The new substation was commissioned during the period under review, and the new transmission lines will be completed in stages by the end of 2019. The new substation and the transmission line routes became topical when Kemira decided to expand the production capacity at its chlor-alkali site in Joutseno. The area is also in general highly industrialised, and the grid investment will improve the operating conditions for other companies as well.
- The new 400-kilovolt connection from Pyhänselkä in Muhos to Keminmaa and further on to the Messaure substation in Sweden is a strategic transmission link. This is a joint project between Fingrid and the Swedish TSO Svenska Kraftnät. The connection will increase the transmission capacity between the two countries by 800 megawatts. The detailed planning of the right-of-way and the environmental impact assessment (EIA) for the project are currently underway. The transmission link will be built in stages simultaneously in both countries. A total of around 200 kilometres of new powerline will be built on the Finnish side. The planning stages of the project will receive EU support, and all stages of the connection are expected to be completed in 2025.

Fingrid currently has a total of around 600 kilometres of new transmission lines in the general planning stage. The projects will proceed to the construction stage within the next few years. Finland's electricity consumption is concentrated in the south, where electricity production is insufficient with regard to consumption. In future, increasing amounts of electricity will be produced in northern Finland and northern Sweden, and this electricity must be transmitted to the south for use by industry and consumers. This requires strong transmission connections between the north and the south.

- Planning of the transmission line between Oulu and Petäjävesi, named 'Forest Line', has begun. This is a 310-kilometres long 400-kilovolt transmission line. Construction of the 'Forest Line' will start in autumn of 2019, and it is expected to be completed by the end of 2022.
- The grid reinforcing measures in North Karelia are in the general planning stage. The three-stage project will provide a total of 112 kilometres of transmission lines. A new substation will be built in Pamilo, and the Kontiolahti and Uimaharju substations will be updated. The project is due for completion in 2022.
- The grid around the Oulujoki river, built in the 1950s, is under modernisation. The grid upgrade will start with the modernisation of two substations and the expansion of one substation, and with the construction of new transmission lines between Pyhänselkä and Nuoluakangas. The local electricity production mainly consists of hydropower, while also new wind power projects are being planned in addition to the existing wind power production. The first stage, to be completed in 2020–2022, will include the construction of the transmission line section between the Pyhänselkä substation, in Muhos, and the Nuojua substation, in Vaala. The Pyhänselkä substation will be expanded, and the Nuojua and Utanen substations will be modernised. A new, around 45-kilometre-long transmission line will be built between Pyhänselkä and Nuojua.
- The first substation of the main grid, in Imatra, is an important component of the grid in South Karelia. The substation serves the local hydropower plants and industries, and is the starting point of a cross-border transmission connection to Russia. The modernisation of the Imatra substation, originally built in 1929, will be completed in 2020.
- The planning of Fingrid's first digital substation pilot project, at the Pernoonkoski substation, close to Kotka, has been started. The aim is to create a digitalised substation that is compact, safe, environmentally sustainable, remote controlled and provides cost effectiveness both in terms of capex and operational costs.
- In order to secure the Helsinki region's electricity supply, the City of Helsinki, the region's distribution network company Helen Sähköverkko and Fingrid are jointly planning an infrastructure project to serve the Helsinki region's electricity supply and facilitate land use. Fingrid is preparing to build a new 400-kilovolt cable link from Länsisalmi to Viikinmäki, with plans to have it up and running as soon as the mid 2020s.

One of Fingrid's long-term goals is to improve the safety culture at work sites and in this way achieve its zero accident objective. In 2018, Fingrid's own personnel had no workplace accidents resulting in absence from work (2). A total of 4 (9) lost-time accidents were recorded among Fingrid's service providers. None of the lost-time accidents resulted in an absence of more than 30 days. The suppliers' and Fingrid's combined accident frequency rate decreased significantly from the previous year, to 3.2 (8.5).

Power system

In 2018, electricity consumption in Finland amounted to 87.4 (85.5) terawatt hours. Fingrid transmitted a total of 68.6 (66.2) terawatt hours of electricity in its grid, representing 75.5 (75.5) per cent of the total transmission volume in Finland (consumption and inter-TSO).

The electricity import and production capacity was sufficient to cover the peak consumption during the year. Electricity consumption peaked at 14,062 (14,300) megawatts on 28 February 2018. During that peak consumption hour, Finland generated 10,600 megawatts of electricity, and the remaining 3,460 megawatts was imported from neighbouring countries.

Draught was the hallmark of the summer of 2018, and the lack of water reservoirs increased the price of electricity in the Nordic countries. One of the impacts of the high Nordic prices was increased transmission of electricity from Russia to Finland. Electricity transmissions between Finland and Sweden mostly consisted of large imports to Finland. In 2018, 14.5 (15.6) terawatt hours of electricity was imported from Sweden to Finland, and 1.0 (0.4) terawatt hours was exported from Finland to Sweden. The bulk of electricity transmission between Finland and Estonia was from Estonia to Finland during the spring and the autumn. During other times, the dominant direction was from Finland to Estonia, totalling 2.4 (1.7) terawatt hours. Imports from Estonia amounted to 0.9 (0.9) terawatt hours. The electricity imports from Russia increased compared with the previous year, but the intraday variations were large. Imports from Russia was 7.9 (5.8) terawatt hours. In 2018, 0.2 (0.3) terawatt hours of electricity was imported from Norway to Finland, and 0.1 (0.0) terawatt hours was exported from Finland to Norway. Nearly the full transmission capacity was available in all cross-border connections during the review period.

The transmission reliability rate overall remained at an excellent level and was 99.9999 (99.9997) per cent of the transmitted energy volume. An outage in a connection point in the grid caused by a disturbance in Fingrid's electricity network lasted an average of 12.0 (2.2) minutes, which exceeds the ten-year average. The computational cost of the disturbances (regulatory outage costs) to consumer customers was only EUR 1.5 (2.8) million. If quick reconnections are included, the cost of disturbances amounts to EUR 3.6 million, the lowest value in ten years.

The most significant event that contributed to the increased outages in connection points was a fire at Fingrid's Olkiluoto substation on 18 July 2018, which resulted in damage to a 400-kilovolt current transformer. Due to the fire and resulting repairs at the substation, Olkiluoto nuclear power plant units 1 and 2 were not able to supply the grid with electricity. Fingrid issued a warning on 19 July 2018 that domestic production and imports of electricity may possibly be insufficient to meet consumption. The electricity shortage was avoided, however.

The reliability and usability of DC connections were at an excellent level in 2018. The number of disturbances and the total duration of disturbances exceeded the 2017 levels, however. Except for the single most serious disturbance during 2018, the connections were restored very quickly after disturbances. Thus the countertrade costs for DC connections in 2018 were only around EUR 140,000, close to the exceptionally good level of 2017. The most serious disturbance occurred in the EstLink 1 connection in November and took 23 days to repair.

The volume of transmission losses in the grid remained at the level of the previous year, 1.2 (1.2) terawatt hours. This is 1.3 (1.4) per cent of the total volume of transmitted electricity. The annual variation of losses is affected by the Nordic electricity production situation, such as the sufficiency of hydropower. Losses have been minimised by keeping the voltage of the transmission grid as high as possible and by making grid investments and equipment procurements that promote energy efficiency.

Counter trade	Jan-Dec/18	Jan-Dec/17	July-Dec/18	July-Dec/17
Counter-trade between Finland and Sweden, €M	1.9	0.4	1.8	0.1
Counter-trade between Finland and Estonia, €M	0.1	0.1	0.0	0.0
Counter-trade between Finland's internal connections, €M	2.2	1.3	2.1	0.0
Total counter-trade, €M	4.1	1.8	3.9	0.1

Reserves required to maintain the power balance of the electricity system were procured from Finland, the other Nordic countries, the Baltic countries and Russia. Countertrade costs totalled EUR 4.1 (1.8) million. Contributors to the increased countertrade costs included the fire at Fingrid's Olkiluoto substation and the disruptions in the Petäjaskoski–Letsi transmission line. Countertrade refers to special adjustments made in the management of electricity transmission which are used to eliminate short-term bottle-necks (congestion in electricity transmission caused by the transmission grid). Fingrid guarantees the cross-border transmission capacities between countries it has confirmed by carrying out countertrades, i.e. purchasing and selling electricity, up until the end of the 24-hour usage period. The need for countertrade can arise from, for example, a power outage or disruption in a power plant or in the grid.

Power system operation	Jan-Dec/18	Jan-Dec/17	July-Dec/18	July-Dec/17
Electricity consumption in Finland TWh	87.4	85.5	42.2	41.8
TSO transmission in Finland, TWh	3.5	2.1	2.0	1.3
Transmission within Finland, TWh	90.9	87.6	44.1	43.1
Fingrid's transmission volume TWh	68.6	66.2	33.9	33.4
Fingrid's electricity transmission to customers, TWh	64.9	63.9	31.8	32.0
Fingrid's loss energy volume TWh	1.2	1.2	0.6	0.6
Electricity transmission Finland - Sweden				
Exports to Sweden TWh	1.0	0.4	0.5	0.3
Imports from Sweden TWh	14.5	15.6	7.0	8.1
Electricity transmission Finland - Estonia				
Exports to Estonia TWh	2.4	1.7	1.4	1.1
Imports from Estonia TWh	0.9	0.9	0.3	0.3
Exports to Norway TWh				
Imports from Norway TWh	0.1	0.0	0.0	0.0
Imports from Norway TWh	0.2	0.3	0.1	0.2
Electricity transmission Finland - Russia				
Imports from Russia TWh	7.9	5.8	4.4	2.8

Electricity market

The average market price of spot electricity on the electricity exchange (Nordic system price) was EUR 43.99 (29.41) per megawatt hour. The wholesale prices of electricity were clearly on a higher level in 2018 compared with previous years in Nordic countries. The annual average price was at its highest level since 2011 for both the Nordic system price and the Finnish area price. The drivers behind the higher prices include, above all, the increased prices of emission rights and fuels, as well as the lower than normal precipitation affecting hydropower production in the Nordic production areas.

Fingrid accrued EUR 28.2 (25.5) million in congestion income from the cross-border power lines between Finland and Sweden. EUR 18.9 (10.4) million of this was accrued during the first half of the year and EUR 9.3 (15.0) million during the second half of the year. The difference between Finland's and Sweden's area prices narrowed due to a general increase in the price of electricity, which also reduced the number of congestion hours. The links between Finland and Estonia generated EUR 1.4 (0.3) million in congestion income. In accordance with the regulation on congestion income, Fingrid has used the congestion income from the connections between Finland and Sweden for the Hirvisuo–Pyhänselkä grid investment. EUR 1.3 million in congestion income was left unused and will be used for future investments to increase cross-border transmission capacity.

Imports of electricity from Russia grew from the 2017 level by around 2 terawatt hours. Nearly the full transmission capacity was available.

The TSOs signed a co-operation agreement on developing the new Nordic balancing concept in March 2018. The agreement commits the five Nordic TSOs to the new balancing concept and to the implementation of a joint balancing market. The Nordic agreement on joint imbalance settlement will help to keep Finland as an integral part of the Nordic power market also in future.

The European intraday markets started up in June 2018, and Finland was one of the 14 countries to adopt the new system in the first go-live phase. The Cross-Border Intraday (XBID) marketplace enables more extensive European electricity markets for continuous trading.

Fingrid participated in the Ministry of Economic Affairs and Employment's (MEAE) smart grid working group during the year under review. The working group's final report describes the possibilities of a smart power system and makes several proposals to develop the electricity market. Most of the changes are scheduled to be implemented between 2019 and 2021. Some of the working group's suggestions require the implementation of the datahub.

The datahub is a centralised information exchange system for retail markets that stores data from all of Finland's 3.5 million electricity metering points. Fingrid Datahub Oy selected the supplier for the datahub system in June 2018. The Finnish government presented a proposal to the parliament in September on amending the Finnish Electricity Market Act and certain related acts. The amendments are necessary for implementing the datahub. The parliament approved the proposed legislation amendments in December and they entered into force on 1 February 2019. The datahub will go live in 2021.

The centralised model to be implemented by the datahub will make business processes more efficient and enable new ways of developing the exchange of information. The rules will become simpler and the quality of information will improve. The datahub will compile data from all Finnish electricity consumers. The system will simplify, speed up and enhance the efficiency of the data exchange required by the retail electricity market. The information contained in the datahub will be used by approximately 100 electricity suppliers and over 80 distribution network companies serving electricity consumers. The datahub also holds a key role in the electricity market's shift from the current one-hour trading period to a fifteen-minute period.

Electricity market	Jan-Dec/18	Jan-Dec/17	July-Dec/18	July-Dec/17
Nord Pool system price, average €/MWh	43.99	29.41	49.07	29.54
Area price Finland, average €/MWh	46.80	33.19	51.55	34.44
Congestion income between Finland and Sweden, € million*	56.5	51.0	18.6	30.1
Congestion hours between Finland and Sweden %**	20.6	24.0	19.0	26.6
Congestion income between Finland and Estonia, € million*	2.8	0.5	2.0	0.2
Congestion hours between Finland and Estonia %	5.4	1.4	7.9	1.4

* The congestion income between Finland and Sweden and between Finland and Estonia is divided equally between the relevant TSOs. The income and costs of the transmission connections are presented in the tables under 'Financial result'. Congestion income is used for investments aimed at eliminating the cause of congestion.

** The calculation of a congestion hour between Finland and Sweden refers to an hour during which Finland's day-ahead area price differs from both Sweden's SE1 and its SE3 area prices.

Share capital

The company's share capital is EUR 55,922,485.55. Fingrid shares are divided into Series A shares and Series B shares. The number of Series A shares is 2,078 and the number of Series B shares is 1,247. The voting and dividend rights related to the shares are described in more detail in the notes to the financial statements and in the articles of association available on the company's website.

Personnel and remuneration systems

Fingrid Oyj employed 380 (355) persons, including temporary employees, at the end of the year. The number of permanent personnel was 327 (308).

At the end of the year, 23 (24) per cent of the personnel were women and 77 (76) per cent were men. The average age of the personnel was 44 (44).

During 2018, the personnel received a total of 14,979 (11,408) hours of training, with an average of 39 (32) hours per person. Employee absences due to illness accounted for 1 (1) per cent of the total working hours. In addition to a compensation system that is based on the requirements of each position, Fingrid applies incentive bonus schemes.

Caring and well-being are the cornerstones of Fingrid's HR policy. In practice, caring means solutions supporting the individual, such as flexible working hour arrangements, support for recreational activities and overall well-being. In accordance with Fingrid's personnel policy, employees are treated with respect and fairness, based on the company's values and in compliance with the principles of equal opportunity and non-discrimination. Equal opportunity and non-discrimination are part of the corporate culture.

Alongside responsibility, openness and efficiency, impartiality is one of Fingrid's values. Fingrid invests more than a million euros annually to boost both team spirit and the personal development of each employee. In addition to common training provided by the company, personnel can participate in specific training to complement their working skills. The topics covered in company-level training events during the year include language instruction, presentation and communication coaching, customer service coaching as well as training support to units and teams amid various changes and in developing their operations.

A tailored training programme called Loikka (i.e. 'Leap') was started during 2018 to increase the understanding of expert staff concerning changes in Fingrid's operating environment and stakeholders' expectations, and to increase employees' communication skills.

Fingrid's innovation activities aim to improve the company's ability to respond to changes in the operating environment. Continuous brainstorming, constructive criticism of existing operations, and development through trial and error are some of the innovation activities aimed at improving the productivity and quality of the operations. Innovations are sought in co-operation with start-ups and research institutions. One example of this is the RadiCamp project aimed at finding new innovations to revamp power system control rooms. Another highlight is the open innovation competitions to develop the maintenance management of substation equipment.

Corporate Spirit carried out a PeoplePower personnel survey at Fingrid for the third time now. Compared to other expert organisations, the survey results were excellent. Fingrid scored the highest rating, AAA, which is achieved only by around six per cent of all surveyed organisations annually.

Board of Directors and corporate management

Fingrid Oyj's Annual General Meeting was held in Helsinki on 28 March 2018. In 2018, the Board of Directors consisted of Juhani Järvi (Chair) and Juha Majanen (Deputy Chair) until 28 March 2018, Päivi Nerg (Deputy Chair) as of 28 March 2018, and Anu Hämäläinen, Sanna Syri and Esko Torsti.

PricewaterhouseCoopers Oy was elected as the auditor of the company, with Heikki Lassila, APA, serving as the responsible auditor.

The Board of Directors has two committees: the Audit Committee and the Remuneration Committee. The Audit Committee consisted of Esko Torsti (Chair), Juhani Järvi, Sanna Syri (until 28 March 2018) and Anu Hämäläinen (as of 28 March 2018).

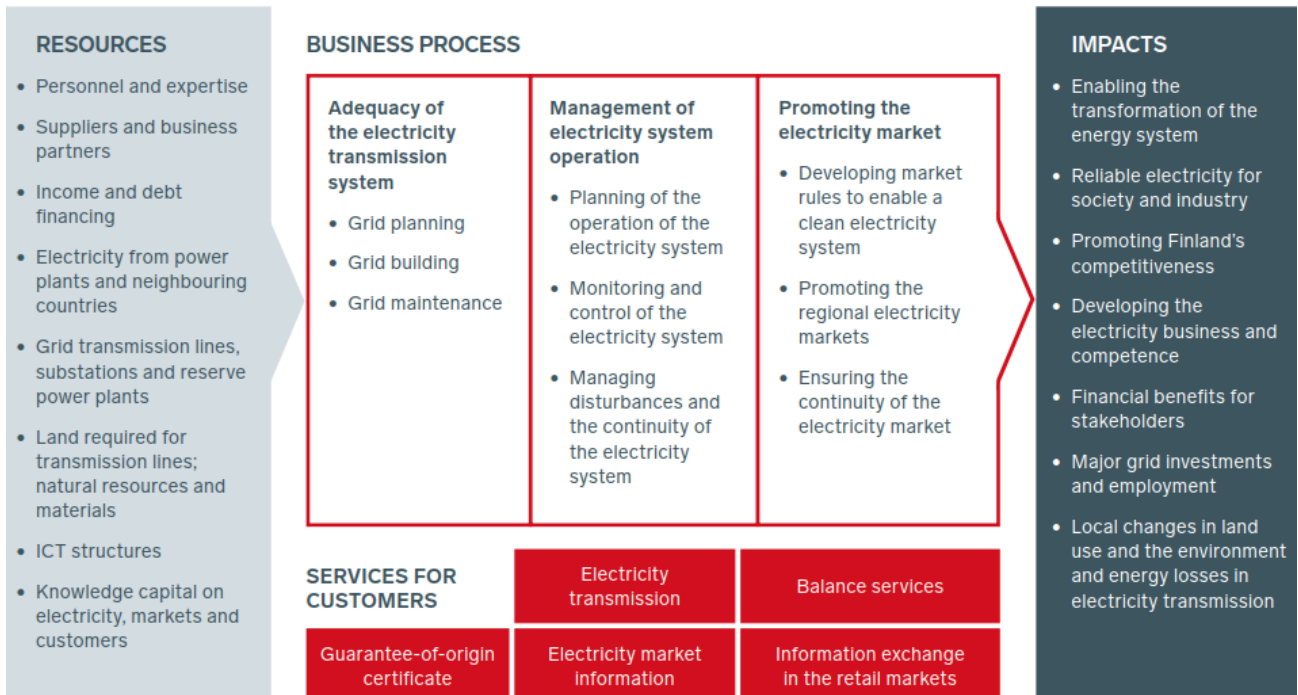
The remuneration committee consisted of Juhani Järvi (Chair), Anu Hämäläinen (until 28 March 2018), Juha Majanen (until 28 March 2018), Päivi Nerg (as of 28 March 2018) and Sanna Syri (as of 28 March 2018).

Jukka Ruusunen serves as President & CEO of the company. Fingrid has an Executive Management Group which supports the CEO in the company's management and decision-making.

A corporate governance statement, required by the Finnish Corporate Governance Code, has been provided separately. The statement and other information required by the Code are also available on the company's website at www.fingrid.fi.

Fingrid's business model

The purpose of the business model is to describe the most important material and immaterial resources at Fingrid's disposal that are necessary for the business processes. The result of these processes are services to the customers. The impact of Fingrid's operations and the significant added value they generate show in various ways throughout Finnish society.



Internal control and risk management

At Fingrid internal control is a permanent component of the company's operations and addresses all those operating methods and procedures whose objective it is to ensure

- effective and profitable operations that are in line with the company's strategy,
- the reliability and integrity of the company's financial and management information,
- that the company's assets are protected,
- that applicable legislation, guidelines, regulations, agreements and the company's own governance and operating guidelines are complied with, and
- a high standard of risk management.

Risk management is planned holistically, with the objective of comprehensively identifying, assessing, monitoring and safeguarding the company's operations, the environment, personnel and assets from various threats and risks. Due to the nature of the company's core mission, risks are also assessed from the perspective of society.

Continuity management is a part of risk management. Its objective is to improve the organisation's capacity to prepare and to react in the best possible way should risks occur, and to ensure the continuity of operations in such situations.

Further information on internal control, risk management and the foremost risks and factors of uncertainty is available on the company's website.

Board of Directors

The company's Board of Directors is responsible for organising internal control and risk management, and it approves the principles of internal control and risk management every two years or more often, if required. The Board defines the company's strategic risks and related management procedures as part of the company's strategy and action plan, and monitors their implementation. The Board decides on the operating model for the company's internal audit. The Board regularly receives internal audit and financial audit reports as well as a status update at least once a year on the strategic risks and continuity threats relating to the company's operations and their management and realisation.

Line management and other organisation

Assisted by the Executive Management Group, the President & CEO is responsible for executing and steering the company's governance, decision-making procedures, control and risk management, and for the assessment of strategic risks and continuity threats at the company level, and their related risk management.

The heads of functions are responsible for the practical implementation of the governance, decision-making procedures, controls and risk management for their areas of responsibility, as well as for the reporting of deviations and the sufficiency of detailed guidelines. Directors appointed in charge of the threats to continuity

management are responsible for drawing up and maintaining continuity management plans and guidelines, and for arranging sufficient training and practice.

The CFO is responsible for arranging procedures, controls and monitoring at the company level as required by the harmonised operating methods of internal control and risk management. The company's general counsel is responsible at the company level for assuring the legality and regulation compliance of essential contracts and internal guidelines, taking into account the company's interests, as well as for the procedures these require. Each Fingrid employee is obligated to identify and report any risks or control deficiencies she or he observes and to carry out the agreed risk management procedures.

Financial audit

An authorised public accounting company selected by the Annual General Meeting acts as auditor for the company. The company's financial auditor inspects the accounting, financial statements and financial administration for each financial period and provides the AGM with reports required by accounting legislation or otherwise stipulated in legislation. The financial auditor reports on his or her work, observations and recommendations for the Board of Directors and may also carry out other verification-related tasks commissioned by the Board or management.

Internal audit

The Board of Directors decides on the operating model for the company's internal audit. The internal audit acts on the basis of plans processed by the audit committee and approved by the Board. Audit results are reported to the object of inspection, the President & CEO, the audit committee and the Board. Upon decision of the Board, an internal audit outsourced to an authorised public accounting company acts within the company. From an administrative perspective, the internal audit is subordinate to the President & CEO. The internal audit provides a systematic approach to the assessment and development of the efficiency of the company's risk management, monitoring, management and administrative processes and ensures their sufficiency and functionality as an independent party. The internal audit has the authority to carry out reviews and to access all information that is essential to the audit. Fingrid's internal audit carries out risk-based auditing on the company's various processes.

Foremost risks and uncertainty factors for society and Fingrid

Since Fingrid plays a significant role in Finnish society, the impact of risks is assessed from both the company's and society's perspective. The risk entities recognised as strategic risks concern either society alone, Fingrid alone or both.

One of the company's biggest business risks and the biggest risk where society is concerned is a major disturbance related to the functioning of the power system. A major disturbance can result in a situation where most of the grid is out of power, which paralyzes society's functions and causes major damage to the economy.

Other major risks for Fingrid and society are a dysfunctional electricity market, environmental risks and serious workplace accidents.

The risks to Fingrid's operations include risks related with unfavourable regulatory development, financing risks, asset risks, compliance risks, major ICT disturbances and personnel risks.

Risks to society arising from Fingrid's operations include unsuccessful timing of investments, long-term restrictions in transmission capacity, and incidents resulting in major harm to customers.

The major risks to Fingrid mentioned above are explored in greater detail in the company's annual report. Fingrid's financing risks are described in more detail in sections 6.2 and 6.3 of the consolidated financial statements. No substantial risks were realised in 2018.

Corporate responsibility

Responsibility is one of Fingrid's corporate values, and responsible business conduct is a strategic choice for the company. In addition to successfully fulfilling its societally important core mission, the following aspects are important to Fingrid: safety and security, procurement practices, stakeholder confidence, financial result, Code of Conduct and taking care of the work community. Fingrid's compliance with corporate responsibility is steered by the set strategy targets. The key targets have been set by identifying topics that are of material importance to Fingrid. The need for updates to the materiality analysis is assessed annually as part of the strategy process, based on an operating environment and stakeholder analysis and on the strategy update. Achieving the targets serves as the basis for executive management's and personnel's remuneration.

At Fingrid, corporate responsibility and compliance management are integrated with the management system and risk management practices. Fingrid's Board of Directors approves the company's Code of Conduct and monitors the company's compliance in operating responsibly. Furthermore, the Board is in charge of arranging corporate responsibility management and its integration into business operations. The CEO and the heads of functions are each responsible for corporate responsibility issues within their areas of responsibility. Social issues and environmental impacts are taken into account in all decision-making and when assessing operations, alongside profitability issues.

Fingrid has declared its human rights commitment as part of the company's Code of Conduct. To ensure its understanding of human rights impacts, Fingrid has carried out an assessment in compliance with the due diligence process recommended in the UN's Guiding Principles on Business and Human Rights and updates its action plan annually.

In accordance with its Code of Conduct, Fingrid is a responsible tax payer and combats the grey economy, and does not engage in money laundering or corruption, such as blackmail and bribery. No cases related to corruption and bribery occurred during the year under review. Fingrid reports on its tax footprint and does not carry out special arrangements to minimise taxes.

Managers and the entire work community ensure that behaviour is in line with the Code of Conduct. New employees must complete online induction training on the Code of Conduct. The online induction training was updated during the year under review, and it helped to reinforce the commitment of existing and new employees alike. The updated online training takes into account the new General Data Protection Regulation, and data security was one of the topics in internal audits, in addition to compliance management issues. A confidential whistle-blower system managed by an independent third party is available to employees who suspect a breach of the Code of Conduct. Preparations were made during the year under review to expand its availability to external stakeholders. Fingrid again received an excellent AAA rating in the survey where employees assessed the responsibility of the company's ways of operating. In the customer survey, the trust KPI measuring the implementation of the customer strategy and customers' trust was 4.1 on a scale of 1-5.

Fingrid has joined the United Nations' Global Compact initiative, and its Code of Conduct is in line with the initiative's principles on human rights, labour, the environment and anti-corruption. In procurements, Fingrid requires its contractual partners to commit to Fingrid's Supplier Code of Conduct and monitors compliance using a risk-based approach. Compliance with the Supplier Code of Conduct is a condition for being included in supplier registers used in recurring substation and power line procurements. In addition, contractual partners are subject to separate contract terms related to the use of subcontractors and workforce, and to occupational safety and environmental matters. During the year under review, Fingrid carried out 10 audits on its work sites to verify compliance with contractor obligations, occupational safety and environmental management. The audits revealed that operations and induction at the work sites are generally on a good level and continuously improving. An external service was introduced for monitoring the payroll and employment issues of foreign workforce. In international goods sourcing, compliance with the Supplier Code of Conduct was ensured through third-party

supplier audits at 15 production plants in seven countries. In addition, several follow-up audits were carried out.

Reporting on corporate responsibility is one of the topics in Fingrid's annual report, in compliance with the principles of integrated reporting. To ensure transparency and comparability, Fingrid reports on its corporate responsibility in accordance with the international Global Reporting Initiative (GRI) framework. The corporate responsibility reporting for 2018 was verified by a third party. The Report of the Board of Directors includes also non-financial information.

Environmental matters

Fingrid's operations have a significant positive impact on the environment and climate because the grid serves as a platform for the clean power system necessary for combatting climate change. The most significant environmental impacts caused by the company's operations are related to landscape changes and land use restrictions, nature and biodiversity, energy losses occurring during electricity transmission, exceptional fuel and oil leaks and the consumption of natural resources and the climate impact during grid construction and maintenance.

Contractors and service suppliers were encouraged to commit to environmentally responsible operating practices with the help of contractual terms related to environmental matters, and environmental training and audits. The personnel working on Fingrid worksites completed online training on environmental matters, and environmental aspects of the work were monitored as a part of the regular worksite supervision. All the service providers used during the year under review received training in the updated waste management and recycling practices. Compliance with environmental requirements, occupational safety and contractor obligations was verified in a total of 10 audits. In addition, two audits on overall safety and audits related to the ISO 14001 environmental management system were carried out at reserve power plants.

The reserve power plants are subject to an environmental permit and covered by the EU's emissions trading scheme. The accuracy of the measuring and reporting systems for fuel consumption is verified by an accredited emissions trading verifier. A total of 8,506 (5,817) units (tCO₂) of emission allowances were returned, 100 per cent of which consisted of acquired emission right units. Fingrid has not been granted free-of-charge emission rights for the emissions trade period 2013–2020. Purchased emission rights units amounted to 10,000 in 2018. Emissions trading had minor financial significance for Fingrid.

Our goal is to complete grid investment projects and maintenance without any significant environmental deviations. Such deviations did not occur during the year under review. Materials discarded when building new grid sections and substations or dismantled from old structures were recycled as efficiently as possible.

Fingrid actively participates in land-use planning to ensure safety and land-use reservations for the grid. In 2018, the company issued around 290 statements on land-use plans and EIAs. In addition, Fingrid directed the construction taking place near grid installations by issuing roughly 450 safety instructions and statements containing land-use restrictions.

In 2018, environmental assessments were drawn up for the 400-kilovolt underground cable connection planned in Helsinki and for the transmission line project from Kangasala to Tampere. The environmental impact assessment procedure was ongoing for the Pyhänselkä–Nuojua transmission line and for the Pyhänselkä–Keminmaa and Keminmaa–Tornionjoki transmission lines linked with the third AC connection to Sweden. The projects were presented in four public events during 2018. Fingrid also promoted landowner engagement during the planning stages of these projects through a mailing campaign and an online feedback system.

Fingrid received an expropriation permit ruling necessary to build, operate and maintain the Elovaara–Pinsiö and Pamilo–Uimaharju transmission lines. Expropriation permit petitions were drawn up for the Forest Line, Pamilo–Uimaharju and Kontiolahti–Uimaharju transmission line projects. The compensation process for compulsory purchase was completed for the Hikiä–Forssa, Lavianvuori re-routing, Vihtavuori–Koivisto and Vuoksi–Onnela transmission line projects as well as was nearly completed for the Hirvisuo–Pyhänselkä project. Fifteen hearings in accordance with the Finnish Expropriation Act were held with landowners.

The service providers who carry out maintenance work and trim vegetation along power line right-of-ways were

instructed to take landowners and site-specific environmental values into account. Landowners were also kept informed. Fingrid promoted the usability of transmission line areas by offering landowners idea cards containing information on safe practices for utilising the powerline right-of-ways both for the benefit of the nature and people. Fingrid also granted initial funding and advisory services for managing the right-of-way as a heritage habitat.

Legal proceedings and proceedings by authorities

An accident took place on a work site in Laukaa, Finland, on 25 August 2017, where an employee of Revilla y Garcia S.L. died after having fallen from a power line tower. A civil court case has been raised in Spain for damages against Fingrid (the client linked with the accident), the main contractor, Technolines S.R.L. filial i Finland, and its sub-contractor, Revilla y Garcia S.L. Fingrid does not believe the claim against it is likely to succeed and, in Fingrid's view, the legal proceedings or their outcome are not likely to have a substantial impact on the company's earnings or financial position.

Events after the review period and estimate of future outlook

Fingrid's international EUR 1.5 billion Medium Term Note Programme and debt issues are listed on the London Stock Exchange. On 9 January 2019, Fingrid listed the Medium Term Note Programme and debt issues on the Irish Stock Exchange (Euronext Dublin) in addition to the London Stock exchange. Dual listing enables the trading of debt issues and new debt issue listings on these two stock exchanges.

Fingrid Oyj's Shareholders' Nomination Board proposed to the Annual General Meeting to be held on 21 March 2019 that the number of members of the Board of Directors shall be five. The Nomination Board proposed the re-election of Juhani Järvi, Päivi Nerg, Anu Hämäläinen, Sanna Syri and Esko Torsti. The Shareholders' Nomination Board proposed that the remuneration paid to the members of the Board of Directors remain unchanged.

Fitch Ratings downgraded Fingrid Oyj's Long-Term Issuer Default Rating (IDR) to 'A' from 'A+' and senior unsecured rating to 'A+' from 'AA-' on 28 January 2019. Fitch also affirmed a Short-Term IDR of 'F1'. The outlook for the ratings is stable. The rating remains the highest assigned by Fitch to any regulated TSO in Europe.

Timo Kiiveri (M.Sc., MBA) was appointed director of the executive management group of Fingrid Oyj on 31 January 2019, effective 1 July 2019. His area of responsibility will be the company's asset management.

Fingrid Group's profit for the 2019 financial period, excluding changes in the fair value of derivatives and before taxes, is expected to decrease significantly from the previous year's level. Fingrid announced on 3 October 2018 that it will decrease grid prices for 2019 by eight per cent on average.

Results forecasts for the financial year are complicated especially by the uncertainty related to grid income, ITC income and cross-border transmission income, and to reserve and loss power costs. These are particularly dependent on the variations in outside temperature and precipitation and changes in the hydrological situation in the Nordic countries, which affect electricity consumption and electricity prices in Finland and neighbouring areas and thus also grid transmission volumes. The company's debt service capacity is expected to remain stable.

Board of Directors' proposal for the distribution of profit

The guiding principle for Fingrid's dividend policy is to distribute substantially all of the parent company profit as dividends. When making the decision, however, the economic conditions, the company's near-term investment and development needs as well as any prevailing financial targets of the company are always taken into account.

Fingrid Oyj's parent company's profit for the financial year was EUR 194,570,313.15 and distributable funds in the financial statements total EUR 222,364,965.90. Since the close of the financial year, there have been no material changes in the company's financial position and, in the Board of Directors' view, the proposed dividend distribution does not compromise the company's solvency.

The company's Board of Directors will propose to the Annual General Meeting of Shareholders that, on the basis of the balance sheet adopted for the financial period ended 31 December 2018, a dividend of EUR 67,650.00 at maximum per share will be paid for Series A shares and EUR 24,750.00 at maximum for Series B shares, for a total of EUR 171,439,950.00 at maximum. The first dividend instalment of EUR 47,550.00 for each Series A share and EUR 17,400.00 for each Series B share, totalling EUR 120,506,700.00, shall be paid on 26 March 2019. The second dividend instalment, a maximum of EUR 20,100.00 for each Series A share and a maximum of EUR 7,350.00 for each Series B share, totalling EUR 50,933,250.00 at maximum, shall be paid based on the authorisation to be given to the Board. The Board of Directors has the right to decide on the payment of the second dividend instalment after the half-year report has been confirmed and after having assessed the company's solvency, financial position and financial development. The second dividend instalment decided on with the authorisation given to the Board shall be paid on the third banking day after the decision. It will be proposed that the authorisation remains valid until the next Annual General Meeting.

Annual General Meeting 2019

Fingrid Oyj's Annual General Meeting is scheduled to be held on 21 March 2019 in Helsinki.

In Helsinki, on 26th February 2019
Fingrid Oyj
Board of Directors

2 Consolidated Key Figures

2 Consolidated key figures

		CONSOLIDATED KEY FIGURES				
		2018	2017	2016	2015	2014
		IFRS	IFRS	IFRS	IFRS	IFRS
Extent of operations						
Turnover	MEUR	852.8	672.0	586.1	600.2	567.2
Capital expenditure, gross	MEUR	92.7	111.1	146.7	147.5	129.5
- % of turnover	%	10.9	16.5	25.0	24.6	22.8
Research and development expenses	MEUR	3.6	2.6	2.4	1.8	1.7
- % of turnover	%	0.4	0.4	0.4	0.3	0.3
Personnel, average		376	352	336	319	305
Personnel at the end of period		380	355	334	315	313
Salaries and remunerations total	MEUR	26.5	24.2	22.7	21.3	20.5
Profitability						
Operating profit	MEUR	241.6	184.8	192.0	162.6	142.8
- % of turnover	%	28.3	27.5	32.8	27.1	25.2
Profit before taxes	MEUR	229.0	163.7	173.9	129.3	132.9
- % of turnover	%	26.9	24.4	29.7	21.5	23.4
Return on investments (ROI)	%	13.2	10.0	10.4	8.7	7.6
Return on equity (ROE)	%	23.3	16.7	18.8	15.0	16.3
Financing and financial position						
Equity ratio	%	36.6	37.8	36.4	33.5	31.0
Interest-bearing net borrowings	MEUR	974.3	998.9	1,028.0	1,026.9	1,046.1

Net gearing		1.3	1.3	1.3	1.4	1.6
Share-specific key figures						
Profit/share	€	55,106.3	39,350.8	41,706.1	31,150.8	32,027.9
Dividend/A shares	€	67,650.00*	68,470.00	37,536.09	33,686.24	21,655.44
Dividend/B shares	€	24,750.00*	25,050.00	16,038.49	16,038.49	16,038.49
Dividend payout ratio A shares	%	122.8	174.0	90.0	108.1	67.6
Dividend payout ratio series B shares	%	44.9	63.7	38.5	51.5	50.1
Equity/share	€	232,310	240,017	230,301	213,822	200,568
Number of shares at 31 Dec						
– Series A shares	shares	2,078	2,078	2,078	2,078	2,078
– Series B shares	shares	1,247	1,247	1,247	1,247	1,247
Total	shares	3,325	3,325	3,325	3,325	3,325

* The Board of Directors' proposal to the Annual General Meeting on the maximum dividend to be distributed

CALCULATION OF KEY FIGURES

Return of investment, %	=	$\frac{\text{Profit before taxes + interest and other finance costs}}{\text{Balance sheet total - non-interest-bearing liabilities(average for the year)}} \times 100$
Return on equity, %	=	$\frac{\text{Profit for the financial year}}{\text{Equity (average for the year)}} \times 100$
Equity ratio, %	=	$\frac{\text{Equity}}{\text{Balance sheet total - advances received}} \times 100$
Earnings per share, €	=	$\frac{\text{Profit for the financial year}}{\text{Average number of shares}}$
Dividends per share, €	=	$\frac{\text{Dividends for the financial year}}{\text{Average number of shares}}$
Dividend payout ratio, %	=	$\frac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$
Equity per share, €	=	$\frac{\text{Equity}}{\text{Number of shares at closing date}}$

Interest-bearing net borrowings, € = Interest-bearing borrowings - cash and cash equivalents and financial assets

Net gearing = $\frac{\text{Interest-bearing borrowings - cash and cash equivalents and financial assets}}{\text{Equity}}$

3 Consolidated Financial Statements (IFRS)

Introduction

How to read Fingrid's financial statements and get the most out of it?

- Notes are compiled under specific themes to provide the best representation of Fingrid
- Chapters 4-7 consist of notes to the consolidated financial statements.
- Accounting principles are linked with the note of most relevant for each specific principle.
- Accounting principles are shown at the end of each note, in a separate box and recognizable by the use of symbol



- Interesting facts about Fingrid's operating environment are highlighted in infoboxes throughout the notes to the financial statements. The infoboxes can be recognized by the use of symbol



Fingrid's business model and the regulation of transmissions system operations

Fingrid constitutes a natural monopoly as referred to in the Finnish Electricity Market Act (588/2013), with duties defined in legislation. The company's operations, reasonableness in pricing and financial result are regulated and overseen by the Energy Market Authority. Transmission network operations constitute most of the company's turnover, result and balance sheet.

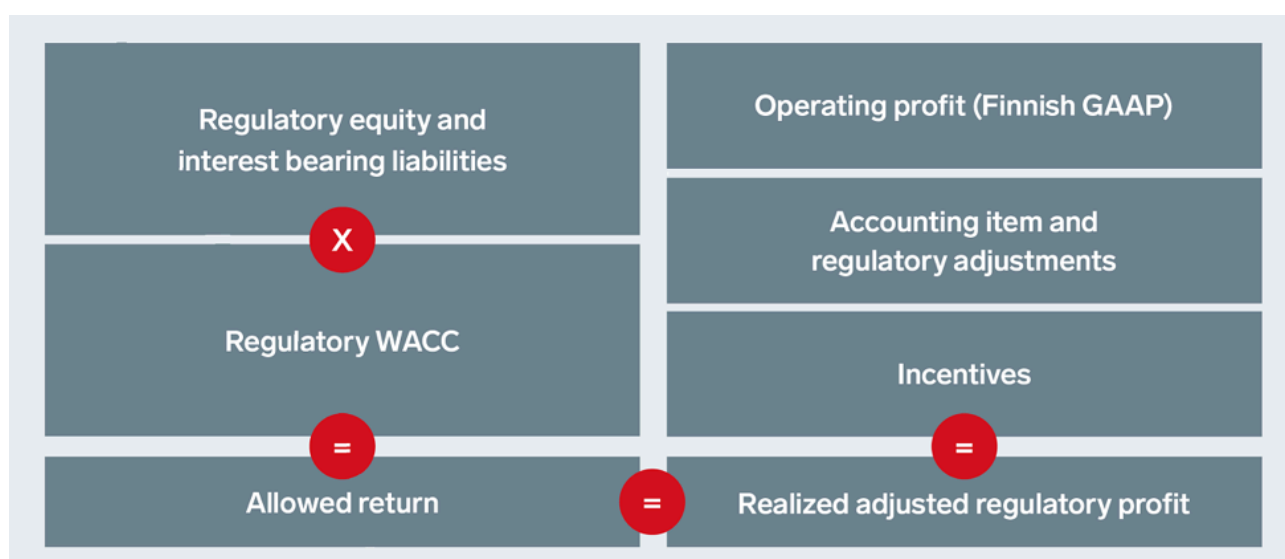
The allowed financial result from transmission network operations is calculated by multiplying the total adjusted capital invested in the transmission network operations (transmission network assets valued at the regulatory present value) with the reasonable rate of return defined by the Energy Market Authority.

The reasonable financial result allowed by the regulation forms the basis of Fingrid's financial planning and pricing. One can calculate the required amount of turnover by adding operating expenses in the result. Fingrid's turnover mainly consists of the electricity transmission volume multiplied by the unit prices. The company determines in advance for the next year the unit prices for the transmission of electricity to recover required turnover. The company's total costs consist of the operating expenses and financial costs and taxes, which are excluded from regulatory calculations.

The so-called adjusted profit, realised in compliance with the regulation, is calculated by adjusting the parent company's operating profit according to the Energy Market Authority's regulation methods and by adding the impact of the incentives.

The regulation incentives are as follows: Investment incentive – intended to promote reasonable and cost-effective investments as well as a justified overhaul of components. The incentive impact is created by the fact that the methods allow the TSO straight-line depreciations based on the replacement value of the transmission network assets. Quality incentive – intended to encourage the TSO to improve the quality of electricity transmission. In practical terms this means minimising the calculated negative impact caused by non-transmitted energy. Efficiency improvement incentive – intended to encourage the TSO to operate cost-effectively. The efficiency improvement incentive is based on Fingrid’s controllable operating costs. Innovation incentive – intended to encourage the TSO to develop and use innovative technical and operational solutions in its network operations. In practice, this means adequate R&D resources.

Any realised regulatory profit over a regulatory period that exceeds the allowed return is a surplus that must be returned to the customers in the form of lower future prices. If the realised regulatory profit over a regulatory period is below the allowed return, the result is a deficit which the company may recover from the customers in the form of higher future prices. No regulatory surplus or deficit income is recorded in the financial statements. The main aim of Fingrid’s business operations is to achieve the allowed financial result each year.



The Energy Market Authority determines Fingrid’s allowed financial result over four-year regulatory periods (2016–2019 and 2020–2023). The table below presents Fingrid’s own rough approximations for 2018, as well as the cumulative figures for the current regulatory period. Since the company had a surplus in the previous regulatory period, the intention is to have a deficit in the current regulatory period.

WACC (pre-tax) 2018	Adjusted capital 2018	Allowed financial result 2018	Deficit(-)/Surplus(+) 2018	Cumulative Deficit (-)/Surplus(+) 2016-2018
5.78%	Approx. EUR 2,900 million	Approx. EUR 170 million	Approx. EUR 40 million	Approx. EUR -5 million

The company also engages in other regulated business operations, but the impact of these on the company’s financial income and balance sheet is negligible.

Income statement

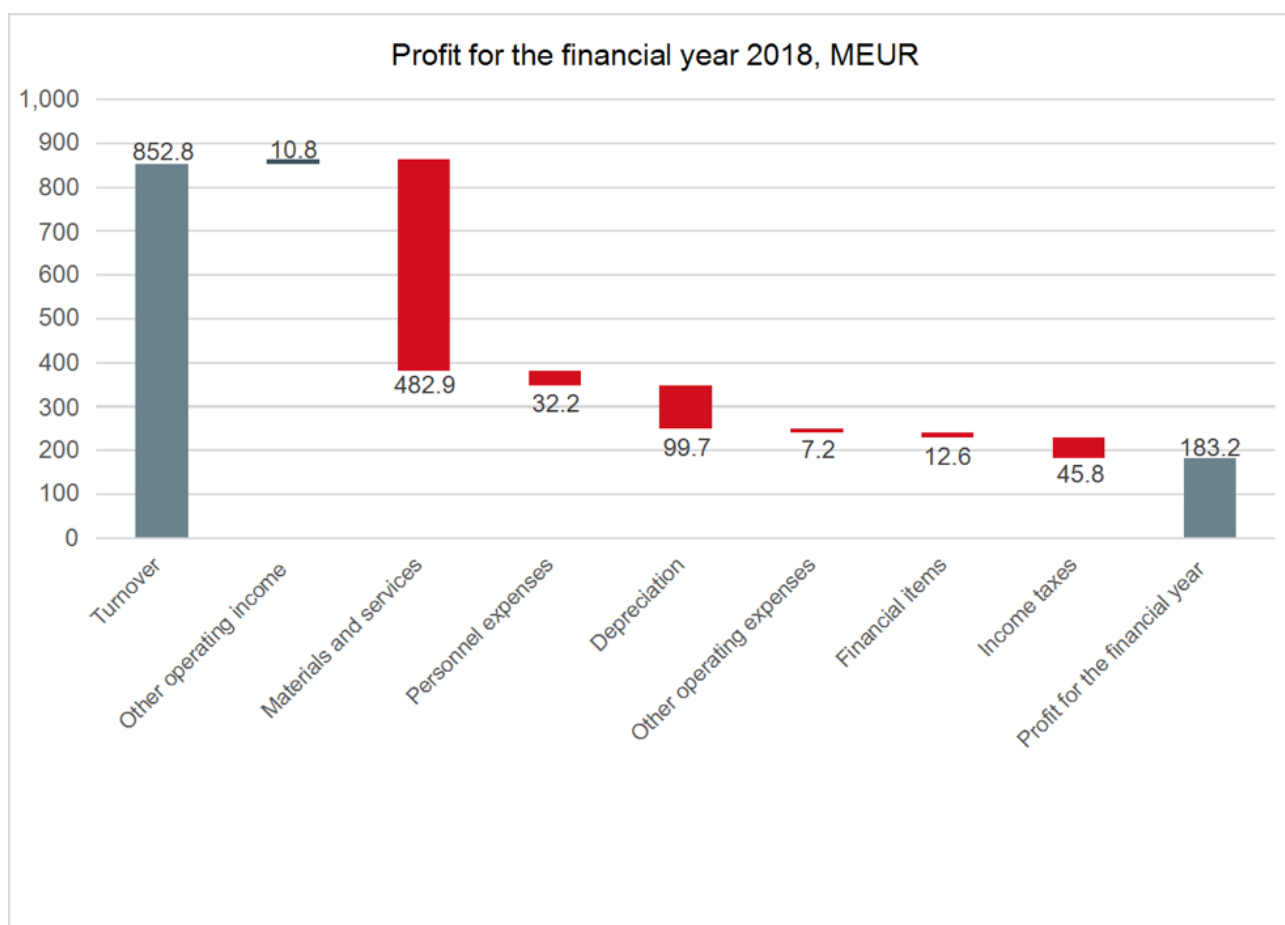
3.1 Income statement

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME			
		1 Jan - 31 Dec, 2018	1 Jan - 31 Dec, 2017
	Notes	€ 1,000	€ 1,000
TURNOVER	1	852,784	671,992
Other operating income	2	10,800	2,933
Materials and services	5	-482,873	-331,839
Personnel expenses	9	-32,190	-29,385
Depreciation	11,12	-99,661	-96,889
Other operating expenses	6,13	-7,211	-32,027
OPERATING PROFIT		241,648	184,786
Finance income	17	170	483
Finance costs	17	-15,384	-23,261
Finance income and costs		-15,213	-22,778
Share of profit of associated companies		2,607	1,734
PROFIT BEFORE TAXES		229,041	163,742
Income taxes		-45,813	-32,901
PROFIT FOR THE FINANCIAL YEAR		183,228	130,841
OTHER COMPREHENSIVE INCOME			
Items that may subsequently be transferred to profit or loss			
Translation reserve		-193	-475
Available-for-sale investments			-59
TOTAL COMPREHENSIVE INCOME FOR THE FINANCIAL PERIOD		183,036	130,308
Profit attributable to:			
Equity holders of parent company		183,228	130,841
Total comprehensive income attributable to:			
Equity holders of parent company		183,036	130,308

Earnings per share for profit attributable to the equity holders of the parent company:

Undiluted and diluted earnings per share, €	55,106	39,351
Weighted average number of shares, quantity	3,325	3,325

Notes are an integral part of the financial statements.



Consolidated balance sheet

3.2 Consolidated balance sheet

ASSETS			
	Notes	31 Dec 2018 € 1,000	31 Dec 2017 € 1,000
NON-CURRENT ASSETS			
Intangible assets:	12		
Goodwill		87,920	87,920
Other intangible assets		102,546	99,795
		190,466	187,715
Property, plant and equipment:	11		
Land and water areas		16,749	15,974
Buildings and structures		226,329	209,792
Machinery and equipment		553,310	562,049
Transmission lines		758,485	786,237
Other property, plant and equipment		6,821	7,060
Prepayments and purchases in progress		72,360	94,888
		1,634,055	1,675,999
Investments in associated companies	24	13,822	14,303
Derivative instruments	23	32,486	27,762
Deferred tax assets	10	23,296	13,918
TOTAL NON-CURRENT ASSETS		1,894,125	1,919,696
CURRENT ASSETS			
Inventories	8	12,391	13,529
Derivative instruments	23	18,575	245
Trade receivables and other receivables	3,24	99,484	96,068

Other financial assets	20	71,380	73,465
Cash in hand and cash equivalents	19	13,922	10,303
TOTAL CURRENT ASSETS		215,750	193,610
TOTAL ASSETS		2,109,876	2,113,306

Notes are an integral part of the financial statements.

EQUITY AND LIABILITIES

		31 Dec 2018	31 Dec 2017
	Notes	€ 1,000	€ 1,000
EQUITY ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT COMPANY			
Share capital	21	55,922	55,922
Share premium account	21	55,922	55,922
Translation reserve	21	-1,080	-888
Retained earnings	21	661,665	687,100
TOTAL EQUITY		772,429	798,057
NON-CURRENT LIABILITIES			
Deferred tax liabilities	10	122,986	127,003
Borrowings	14	771,508	813,404
Provisions	25	1,424	1,474
Derivative instruments	23	7,393	12,387
		903,311	954,268
CURRENT LIABILITIES			
Borrowings	14	288,091	269,304
Derivative instruments	23	4,014	8,190
Trade payables and other liabilities	7	142,030	83,488
		434,135	360,981
TOTAL LIABILITIES		1,337,446	1,315,249
TOTAL EQUITY AND LIABILITIES		2,109,876	2,113,306

Notes are an integral part of the financial statements.

Consolidated statement of changes in equity

3.3 Consolidated statement of changes in equity

Attributable to equity holders of the parent company, € 1,000

	Share capital	Share premium account	Revaluation reserves	Translation reserve	Retained earnings	Total equity
Balance on 1 Jan 2017	55,922	55,922	59	-413	654,258	765,749
Comprehensive income						
Profit or loss					130,841	130,841
Other comprehensive income						
Translation reserve				-475		-475
Available-for-sale investments			-59			-59
Total other comprehensive income adjusted by tax effects			-59	-475		-534
Total comprehensive income			-59	-475	130,841	130,308
Transactions with owners						
Dividend relating to 2016					-98,000	-98,000
Balance on 31 December 2017	55,922	55,922	0	-888	687,100	798,057
Impact from change in accounting principle (IFRS 15)						
					-35,146	-35,146
Balance on 1 Jan 2018	55,922	55,922	0	-888	651,954	762,912
Comprehensive income						
Profit or loss					183,228	183,228
Other comprehensive income						
Translation reserve				-193		-193
Total other comprehensive income adjusted by tax effects			0	-193		-193
Total comprehensive income			0	-193	183,228	183,036
Transactions with owners						
Dividend relating to 2017					-173,518	-173,518

Balance on 31 Dec 2018	55,922	55,922	0	-888	687,100	798,057
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Notes are an integral part of the financial statements.

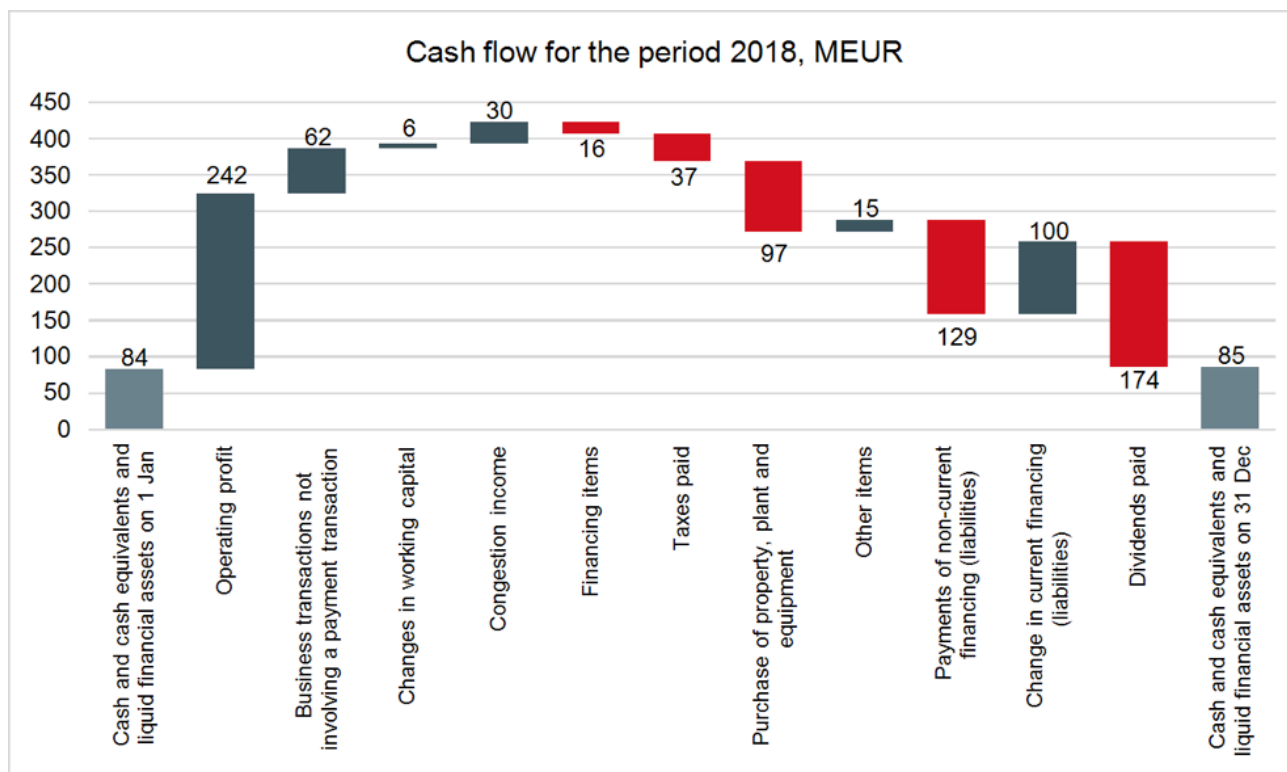
Consolidated cash flow statement

3.4 Consolidated cash flow statement

CONSOLIDATED CASH FLOW STATEMENT			
		1 Jan - 31 Dec, 2018	1 Jan - 31 Dec, 2017
	Notes	€ 1,000	€ 1,000
Cash flow from operating activities:			
Profit for the financial year	21	183,228	130,841
Adjustments:			
Business transactions not involving a payment transaction:			
Depreciation		99,661	96,889
Capital gains/losses (-/+) on tangible and intangible assets		-8,276	-321
Share of profit of associated companies		-2,607	-1,734
Gains/losses from the assets and liabilities recognised in the income statement at fair value		-29,606	-8,884
Interest and other finance costs		20,674	23,261
Interest income		-5,460	-478
Dividend income			-5
Taxes		45,813	32,901
Impact from changes in the fair value of the investment		-97	101
Changes in working capital:			
Change in trade receivables and other receivables		-5,490	-13,056
Change in inventories		1,138	1,260
Change in trade payables and other liabilities		10,147	7,990
Congestion income		29,632	25,752
Change in provisions	25	-50	-7
Interests paid		-16,188	-17,756
Interests received		306	344
Taxes paid		-37,335	-41,911
Net cash flow from operating activities		285,489	232,668

Cash flow from investing activities:			
Purchase of property, plant and equipment	11	-90,019	-100,271
Purchase of intangible assets	12	-6,699	-7,111
Proceeds from sale of other assets			119
Proceeds from sale of property, plant and equipment		13,745	544
Payments of financing (liabilities)		1,750	
Dividends received		645	1,119
Capitalised interest paid	17	-1,042	-1,223
Net cash flow from investing activities		-81,621	-106,823
Cash flow from financing activities:			
Proceeds from non-current financing (liabilities)			100,000
Payments of non-current financing (liabilities)		-129,086	-149,732
Change in current financing (liabilities)		100,270	25,926
Dividends paid	21	-173,518	-98,000
Net cash flow from financing activities		-202,334	-121,806
Change in cash as per the cash flow statement		1,533	4,039
Opening cash as per the cash flow statement		83,768	79,729
Closing cash as per the cash flow statement	19,20	85,301	83,768

Notes are an integral part of the financial statements.



4 Benchmark for TSO Operations

- This chapter contains first general information about the Group and the general accounting principles applied to the consolidated financial statements.
- The chapter focuses on describing how Fingrid's turnover and result are formed and how they relate to the regulatory revenue level. The impact of the regulation is reflected in Fingrid's day-to-day operations and revenue collection.
- The chapter also describes Fingrid's operating receivables and liabilities, as well as the risk management they entail.
- People are Fingrid's most important resource, which is why information related to personnel has been included here, in the first note.
- Fingrid is a substantial tax payer, and Fingrid does not use tax planning. The note on taxes is at the end of this chapter, in chapter 4.9.

General information about the Group and general accounting principles

Fingrid Oyj is a Finnish public limited liability company responsible for electricity transmission in the high-voltage transmission system in Finland (the main grid). Fingrid's nationwide grid is an integral part of the power system in Finland. The transmission grid is the high-voltage trunk network which covers all of Finland. Major power plants, industrial plants and electricity distribution networks are connected to the grid.

Finland's main grid is part of the Nordic power system, which is connected to the system in Central Europe via high-voltage direct current transmission links. Finland also has DC links with Russia and Estonia.

The main grid encompasses more than 14,000 kilometres of 400, 220 and 110 kilovolt transmission lines, plus more than 100 substations.

Fingrid is in charge of planning and monitoring the operation of the main grid and for maintaining and developing the system. An additional task is to participate in work carried out by ENTSO-E, the European Network of Transmission System Operators for Electricity, and in preparing European market and operational codes as well as network planning.

Fingrid offers grid, cross-border transmission and balance services to its contract customers: electricity producers, network operators and the industry. Fingrid serves the electricity market by maintaining adequate electricity transmission capacity, by removing bottlenecks from cross-border transmission links and by providing market data.

The consolidated financial statements include the parent company Fingrid Oyj and its wholly owned subsidiaries Finextra Oy and Datahub Oy. The consolidated associated companies are Nord Pool Spot AS (ownership 18.8%) and eSett Oy (ownership 33.3%). The Group has no joint ventures.

Fingrid issues bonds under the Euro Medium Term Note (EMTN) programme. Fingrid Oyj's issuances under the EMTN programme are generally listed on the London and Irish stock exchanges. Fingrid shares are not listed.

Critical accounting estimates and judgements

When the consolidated financial statements are drawn up in accordance with the IFRS, the company management needs to make estimates and assumptions which have an impact on the amounts of assets, liabilities, income and expenses recorded and conditional items presented. These estimates and assumptions are based on historical experience and other justified assumptions which are believed to be reasonable under the conditions which constitute the foundation for the estimates of the items recognised in the financial statements. The actual amounts may differ from these estimates. In the financial statements, estimates have been used for example, when specifying the economic lives of tangible and intangible asset items, and in conjunction with deferred taxes and provisions. Critical estimates and judgements by management are described by topic in the notes, and the judgement or estimates related to which are in accordance with the following table.

Estimate of the purchase and sale of imbalance power	Chapter 4.3
Inter-Transmission System Operator Compensation (ITC)	Chapter 4.3
Deferred tax assets and liabilities	Chapter 4.9

Determination of the fair value measurement of grid assets	Chapter 5.1
Determination of the depreciation periods of property, plant and equipment, and intangible assets	Chapter 5.2



Accounting principles

Fingrid adopted the IFRS 15 Revenue from Contracts with Customers and IFRS 9 Financial Instruments standards as of 1 January 2018. The changes to the accounting principles due to the new standards are presented in chapters 4.3 and 6.6. The new standards did not have a material impact on the consolidated financial statements. In other respects, the preparation of the consolidated financial statements generally followed the same standards as in 2017.

IASB has announced a new standard, IFRS 16 Leases, which the Group adopted upon its entry into force, on 1 January 2019. The modified retrospective transition approach will be applied when adopting the standard. The estimated impact of the standard is presented in chapter 5.3.

Segment reporting

The entire business of the Fingrid Group is deemed to comprise grid operations in Finland with system responsibility, only constituting a single segment. There are no essential differences in the risks and profitability of individual products and services. For that reason, segment reporting in accordance with the IFRS 8 standard is not presented. The operating segment is reported in a manner consistent with the internal reporting to the chief operating decision-maker. The chief operating decision-maker is the company's Board of Directors. Fingrid operates only in Finland, which is also why geographical data is not presented.

Foreign currency transactions

The consolidated financial statements are presented in euros, which is the functional currency of the parent company. Transactions and financial items denominated in foreign currencies are recognised at the foreign exchange mid-rate quoted by the European Central Bank (ECB) at the transaction date. Receivables and liabilities denominated in foreign currencies are valued in the financial statements at the mid-rate quoted by the ECB at the closing date. Foreign exchange gains and losses from business are included in the corresponding items above operating profit. Foreign exchange gains and losses from financial instruments are recognised at net amounts in finance income and costs.

Earnings per share

The Group has calculated undiluted earnings per share in accordance with standard IAS 33. Undiluted earnings per share are calculated using the weighted average number of shares outstanding during the financial year. Since Fingrid has no share option schemes or benefits bound to shareholders' equity or other equity financial instruments, there is no dilutive effect.

The company's general risk management processes and policies

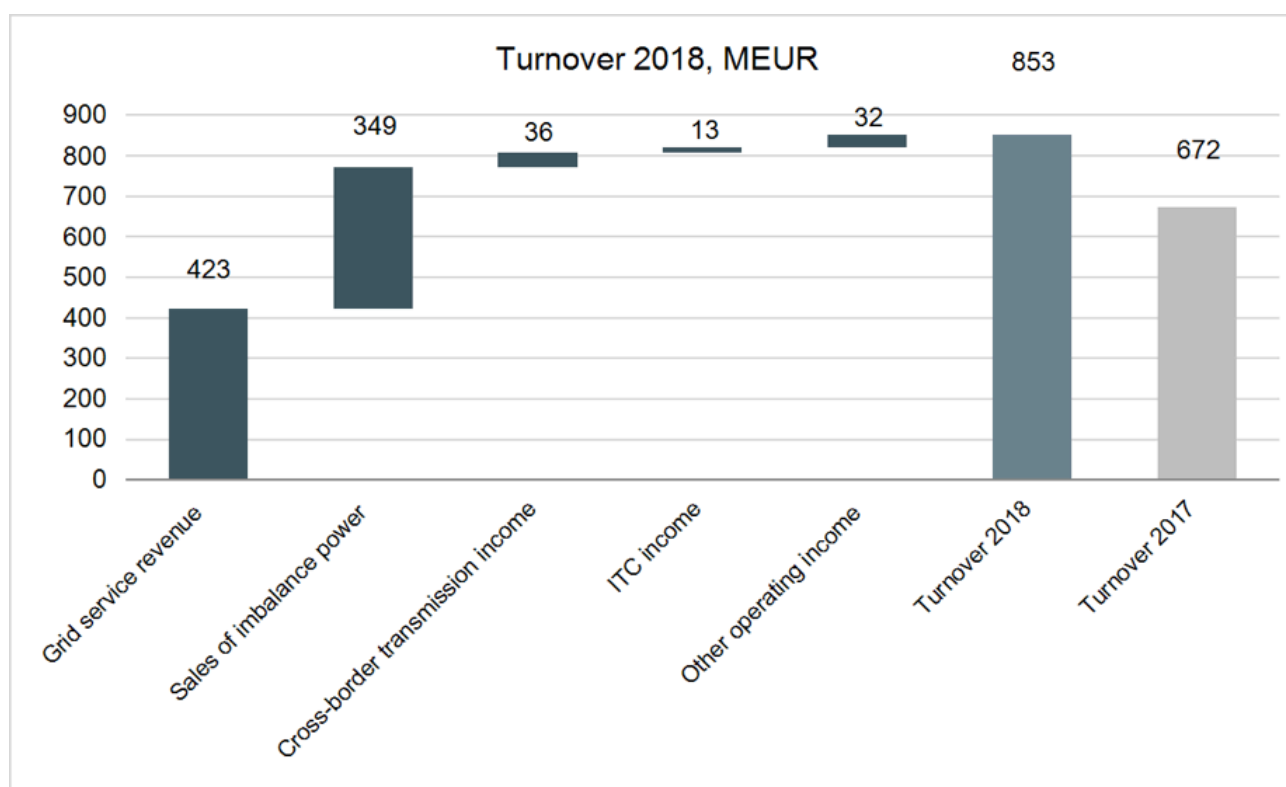
The objective of Fingrid's risk management is to make preparations for cost-effective measures providing protection against damage and loss relating to risks and to ensure the commitment of the entire personnel to considering the risks pertaining to the company, its various organisational units and each employee. In order to fulfil these objectives, risk management is continuous and systematic. The significance of individual risks or risk entities is assessed against the present level of protection, taking into account the probability of a harmful event, its financial impact and impact on corporate image or on the attainment of the business goals.

Risk management is planned holistically with the objective of comprehensively identifying, assessing, monitoring and safeguarding the company's operations, the environment, personnel and assets from various threats and risks. Due to the nature of the company's basic mission, risks are also assessed from a societal perspective.

The Board approves the key principles of internal control and risk management and any amendments to them. The Board of Directors approves the primary actions for risk management as part of the corporate strategy, indicators, action plan, and budget. The Board of Directors (Audit Committee) receives a situation report on the major risks relating to the operations of the company and on the management of such risks.

Formation of turnover and financial result

Turnover consists of the following:



1. TURNOVER, €1,000	2018	2017
Grid service revenue	423,151	412,082
Sales of imbalance power	348,837	214,040
Cross-border transmission income	35,516	20,711
ITC income	13,089	8,647
Peak load capacity	14,032	8,264
Other operating income	18,160	8,248
Total	852,784	671,992

Grid service income mainly consists of the unit price for electricity transmission multiplied by the volume. The Energy Market Authority approves the pricing structure for grid services, on the basis of which Fingrid sets the unit prices for electricity transmission during the winter period and for consumption during other times. The winter period begins on 1 December and ends on the last day of February. Fingrid additionally charges fees for output

from and input into the grid, and power generation capacity fees. Fingrid seeks to set the unit prices for electricity transmission each autumn for the next year, for one year at a time.

Within the framework of grid services, a customer obtains the right to transmit electricity to and from the main grid through its connection point. Grid service is agreed by means of a grid service contract signed between a customer connected to the main grid and Fingrid.

Each electricity market party must ensure its electricity balance by making an agreement with either Fingrid or some other party. Fingrid buys and sells imbalance power in order to stabilise the hourly power balance of an electricity market party (balance responsible party). Imbalance power trade and pricing are based on a balance service agreement with equal and public terms and conditions.

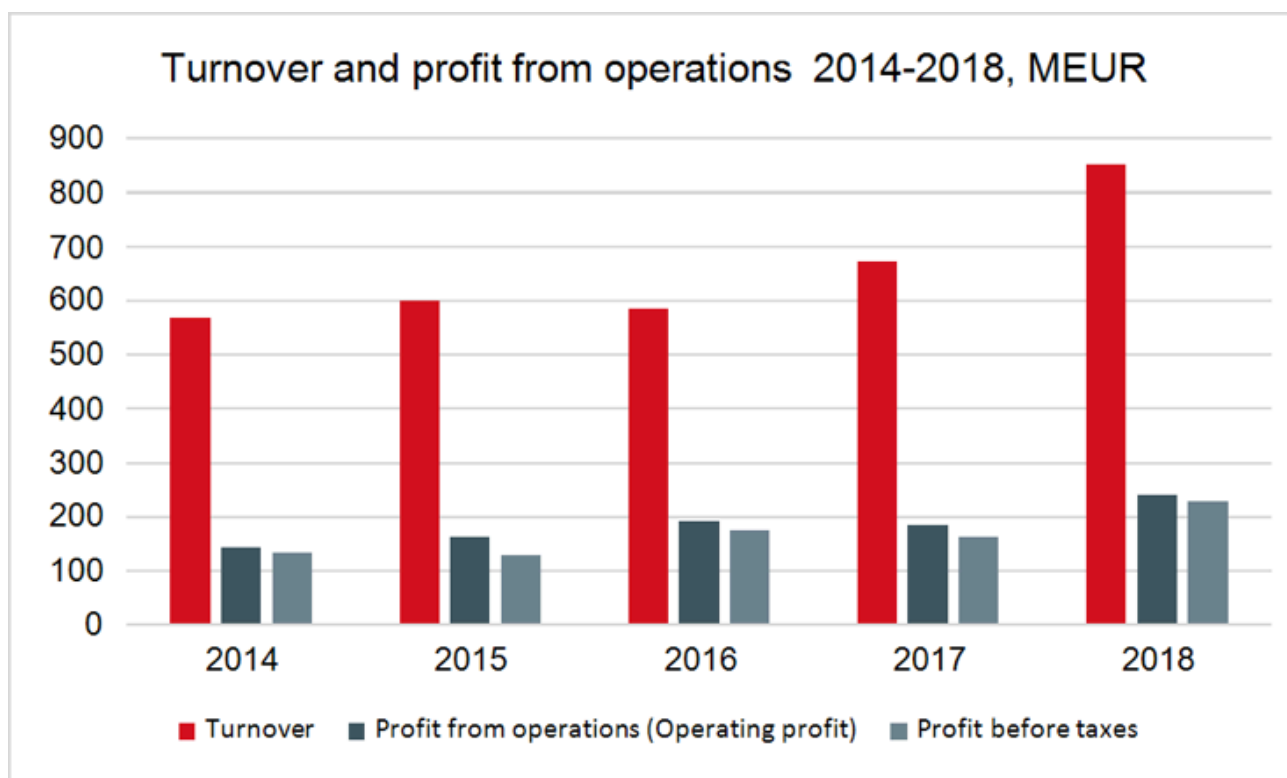
Fingrid is responsible for the continuous power balance in Finland at all times by buying and selling balancing power in Finland. The balance responsible parties can participate in the Nordic balancing power market by submitting bids on their available capacity. The terms and conditions of participation in the balancing power market and the pricing of balancing power are based on the balance service agreement.

Transmission services on the cross-border connections to the other Nordic countries enable participation in the Nordic Elspot and Elbas exchange trade. Fingrid makes transmission services on the cross-border connections with Russia available to all electricity market parties. The transmission service is intended for fixed electricity imports. When making an agreement on transmission services from Russia, the customer reserves a transmission right (in MW) for a period of time to be agreed upon separately. The smallest unit that can be reserved is 50 MW. The contractual terms are equal and public.

ITC compensation is, for Fingrid, income and/or costs which the transmission system operator receives for the use of its grid by other European transmission system operators and/or pays to other transmission system operators when using their grid to serve its own customers.

The peak load capacity secures the supply security of electricity in situations of the Finnish power system where the planned electricity procurement is not sufficient to cover the anticipated electricity consumption. The peak load capacity system is a special task assigned to Fingrid by the Finnish Energy Authority, based on the Peak Load Capacity Act (117/2011, Act on peak load capacity which secures a balance between electricity production and consumption). The Energy Authority submits the peak load capacity plants for competitive tendering, and Fingrid manages the peak load capacity service as required by the Act. The peak load capacity can consist of both power plants and facilities capable of adjusting their electricity consumption.

2. OTHER OPERATING INCOME, €1,000	2018	2017
Rental income	831	942
Capital gains on fixed assets	8,276	321
Contributions received	186	170
Other income	1,506	1,500
Total	10,800	2,933



Accounting principles

Revenue recognition

Sales recognition takes place on the basis of the delivery of the service. Electricity transmission is recognised once the transmission has taken place, and balance power services are recognised on the basis of the delivery of the service. Indirect taxes and discounts, etc., are deducted from the sales income when calculating turnover.

Adoption of the IFRS 15 Revenue from Contracts with Customers standard, effective 1 Jan 2018

IFRS 15 will replace IAS 18, which outlines the accounting requirements for the sale of goods and services, and IAS 11 applied to long-term projects.

The fundamental principle of the standard is that sales revenue should be recognised when control over the goods or the service is transferred to the customer; in other words, control of the asset is the criterion to be examined instead of the previous criteria of risks and rewards.

A new five-step process should be applied when recognising sales revenue:

- Identify the contract(s) with a customer
- Identify the individual performance obligations
- Determine the transaction price according to the contract

- Allocate the transaction price to individual performance obligations, and
- Recognise revenue when each performance obligation is met.

The most significant change from the previous practice was the change in the timing of sales recognition: the new standard affected the timing of recognition of grid connection fees. Like all new standards, this one also includes new requirements for the notes to the financial statements. These changes in the accounting procedures have somewhat affected the company's business practices regarding systems, processes, controls, compensation arrangements, and investor relations.

Sales recognition takes place on the basis of the delivery of the service. Electricity transmission is recognised once the transmission has taken place. Balance power services are recognised on the basis of the delivery of the service. Fingrid has defined the performance obligations related to each agreement, and revenue recognition has been examined separately for each performance obligation. When determining the extent to which a performance obligation is met, a single method should be applied for all performance obligations to be met over time. If a customer does not receive an individual item of goods or a service against the connection fee, this must be recognised as revenue in the same way as the other revenue according to the contract, generally over the contract term. This has changed Fingrid's principles for recognising revenue regarding connection fees, as the timing of their recognition will change. Connection agreements are long term and can be terminated, at the earliest, 15 years from the date when it entered into force. Whereas connection fees were previously recognised on the agreement signing date, they are now recognised over 15 years since the connection to the electricity grid took place.

For Fingrid, the identified performance obligations did not bring significant changes to the previous recognition practices.

In adopting the standard, the cumulative effect method was used. Adjustments caused by the application of the standard were recorded in retained earnings on the date of commencement of its application, i.e. on 1 January 2018. With the cumulative effect method, the information on the comparison period is left as it was according to the previously applied standards.

Calculation of the standard's impacts on the financial statements

Application of the standard does not have significant impacts on the company's result and balance sheet.

If sales in 2017 were recognised according to the IFRS 15 revenue recognition standard, it would have had a reducing effect of EUR 1.2 million on net sales on 31 Dec. 2017, in which case net sales would have amounted to EUR 670.8 million. Until 31 Dec. 2017, non-recurring connection fees have been recognised when the connection is agreed on with the customer. If the connection fees were recognised over 15 years, it would have had a reducing effect on equity of EUR 35.1 million on the balance sheet date of 31 Dec. 2017, and it would have increased the deferred tax assets and accruals. The total impact in the balance sheet would have been EUR 8.8 million. Impacts on the income statement and balance sheet are presented in the table below.

Consolidated Income Statement € 1,000	Reported	Change, IFRS 15	Revised
	31.12.2017	31.12.2017	31.12.2017
Turnover	671 992	-1 208	670 784
Operating profit	184 786	-1 208	183 578
Profit before taxes	163 742	-1 208	162 534
Income taxes	-32 901	242	-32 659
Profit for financial year	130 841	-966	129 875
Consolidated Balance Sheet € 1,000	Reported	Change, IFRS 15	Revised
	31.12.2017	31.12.2017	31.12.2017
Deferred tax assets	5 071	8 786	13 858
Total assets	2 113 306	8 786	2 122 093
Equity	-798 057	35 146	-762 912
Long-term deferred income		-40 140	-40 140
Short-term deferred income	-20 627	-3 792	-24 419
Total equity and liabilities	2 113 306	-8 786	2 122 093



Judgements and estimates

Estimate of the purchase and sale of imbalance power

The income and expenses of imbalance power are ascertained through a nationwide imbalance settlement procedure, which is based on the Ministry of Employment and Economy's 9 December 2008 decree on the disclosure obligation related to the settlement of electricity delivery. The final imbalance settlement is completed no later than 13 days from the delivery month, which is why the income and expenses of imbalance power in the financial statements are partly based on preliminary imbalance settlement. The estimate is based on the preliminary imbalance settlement information provided by the imbalance settlement. For foreign balances, the calculations have been verified with the foreign counterparties.

Inter-Transmission System Operator Compensation (ITC)

Compensation for the transit transmissions of electricity has been agreed upon through an ITC (Inter-Transmission System Operator Compensation) agreement. The centralised calculations are carried out by ENTSO-E (the European Network of Transmission System Operators of Electricity). ITC compensation is determined on the basis of the compensation paid for use of the grid and transmission losses. The ITC calculations take into account the electricity transmissions between the various ITC agreement countries. ITC compensation can represent both an income and a cost for a transmission system operator. Fingrid's share of the ITC compensation is determined on the basis of the cross-border electricity transmissions and imputed grid losses. ITC compensation is invoiced retroactively after all parties to the ITC agreement have approved the invoiced sums. Control is carried out monthly. This is why the uninvoiced ITC compensations for 2017 have been estimated in the financial statements. The estimate has been made using actual energy border transmissions in Finland and unit compensations, which have been estimated by analysing the actual figures from previous months and data on grid transmissions during these months.

Revenue-related receivables and credit risk management

4.4 Revenue-related receivables and credit risk management

3. TRADE RECEIVABLES AND OTHER RECEIVABLES, €1,000	2018	2017
Trade receivables	88,730	80,915
Trade receivables from associated companies	782	3,888
Prepayments and accrued income from associated companies	9	46
Loan receivables from associated companies	500	
Prepayments and accrued income	7,999	9,771
Other receivables	1,463	1,448
Total	99,484	96,068
Essential items included in prepayments and accrued income	2018	2017
Accruals of sales	2,662	1,634
Accruals of purchases/prepayments	1,533	2,281
Interest receivables	2,723	2,737
Rents/prepayments	800	789
Tax assets	280	2,331
Total	7,999	9,771

Credit risk management – customers

According to The Electricity Market Act, the company is obliged to accept distribution network operators joining the grid as well as electricity producers and consumers as its customers. Accordingly, the company cannot choose its customers based on a credit risk analysis or collect different fees from them. In general, collateral are not required from the company's customers to secure sales payments, but in the event of an overdue payment, this is possible. The unit in charge of the customer relationships is responsible for verifying their creditworthiness. The procedure following a customer payment default is defined in the terms and conditions of the Main Grid Contract. Fingrid requires a collateral (either bank guarantees or an upfront payment) in order to cover the electricity taxes payable by customers connected to the grid and subject to the tax, as ruled in the Main Grid Contract's Service Terms and Conditions. At the turn of the year, the company had minor outstanding receivables, of which the credit risk was considered to be low, and the company estimates it will receive these payments. The company has no impairments related to receivables.

Netting of trade receivables and trade payables

The trade receivables and trade payables are netted in the balance sheet as presented in the table below. The netted items are associated with purchases and sales of imbalance power. The company has a legally enforceable right of set-off to these items in any circumstance and will use this right.

4. NETTING OF TRADE RECEIVABLES AND TRADE PAYABLES € 1,000

	2018			2017		
	Gross amount of trade receivables/ trade payables	Amount of netted items	Net amount of trade receivables and trade payables presented in the balance sheet	Gross amount of trade receivables/ trade payables	Amount of netted items	Net amount of trade receivables and trade payables presented in the balance sheet
Trade receivables	110,676	-21,164	89,513	94,764	-9,961	84,803
Trade payables	48,859	-21,164	27,696	43,583	-9,961	33,622

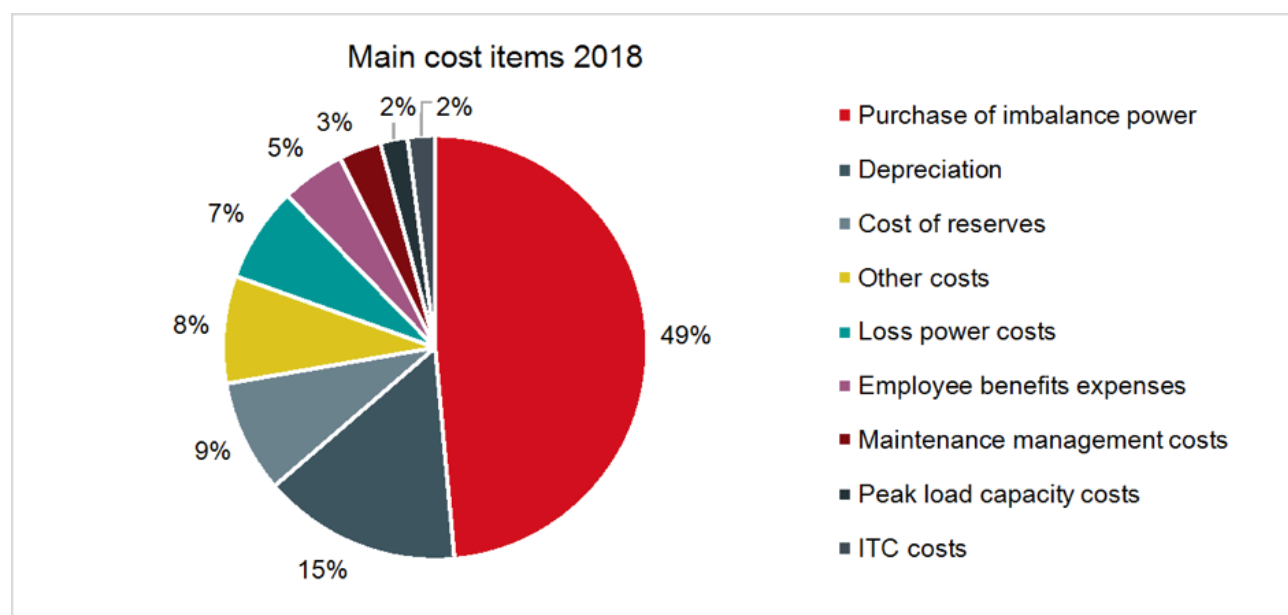

Accounting principles
Trade and other receivables

Loans and other receivables are recognised initially at fair value; subsequently they are measured at amortised cost using the effective interest rate method. The expected credit losses are assessed based on historical amounts of credit losses, taking into account forward-looking information on economical developments and receivable-specific assessments. Impairment losses are recognised directly, under other operating expenses, to reduce the carrying amount of the receivables. Fingrid did not have any impairment losses during the periods presented here.

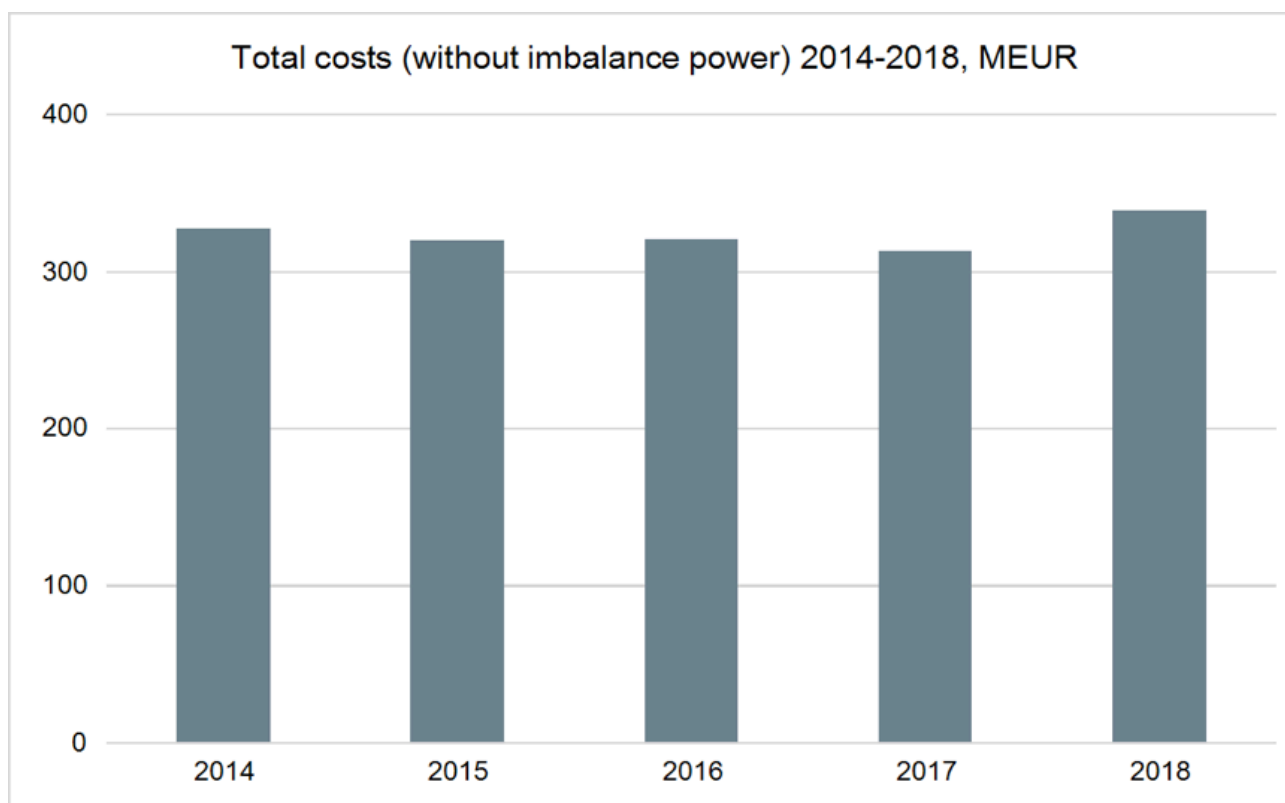
In addition to trade receivables and other receivables, the company has a small amount of loan receivables from associated companies. These are long- and short-term and described in Chapter 7.1. The receivables from associated companies are recognised according to these same accounting principles.

Operating expenses, liabilities and credit risk management for purchases

Fingrid's operating expenses consist of and have developed as follows:



Cost increases due in particular to new tasks and unexpected external changes affecting operations has been a special characteristic of grid operations in recent years. The new tasks involve, among other things, developing the Nordic imbalance markets, changes required by the new Electricity Market Act and the European network codes and the R&D expenses for these tasks. Some of the new tasks and responsibilities are assigned to Fingrid by law, which means the company must increasingly develop and back up its operations. The cost factors also include society's increasing dependency on the power system, as well as needs related to data security. Fingrid nevertheless continues to be one of the most cost-effective TSOs in the world in international benchmark studies. The Group's R&D costs in 2018 amounted to EUR 3.6 (2.6) million.



5. MATERIALS AND SERVICES, €1,000	2018	2017
Loss power costs	47,673	47,397
Purchase of imbalance power	316,608	183,214
Cost of reserves	52,171	46,245
Other material costs	11,071	4,773
Change in inventories, increase (-) or decrease (+)	1,138	-1,260
Peak load capacity costs	13,717	7,963
ITC costs	13,803	13,015
Maintenance management costs	26,382	29,891
Other external services	310	600
Total	482,873	331,839

6. OTHER OPERATING EXPENSES, €1,000	2018	2017
Contracts, assignments etc. undertaken externally	30,665	26,855
Gains/losses from measuring electricity derivatives at fair value	-36,958	-9,053
Other rental expenses	4,083	3,622

Other expenses	9,422	10,603
Total	7,211	32,027

Auditors' fees	2018	2017
PricewaterhouseCoopers Oy		
Auditing fee	89	68
Tax advisory fees		20
Assignments referred to in the Auditing Act, Chapter 1, Section 1, Subsection 2	2	
Other fees	92	41
Total	183	130

Auditors' fees are included in other operating expenses

The company's operating model is largely based on outsourcing, including areas such as grid investments, maintenance management and ICT purchases. The company will apply competitive tendering as described in the procurement policy. All purchasing activities are based on impartiality, equality and transparency. Procurement decisions will be made according to previously published financial and qualitative criteria that are verifiable also after the fact. Fingrid aims to ensure that all suppliers and their subcontractors operate in a sustainable manner. A commitment to Fingrid's Supplier Code of Conduct is required from all suppliers.

7. TRADE PAYABLES AND OTHER LIABILITIES, €1,000	2018	2017
Trade payables	25,470	30,246
Trade payables to associated companies	2,226	3,376
Interest payable	11,778	12,257
Value added tax	13,803	12,378
Collaterals received	923	923
Electricity tax	4,443	3,092
Accruals	81,483	20,627
Other debt	1,904	588
Total	142,030	83,488

Essential items included in accruals	2018	2017
Personnel expenses	8,011	6,613
Accruals of sales and purchases	57,526	8,848

Tax liabilities	15,930	5,150
Other accruals	16	16
Total	81,483	20,627

Credit risk in purchasing

The heads of functions are in charge of credit risks related to suppliers. The procurement policy and guidelines, and separate instructions set out the financial criteria required for Fingrid's suppliers and their monitoring.

General procurement principles

The Group follows three alternative procurement methods when purchasing goods or services. When the value of the purchase is less than 30,000 euros and the benefits of a competitive tender are smaller than the costs of the purchase, the purchase can be executed without a competitive tender or it can be executed through an oral request. A written order or purchasing agreement is always drawn up. When the estimated value of the procurement exceeds 30,000 euros but is below the threshold values applied to public procurements, the procurement is subject to competitive bidding by requesting written bids from the supplier candidates. When the public procurement threshold values that apply to Fingrid (in 2018: EUR 443,000 for goods and services, EUR 5,548,000 for construction projects, EUR 418,000 for design competitions and EUR 5,548,000 for right-of-use agreements) are exceeded, the company follows the public procurement legislation applied to special sectors.

Inventories

4.6 Inventories

Fingrid prepares for outages by maintaining reserve power plants. The inventories contain fuel for reserve power plants, spare parts for submarine cables, back-up equipment and parts for substations, and repair equipment for transmission lines. The aim of stockpiling is to achieve sufficient preparedness at the substations and on the transmission lines owned by Fingrid in case of faults and events possibly occurring during times of crisis.

8. INVENTORIES, €1,000	2018	2017
Materials and consumables at 1 Jan		
Material stocks	7,030	6,836
Fuel stocks	5,361	6,412
Work in progress	0	281
Total	12,391	13,529

The use of inventories was entered as an expense of EUR 1.5 (2.6) million



Accounting principles

Inventories

Inventories are measured at the lower of acquisition cost or net realisable value. The acquisition cost is determined using the FIFO principle. The net realisable value is the estimated market price in normal business reduced by the estimated future costs of completing and estimated costs required by sale. Inventories consist of material and fuel inventories.

Management of commodity risks

The electricity price and volume risks are not significant to the company's turnover and financial result over time. If the volume of transmitted electricity deviates from the forecasted volume, the result may be a deviation in the company's turnover and financial result. This can lead to a surplus or deficit compared with the allowed reasonable return for the year in question, which the company will aim to offset during the subsequent financial year.

The company is exposed to electricity price and volume risk through transmission losses so that the company must acquire so-called loss power in an amount corresponding to the electricity transmission losses. Loss power purchases and the price hedging thereof are based on the Corporate Finance Principles approved by the Board of Directors. Moreover, the company has a loss power policy, approved by the Executive Management Group, for loss power hedging and purchases, as well as operative instructions, instructions for price hedging and control room instructions. The allowed hedging instruments are defined in the loss power policy. The purpose of price hedging is to reduce the impact of market price volatility and enable sufficient predictability in order to keep the annual pressures on grid pricing of loss energy at a moderate level. Price hedging is implemented over a four year horizon such that by the end of September in the year preceding the delivery, the price risk for the next year is fully hedged. For the price hedging of loss power purchases, the company mainly uses NASDAQ OMX Commodities quoted futures. The company can also use OTC futures comparable with NASDAQ OMX Commodities futures. The nominal values, fair values and exposures of electricity futures are disclosed in Table 23.

Commodity risks other than those related to loss energy purchases arise if the company enters into purchasing agreements in which the price of the underlying commodity influences the final price of the investment commodity (commodity price risk). As a rule, commodity price risks and exchange rate risks are fully hedged. A risk that amounts to less than EUR 5 million when realised can be unhedged for reasons of cost-effectiveness.

Personnel - the cornerstone of our operations

Fingrid Oyj employed 380 (355) persons, including temporary employees, at the end of the year. The number of permanent personnel was 327 (308). Of the personnel employed by the company, 23 (24) per cent were women and 77 (76) per cent were men. The average age of the personnel was 44 (44).

9. PERSONNEL EXPENSES, €1,000	2018	2017
Salaries and bonuses	26,511	24,187
Pension expenses - contribution-based schemes	4,662	4,139
Other additional personnel expenses	1,017	1,059
Total	32,190	29,385
Salaries and bonuses of top management	1,925	1,720

In 2018, the Group applied a remuneration system for senior management; the general principles of the system were accepted by the Board of Directors of Fingrid Oyj on 18 December 2018. The total remuneration of the members of the executive management group consists of a fixed total salary, a one-year bonus scheme, and a three-year long-term incentive scheme. The maximum amount of the one-year bonus scheme payable to the CEO was 40 per cent of the annual salary and to the other members of the executive management group 20 per cent of the annual salary. The maximum amount of the annual long-term incentive scheme payable to the CEO was 35 per cent (in programme 2016–2018) or 40 per cent (in programmes 2017–2019 and 2018–2020), and to the other members of the executive management group 25 per cent.

The Group currently has contribution-based pension schemes only. The pension security of the Group's personnel is arranged by an external pension insurance company. Pension premiums paid for contribution-based schemes are recognised as an expense in the income statement in the year to which they relate. In contribution-based schemes, the Group has no legal or factual obligation to pay additional premiums if the party receiving the premiums is unable to pay the pension benefits.

NUMBER OF SALARIED EMPLOYEES IN THE COMPANY DURING THE FINANCIAL YEAR:	2018	2017
Personnel, average	376	352
Personnel, 31 Dec	380	355



Accounting principles

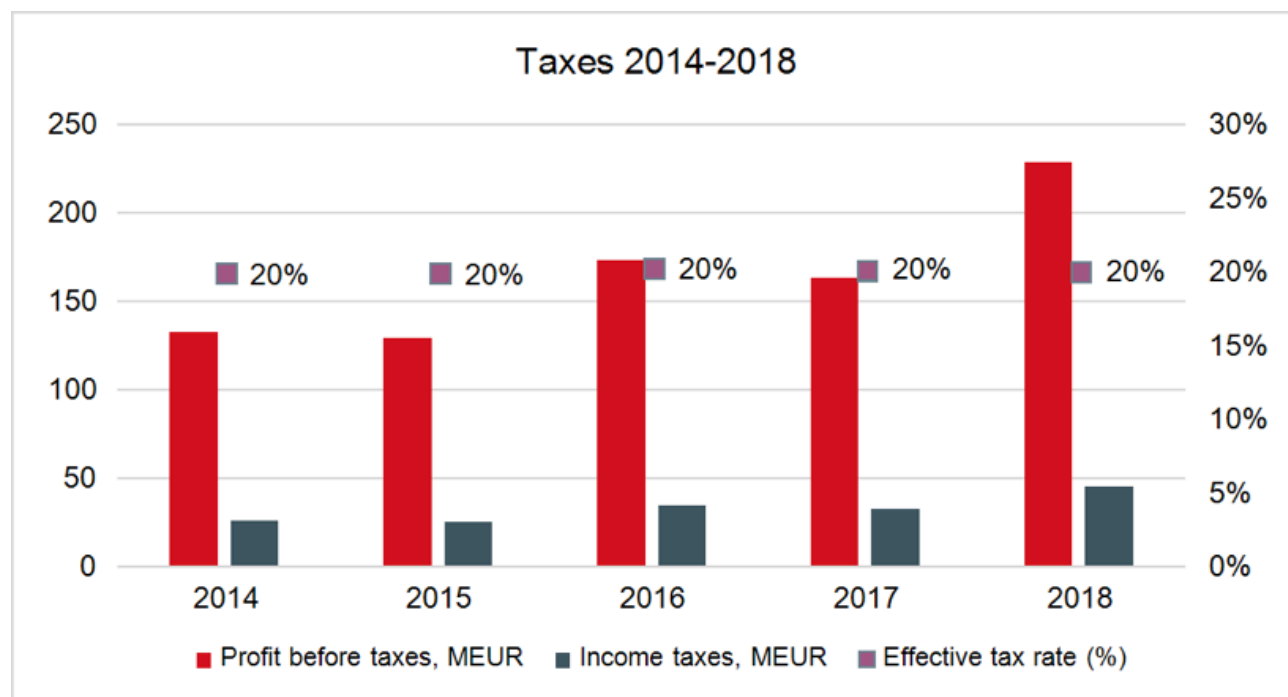
Employee benefits

Pension obligations

The company has only defined contribution-based pension schemes. A defined contribution-based pension arrangement refers to a pension scheme according to which fixed contributions are paid into a separate entity, and the Group bears no legal or actual obligation to make additional contributions if the fund does not contain sufficient funds to pay out benefits based on work performed during current and previous financial periods to all employees. Under defined contribution-based pension schemes, the Group pays mandatory, contractual or voluntary contributions into publicly or privately managed pension insurance policies. The Group has no other contribution obligations in addition to those payments. The payments are entered as personnel costs when they fall due. Advance payments are entered in the balance sheet as assets insofar as they are recoverable as refunds or deductions from future payments.

Taxes

The company will pay its income taxes in accordance with the underlying tax rate, without special tax arrangements. Income taxes consist of direct taxes and the change in deferred tax: EUR -48.5 (-39.4) million and EUR 2.7 (6.5) million respectively. Fingrid's effective tax rate is essentially comparable to Finland's corporate tax rate 20%. The only difference between the Finnish corporate tax rate and Fingrid's effective tax rate is due to a minor amount of non-deductible items, amounting in 2018 to EUR 0.0 (0.2) million. The table below illustrates the development of Fingrid's effective tax rate.



10. DEFERRED TAX ASSETS AND LIABILITIES, € 1,000

Changes in deferred taxes in 2018:

	31 Dec, 2017	Recorded in income statement at profit or loss	Recorded in other comprehensive income	31 Dec, 2018
Deferred tax assets				
Provisions	295	-10		285
Current financial receivables	3	-3		
Trade payables and other liabilities	1,566	347		1,913
Derivative instruments	3,207	-926		2,281
Congestion income	8,846	1,942		10,788
Connection fees (IFRS 15)		8,028		8,028

Total	13,918	9,378	0	23,296
Deferred tax liabilities				
Accumulated depreciations difference	-89,779	10,000		-79,779
Property, plant and equipment, tangible and intangible assets	-28,665	-742		-29,407
Other receivables	-560	4		-556
Other financial assets	-99	29		-71
Borrowings	-2,619	1,118		-1,501
Derivative instruments	-5,281	-6,392		-11,673
Total	-127,003	4,017	0	-122,986

Changes in deferred taxes in 2017:

	31 Dec, 2017	Recorded in income statement at profit or loss	Recorded in other comprehensive income	31 Dec, 2018
Deferred tax assets				
Provisions	296	-1		295
Current financial receivables	12	-9		3
Trade payables and other liabilities	1,858	-291		1,566
Derivative instruments	3,989	-781		3,207
Congestion income		8,846		8,846
Total	6,155	7,763	0	13,918

Deferred tax liabilities				
Accumulated depreciations difference	-89,779			-89,779
Property, plant and equipment, tangible and intangible assets	-27,120	-1,545		-28,665
Available-for-sale investments	-20	20		
Other receivables	-840	280		-560
Other financial assets	-79	-20		-99
Borrowings	-2,332	287		-2,619
Derivative instruments	-5,608	327		-5,281
Total	-125,778	-1,225	0	-127,003



Accounting principles

Income taxes

Taxes presented in the consolidated income statement include the Group companies' accrual taxes for the profit of the financial year, tax adjustments from previous financial years and changes in deferred taxes. Deferred taxes are recorded in accordance with Finland's statutory corporate tax rate of 20%. Taxes are recognised in the income statement unless they are linked with other comprehensive income, in which case the tax is also recognised in other comprehensive income. Such items in the Group consist solely of available-for-sale investments, since hedge accounting for electricity derivatives was discontinued in 2014.

Deferred tax assets and liabilities are recognised on all temporary differences between the tax values of asset and liability items and their carrying amounts using the liability method. Deferred tax is recognised using tax rates valid up until the closing date. The deferred tax liabilities arising from the original recognition of goodwill will not be recognised, however. Deferred tax liabilities will also not be recognised if they are caused by the original recognition of the asset or liability and the item is not related to a merger and the transaction will not affect the accounting totals or the taxable revenue during its implementation. The deferred tax assets are shown as non-current receivables and deferred tax liabilities correspondingly as non-current liabilities.

The largest temporary differences result from the depreciation of property, plant and equipment, from financial instruments, and from the use of congestion income for capital expenditures. No deferred tax is recognised on the undistributed profits of the foreign associated company, because receiving the dividend does not cause a tax impact by virtue of a Nordic tax agreement. The deferred tax asset from temporary differences is recognised up to an amount which can likely be utilised against future taxable income.

5 Long-term Investor

- This chapter focusses on Fingrid's assets, and above the most important ones: Grid assets and the indicators related to them.
- The chapter also takes a look at the company's goodwill and provides a description of other property, plant and equipment, and intangible assets

Grid assets

Fingrid's grid investment programme promotes the national climate and energy strategy, improves system security, increases transmission capacity and promotes the electricity markets. The annual capital expenditure in the grid has remained extensive.



14 300 km of power lines
300 km of submarine cable



over
47 000 towers

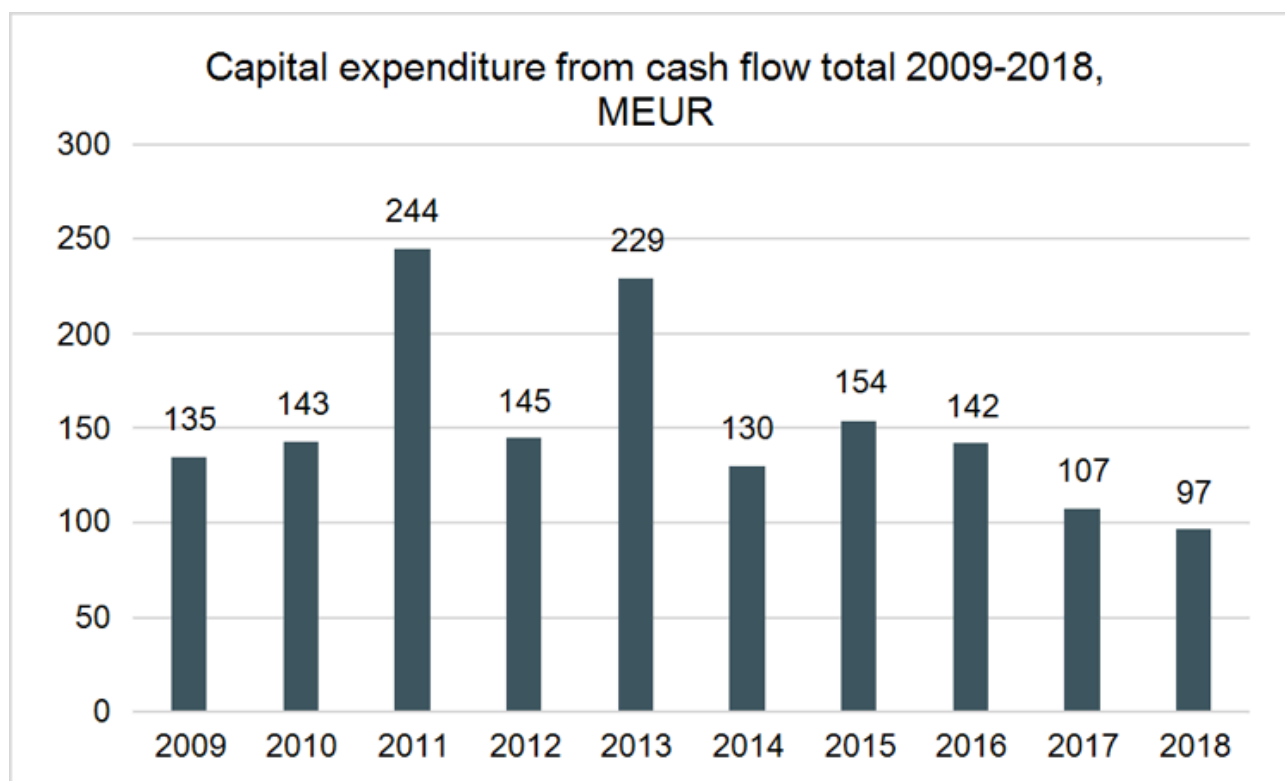


114 substations

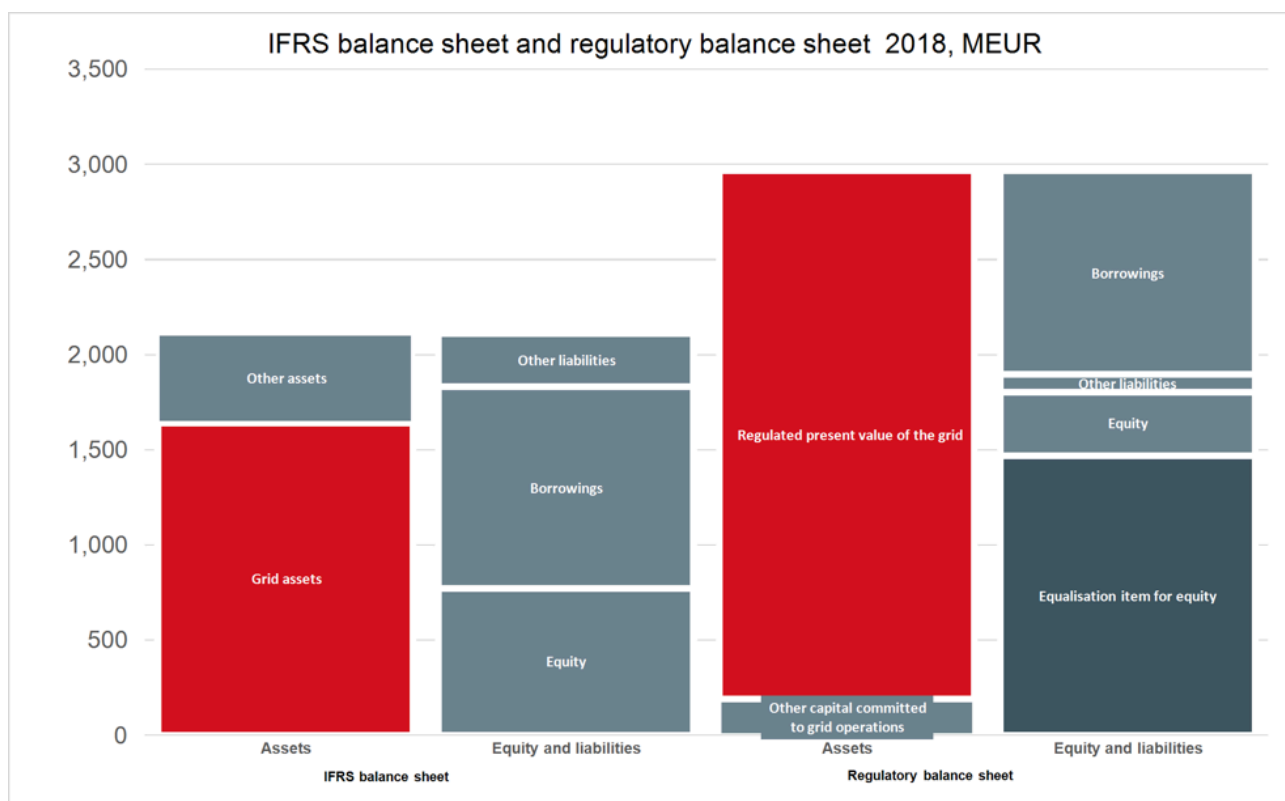


10 reserve power plants
> 935 MW reserve

The company's total capital expenditure in 2018 amounted to EUR 92.7 (111.1) million. This included a total of EUR 85.1 (91.1) million invested in the transmission grid and EUR 2.9 (14.2) million for reserve power. ICT investments amounted to EUR 4.0 (5.7) million. A total of EUR 3.6 (2.6) million was used for R&D projects during the year under review. Power lines, totalling around 250 kilometres, and substations were built extensively throughout Finland in 2018. Seven substation projects were completed. The biggest current projects are related to the modernisation of the aging 'Iron Lady' transmission line, connecting large-scale power plants to the grid, and maintaining system security for major cities

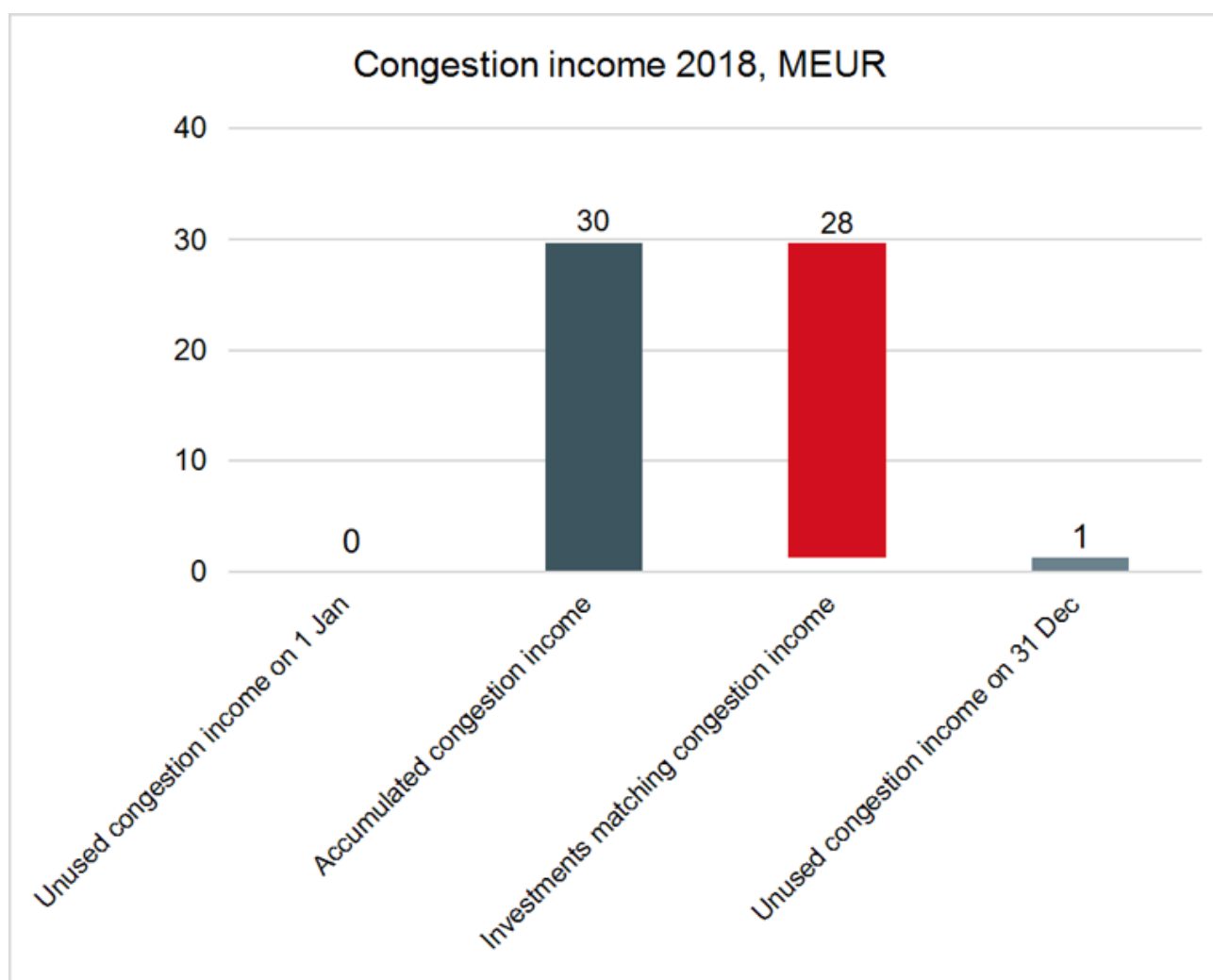


Grid assets are recognised at fair value for the purposes of the company's regulatory balance sheet, as described above. The fair value of the transmission network assets (adjusted replacement cost) is calculated by adding up the adjusted replacement costs for each grid component; these are calculated by multiplying the unit price specified by the Energy Authority with the number of grid components. The adjusted present value in use for a grid component is calculated based on the adjusted replacement cost, using the useful life and mean lifetime data of the grid component.



Congestion income

Congestion income is generated because of an insufficient transmission capacity between the bidding zones of an electricity exchange. In such cases, the bidding zones become separate price areas, and the transmission link joining them generates congestion income in the electricity exchange as follows: $\text{congestion income [€/h]} = \text{transmission volume in the day-ahead markets [MW]} * \text{area price difference [€/MWh]}$. The basis for this is that a seller operating in a lower priced area receives less for their power than what a buyer pays for it in a higher priced area. The additional income caused by this price difference, i.e. congestion income, remains in the electricity exchange, which then pays the income to the TSOs as per the contractual terms. The congestion income received by a grid owner must be used for the purposes stated in EC Regulation 714/2009, Article 16, Paragraph 6: guaranteeing the actual availability of the allocated capacity, and maintaining or increasing interconnection capacities through network investments. As a consequence of the change in the regulation governing Fingrid's grid pricing, the company will include the congestion income received after 1 January 2016 in the balance sheet.



Congestion income accrued in 2018 was used for the Hirvisuo–Pyhänselkä grid investment, which will enhance electricity transmission from northern Sweden. EUR 1.3 million in congestion income was left unused and will be used for investments earmarked for financing with congestion income.



Accounting principles

Congestion income

As a consequence of the change in the regulation governing Fingrid's grid pricing, the company will include the congestion income received after 1 January 2016 as accruals in the item other liabilities in the balance sheet. Of the accruals, congestion income will be recognised in the income statement as other operating income when their corresponding costs, as defined in the regulation, accrue as annual expenses in the income statement. Alternatively, they are entered in the balance sheet against investments, as defined by regulation, to lower the acquisition cost of property, plant and equipment, which lowers the depreciation of the property, plant and equipment in question. The congestion income received before 1 January 2016 was recognised in turnover.

Public contributions

Public contributions received from the EU or other parties related to property, plant and equipment are deducted from the acquisition cost of the item, and the contributions consequently reduce the depreciation made on the item. Other contributions are distributed as income over those periods when costs linked with the contributions arise. Other contributions received are presented in other operating income.

Tangible and intangible assets

5.2 Tangible and intangible assets

11. PROPERTY, PLANT AND EQUIPMENT, € 1,000	2018	2017
Land and water areas		
Cost at 1 Jan	15,974	15,701
Increases 1 Jan - 31 Dec	864	274
Decreases 1 Jan - 31 Dec	-89	
Cost at 31 Dec	16,749	15,974
Carrying amount 31 Dec	16,749	15,974
Buildings and structures		
Cost at 1 Jan	279,432	254,823
Increases 1 Jan - 31 Dec	26,780	24,614
Decreases 1 Jan - 31 Dec	-1,022	-5
Cost at 31 Dec	305,190	279,432
Accumulated depreciation 1 Jan	-69,640	-61,108
Decreases, depreciation 1 Jan - 31 Dec	536	5
Depreciation 1 Jan - 31 Dec	-9,756	-8,538
Carrying amount 31 Dec	226,329	209,792
Machinery and equipment		
Cost at 1 Jan	1,146,492	1,115,218
Increases 1 Jan - 31 Dec	43,870	31,992
Decreases 1 Jan - 31 Dec	-6,455	-718
Cost at 31 Dec	1,183,907	1,146,492
Accumulated depreciation 1 Jan	-584,443	-536,937
Decreases, depreciation 1 Jan - 31 Dec	2,464	718
Depreciation 1 Jan - 31 Dec	-48,617	-48,224
Carrying amount 31 Dec	553,310	562,049
Transmission lines		
Cost at 1 Jan	1,305,020	1,307,111

Increases 1 Jan - 31 Dec	10,541	-1,658
Decreases 1 Jan - 31 Dec	-1,921	-433
Cost at 31 Dec	1,313,640	1,305,020
Accumulated depreciation 1 Jan	-518,783	-482,073
Decreases, depreciation 1 Jan - 31 Dec	1,081	184
Depreciation 1 Jan - 31 Dec	-37,453	-36,894
Carrying amount 31 Dec	758,485	786,237
Other property, plant and equipment		
Cost at 1 Jan	24,145	23,721
Increases 1 Jan - 31 Dec	757	424
Decreases 1 Jan - 31 Dec	-3	
Cost at 31 Dec	24,899	24,145
Accumulated depreciation 1 Jan	-17,085	-16,119
Depreciation 1 Jan - 31 Dec	-993	-966
Carrying amount 31 Dec	6,821	7,060
Prepayments and purchases in progress		
Cost at 1 Jan	83,656	59,404
Increases 1 Jan - 31 Dec	76,903	94,299
Transfers to other tangible and intangible assets 1 Jan - 31 Dec	-99,995	-70,047
Cost at 31 Dec	60,565	83,656
Carrying amount 31 Dec	60,565	83,656
Capitalised interest		
Cost at 1 Jan	12,664	11,442
Increases 1 Jan - 31 Dec	1,042	1,223
Decreases 1 Jan - 31 Dec	-1	
Cost at 31 Dec	13,705	12,664
Accumulated depreciation 1 Jan	-1,433	-1,021
Depreciation on capitalised interest 1 Jan - 31 Dec	-478	-412
Carrying amount 31 Dec	11,795	11,232
Carrying amount 31 Dec	72,360	94,888
Property, plant and equipment	1,634,055	1,675,999

12. INTANGIBLE ASSETS, €1,000	2018	2017
Land use rights		
Cost at 1 Jan	95,087	94,507
Increases 1 Jan - 31 Dec	2,625	706
Decreases 1 Jan - 31 Dec	-203	-126
Cost at 31 Dec	97,509	95,087
Carrying amount 31 Dec	97,509	95,087
Other intangible assets		
Cost at 1 Jan	36,133	31,644
Increases 1 Jan - 31 Dec	2,695	4,974
Decreases 1 Jan - 31 Dec		-485
Cost at 31 Dec	38,828	36,133
Accumulated depreciation 1 Jan	-31,426	-29,571
Depreciation 1 Jan - 31 Dec	-2,366	-1,855
Carrying amount 31 Dec	5,037	4,707
Carrying amount 31 Dec	102,546	99,795

Land use rights are not depreciated but tested annually for impairment in connection with the testing of goodwill.

The entire business of the Fingrid Group is grid operations in Finland with system responsibility, which the full goodwill of the Group in the balance sheet is fully allocated to. The goodwill included in the balance sheet amounts to EUR 87.9 million and has not changed during the periods under review. Since, per the regulation, the fair value of the net assets included in the company's grid assets is approximately EUR 2,800.0 million compared to the carrying amount of EUR 1,824.5 million in net assets, which includes land use rights and goodwill, the book value of the asset items has not decreased.



Accounting principles

Property, plant and equipment

Grid assets form most of the property, plant and equipment. Grid assets include, among other things, 400 kV, 220 kV, 110 kV transmission lines, direct current lines, transmission line right-of-ways, substations and the areas they encompass (buildings, structures, machinery and equipment, substation access roads), gas turbine power plants, fuel tanks, generators and turbines.

Property, plant and equipment are valued in the balance sheet at the original acquisition cost less accumulated depreciation and potential impairment. If an asset is made up of several parts with useful lives of different lengths, the parts are treated as separate items and are depreciated over their separate useful lives.

When a part of property, plant and equipment that is treated as a separate item is replaced, the costs relating to the new part are capitalised. Other subsequent costs are capitalised only if it is likely that the future economic benefit relating to the asset benefits the Group and the acquisition cost of the asset can be determined reliably. Repair and maintenance costs are recognised in the income statement when they are incurred.

Borrowing costs, such as interest costs and arrangement fees, directly linked with the acquisition, construction or manufacture of a qualifying asset form part of the acquisition cost of the asset item in question. A qualifying asset is one that necessarily requires a considerably long time to be made ready for its intended purpose. Other borrowing costs are recognised as an expense. Borrowing costs included in the acquisition cost are calculated on the basis of the average borrowing cost of the Group.

Property, plant and equipment is depreciated over the useful life of the item using the straight-line method. Depreciation on property, plant and equipment taken into use during the financial year is calculated on an item-by-item basis from the month of introduction. Land and water areas are not depreciated. The expected economic lives are verified at each closing date, and if they differ significantly from the earlier estimates, the depreciation periods are amended accordingly.

The depreciation periods of property, plant and equipment are as follows:

Buildings and structure

Substation buildings and separate buildings	40 years
Substation structures	30 years
Buildings and structures at gas turbine power plants	20-40 years
Separate structures	15 years

Transmission lines

Transmission lines 400 kV	40 years
Direct current lines	40 years
Transmission lines 110-220 kV	30 years
Creosote-impregnated towers and related disposal costs	30 years
Aluminium towers of transmission lines (400 kV)	10 years
Optical ground wires	10-20 years

Machinery and equipment

Substation machinery	10-30 years
Gas turbine power plants	20 years
Other machinery and equipment	3-5 years

Gains or losses from the sale or disposition of property, plant and equipment are recognised in the income statement under either other operating income or expenses. Property, plant and equipment are derecognised in the balance sheet when their economic useful life has expired, the asset has been sold, scrapped or otherwise disposed of to an outsider.

Goodwill and other intangible assets

Goodwill created as a result of the acquisition of enterprises and businesses is composed of the difference between the acquisition cost and the net identifiable assets of the acquired business valued at fair value. Goodwill is allocated to cash-generating units and is tested annually for impairment. With associated companies, goodwill is included in the value of the investment in the associated company.

Other intangible assets consist of computer software and land use and emission rights. Computer software is valued at its original acquisition cost and depreciated on a straight line basis during its estimated useful life. Land use rights, which have an indefinite useful life, are not depreciated but are tested annually for impairment.

More on emission rights in chapter 7.2.

Subsequent expenses relating to intangible assets are only capitalised if their economic benefits to the company increase beyond the former performance level. In other cases, expenses are recognised in the income statement when they are incurred.

Lease agreements

The lease agreements of the Group mainly relate to office premises. The durations of the lease agreements range from less than one year to fifteen years, and the contracts can usually be extended after the original date of expiration. The index, renewal and other terms of the different agreements vary.

In addition to real estate, the Group has additionally leased assets such as several land areas under substations and transmission lines and some 110 kilovolt transmission lines and circuit breaker bays.

13. LEASE AGREEMENTS, € 1,000	2018	2017
Rental obligations from lease agreements:		
In one year	4,223	4,079
In more than one year and less than five years	14,716	14,279
In more than five years	11,273	13,913
Total	30,212	32,270



Accounting principles

Lease agreements

Lease obligations where the risks and rewards incident to ownership remain with the lessor are treated as other lease agreements. Lease obligations paid on the basis of other lease agreements are treated within other operating expenses and are recognised in the income statement as equally large items during the lease period. Other lease agreements primarily concern office facilities, land areas and network leases. In accordance with the principles of standard IAS 17 Leases, those leases which transfer substantially all the risks and rewards incident to ownership to the company are classified as finance leases. The company has not leased tangible or intangible assets using finance leases.

IFRS 16 Leases

The IFRS 16 standard will be applied as of 1 January 2019. It replaces the previous IAS 17 Leases standard, which required classification of leases as either operating leases or finance leases. As defined in the new standard, a lease is a contract, or part of a contract, that conveys the right to use an identified asset for a period of time in exchange for consideration. Each lease is analysed independently when the contract is entered into, including all the components contained in the contract. From now on, both the underlying asset to which the right to use applies and the liability representing future lease payments are recognised in the balance sheet over the time of its economic impact. The substantial changes due to IFRS 16 mostly apply to lessors. Leases are recognised in the balance sheet except for short-term leases and leases of low-value assets. Exceptions are possible for short-term leases and leases of low-value assets, and no adjustments are necessary for such assets when transitioning from the old system to the new one. It is possible to apply a modified retrospective transition approach when adopting the standard, in other words the company recognises the effect of initially applying IFRS 16 as an adjustment to the equity at the date of initial application, on 1 January 2019.

The company has assessed the impacts of the adoption of the IFRS 16 standard.

Impacts

During 2018, Fingrid carried out a project to prepare for the transition to the new standard. The initial stage of the project focused on finding out which of the company's contracts meet the standard definition of a lease and consequently fall within its scope of application. According to the company's current view, the contracts to be recognised in the balance sheet in compliance with IFRS 16 are real estate leases. The company has a number of other contracts that, according to the management's judgement, are insignificant in terms of their impact on the balance sheet and accuracy of financial reporting.

The company's lease liabilities on the reporting date of the 2018 financial statements totalled EUR 30.2 million, consisting of EUR 4.2 million in short-term liabilities, to be paid within a year, and EUR 26.0 million in long-term liabilities, with a due date after more than a year. The lease liabilities are presented in note 13.

The change results in an increase in property, plant and equipment, and in liabilities. As a result of the project, the Group recognised items of property, plant and equipment totalling around EUR 35 million on 1 January 2019 as leases in compliance with IFRS 16. Other operating expenses in the income statement will decrease because leases will in future be stated as depreciations and interest costs. The liability will be amortised using the effective interest rate method, where the relative amount of interest expenditure decreases along with the principal liability, resulting in 'frontloading' of the lease expenses in the income statement over the lease term. The standard also affects the Group's cash flow. The cash flow from operating activities will increase because the capital repayment component of the lease liabilities will be classified as cash flow from financing activities. The interest component will continue to be disclosed in the cash flow from operating activities.

According to Fingrid's estimation, IFRS 16 will have an impact of EUR –0.2 million on the consolidated profit during the first year. Lease expenses are estimated to decrease by around EUR 3.0 million in 2019, whereas depreciations are estimated to increase by EUR 2.6 million and interest costs by EUR 0.7 million.

The right-of-use contracts of the powerlines have already been entered directly in the balance sheet on the contract date, which means there will be no changes in their accounting procedures due to the transition to IFRS 16.

Fingrid will apply a modified retrospective transition approach when adopting the standard, in other words the impacts will be recognised on the transition date, 1 January 2019. The modified retrospective transition approach entails no retrospective adjustments to the previous year's figures.

6 Strong Financial Position

- This chapter focuses on describing how Fingrid's financing is formed and how the related risks are managed, and at the same time, how short-term financial assets that secure liquidity are formed.
- The chapter describes the company's principles of capital management, ownership structure and dividend distribution policy.
- The end of the chapter contains a summary of all the financial assets and financing liabilities, as well as derivatives, that the company uses solely for risk management purposes. The risks relate to various market risks: the electricity price risk and the interest rate and exchange rate risk. Management of the price and volume risk of electricity is described in chapter 4.7.

Capital management

Equity and liabilities as shown in the balance sheet are managed by the company as capital. The principal aim of Fingrid's capital management is to ensure that the company is capable of uninterrupted operations and can rapidly recover from any exceptional circumstances. Additional key goals include maintaining an optimal capital structure such that the company's credit rating remains solid, cost of capital remains reasonable, and the company can pay dividends to its shareholders.

The company has not set specific financial ratio targets for capital management, but instead monitors and controls the overall capital structure based on credit ratings and their underlying parameters.

The company's credit rating remained high in 2018. This reflects the company's strong overall financial situation and debt service capacity. Fingrid has credit rating service agreements with S&P Global Ratings (S&P) and Fitch Ratings (Fitch). The credit ratings valid on 31 December 2018 were as follows:

- S&P's rating for Fingrid's unsecured senior debt and long-term company rating at 'AA-' and the short-term company rating at 'A-1+', with a stable outlook.
- Fitch's rating for Fingrid's unsecured senior debt at 'AA-', the long-term company rating at 'A+', and 'F1' for the short-term company rating, with a stable outlook.

The company aims to maintain a credit rating of at least 'A-'. The credit rating target and criteria guide financing activities.

The aims and organisation of financing activities and the principles for financial risk management

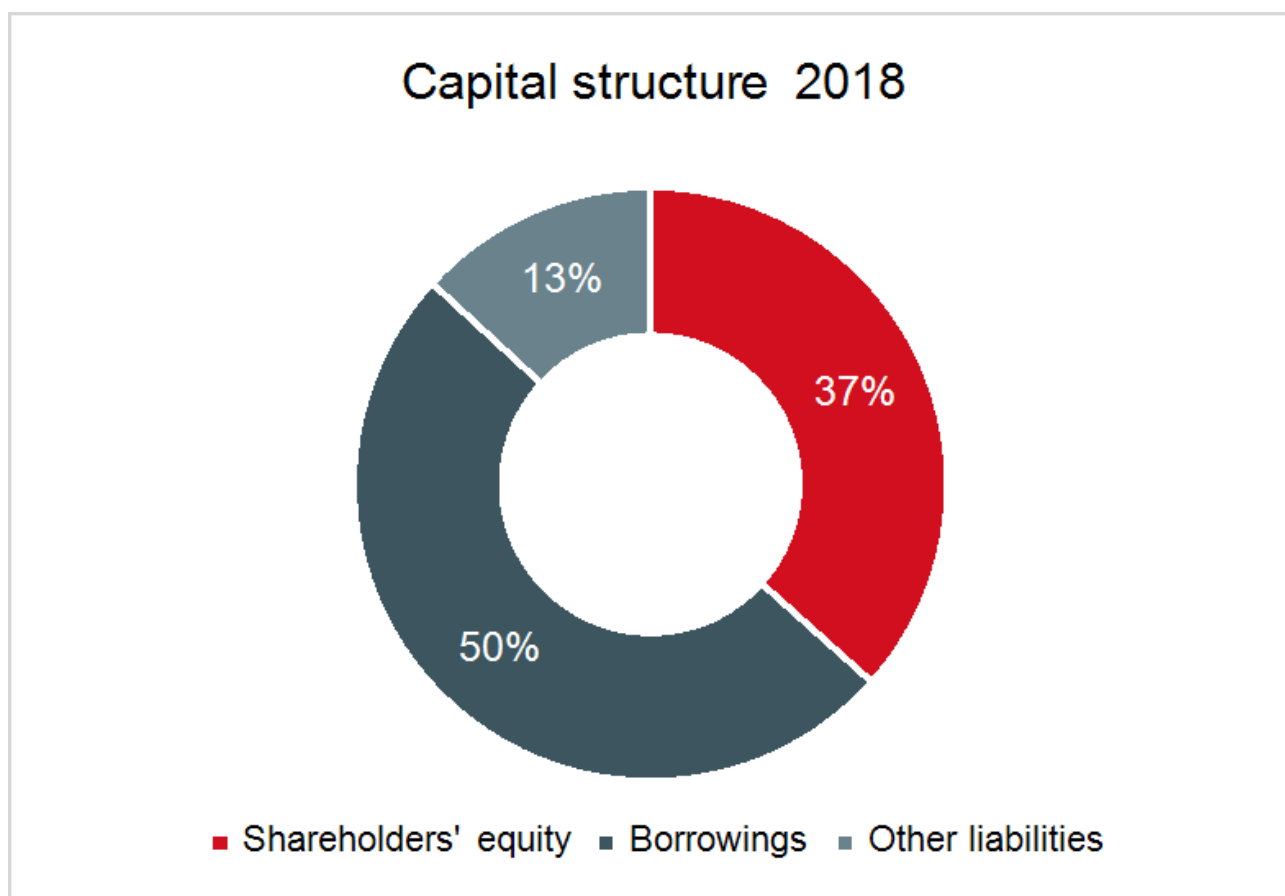
The company has a holistic approach to the management of financing activities, encompassing external financing, as well as managing liquidity, counterparty and financial risks, and supporting business operations in matters related to financing in general.

Core aims for financing activities:

- Protecting shareholder value by securing the financing required for the company's business operations, by hedging against the main financial risks and by minimising financial costs within the risk limits;
- Maintaining adequate liquidity even in unexpected situations;
- Long-term financing from diverse sources, taking into account the company's investment plan and cash flow from operating activities as well as credit rating and its criteria;
- Overall optimisation of the interest rate risk, including the interest rate risk of business operations via the Energy Authority's regulatory model (risk-free interest in the so called WACC model) and the company's interest rate risk of net debt;
- Forward-looking financial planning to ensure that the overall impact from the cash flow from operating activities, future investments, maturing loans and future dividends is taken into account when raising funds and optimising the loan portfolio structure.

The Treasury maintains active and consistent dialogue with the credit rating agencies and monitors the key ratios used by the agencies, as well as other generally accepted financial ratios.

Fingrid's financial capital consists of equity and debt financing. The share of equity from the balance sheet total was 36.6% and that of liabilities 63.4% in 2018. Equity according to the regulatory balance sheet amounted to 60.8% and the corresponding liabilities to 39.2% of regulatory balance sheet total in 2018.



Fingrid Oyj is exposed to market, liquidity, counterparty and credit risks, among others, when the company's financial position is managed. The objective of financial risk management is to foster shareholder value by securing the financing required for the company's business operations, by hedging against the main financial risks and by minimising financing costs within the risk limits.

Corporate finance and financing principles

The Board of Directors of Fingrid Oyj approves the Corporate Finance Principles which define how Fingrid Oyj manages financing as a whole. The external financing of Fingrid Group is carried out by Fingrid Oyj.

Risk management execution and reporting

Fingrid's Chief Financial Officer is responsible for the practical measures related to securing financing and managing financial risks, in line with the company's Corporate Finance Principles and Treasury Policy. The CFO oversees the day-to-day organising, reporting and adequate controls of financing activities, and reports regularly to the CEO and the Board (Audit Committee).

Risk management processes

The Treasury unit is in charge of risk monitoring, systems and the models and methods used to calculate and assess risks. The Treasury unit is furthermore responsible for identifying, measuring and reporting the financial risks that the company may be exposed to. The internal audit additionally ensures compliance with the Corporate Finance Principles and the company's internal guidelines.

Fair value hierarchy

In the presentation of fair value, assets and liabilities measured at fair value are categorised into a three-level hierarchy. The appropriate hierarchy is based on the input data of the instrument. The level is determined on the basis of the lowest level of input for the instrument that is significant to the overall fair value measurement.

Level 1: inputs are publicly quoted in active markets.

Level 2: inputs are not publicly quoted and are based on observable market parameters either directly or indirectly.

Level 3: inputs are not publicly quoted and are unobservable market parameters.

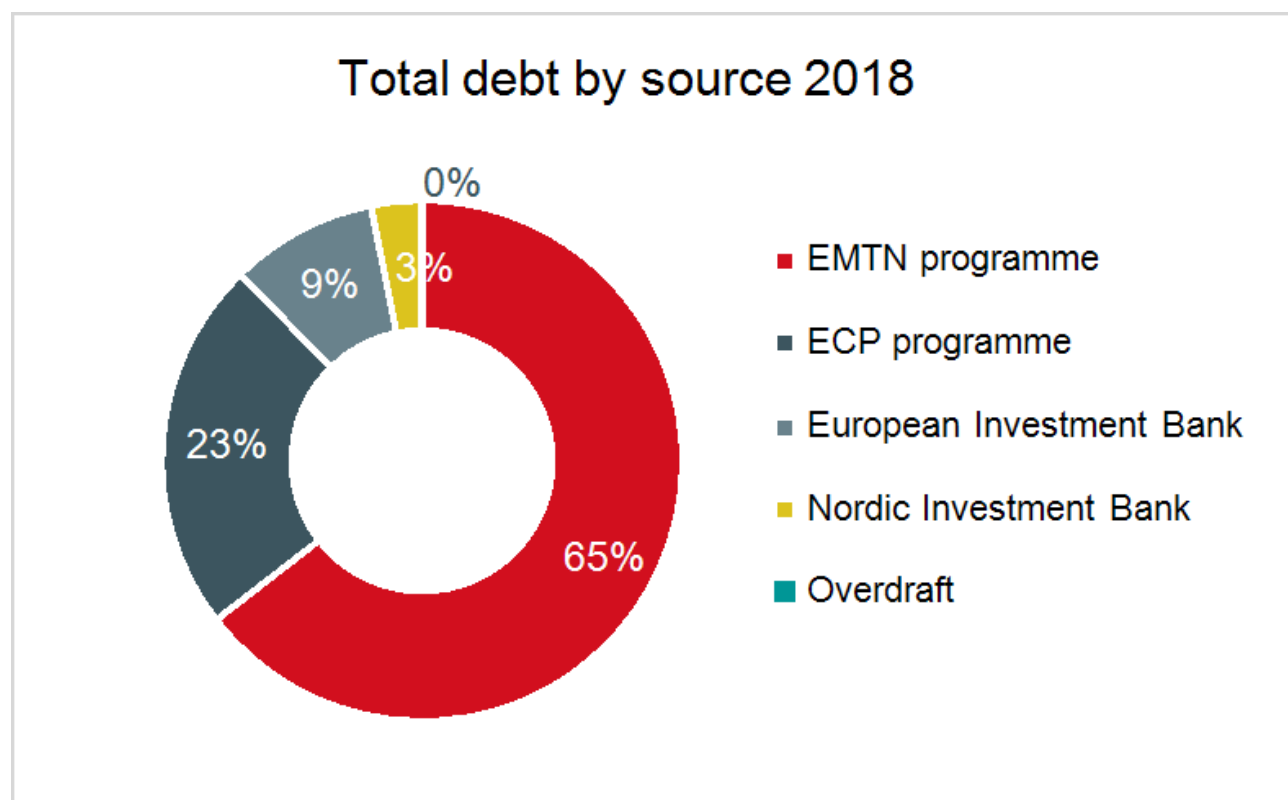
Financial liabilities, financial costs and managing the financial risks of liabilities

The company takes advantage of the possibilities offered by its credit ratings at any given time on the international and domestic debt capital and money markets. Market-based and diversified financing is sought from several sources aiming at a balanced maturity profile. Fingrid’s existing loan agreements, debt or commercial paper programmes are unsecured and do not include any financial covenants based on financial ratios.

The company operates in the debt capital, commercial paper and loan markets:

- For long-term financing, the company has a Medium Term Note Programme (“EMTN Programme”), totalling EUR 1.5 billion.
- Fingrid has a Euro Commercial Paper Programme (“ECP Programme”) totalling EUR 600 million.
- Fingrid has a domestic commercial paper programme totalling EUR 150 million.
- Furthermore, Fingrid has bilateral long-term loan agreements with both the European Investment Bank (EIB) and the Nordic Investment Bank (NIB).

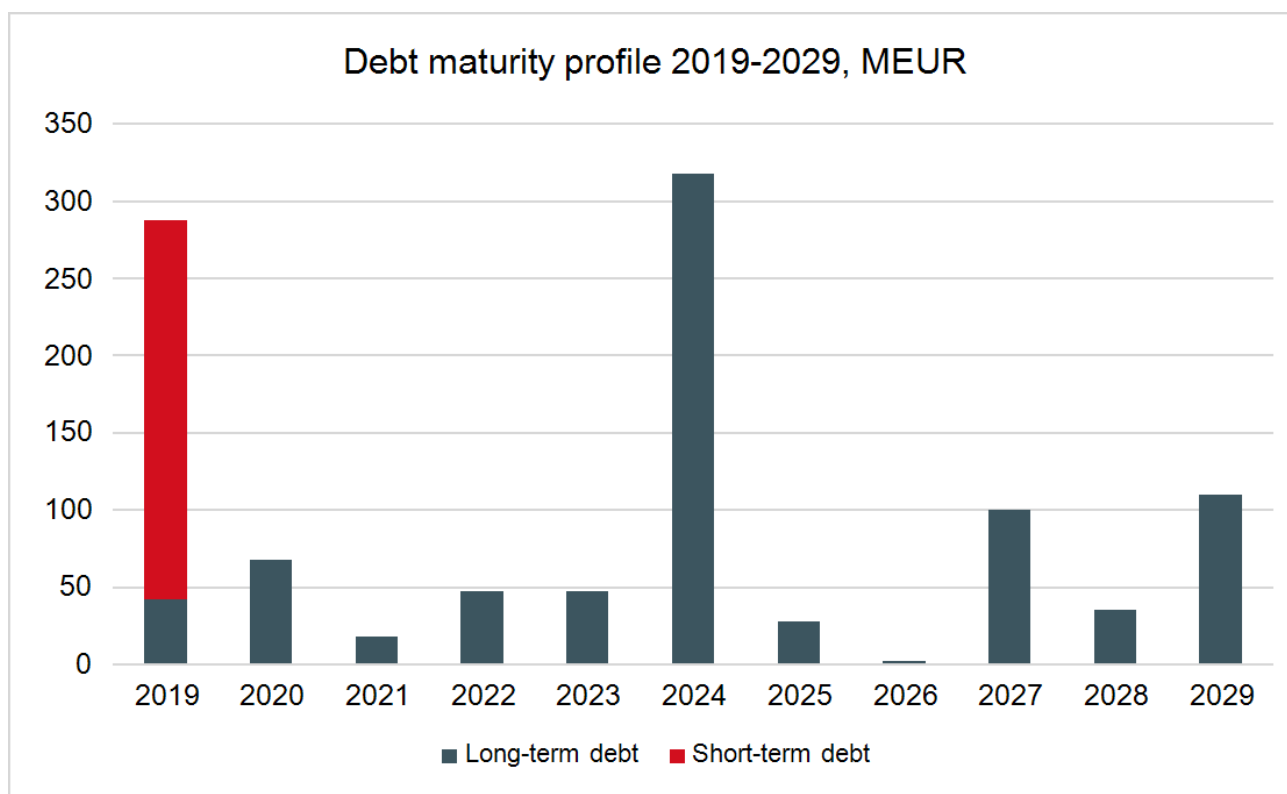
The graph below illustrates Fingrid’s various sources of debt financing. Fingrid obtains debt financing mainly from the international debt capital markets.



Borrowings are as follows:

14. BORROWINGS, €1,000	2018			2017			Hierarchy level
	Fair value	Balance sheet value	%	Fair value	Balance sheet value	%	
Non-current							
Bonds	743,043	663,629		766,069	683,863		Level 2
Loans from financial institutions	115,404	107,879		138,942	129,541		Level 2
	858,446	771,508	73 %	905,011	813,404	75 %	
Current							
Bonds	20,848	20,104		102,112	101,587		Level 2
Loans from financial institutions	23,855	22,600		23,817	22,474		Level 2
Other loans/Commercial papers (international and domestic)	245,183	245,387		145,116	145,243		Level 2
	289,886	288,091	27 %	271,045	269,304	25 %	
Total	1,148,332	1,059,598	100 %	1,176,057	1,082,707	100 %	

The fair values of borrowings are based on the present values of cash flows. Loans raised in various currencies are measured at the present value on the basis of the yield curve of each currency. The discount rate includes the company-specific and loan-specific risk premium. Borrowings denominated in foreign currencies are translated into euros at the fixing rate quoted by the ECB at the closing date.



15. BONDS INCLUDED IN BORROWINGS, €1,000					2018	2017
Currency	Nominal value	Maturity	Interest	Balance sheet value		
EUR	50,000	20/09/2020	floating rate	50,000	50,000	
EUR	30,000	19/09/2022	floating rate	30,000	30,000	
EUR	30,000	11/09/2023	2.71%	30,000	30,000	
EUR	300,000	03/04/2024	3.50%	299,222	299,089	
EUR	100,000	23/11/2027	1.125%	99,355	99,286	
EUR	25,000	27/03/2028	2.71%	25,000	25,000	
EUR	10,000	12/09/2028	3.27%	10,000	10,000	
EUR	80,000	24/04/2029	2.95%	80,000	80,000	
EUR	30,000	30/05/2029	2.89%	30,000	30,000	
				653,577	653,376	
NOK	200,000	12/11/2019	5.37%	20,104	20,325	

NOK	100,000	16/09/2025	4.31%	10,052	10,162
				30,156	30,487
SEK	1,000,000	19/11/2018	floating rate		101,587
					101,587
Bonds, long-term total				663,629	683,863
Bonds, short-term total				20,104	101,587
Total				683,733	785,449

The company defines net debt as the difference between cash in hand, and the financial assets recognized in the income statement at fair value and borrowings as shown in the balance sheet. The development of net debt is actively monitored.

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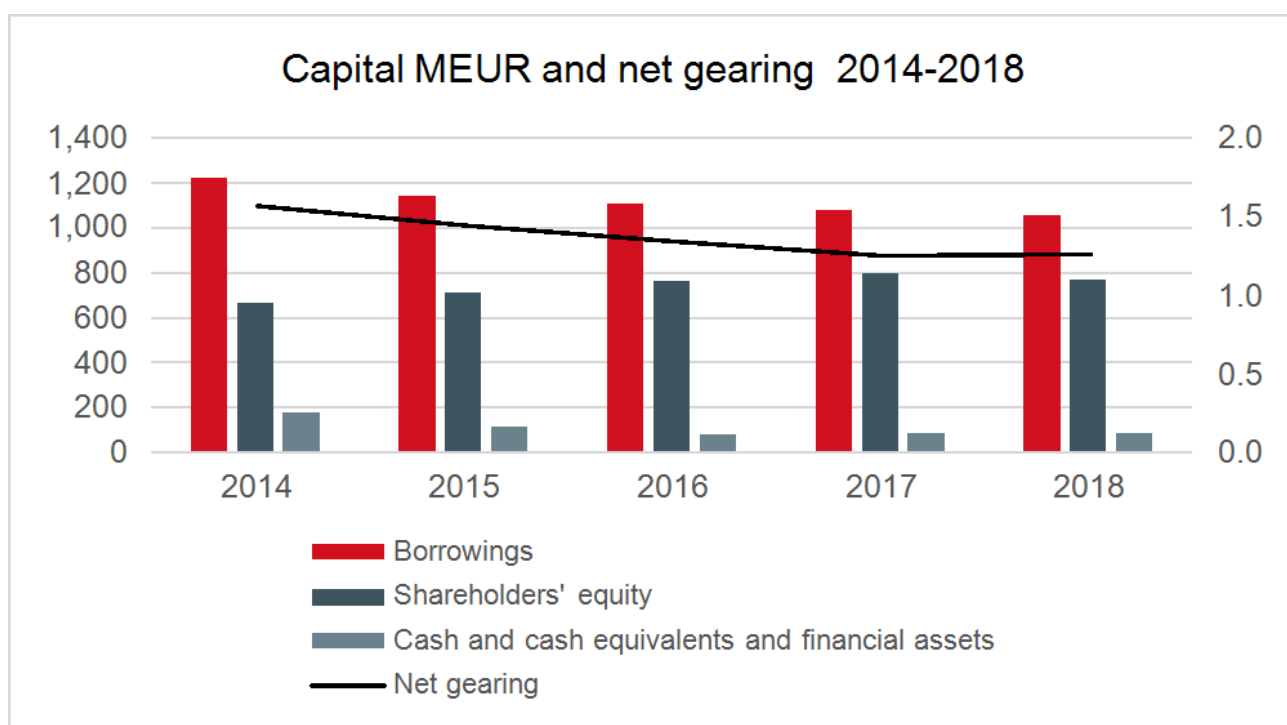
16. RECONCILIATION OF DEBT, €1,000

	Borrowings due within 1 year	Borrowings due after 1 year	Total
Debt on 1 Jan 2017	264,865	842,866	1,107,731
Cash flow from financing activities	-123,806	100,000	-23,806
Exchange rate adjustments	-842	210	-632
Other changes not involving a payment transaction		-586	-586
Transfer to short-term loans	129,086	-129,086	
Debt on 31 Dec 2017	269,304	813,404	1,082,707
Cash flow from financing activities	-28,816		-28,816
Exchange rate adjustments	2,108	3,399	5,506
Other changes not involving a payment transaction		201	201
Transfer to short-term loans	45,496	-45,496	
Debt on 31 Dec 2018	288,091	771,508	1,059,598

Financial assets recognised in the income statement at fair value are liquid investments traded on active markets.

Reconciliation of net debt, € 1,000	2018	2017
Cash in hand and cash equivalents	13,922	10,303
Financial assets recognised in the income statement at fair value	71,380	73,465
Borrowings - repayable within one year	288,091	269,304
Borrowings - repayable after one year	771,508	813,404
Net debt	974,297	998,939

Net debt is the difference between the company's debt and its cash in hand and cash equivalents



Interest income and costs on loans and other receivables are as follows:

17. INTEREST INCOME AND EXPENSES FROM LOANS AND OTHER RECEIVABLES, €1,000	2018	2017
Interest income on held-for-trading financial assets	46	312
Interest income on cash, cash equivalents and bank deposits	124	166
Dividend income		5
	170	483

Interest expenses on borrowings	-20,898	-21,843
Net interest expenses on interest rate and foreign exchange derivatives	4,553	4,752
Gains from measuring derivative contracts at fair value	2,790	656
Losses from measuring derivative contracts at fair value	-1,917	-6,477
Net foreign exchange gains and losses from borrowings, derivatives and FX-accounts	-59	-115
Other finance costs	-895	-1,457
	-16,426	-24,484
Capitalised finance costs, borrowing costs; at a capitalisation rate of 2 % (note 11)	1,042	1,223
Total	-15,213	-22,778

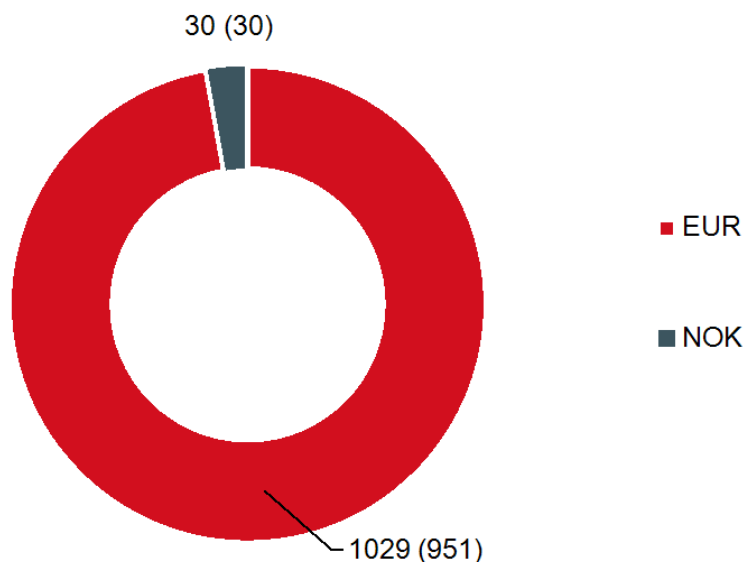
Managing the market risks of debt

Fingrid's debts are issued in both fixed and floating interest rates and in several currencies. They thus expose Fingrid's cash flow to interest rate and exchange rate risks. Fingrid uses derivative contracts to hedge against these risks. Fingrid generally holds issued bonds to maturity and thus does not value its bonds in the balance sheet at fair value or hedge against the fair value interest rate risk. The permitted hedging instruments are defined in the Treasury policy and are chosen in order to achieve the most effective hedging possible for the risks in question.

The functional currency of the company is euro. Generally, currency risks and the foreign exchange interest rate risk are fully hedged. A risk that amounts to less than EUR 5 million when realised can be unhedged for reasons of cost-effectiveness.

Transaction risk

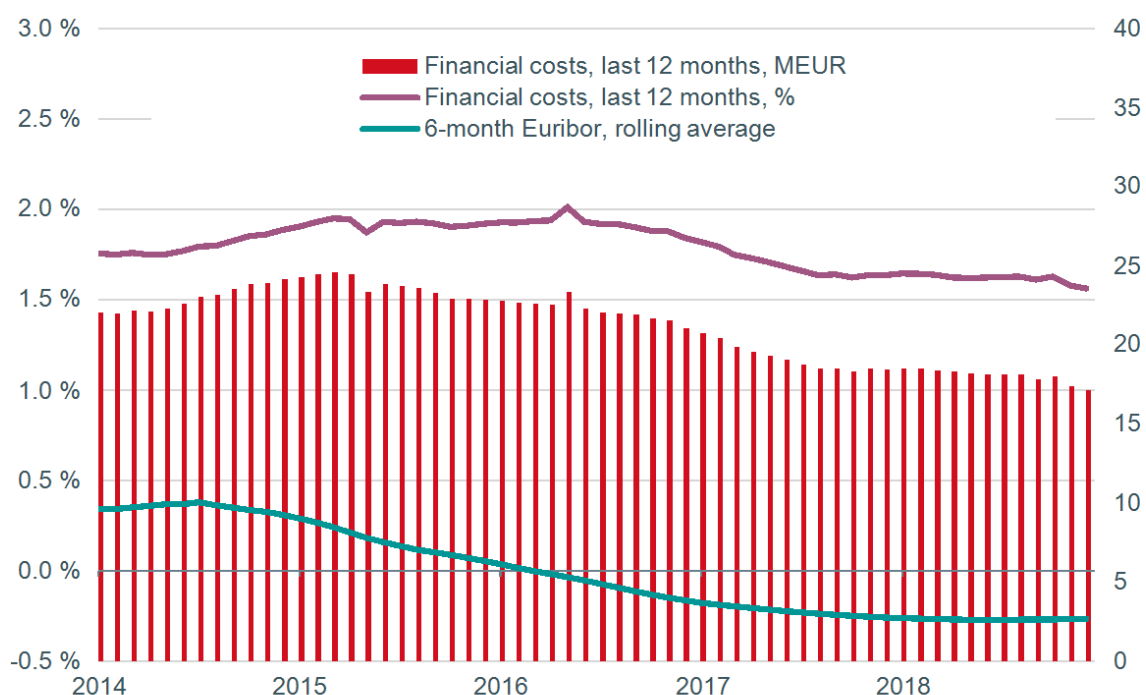
Total debt in original currency 2018, MEUR



The company issues bonds in the international and domestic money and debt capital markets. The company's loan portfolio is spread across euro and non-euro currencies, and the total debt portfolio and the related interest rate flows are hedged against the currency risk. The currency risk for each bond is fully hedged in conjunction with its issuance. The company uses interest rate and cross currency swaps to hedge the exchange rate and interest risk of bonds.

Business-related currency risks are small and they are mainly hedged. During the financial year, the company used foreign exchange forwards to hedge business transaction risks. A summary of the derivatives is presented in Note 23.

Financial costs 2014-2018



Interest rate risk

The company is only exposed to euro denominated interest rate risk from its business operations, assets and borrowings. The company’s borrowings are, both in terms of principal and interest payments, fully hedged against exchange rate risks. Cash and cash equivalents and financial assets recognised in the income statement at fair value are denominated in euros.

Interest rate risk management includes optimisation of future interest rate risk of business operations (risk-free interest in the WACC model described in the next infobox) emerging from the regulatory model specified by the Energy Authority, together with company’s net debt interest rate risk.

The interest rate risk from business operations can in part or in its entirety be hedged in terms of the adjusted capital committed to grid operations. The Board of Directors always makes a separate decision on the hedging of operational interest rate risks. The interest rate risk included in business operations was not hedged in 2018. The interest rate risk inherent in Fingrid’s business operations is caused by changes in the risk-free interest in the WACC model. If the risk-free interest rate rises/falls by one percentage unit, the post-tax WACC rises/falls by 0.9%.

The objective of managing the interest rate risk on the loan portfolio is to minimise interest costs in the long term. The aim is to keep the average interest rate period of the gross interest exposure for the loan portfolio (derivatives and liabilities) at around twelve (12) months. The loan portfolio’s interest rate risk arises from market interest rate volatility, which decreases or increases the annual interest expenses on the company’s floating-rate loans. When market interest rates increase (decrease), the interest expenses of the floating-rate loans also

increase (decrease). The company hedges this so-called cash flow risk with derivatives. The sensitivity of the loan portfolio to interest rate risk is measured by using a Cash Flow at Risk (CFaR) type of model, more specifically the Autoregressive Integrated Moving Average (ARIMA) model. The key parameters of the model are the 3-month and 6-month Euribor rates, of which the historical time series serve as a basis for a forward-looking simulation of the probable future interest expenses for Fingrid's loan portfolio. The exposure on which the sensitivity analysis is calculated includes all of the Group's interest-bearing borrowings, the loan portfolio's derivatives and interest-rate options purchased to hedge against unexpected changes in interest rates. According to the model, there is a 95% (99%) probability that Fingrid's interest expenses will amount to no more than EUR 18 (19) million during the next 12 months.



Determination of the reasonable rate of return in regulation and operational interest rate risk

The reasonable rate of return on adjusted capital committed to grid operations is determined by using the weighted average cost of capital model (WACC). The WACC model illustrates the average cost of the capital used by the company, where the weights are the relative values of equity and debt. The weighted average of the costs of equity and interest-bearing debt are used to calculate the total cost of capital, i.e. the reasonable rate of return per the regulation. The reasonable return is calculated by multiplying the adjusted capital invested in network operations by the WACC.

$$WACC_{post-tax} = C_E \times \frac{E}{E+D} + C_D \times (1 - ctr) \times \frac{D}{E+D}$$

- WACC_{post-tax} = reasonable rate of return after corporate tax
- C_E = reasonable cost of equity
- C_D = reasonable cost of interest-bearing debt
- E = adjusted equity invested in network operations
- D = adjusted interest-bearing debt invested in network operations
- ctr = current rate of corporate tax

$$C_D = R_r + DP$$

- R_r = risk-free interest rate
- DP = risk premium of debt

$$C_E = R_r + \beta_{levered} \times (R_m - R_r) + LP$$

R_r = risk-free interest rate
 β_{levered} = levered beta
 R_m = average market return
 $R_m - R_r$ = market risk premium
 LP = liquidity premium

The above-mentioned reasonable rate of return after taxes is then adjusted with the current rate of corporate tax. This calculation gives the reasonable pre-tax rate of return.

$$WACC_{pre-tax} = \frac{WACC_{post-tax}}{(1 - ctr)}$$

WACC pre-tax = reasonable rate of return before corporate tax

A fixed capital structure is applied to the TSO, whereby the weight of debt capital is 50% and the weight of equity capital is 50%. The pre-tax reasonable rate of return is calculated as follows:

$$WACC_{pre-tax} = \frac{C_E \times 0,5}{(1 - ctr)} + C_D \times 0,5$$

$$R_{k,pre-tax} = WACC_{pre-tax} \times (E + D)$$

$R_{k,pre-tax}$ = pre-tax reasonable return, EUR
 $WACC_{pre-tax}$ = reasonable rate of return, %
 E = adjusted equity invested in network operations, EUR
 D = adjusted interest-bearing debt invested in network operations, EUR
 E + D = adjusted capital invested in network operations, EUR

Reasonable cost of equity	Variable	Value used
$C_E = R_f + \beta_{\text{debt-free}} \times (1 + (1 - t) \times D/E) \times (R_m - R_f) + LP$ $C_E = \text{Finland's 10y govt. bond} + 0.4 \times (1 + (1 - 20\%) \times 50/50) \times 5\% + 0.6\%$ $C_E = \text{Finland's 10y government bond} + 4.2\%$	Risk-free interest rate (R_f)	Higher: a) 10-year daily average of Finland's 10y government bond b) Daily average of previous year April–September of Finland's 10y government bond rate
Reasonable cost of liabilities	Asset beta ($\beta_{\text{debt-free}}$)	0.4
$C_D = R_f + DP$ $C_D = \text{Finland's 10y government bond} + 1.4\%$	Market risk premium ($R_m - R_f$)	5.0%
WACC (pre-tax)	Liquidity premium (LP)	0.6%
$WACC_{\text{post-tax}} = C_E \times 50 / 100 + C_D \times (1 - t) \times 50 / 100$ $WACC_{\text{post-tax}} = \text{Finland's 10y government bond} \times 0.9 + 2.66\%$ $WACC_{\text{pre-tax}} = \text{Finland's 10y government bond} \times 1.125 + 3.33\%$	Capital structure (D/E)	50/50
	Risk premium of debt (DP)	1.4%*
	Corporate income tax rate (t)	20%

*Will be updated by end of 2019 for regulatory period 2020-2023 based on Bloomberg's utility sector A-BBB rated companies' fixed income indices

Liquidity risk and refinancing risk

Fingrid is exposed to liquidity and refinancing risks arising from the redemption of loans, payments and fluctuations in cash flow from operating activities. The liquidity of the company must be arranged so that liquid assets (cash and cash equivalents, and financial assets recognised in the income statement at fair value) and available long-term committed credit lines can cover 110% of the refinancing needs for the next 12 months.

The company has a revolving credit facility agreement of EUR 300 million signed on 11 December 2015. The maturity of the facility is five years. In addition to this, the company has two one-year extension options, of which both have been used. These extended the maturity of the revolving credit facility until 11 December 2022. The facility is committed and has not been drawn. The company additionally has uncommitted overdraft facilities totaling EUR 50 million.

The refinancing risk is managed by building an even maturity profile such that the share of long-term loans in a single year constitutes less than 30 per cent of the total debt and the average maturity of the company's loan portfolio is at least three years. To secure refinancing, the company makes wide use of diverse sources of financing. The high credit rating and good bank and investor relations enable ready access to the debt capital market and thus minimises the company's debt refinancing risks and financing costs.

The counterparty risks of financing activities are caused by counterparties related to investing (e.g. money market funds), derivatives counterparties and bank counterparties. The company minimises any counterparty risks. As a rule, credit rating categories are the decisive factor in specifying the counterparty limit.

Contractual repayments and interest costs on borrowings are presented in the next table. The interest rates on floating-rate loans are defined using the zero coupon curve. The repayments and interest amounts are undiscounted values. Finance costs arising from interest rate swaps are often paid in net amounts depending on the nature of the swap. In the following table, they are presented in gross amounts.

18. DEBT REPAYMENTS, INTEREST PAYMENTS AND PAYMENTS AND RECEIVABLES UNDER DERIVATIVE CONTRACTS IN CASH, €1,000

31 Dec 2018		2019	2020	2021	2022	2023	2024-	Total
Bonds	- repayments	20,104	50,000		30,000	30,000	553,629	683,733
	- interests	18,377	17,222	17,234	17,293	17,102	40,247	127,475
Loans from financial institutions	- repayments	21,662	17,662	17,662	17,662	17,662	37,229	129,541
	- interests	2,486	2,088	1,820	1,562	1,216	1,311	10,483
Commercial papers	- repayments	245,000						245,000
Overdraft	- payments	938						938
Currency swaps	- payments	23,891	49	77	115	152	12,922	37,205
Interest rate swaps	- payments	924	328	658	1,102	1,555	7,771	12,338
Forward contracts	- payments	198	350	300	1,000	1,500	900	4,248
Total		333,579	87,699	37,751	68,734	69,188	654,009	1,250,961
Currency swaps	- receivables	21,617	433	433	433	433	10,918	34,268
Interest rate swaps	- receivables	5,152	5,082	4,810	4,448	3,601	7,689	30,784
Forward contracts	- receivables	196	351	301	1,011	1,533	926	4,318
Total		26,965	5,867	5,544	5,893	5,568	19,534	69,370
Total		306,614	81,833	32,206	62,841	63,621	634,475	1,181,591

31 Dec 2017		2018	2019	2020	2021	2022	2023-	Total
Bonds	- repayments	101,587	20,325	50,000		30,000	583,538	785,449
	- interests	18,635	18,404	17,559	17,416	17,386	57,364	146,765
Loans from financial institutions	- repayments	21,662	21,662	17,662	17,662	17,662	54,892	151,203
	- interests	2,848	2,512	2,317	2,038	1,695	2,691	14,102

Commercial papers	- repayments	145,000							145,000
Overdraft	- payments	811							811
Currency swaps	- payments	107,753	23,928	97	140	174	13,193		145,286
Interest rate swaps	- payments	2,355	1,105	908	1,365	1,712	10,625		18,070
Forward contracts	- payments	1,270							1,270
Total		401,923	87,936	88,544	38,622	68,629	722,302		1,407,956
Currency swaps	- receivables	103,397	21,854	438	438	438	11,476		138,041
Interest rate swaps	- receivables	5,181	5,014	4,584	4,185	3,953	10,846		33,764
Forward contracts	- receivables	1,167							1,167
Total		109,745	26,868	5,022	4,622	4,391	22,323		172,972
Total		292,178	61,068	83,522	34,000	64,238	699,979		1,234,984



Accounting principles

Borrowings

Borrowings are initially recognised at fair value net of the transaction costs incurred. Transaction costs consist of bond prices above or below par value, arrangement fees, commissions and administrative fees that are directly related to the loan. Borrowings are subsequently measured at amortised cost; any difference between the loan amount and the amount to be repaid is recognised in the income statement over the loan period using the effective interest rate method. Borrowings are derecognised when they mature and are repaid.

Commitment fees to be paid on credit facilities are entered as transaction costs related to the loan insofar as partial or full utilisation of the facility is likely. In such cases, the fee is capitalized in the balance sheet until the facility is utilised. If there is no proof that loans included in a facility are likely to be drawn in part or in full, the fee will be recognised as an upfront payment for liquidity services and amortized over the maturity of the facility in question.

Cash and cash equivalents and other financial assets

6.4 Cash and cash equivalents and other financial assets

19. CASH AND CASH EQUIVALENTS, €1,000	2018	2017
Cash assets and bank account balances	13,922	10,303
Total	13,922	10,303

20. OTHER FINANCIAL ASSETS, €1,000	2018	2017	Hierarchy level
Short-term money market funds	56,881	56,966	Level 2
Commercial papers	4,498	6,499	Level 1
Bank deposits, over 3 months	10,000	10,000	Level 2
Total	71,380	73,465	



Accounting principles

Cash and cash equivalents

Cash and cash equivalents in the balance sheet include cash in hand and bank deposits with an initial maturity of no more than three months. Cash and cash equivalents in the cash flow statement also include financial assets recognised in the income statement at fair value. Cash and cash equivalents are derecognised when they mature, are sold or otherwise disposed of.

Other financial assets

The financial assets classified in this category include short-term money market securities (certificates of deposit, commercial papers and municipality bills), current investments in short-term fixed income funds, and bank deposits kept for more than three months. Financial assets recognised at fair value in the income statement are entered in the balance sheet at fair value at the settlement date. Subsequently, the financial assets are measured on each reporting day at fair value, and the change in their fair value is recognised in the income statement under finance income and costs. Derivatives are also included in this group, but are presented in the balance sheet on their own lines. Accounting principles for derivatives are disclosed in Chapter 6.6.

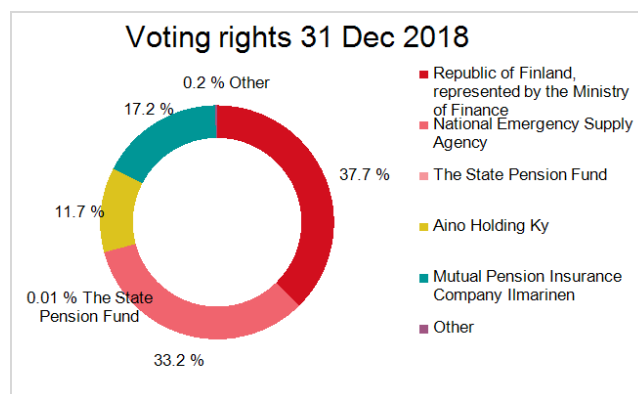
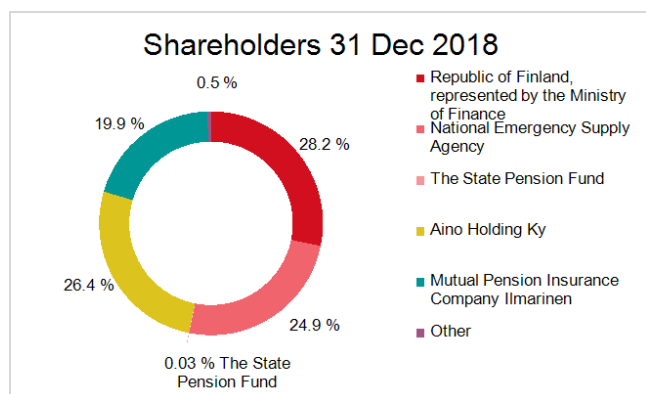
Available-for-sale investments

Fingrid does not have financing assets classified as available-for-sale investments.

Financial assets are derecognised when they mature, are sold or otherwise disposed of such that their risks and revenues have been transferred.

Equity and dividend distribution

The shareholders' equity is composed of two share classes. The shareholder breakdown and voting rights are illustrated in the following graphs.



SHAREHOLDERS BY CATEGORY 31 DEC 2018	Number of shares	Of all shares %	Of votes %
Public organisations	1,768	53.17	70.87
Financial and insurance institutions	1,557	46.83	29.12
Total	3,325	100.00	100.00

Shareholders, 31 Dec 2018	Number of shares	Of all shares %	Of votes %
Republic of Finland, represented by the Ministry of Finance	939	28.24	37.66
Aino Holding Ky	878	26.41	11.74
National Emergency Supply Agency	828	24.90	33.20
Mutual Pension Insurance Company Ilmarinen	661	19.88	17.15
Imatran Seudun Sähkö Oy	10	0.30	0.13
Fennia Life	6	0.18	0.08
Elo Mutual Pension Insurance	1	0.03	0.01
OP Insurance Ltd	1	0.03	0.01
The State Pension Fund	1	0.03	0.01
Total	3,325	100.00	100.00

The company's share capital is EUR 55,922,485.55. Fingrid shares are divided into Series A shares and Series B shares. The number of Series A shares is 2,078 and the number of Series B shares is 1,247.

The maximum number of shares is 13,300, as in 2017. The shares have no par value.

Series A shares confer three votes each at the Annual General Meeting and Series B shares one vote each. When electing members of the Board of Directors, Series A shares confer 10 votes each at the Annual General Meeting and Series B shares one vote each.

Series B shares have the right before Series A shares to obtain the annual minimum dividend specified below from the funds available for profit distribution. If the annual minimum dividend cannot be distributed in some year, the shares confer a right to receive the undistributed amount from the funds available for profit distribution in the subsequent years; however, such that Series B shares have the right over Series A shares to receive the annual minimum dividend and the undistributed amount.

Fingrid Oyj's Annual General Meeting decides on the annual dividend.

Eighty-two per cent of the dividends to be distributed for each financial year is distributed for all Series A shares and eighteen per cent for all Series B shares, however such that EUR twenty million of the dividends to be distributed for each financial year is first distributed for all Series B shares. If the above-mentioned EUR twenty million minimum amount for the financial period is not distributed (all or in part) for Series B shares in a financial period, Series B shares confer the right to receive the undistributed minimum amount in question (or the accumulated undistributed minimum amount accrued during such financial periods) in the next profit distribution, in any disbursements paid out, or in any other distribution of assets prior to any other dividends, disbursements or asset distribution until the undistributed minimum amount has been distributed in full for Series B shares. There are no non-controlling interests.

Equity is composed of the share capital, share premium account, revaluation reserve (incl. fair value reserve), translation reserve, and retained earnings. The translation reserve includes translation differences in the net capital investments of associated companies in accordance with the equity method of accounting. The profit for the financial year is booked in retained earnings.

Share premium account

The share premium account includes the difference between the counter value of the shares and the value obtained. The share premium account consists of restricted equity as referred to in the Finnish Limited Liability Companies Act. The share capital can be increased by transferring funds from the share premium account. The share premium account can be decreased in order to cover losses or, under certain conditions, it can be returned to the owners.

Revaluation reserve

In 2017, the company divested its available-for-sale investments.

Changes to equity funds during the financial year are presented in the statement of changes in equity.

21. SHAREHOLDERS BY CATEGORY

The share capital is broken down as follows	Number of shares	Of all shares %	Of votes %
---------------------------------------------	------------------	-----------------	------------

Series A shares	2,078	62.50	83.33
Series B shares	1,247	37.50	16.67
Total	3,325	100.00	100.00

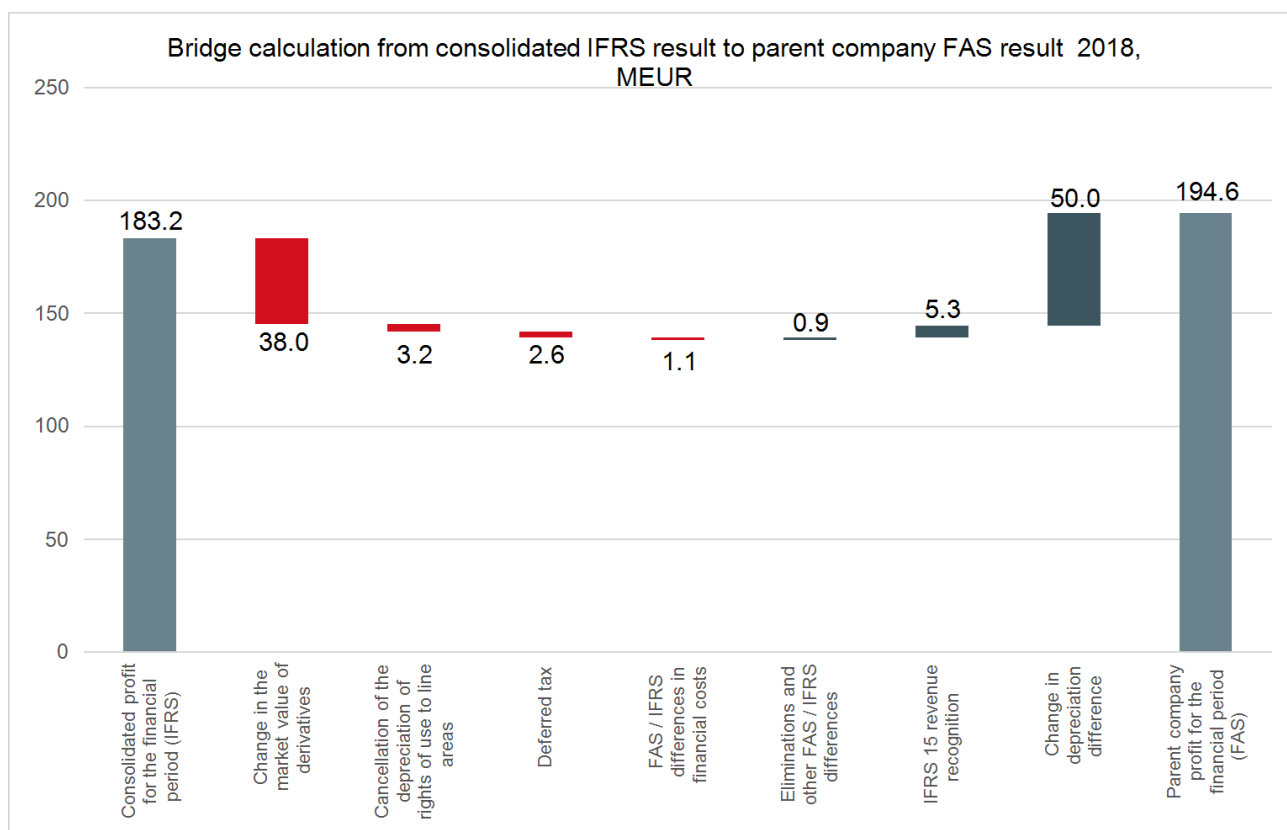
Fingrid's dividends are distributed such that the shareholders receive a reasonable return on their invested capital, but also such that the company's financial position is maintained.

Fingrid Oyj's distributable funds in the financial statements total EUR 222,364,965.90. In 2017, EUR 173.5 million was paid in dividends (EUR 98.0). Since the closing date, the Board of Directors has proposed that a dividend of EUR 67,650.00 at maximum per share will be paid for Series A shares, and EUR 24,750.00 at maximum for Series B shares for a total of EUR 171,439,950.00 at maximum. The first dividend instalment of EUR 47,550.00 for each Series A share and EUR 17,400.00 for each Series B share, totalling EUR 120,506,700.00, shall be paid on 26 March 2019. The second dividend instalment, a maximum of EUR 20,100.00 for each Series A share and a maximum of EUR 7,350.00 for each Series B share, totalling a maximum of EUR 50,933,250.00, shall be paid based on the authorisation to be given to the Board. The Board of Directors has the right to decide on the payment of the second dividend instalment after the half-year report has been confirmed and after having assessed the company's solvency, financial position and financial development. The second dividend instalment decided on with the authorisation given to the Board shall be paid on the third banking day after the decision. It will be proposed that the authorisation remains valid until the next Annual General Meeting.

The distributable funds are calculated on the basis of the parent company's equity. Dividends are paid based on the distributable funds of the parent company.

The guiding principle for Fingrid's dividend policy is to distribute substantially all of the parent company profit as dividend. When making the decision, however, the economic conditions, the company's near term investment and development needs as well as any prevailing financial targets of the company are always taken into account.

The graph below indicates the differences between the consolidated IFRS income statement and the parent company's FAS income statement.



Accounting principles

Dividend distribution

The Board of Directors' proposal concerning dividend distribution is not recorded in the financial statements. The liability and equity is recognised only after a decision is made by the Annual General Meeting of Shareholders.

Summary of financial assets, financial liabilities and derivatives

The carrying amounts of Fingrid's financial assets and liabilities by measurement category are as follows:

22. CARRYING AMOUNTS OF FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY, €1,000

Balance sheet item 31 Dec 2018	Assets/ liabilities recognised in income statement at fair value	Available- for-sale financial assets	Financial assets/ liabilities measured at amortised cost	Total	Note
Non-current financial assets					
Interest rate and currency derivatives	22,837			22,837	23
Electricity derivatives	9,643			9,643	23
Loan receivables			1,750	1,750	
Current financial assets					
Interest rate and currency derivatives	718			718	23
Electricity derivatives	17,856			17,856	23
Trade receivables and other receivables			95,271	95,271	3
Other financial assets	56,881			56,881	20
Cash in hand and cash equivalents			13,922	13,922	19
Financial assets total:	107,936		125,441	233,378	
Non-current financial liabilities:					
Borrowings			771,508	771,508	14
Interest rate and currency derivatives	7,390			7,390	23
Current financial liabilities:					
Borrowings			288,091	288,091	14
Interest rate and currency derivatives	4,011			4,011	23
Electricity derivatives	3			3	23
Trade payables and other liabilities			40,413	40,413	7
Financial liabilities total	11,404		1,100,012	1,111,415	

	Assets/ liabilities recognised in income statement at fair value	Available- for-sale financial assets	Financial assets/ liabilities measured at amortised cost	Total	Note
Balance sheet item 31 Dec 2017					
Non-current financial assets					
Interest rate and currency derivatives	25,097			25,097	23
Electricity derivatives	2,665			2,665	23
Loan receivables			4000	4000	
Current financial assets					
Interest rate and currency derivatives	5			5	23
Electricity derivatives	240			240	23
Trade receivables and other receivables			90,330	90,330	3
Financial assets recognised in the income statement at fair value	73,465			73,465	20
Cash in hand and cash equivalents			10,303	10,303	19
Financial assets total:	101,472		104,633	206,105	
Non-current financial liabilities:					
Borrowings			813,404	813,404	14
Interest rate and currency derivatives	12,387			12,387	23
Current financial liabilities:					
Borrowings			269,304	269,304	14
Interest rate and currency derivatives	6,945			6,945	23
Electricity derivatives	1,244			1,244	23
Trade payables and other liabilities			46,818	46,818	7
Financial liabilities total	20,576		1,129,526	1,150,102	

Fingrid uses derivatives for hedging purposes only, even though the company does not apply hedge accounting. Bilateral derivative transactions require a valid International Swap Dealers Association's (ISDA) Master Agreement with the counterparty. The derivatives falling under the scope of an ISDA agreement can be netted in conditional circumstances such as default or bankruptcy. The company had derivatives that can be netted as per ISDA at a total fair value of EUR 14.3 million in 2018 (7.6). Fingrid provides collateral to cover the market value of electricity forwards. The management of electricity price risk is described in chapter 4.7. The hedging of interest rate and foreign exchange risks is described in chapter 6.3.

The company's derivative transactions consist of interest rate and cross currency swaps for hedging the loan portfolio, as well as purchased cap options used to hedge the loan portfolio from a sudden change in short-term interest rates. Forward contracts are used to fix the exchange rate for non-euro-denominated contracts related to

business operations. The company uses electricity futures and forwards to hedge the price risk of future loss power purchases.

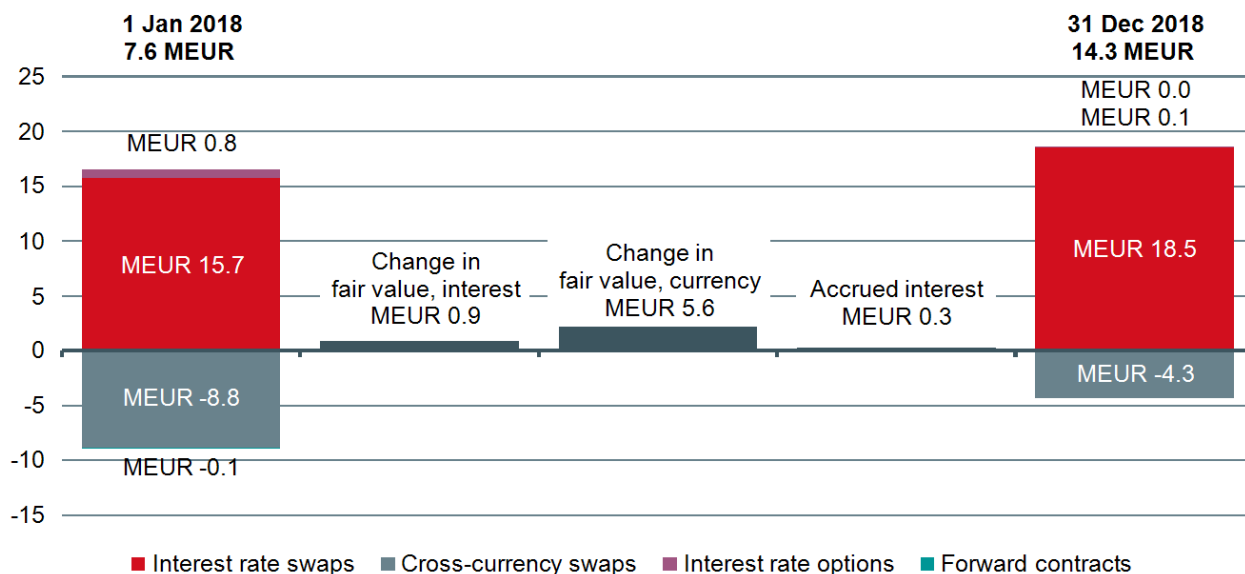
The table below includes all of the Group's derivatives.

23. DERIVATIVE INSTRUMENTS, € 1,000									
	2018				2017				Hierarchy level
	Fair value pos.	Fair value neg.	Net fair value	Nominal value	Fair value pos.	Fair value neg.	Net fair value	Nominal value	
Interest rate and currency derivatives	31.12.18	31.12.18	31.12.18	31.12.18	31.12.17	31.12.17	31.12.17	31.12.17	
Cross-currency swaps	2,571	-6,888	-4,316	36,237	3,837	-12,660	-8,822	143,544	Level 2
Forward contracts	7	-5	1	5,150		-123	-123	1,167	Level 2
Interest rate swaps	23,575	-5,087	18,488	325,000	23,209	-7,487	15,722	430,000	Level 2
Bought interest rate options	126		126	620,000	787		787	571,587	Level 2
Total	26,279	-11,980	14,300	986,387	27,833	-20,270	7,563	1,146,298	
Electricity derivatives	Fair value pos.	Fair value neg.	Net fair value	Volume TWh	Fair value pos.	Fair value neg.	Net fair value	Volume TWh	
	31.12.18	31.12.18	31.12.18	31.12.18	31.12.17	31.12.17	31.12.17	31.12.17	
Electricity future contracts. NASDAQ OMX Commodities	12,383	-385	11,997	1.87	1,010	-135	875	1.13	Level 1
Electricity forward contracts. NASDAQ OMX Commodities	27,500	-3	27,496	2.58	2,905	-1,244	1,661	3.75	Level 1
Total	39,883	-389	39,494	4.45	3,915	-1,379	2,536	4.88	

The net fair value of derivatives indicates the realised profit/loss if they had been closed on the last trading day of 2018. The net fair value cannot be used for deriving the net derivative liabilities or receivables in the balance sheet, as accrued interest is taken into account here.

The graph below indicates the change of value of all of the company's currency and interest rate derivatives in 2018.

Change in the net fair value of financial derivatives 2018

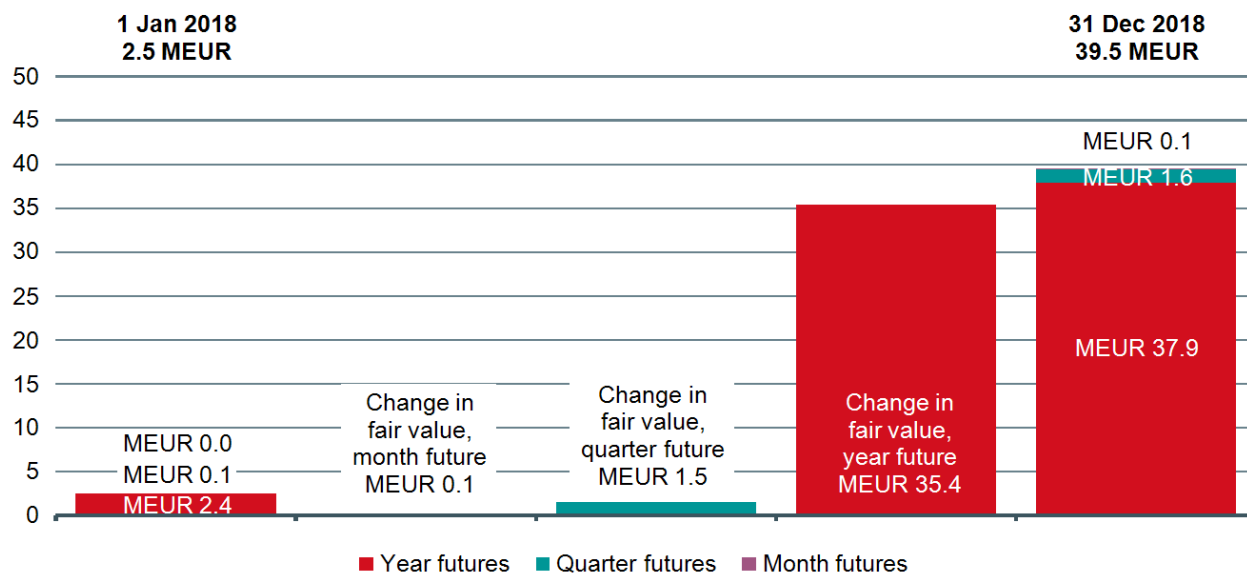


The purpose of Fingrid’s loss power price hedging is to reduce the effect of volatility in market prices to the loss power purchase costs and to give adequate predictability in order to keep the pressure to change grid service pricing moderate. The change in the fair value of electricity futures used in Fingrid’s loss power price hedging was EUR 37.0 million positive (EUR 9.1 million positive). The volatility in the fair value of electricity futures can be significant. The positive impact on profit was caused by the impact of increased spot price of electricity to the fair value of electricity futures. Fingrid holds its bought futures to maturity.

The sensitivity of the fair value of electricity futures in relation to changes in the price of electricity is measured as the difference a 10 per cent fluctuation in market price would have on outstanding electricity futures on the reporting date. A positive/negative change of 10 per cent in the market price of electricity would have an impact of EUR 12.3 million/EUR -12.3 million on the Group’s profit before taxes.

The graph below indicates the change of value of all of the company’s electricity futures in 2018.

Change in the net fair value of electricity futures 2018



Accounting principles

Adoption of the IFRS 9 standard, effective 1 January 2018

IFRS 9 Financial instruments replaced the IAS 39 standard on 1 January 2018. Then transition to IFRS 9 did not have material impacts on the company’s reported financial position and result.

Classification of financial assets and liabilities

The Group classifies the financial assets and liabilities in accordance with its business model and in compliance with IFRS 9.

The classification is accomplished on the basis of the objective of the business model and the contract-based cash flows from the investments or by applying the fair value option at initial recognition.

Other financial assets can include investments in short-term money-market securities (certificates of deposit, commercial papers and municipality bills), bank deposits of more than three months and investments in short-term fixed income funds.

Investments in short-term fixed income funds have been classified and entered at fair value in the income statement, and the adoption of IFRS 9 did not require changes in the principles of recognition.

Investments in short-term money-market securities are classified and entered at amortised cost according to the accounting model applied by the company. The goal is to keep the investments to maturity and collect the contractual cash flows, consisting of the payments of principal and interest. Money-market securities have

previously been entered at fair value in the income statement, but the change did not have a material impact on the company's financial result.

Bank deposits of more than three months are entered at amortised cost.

The Group actively tests each instrument for impairment and if the impairment criteria are met, the impairment is entered in the income statement. The accounting procedure for financial assets has not changed, and they continue to be entered at amortised cost. The rules concerning balance sheet derecognition have not changed from the IAS 39 standard 'Financial Instruments: Recognition and Measurement'.

The Group does not apply hedge accounting, and the rules applied to hedge accounting according to IFRS 9 do not affect the company's accounting procedures.

Cash and cash equivalents

Cash and cash equivalents consist of cash in hand and bank deposits with an initial maturity of no more than three months.

The Group applied the exception allowed by IFRS 9 and did not carry out retrospective adjustments to the previous year's figures.



Accounting principles

Derivative instruments

Derivatives are initially recognised at fair value according to the date the derivative contract is entered into, and are subsequently re-measured at fair value. Changes in the fair value of derivatives are recognised in profit and loss. The company uses derivative contracts only for hedging purposes according to the Corporate Finance principles, the Treasury policy and the loss energy policy.

Electricity futures

The company enters into electricity future contracts in order to hedge the price risk of electricity purchases in accordance with the loss energy forecast. Fingrid discontinued hedge accounting for electricity futures at the beginning of 2014. As a result, the entire change in the fair value of electricity futures was recorded and will continue to be recorded in the income statement.

Interest and currency derivatives

The company enters into derivative contracts in order to hedge financial risks (interest rate and foreign exchange exposure) in compliance with the Corporate Finance Principles approved by the Board of Directors. Fingrid does

not apply hedge accounting to these derivatives. A derivative asset or liability is recognised at its original fair value. Derivatives are measured at fair value at the closing date, and the change in fair value is recognised in the income statement under finance income and costs.

The fair values of derivatives at the closing date are based on different calculation methods. Foreign exchange forwards have been measured at the forward prices. Interest rate and currency swaps have been measured at the present value on the basis of the yield curve of each currency. Interest rate options have been valued using generally accepted option pricing models in the market.

7 Other Information

- This chapter contains the rest of the notes.
- First comes a joint presentation of the Group companies and related parties' data.
- After that, other notes follow in the same sequence they appear in the income statement and balance sheet.

Group companies and related parties

The Group has two Fingrid's wholly-owned subsidiaries, Finextra Oy and Fingrid Datahub Oy.

Finextra Oy is a subsidiary wholly-owned by Fingrid Oyj established to handle the statutory public service obligations not included in actual grid operations or transmission system responsibility. These tasks include peak load capacity services and guarantee-of-origin services for electricity. Through Finextra, the cost of public service tasks is separated from the cost of grid operations, which makes it possible to ensure the unequivocal transparency of the different operations. The Energy Authority oversees Finextra's operations and reasonable returns from its services. The aim of Finextra is to carry out the assigned duties cost effectively, making use of joint resources. The allowable annual return on peak load capacity services is EUR 75,000. The allowed return on guarantee-of-origin services for the regulatory period starting on 1 January 2017 was approximately EUR 135,000. The realised return during the regulatory period consisted of a deficit of roughly EUR 10,000.

Fingrid Datahub Oy is a subsidiary wholly-owned by Fingrid Oyj established in 2016 to handle the operations linked to the datahub. Key duties of the subsidiary is to offer and develop centralised electricity market information exchange services and other related services to the market parties and to govern the register information required by the electricity markets. The datahub is a centralised information exchange system for retail markets that stores data from all of Finland's 3.5 million electricity metering points. The information stored in the datahub will be utilised by around 100 electricity sales companies and more than 80 distribution network operators to provide services to the consumers of electricity. Fingrid started the datahub project during the spring of 2015.

The consolidated associated companies are Nord Pool AS (ownership 18.8%) and eSett Oy (ownership 33.3%).

The investments in associated companies included in the balance sheet are composed of the following:

24. INVESTMENTS IN ASSOCIATED COMPANIES, € 1,000	2018	2017
Non-current		
Interests in associated companies	12,072	10,303
Loan receivables from associated companies	1,750	4,000
Current		
Loan receivables from associated companies	500	
Total	14,322	14,303

Receivable from an associated company consists of a loan receivable from eSett Oy. The main terms and conditions are as follows:

Associated company loan:

The loan capital is EUR 2.3 (2.5) million and the annual interest rate is 1.5 per cent, on top of the 12-month Euribor. The loan repayment is ten equal instalments every six months. The amount of the loan capital is one third of the total loan that eSett's owners have granted the company proportionate to their holdings. The terms of the loan are the same as the loan terms for eSett's other owners.

Capital loan:

The loan capital is EUR 0.0 (1.5) million. The loan has been repaid on 17 September 2018.

Financial summary of associated companies, €1,000									
	Non-current		Current assets		Turnover	Profit/ loss	Dividends received during the financial period	Ownership (%)	
	2018	Assets	Liabilities	Assets					
Nord Pool AS		5,613		268,109	239,125	40,951	9,403	645	18.80
eSett Oy		6,795	5,250	47,001	41,353	10,080	4,218		33.30

	Non-current		Current assets		Turnover	Profit/ loss	Dividends received during the financial period	Ownership (%)	
	2017	Assets	Liabilities	Assets					
Nord Pool AS		1,346		151,389	121,007	38,265	4,988	1,114	18.80
eSett Oy		8,232	11,250	39,540	33,246	7,560	2,677		33.30

The Group's associated companies indicated in the tables are treated in the consolidated financial statements using the equity method of accounting.

The Nordic Balance Settlement (NBS) was introduced in Finland on 1 May 2017. When the NBS began its operations, imbalance settlement transferred from Fingrid's Balance Service Unit to eSett Oy.

The company has an equity investment in Norwegian kroner in an associated company, which results in exposure to translation risk. The translation risk is not significant and the company does not hedge against this risk.

Equity investments in associated companies, € 1,000	2018	2017
Cost at 1 Jan	10,303	10,158
Share of profit	2,607	1,734
Translation reserve	-193	-475
Dividends	-645	-1,114

Carrying amount 31 Dec	12,072	10,303
Carrying amount of associated companies includes goodwill 31 Dec.	3,245	3,245

There are no material temporary differences related to associated companies on which deferred tax assets or liabilities have been recognised.

The subsidiaries, associated companies and parent company (Fingrid Oyj) described above are related parties of the Group. In addition, the shareholder entities mentioned in chapter 6.5 and the top management and its related parties are also considered related parties. The top management is composed of the Board of Directors, the President & CEO, and the executive management group. All transactions between Fingrid and related parties take place on market terms. The company has not lent money to the top management, and the company has no transactions with the top management. At the close of the reporting period, the Republic of Finland owned 53.1 per cent of the company's shares. The Finnish Parliament has authorised the Ministry of Finance to reduce the state's ownership in Fingrid Oyj to no more than 50.1 per cent of the company's shares and votes.

Transactions with associated companies, € 1,000	2018	2017
Sales	155	520
Expense adjustments	65	81
Purchases	3,889	3,276
Receivables	791	3,934
Liabilities	2,226	3,376
Loan receivables	2,250	4,000



Accounting principles

Subsidiaries

The subsidiaries encompass all companies over which the Group has control (including structured entities). The Group is considered to have control over a company if the Group's holding results in exposure to variable returns or if the Group is entitled to variable returns and it can influence these returns by exercising its control over the company. The subsidiaries are consolidated into the consolidated financial statements starting from the day on which the Group gained control over the company. Consolidation is discontinued once the control ceases to exist.

Consolidation of operations is carried out using acquisition cost method.

Transactions, receivables and liabilities between Group companies and any unrealised profits from internal transactions are eliminated. Unrealised losses are also eliminated unless the transaction indicates an impairment of the disposed asset. If necessary, the financial statements of the subsidiaries have been adjusted to correspond

to the accounting principles applied by the Group.

Associated companies

The associated companies include all companies over which the Group has significant influence but no control or joint control. This is generally based on a shareholding amounting to 20–50% of the votes. Fingrid has an 18.8% ownership in Nord Pool AS. In Fingrid's view, however, the significant influence over the company is retained because Fingrid is represented in Nord Pool's board of directors, as a shareholder with an ownership of more 10% is entitled to appoint a board member according the shareholder agreement. Fingrid has influence over Nord Pool's operating principles and over the decisions on dividends and asset distribution. According to the shareholder agreement, the board approves the annual operational plan and budget and makes a proposal to the annual general meeting on dividends. Fingrid also shares, via Nord Pool, in the costs of European market development.

Investments in associated companies are initially recognised at the acquisition cost and subsequently handled using the equity method. According to the equity method, investments are initially recorded at the acquisition cost and this is subsequently adjusted by recognising the Group's share of the profit or loss after the time of acquisition in the income statement and the Group's share of any changes in the investment object's other comprehensive income in other comprehensive income. Any dividends received or to be received from the associated companies and joint ventures are deducted from the investment's carrying amount.

If the Group's share of the losses of an investment recognised according to the equity method equals or exceeds the Group's holding in the company in question, including any other non-current receivables without collaterals, the Group will not recognise any additional losses unless it has obligations or it has made payments on behalf of the company.

A share corresponding to the Group's ownership interest is eliminated from the unrealised profits between the Group and its associated companies and joint ventures. Any unrealised losses are also eliminated unless the transaction indicates an impairment of the disposed asset. If necessary, the accounting principles applied by the investments to be recognised according to the equity method have been adjusted to correspond to the principles applied by the Group.

Other notes

Emission rights

Fingrid's reserve power plants are subject to an environmental permit and covered by the EU's emissions trading scheme. Fingrid has not been granted free-of-charge emission rights for the emissions trade period 2013–2020. Emission rights purchased in 2018 amounted to 10,000 units (tCO₂). Emissions trading had minor financial significance for Fingrid. CO₂ emissions included in emissions trading totalled 8,506 tonnes in 2018 (5,817).



Accounting principles

Emission rights

Emission rights acquired free of charge are recognised in intangible assets at their nominal value, and purchased emission rights at their acquisition cost. A liability is recognised for emission rights to be returned. If the Group has sufficient emission rights to cover the return obligations, the liability is recognised at the carrying amount corresponding to the emission rights in question. If there are not sufficient emission rights to cover the return obligations, the liability is recognised at the market value of the emission rights in question. No depreciation is recognised on emission rights. They are derecognised in the balance sheet at the time of transfer when the actual emissions have been ascertained. The expense resulting from the liability is recognised in the income statement under the expense item 'Materials and services'. Capital gains from emissions rights are recognised under other operating income.

25. PROVISIONS, € 1,000	2018	2017
Provisions for creosote-impregnated towers 1 Jan	1,474	1,481
Provisions used	-50	-7
Provisions 31 Dec	1,424	1,474



Accounting principles

Provisions

A provision is recorded when the Group has a legal or factual obligation based on an earlier event and it is likely that fulfilling the obligation will require a payment, and the amount of the obligation can be estimated reliably.

The provisions are valued at the present value of the costs required to cover the obligation. The discounting factor used in calculating the present value is chosen so that it reflects the market view of the time value of money at the assessment date and the risks pertaining to the obligation.

26. COMMITMENTS AND CONTINGENT LIABILITIES, €1,000	2018	2017
Pledges		
Pledge covering customs credit account	200	200
Pledge covering excise duty	280	280
	480	480
Other financial commitments		
Rent security deposit, guarantee	38	38
Credit facility commitment fee and commitment fee:		
Commitment fee for the next year	345	400
Commitment fee for subsequent years	862	1,154
	1,245	1,592
Unrecognised investment commitments	103,946	93,991

The investment commitments consist of agreements signed by the company to carry out grid construction projects.

Payment obligations from right-of-use agreements for reserve power plants:		
In one year	8,663	10,769
In more than one year and less than five years	34,064	34,124
In more than five years	19,610	27,888
Total	62,337	72,780

Under its system responsibility, Fingrid is also obligated to maintain a rapid response disturbance reserve to prepare for disruptions to the power system. In order to ensure the availability of this disturbance reserve, Fingrid has, in addition to its reserve power plant capacity, acquired power plant capacity suited to this purpose by long-term Right-of-use agreements.

LEGAL PROCEEDINGS AND PROCEEDINGS BY AUTHORITIES

An accident took place on a work site in Laukaa, Finland, on 25 August 2017, where an employee of Revilla y Garcia S.L. died after having fallen from a power line tower. A civil court case has been raised in Spain for damages against Fingrid (the client linked with the accident), the main contractor, Technolines S.R.L. filial i

Finland, and its sub-contractor, Revilla y Garcia S.L. Fingrid does not believe the claim against it is likely to succeed and, in Fingrid's view, the legal proceedings or their outcome are not likely to have a substantial impact on the company's earnings or financial position.

EVENTS AFTER THE CLOSING DATE

The Group management is not aware of such significant events after the closing date that would affect the financial statements.

GROUP'S CONTACT INFORMATION AND APPROVAL OF THE FINANCIAL STATEMENTS

Fingrid Oyj is a Finnish public limited liability company incorporated under the Finnish Companies Act. Fingrid's consolidated financial statements have been drawn up in accordance with the International Financial Reporting Standards (IFRS) as adopted by the EU. Fingrid's registered office is in Helsinki at the address P.O. Box 530 (Läkkisepäntie 21, 00620, Helsinki), 00101 Helsinki.

A copy of the consolidated financial statements is available on the website fingrid.fi or at Fingrid Oyj's head office.

The amounts in the financial statements are expressed in thousands of euros and are based on the original acquisition costs, unless otherwise stated in the accounting principles or notes.

Fingrid Oyj's Board of Directors has accepted the publication of these financial statements in its meeting on 26 February 2019. In accordance with the Finnish Companies Act, the shareholders have the opportunity to adopt or reject the financial statements in the shareholders' meeting held after their publication. The shareholders' meeting can also amend the financial statements.

Parent company income statement

8 Parent company financial statements (FAS)

8.1 Parent company income statement

		Jan-Dec/2018	Jan-Dec/2017
	Notes	€	€
TURNOVER	2	844,636,947.00	665,392,912.15
Other operating income	3	10,800,562.63	2,952,426.51
Materials and services	4	-469,156,712.93	-323,875,279.31
Personnel costs	5	-30,987,690.53	-29,384,630.35
Depreciation and amortisation expense	6	-102,385,166.51	-103,744,514.46
Other operating expenses	7,8	-43,367,646.31	-40,234,891.46
OPERATING PROFIT		209,540,293.35	171,106,023.08
Finance income and costs	9	-16,519,817.38	-17,179,788.71
PROFIT BEFORE APPROPRIATIONS AND TAXES		193,020,475.97	153,926,234.37
Appropriations			
Change in depreciation difference		50,000,000.00	
Income taxes	10	-48,450,162.82	-30,567,832.63
PROFIT FOR THE FINANCIAL YEAR		194,570,313.15	123,358,401.74

Notes are an integral part of the financial statements.

Parent company balance sheet

8.2 Parent company balance sheet

ASSETS		31 Dec 2018	31 Dec 2017
	Notes	€	€
Intangible assets:			
Other intangible assets	12	77,600,740.48	79,273,488.45
		77,600,740.48	79,273,488.45
Tangible assets			
	13		
Land and water areas		16,749,396.17	15,974,431.21
Buildings and structures		226,260,218.96	209,719,017.99
Machinery and equipment		551,598,765.91	560,151,242.49
Transmission lines		743,255,086.72	770,540,624.65
Other property, plant and equipment		117,516.35	117,516.35
Prepayments and purchases in progress		59,596,188.98	83,656,395.80
		1,597,577,173.09	1,640,159,228.49
Investments:			
	14		
Interests in Group companies		843,310.86	507,063.77
Interests in associated companies		8,587,578.95	8,587,578.95
Other shares and interests		2,367,590.36	2,096,934.13
		11,191,576.85	11,059,956.17
TOTAL NON-CURRENT ASSETS		11,798,480.17	1,730,624,293.79
CURRENT ASSETS			
Inventories	15	12,390,535.52	13,528,910.29
Receivables			
Non-current			
Loan receivables from Group companies	16	9,142,044.28	5,000,000.00
Loan receivables from associated companies	16	1,750,000.00	4,000,000.00
Deferred tax assets	10	10,788,284.51	8,846,460.43
		21,680,328.79	17,846,460.43
Current			

Trade receivables		82,960,650.88	75,073,908.08
Receivables from Group companies	17	377,781.29	833,329.87
Receivables from associated companies	18	1,290,832.94	3,934,309.64
Other receivables		1,463,140.20	1,447,709.38
Prepayments and accrued income	19,20	9,489,162.82	11,866,139.02
		95,581,568.13	93,155,395.99
Financial securities	21	70,980,070.94	72,968,050.83
Cash in hand and bank receivables	21	13,921,698.15	10,302,954.11
TOTAL CURRENT ASSETS		214,554,201.53	207,801,771.65
TOTAL ASSETS		1,901,530,595.27	1,938,426,065.44

Notes are an integral part of the financial statement.

SHAREHOLDERS' EQUITY AND LIABILITIES		31 Dec 2018	31 Dec 2017
	Notes	€	€
EQUITY	22		
Share capital		55,922,485.55	55,922,485.55
Share premium account		55,922,485.55	55,922,485.55
Profit from previous financial years		27,794,652.75	77,954,261.01
Profit for the financial year		194,570,313.15	123,358,401.74
TOTAL SHAREHOLDERS' EQUITY		334,209,937.00	313,157,633.85
ACCUMULATED APPROPRIATIONS	23	398,896,757.27	448,896,757.27
PROVISIONS FOR LIABILITIES AND CHARGES	30	1,424,146.78	1,474,146.78
LIABILITIES			
Non-current liabilities			
Bonds	24,25	667,511,729.99	691,236,522.43
Loans from financial institutions		107,878,787.88	129,541,125.54
		775,390,517.87	820,777,647.97
CURRENT LIABILITIES			
Bonds	24	23,724,792.54	107,307,651.26
Loans from financial institutions		22,600,144.82	22,473,741.62

Trade payables		20,725,047.34	25,308,354.72
Liabilities to Group companies	26	2,880,243.07	1,157,812.70
Liabilities to associated companies	27	2,226,105.94	3,375,839.59
Other liabilities	28	265,127,089.56	162,224,988.65
Accruals	29	54,325,813.08	32,271,491.03
		391,609,236.35	354,119,879.57
TOTAL LIABILITIES		1,166,999,754.22	1,174,897,527.54
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		1,901,530,595.27	1,938,426,065.44

Notes are an integral part of the financial statements.

Parent company cash flow statement

8.3 Parent company cash flow statement

		1 Jan - 31 Dec, 2018	1 Jan - 31 Dec, 2017
	Note	€	€
Cash flow from operating activities:			
Profit for the financial year	22	194,570,313.15	123,358,401.74
Adjustments:			
Business transactions not involving a payment transaction	33	44,254,156.25	103,404,458.81
Interest and other finance costs		21,712,026.29	23,205,080.13
Interest income		-4,547,332.31	-4,767,603.36
Dividend income		-644,876.60	-1,257,688.06
Taxes		48,450,162.82	30,567,832.63
Changes in working capital:			
Change in trade receivables and other receivables		-5,029,980.04	-9,443,145.18
Change in inventories		1,138,374.77	-1,259,792.59
Change in trade payables and other liabilities		10,796,432.05	4,185,979.27
Congestion income		29,632,292.62	25,752,020.51
Change in provisions		-50,000.00	-6,800.00
Interest paid		-17,431,549.87	-19,012,238.47
Interest received		446,885.85	415,917.88
Taxes paid	10	-37,281,373.19	-41,871,316.36
Net cash flow from operating activities		286,015,531.79	233,271,106.95
Cash flow from investing activities:			
Purchase of property, plant and equipment	13	-89,930,983.87	-101,357,371.07
Purchase of intangible assets	12	-5,491,663.99	-5,893,088.91
Purchase of other assets	14	-606,903.32	-131,620.68
Proceeds from sale of other assets	14		118,990.19
Proceeds from sale of property, plant and equipment	13	13,745,399.31	543,925.81

Loans granted		-4,000,000.00	-2,120,610.67
Payments of financing (liabilities)		1,750,000.00	
Dividends received	9	644,876.60	1,257,688.06
Net cash flow from investing activities		-83,889,275.27	-107,582,087.27
Cash flow from financing activities:			
Proceeds from current financing (liabilities)		542,636,150.22	451,535,449.76
Payments of current financing (liabilities)		-440,527,216.90	-425,554,006.96
Proceeds from non-current financing (liabilities)			100,000,000.00
Payments of non-current financing (liabilities)		-129,086,415.69	-149,732,292.07
Dividends paid	22	-173,518,010.00	-97,999,992.05
Net cash flow from financing activities		-200,495,492.37	-121,750,841.32
Change in cash and cash equivalents and financial assets			
		1,630,764.15	3,938,178.36
Cash and cash equivalents and financial assets 1 Jan		83,271,004.94	79,332,826.58
Cash and cash equivalents and financial assets 31 Dec		84,901,769.09	83,271,004.94

Notes are an integral part of the financial statements.

Notes to the financial statements of parent company

1. ACCOUNTING PRINCIPLES

Fingrid Oyj's financial statements have been drawn up in accordance with the Finnish Accounting Standards (FAS). The items in the financial statements are valued at original acquisition cost.

Foreign currency transactions

Commercial transactions and financial items denominated in foreign currencies are recognised at the foreign exchange mid-rate quoted by the European Central Bank (ECB) at the transaction date. Interest-bearing liabilities and receivables and the derivatives hedging these items are valued at the mid-rate quoted by the ECB at the closing date. Foreign exchange gains and losses on interest-bearing liabilities and receivables, and on the instruments hedging these items, are recognised at maturity under finance income and costs. Foreign exchange rate differences arising from the derivatives used to hedge commercial currency flows are recognised to adjust the corresponding item in the income statement.

Interest and currency derivatives

Interest rate and currency swaps, foreign exchange forwards and interest rate options are used, in accordance with the Treasury Policy, to hedge the interest rate and foreign exchange risk, as well as the commercial items, in Fingrid's balance sheet items. The accounting principles for derivative contracts are the same as for the underlying items. The interest rate items of interest rate and cross-currency swaps and interest rate options are accrued and recognised in the income statement under interest income and costs. The interest portion of forward foreign exchange contracts hedging the interest-bearing liabilities and receivables is accrued over the maturity of the contracts and recognised under finance income and costs. Premiums paid or received on interest rate options are accrued over the hedging period.

Electricity derivatives

Fingrid hedges its loss power purchases against price risk by employing futures traded on the NASDAQ OMX Oslo ASA. There can also be trading in the OTC market in instruments corresponding to Nasdaq OMX Oslo ASA's financial instruments. The profits and losses arising from these contracts are used to adjust the loss energy purchases in the income statement in the period in which the hedging impacts profit or loss.

Research and development expenses

Research and development expenses are treated as annual expenses.

Valuation of fixed assets

Fixed assets are capitalised under immediate acquisition cost. Planned straight-line depreciation on the acquisition price is calculated on the basis of the useful life of the fixed asset. Depreciation on fixed assets taken into use during the financial year is calculated on an item-by-item basis from the month of introduction.

The depreciation periods are as follows:

Goodwill = 20 years

Other non-current expenses:

Rights of use to line areas = 30–40 years
Other rights of use according to useful life, maximum = 10 years
Computer software = 3 years

Buildings and structures

Substation buildings and separate buildings = 40 years
Substation structures = 30 years
Buildings and structures at gas turbine power plants = 20–40 years
Separate structures = 15 years

Transmission lines

Transmission lines 400 kV = 40 years
Direct current lines = 40 years
Transmission lines 110–220 kV = 30 years
Creosote-impregnated towers and related disposal costs* = 30 years
Aluminium towers of transmission lines (400 kV) = 10 years
Optical ground wires = 10–20 years

Machinery and equipment

Substation machinery = 10–30 years
Gas turbine power plants = 20 years
Other machinery and equipment = 3–5 years

*Disposal costs are discounted at present value and added to the value of the fixed asset and recognised under provisions for liabilities and charges.

Goodwill is depreciated over a 20-year period, since grid operations are a long-term business in which income is accrued over several decades.

Emission rights

Emission rights are treated in accordance with the net procedure in conformance with statement 1767/2005 of the Finnish Accounting Board.

Valuation of inventories

Inventories are recognised according to the FIFO principle at acquisition cost, or at the lower of replacement cost or probable market price.

Cash in hand, bank receivables and financial securities

Cash in hand and bank receivables include cash assets and bank balances. Financial securities include certificates of deposit, commercial papers and investments in short-term fixed income funds. Quoted securities

and comparable assets are valued at the lower of original acquisition cost or probable market price.

Interest-bearing liabilities

Fingrid's non-current interest-bearing liabilities consist of loans from financial institutions and bonds issued under the Euro Medium Term Note (EMTN) programme. The current interest-bearing liabilities consist of commercial papers issued under the domestic and international programmes and of the current portion of noncurrent borrowings and bonds maturing within a year. The outstanding notes under the programmes are denominated in euros and foreign currencies. Fingrid has both fixed and floating rate debt. The interest is accrued over the maturity of the debt. The differential of a bond issued over or under par value is accrued over the life of the bond. The arrangement fees of the revolving credit facilities are, as a rule, immediately recognised as an expense, and the commitment fees are recognised as an expense over the maturity of the facility.

Financial risk management

The principles applied to the management of financial risks are presented in chapters 6.2 and 6.3 of the Notes to the Consolidated Financial Statements.

Income taxes

Taxes include the accrued tax corresponding to the profit for the financial year as well as tax adjustments for previous financial years.

Deferred taxes

The company enters deferred tax assets for the congestion income it uses for investments, and they become taxable income and tax in the year in which they were used. The tax assets entered for congestion income are recognised in accordance with the depreciation used in taxation for investments covered by congestion income. Congestion income allocated to investments is entered as a reduction in acquisition cost. For the rest, deferred tax assets and liabilities are not recorded in the income statement or balance sheet, but are instead presented in the notes.

2. TURNOVER BY BUSINESS AREA

The business of Fingrid Oyj comprises entirely transmission grid business with system responsibility. For that reason, there is no distribution of turnover by business area.

TURNOVER, €1,000	2018	2017
Grid service income	428,437	412,082
Imbalance power sales	348,837	213,872
Cross-border transmission	35,516	20,711
ITC income	13,089	8,647
Income from peak load capacity services	234	293
Income from guarantee-of-origin services	239	234
Other operating income	18,285	9,553
Total	844,637	665,393

3. OTHER OPERATING INCOME, €1,000	2018	2017
Rental income	831	942
Capital gains of fixed assets	8,277	340
Contributions received	186	170
Other income	1,506	1,500
Total	10,801	2,952

4. MATERIALS AND SERVICES, €1,000	2018	2017
Purchases during the financial year	378,727	234,232
Loss energy purchases	48,796	47,397
Change in inventories, increase (-) or decrease (+)	1,138	-1,260
Materials and consumables	428,662	280,369
Services	40,495	43,506
Total	469,157	323,875

5. PERSONNEL EXPENSES, €1,000	2018	2017
Salaries and bonuses	25,564	24,187
Pension expenses	4,437	4,139
Other personnel expenses	987	1,059
Total	30,988	29,385

Salaries and bonuses of the members of the Board of Directors and President and CEO, €1,000	2018	2017
Juhani Järvi, Chairman (since 6 June 2014)	41	39
Päivi Nerg, Vice Chairman (since 28 March 2018)	16	
Juha Majanen, Vice Chairman (until 28 March 2018)	5	24
Sanna Syri, Member of the Board (since 14 April 2015)	21	19
Esko Torsti, Member of the Board (since 22 March 2012)	22	20
Anu Hämäläinen, Member of the Board (since 6 April 2016)	22	19

Jukka Ruusunen, Presiden and CEO	452	416
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Number of salaried employees in the company during the financial year:

Personnel, average	362	352
Personnel, 31 Dec	365	355

DEPRECIATION ACCORDING TO PLAN, €1,000	2018	2017
Goodwill	0	4,289
Other non-current expenses	7,164	6,390
Buildings and structures	9,752	8,535
Machinery and equipment	48,482	48,104
Transmission lines	36,986	36,427
Total*	102,385	103,745
* depreciation on the electricity grid (notes 12 and 13)	93,720	89,658

7. OTHER OPERATING EXPENSES, €1,000	2018	2017
Contracts, assignments etc. undertaken externally	29,821	26,282
Grid rents	241	241
Other rental expenses	3,714	3,381
Other costs	9,592	10,331
Total	43,368	40,235

8. AUDITORS' FEES, €1,000	2018	2017
PricewaterhouseCoopers Oy:		
Auditing fee	79	63
Tax consulting		20
Other fees	92	41
Total	171	124

9. FINANCE INCOME AND COSTS, €1,000	2018	2017
Dividend income from Group companies		139
Dividend income from others	645	1,119
Interest and other finance income from others	4,547	4,768
	5,192	6,025
Interest and other finance costs to others	-21,712	-23,205
	-21,712	-23,205
Total	-16,520	-17,180

10. INCOME TAXES, €1,000	2017	2016
Income taxes for the financial year	50,392	33,197
Income taxes for the previous financial years		6,217
Changes in deferred taxes	-1,942	-8,846
Total	48,450	30,568

The company will pay its income taxes in accordance with the underlying tax rate, with no tax planning

Deferred tax assets in balance sheet, €1,000		
On temporary differences from congestion income	10,788	8,846
Total	10,788	8,846

Deferred tax assets and liabilities of balance sheet, €1,000		
Deferred tax assets		
On temporary differences	285	295
	285	295
Deferred tax liabilities		
On temporary differences	214	220
On appropriations	79,779	89,779
	79,993	90,000
Total	79,709	89,705

11. GOODWILL, €1,000	2018	2017
Cost at 1 Jan	128,664	128,664
Cost at 31 Dec	128,664	128,664

Accumulated depreciation according to plan 1 Jan	-128,664	-124,375
Depreciation according to plan 1 Jan–31 Dec	0	-4,289
Carrying amount 31 Dec	0	0

Accumulated depreciation difference 1 Jan	0	-4,289
Decrease in depreciation difference reserve 1 Jan–31 Dec	0	4,289
Accumulated depreciation in excess of plan 31 Dec	0	0

12. OTHER NON-CURRENT EXPENSES, €1,000	2018	2017
Cost at 1 Jan	167,176	161,342
Increases 1 Jan–31 Dec	5,803	5,959
Decreases 1 Jan–31 Dec	-742	-126
Cost at 31 Dec	172,237	167,176
Accumulated depreciation according to plan 1 Jan	-87,902	-81,572
Decreases, depreciation according to plan 1 Jan–31 Dec	431	60
Depreciation according to plan 1 Jan–31 Dec	-7,164	-6,390
Carrying amount 31 Dec*	77,601	79,273
Accumulated depreciation difference 1 Jan	-52,047	-52,620
Increase in depreciation difference reserve 1 Jan–31 Dec	-5,562	-5,908
Decrease in depreciation difference reserve 1 Jan–31 Dec	7,527	6,481
Accumulated depreciation in excess of plan 31 Dec	-50,083	-52,047
*Net capital expenditure in electricity grid, €1,000	2018	2017
Carrying amount 31 Dec	70,075	71,258
Carrying amount 1 Jan	-71,258	-74,378
Depreciation according to plan 1 Jan–31 Dec	4,091	4,030
Decreases 1 Jan–31 Dec	312	66
Total	3,219	976

13. TANGIBLE ASSETS, €1,000	2018	2017
Land and water areas		
Cost at 1 Jan	15,974	15,701
Increases 1 Jan–31 Dec	775	274

Cost at 31 Dec	16,749	15,974
Buildings and structures		
Cost at 1 Jan	279,331	254,723
Increases 1 Jan–31 Dec	26,780	24,614
Decreases 1 Jan–31 Dec	-1,022	-5
Cost at 31 Dec	305,089	279,331
Accumulated depreciation according to plan 1 Jan	-69,612	-61,083
Decreases, depreciation according to plan 1 Jan–31 Dec	536	5
Depreciation according to plan 1 Jan–31 Dec	-9,752	-8,535
Carrying amount 31 Dec	226,260	209,719
Accumulated depreciation difference 1 Jan	-13,542	-12,694
Increase in depreciation difference reserve 1 Jan–31 Dec	-9,699	-9,383
Decrease in depreciation difference reserve 1 Jan–31 Dec	9,898	8,535
Accumulated depreciation in excess of plan 31 Dec	-13,343	-13,542
Machinery and equipment		
Cost at 1 Jan	1,142,267	1,111,047
Increases 1 Jan–31 Dec	43,870	31,938
Decreases 1 Jan–31 Dec	-6,339	-718
Cost at 31 Dec	1,179,798	1,142,267
Accumulated depreciation according to plan 1 Jan	-582,116	-534,730
Decreases, depreciation according to plan 1 Jan–31 Dec	2,399	718
Depreciation according to plan 1 Jan–31 Dec	-48,482	-48,104
Carrying amount 31 Dec	551,599	560,151
Accumulated depreciation difference 1 Jan	-86,466	-90,425
Increase in depreciation difference reserve 1 Jan–31 Dec	-18,462	-44,144
Decrease in depreciation difference reserve 1 Jan–31 Dec	48,541	48,104
Accumulated depreciation in excess of plan 31 Dec	-56,386	-86,466
Transmission lines		
Cost at 1 Jan	1,286,459	1,288,550
Increases 1 Jan–31 Dec	10,541	-1,658
Decreases 1 Jan–31 Dec	-1,921	-433
Cost at 31 Dec	1,295,079	1,286,459

Accumulated depreciation according to plan 1 Jan	-515,918	-479,675
Decreases, depreciation according to plan 1 Jan–31 Dec	1,081	184
Depreciation according to plan 1 Jan–31 Dec	-36,986	-36,427
Carrying amount 31 Dec	743,255	770,541
Accumulated depreciation difference 1 Jan	-296,842	-288,869
Increase in depreciation difference reserve 1 Jan–31 Dec	-20,288	-44,400
Decrease in depreciation difference reserve 1 Jan–31 Dec	38,045	36,427
Accumulated depreciation in excess of plan 31 Dec	-279,085	-296,842
Other property, plant and equipment		
Cost at 1 Jan	118	118
Cost at 31 Dec	118	118
Prepayments and purchases in progress		
Cost at 1 Jan	83,656	59,404
Increases 1 Jan–31 Dec	75,934	94,299
Transfers to other tangible and intangible assets 1 Jan - 31 Dec	-99,995	-70,047
Cost at 31 Dec	59,596	83,656
Tangible assets total*	1,597,577	1,640,159

*Net capital expenditure in electricity grid, €1,000	2018	2017
Carrying amount 31 Dec	1,569,901	1,609,354
Carrying amount 1 Jan	-1,609,354	-1,618,586
Depreciation according to plan 1 Jan–31 Dec	89,630	85,628
Decreases 1 Jan–31 Dec	5,209	249
Total	55,386	76,645

Fingrid's reserve power plants are included in the property, plant and equipment of the transmission system.

14. INVESTMENTS, €1,000	2018	2017
Interests in Group companies		
Cost at 1 Jan	507	507
Increases 1 Jan–31 Dec	336	

Cost at 31 Dec	843	507
Interests in associated companies		
Cost at 1 Jan	8,588	8,588
Cost at 31 Dec	8,588	8,588
Other shares and interests		
Cost at 1 Jan	2,097	1,965
Increases 1 Jan–31 Dec	274	139
Decreases 1 Jan–31 Dec	-3	-8
Cost at 31 Dec	2,368	2,097
Investments total	11,798	11,192

15. INVENTORIES, €1,000	2018	2017
Materials and consumables at 31 Dec	12,391	13,248
Work in progress	0	281
Total	12,391	13,529

16. OTHER NON-CURRENT RECEIVABLES, €1,000	2018	2017
Loan receivables from Group companies	9,142	5,000
Loan receivables from associated companies	1,750	4,000
Total	10,892	9,000

17. RECEIVABLES FROM GROUP COMPANIES, €1,000	2018	2017
Current:		
Trade receivables	262	772
Interest receivables	116	62
Total	378	833

18. RECEIVABLES FROM ASSOCIATED COMPANIES, €1,000	2018	2017
Current:		

Trade receivables	782	3,888
Interest receivables	9	46
Loan receivables	500	
Total	1,291	3,934

19. PREPAYMENTS AND ACCRUED INCOME, €1,000	2018	2017
Interest and other financial items	5,810	6,545
Accruals of sales and purchases	2,880	2,201
Tax assets	0	2,331
Other prepayments and accrued income	800	789
Total	9,489	11,866

20. UNRECORDED EXPENSES AND PAR VALUE DIFFERENTIALS ON THE ISSUE OF LOANS INCLUDED IN PREPAYMENTS AND ACCRUED INCOME, €1,000	2018	2017
Par value differentials	1,423	1,624

21. CASH AND CASH EQUIVALENTS, €1,000	2018	2017
Commercial papers	4,498	6,496
Short-term fixed income funds	56,482	56,472
Bank deposits	10,000	10,000
Cash in hand and bank receivables	13,922	10,303
Total	84,902	83,271

22. SHAREHOLDERS' EQUITY, €1,000	2018	2017
Share capital 1 Jan	55,922	55,922
Share capital 31 Dec	55,922	55,922
Share premium account 1 Jan	55,922	55,922
Share premium account 31 Dec	55,922	55,922

Profit from previous financial years 1 Jan	201,313	175,954
Dividend distribution	-173,518	-98,000
Profit from previous financial years 31 Dec	27,795	77,954
Profit for the financial year	194,570	123,358
Shareholders' equity 31 Dec	334,210	313,158
Distributable shareholders' equity	222,365	201,313

Number of shares	Series A shares	Series B shares	Total
1 Jan 2018	2,078	1,247	3,325
31 Dec 2018	2,078	1,247	3,325

Series A shares confer three votes each at the Annual General Meeting and Series B shares one vote each. When electing members of the Board of Directors, Series A shares confer 10 votes each at the Annual General Meeting and Series B shares one vote each.

Series B shares have the right before Series A shares to obtain the annual dividend specified below from the funds available for profit distribution. If the annual dividend cannot be distributed in some year, the shares confer a right to receive the undistributed amount from the funds available for profit distribution in the subsequent years; however, such that Series B shares have the right over Series A shares to receive the annual dividend and the undistributed amount.

Fingrid Oyj's Annual General Meeting decides on the annual dividend.

Eighty-two (82) per cent of the dividends to be distributed for each financial year is distributed for all Series A shares and eighteen (18) per cent for all Series B shares, however such that EUR twenty (20) million of the dividends to be distributed for each financial year is first distributed for all Series B shares. If the above-mentioned EUR twenty (20) million minimum amount for the financial period is not distributed (all or in part) for Series B shares in a financial period, Series B shares confer the right to receive the undistributed minimum amount in question (or the accumulated undistributed minimum amount accrued during such financial periods) in the next profit distribution, in any disbursements paid out, or in any other distribution of assets prior to any other dividends, disbursements or asset distribution until the undistributed minimum amount has been distributed in full for Series B shares.

There are no non-controlling interests.

23. ACCUMULATED APPROPRIATIONS, €1,000	2018	2017
Accumulated depreciation from the difference between depreciation according to plan and depreciation carried out in taxation	398,897	448,897

24. BONDS, €1,000	2018	2017
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Currency	Nominal value	Maturity date	Interest		
EUR	50,000	20 Sep 2020	floating rate	50,000	50,000
EUR	30,000	19 Sep 2022	floating rate	30,000	30,000
EUR	30,000	11 Sep 2023	2,71%	30,000	30,000
EUR	300,000	3 Apr 2024	3,50%	300,000	300,000
EUR	100,000	23 Nov 2027	1,125%	100,000	100,000
EUR	25,000	27 Mar 2028	2,71%	25,000	25,000
EUR	10,000	12 Sep 2028	3,27%	10,000	10,000
EUR	80,000	24 Apr 2029	2,95%	80,000	80,000
EUR	30,000	30 May 2029	2,89%	30,000	30,000
				655,000	630,000
NOK	200,000	12 Nov 2019	5,37%	23,725	23,725
NOK	100,000	16 Sep 2025	4,31%	12,512	12,512
				36,237	36,237
SEK	1,000,000	19 Nov 2018	floating rate		107,308
					107,308
Bonds, non-current, total				667,512	691,237
Bonds, current, total				23,725	107,308
Total				691,237	798,544

25. LOANS FALLING DUE IN FIVE YEARS OR MORE, €1,000	2018	2017
Bonds	587,512	617,512
Loans from financial institutions	54,892	72,554
Total	642,404	690,066

26. LIABILITIES TO GROUP COMPANIES, €1,000	2018	2017
Current:		
Other liabilities	2,880	1,158
Total	2,880	1,158

27. LIABILITIES TO ASSOCIATED COMPANIES, €1,000	2018	2017
Current:		
Trade payables	2,226	3,376
Total	2,226	3,376

28. OTHER LIABILITIES, €1,000	2018	2017
Current:		
Other loans/Commercial papers (international and domestic)	245,387	145,243
Value added tax	13,783	12,378
Electricity tax	4,443	3,092
advances received	923	923
Other liabilities	591	588
Total	265,127	162,225

29. ACCRUALS, €1,000	2018	2017
Current:		
Interest and other financial items	11,306	11,757
Salaries and additional personnel expenses	7,685	6,613
Accruals of sales and purchases	18,113	8,751
Other accruals	15,930	5,150
Congestion	1,292	

Total	54,326	32,271
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30. PROVISIONS FOR LIABILITIES AND CHARGES, €1,000	2018	2017
Creosote-impregnated and CCA-impregnated wooden towers, disposal costs	1,424	1,474
Total	1,424	1,474

31. DERIVATIVE AGREEMENTS, €1,000									
	2018				2017				Hierarchy level
	Fair value pos. 31.12.18	Fair value neg. 31.12.18	Net fair value 31.12.18	Nominal value 31.12.18	Fair value pos. 31.12.17	Fair value neg. 31.12.17	Net fair value 31.12.17	Nominal value 31.12.17	
Interest rate and currency derivatives									
	2,571	-6,888	-4,316	36,237	3,837	-12,660	-8,822	143,544	Level 2
Forward contracts	7	-5	1	5,150		-123	-123	1,167	Level 2
Interest rate swaps	23,575	-5,087	18,488	325,000	23,209	-7,487	15,722	430,000	Level 2
Bought interest rate options	126		126	620,000	787		787	571,587	Level 2
Total	26,279	-11,980	14,300	986,387	27,833	-20,270	7,563	1,146,298	
Electricity derivatives johdannaiset									
	Fair value pos. 31.12.18	Fair value neg. 31.12.18	Net fair value 31.12.18	Nominal value 31.12.18	Fair value pos. 31.12.17	Fair value neg. 31.12.17	Net fair value 31.12.17	Nominal value 31.12.17	
Electricity future contracts. NASDAQ OMX Commodities	12,383	-385	11,997	1.87	1,010	-135	875	1.13	Level 1
Electricity forward contracts. NASDAQ OMX Commodities	27,500	-3	27,496	2.58	2,905	-1,244	1,661	3.75	Level 1
Total	39,883	-389	39,494	4.45	3,915	-1,379	2,536	4.88	

32. COMMITMENTS AND CONTINGENT LIABILITIES, €1,000		2018	2017
Rental liabilities			
Liabilities for the next year		4,054	4,079
Liabilities for subsequent years		25,927	28,192
		29,981	32,270
Right-of-use agreements			
Liabilities for the next year		8,663	10,769
Liabilities for subsequent years		53,674	62,011
		62,337	72,780
Pledges			
Pledge covering customs credit account		200	200

Pledge covering excise duty	280	280
	480	480
Other financial commitments		
Rent security deposit, guarantee	38	38
Credit facility commitment fee and commitment fee:		
Commitment fee for the next year	345	400
Liabilities for subsequent years	862	1,154
	1,245	1,592
Unrecognised investment commitments	80,954	93,991

The investment commitments consist of agreements signed by the company to carry out grid construction projects.

33. OPERATING CASH FLOW ADJUSTMENTS, €1,000	2018	2017
Business transactions not involving a payment transaction		
Depreciation	102,385	103,745
Capital gains/losses (-/+) on tangible and intangible assets	-8,132	-340
Total	94,253	103,404

34. LEGAL PROCEEDINGS AND PROCEEDINGS BY AUTHORITIES

An accident took place on a work site in Laukaa, Finland, on 25 August 2017, where an employee of Revilla y Garcia S.L. died after having fallen from a power line tower. A civil court case has been raised in Spain for damages against Fingrid (the client linked with the accident), the main contractor, Technolines S.R.L. filial i Finland, and its sub-contractor, Revilla y Garcia S.L. Fingrid does not believe the claim against it is likely to succeed and, in Fingrid's view, the legal proceedings or their outcome are not likely to have a substantial impact on the company's earnings or financial position.

35. SEPARATION OF BUSINESSES IN ACCORDANCE WITH THE ELECTRICITY MARKET ACT

Imbalance power and regulating power

Each electricity market party must ensure its electricity balance by making an agreement with either Fingrid or some other party. Fingrid buys and sells imbalance power in order to stabilise the hourly power balance of an electricity market party (balance responsible party). Imbalance power trade and pricing are based on a balance service agreement with equal and public terms and conditions.

Fingrid is responsible for the continuous power balance in Finland by buying and selling balancing power in Finland. The balance responsible parties can participate in the Nordic balancing power market by submitting bids on their available capacity. The terms and conditions of participation in the regulating power market and the

pricing of balancing power are based on the balance service agreement.

Fingrid is responsible for organising national imbalance settlement. As of the beginning of May 2017, Fingrid has transferred the imbalance settlement to eSett Oy, a company jointly owned by the Finnish, Swedish and Norwegian transmission system operators.

The balance settlement takes place after the utilisation hours by determining the actual electricity generation, consumption and electricity trade. The outcome of the balance settlement is power balances for each party to the electricity trade.

Management of balance operation

In accordance with a decision by the Energy Market Authority, Fingrid Oyj shall separate the duties pertaining to national power balance operation by virtue of Chapter 12 of the Electricity Market Act. The management of balance operation is a part of grid operations.

The income statement of the balance service unit is separated by means of cost accounting as follows:

Income	direct
Separate costs	direct
Production costs	matching principle
Administrative costs	matching principle
Depreciation	matching principle in accordance with Fingrid Oyj's depreciation principle
Finance income and costs	on the basis of imputed debt
Income taxes	based on result

The average number of personnel during 2018 was 10 (11). The operating profit was -0.8 (0.5) per cent of turnover.

MANAGEMENT OF BALANCE OPERATION, SEPARATED INCOME STATEMENT	1 Jan - 31 Dec, 2018 1 000 €	1 Jan - 31 Dec, 2017 1 000 €
TURNOVER*	355,698	219,344
Other operating income	1	0
Materials and services*	-352,266	-213,014
Personnel costs	-1,062	-1,148
Depreciation and amortisation expense	-609	-434
Other operating expenses	-4,530	-3,718

OPERATING PROFIT	-2,768	1,028
Finance income and costs	64	81
PROFIT/LOSS BEFORE APPROPRIATIONS AND TAXES	-2,703	1,110
Appropriations	222	-81
Income taxes		-206
PROFIT/LOSS FOR THE FINANCIAL YEAR	-2,482	823

* Turnover includes EUR 116.2 (56.7) million in sales of imbalance power to balance provider Fingrid Oyj, and Materials and services includes EUR 91.6 (54.7) million euros in purchases by Fingrid Oyj.

MANAGEMENT OF BALANCE OPERATION, SEPARATED BALANCE SHEET

ASSETS	31 Dec 2018	31 Dec 2017
	€1,000	€1,000
NON-CURRENT ASSETS		
Intangible assets		
Other non-current expenses	811	1,311
Tangible assets		
Machinery and equipment	351	461
Prepayments and purchases in progress		
Investments		
Interests in associated companies	2,001	2,001
TOTAL NON-CURRENT ASSETS	3,163	3,772
CURRENT ASSETS		
Non-current		
Loan receivables from associated companies	2,250	4,000
Current receivables		
Trade receivables	5,740	2,649
Receivables from Group companies	10,319	10,594
Receivables from associated companies	21,184	13,214
Other receivables	2,516	2,234
	39,759	28,690
Cash in hand and bank receivables	1	1
TOTAL CURRENT ASSETS	42,010	32,691

TOTAL ASSETS	45,173	36,463
	31 Dec 2018	31 Dec 2017
	€1,000	€1,000
SHAREHOLDERS' EQUITY AND LIABILITIES		
EQUITY		
Share capital	32	32
Share premium account	286	286
Profit from previous financial years	22,696	21,873
Profit for the financial year	-2,482	823
TOTAL SHAREHOLDERS' EQUITY	20,532	23,013
ACCUMULATED APPROPRIATIONS	-611	-389
LIABILITIES		
Current liabilities		
Trade payables	2,199	520
Liabilities to Group companies		
Liabilities to associated companies	23,053	13,113
Accruals		206
	25,252	13,839
TOTAL LIABILITIES	25,252	13,839
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	45,173	36,463

Development of information exchange

It is Fingrid's task to develop the exchange of information required for electricity trade and imbalance settlement as set out in the Electricity Market Act. Fingrid's information exchange services are part of the electricity markets' information exchange environment. In order to develop the effective and accurate exchange of information, Fingrid works in close co-operation with e.g. electricity market parties, interest groups, service providers, supervisory authorities, legislators, organisations that develop national and international communications and other transmission system operators.

In accordance with a decision by the Energy Market Authority, Fingrid Oyj must separate the duties pertaining to the development of information exchange by virtue of Chapter 12 of the Electricity Market Act. The development of information exchange is a part of grid operations.

The separation of the income statement for the development of information exchange is realised by means of cost accounting as follows:

Income	direct
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Separate costs	direct
Administrative costs	matching principle
Income taxes	based on result

DEVELOPMENT OF INFORMATION EXCHANGE, SEPARATED INCOME STATEMENT	1 Jan - 31 Dec, 2018	1 Jan - 31 Dec, 2017
	€1,000	€1,000
TURNOVER	605	575
Personnel costs		-116
Other operating expenses	-368	-374
OPERATING PROFIT	237	86
PROFIT/LOSS BEFORE APPROPRIATIONS AND TAXES	237	86
Income taxes	-47	-17
PROFIT/LOSS FOR THE FINANCIAL YEAR	190	69

DEVELOPMENT OF INFORMATION EXCHANGE, SEPARATED BALANCE SHEET

ASSETS	31 Dec 2018	31 Dec 2017
	€1,000	€1,000
CURRENT ASSETS		
Trade receivables	350	1
Other receivables	83	130
TOTAL CURRENT ASSETS	433	131
TOTAL ASSETS	433	131

SHAREHOLDERS' EQUITY AND LIABILITIES	31 Dec 2018	31 Dec 2017
	€1,000	€1,000
EQUITY		
Share capital	3	3
Profits/losses from previous financial years	-520	-589
Profit for the financial year	190	69

TOTAL SHAREHOLDERS' EQUITY	-328	-518
LIABILITIES		
Current liabilities		
Trade payables	353	11
Liabilities to Group companies	343	575
Other liabilities	65	62
	761	649
TOTAL LIABILITIES	761	649
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	433	131

Grid operations

Grid operations refers to licensed electricity system operation that takes place on the electricity grid. Electricity system operations are defined in Chapter 1 of the Electricity Market Act (588/2013) and grid operations are defined in Chapter 5. Of Fingrid Oyj's operations, activities related to the management of the power reserve system and guarantees of origin for electricity, as well as the datahub project that was started in 2015 are not included in grid operations. Operations that are not part of grid operations constitute 'other operations' as referred to in Chapter 12 of the Electricity Market Act and must be separated from grid operations in accordance with that Chapter.

The income statement and balance sheet of grid operations and other operations have, in compliance with Chapter 12 of the Electricity Market Act, been separated by means of cost accounting as follows:

Income	direct
Separate costs	direct
Production costs	matching principle
Administrative costs	matching principle
Depreciation	matching principle in accordance with Fingrid Oyj's depreciation principle
Finance income and costs	on the basis of imputed debt
Income taxes	based on result
Balance sheet items	matching principle

SEPARATED INCOME STATEMENT

TRANSMISSION SYSTEM

OTHER OPERATION

	OPERATION	
	1 Jan - 31 Dec, 2018	1 Jan - 31 Dec, 2018
	€1,000	€1,000
TURNOVER	843,469	1,168
Other operating income	10,801	
Materials and services	-469,157	
Personnel costs	-30,460	-527
Depreciation and amortisation expense	-102,385	
Other operating expenses	-42,727	-640
OPERATING PROFIT	209,540	0
Finance income and costs	-16,716	196
PROFIT BEFORE EXTRAORDINARY ITEMS	192,824	196
PROFIT/LOSS BEFORE APPROPRIATIONS AND TAXES	192,824	196
Appropriations	50,000	
Income taxes	-48,411	-39
PROFIT/LOSS FOR THE FINANCIAL YEAR	194,414	157

SEPARATED BALANCE SHEET	TRANSMISSION SYSTEM OPERATION	OTHER OPERATION
ASSETS	31 Dec 2018	31 Dec 2018
	€1,000	€1,000
Intangible assets:		
Goodwill		
Other intangible assets	77,601	
	77,601	
Tangible assets		
Land and water areas	16,749	
Buildings and structures	226,260	
Machinery and equipment	551,599	
Transmission lines	743,255	
Other property, plant and equipment	118	

Prepayments and purchases in progress	59,596	
	1,597,577	
Investments:		
Interests in Group companies		843
Interests in associated companies	8,588	
Other shares and interests	2,368	
	10,955	843
TOTAL NON-CURRENT ASSETS	1,686,133	843
CURRENT ASSETS		
Inventories	12,391	
Receivables		
Non-current		
Loan receivables from Group companies		9,142
Loan receivables from associated companies	1,750	
Deferred tax assets	10,788	
	12,538	9,142
Current		
Trade receivables	82,961	
Receivables from Group companies	9,544	378
Receivables from associated companies	1,291	
Other receivables	1,463	
Prepayments and accrued income	9,489	
	104,747	378
Financial securities	60,980	
Cash in hand and bank receivables	23,922	
TOTAL CURRENT ASSETS	214,578	9,520
TOTAL ASSETS	1,900,711	10,363

SEPARATED BALANCE SHEET
SHAREHOLDERS' EQUITY AND
LIABILITIES

TRANSMISSION SYSTEM OPERATION
31 Dec 2018

OTHER OPERATION
31 Dec 2018

	€1,000	€1,000
EQUITY		
Share capital	55,920	3
Share premium account	55,922	
Profit from previous financial years	27,340	455
Profit for the financial year	194,414	157
TOTAL SHAREHOLDERS' EQUITY	333,596	614
ACCUMULATED APPROPRIATIONS	398,897	
PROVISIONS FOR LIABILITIES AND CHARGES	1,424	
LIABILITIES		
Non-current liabilities		
Bonds	667,512	
Loans from financial institutions	107,879	
	775,391	
Current liabilities		
Bonds	23,725	
Loans from financial institutions	22,600	
Trade payables	20,725	
Liabilities to Group companies	2,880	9,544
Liabilities to associated companies	2,226	
Other liabilities	265,051	76
Accruals	54,197	129
	391,404	9,749
TOTAL LIABILITIES	1,166,795	9,749
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	1,900,711	10,363

Other non-current assets included in the separated balance sheet for grid operations

SEPARATED BALANCE SHEET	TRANSMISSION SYSTEM OPERATION
ASSETS	31 Dec 2018
	€1,000
Intangible assets:	
Other intangible assets	7,526
	7,526
Tangible assets	
Land and water areas	16,507
Buildings and structures	4,368
Machinery and equipment	5,612
Transmission lines	1,070
Other property, plant and equipment	118
Prepayments and purchases in progress	59,596
	87,272
TOTAL NON-CURRENT ASSETS	94,798

Congestion income in grid operations

The congestion income received by a grid owner must be used for the purposes stated in EC Regulation 714/2009, Article 16, Paragraph 6: guaranteeing the actual availability of the allocated capacity, and maintaining or increasing interconnection capacities through network investments. As a consequence of the change in the regulation governing Fingrid's grid pricing, the company will include the congestion income received after 1 January 2016 as accruals in the item other liabilities in the balance sheet. Of the accruals, congestion income will be recognised in the income statement as other operating income when their corresponding costs, as defined in the regulation, accrue as annual expenses in the income statement. Alternatively, they are entered in the balance sheet against investments, as defined by regulation, to lower the acquisition cost of property, plant and equipment, which lowers the depreciation of the property, plant and equipment in question. The congestion income received before 1 January 2016 was recognised in turnover. In accordance with the regulation on congestion income, Fingrid has used the congestion income from the connections between Finland and Sweden accrued in 2018 for the Hirvisuo–Pyhänselkä grid investment. EUR 1.3 million in congestion income was left unused and will be used for investments earmarked for financing with congestion income. The Hirvisuo–Pyhänselkä grid investment supports the cross-border transmission from northern Sweden to Finland.

Congestion income, €1,000	2018	2017
Congestion income on 1 Jan		
Accumulated congestion income	29,632	25,752
Expenses matching congestion income		
Investments matching congestion income	-28,341	-25,752
Congestion income on 31 Dec	1,292	

Countertrade

In terms of the costs arising from countertrade used to safeguard system security in grid operations, congestion income may be used to offset countertrade costs arising from cross-border transmission connections.

Counter trade, €1,000	2018	2017
Counter-trade between Finland and Sweden	1,916	366
Counter-trade between Finland and Estonia	58	96
Counter-trade between Finland's internal connections	2,161	1,295
Total counter-trade	4,135	1,756

36. EMISSION RIGHTS

Fingrid has not been granted free-of-charge emission rights for the emissions trade period 2013–2020. The use of emission rights had no impact on the financial result in 2016.

	2018	2017
Total CO2 emissions tCO2	8,506	5,817

37. PERMANENT LOCATION IN DENMARK IN INCOME TAXATION

Joint Nordic operational planning organisation

Fingrid has established, jointly with Svenska Kraftnät, Statnett and Energinet.dk, the Nordic Regional Security Coordinator (Nordic RSC) in Copenhagen for inter-TSO operational planning between the countries. The unit includes Fingrid employees who provide the service for Fingrid's parent company, and this operation constitutes a permanent location in terms of income taxation and is income taxable to Denmark. The unit became operational in summer 2018.

	1.1.-31.12.2018
INCOME STATEMENT	1 000 €
TURNOVER	423
Other operating income	
Materials and services	
Personnel costs	-129
Depreciation and amortisation expense	
Other operating expenses	-274
OPERATING PROFIT	20
Finance income and costs	
PROFIT/LOSS BEFORE APPROPRIATIONS AND TAXES	20
Appropriations	
Income taxes	-4
PROFIT/LOSS FOR THE FINANCIAL YEAR	16

9 Signatures for the Annual Review and for the Financial Statements

Helsinki, 26th February 2019

Juhani Järvi
Chair

Päivi Nerg
Deputy Chairman

Sanna Syri

Esko Torsti

Anu Hämäläinen

Jukka Ruusunen
President & CEO

Auditor's notation

A report on the audit carried out has been submitted today.

Helsinki, 26th February 2019

PricewaterhouseCoopers Oy
Authorised Public Accountants

Heikki Lassila, APA