

## REPORT OF THE BOARD OF DIRECTORS 2016

### OPERATING ENVIRONMENT AND MARKET DEVELOPMENT

In 2016, the Finnish economy grew faster than expected. The growth was mainly due to domestic demand, especially to an increase in private consumption. Private investments, especially in construction, also increased fast in 2016. After several years of depression, increased activity showed as growth in electricity consumption. The increase in temperature-adjusted consumption was about 1.5%.

Last year, electricity consumption in Finland amounted to 85.1 terawatt hours (TWh), which was 3.1 percent more than the year before. The increased need for heating energy accounts for about half of the increase in electricity consumption. Industrial electricity consumption stood at 39.7 TWh, an increase of about 1.6 percent, and the rest of the consumption at 42.8 TWh, an increase of about 4.6 percent from the previous year.

A total of 22.3 percent of the electricity consumption was covered by net imports and 77.7 percent by Finland's own production. The growth in net imports was enhanced by the extremely low wholesale market prices in the Nordic electricity market in early 2016. Although electricity imports from Sweden decreased slightly from the previous year, the majority of Finland's electricity imports continued to come from Sweden (15 TWh). On the other hand, imports from Russia increased by almost 50 percent to 5.9 TWh. In 2016, 78 percent of the electricity generated in Finland (66.1 TWh) was greenhouse gas free, i.e. carbon neutral. The joint production of electricity and heat covered 24 percent of the consumption, nuclear power 26 percent, hydroelectric power 18 percent, and coal and other condensing power about 5 percent. The share of wind power was 3.6 percent, i.e. 3.1 TWh, an increase of nearly 32 percent from the previous year.

Thanks to the good water supply situation, the wholesale electricity prices remained at a low level in the Nordic market in the first half of 2016. After a clear rise in the first few months of the second half, the prices levelled out towards the end of the year. On average, the market electricity price in Finland was more than 9 percent higher than in 2015. Periodically, the average regional price in Finland was clearly higher than the system price. In 2016, the average regional price in Finland was just under 20 percent higher than the average system price.

In compliance with the Electricity Market Act, Fingrid, the company in charge of Finland's nation-wide high-voltage grid, is responsible for the development of information exchange required in the electricity trade and imbalance settlement. In 2014, Fingrid reviewed various alternatives for the implementation of information exchange, and based on appropriate reports and hearings, the Minister of Economic Affairs and Employment commissioned Fingrid to launch a project called Datahub. In 2015 and 2016, Fingrid worked with energy industry operators to implement a centralised Datahub information exchange system. In the future, information exchange and imbalance settlement in the electricity retail market will be managed by Datahub. The seller will be responsible for customer data and the distribution network owner for measuring electricity consumption at metering points and for the delivery of the data to Datahub. Datahub is planned to be deployed in September 2019.

The development and integration of the Nordic electricity market require the harmonisation of the imbalance settlement models of the Nordic countries. A new model, Nordic Balance Settlement (NBS) model, has been developed in Finland, Sweden and Norway. The aim of the new model is to create shared imbalance settlement norms in the three countries. The model, which will also change Finnish imbalance settlement practices, will be adopted in 2017.

### POHJOIS-KARJALAN SÄHKÖ OY'S OPERATIONS

In 2016, electricity consumption in Pohjois-Karjalan Sähkö Oy's concession area was 1 135 million kilowatt hours, which was 5.2 percent higher than the year before. This was partly due to colder weather. The impact of the cold periods on electricity consumption in the winter months was significant.

The Group's turnover in 2016 was 104.7 million euro, a decrease of about 4 percent from the previous year.

The turnover from electricity sales was 54.2 million euro, a decrease of about 6 percent from the previous year. The decrease was mainly due to lower sales prices. In spite of the challenges in the wholesale market, we succeeded in adjusting our operations in such a manner that the targets for the gross margin on sales and operating profit in electricity sales were met.

The production volumes of our own hydropower plants amounted to 216 million kilowatt hours, an increase of 2 percent from the previous year. The actual production was about 10% larger than in a normal year and covered about 20% of the electricity consumed in our concession area. At the Puntarinkoski power plant, we started an extensive modernisation project in which the main components, the turbine and the generator of the plant will be replaced. The cost estimate is about 5 million euro.

Pohjois-Karjalan Sähkö Oy is a shareholder in Kymppivoima Oy, through which Pohjois-Karjalan Sähkö Oy owns production shares in various regional power companies, such as Pohjolan Voima Oy, Etelä-Pohjanmaan Voima Oy, and Teollisuuden Voima Plc. These production shares provided Pohjois-Karjalan Sähkö Oy with a total of about 139 million kilowatt hours of electricity in 2016. Together with our own hydropower production, this production volume accounted for 30 per cent of the total volume of the electricity we sold. The volume of our own electricity production has varied from 350 to 600 million kilowatt hours, depending on the hydro balance and the wholesale market prices of electricity.

In 2016, we sold 239 new electricity connections, which is about 17 per cent fewer than the year before. The number of new connections sold to leisure homes increased by 14 per cent, and the number of connections sold to permanent residences decreased by about 26 per cent. The income from connection fees stood at 1.3 million euro. At the end of the year, the number of metering points was 88 866.

As to electricity distribution, the first few months of the year passed without major incidents. The heavy thunderstorms of the summer months caused wide power cuts in the entire electricity distribution area. The disturbances caused by the Arvo storm in July and the Rauli storm in August were especially extensive and long-lasting. Towards the end of the year, power distribution was hindered widely by snow and ice accretion on trees and power lines. Despite prompt fault repairs, the standard compensations payable to customers in case of power breaks of more than 12 hours amounted to about 0.6 million euro.

The construction of the weatherproof distribution network required by the Electricity Market Act proceeded as planned during 2016. In several built-up areas, we replaced a total of 114 kilometres of medium voltage overhead cables with underground cabling and installed 137 new secondary substations. In sparsely populated areas, we improved the security of electricity supply in a 40 kilometre long line section by transferring medium voltage networks to road sides and by cabling 45 km of branch lines with a 1000 volt line structure. In addition, the security of supply was improved in power line corridors in forest areas by clearing and pruning trees in a total of 1 900 kilometres of medium and low voltage power line corridors, of which 120 kilometres of adjacent forest sections of medium voltage power line corridors were brought to a production forest level, and 338 kilometres of weatherproof adjacent forest section were created through strip felling.

## **TURNOVER AND RESULT**

The Group's turnover amounted to 104.7 (2015: 109.1 and 2014: 117.4) million euro. The turnover of the parent company was 54.2 (2015: 57.9 and 2014: 64.2) million euro. The Group's turnover decreased by 4.4 million euro and the turnover of the parent company by 3.7 million euro from the previous year. The Group's operating profit was 10.8 (2015: 11.9 and 2014: 17.9) million euro. The operating profit of the parent company amounted to 2.2 (2015: 3.0 and 2014: 5.7) million euro. The EBIT-% of the Group was 10.3 (2015: 10.9 and 2014: 15.2). The corresponding figures of the parent company were 4.1 (2015: 5.2 and 2014: 8.9). The profit of the Group amounted to 7.6 (2015: 9.0 and 2014: 14.1) million euro. The corresponding figures of the parent company were 0.8 (2015: 1.4; 2014: 1.4 and 2013: 1.7) million euro. The Group's Return on Investment (ROI) was 3.7 (2015: 4.6 and 2014: 7.6) percent and the parent company's 0.9 (2015: 1.7 and 2014: 2.5) percent. The Group's Return on Equity (ROE) was 3.1 (2015: 3.8 and 2014: 6.1) percent and the parent company's 0.6 (2015: 1.7 and 2014: 2.2) percent.

## INVESTMENTS AND FINANCING

The Group's net investments amounted to 24.3 (2015: 28.1 and 2014: 29.4) million euro. The corresponding figures of the parent company were 27.5 (2015: 31.2 and 2014: 32.6) million euro. Of the parent company's total investments, the investments in distribution networks amounted to 26.0 (2015: 28.2 and 2014: 27.5) million euro. Of the total network investments, the construction of new electricity distribution connections accounted for 1.0 million euro. Investments in substations amounted to 1.9 million euro, and the rest, 23.1 million euro, was invested in the renovation of the distribution network.

At the end of the financial year, the Group's interest-bearing liabilities stood at 32.8 (2015: 34.0 and 2014: 6.3) million euro. The corresponding figures of the parent company were 32.8 (2015: 34.0 and 2014: 6.3) million euro. With the connection fees included in the shareholders' equity, the Group's equity ratio was 75.1 (2015: 73.7 and 2014: 83.4) percent and the equity ratio of the parent company 79.5 (2015: 77.7 and 2014: 87.3) percent. With the connection fees treated as liabilities, the corresponding figures were 41.5 (2015: 40.5 and 2014: 45.4) percent for the Group and 49.4 (2015: 47.1 and 2014: 52.4) percent for the parent company.

## GROUP STRUCTURE

On 31 December 2016, the Pohjois-Karjalan Sähkö Group comprised the parent company Pohjois-Karjalan Sähkö Oy and its subsidiaries Kuurnan Voima Oy (parent company holding 89%), Enerke Oy (100%), PKS Sähkönsiirto Oy (100%), and Enerke Oy's fully owned subsidiary SLT-Consults Oy.

## SHARES AND OWNERSHIP

The company has one share series. There are no specific terms related to the shares, and all shares have an equal right to dividends and company assets. On 31 December 2016, the ownership of the company was divided between various owner groups as follows:

Owner entities	Pcs	Number of Shares	Holding (%)
Pohjois-Karjalan Energiaholding Oy	1	947 759	54.1
Municipalities	19	793 141	45.3
Government	1	8 000	0.5
Companies	2	1 100	0.1
<b>Total</b>	<b>23</b>	<b>1 750 000</b>	<b>100.0</b>

## ANNUAL GENERAL MEETING

The Annual General Meeting was held on 21 April 2016. The Meeting decided, in accordance with the proposal of the Board of Directors, to distribute a dividend of 2.62 euro per share, totalling 4 585 000 euro. The Annual General Meeting re-elected the following outgoing Board members for the following three-year term: Hilikka Hiltunen from Ilomantsi and Pertti Turunen from Lieksa. Timo Puustinen from Joensuu was elected as a new Board member.

## MANAGEMENT

In compliance with the Limited Liability Companies Act, the Annual General Meeting elects the Board of Directors of the company. In the reporting year, the Board of Directors of the company consisted of the following members: Jukka Kankkunen, Farmer, Chairman; Pertti Turunen, Industrial Employee, Deputy Chairman; Pauli Bau Municipal Councillor, Member; Hilikka Hiltunen, Municipal Councillor, Member; Timo Puustinen, Forestry Advisor, Member; Pirjo Smolander, Physiotherapist, Member; Matti Timonen, Farmer, Member. The Managing Director of the Company was Jorma Korhonen, M.Sc. (Eng.).

## AUDIT

The auditor elected by the Annual General Meeting was Idman Vilén Grant Thornton Oy, Public Accountants, with Kalle Kotka, Authorised Public Accountant, as the principal auditor.

## KEY RISKS

### Risks related to the electricity business

The aim of the company's risk management is to support the efforts to achieve the business strategy goals. The most significant business risk to be hedged is the electricity price risk. The price development in the electricity market mainly affects the Group's production and sales. In a short term, the factors affecting the price of electricity in the Nordic market include hydro balance, variations in wind power supply, temperature, emission right prices, fuel prices and export-import balance between countries.

The company hedges against electricity price risks by concluding derivative contracts related to both sales and production. For hedging purposes, the company has an electricity sales and procurement management policy which is monitored closely.

### Financial risks

The interest bearing liabilities of the company are floating rate loans, meaning that possible rises in market rates may have a significant impact on the company's profit performance. The company hedges against market rate changes by means of interest rate swaps.

### "Mankala" liability

Pohjois-Karjalan Sähkö Oy has an 11.3 percent holding in Kymppivoima Oy, a company that operates on a Mankala principle (zero-profit-making company that runs its business for the benefit of its shareholders). Based on the Makala principle, Pohjois-Karjalan Sähkö has the right to the electricity generated by Kymppivoima in proportion to the share series it holds in the company. Its responsibility for Kymppivoima's electricity generation costs, which consist of variable costs, fixed costs, depreciation and financial costs, is also based on the share series it holds. The financial costs are affected by the interest rate derivative contracts made by Kymppivoima Oy.

### Risks related to distribution network operations

Massive storm damages to the distribution network may result in significant standard compensations to customers if the damages are so extensive that it is not possible to repair them within a reasonable time. The company has protected itself against this risk by keeping power line corridors clear, by thinning adjacent forests, by making, where possible, power line corridors weatherproof, and by ensuring the availability of fault repair capacity in such a manner that the full repair capacity of Enerke Oy together with an extensive network of subcontractors is available when necessary. The office personnel of the network company also participate in dealing with fault situations in accordance with proactive operating models practised in advance. The economic effects of the standard compensation risk have also been limited by taking out an insurance policy.

## PERSONNEL

In 2016, the Group had an average of 234 permanent employees (2015: 253 and 2014: 276). The number of permanent employees was 240 at the beginning and 229 at the end of the financial year. In the Group, the total wages, salaries, fees and fringe benefits paid were as follows: Board members 55 366.67 euro, Managing Directors 495 331.52 euro and the rest of the employees 11 155 148.34 euro.

In 2016, the parent company had an average of 58 permanent employees (2015: 62 and 2014: 64). The number of permanent employees was 59 at the beginning and 57 at the end of the financial year. In the parent company, the total wages, salaries, fees and fringe benefits paid were as follows: Board members and Managing Director 243 312.81 in total and the rest of the employees 2 903 052.35 euro.

## **ENVIRONMENT**

The goal of Pohjois-Karjalan Sähkö Oy's environmental system is to implement the Group's environmental objectives in the operating plans and everyday work. Apart from the Group, the company's subcontractors and partners also comply with these principles. Each business unit is separately responsible for planning and implementing measures related to the environmental objectives. The implementation is reviewed annually when the Group's operating plans are made.

Biosphere Reserve focuses on the Koitajoki River

Pohjois-Karjalan Sähkö Oy belongs to the partner network of the North Karelian Biosphere Reserve. In the network, the partnership is based on a commitment to the principles of sustainable development and to the development of activities accordingly. One of the major objectives of the biosphere reserve system is to develop regional solutions to environmental problems.

Freshhabit Koitajoki is a project launched in the Biosphere Reserve in 2016. It aims at improving the condition and diverseness of the waterways located near the eastern border. The measures include the restoration of run-off areas, mires and eutrophic lakes and the conservation of waterfowl habitat.

The North Karelia Centre for Economic Development, Transport and the Environment (ELY) is responsible for the administration of the activities in the Biosphere Reserve. There are 651 biosphere reserves in the world. Together, they form the world's most significant regional system for the promotion of sustainable development.

Pohjois-Karjalan Sähkö Oy makes significant contributions to the reduction of greenhouse gas emissions.

In September 2016, Pohjois-Karjalan Sähkö Oy joined the Joensuu region climate partnership network. In line with the principles of the network, the company commits to the following:

- We will take environmental impacts into account in all our activities, e.g. in procurement related to network materials, real estate and equipment.
- We will improve the efficiency of the company's own operating processes, e.g. in logistics and real estate management.
- We will commit to Motiva's national energy efficiency agreement and report on it annually.
- We will promote the energy saving measures of the customers through communication and by providing services that significantly help them improve their energy use habits.
- We will support small-scale production of electricity and Guarantee of Origin (GO) certified electricity.

Pohjois-Karjalan Sähkö Oy joined the new national energy efficiency agreement that covers the years 2017– 22. The energy savings achieved through the agreement will support the efforts to reduce Finland's greenhouse gas emissions and to achieve the national objectives for increasing the use of renewable energy.

## **OUTLOOK FOR 2017**

Owing to a strong growth in planned depreciation due to increased investments, the company's operating profit for 2017 is expected to be lower than in 2016.

## **BOARD OF DIRECTORS' PROPOSAL FOR THE DISPOSAL OF THE PROFIT**

The unrestricted shareholders' equity of the parent company is 44 513 423 euro, of which the profit for the financial year is 831 795 euro. The Board of Directors proposes that the parent company pay a dividend of 2.62 euro per share, totalling 4 585 000 euro, and set aside a sum of 50 000 euro for purposes of public utility. The rest of the distributable funds will be retained in the shareholders' equity. No essential changes have taken place in the company's financial situation after the end of the financial year. The company's liquidity is good and, according to the Board of Directors, the proposed distribution of profits does not risk the company's solvency.