



Redesigning
the future

ANNUAL REPORT 2016



ELENIA

Contents

ELENIA GROUP

- 3** Group structure, operations and operating area
- 4** Group key figures
- 5** CEO's review
- 6** Significant events in 2016
- 7** Values, vision, mission and strategies
- 10** Management system

CUSTOMER

- 12** Customer service and customer experience
- 13** Digital services
- 15** Number of customers, distribution and heating volumes
- 16** Heating services
- 17** Electricity distribution and heating pricing

BUSINESS ENVIRONMENT

- 19** General economic development
- 20** Elenia's demands in the future
- 21** Legislative developments
- 22** Regulation
- 23** Development of the electricity markets
- 24** Development of the heating markets

SECURITY OF SUPPLY

- 26** Elenia Weatherproof investments
- 28** Maintenance
- 29** Renewable energy into the electricity network
- 30** Development of preparedness for power disruptions
- 31** Certified quality systems
- 32** Heating investments and fuel deliveries
- 34** Innovation projects

PARTNERSHIPS

- 36** Partners and suppliers
- 38** More sustainable heat

RESPONSIBILITY

- 40** Personnel
- 42** Safety
- 43** Environment
- 45** Risks and risk management

GOVERNANCE

- 46** Elenia Oy Board of Directors
- 47** Elenia Oy Management Team
- 48** Elenia Lämpö Oy Board of Directors
- 49** Elenia Lämpö Oy Management Team

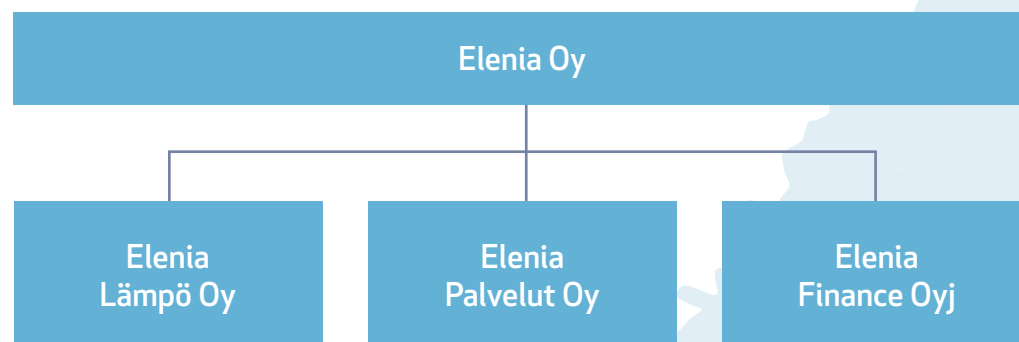


The Elenia Group's financial statements
www.elenia.com/en/investors/financial-reports

Elenia at your service

Reliable electricity distribution and district heating services

Elenia Group consists of the electricity distribution company Elenia Oy and its wholly-owned subsidiaries Elenia Lämpö Oy, Elenia Palvelut Oy and Elenia Finance Oy. Elenia is owned by Ilmarinen Mutual Pension Insurance Company, 3i and GS Infrastructure Partners.



Elenia Oy distributes electricity to a total of 420,000 household, corporate and community customers in approximately one hundred municipalities in the regions of Kanta-Häme, Päijät-Häme, Pirkanmaa, Central Finland, Southern Ostrobothnia and Northern Ostrobothnia. The company is responsible for the construction, maintenance and operation of its electricity distribution networks in cooperation with external contractors, as well as connecting new customers to the network, measuring its customers' electricity consumption and submitting consumption data to electricity suppliers. Elenia is the second largest among the approximately 80 electricity distribution companies in Finland. The company has 68,900 kilometres of electricity networks.

Elenia Lämpö Oy generates, distributes and sells district heating in approximately ten municipalities in the regions of Häme, Central Finland, Northern Ostrobothnia and Heinola. In addition, Elenia Lämpö Oy sells and distributes natural gas as well as generates electricity through its combined heat and power plant to be sold on the wholesale electricity market. Elenia Lämpö Oy has nearly 5,000 customers and around 85,000 end users.

Elenia Palvelut Oy is a multi-skilled service provider in the energy sector. It provides customer service for electricity distribution, district heating, natural gas and electricity sales businesses. The operations are guided by the service and business objectives of its customers. In cooperation with its customers, Elenia Palvelut Oy is renewing the Finnish energy markets' customer service offering in response to the changing needs of end customers.

Elenia Oy's areas of operation are marked in navy blue on the map. Elenia Oy and Elenia Palvelut Oy have headquarters in Tampere. Elenia Lämpö Oy's areas of operation are indicated by the blue points on the map. Elenia Lämpö Oy has its headquarters in Hämeenlinna.



KEY FIGURES 2016

ELENIA OY'S CUSTOMERS

420,000

ELECTRICITY NETWORK

68,900 km

TOTAL UNDERGROUND CABLING RATE OF THE ELECTRICITY NETWORK

38 %

TOTAL ELECTRICITY DISTRIBUTION VOLUME

6,330 GWh

ELENIA LÄMPÖ OY'S CUSTOMERS

5,000

DIRECT CUSTOMERS

85,000

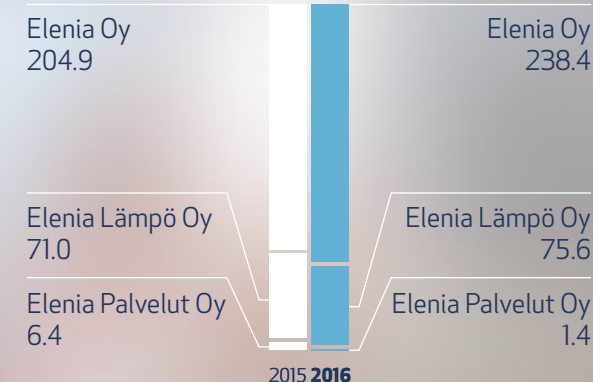
END USERS

SALES

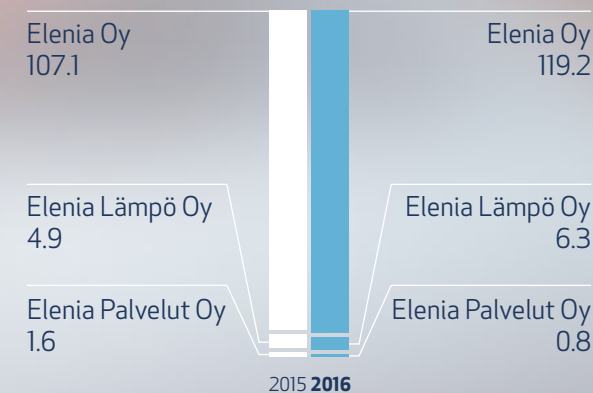
(includes heating, electricity and gas sales)

1.1 TWh

REVENUE BREAKDOWN, MEUR



ELENIA GROUP'S INVESTMENTS, MEUR



Elenia continues to be an industry frontrunner

In 2015, the Energy Authority published, in line with the provisions of the Electricity Market Act, the regulatory guidelines for the next two regulatory periods, covering 2016–2019 and 2020–2023. The new regulatory guidelines support the implementation of our planned investment programme, which has been in place since 2009 and is focused on building a weatherproof electricity network. In 2016, these new regulatory guidelines came into effect.

GOALS FOR THE YEAR ACHIEVED

During the year, we continued to invest in the electricity network in accordance with its development plan. Elenia Networks' investment plan has been designed to improve the security of supply via underground cabling. We have only built weatherproof underground cables since 2009. At the end of 2016, 38% of the network was underground, up from 34% at the end of 2015.

The Electricity Market Act (EMA) states that 100% of customers must be within the scope of the quality requirements by the end of 2028. This will be achieved by increasing the cabling rate to above 70% by the end of 2028. At the end of 2016, 49% of Elenia's customers were within the scope of EMA quality requirements. While the main focus in the development of the security of supply is on underground cabling, we also seek to improve the security of supply by other means. For example, in recent years we have developed an efficient model for tree clearance outside the line corridors.

Elenia Networks invested close to EUR 120 million in developing its electricity network in 2016. Investment in the electricity network will continue in 2017 and we plan to deploy more than EUR 120 million to replace approximately 3,000 kilometres of old overhead lines with new underground cables.

Last year Elenia experienced only one major storm during the year. Storm Rauli in the end of August was the most severe summer storm in Elenia's history and caused outages for more than 96,000 customers simultaneously. We were well prepared for the storm and restored electricity as planned.

Elenia Heat continued in 2016 to reduce the use of fossil fuels in its heat and electricity production and emphasise the use of domestic fuels. Both of these will continue to be important goals going

forward. The share of biofuels in our own production operations exceeded 65% in 2016, while the share of domestic fuels is approximately 90%. Elenia Heat continues its efforts to improve operational efficiency and maintain a high rate of efficiency at production plants.

OUR SERVICE BUSINESS

Electricity distribution is our core business, which is carried out by Elenia Oy. In addition, Elenia Lämpö Oy runs the district heating operations. To support these two businesses, Elenia Palvelut Oy is responsible for customer service operations. We provide our customers with a comprehensive, multichannel and cost-efficient service. We also offer our services to other energy companies. We signed our first customer service agreement with Jyväskylän Energia at the beginning of 2017.

In heating services, we are investing in a heat production and network remote control system renewal project that will be completed in 2017. This will increase automation in order to facilitate even more comprehensive and effective operational control of production and heating distribution.

ENERGY MARKET FACING A MAJOR TRANSFORMATION

The energy market is expected to change in the coming years, with the role of the consumer becoming more significant. The production of wind and solar power is increasing rapidly, which means higher electricity production when weather conditions are favourable. Consumption, however, peaks during the dark and cold winter months. Theoretically, production and consumption levels could easily be balanced at the annual level, but maintaining the temporal balance presents greater challenges than before.

Large-scale industry participates in regulating the electricity grid's power balance by adjusting its load according to the market price of electricity. Smaller businesses and households, on the other hand, have not shown interest in adjusting their consumption due to electricity prices being stable and low. If the aim is to have the distribution price guide investments towards balancing energy consumption, it must be based on the power used. I believe that, in the future

businesses and households will contribute to maintaining the power balance by adjusting the timing of their energy consumption.

At Elenia, we will continue to develop our smart grid to be able to improve our services and build a platform for the future innovations such as virtual power plants and demand side management. This means that the customer's consumption can be adjusted to maintain the grid's power balance. We have started a pilot program with the latest generation smart meters and full scale roll-out takes in a few years' time. Developing smart grid functionality and services that promote changes in the energy market are at the core of our strategy. Our aim is to continue to respond to the changing needs and expectations of our customers and society as a frontrunner in our industry.

I would like to take this opportunity to extend my warmest thanks to our personnel, customers, partners and shareholders for their successful cooperation in 2016.

Tapani Liuhala
CEO



Significant events in 2016

Construction of Elenia Weatherproof continued as planned
TARGET: UNDERGROUND CABLING RATE OF 70% BY 2028.

In district heat generation,
**THE SHARE OF RENEWABLE ENERGY NEARLY 68%,
DOMESTIC FUELS NEARLY 90%.**

Q1

Q2

Q3

Q4

Energy Authority's
NEW REGULATION PERIOD
for electricity network business
for 2016–2019,
also guidelines for 2020–2023.

CUSTOMER INFORMATION SYSTEM
project successfully completed.
New organisation for
Elenia Palvelut Oy.

Project on the telemonitoring
SYSTEM FOR PRODUCTION
and networks was launched for the
district heating.

Fixed-term transitional services
agreement with Vattenfall
CAME TO AN END.

Increase
**IN ELECTRICITY
DISTRIBUTION PRICES** 1 April 2016
on average 6%
of the taxable price.

**ENERGY
FROM THE SUN**
for district heating
in Hämeenlinna.

Sponsoring partnership
for the **FINLAND-SWEDEN** athletics
international
together with Tampereen Sähkölaitos.

SUJUVA PROJECT
with electricity network services
contractor partners
to support efficacy of field work.

NEW ANNUAL CONTRACTS with
electricity network services
contractor partners.

A major power disruption
caused by the
RAULI STORM.

Publication of the
**MINISTRY OF ECONOMIC AFFAIRS
AND EMPLOYMENT'S**
2030 scenario and
the EU's Winter Package.

Relaunch of
**THE DIGITAL
ELENIA AINA SERVICE,**
with competitive bidding
from electricity suppliers
as a new feature.

Values, vision, mission and strategy

ACHIEVING GOALS THROUGH INTEGRITY, COURAGE AND COOPERATION

Elenia's Code of Conduct is the foundation for the Group's way of working. We promote courage and continuous development among our personnel. We want to be an honest and reliable partner for our stakeholders and we operate responsibly. Our Code of Conduct guides our day-to-day work throughout Elenia Group. Our personnel, Board of Directors and partners are committed to compliance with Elenia's Code of Conduct.

SHARED VALUES AS THE FOUNDATION OF OUR WORK

Our core values are the foundation of our work and they describe the operating culture we foster at Elenia. Through our values, we create consistent operating methods for our work with customers, partners and other stakeholders.



CLOSE TO THE CUSTOMER

Customers fire our working community with enthusiasm to seek new ways of providing a service and developing our operations with a bold approach and a focus on results. We keep our promises.



ACCOUNTABLE PARTNER

We demand high levels of responsibility of ourselves and our partners. We actively care about our own and our shared well-being and safety at work.



ACHIEVING TOGETHER

We forge lasting relationships with local communities, resulting in trust and acceptance of our operations. We share our professional expertise with the working community at large.

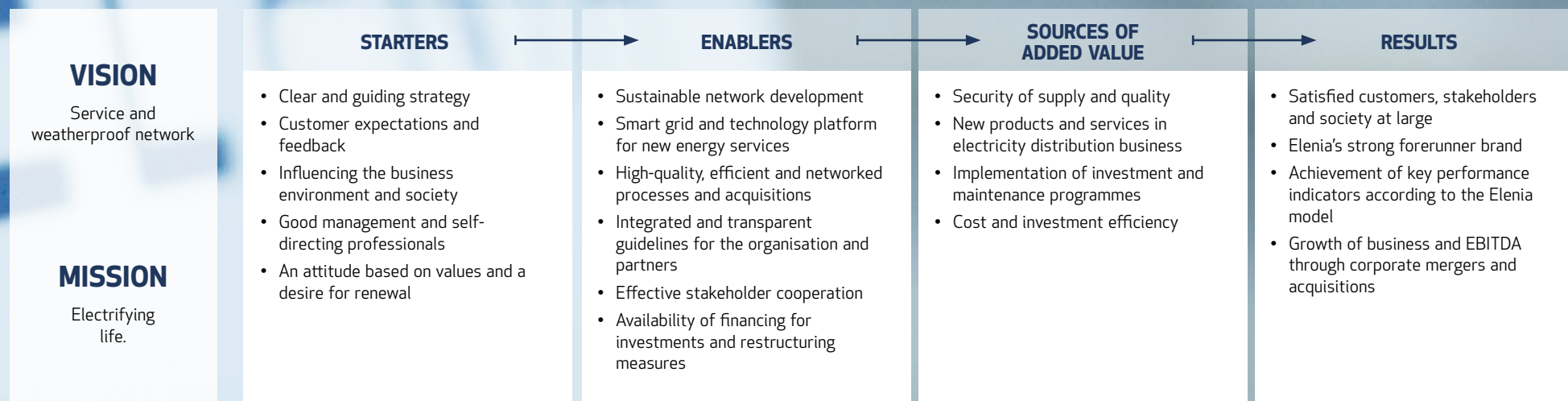


COURAGE TO RENEW

The courage to embrace change is what leads to progress. This demands the right attitude in which our knowledge, skills and experience see us forging ahead in terms of our own development and that of our entire sector.

Values, vision, mission and strategy

Elenia Oy's Vision, Mission and Strategy



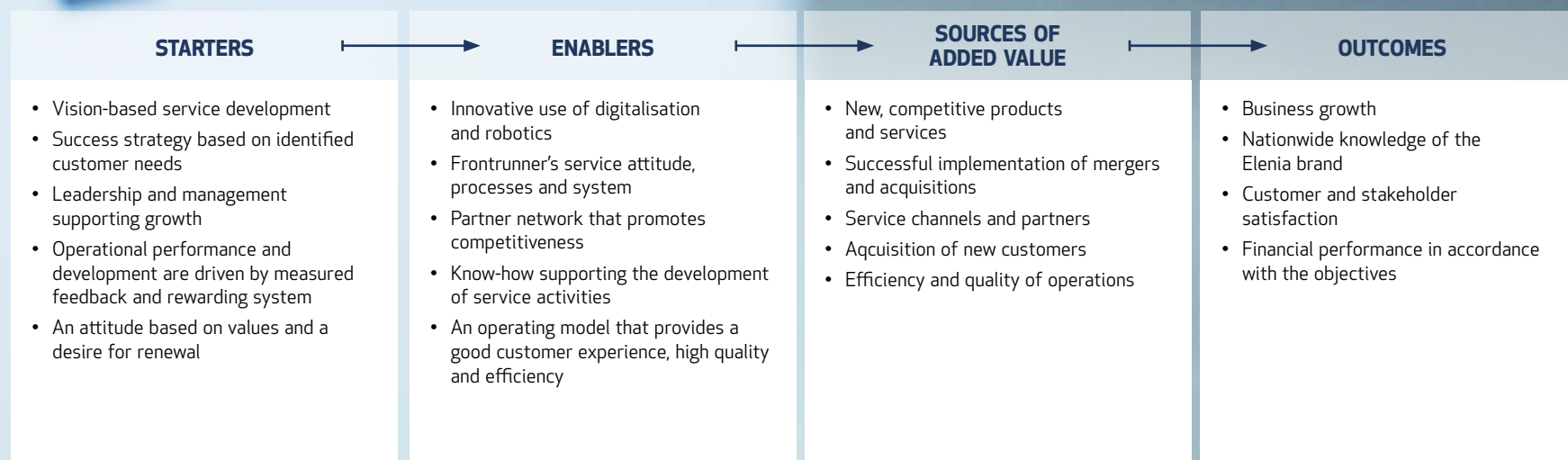
Elenia Lämpö Oy's Vision and Strategy

STRATEGIC OBJECTIVES OF THE HEATING BUSINESS

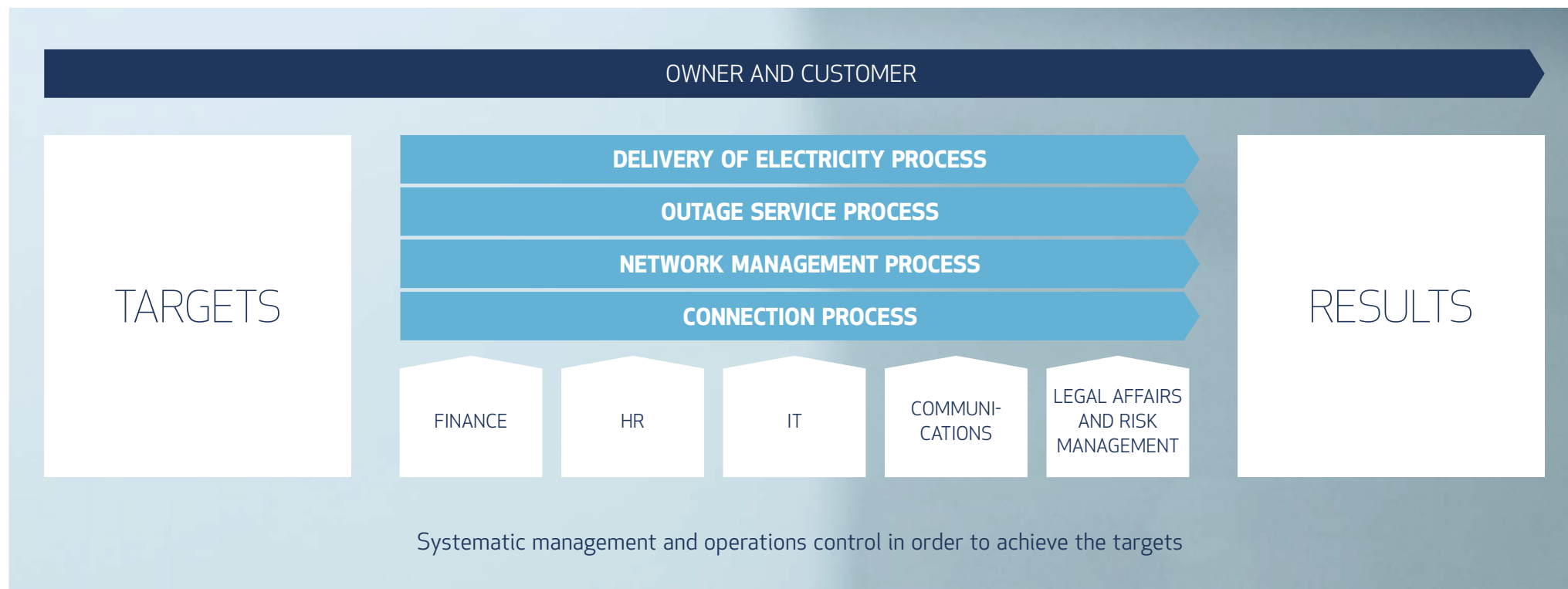


Values, vision, mission and strategy

Elenia Palvelut Oy's strategy



Elenia Oy's management system



Asset Management Systems ISO 55001 and PAS 55
 Occupational Health and Safety Management System OHSAS 18001
 Environmental Management System ISO 14001

CUSTOMER

Elenia's electricity network and customers 31 December 2016.

NETWORK TOTAL
68,900 km

CUSTOMERS TOTAL
420,000

Region	Network/km	Customers
Kanta-Häme	11,080	85,600
Päijät-Häme	6,640	36,700
Pirkanmaa	17,190	118,600
Central Finland	17,860	92,600
South Ostrobothnia	5,540	34,300
North Ostrobothnia	10,590	52,200



Elenia's customer service doubled its promoter score

Elenia Palvelut Oy is a versatile service provider in the energy sector. It provides customer service for electricity distribution, district heating, natural gas, water utility and electricity sales businesses. Our operations are guided by the service and business objectives of our customer companies.

In cooperation with our customers, we are renewing the Finnish energy markets' customer service offering in response to changing customer needs. Elenia Palvelut employs around 70 professionals with extensive expertise in energy industry services and the continued need for service renewal.

Elenia Palvelut manages Elenia's approximately 4.4 million annual customer interactions in a multi-channel service environment. Elenia deployed state-of-the-art customer information systems at the

beginning of 2016 and, during the spring, implemented organisational and operational measures to support a strong focus on diverse expertise and customer-focused service offering. In Elenia Palvelut, we also tested new technologies such as software robotics to enhance our services and improve quality.

The measures led to a substantial improvement in Elenia's customer service performance. Service levels of Elenia Palvelut improved by 25%, customers' waiting times were reduced by 30% and we doubled our promoter score for customer services.

The main objective of Elenia Palvelut is to deliver a positive and reliable customer service experience. The aim is to continuously improve the customer experience and to make use of the services effortless for customers. We must ensure a high service level even

under exceptional circumstances, such as during power outages caused by storms, which is why we have invested in making our services scalable and digital. Services are becoming more digital, value friendly, professionally competent and personal.

Elenia Palvelut sees itself as a future partner for the entire energy sector by delivering solutions based on modern technology and expert services to various energy and infrastructure operators in cooperation with its extensive partner network.



Smart multichannel services

We continued to develop Elenia's services with a multichannel approach. We expanded our range of digital services, renewed our communication channels and diversified our customer service channels.

We also rolled out a new visual design for our e-services in 2016. We combined our digital web and mobile services under the Elenia Aina brand. To achieve a successful customer experience, we engaged our customers in this digital service design effort. It is now even easier for our customers to compare their consumption with their consumption history, between their premises, and with other customers. Customers can also subscribe to monthly e-mail electricity consumption reports for specified points of use. Following the renewal of the Elenia Aina service, it provides customers with information on the publicly announced prices for electricity sales products from different electricity suppliers, and customers can also compare electricity sales products based on their own electricity consumption.

We also expanded our range of service channels by implementing our revised online chat service more extensively on our website and

in the Elenia Aina service. Our new reservation service for customer phone calls, which is part of our digital service channel for connection sales, makes it easier for customers to use our services and improves customer satisfaction.

EXPANSION OF SERVICES RELATED TO COMMUNICATIONS ON OUTAGES

Elenia Oy communicates status updates on outages via an online outage map, customer-specific text and e-mail messages as well as via telephone service. The outage map shows the outages in the medium-voltage network as well as all low-voltage network outages known to Elenia.

We expanded this service in 2016 by giving our customers the opportunity to control the timing of text messages. Customers can use the Elenia Aina service to monitor their message history and view information on power outage compensation before the actual invoice is created.

We brought our communications on network maintenance-related outages into the digital era. Customers who have subscribed to the text message service for power outages are now conveniently informed of planned outages due to maintenance by text message or e-mail. We have improved the flow of information and increased customer satisfaction by sending a reminder to service users 30 minutes before planned outages as well as cancellation messages when a planned service disruption is cancelled.

PRICE CALCULATOR PROVIDES CONVENIENT INFORMATION ON CONNECTION PRICES

Our price calculator for electricity connections provides the customer with pricing information and an estimated delivery date for a new electricity connection for a detached house or summer cottage, or for an upgrade to an existing connection. This service is available around the clock. We developed several new features for the price calculator that makes it easier for customers to use. Among other things, the new version of the calculator can calculate prices for a



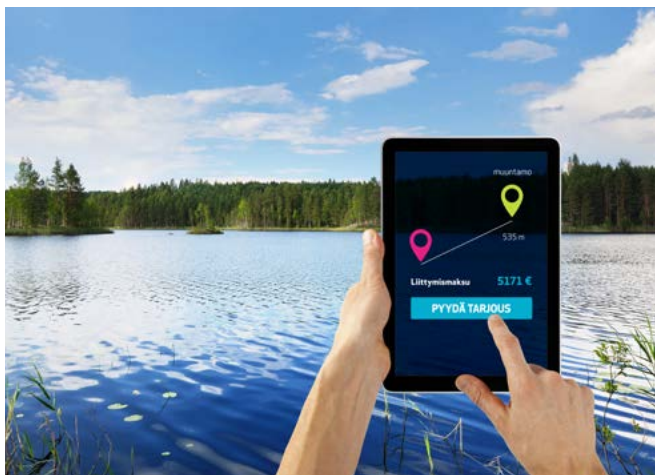
MONITOR YOUR CONSUMPTION
See how much electricity is consumed, even hour by hour.

INVOICES SORTED
Monitor your invoices.

FAULT NOTIFICATION
Submit a fault notification or send a photo of a potential hazard.

IS MY ELECTRICITY ON?
Check whether the electricity is on at your home or cottage.

Smart multichannel services



pricing area even in cases where the minimum number of connection customers has not yet been confirmed.

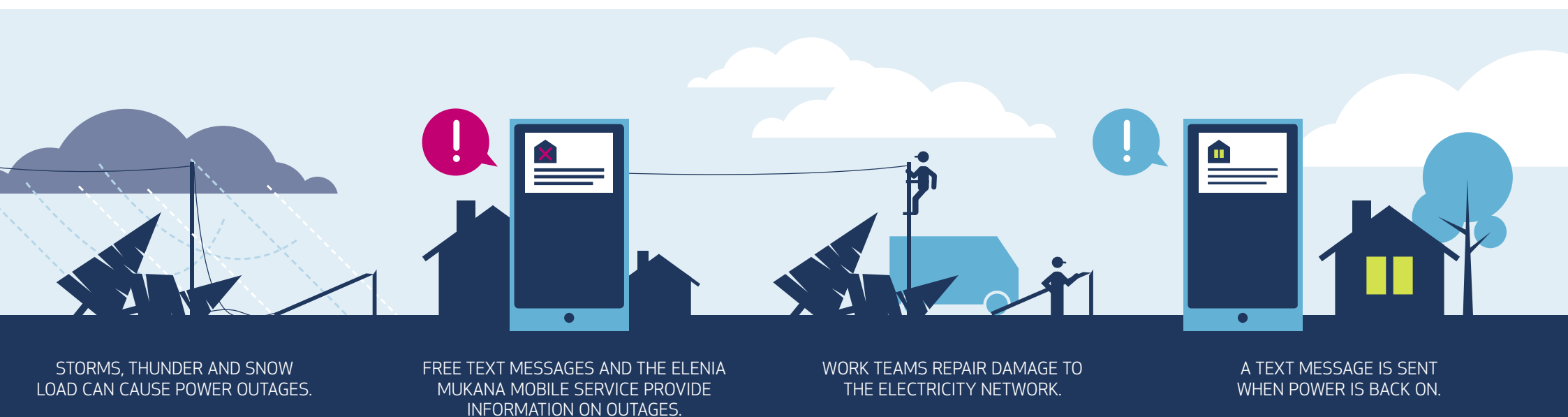
Provided that the customer has entered the information into the calculator correctly, we are committed to the price indicated by the calculator. The service has been used actively. More than half of our requests for quotations are now sent via the calculator. Customers have been very satisfied with the price calculator.

CONVENIENCE IN DAILY LIFE FOR HEATING CUSTOMERS

Redesigning the Elenia Aina service was a significant step from the perspective of our heating customers. The usability and visual design of the service were improved, and monitoring heating data is now easier thanks to clearer comparisons with the customer's consumption history. This makes it easier for customers to notice changes in heating consumption and react to them as quickly as necessary.

In the autumn, we introduced a monthly e-mail report subscription service that had been on our customers' wish list for some time. The user friendly reports are now available to our customers free of charge. This service will also be developed further in line with customer needs and expectations.

We updated our website during the year, and one new feature requested by customers was a comparison calculator for district heating pricing. Our alternative pricing models are now easy to evaluate by using the new calculator. Last year also saw the launch of a redesigned district heating map service for our customers.



Cold winter months increased energy consumption

Elenia Oy had 420,350 customers at the end of 2016. This represents an increase of approximately 0.8% from the previous year, meaning that the rate of growth in the number of customers was at par with 2015. The number of new electricity connections was again low in 2016, although there was some positive news late in the year with regard to the general economic situation in Finland and the rate of new construction activity.

The electricity distribution volume grew by approximately 5.6% year-on-year and totalled 6,330 GWh in 2016. The increase in the electricity distribution volume was attributable to colder winter months than in the previous year, the increase in the number of customers, and a slight improvement in the general state of the economy. The increase in electricity consumption was highest in the 0.4 kV distribution network, which saw a year-on-year increase of approximately 7%.

Residential customers form the largest customer segment, representing 85% of all customers and 41% of total distributed energy. The second largest customer segment is agriculture, services and construction, constituting 14% of all customers and 30% of total distributed energy. Industrial customers represent 1% of all customers but 24% of total distributed energy.

Elenia Lämpö Oy has around 5,000 customers, some 2,000 of which are household customers. The company has approximately 85,000 end users living in 16 district heating distribution areas.

Elenia Lämpö's largest customer segment is residential properties, which represent around 40% of the total sales of heat energy. Corporate customers represent roughly 28%, and municipal and state properties approximately 28% of the total sales. In addition to district heating operations, Elenia Lämpö distributes natural gas in six urban areas where industrial customers constitute the largest segment.

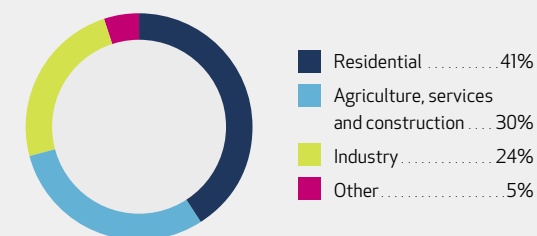
Elenia Lämpö was successful in acquiring new customers and achieved the targets set for the year. Many customers opted for district heating, which reflects the competitiveness of district heating compared to other options and its limited environmental impact as well as our ability to meet customers' needs with our services.

CUSTOMER SEGMENTS AND DISTRIBUTION VOLUMES, ELENIA OY

CUSTOMER SEGMENTS

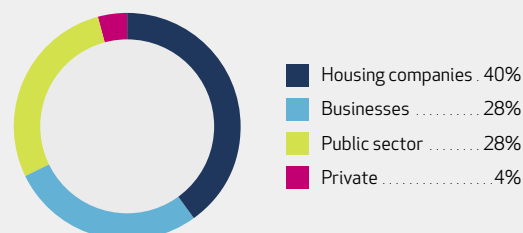


ENERGY BY CUSTOMER SEGMENT

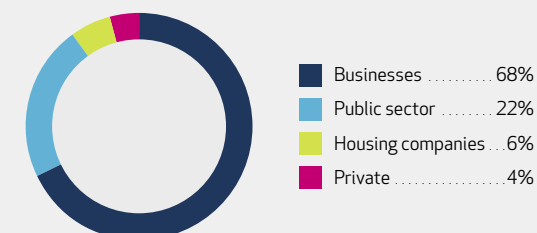


SALES BY CUSTOMER SEGMENT, ELENIA LÄMPÖ OY

DISTRICT HEATING



NATURAL GAS



Luotsi ambassadors promote renewal under the Lämpöluotsi concept

The overriding themes of Elenia Lämpö Oy's work with customers in 2016 were goal-oriented and diverse customer meetings as well as increasing customer insight. We implemented these themes while serving our customers mainly by the heat generated with renewable fuels such as wood.

We expanded and developed our district heating substation review service and carried out a record number of reviews for our customers. The service is part of the Elenia Lämpöluotsi service concept and service culture, which is based on offering customer benefits through our expertise in district heating. It generates added value for our customers while also benefiting our own operations.

We developed our internal Elenia Lämpöluotsi activities in many ways, such as having teams appoint members as Luotsi ambassadors.

The Luotsi ambassadors are change agents who communicate with their teams on current topics related to customer relations and business development. The ambassadors are involved in the core aspects of our work with customers through customer meetings and by thinking about the future development of district heating customer relationships. The Elenia Lämpöluotsi concept is a significant aspect of our drive to provide increasingly versatile service to our customers.

During the year, we were active in helping our customers with their heating solution plans. We provided consultation on issues such as modernising district heating equipment and the future direction of the heating market. There is a great demand for this type of consulting and we are developing our role towards energy partnerships.

Elenia Lämpö also began to increase its solar power expertise in 2016. We began to use solar power in producing district heating and delivered solar power solutions to two day-care centres. We also assumed the role of energy advisor for the day-care centres, which gives us new opportunities for spreading our energy-related knowledge and expertise. We also signed agreements on more extensive solar power solutions for our customers. They will be operational and producing heating to supplement district heating in 2017.



RECORD NUMBER
OF HEATING ADVICE GIVEN FOR THE
BENEFIT OF CUSTOMERS.

Electricity distribution and heating pricing

ELECTRICITY DISTRIBUTION PRICING

Recognising that the decades-old overhead lines must be replaced, we have set a goal of weatherproofing electricity distribution. Our solution is an underground cable network that will serve homes, businesses and society for decades to come.

The renewal of the electricity network is a long-term project. The target set in our construction programme is to achieve a 70% underground cabling rate by 2028. In 2016, we continued our extensive investment programme to improve the reliability of electricity distribution.

We increased the electricity distribution tariffs at the beginning of April 2016 to enable the investments necessary for the renewal of the electricity network. The increase in Elenia Oy's electricity distribution price was, on average, 6% with taxes and 9.4% excluding taxes.

In March 2017, we informed our customers that we will make a similar tariff increase in 2017, effective from beginning of May. Elenia's price development secures the weatherproofing of electricity distribution and the regular maintenance of the electricity network. In 2012–2017, our investments in a weatherproof electricity network are approximately EUR 600 million. During 2017 alone, we will invest more than EUR 120 million and expect to replace 3,000 km of overhead lines with underground cables.

HEATING PRICING

We maintained our heating prices at the previous year's level in 2016.

Our supplementary services for heating customers, such as the Elenia Aina service and district heating substation reviews, offered our customers more value for their money. We will continue to develop the quality and service content we produce for our customers to increase the value we deliver.



BUSINESS ENVIRONMENT

Requirements stipulated by the Electricity Market Act concerning the reliability of electricity distribution.

Power outages caused by storms or snow loads shall not exceed **6 hours** in zoned areas and **36 hours** in other areas, as follows

50 % 
OF CUSTOMERS BY THE END OF **2019**

75 % 
OF CUSTOMERS BY THE END OF **2023**

100 % 
OF CUSTOMERS BY THE END OF **2028**



The investment climate to remain favourable in 2017

The Finnish economy continued to recover in 2016 for the second consecutive year. The Finnish GDP growth accelerated from 0.3% in 2015 to 1.6%, even though it remained under the eurozone average of 1.7%. The growth was driven by increased private consumption and the thriving construction sector. Slightly more moderate growth is forecast for 2017 and 2018, as private consumption begins to slow. The number of people unemployed is down slightly, with the unemployment rate of 8.7% at the end of 2016 (9.3% at the end of 2015). Fears of deflation have dispersed, and the rise in consumer prices has accelerated from -0.2% in late 2015 to 0.9% in January 2017. However, inflation is still clearly below the eurozone average of 1.8%. Energy prices, in particular, have contributed to the rise in inflation. The price of electricity began to increase last autumn as a result of the Nordic hydro balance. The tariff increases announced by several electricity distribution companies, including Elenia Oy, will also raise the overall electricity price for end-users, but help finance investment

to weatherproof electricity distribution networks and increase the security of supply.

For the Finnish economy, the requirements for flexibility in the labour market pose a challenge, which will also call for structural reforms. However, the Competitiveness Pact, championed by the Government to make wages more competitive, proved that a consensus can be reached. The Competitiveness Pact will ensure for companies moderate development in personnel expenses in the next few years.

The development of interest rates was mixed in 2016. Short-term market rates continued to decline, and the 1-month Euribor rate dropped to -0.37%. Short-term interest rates are expected to remain negative in the near future. At the end of 2016, long-term interest rates were lower than a year before. For example, the 10-year interest swap rate was 0.85% at the end of 2015, compared to 0.65% at the end of 2016.

Elenia has taken advantage of low interest rates to cost-effectively implement our investment programme. Accordingly, Elenia continued to make significant investments in 2016, supported by the low interest rate level. The 18-year, EUR 30 million bond that Elenia issued in August 2016 has a coupon rate of 2.17%, which is the lowest coupon rate for an Elenia bond since the company's refinancing arrangements in 2013. We expect the investment climate and both the price and availability of long-term financing to remain favourable in the next few years.

Source: Statistics Finland, Eurostat



Elenia's demands in the future

- **SOCIETAL** and customer demands in the energy sector will grow
- Challenges arising from international legislation
- Increasing demands in supervision of interests
- The changing role of municipality ownership

- **SERVICE DEVELOPMENT AND INTEGRATION** will be emphasised
- Strategy and changes in the business environment will cause visible changes in demands
- Development of competency will have to evolve to a new level

- **THE CUSTOMER'S** position will strengthen in the energy market
- Customer needs and expectations will be a catalyst for development
- The importance of customer experience will increase the value of Elenia
- Stronger integration between customers and Elenia's own organisation
- Consumer customers will also become production customers
- Trust and reputation in Elenia's services must be kept at top level

ELENIA'S ROLE AS A FRONTRUNNER REQUIRES CONTINUOUS RENEWAL

- The changing forms of **COOPERATION**, as well as the breadth and depth thereof
- The success of partner selection and the steering of partners will transform into critical success factors
- Contacts and open networking will enable growth
- Network capital will be a significant competence

- **DIGITALISATION** is an enabler which requires immediate investments
- Cyber security is vital for all business operations

Legislative developments

TARGETS FOR ENERGY SYSTEMS AT EU AND FINNISH NATIONAL LEVEL

In November 2016, the European Commission published an extensive clean energy winter package that includes amendments to several directives and regulations concerning renewable energy, the electricity markets and energy efficiency. The proposed amendments include principles related to, among other things, the roles of electricity distribution companies, electricity storage, the implementation of charging infrastructure for electric vehicles, energy communities as well as the technical requirements for smart electricity meters and the timetable for their deployment. When finalised, the winter package will clarify the role of electricity distribution companies in the management of energy systems and, through the requirements it sets, it will also affect the technology used in networks.

The clean energy winter package will be discussed by the European Parliament in early 2017 and its content will be updated based on the discussions. Elenia will participate in legislative drafting in 2017 as a company and through its stakeholders. The first vote on the changes will take place in the European Parliament in autumn 2017.

FINLAND'S ENERGY AND CLIMATE STRATEGY

In autumn 2016, the Finnish Government published Finland's National Energy and Climate Strategy up to 2030. As Finland moves towards a carbon-neutral society, the strategy emphasises the security of supply of energy as well as the utilisation of forest biomass and increasing the use of biofuels. The policies outlined in the climate strategy have an indirect impact on electricity networks; for example, by predicting that the rate of increase in wind power will slow down due to

the discontinuation of production subsidies. Solar power production is estimated to multiply in Finland, but it will nevertheless remain at less than 1 TWh per year.

Finland's goals with regard to the electricity market include developing an effective European electricity market and promoting joint Nordic electricity markets; for example, by increasing the flexibility of consumption and production as well as active market participation via smart grid. A further stated goal is ensuring that the targets related to the security of supply of distribution networks are achieved and that network modernisation investments are made. The goals outlined in the strategy are fully in line with Elenia Oy's strategic objectives.



THE SMART GRID SUPPORTS
FINLAND'S ENERGY AND
CLIMATE STRATEGY.

Regulation methods provide long term visibility

REGULATION METHODS PROVIDE LONG TERM VISIBILITY

The electricity distribution network regulation methods published by the Energy Authority, to be applied in the fourth (2016–2019) and fifth (2020–2023) regulatory period, have been in use since January 2016. For the first time, the regulation methods have been set for two consecutive periods. The methods for the fourth regulatory period ensure good continuity with respect to the methods used in the previous regulatory periods and the changes support the security of supply targets stipulated by the Electricity Market Act. The methods encourage companies to improve the operational efficiency, develop smart electricity network solutions and improve the security of supply in electricity distribution in line with the goals stated in the Electricity Market Act. Elenia Oy's long-term targets are fully aligned with these goals.

FOCUS ON THE SECURITY OF SUPPLYING THE CUSTOMER'S ELECTRICITY

One of the key provisions of the Electricity Market Act is that, in the future, distribution networks must be designed, built and maintained in a manner that prevents outages caused by storms or snow loads from lasting for more than six hours in zoned areas and more than 36 hours in other areas. In the archipelago, the security of supply can be adjusted to local conditions. Electricity distribution companies must meet these requirements by the end of 2028.

Thanks to the fact that we have already devoted much attention and investment to the security of supply, and our constant commitment to do so, means that we are on track to meet the requirement of the Electricity Market Act. We see this as positive for the electricity network business, customers and the entire society.

REGULATION METHODS SUPPORT CONTINUOUS DEVELOPMENT

Distribution Network Development Plan

Elenia Oy submitted its updated distribution network development plan to the Energy Authority in June 2016 pursuant to the Electricity Market Act. The plan includes detailed measures that will systematically improve the reliability of electricity distribution through Elenia's distribution network. By implementing the planned measures, Elenia will fulfil the requirements of the Electricity Market Act regarding quality and the security of supply by the end of 2028. The security of Elenia's electricity distribution has been improving fully in line with the network development plan. The plan will be updated again in summer 2018.



ELENIA'S TARGET:
70% OF THE ELECTRICITY NETWORK
UNDERGROUND BY 2028.

The electricity market – security of supply, smart grids and Fingrid datahub

In 2016, the Finnish government published its revised energy and climate strategy up to 2030, and the European Commission published the energy winter package, consisting of energy initiatives aimed at strengthening the energy union. These policy developments did not bring about significant changes to previous targets from the perspective of electricity network services, although the winter package did include certain proposed amendments that concern the electricity network business.

A new energy efficiency agreement period, 2017–2025, began as part of Finland's national energy and climate strategy. Finland's voluntary energy efficiency agreement system is an important part of reaching the targets stipulated by the EU Energy Efficiency Directive. Elenia has participated in the national system since its inception and again made a commitment to the targets set in the new agreement.

The Finnish electricity market is facing structural reforms, and related measures will already be required in the coming years. In

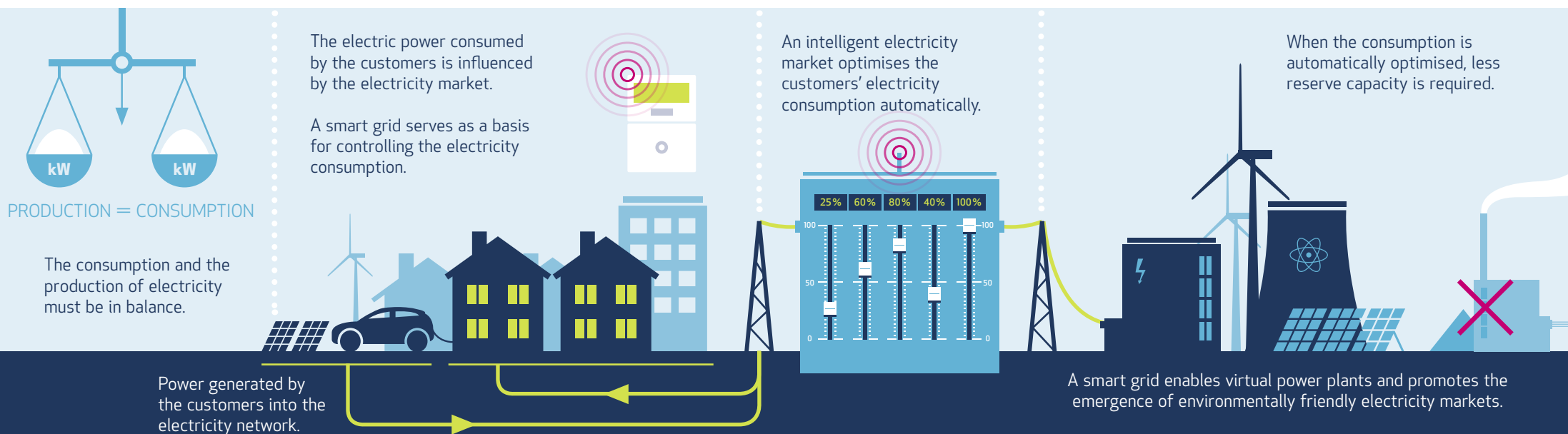
spring 2016, the transmission system operator Fingrid Oyj published a report titled "The electricity market needs fixing – what can we do?". The report addresses the challenges facing the electricity market, one of which is the security of supply with regard to both electricity networks and electricity production capacity. The report calls for more active participation by the retail market to promote demand flexibility in the electricity market. Elenia has highlighted the importance of the smart grid in facilitating the electricity market of the future. The company has invested in smart meter and network communication technology as well as IT-systems, such as network information system and customer information system to provide digital services for customers and to improve internal efficiency and quality, e.g. network monitoring. Market-based demand flexibility for all customers through smart infrastructure is one of our key objectives.

Last year, the Ministry of Economic Affairs and Employment established a smart grid working group to think about the goals of

smart grids for meeting the future requirements of society. Elenia is represented in the working group. Concurrently, we are actively developing our own smart grid functionality to satisfy the needs of customers and society.

The next major change in the Finnish retail market for electricity is the creation of a datahub by the end of the decade. Led by Fingrid Oyj, the national datahub project continued according to plan in 2016 and it will influence all companies in the energy sector in the coming years.

The implementation of the joint Nordic Balance Settlement, NBS, model was previously scheduled for October 2016, but eSett Oy, which monitors balance settlement, announced that it will be postponed to May 2017.



Heating companies are increasing cooperation with new operators

The heating market is evolving, which presents new opportunities to industry operators and customers alike. The range of solutions offered to customers is becoming more diverse. Heating solutions increasingly involve building technology, automation, the measurement and management of indoor conditions as well as energy services. However, district heating still remains a very competitive and effective solution to meet customer's heating requirements. The supply of cooling is also growing.

The operators in the industry are becoming more diverse as the energy sector attracts start-ups. Growing service business and digitalisation are creating new solutions and jobs in the energy sector. Industry integration is increasing as traditional heating companies engage in more cooperation with new operators.

As solutions and customer requirements evolve, the business models in the heating market are becoming more diverse. Pricing models are also developing, with approaches such as life cycle models becoming more commonplace. Customers are offered long-term partnership agreements in energy management, involving a service partner that makes investments in heating solutions and manages the necessary maintenance.

At Elenia Lämpö Oy, we are closely involved in the development of the industry and we are renewing our services. The foundation for this lies in the uncompromised customer experience of our high-quality heating services.



SECURITY OF SUPPLY

NETWORK INVESTMENTS IN 2016

MEUR 114.6

NEW UNDERGROUND CABLE
NETWORK

2,799 km

20 kV MEDIUM-VOLTAGE
NETWORK

1,180 km

0.4 kV LOW-VOLTAGE
NETWORK

1,619 km

NEW SECONDARY
SUBSTATIONS

1,134 pcs

UNDERGROUND CABLING RATE OF THE NETWORK AS A WHOLE

37.6 %



UNDERGROUND CABLING RATE OF THE MEDIUM-VOLTAGE NETWORK

27.5 %



UNDERGROUND CABLING RATE OF THE LOW-VOLTAGE NETWORK

44.5 %



RATE OF RENEWABLE FUELS USED IN DISTRICT HEATING PRODUCTION

68 %




Responsible development of the electricity network to meet future needs

In 2016, Elenia Oy continued its electricity network replacement investments and the underground cabling of the distribution network under the Elenia Weatherproof concept in accordance with its electricity network development plan, which extends to 2028. Our goal is to increase the underground cabling rate of our electricity network to 70 per cent by the end of 2028.

Elenia made a decision in 2009 on switching its distribution network to underground cabling. In addition to excellent security of supply, underground cabling offers benefits related to safety and the environment. Underground cabling is a responsible solution for modernising the ageing overhead line network to meet the future needs of society.

In 2016, Elenia invested a total of EUR 114.6 million in the construction and development of its electricity network. The company built a total of 2,799 km of underground cable network during the year, of which 1,180 km was medium-voltage underground cable net-

work and 1,619 km was low-voltage underground cable network. At the same time, Elenia built 1,134 kiosk-style secondary substations to replace the old pole mounted transformers of the overhead line network.

Elenia has a strategic aim to increase the number of ground-mounted kiosk-style secondary substations in parallel with network undergrounding activities. Ground-mounted kiosk-style secondary substations are not exposed to the weather which improves the security of supply. They are also good from the safety and environmental aspects. The transformer and switchgear is installed inside the kiosk to prevent an unauthorized access from outside and the kiosk is equipped with an oil basin to prevent oil leaks in case of transformer failures.

We are also continuously developing automation solutions for the underground cable distribution network in cooperation with our partners. Automated secondary substations were installed in the appro-

prate places in the network for locating and isolating the fault more rapidly.

At the end of 2016, the average underground cabling rate of Elenia's entire network was 38%. The underground cabling rate of the 20 kV medium-voltage network was 28% and that of the 0.4 kV low-voltage network 45% at the end of 2016.

According to the milestones of the Electricity Market Act, 50% of customers must be within the scope of the quality requirements by the end of 2019 and 75% by the end of 2023. At the end of 2016, more than 49% of Elenia Networks' customers were within the scope of the quality requirements stipulated by the Electricity Market Act. In built-up areas, more than 58% of customers were within the scope of the 6-hour quality requirement. In sparsely populated areas, nearly 38% of customers were within the scope of the 36-hour quality requirement at the end of 2016.

68,900 km

Elenia has 68,900 kilometres of electricity network – 1.5 times around the world – in Häme, Pirkanmaa, Central Finland, and South and North Ostrobothnia. 38% of the network is underground cabled.



ELENIA
SÄÄVARMA

3,000 km

We construct 3,000 km of underground cables per year.

70%

Our goal is to increase the proportion of underground cabling in our distribution network to 70% by 2028. At the same time, we'll bring work to the regions where we operate.

Responsible development of the electricity network to meet future needs

As part of our underground cabling strategy, we aim to promote efficient placement and permit practices for electrical equipment and cabling in cooperation with the Finnish Energy as well as other industry participants, public authorities and municipalities. This close cooperation continued with good results in 2016.

We have also continued to focus on promoting joint construction with other infrastructure developers. For example, we carried out several joint construction projects in 2016 in which optical fibre connections were installed for telecommunications operators in conjunction with the installation of underground cables. Excavation work can account for more than half of the costs associated with Elenia's total investments. Joint construction benefits all of the parties involved, including customers.

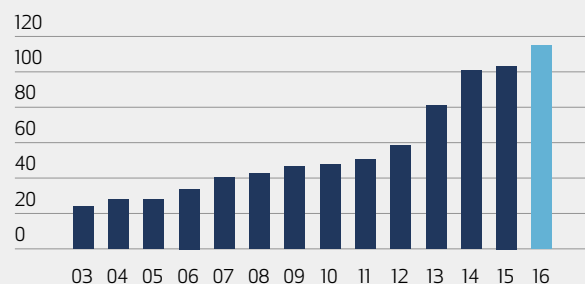
In addition to underground cabling, we have further increased the use of automation in the overhead line network by installing new remote-controlled switches that can reduce the length of power outages experienced by customers connected to the overhead line network. Automation investments in the overhead line network are targeted at those sections of the network that will not be replaced with underground cables in the near future.

Joint construction creates mutual cost advantages

As Elenia Weatherproof progresses, we aim to take advantage of joint construction. Our cooperation in Ruovesi, Pirkanmaa, is one good example of this approach. Elenia and the local telecommunications operator Pohjois-Hämeen Puhelin Oy have a joint project in Ruovesi to lay underground power lines and optical fibre cables at the same time. Joint excavation work reduces negative environmental impacts and produces cost savings. The electricity network is being cabled extensively and pole transformers are being replaced by environmentally friendly park transformers. Excavation work accounts for more than half of the costs associated with Elenia's total investments of approximately EUR 1.6 million, so there is a strong case for using efficient joint construction to achieve cost savings. In December 2016, Elenia and Pohjois-Hämeen Puhelin attracted a full house to an event for local residents regarding the joint cabling project.

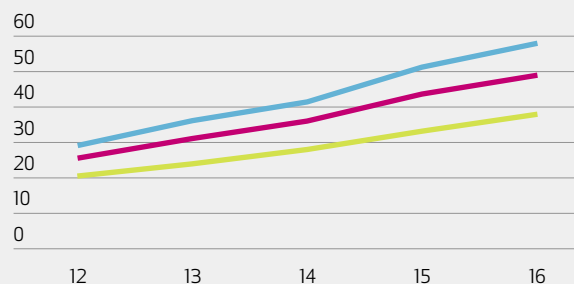


ELENIA OY'S TOTAL INVESTMENTS IN ITS ELECTRICITY NETWORK 2003-2016, EUR MILLION*



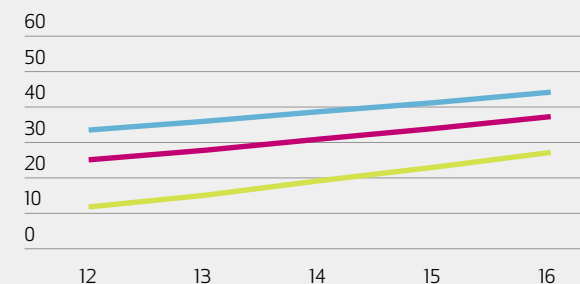
*excludes ICT system investments and the street lighting network

ELENIA OY'S CUSTOMERS COVERED BY THE QUALITY REQUIREMENTS 2012-2016, %



— Quality requirements met, % zoned areas
 — Quality requirements met, % other areas
 — Quality requirements met, % total

ELENIA OY'S UNDERGROUND CABLING RATE 2012-2016, %



— Entire network
 — 20 kV
 — 0,4 kV

Pursuant to the Electricity Market Act, quality requirements will apply to 50% of customers by the end of 2019, 75% of customers by the end of 2023 and 100% of customers by the end of 2028.

Systematic inspection and clearance of electricity networks

With efficient maintenance in cooperation with its partner network, Elenia Oy proactively ensures the functionality of the electricity networks. Our maintenance programme sets out our electricity network's inspection, clearance and maintenance activities.

Each year, we clear approximately 5,000 kilometres of line corridors and rights-of-way in order to ensure the security of electricity distribution in our overhead lines. Medium-voltage network clearance is carried out as needed based on aerial imagery. In the low-voltage network, clearance is carried out using an eight-year rotation cycle. We carry out systematic clearance on the high-voltage distribution network in intervals of approximately six years and we keep it clear of trees by felling adjacent trees and trimming the tops of trees. In managing trees, we utilise aerial imagery and clearing analyses based on laser-scanned data. Our electricity network clearance activities can be followed on our website.

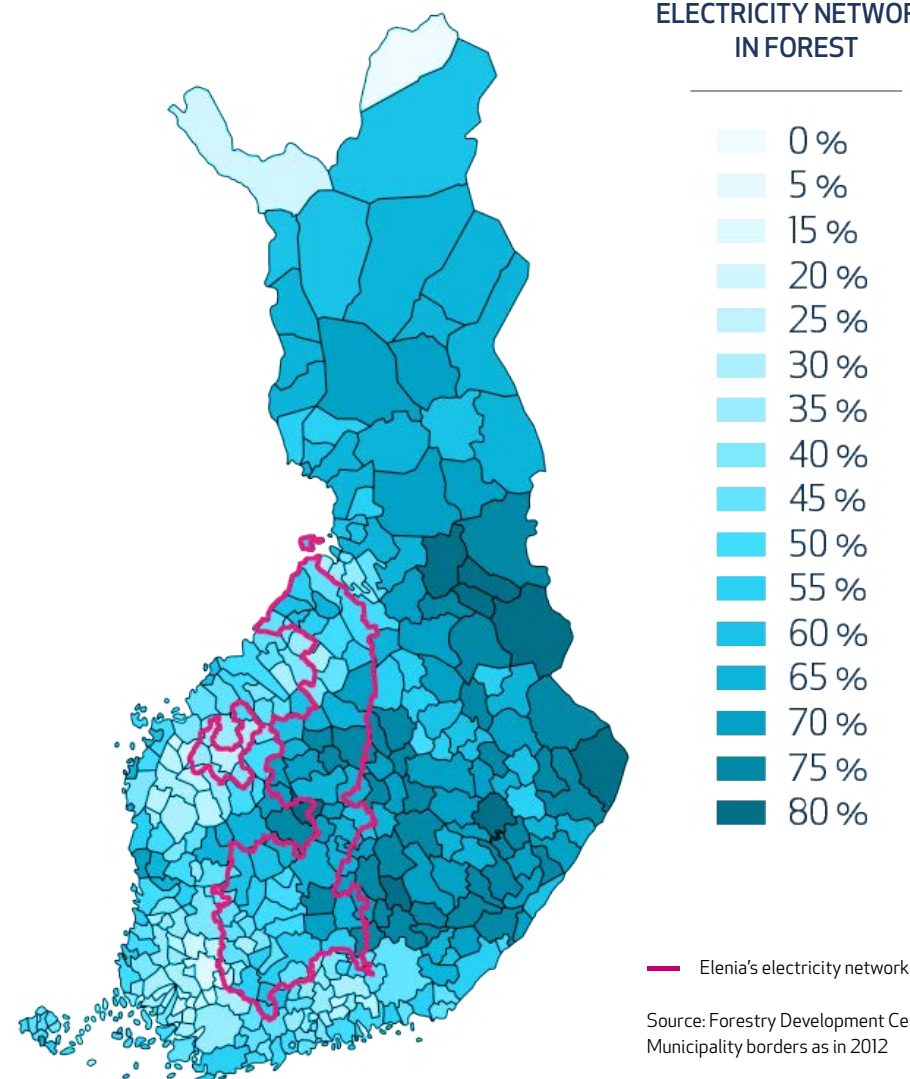
RESPONSIBLE ONGOING INSPECTION

We carry out inspections on the electricity network all year round. Our substations and switching substations are inspected four times per year. We maintain and test substation components regularly in accordance with our maintenance programme. Early in the year, we start inspection work in the field with low-voltage network and underground cable network component inspections. They are followed by helicopter inspections of the medium-voltage network in the summer. We carry out photography and laser scanning of the high-voltage distribution network in its entirety in four-year intervals and a quarter of our medium-voltage network each year. The results of the inspections allow us to target our maintenance activities at the components requiring servicing.

SPECIAL EMPHASIS ON THE MANAGEMENT OF FORESTS ADJACENT TO DISTRIBUTION LINES

In 2016, we managed forests adjacent to the medium-voltage network in cooperation with our partners. Adjacent forests were managed over a total distance of approximately 800 kilometres. An adjacent forest refers to trees outside the 10-metre-wide line corridor. Therefore, storms or heavy snow loads may result in trees outside the line corridors falling or bending on the power lines. We use forest management to reduce power outages caused by trees falling on distribution lines. We will expand our management of adjacent forests to an even larger area in 2017.

THE PERCENTAGE OF ELECTRICITY NETWORK IN FOREST



Source: Forestry Development Centre Tapio Municipality borders as in 2012

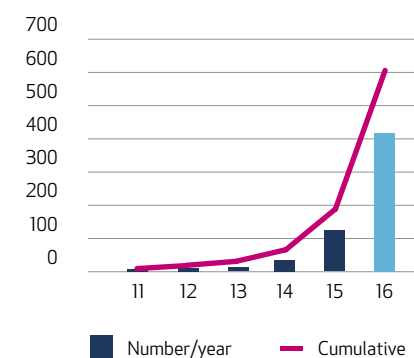
More wind and solar into the electricity network

The amount of wind power connected to Elenia Oy's electricity network has increased significantly. In 2016, Elenia supplied electricity connections to four new wind farms. To date, Elenia has supplied electricity connections to 12 wind farms, which corresponds to a total connection capacity of approximately 350 MW. Further agreements on supplying connections have been signed for seven new wind farms representing a total connection capacity of 250 MW. The construction of wind power in Elenia's network area is focused on the coastal areas of Ostrobothnia.

The growth in small-scale production in Elenia's network has continued to be very strong. New small-scale production typically involves solar power systems built by private customers and con-

nected behind their electricity connections. The number of small-scale production sites tripled in 2016. In total, around 600 solar power systems had been connected to Elenia's network at the end of 2016. Strong growth is expected to continue in the coming year.

0.4kV SOLAR PANELS CONNECTED TO THE NETWORK ANNUALLY, pcs



THE NUMBER OF
SMALL SOLAR POWER PRODUCTION
SITES TRIPLED.

Alert and preparedness for outages

Elenia Oy and its partners work continuously to improve their services related to power outages. We maintain and improve the competencies of the personnel responsible for operations control and grid monitoring to ensure that outages are managed efficiently and with no compromises on safety.

We developed the key information systems used in Elenia's outage management to provide better support for outage management, especially during extensive outages. We introduced a new situation map as a management tool for use by Elenia and our contractor partners during major power disruptions.

Pursuant to the Finnish Electricity Market Act, an electricity network operator must engage in appropriate planning to prepare for ordinary disruptions in electricity distribution as well as for extraordinary events as referred to in the Finnish Emergency Powers Act,

and prepare a contingency plan for such circumstances. Elenia submitted an updated contingency plan to the National Emergency Supply Agency in summer 2016 in accordance with the Finnish Electricity Market Act. The plan will be submitted in two-year intervals to the supervisory authority. The next updated plan will be submitted in June 2018.

MAJOR POWER DISRUPTION CAUSED BY THE RAULI STORM IN AUGUST

The most extensive power disruption in 2016 was storm Rauli in August. The low-pressure storm system, which was exceptionally strong for the time of year, left 96,000 Elenia Oy's customers without electricity. The effects of the

storm were intensified by its timing during the summer season, as trees in full leaf are more vulnerable to damage from gusty winds. We worked in close cooperation with parties such as telecommunications operators, the rescue authorities and customers who are critically dependent on electricity to minimise the impacts of the power outages and restore the situation to normal.

Elenia is constantly prepared for managing weather-induced outages effectively. In all major power disruptions, we operate in accordance with Elenia's contingency plan, which is continuously developed.



Network asset management system recertified

Elenia Oy's asset management system (AMS) has been certified in accordance with the international ISO 55001 standard and the British PAS55 standard. These certificates represent international recognition of the quality of Elenia's electricity network development, construction, maintenance, operation and repairs as well as the quality of Elenia's information systems. This ensures that the company operates, maintains and upgrades its electricity network in order to respond better to its customers' and society's needs. The certificates also require that Elenia's suppliers and service providers commit to high-quality, responsible operations in accordance with Elenia's operating methods.

Lloyd's Register audited Elenia's asset management system on two occasions in 2016. The results of both audits were highly com-

mendable. The main focus of the follow-up audit conducted in May was on outage management and maintenance.

In an asset management system recertification audit conducted in October 2016, the auditors verified that all of Elenia's operational core processes remain compliant with the asset management system and standards. The week-long audit reviewed a variety of topics ranging from Elenia's strategic policies to the ordering and implementation of individual projects in the areas of network investment, maintenance and repairs.

Based on the recertification audit, Lloyd's Register issued new three-year ISO 55001 and PAS 55 certificates to Elenia.



CERTIFICATES ARE
INTERNATIONAL RECOGNITIONS
OF QUALITY.

Remote control of heating based on IoT solutions

We began to utilise solar energy at the Ahvenisto heating plant in Hämeenlinna following the installation of solar panels on the plant's roof to feed electricity used to pump district heating.

Elenia Lämpö Oy's most significant information systems were renewed in 2016. The entire Group deployed a new customer information system at the start of the year, and a new database for meter data for Elenia Lämpö's customers was also brought into use. In the future, these new systems enable the provision of an even wider range of services to our customers.

In Elenia Lämpö, we also renewed the fuel management system during the year. The new system includes mobile functionality and new planning tools. Mobile solutions played an important role in developments during 2016: mobile access was added to the mainte-

nance system and a mobile-based system was selected as the new safety tool.

Elenia Lämpö's production plants have been using IoT solutions for several years now. The renewal of the remote-control system for all production plants and district heating networks began at the start of the year. The system was deployed plant by plant in the Häme region and, in 2017, the company's remaining plants will also be connected to the new system. A solution that offers even greater operational reliability than before was selected as the telecommunications solution for the remote-control system.

We made several investments to improve environmental safety in 2016. We also began to prepare for the new environmental requirements for small combustion plants that will enter into effect at the

beginning of 2018 by renovating automation and oil equipment at a production plant in Central Finland.

Last year, we carried out a renovation project on a 10,000 cubic metre district heating storage at the Vanaja power plant in Hämeenlinna to ensure the reliable delivery of heating to customers and the efficient operation of the network. A new natural gas boiler of approximately five megawatts was built in the Moreeni district of Hämeenlinna to ensure the supply of heating to the growing local population.



MOBILE SOLUTIONS FOR
FUEL MANAGEMENT AND
MAINTENANCE.

Remote control of heating based on IoT solutions

FRONTRUNNER IN CARBON-NEUTRAL DISTRICT HEATING

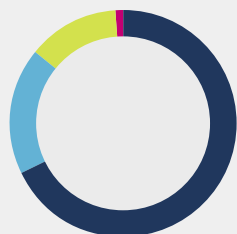
Domestic fuels accounted for nearly 90% of the total amount of fuel used by Elenia Lämpö Oy, while the share of carbon-neutral fuels was 68%. Compared to other district heating producers operating in Finland, Elenia Lämpö is a frontrunner in producing carbon-neutral district heating. The share of carbon-neutral fuels in the company's heating production is significantly above the Finnish average.

New framework agreements for fuel have been signed for the long term. The range of carbon-neutral fuels will become more diverse in the coming years, which will further strengthen our operational reliability. In the future, we will place even greater focus on fuel quality,

which is an area in which we have engaged in active cooperation with partners such as a local university of applied sciences.

Elenia Lämpö prioritises local sources in fuel procurement, which has a positive local employment effect. Sourcing fuel from optimal distances relative to the point of use also ensures that our operations are environmentally sustainable. In addition to fuel procurement, we engage in local cooperation with other operators, such as companies providing terminal services.

ELENIA LÄMPÖ OY'S
FUEL CONSUMPTION 2016



Wood.....	68%
Peat.....	18%
Gas.....	13%
Oil.....	1%



Research and development activities shape the future

Elenia Oy monitors changes in its operating environment and plays an active role in the development of new tools, operating methods and applications to suit the needs of the smart grid and to benefit customers. We engage in R&D cooperation with partners such as universities, research institutes, other electricity distribution companies, contractors and equipment manufacturers. We publish reports on completed projects on our website for public access.

LONG-TERM THEMES IN THE MANAGEMENT OF THE ELECTRICITY NETWORK

In the long-term, the energy system may undergo change from a centralised system to a decentralised one. Weather-dependent production also poses new challenges for network operations. These chal-

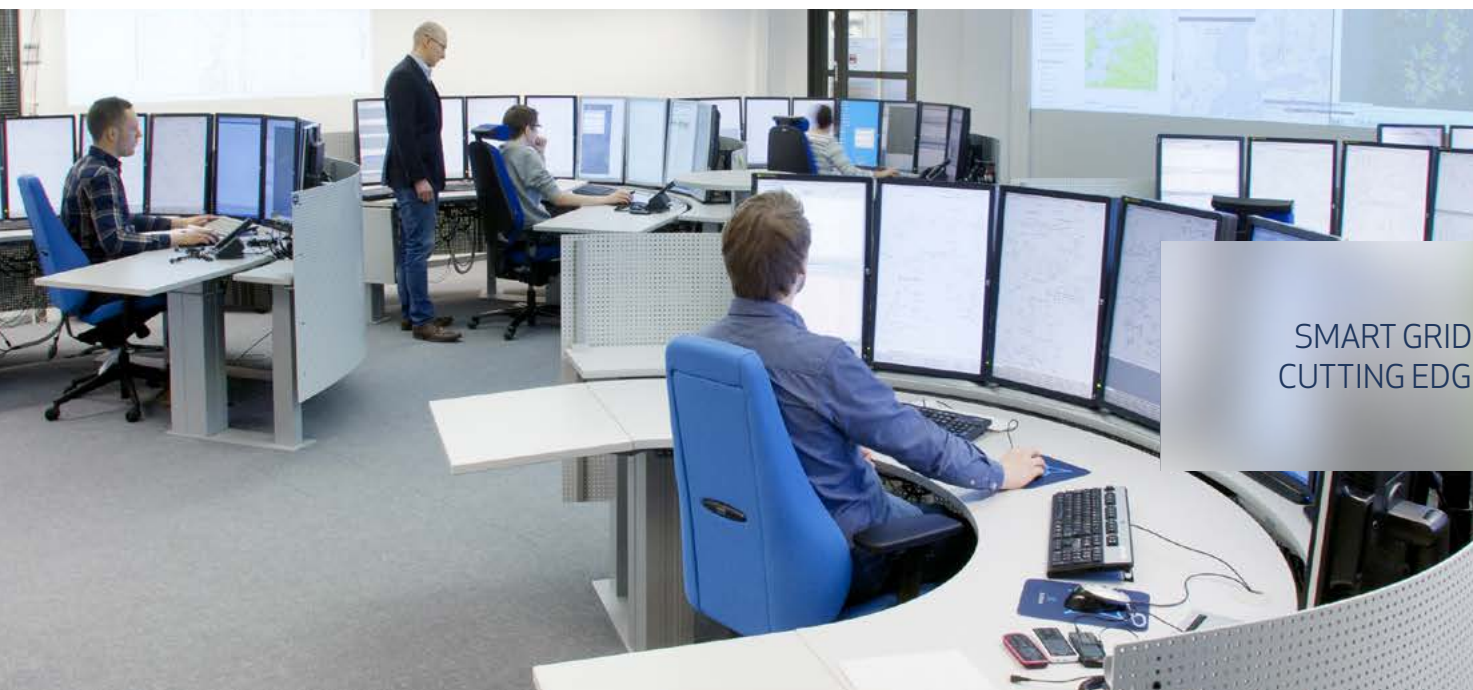
lenges were investigated in Flexible Energy Systems, a research programme coordinated by CLIC Innovation Oy, during the period 2015–2016. To prepare for the future challenges related to the security of supply of electricity, Elenia Oy is also investigating the potential of utilising low-voltage direct current as a solution for the renewal of the electricity network.

One significant innovation related to the flow of information is the ability to access network information via a mobile application, which ensures that real-time information on the status of the electricity network is accessible to maintenance and service personnel out in the field. Mobile tools have also been extensively utilised in quality assurance activities in the field, as well as quality assurance reporting in network construction and maintenance operations. We invest in the

efficiency and transparency of our work by continuously developing our information systems.

CUSTOMER BENEFITS OF ELENIA AINA

We introduced several improvements and new features in 2016 to Elenia Aina, a free digital service for our customers, including a price comparison of electricity suppliers, new reporting functions and an outage management section. We also supplemented our e-services for customers by making our connection pricing map even more comprehensive than before.



SMART GRID INNOVATIONS,
CUTTING EDGE TECHNOLOGY.





PARTNERSHIPS

New
partnerships in
construction
and maintenance

Material
development
reflects our
courage to renew

Cooperation
and joint
construction
with
stakeholders

Objective:
an excellent
customer experience
and high-quality
operations.

Partners help improve the customer experience, quality and efficiency

Elenia Oy acquires electricity network construction and maintenance services from its extensive partner network. Our partners include contracting service providers of various sizes as well as Finnish and international suppliers of materials and systems.

Our shared goal is an excellent customer experience as well as efficient and high-quality operations. In construction, this means being on schedule, successful customer encounters, an efficient construction process, quality monitoring during work as well as delivery with zero defects.

The satisfaction among Elenia's new electricity connection customers in the work performed by the partner network remained at a good level in 2016. Punctuality and quality improved from the previous year. We evaluated the development of customer encounters by partner companies in a customer experience improvement project.

In 2016, we continued to invest in the development of construction quality and related mobile tools throughout our partner network. Elenia's partner companies also engaged in extensive self-monitor-

ing of construction and the development of company-specific quality systems.

Elenia invests in safety culture in cooperation with its partners. We ensure that Elenia is a safe workplace and that our electricity network is safe for customers as well as those working on it. In 2016, the partner network's occupational safety in work performed for Elenia was at good level, as in the previous year.

LONG-TERM PARTNERSHIPS IN NETWORK CONSTRUCTION AND MAINTENANCE

Elenia Oy has signed extensive partnership agreements for the construction and maintenance of the electricity network. The partner companies are responsible for the design, construction and maintenance of the electricity network, fault management during power outages and delivering services ordered by customers in the geographical areas they are responsible for. A multi-year agreement that entered into effect in February 2017 facilitates the development of

new operating models in the management of electricity network assets.

We carried out construction projects in 2016 in line with our objectives. Demolition work on the overhead line network was scheduled in the winter to balance out seasonal variation in construction activity. We selected contractors for Elenia Weatherproof projects in 2017 based on project-specific bidding and framework agreements.

The majority of Elenia's current electricity network consists of overhead lines, which require maintenance and line corridor clearing. As with Elenia Weatherproof projects, we select clearing partners based on project-specific bidding and multi-year framework agreements. The systematic use of clearing ensures the reliability of electricity distribution for our customers.

A multi-year partnership agreement related to the recycling of metals and cables entered into effect at the beginning of 2017. Responsible network development includes recycling the obsolete overhead line networks in an efficient, reliable and environmentally-friendly manner.



Partners help improve the customer experience, quality and efficiency

MATERIAL DEVELOPMENT REFLECTS OUR COURAGE TO RENEW

We extended our power cable and kiosk-type secondary substations contracts by exercising the option period with our current partners. We engaged in significant further development of the products by improving their suitability to the needs of Elenia Oy's electricity network. At the same time, we developed cable supplies and ensured the optimal performance of the overall system. We also continued the development of cable distribution cabinets in the low-voltage network. Following competitive bidding, the deliveries of the entirely new solutions started at the beginning of 2017.

Our material and system development efforts included expanding the use of automation in the cable network and launching the production use of newly developed fault indicators. We developed new technology in cooperation with our partners; for example, through several

field tests. We deployed new mobile solutions for receiving material deliveries and carried out a development project to assess future logistics solutions.

COOPERATION AND JOINT CONSTRUCTION WITH STAKEHOLDERS

Elenia Oy has a long history of working together with telecommunications companies, municipalities, fibre cooperatives and water cooperatives. In 2016, we introduced our construction projects for the coming years extensively to the representatives of cities, municipalities, telecommunications companies and other stakeholders.

We have finished cabling nearly 100% of urban areas and, in the next few years, our focus will shift to sparsely populated areas. Joint construction requires that projects are fitted together, which is why

we have developed operating models that promote cooperation in joint construction. The cabling of electricity networks has an effective and diverse contracting market that also facilitates the efficient construction of other infrastructure networks.

In 2016, Elenia continued its active efforts to promote more efficient cable placement and permitting processes. We engaged in extensive cooperation with local and national advocacy organisations and various authorities. More than 12,600 agreements were signed or permits received related to land-use and construction during the year. Landowners' satisfaction with land use in construction projects remained at a high level and the signing of agreements was perceived to be convenient.



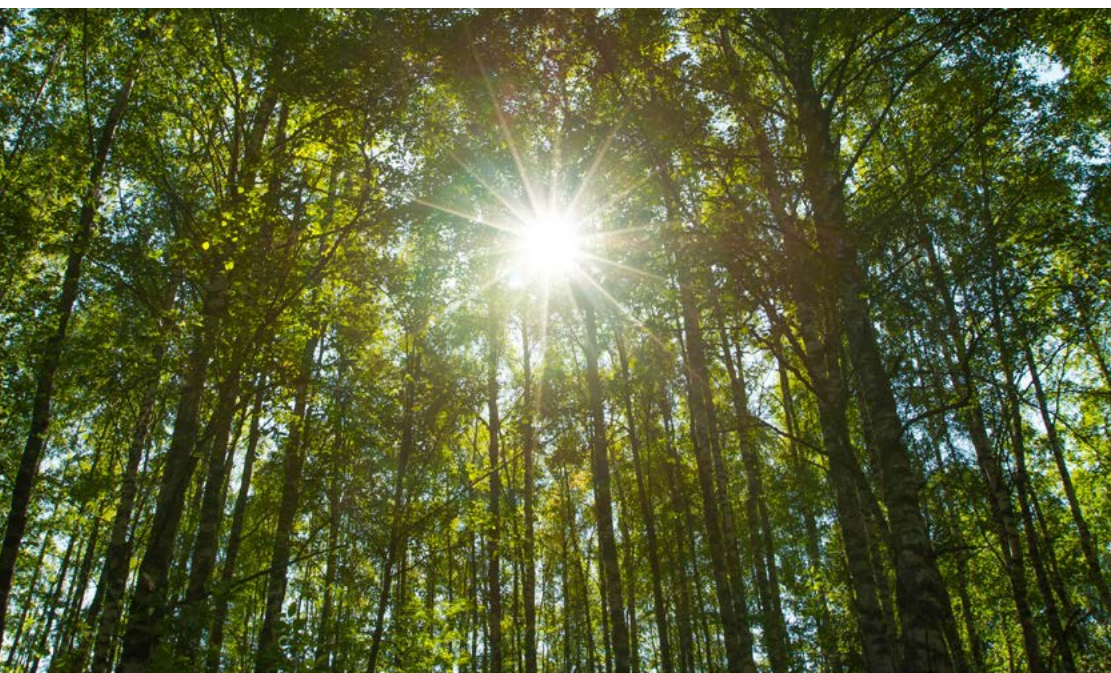
Diverse cooperation through local partnerships

Elenia Lämpö Oy has a systematic way of working with its stakeholders. In 2016, we arranged a number of cooperation meetings with cities, municipalities, corporate customers and other stakeholders. We cooperated closely with several other parties in construction projects. Partners actively take part in tasks related to the construction and maintenance of Elenia Heat's district heating network.

Partnerships play an important role in the development of customer solutions. Inspections of customer equipment are carried out by our own employees as well as our partner companies. We also work with local partners in the evaluation and consulting of heating solutions. This ensures that the customer receives a comprehensive service ranging from concept design to implementation.

Elenia Lämpö purchases most of its fuel through framework agreements. It purchases approximately one third of the heat sold from other heat producers, mainly local industrial companies that sell heat created in their processes.

The opportunity to use a diverse range of fuels ensures reliable generation of district heating. Fuel procurement partnerships involve continuous monitoring and evaluation through open cooperation in order to ensure cost-efficient, profitable and sustainable operations. The parties involved in the production and procurement of domestic fuel have a significant positive impact on employment in Elenia Lämpö's areas of operation.



RESPONSIBILITY

Personnel development
is an investment in the future

...

Occupational health and
safety at a high level

...

For the environment

...

Effective risk management



Driven by values and the customer

The day-to-day work of Elenia's personnel is driven by the organisation's shared values and customer-oriented company culture. A courageous attitude promotes a pioneering spirit and professional development. We join forces with our partners to work for the benefit of our customers and consequently we place special emphasis on seamless cooperation with partners. The leadership goal is to strengthen the spirit of shared accomplishment to ensure that results and goals are achieved.

THE NUMBER OF PERSONNEL IS IN LINE WITH BUSINESS NEEDS

Elenia Oy's resource needs remained stable in 2016. The resource needs of Elenia Palvelut Oy declined in early 2016 after the expiration of a fixed-term transitional services agreement with Vattenfall Group. During 2016, Elenia Palvelut Oy continued to develop its organisation and steering model in Tampere.

Elenia Oy's IT unit was restructured and its operations were centralised in Tampere in 2016. The Sujuva project implemented in Ele-

nia's line organisation in autumn 2016 also helped restructure teams to meet future challenges. Newly established positions provided opportunities for managers and employees to apply for new duties.

Elenia Lämpö Oy renewed its organisation at the beginning of 2016 to further develop its customer focus. The change involved combining the regional organisations into one entity. There were also changes in the composition of the management team as well as support functions.

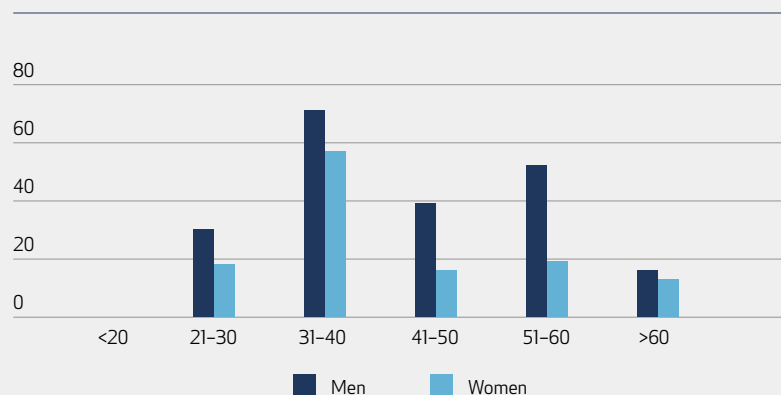
ELENIA TAHTO - FOR MORE ENERGY IN DAY-TO-DAY WORK

We continued our Group-wide well-being at work project, Elenia Tahto, which we first launched in 2013. The project's focus areas include health, appreciation, a healthy working community, inspiration and competence. To promote the well-being of our personnel, fitness tests have been offered and there has been information disseminated on the role of exercise, sleep and nutrition as sources of energy in their lives. Personal coaching has also been available.

Our employee survey focused on the personnel's satisfaction with competence development, work environment and motivation. The personnel considered the work atmosphere survey to be an important channel for exercising influence and developing the work community. The response rate was almost 90%. The company will put special emphasis in 2017 on discussing the results, communicating related measures and following up on them. We will complement the work atmosphere survey with a working community pulse survey.

In accordance with the Competitiveness Pact signed by the central labour market organisations in 2016, Elenia concluded local agreements for each personnel group on extending the annual working time by 24 hours in 2017. At the same time, we utilised flexible working time models and established remote work as part of Elenia's culture.

AGE DISTRIBUTION OF ELENIA GROUP 2016



PERSONNEL

310

SALARIED EMPLOYEES

83%

AVERAGE AGE

42

SUMMER TRAINEES

38

PARTNERS AT WORK

800-1,000 PEOPLE

Driven by values and the customer

COMPETENCE DEVELOPMENT IS AN INVESTMENT IN THE FUTURE

We developed the competencies required by changes in working life by introducing training in coaching-style management, which will continue as a Group-level project in 2017. The aim of coaching-style management is to implement the culture of coaching in Elenia and to strengthen self-management competencies to promote autonomy at work and provide tools for managing responsibility and progress. We continued our Talent Management programme in cooperation with Aalto Executive Education by providing Global Leader training to key individuals. We started Energy Expert training to strengthen the technical competencies of customer advisors. We also invested in our competencies related to negotiations and exercising influence in


2016. Elenia Lämpö's experts will continue their Energy for Professionals training in 2017. The company also introduced Elenia Lämpöluotsi training aimed at strengthening the company culture and customer focus. The training will continue in 2017.

Each Elenia employee has personal result and competence targets based on team and company objectives. Performance was evaluated in 2016 in follow-up discussions, which addressed competence development over the short- and long-term. The planning and implementation of competence development are increasingly the individual employee's own responsibility. The organisational development competence strategy model produced in 2016 will be implemented in 2017.

We also renewed our competencies in line with the organisational changes through systematic recruitment and cooperation with educational institutions, where emphasis was placed on these and practical projects carried out for Elenia, traineeships and participation in company and student organisation events.

ELENIA EMPLOYEES CELEBRATE FINLAND-SWEDEN ATHLETICS INTERNATIONAL

Elenia was the main partner of the classic Finland-Sweden Athletics International in autumn 2016. The history of this athletics event goes back several decades, but 2016 it was organised in Tampere, the first time it was organised outside Helsinki. Our employees had the opportunity to attend the Athletics International as well as a staff party before the event. Employees were also encouraged to bring their families along to the event.



HEALTH, APPRECIATION,
INSPIRATION AND COMPETENCE
AS PROMOTERS OF WELL-BEING
AT WORK.

Safety is always part of Elenia's day-to-day work

Safety is an integral part of the day-to-day operations of Elenia and our partner network. We work continuously to ensure that investments in electricity and heating networks, maintenance work and fault repairs are all carried out safely. In addition to focusing on the professionals employed by Elenia and its partners, we ensure that the infrastructure underpinning our services is safe for all parties concerned. We carried out approximately 700 quality and safety inspections in 2016 at sites where we are building our weatherproof network or carrying out other work on the electricity network.

MOBILE APPLICATION ENHANCES SAFETY REPORTING

We deployed a mobile smartphone application for the reporting and management of safety incidents to allow safety observations to be reported directly from the field to our safety management system. This allows us to continuously receive up-to-date information on occupational safety. Elenia's employees and contractor partners submitted more than 260 safety reports during the year. Elenia has a dedicated safety guide for professionals working with electricity networks.

CONTINUOUS DEVELOPMENT IN OCCUPATIONAL HEALTH AND SAFETY

Elenia Oy's certified OHSAS 18001 occupational health and safety system is continuously updated in response to changing requirements. Occupational health and safety are at a high level at Elenia, including lost time injury frequency (LTIF, occupational accidents per million hours worked).

We revised our safety training for personnel with the aim of implementing a more flexible operating model that ensures that the safety-related competencies of our personnel are up to date. The total participation in safety training corresponded to approximately 200 person-days.

In autumn 2016, we began publishing a biannual Safety Now newsletter for Elenia employees and partners.

HIGH LEVEL OF SAFETY AT ELENIA LÄMPÖ

In Elenia Lämpö Oy, we continued our systematic occupational safety efforts in 2016 and completed several projects.

We commissioned a study from an external research institute to obtain information on occupational health perspectives related to biofuels. The results indicate that our operations satisfy all occupational safety and health requirements to an excellent degree.

Elenia Lämpö enhanced the safe handling of chemicals through technical solutions as well as by making more effective use of the electronic chemicals management system.

We continued to conduct Safety Walk inspections of heating plants. Some of the inspections were attended by representatives of the company's senior management. A record number of safety observations were made in Elenia Lämpö in 2016. They are one of the most important elements of maintaining a high level of safety.

In late 2016, Elenia Lämpö implemented the Nord Safety system for recording safety observations and other key reports with the help of mobile technology. Receiving quick feedback on observations is important for maintaining a strong occupational safety culture. The new system provides excellent communication solutions to this end.



COMMITMENT TO SAFETY
IN EVERYDAY WORK.

Environmental work in line with the new standard

Elenia's environmental work is guided efficiently by the ISO 14001 environmental management system, which is supported by our partners' environmental systems. Elenia Oy's system was audited in 2016 in accordance with the new ISO 14001:2015 standard. Elenia Lämpö Oy aims to adopt the new certification framework in 2017. The new certificate is strong evidence of years of continuous improvement. Both Elenia Oy and Elenia Lämpö Oy signed national energy efficiency agreements for the period 2017–2025.

Elenia's investments in promoting energy efficiency are world class. The digital Elenia Aina service is available to our customers free of charge, also via mobile. It gives our customers easy access to information on their consumption of electricity or heating. We launched our updated Elenia Aina service in autumn 2016 with improvements to usability and service versatility based on a user survey and customer feedback. Our customers also received energy efficiency tips throughout the year via electronic media as well as newsletters.

OVERHEAD LINES REMOVED AS ELENIA WEATHERPROOF PROGRESSES

In 2016, we removed 1,500 kilometres of overhead lines along with 22,700 electricity poles. We protected valuable natural resources by removing nearly 100 pole-mounted transformers from groundwater areas. We elevated our reporting on the removal of obsolete overhead lines to a new level by deploying a system that enables more effective monitoring of network material due for removal. The old network is continuously being replaced by weatherproof underground cables and environmentally-friendly kiosk-type secondary substations.

Our planning of the underground cable network includes assessing the local environmental values and determining the best option for the terrain in question. We prepare an environmental plan for each project to assess the environmental impact on air, water and soil as well as taking into account groundwater areas, historical sites and nature reserves.

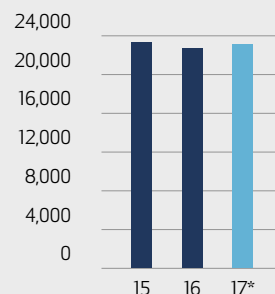
GROWING USE OF SOLAR POWER

The use of wind and solar power has increased substantially in Elenia Oy's network area. By the start of 2017, some 600 solar power sites had been connected to Elenia's network. We have made it as easy as possible to connect renewable energy to our network. In 2016, we introduced a new e-service to make it convenient for customers to notify us of the deployment of a solar power system via our website.

The environmental damage management process was enhanced by the deployment of a new control tool. Measures implemented in response to oil spills can now be reported and monitored from the field. Our network includes approximately 900 pole-mounted transformers that are vulnerable to such damage. Lightning strikes, storms and other circumstances caused oil-related damage to only about twenty transformers during the year.

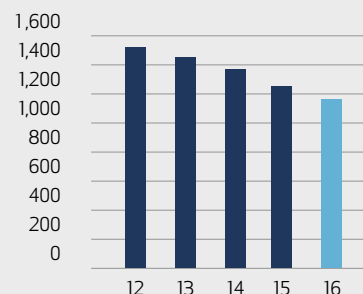
As in previous years, we minimised swan collisions with the electricity network by installing another 800 marker balls. On Luoto Island in Nokia, sheep continued to graze in the power line corridor

IN CONNECTION WITH CABLING, REMOVED POLES BY YEAR, pcs



* estimate

POLE MOUNTED TRANSFORMER SUBSTATION IN GROUND WATER AREA, pcs



Environmental work in line with the new standard

to keep it free from excessive vegetation. The joint project by Elenia, Fingrid and the City of Nokia promotes the diversity of agricultural nature and landscape management.

In 2017, we will develop a mobile land-use agreement, introduce more versatile features to our SMS service and activate electronic signing. We also aim to explore ways to increase the ecological efficiency of the customer service operations in our offices.

HEAT FROM RENEWABLE FUELS

Elenia Lämpö Oy takes determined and systematic action to reduce its environmental impacts and improve the energy efficiency of production. Biofuels accounted for 68% of total production in 2016. The

carbon dioxide emissions from heating production as a whole continued to decline in 2016.

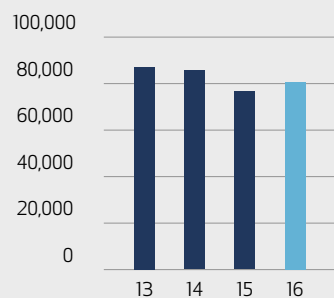
We increased energy efficiency by means such as entirely decommissioning older plant capacity. We also improved the management of environmental risks by replacing oil containers.

An oil spill occurred last year at Elenia Lämpö's Katuma heating plant in Hämeenlinna. The leakage was successfully handled in co-operation with the local authorities. The costs associated with the oil leak were immaterial. In response, all oil containers were inspected to prevent similar incidents. We also specified our container inspection procedures further.

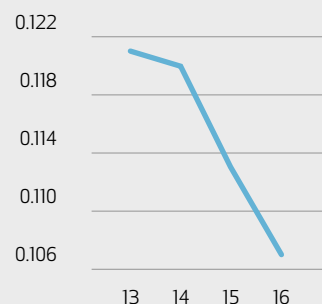
Ash generated in heat production is recycled as forest fertiliser or landfill structure material replacing virgin raw materials. Efficient recycling generates savings and promotes environmental protection.

We broadened our employees' and external stakeholders' environmental awareness by providing environmental and safety training as well as by communicating environmental issues. We are systematically increasing electronic communications.

CO₂ EMISSIONS FROM ELENIA LÄMPÖ'S OWN PRODUCTION, 2013–2016, tonnes



CO₂ EMISSION FACTOR FOR ELENIA LÄMPÖ'S OWN PRODUCTION, 2013–2016, tonnes/MWh*



*tonnes of carbon dioxide per megawatt-hour produced, heat and electricity production combined.



Risks and risk management

Risk is an integral part of business operations and it is characterised by both threat and opportunity. Risk management strives to mitigate threats and improve business opportunities.

Elenia has a transparent and clear approach for comprehensive risk management as part of its corporate culture. The objective is to promote risk awareness and to define an acceptable level of risk which, in turn, support decision-making.

RISK MANAGEMENT AS PART OF ALL OPERATIONS

Comprehensive risk management is part of all management and operations at Elenia. Comprehensive risk management covers risk identification, risk assessment, reporting of risks and measures to manage risks as part of the yearly risk management processes.

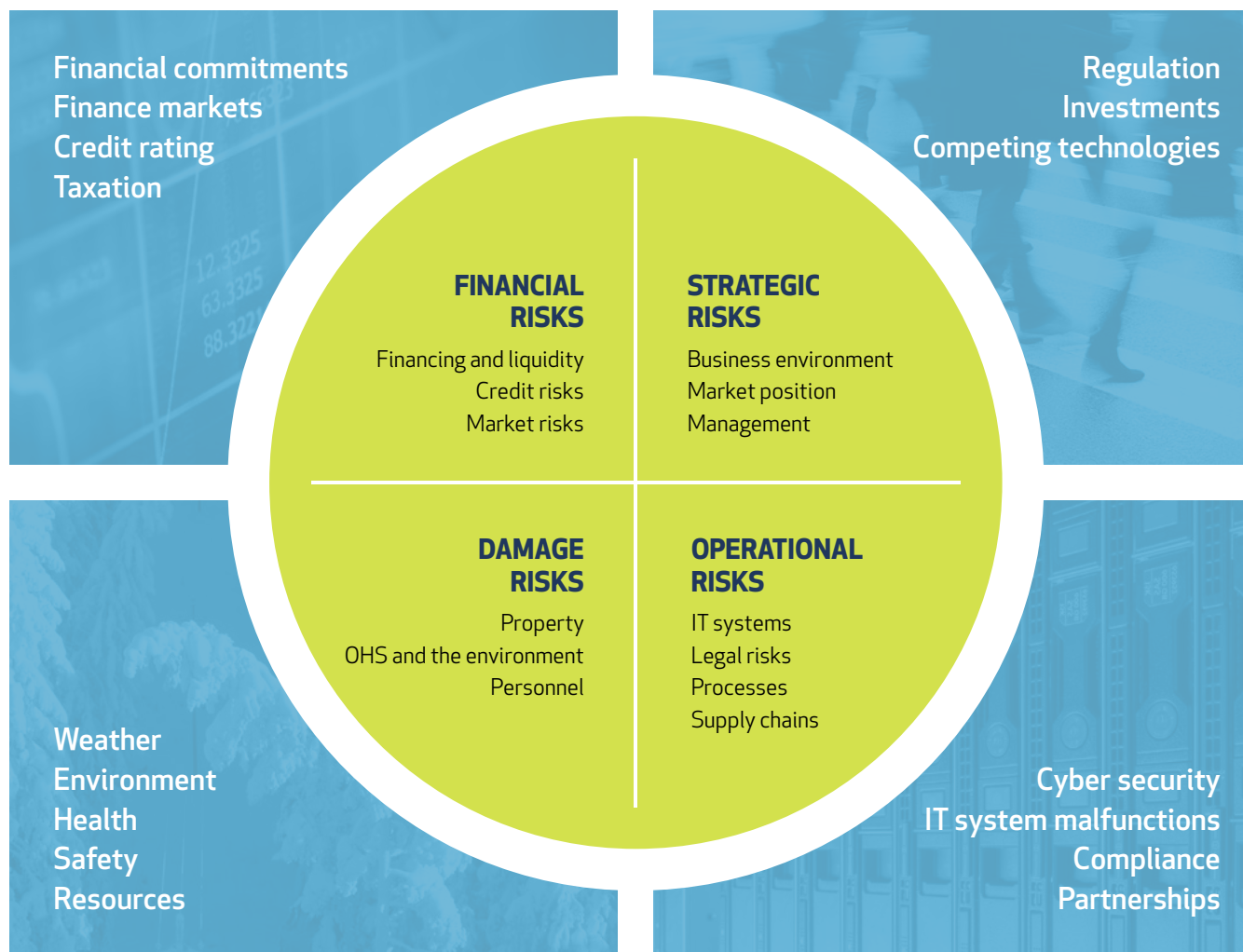
Elenia's management is responsible for including comprehensive risk management in the strategic and operative management. Elenia's management systems play a significant role in risk management in practice.

The Legal Affairs and Risk Management unit is responsible for the coordination and development of risk management and cooperates with business units in risk management activities. Business units and processes are responsible for risk identification and assessment as well as the planning, implementation and monitoring of risk management measures.

Group companies regularly report to their board of directors on risk management. In turn, internal audits evaluate Elenia's risk management activities and their effectiveness.

KEY RISK GROUPS

Elenia's most significant risks have been identified and the measures to manage these risks have been determined. Key risk groups have been presented in the diagram.





Elenia Oy Board of Directors



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Clark**

GS Infrastructure Partners

**Phil
White**

3i

**Kunal
Koya**

GS Infrastructure Partners

**Jorma
Myllymäki**

Elenia Oy

**Tapani
Liuhala**

Elenia Oy

**Timo
Rajala**

Chairman of
the Board of Directors

**Timothy
Short**

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**Heidi
Koskinen**

Ilmarinen
Mutual Pension Insurance
Company

Elenia Oy Management Team



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Kuusela-Opas**

Head of
Communication

**Sanna
Öörni**

Head of
Customer Service

**Teemu
Hovi**

General Counsel

**Ville
Sihvola**

Head of
Marketing and Sales

**Tapani
Liuha**

CEO

**Jorma
Myllymäki**

COO

**Tommi
Valento**

Chief Financial
Officer

**Jarkko
Kohtala**

Head of
Construction
and Partnerships

**Jarmo
Karjalainen**

CIO

**Marianne
Kihlman**

Head of
Human Resources



Elenia Lämpö Board of Directors



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Ilmarinen
Mutual Pension Insurance
Company

**Matti
Manninen**

Chairman of
the Board of Directors

**Anna
Dellis**

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**Matteo
Botto Poala**

GS Infrastructure Partners



Elenia Lämpö Management Team



**Janne
Lamberg**

Chief Operating
Officer

**Tero
Holappa**

Head of Customer Relations
and Business Development

**Matti
Tynjälä**

CEO

**Tommi
Orkola**

Head of Finance

**Anne
Piispanen**

Head of Technics

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YOUR EVERYDAY LIFE



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