Helen Ltd

Financial statements and report
on operations 1.1.2018 - 31.12.2018

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Report on operations 2018

Group

The Helen Group is a commercial entity, which consists of the parent company Helen Ltd and its subsidiaries Helen Electricity Network Ltd, Oy Mankala Ab, Suomen Energia-Urakointi Oy and Helsingin Energiatunnelit Oy. The associated companies included in the financial statements of Helen Ltd are Liikennevirta Oy, Voimapiha Oy and Suomen Merituuli Oy,

Helen Ltd offers its customers electricity, district heating and district cooling, along with a wide range of services for small-scale energy production and the customers' own energy use and improving its efficiency. Helen Ltd produces energy at its power stations and other production plants located in Helsinki, as well as through its power assets. Helen Ltd is owned by the City of Helsinki.

Helen Electricity Network Ltd (100%) concentrates on electricity network operations in compliance with the Electricity Market Act and provides transmission and distribution services to its customers in almost the entire City of Helsinki. The net sales of Helen Electricity Network Ltd account for approx. 13% of the Helen Group's net sales.

Oy Mankala Ab (100%) is a hydropower company that owns the Mankala, Ahvenkoski, Klåsarö and Ediskoski hydropower plants by the Kymijoki River. Oy Mankala Ab's holding in Teollisuuden Voima Oy is 8.1%, in Suomen Hyötytuuli Oy 12.5% and in Suomen Merituuli Oy 50%.

Helsingin Energiatunnelit Oy (90%) serves the energy, water supply and telecommunication networks. The City of Helsinki's holding in Helsingin Energiatunnelit Oy is 10%.

Suomen Energia-Urakointi Oy (60%) is a service company specialised in electronic urban technology, providing design, installation, operation and data transmission services for networks and equipment related to electricity transmission, distribution and use. The other owners are Vantaa Energy Ltd and Lahti Energia Oy.

Financial year 2018

The results of the fiscal year 2018 were realised extremely well for Helen. The market price of Nordic electricity was at a high level throughout the year and rose sharply in the second half of the year as a result of the dry end of the year and the increased fuel and emission allowance costs. The volume of electricity production increased clearly from normal levels.

Strong growth in the district heating and cooling markets continued, and the volume of district cooling was record-breaking thanks to the warm summer. The need for cooling during the July heatwave doubled on the corresponding period in 2017. The Katri Vala and Esplanade Heating and Cooling Plants and the Salmisaari power plant were operating at full capacity to produce district cooling. Helen’s underground cooling reservoirs were also utilised.

Competition in the electricity retail market has continued to be tough. In spite of this, we were able to increase the number of electricity retail customers.

Progress was made in the concept development of new products and services, but introducing the products on the market was slower than expected.

Helen's own operations were further developed and their efficiency was increased. We adopted new operating models, and.in production and maintenance, we were able to reduce costs and improve Helen's competitiveness by developing our operations.

The availability of power plants continued to be high, the security of electricity supply in Helsinki decreased slightly from the target level. The main reason for this was a lengthy, about12-hour interruption in the district of Katajanokka in July.

The overall water supply situation was considerably worse than in a normal year, and the power plants of Oy Mankala Ab are undergoing the largest investment project for decades.

Group’s profit trend

The Group’s results improved from the year 2017. The contributing factors to the increase in the net sales were the cost-based changes in the price of district heat and an increase in the electricity market price. Helen Ltd was able to take advantage of the electricity market situation and increase the operating profit with successful measures in the electricity wholesale market. The net sales and profitability of Helen Electricity Network Ltd also showed an upward trend.

The net sales for 2018 stood at EUR 930 million (EUR 805 in 2017), and the operating profit amounted to EUR 131 million (EUR 81 million in 2017). At 6,578 GWh, the electricity sales volume grew by 7%. At 6,702 GWh, the district heat sales increased by 1% on the previous year. The district cooling energy sales grew by 32% i.e. to 188 GWh.   At 4,414 GWh, the electricity distribution in Helsinki remained at the previous year’s level.

Group and parent company: Key figures

	Group		Parent company	
	2018	2017	**2018**	2017
Net sales, EUR mill.	**930**	805	**792**	681
Operating profit, EUR mill.	**131**	81	**88**	51
Operating profit, % of net sales	**14**	10	**11**	7
Profit before appropriations, EUR mill.	**112**	60	**106**	66
Investments, EUR mill.	**65**	95	**35**	49
Equity ratio, %	**73**	72	**77**	76
Return on investment (ROI), %	**5**	3	**5**	4
Employees as of 31 December	**1,080**	1,144	**838**	888
Balance sheet total, EUR mill.	**2,758**	2,732	**2,629**	2,584

Equity ratio, % =
100 * own funds / balance sheet total

Own funds = shareholders’ equity + untaxed reserves + depreciation difference deducted by tax liability

Return on investment, % =
100 * (profit before appropriations + financing costs / average capital invested
Capital invested = shareholders’ equity + interest-bearing debt

Investments

Helen is making investments in increasing the use of renewable energy in district heat production, recycling of energy with heat pumps and improving the security of supply in energy networks in particular.

Helen Group's investments totalled EUR 65 million. The investments in the parent company's production structure amounted to EUR 32 million, of which the share of district heating and district cooling networks was EUR 15 million. Investments in the electricity network totalled EUR 26 million and those in the tunnel network EUR 2 million. The rest of Helen's investments were targeted at new services and hydro power plants.

Financing

In accordance with its financial policy, Helen Ltd manages the financing of its subsidiaries in a centralised way. The Group's equity ratio was 73%, and the amount of interest-bearing debts EUR 569 million at the close of the financial year.

The interest-bearing debts of Helen Ltd consist of the subordinated loan of EUR 157 million taken out from the owner, a so-called senior debt of EUR 252 million taken out from the owner, and loans of EUR 62 million taken out from financial institutions.

Helen Electricity Network Ltd has loans of EUR 34.5 million from outside the Group.
The loan of Oy Mankala Ab taken out from the State Nuclear Management Fund stood at EUR 84 million at the end of the financial year.

Helen Ltd has a new commercial paper programme of EUR 100 million, which has not yet been used.

Shares

The registered and fully paid hare capital of Helen Ltd is EUR 600 million. The total number of shares is 1,000. The City of Helsinki owns all the shares.

Key events during the financial period

The pellet-fired heating plant in Salmisaari was inaugurated. The use of coal is replaced with wood pellets in Helen's district heat production. The pellet boiler of the heating plant is Finland's largest (92 MW), and it generates renewable district heat for the needs of 25,000 one-bedroom apartments.

Helen decided to build Finland's largest heat storage facility in the old oil caverns in Mustikkamaa.for the storage of district heat. The volume of the heat storage facility is 260,000 m3, and it will increase energy efficiency and allow reduction in the use of fossil fuels. The heat storage facility will be completed for production use in 2021.

Helen and Skanska presented their plan to implement the world's first seasonal energy storage facility of its kind in the old oil caverns in the Kruunuvuorenranta district of Helsinki. In the planned energy solution planned by Helen, sea water warmed by the sun and recycled heat from residential buildings are utilised in a new way

Helen launched an IoT development project on heat demand response to be implemented in cooperation with Helsingin kaupungin asunnot Oy (Heka). Helen will provide a new service for the metering and reporting of indoor temperatures and humidity in Heka homes. The service will enable improved energy efficiency in residential apartment blocks in a cost-efficient and easy way.

Helen's underground heating and cooling plant located under the Esplanade park at the depth of some 50 metres was completed. The large heat pumps produce both district heat and district cooling. They recover a significant amount of excess heat from properties for utilisation in heat production. The Esplanade heat pumps replace some of the fossil fuels used in Helen's energy production and reduce carbon dioxide emissions by more than 20,000 tonnes a year

Helen made a decision to invest in a new heat pump to complement the heating and cooling plant located under the Katri Vala Park.in Sörnäinen. Due to the new heat pump, the plant's production volume will increase by almost 30%. At the same time, the thermal load of the Baltic Sea will be reduced considerably as the heat of purified waste water will be recovered even more efficiently than before.

Helen was the first company in Finland to introduce on the market solar panels and an electricity storage system as a tailored package for domestic customers. Microgenerators will gain greater benefits from their solar panels with the aid of an electricity storage system and, at the same time, be an active part of Helen's virtual power plant and the smart electricity market of the future.

A new solar wall consisting of 84 panels was installed at the Suvilahti substation in Helsinki to test the yield of wall panels. The solar wall was integrated directly in the substation building so that the solar panels form new wall surface.

Helen is exploring various options of building new bioenergy heating plants in Helsinki. The environmental impact assessment (EIA) of the bioenergy heating plant planned for the Tattarisuo area continues in accordance with the statement made by Uusimaa ELY Centre so that a new site option on the southern side of the Tattarisuo industrial area is included in the EIA report.

Helen was again the most sustainable brand among energy companies. For the second year running, Helen was ranked first among Finnish energy companies. The Sustainable Brand Index™ is most extensive brand survey on sustainability in the Nordic countries,

Helen was also awarded as one of the best energy brands in the world in the international CHARGE brand competition. The selection of the awarded brands was based on the results of an expert panel, a customer survey and an independent analysis. Helen competed in the category for established brands.

Helen won the title of Secure Organisation of the Year and Helen's Mats Fagerström the title of Security Director of the Year at the Finnish Security Awards 2018 event.

The district heating network in Helsinki saw a record-high capacity increase in 2018. The new connections totalled 80 megawatts, which is twice as much as the connected load of the district heating system of the town of Mäntsälä. The last time when the connected load of the district heating network in a single year has increased more than in 2018 was in the 1970s.

Helen and German E.ON became majority owners of Liikennevirta when E.ON joined the operations of Liikennevirta. Helen's associated company Liikennevirta Oy (Virta) is rapidly expanding its operations also in the overseas markets. The ownership base of Virta was developed through directed share issues and share transactions so that Helen and E.ON are now majority shareholders of the company.

Helen is launching a new district heating service on the market: a smart heat distribution centre saves energy and reduces heating costs for residents. Helen is offering a new service concept to housing companies, including the replacement of the heat distribution centre, equipment maintenance and repairs, and optimisation of the indoor conditions in the building.

Helen introduced on the market an open district heat service, which increases the diversity of energy procurement and promotes the circular economy as well as climate-neutral energy production. In the first stage, two-way heat trade is meant for properties, companies and residential buildings, which use Helen’s district heat and the operation of which generate heat that is suitable as such for use in the district heating network

Helen and the Messukeskus Expo and Convention Centre agreed on building a large solar power plant on the roof of Messukeskus building. The solar power plant will have more than 2,000 solar panels to be harnessed as Helen’s rented designated panels.

Helen and MobilePay agreed to join forces in making mobile payments an option for Helen’s electricity bills in 2019. Helen is the first company in Finland to adopt mobile payment as a billing choice.

Helen Electricity Network Ltd signed a partnership agreement with Fingrid Oyj and the City of Helsinki to conduct a study on an electricity distribution network solution for the Helsinki region. The key idea is that it would be possible to reduce the volume of cabling in Helen Electricity Network’s 110-kV network and cut the costs to the City of Helsinki of moving the power lines, especially in the area affected by the Vihdintie boulevard project, by bringing forward the project of expanding Fingrid’s national grid to Helsinki

Employees

Helen Ltd had 838 (888) employees at the end of the year. The number of permanent employees was 816 (852), and the number of fixed-term employees 22 (36). The average number of employees was 870 (962). The average age of the employees was 47.0 (46.7) years, and the average length of employment was 16.9 (16.6) years. A total of EUR 47.3 million (EUR 49.3 million) was paid as wages and salaries in 2018.

Helen Electricity Network Ltd had 98 (108) employees at the end of the year. The number of permanent employees was 96 (105) and the number of fixed-term employees 2 (3). The average number of employees was 105 (106). The average age of the employees was 44.9 (44.5) years, and the average length of employment was 13.9 (14.2) years. Wages and salaries amounted to EUR 6.6 million (EUR 6.6 million) in 2018.

Suomen Energia-Urakointi Oy had 144 (148) employees at the end of the year. The number of permanent employees was 142 (142) and the number of fixed-term employees 2 (6). The average number of employees was 145 (155). The average age of the employees was 46.2 (46.8) years, and the average length of employment was 11.8 (12.0) years. A total of EUR 6.5 million (EUR 6.3 million) was paid as wages and salaries in 2018.

The other subsidiaries, Oy Mankala Ab and Helsingin Energiatunnelit Oy had no employees at the end of 2018.

Research and development

The Finnish Government has decided to prepare legislation to prohibit the use of coal in energy production as from 2029: the legislative proposal was under review by Parliament at the turn of the year. Solutions to replace current production at Hanasaari and Salmisaari are examined as a whole. Preparations are under way for the planning decision for the bioenergy heating plant, which is a partial solution to replace Hanasaari, with a view to a decision by Helen's Board of Directors in winter 2019. The options include the Vuosaari wood chip heating plant, the Tattarisuo wood chip heating plant and/or the Patola pellet-fired heating plant. In addition to the bioenergy heating plants, investments in heat pumps and energy storage facilities have been made or are under preparation. Solutions to replace the heat production of Salmisaari are currently investigated. These include fuel conversions, new production plants, and non-combustion based solutions (e.g. various heat pump solutions from different heat sources, geothermal energy, utilisation of industrial waste heat, and modular nuclear reactors).

R&D activities consist of the development of various technologies, services, cooperation models and concepts. The research operations have focused on research projects for diverse utilisation of circular economy fractions into more valuable end products (liquid biofuels, raw materials) and heat.

Concepts for future energy systems, where renewable energy forms such as solar and wind energy play a more significant role in total electricity production, are developed in the EU-funded FLEXCHX project (Flexible combined production of power, heat and transport fuels from renewable energy sources) coordinated by VTT. The project seeks the best operating models to balance seasonal fluctuations in electricity and heat production. For example, during periods of low-cost electricity, it is possible to produce, e.g. renewable transport fuels from electricity with the Power-to-X method.

Helen is also taking part in the VaBiSys (Value-optimised use of biomass in a flexible energy infrastructure) research project coordinated by VTT as part of the ERA-NET projects in the EU Horizon 2020 programme. In the project, future technological development and solutions are modelled especially from the viewpoint of biomass use, taking account of the sustainability criteria of biomass, as well as developing technologies also in other bioeconomy sectors.

Helen published an IoT development project on heat demand response, which is implemented together with Helsingin kaupungin asunnot Oy (Heka). Demand response is analysed with various service partners in Heka’s properties by implementing heat controls during the heating season of 2018-2019. The objective is to investigate the feasibility of heat demand response in properties and the impacts on living conditions and to assess the significance of demand response as part of the overall district heating system.

Helen is involved in the EU-SysFlex project together with Helen Electricity Network Ltd and VTT. Helen’s goal in the project is to develop and demonstrate new market-driven flexibility technologies and products for the needs of the transmission grid and the distribution system. As part of the project, Helen and Liikennevirta developed an aggregation platform for flexibility in electric vehicle charging points. Moreover, the predictability of electric vehicle charging events and its flexibility potential have also been analysed in the project.

Helen continued cooperation with the transmission system operator Fingrid Oyj in the aggregation pilot project for the balancing energy markets. The objective of aggregation is to combine small-scale sites capable of balancing their electricity consumption or production, thus gaining financial benefits from taking part in the maintenance of the power balance in the electricity system. The pilot aims to gain practical experiences, e.g. from submitting aggregated bids, registering the sales and handling balance corrections, as well as information exchange between various parties in the balancing power market.

Helen is engaged in the EU project mySMARTLife to test new solutions for climate change mitigation in cities. The objective is that the solutions tested in Helsinki can be utilised in other towns in Finland and in other countries at a later date. An interface for heat demand response, which was piloted in Merihaka, was implemented within the project in 2018. The temperature levels experienced by the residents were also studied at the site with the activation of demand flexibilities. As part of the project, Helen and VTT have built a simulation model with a purpose of studying the impact of reducing the supply water in the district heating network in the Tali district. Moreover, e.g. five solar panel benches and one charging station for e-bikes were implemented in Helsinki within the project.

Helen took part in Kasvupolku (Energy Growth Track), a joint growth programme for energy companies seeking new innovations, ideas and business models. Participation in Kasvupolku is part of Helen’s cooperation with growth companies aiming to identify new, promising partner enterprises, to increase common sales and to act as a facilitator of growth also through ownership arrangements.

Internal control and risk management

The aim of our risk management measures is to ensure the security of energy supply and safeguard and increase the value of the Helen Group in the long term. Within the company, risk management means a systematic and proactive way of identifying, analysing and managing uncertainties related to operations. Comprehensive risk management is a business-oriented, systematic and standardised procedure that steers decision-making and operations throughout the organisation.

It is the responsibility of Helen's management to ensure that the company has efficient risk management and internal control practices with regard to the extent and content of its economy and business operations. With regard to the extent and structure of its operations, the company has extensively assessed the most significant risks and uncertainty factors, as well as other factors affecting operational development.

Internal control and risk management have been organised by including risk-management thinking in all activities of the company. Operating principles and a risk management handbook have been drawn up for energy trading. The energy trading principles and associated risk management practices outlined in the risk management handbook have been approved by Helen's Board of Directors.

The comprehensive development programme for risk management includes, e.g., a risk maturity model and year clock. The maturity model assesses the present level of risk management and sets a target level for it. Improvement of risk management is based on measures that help to achieve the target level. The Management Group of Helen Ltd assesses the level of risk management annually

Strategic risks

The key uncertainty in the long-term development of business operations is the operating environment, where the steering mechanisms, objectives and schedules are constantly changing due to political decision-making. In such a situation, it is challenging to plan long-term planning of investments in climate-neutral energy production.

Financial risks

The essential business risks are mainly associated with the high volatility and the increasing unpredictability of the electricity market. Competition in the electricity retail market is also becoming tougher.

Fluctuations of the electricity exchange price result in business risks in sales to wholesale customers and end customers, as well as in electricity procurement. The Group is prepared for risks by using derivatives to hedge procurement and sales. He most significant risks in fuel procurement are the volume risk and price risk. These risks are managed, e.g, by concluding procurement and derivative contracts.

Operational risks

Significant operational risks could result in faults in production plants or networks and production outages. This could result in extra costs for energy procurement and possibly also disruptions to energy supply. The production plants' operational risks are managed through proactive maintenance and condition monitoring of equipment and networks, as well as personnel training.

Earnings-related pension insurances and a group life insurance were taken out at Keva. The rest of insurances are divided between four insurance companies. The insurance protection covers damages to property, damage due to business interruptions, damage to third-parties, personal injuries and vehicle damage. It has been ensured that the coverage and excess levels of the insurances correspond to the insurance companies' risk-bearing capacity.

Responsibility

Helen’s long-term target is climate neutrality. Climate change mitigation has a key impact on our planning of future energy solutions and our forthcoming investments. We make progressive investments in reducing emissions and increasing renewable energy in order to take full advantage of new technologies. New energy production solutions are also developed together with customers. All energy production of Helen Ltd is covered by the EU emissions trading scheme.

The impacts of local emissions from energy production on the air quality in the Helsinki metropolitan area are monitored as part of the air quality monitoring carried out by the Helsinki Region Environmental Services Authority HSY. According to this monitoring, energy production has very low impacts on the air quality in Helsinki.

In addition to the climate and environment, Helen’s operations also have an impact on people. We aim to communicate about our activities openly with our stakeholders and to know their views and expectations. In 2018, we carried out a survey on our stakeholders’ views on Helen’s responsibility work via an online dialogue. More than 70 per cent of the representatives of our external stakeholders who took part in the survey regarded Helen as a responsible actor. The most important responsibility themes raised in the survey were security of supply, reducing the use of fossil energy, increasing the use of renewable energy sources, and reducing emissions.

The topics that attracted the most debate among Helen's stakeholders in the course of the year were the ban on the energy use of coal, sustainability of bioenergy, and the impacts of the planned bioenergy heating plant in Tattarisuo on the environment and society. During the year, open discussion meetings were held with regard to Helen's bioenergy plans, future energy systems and the heat market renewal. We held three public meetings concerning the ongoing environmental impact assessment of Tattarisuo.

Helen’s electricity generation and the production and distribution of heating and cooling are certified in accordance with the ISO 14001 environmental management system standard. Helen Electricity Network Ltd uses an integrated operating system that complies with the standards ISO 9001, ISO 14001 and OHSAS 18001. Helen Electricity Network Ltd is in the process of adopting an operating system complying with the ISO 55000 asset management standard with respect to the ISO 9001 and ISO 14001 systems. The operating system will continue to be certified with the OHSAS 18001 occupational health and safety management system as before. The environmental impacts of our offices are managed with the Green Office environmental programme

Annual General Meeting

The Annual General Meeting of Helen Ltd (1/2018) was held on 23 March 2018. KPMG Oy Ab was selected as the company's auditor. The auditor with the main responsibility was Kaija Pakkanen, Authorised Public Accountant.

On 14 May 2018, the owner made a decision in compliance with chapter 5, section 1, subsection 2 of the Limited Liability Companies Act on amending articles 2-10 of the Articles of Association. The amendment affected, i.a., section 10 of the Articles of Association, according to which the number of issues to be discussed in an Annual General Meeting is lower than before. For example, the Board members of Helen’s subsidiaries are no longer selected in Helen’s Annual General Meetings. A mention of responsibility and operations complying with the principles of sustainable development has also been added to the article defining the field of operation. The mention of granting of procuration has been removed, the term of office of the auditor has been changed into two years, the notice period for an extraordinary general meeting has been extended into three weeks, and a mention of the selection of the Chairperson of the Board of Directors has been added to the article defining the representation right.

Board of Directors

On 23 March 2018, the Annual General Meeting selected a Board of Directors for the new term of office. Osmo Soininvaara acted as Chairman and Wille Rydman as Vice Chirman of Helen's Board.The other members of the company's Board of Directors were Hanna-Maria Heikkinen, Kaisa Hernberg, Marko Karvnen, Hillevi Mannonen, Timo Piekkari, Sirpa Puhakka and Daniel Sazonov.

In 2018, the Board of Directors convened 13 times. One of the meetings was an email meeting. The attendance percentage of the Board members in Board meetings was 92%.

The Board committees

The Board committees are the Audit Committee and the Personnel and Rewards Committee. The committees help the Board in carrying out its duties.

The members of the Audit Committee are Hillevi Mannonen as Chairman, and Hanna-Maria Heikkinen and Sirpa Puhakka as members. The committee meetings were regularly attended by the chief Financial Officer and the vice President, General Counsel, as the secretary of the committee, as well as by the auditor and any other experts that the committee had invited at any given time. The Audit Committee convened seven times in 2018.

The members of the Personnel and Rewards Committee were Osmo Soininvaara as Chairman and Wille Rydman and Timo Piekkari as members. The committee meetings were regularly attended by the CEO. The Human Resources Manager acted as the secretary of the committee. The Personnel and Rewards Committee convened two times in 2018.

President and CEO

Pekka Manninen, M.Sc. (Tech.) has acted as President and CEO of Helen Ltd. During the financial period, a total of EUR 550,195 (EUR 552,023) was paid as salaries, fees and bonuses to the members of the company's Board of Directors and to the President and CEO and his deputy.

The Board of Directors' proposal for the distribution of dividends

The distributable equity of the parent company Helen Ltd stands at EUR 1,339,141,544.01, of which the profits from the previous financial years amount to EUR 45,583,175.42 and the profit from the financial year to EUR 42,385,975.14. The Board of Directors proposes to the Annual General Meeting that the company should pay a dividend of EUR 51,000.00/share, totalling EUR 51,000,000.00, and that EUR 36,969,150.56 should be held as retained earnings. The Board of Directors proposes that the distribution of dividends should take place on 30 April 2019. The liquidity of the company is good, and the Board of Directors takes the view that the profit distribution will not jeopardise the company's liquidity.

Outlook

The price fluctuations in the electricity wholesale market are expected to remain high and increase in the coming years as variable production increases. In district heating, competition is constantly intensifying in relation to other heating methods and operators as active new, prominent operators and technologies are entering the market. New district cooling customers are sought through active sales and marketing

Consensus on the rules of implementing the Paris Agreement is an important waypoint in international cooperation. Helen strives for climate-neutral energy production, and Helen is investing a lot of determined effort to reach this goal. Helen’s near-future target is to reduce emissions by 40% by 2025. Investments will be made in the extensive utilisation of waste heat by means of heat pumps, and we will continue our projects on het storage at the same time. With a long-term outlook, we are investigating several emission-free technologies, such as geothermal heat, utilisation of sea water and small modular nuclear power reactors.

The Finnish Government’s legislative proposal to ban the use of coal in energy production is currently under review by Parliament. Helen has the tools to replace coal. What kind of tools will be used will depend on the schedule. If implemented, the coal act would determine the schedule and also the solutions available. The process of building an energy production plant in the Helsinki conditions, with its permit procedures, could take as long as ten years, Therefore, the projects on solutions concerning the year 2029 should be launched within the next few years.

If the coal act is implemented, it will be important to ensure that a provision on the cancelation of emission released allowances is issued, so that the carbon dioxide emissions are really reduced.

PROFIT AND LOSS ACCOUNT

	Group 2018 €	2017 €
NET TURNOVER	**930,162,057.53**	805,011,300.36
Variation in work in progress	**-13,385.78**	754,966.44
Work performed by the undertaking for its purpose and capitalized	**3,319,686.13**	4,125,346.04
Other operating income	**5,328,099.75**	6,536,382.48
Operating expenses		
Energy procurement	**-120,305,360.09**	-104,867,236.79
Purchase of electricity distribution	**-95,579.03**	-443,764.65
Materials, supplies and goods:		
Fuel	**-364,510,350.22**	-305,984,138.17
Variation in inventories	**5,968,394.07** incr	1,925,639.13 incr
Purchase of materials and supplies	**-14,853,293.02**	-16,599,436.19
External services	**-51,294,582.70**	-48,537,569.35
Staff expenses	**-72,810,115.41**	-75,560,765.82
Depreciation and value adjustments	**-124,999,855.01**	-124,215,000.12
Other operating charges	**-65,312,102.26**	-61,511,918.20
OPERATING PROFIT	**130,583,613.96**	80,633,805.16
Financial income and expense:		
Income from associated companies	**4,156,886.47**	3,319,682.38
Dividend income	**17,341.66**	280,263.38
Other interest and financial income	**914,061.88**	879,381.93
Interest and other financia expenses	**-23,633,457.46**	-25,134,677.58
PROFIT BEFORE APPROPRIATIONS AND TAXES	**112,038,446.51**	59,978,455.27
Income taxes	**-22,084,274.27**	-11,805,496.60
Minority interests	**-453,419.31**	-316,083.24
PROFIT FOR THE FINANCIAL YEAR	**89,500,752.93**	47,856,875.43

BALANCE SHEET

ASSETS

	Group 31.12.2018 €	31.12.2017 €
NON-CURRENT ASSETS		
Intangible assets		
Intangible rights	**42,272,891.16**	53,192,697.12
Goodwill	**28,966,397.41**	31,056,503.59
Other long-term expenses	**525,201.15**	758,423.02
	71,764,489.72	85,007,623.73
Tangible assets		
Land and waters	**5,259,862.38**	5,205,981.02
Buildings and constructions	**358,864,366.14**	371,494,255.80
Machinery and equipment	**1,397,092,837.54**	1,434,245,673.06
Advance payments and construction in progress	**60,780,798.81**	72,373,499.74
	1,821,997,864.87	1,883,319,409.62
Investments		
Holdings in group undertakings		
Receivables from Group expenses		
Investments in associated companies	**65,876,788.25**	66,423,841.71
Participating interests	**247,932,787.17**	245,070,827.07
	313,809,575.42	311,494,668.78
CURRENT ASSETS		
Inventories		
Fuel	**90,312,739.13**	83,930,676.45
Work in progress	**1,749,662.56**	1,813,312.49
Consumables	**1,072,073.63**	1,485,742.24
	93,134,475.32	87,229,731.18
Long term receivables		
Loan receivables	**55,280,424.00**	47,142,572.00
Other receivables	**17,325.72**	17,325.72
	55,297,749.72	47,159,897.72
Current receivables		
Accounts receivable	**42,183,957.88**	41,430,952.92
Receivables from Group companies		
Group account receivables	**62,848,008.06**	64,434,382.36
Other receivables	**25,679,266.71**	11,542,008.55
Prepayments and accrued income	**119,702,342.96**	95,615,779.53
	250,413,575.61	213,023,123.36
Cash in hand and at banks	**152,055,070.58**	104,829,232.37
TOTAL ASSETS	**2,758,472,801.24**	2,732,063,686.76

BALANCE SHEET

EQUITY

	Group 31.12.2018	31.12.2017
	€	€
CAPITAL AND RESERVES		
Share capital	**600,000,000.00**	600,000,000.00
Invested unrestricted equity fund	**1,251,172,393.45**	1,251,172,393.45
Retained earnings	**69,106,58.36**	52,449,710,93.47
Profit for the financial year	**89,500,752.93**	856,875.43
	2,009,779,732.74	1,951,478,979.81
MINORITY INTERESTS	**6,898,856.34**	6,445,437.03
LIABILITIES		
Long-term debts		
Subordinated loan	**157,000,000.00**	157,000,000.00
Loans from the parent community	**211,150,000.00**	231,750,000.00
Financing loans	**47,294,117.67**	126,470,588.25
Other interest-bearing liabilities	**83,681,197.62**	83,714,480.34
Deferred tax liabilities	**32,008,000.00**	20,008,000.00
	531,133,315.29	618,943,068.59
Current liabilities		
Financing loans	**49,176,470.58**	6,176,470.58
Loans from the parent community	**20,600,000.00**	26,600,000.00
Accounts payable	**58,171,664.21**	51,123,311.52
Other current liabilities	**54,760,516.25**	42,007,254.14
Deferred income and accrued liabilities	**27,952,245.83**	29,289,165.09
	210,660,896.87	155,196,201.33
TOTAL	**2,758,472,801.24**	2,732,063,686.76

CASH FLOW STATEMENT

	Group 2018 €	2017 €
Cash flow from operating activities		
Operating profit	129,827,211.96	80,633,805.16
Corrections:		
Depreciations according to plan	124,999,855.01	124,215,000.12
Use of emission allowance	11,147,843.03	9,937,190.59
Financial income and expenses	-22,702,053.92	-23,975,032.27
Taxes	-21,932,953.87	-11,805,496.60
Share of profits of associated companies	4,156886.47	3,319,682.38
Cash flow before change in working capital	225,496,788.68	182,325,149.38
Working capital:		
Current receivables without interests	-47,265,998.95	-23 363 331.70
Group account receivables	1,586,374.30	36 430 847.24 1)
Current receivables	-5,904,744.14	-2 765 603.14
Current liabilities without interests	31,221,297.58	14 031 896.89
Cash flow from operating activities (A)	205,133,717.47	206,658,958.67
Cash flow from investing activities:		
Investments in material and immaterial goods Capital gain of material and immaterial goods	-61,583,219.22	-86,881,740.82
Investments in other investments	-2,314,906.74	-6,346,722.98
Cash flow from operating activities (B)	-63,898,125.96	-93,228,463.80
Cash flow from investing activities:		
Current debts	37,000,000.00	5,000,000.00
Long-term debts	-99,809,753.30	-32,799,048.47
Own capital	-31,200,000.00	-20,383,119.85
Cash flow from operating activities (C)	-94,009,753.30	-48,182,168.32
Change in cash flow (A+B+C) increase (+) / decrease (-)	47,225,838.21	65,248,326.55
Cash and cash equivalentsat the beginnig of the year	104,829,232.37	39,580,905.82
Cash and cash equivalents at the end of the year	152,055,070.58	104,829,232.37
	47,225,838.21	65,248,326.55

1) Change in cash and cash equivalents in the consolidated account is presented under cash flow from operating activities.

PROFIT AND LOSS ACCOUNT

	Parent company 2018 €		2017 €	
NET TURNOVER	**792,049,902.30**		680,896,183.30	
Work performed by the undertakingfor its purpose and capitalized	**2,250,214.51**		2,924,578.16	
Other operating income	**8,547,423.52**		9,646,741.13	
Operating expences				
Energy procurement	**-116,786,198.71**		-100,913,245.31	
Purchase of electricity distribution	**-8,125,058.34**		-7,329,347.69	
Materials, supplies and goods:				
Fuel	**-364,510,350.22**		-305,984,138.17	
Variation in inventories	**6,382,062.68**	incr	2,006,429.06	incr
Purchase of materials and supplies	**-9,054,598.37**		-8,521,092.14	
External services	**-17,867,451.69**		-18,709,23.76	
Staff expenses	**-57,025,037.27**		-60,063,928.93	
Depreciation and value adjustments	**-86,331,809.72**		-85,172,227.89	
Other operating charges	**-61,197,798.55**		-57,794,161.47	
OPERATING PROFIT	**88,331,300.14**		50,986,666.29	
Financial income and expenses:				
Dividend income	**29,377,341.66**		27,560,263.38	
Other interest and financial income	**10,679,289.51**		11,601,887.30	
Interest and other financial expenses	**-22,697,450.98**		-23,998,564.97	
PROFIT BEFORE APPROPRIATIONS AND TAXES	**105,690,480.33**		66,150,252.00	
Change in cumulative accelerated depreciation	**-60,000,000.00**		-20 000 000.00	
Income taxes	**-3,304,505.19**		-3 724 570.43	
PROFIT FOR THE FINANCIAL YEAR	**42,385,975.14**		42 425 681.57	

BALANCE SHEET

ASSETS

	Parent company 31.12.2018 €	31.12.2017 €
NON-CURRENT ASSETS		
Intangible assets		
Intangible rights	**41,123,814.36**	52,271,657.39
	41,123,814.36	52,271,657.39
Tangible assets		
Buildings and constructions	**222,693,868.23**	232,637,237.39
Machinery and equipment	**984,834,590.46**	1,019,964,156.71
Advance payments and construction in progress	**52,773,058.49**	61,712,989.17
	1,260,301,517.18	1,314,314,383.27
Investments		
Holdings in group undertakings	**421,092,154.96**	401,092,154.96
Receivables from Group expenses	**259,315,000.00**	260,885,000.00
Receivables from associated companies		1,470,000.00
Holdings in associated companies	**63,333,475.66**	62,407,415.59
Participating interests	**121,912,037.90**	121,325,077.80
	865,652,668.52	847,179,648.35
CURRENT ASSETS		
Inventories		
Fuel	**90,312,739.13**	83,930,676.45
	90,312,739.13	83,930,676.45
Long term receivables		
Other receivables	**17,325.72**	17,325.72
	17,325.72	17,325.72
Current receivables		
Trade debtors	**29,933,278.91**	30,393,454.96
Loans receivable by group member companies	**6,570,000.00**	6,570,000.00
Group account receivables	**44,841,852.83**	48,296,848.70
Other receivables	**21,603,171.83**	7,415,433.80
Prepayments and accrued income	**114,442,684.04**	90,314,561.87
	217,390,987.61	182,990,299.33
Cash in hand and at banks	**141,633,709.16**	103,113,893.41
TOTAL	**2,616,432,761.68**	2,583,817,883.92

BALANCE SHEET

EQUITY

	Parent company	
	31.12.2018	31.12.2017
	€	€
CAPITAL AND RESERVES		
Share capital	**600,000,000.00**	600,000,000.00
Invested unrestricted equity fund	**1,251,172,393.45**	1,251,172,393.45
Retained earnings	**45,583,175.42**	34,357,493.85
Profit for the financial year	**42,385,975.14**	42,425,681.57
	1,939,141,544.01	1 927,955,568.87
APPROPRIATIONS		
Cumulative accelerated depreciation	**100,000,000.00**	40,000,000.00
LIABILITIES		
Long-term debts		
Subordinated loan	**157,000,000.00**	157,000,000.00
Loans from the parent community	**211,150,000.00**	231,750,000.00
Financing loans	**42,000,000.00**	92,000,000.00
Other interest-bearing liabilities	**97,217.59**	130,500.31
	410,247,217.59	480,880,500.31
Current liabilities		
Loans from credit institutions	**20,000,000.00**	6,00, 000.00
Loans from the parent community	**20,600,000.00**	20,600,000.00
Accounts payable	**56,707,344.77**	50,429,228.04
Other current liabilities	**51,117,905.24**	38,634,280.39
Accruals and deferred income	**18,618,750.07**	19,318,306.31
	167,044,000.08	134,981,814.74
TOTAL	**2,616,432,761.68**	2,583,817,883.92

CASH FLOW STATEMENT

	Parent company 2018 €	2017 €	
Cash flow from operating activities			
Operating profit	**88 331 300.14**	50 986 666,29	
Corrections:			
Depreciations according to plan	**86 331 809.72**	85 132 513,63	
Use of allowance	**11 147 843.03**	10 292 988,09	
Financial income and expenses	**17 359 180.19**	15 163 585,71	
Taxes	**-3 304 505.19**	-3 724 570,43	
Cash flow before change in working capita	**199 865 627.89**	157 851 183,29	
Working capital:			
Current receivables without interests	**-37 855 684.15**	-8 304 763,69	
Group account receivables	**3 454 995.87**	38 185 877,43	1)
Current receivables	**-6 382 062.68**	-2 006 429,07	
Current liabilities without interests	**18 062 185.34**	4 290 268,07	
Cash flow from operating activities (A)	**177 145 062.27**	190 016 136,03	
Cash flow from investing activities:			
Investments in material and immaterial goods	**-32 318 943.63**	-49 246 782,13	
Capital gain of material and immaterial goods		39 714,26	
Investments in other investments	**-18 473 020.17**	-24 240 790,59	
Cash flow from investing activities (B)	**-50 791 963.80**	-73 447 858,46	
Cash flow from financing activities:			
Current debts	**14 000 000.00**	0,00	
Long-term debts	**-70 633 282.72**	-26 626 774,02	
Own capital	**-31 200 000.00**	-20 383 120,00	
Cash flow from financing activities (C)	**-87 833 282.72**	-47 009 894,02	
Change in cash flow (A+B+C) increase (+) / decrease (-)	**38 519 815.75**	69 558 383,55	
Cash and cash equivalents at the beginning of the year	**103 113 893.41**	33 555 509,86	
Cash and cash equivalentsat the end of the year	**141 633 709.16**	103 113 893,41	
	38 519 815.75	69 558 383,55	

1) Change in cash and cash equivalents in the consolidated account is presented under cash flow from operating activities.

NOTES TO THE FINANCIAL STATEMENTS

Accounting principles

Scope of consolidated financial statements

The consolidated financial statements include the parent company Helent Ltd and its subsidiaries Helen Sähköverkko Oy, Oy Mankala Ab, Helsingin Energiatunnelit Oy and Suomen Energia-Urakointi Oy. Voimapiha Oy and Suomen Merituuli Oy are consolidated as associated companies. The consolidated financial statements are prepared according to the Finnish Accounting Standards.

The Group is included in the Helsinki City Group as a sub-group. A copy of the financial statements of the City of Helsinki is available online at www.hel.fi

Accounting policies for the consolidated financial statementst

Intra-group ownership of shares has been eliminated with the acquisition cost method. Intra-group transactions, the internal margin included in non-current assets, as well as intra-group balances have been eliminated. In the consolidated balance sheet, the difference of the acquisition cost and equity of subsidiaries has been allocated as Group goodwill, which is depreciated in five or 20 years. The share of equity exceeding the acquisition cost of subsidiaries has been allocated as Group reserve, which is recognised as revenue in 20 years. Group reserve in the balance sheet has been reported on a net basis and presented as Group goodwill. Minority interests have been separated from the capital and reserves and from the profit for the financial year and presented as a separate item. Associated companies have been consolidated in the consolidated financial statements with the equity method.

Valuation of current assets

Current assets are presented according to the FIFO principle as acquisition cost or as replacement cost if lower.

Valuation of fixed assets

Fixed assets are recognised in the balance sheet at purchase cost less depreciation according to plan and possible impairment. Depreciation according to plan is calculated as straight-line depreciation on the acquisition cost of fixed assets.

DEPRECIATION PLAN

	Depreciation period, years
Intangible assets	
IT software	3-5
Other intangible rights	over their useful economic life
Goodwill	5-20
Emission allowances	according to use
Other long-term expenses	3-10
Tangible assets	
Land and waters	no depreciation period
Buildings and structure	10-40
Networks	10-40
Machinery and equipment	3-30
IT equipment	3-10
Advance payments and construction in progress	no depreciation period
Investments of fixed assets	
Shares and holdings	no depreciation period
Group reserve recognised as revenue	20

Processing of connection fees

Connection fees that are transferrable but non-refundable have been entered as income in the profit and loss account.

	Group		**Parent company**	
	2018	2017	**2018**	2017
	1,000 €	1,000 €	**1,000 €**	1,000 €
1. Turnover				
Electricity sales	**327,793**	263,749	**327,793**	263,749
Sales of electricity distribution	**117,712**	107,919		
Sales of district heat	**435,413**	386,281	**435,413**	386,281
Sales of district cooling	**18,425**	16,184	**18,425**	16,184
Other income	**30,819**	30,878	**10,419**	14,682
Total	**930,162**	805,011	**792,050**	680,896
2. Variation in work in progress	**-13**	755		
3. Work performed by the undertaking for its own	**3,320**	4,125	**2,250**	2,925
4. Other operating income				
Capital gains		40		40
Other	**5,328**	6,497	**8,547**	9,607
Total	**5,328**	6,536	**8,547**	9,647

	Group		Parent company	
	2018	2017	**2018**	2017
	1,000 €	1,000 €	**1,000 €**	1,000 €
5. Fuels and energy procurement				
Purchase of electricity	**119,399**	103,874	**115,879**	99,936
Purchase of heat	**907**	994	**907**	994
Purchase of electricity distribution Purchase of	**417**	444	**8,125**	7,313
fuels	**364,510**	305,984	**364,510**	305,984
Change in fuel stores	**6,382**	2,006	**6,382**	2,006
Total	**478,850**	409,289	**483,040**	412,220
6. External services				
Grid fees	**21,461**	21,028		
Construction and land construction project	**13,472**	13,394	**3,535**	3,145
Environmental servicest	**307**	2,506	**307**	2,506
Other external services	**16,055**	11,610	**14,025**	13,058
Total	**51,295**	48,538	**17,867**	18,709
7. Staff				
Average number of personnel				
Number of monthly salaried employees	**1,120**	1,223	**870**	962
Personnel	**1,120**	1,223	**870**	962
	2018	2017	**2018**	2017
Staff costs	**1,000 €**	1,000 €	**1,000 €**	1,000 €
Wages and salaries	**6,419**	62,291	**47,334**	49,339
Pension expenses	**10,423**	10,643	**8,054**	8,380
Other social charges	**1,968**	2,627	**1,637**	2,345
Total staff costs	**72,810**	75,561	**57,025**	60,064
Value of fringe benefits for tax purposes	**279**	229	**221**	229
Total	**73,089**	75,790	**57,247**	60,293
Remuneration of the Board and key management	**926**	925	**550**	552
8. Other operating charges				
Land leases	**7,633**	7,485	**6,131**	6,075
Other leases	**6,579**	6,632	**9,930**	9,723
Information technology and expert services	**14,002**	12,248	**12,806**	11,191
Vehicle and equipment expenses Representation	**3,429**	3,730	**2,302**	2,411
and marketing	**4,961**	4,106	**4,903**	3,678
Insurance policies	**1,151**	1,400	**980**	1,084
Emission allowances	**13,367**	11,749	**13,367**	11,749
Audit fees	**59**	59	**23**	31
Other costs	**14,131**	14,103	**10,756**	11,850
Total	**65,312**	61,512	**61,198**	57,794
9. Financial income and expenses				
Share of profits of associated companies	**4,157**	3,320		
Dividend income				
From Group undertakings			**25,200**	25,200
From associated companies			**4,160**	2,080
From others	**17**	280	**17**	280
Interest income on long-term investments				
From Group undertakings			**10,239**	11,062
Other interest and financial income				
From Group undertakings				
From others	**914**	879	**440**	540
Total financial income	**5,088**	4,479	**40,057**	39,162
Interest expenses				
Interest expenses on a subordinated loan	**9,420**	9,420	**9,420**	9,420
Interest expenses on a senior debt	**12,103**	13,133	**12,103**	13,133
Other interest and financial expenses				
To Group undertakings				
To others	**2,111**	2,582	**1,175**	1,446
Total financial expenses	**23,633**	25,135	**22,697**	23,999

10. Non-current assets	Group		Parent company	
	2018	2017	**2018**	2017
	1,000 €	1,000 €	**1,000 €**	1,000 €
Intangible assets				
Acquisition cost 1.1.	**61,448**	69,367	**58,905**	67,643
Increases 1.1.-31.12.	**5,182**	2,497	**4,666**	1,679
Decreases1.1.-31.12.	**13,116**	10,416	**13,116**	10,416
Acquisition cost 31.12.	**53,513**	61,448	**50,454**	58,905
Depreciation 1.1.	**7,497**	4,923	**6,633**	4,521
Depreciation 1.1.-31.12.	**3,218**	2,574	**2,697**	2,113
Book value 31.12.	**42,798**	53,951	**41,124**	52,272
Group goodwill				
Acquisition cost 1.1.	**149,904**	149,904		
Increases1.1.-31.12				
Decreases 1.1.-31.12.				
Acquisition cost 31.12.	**149,904**	149,904		
Depreciation 1.1.	**23,157**	15,438		
Depreciation 1.1.-31.12.	**7,719**	7,719		
Book value 31.12.	**119,028**	126,747		
Carried over from Group reserve	**90,061**	95,690		
Group goodwill in the balance sheet 31.12.	**28,966**	31,057		
Group reserve				
Value 1.1.	**95,690**	101,319		
Increases 1.1.-31.12.				
Decreases1.1.-31.12.	**5,629**	5,629		
Value 31.12.	**90,061**	95,690		
Book value 31.12.	**90,061**	95,690		
Carried over to Group goodwill	**90,061**	95,690		
Group goodwill in the balance sheet 31.12.	**-**	-		
Land and waters				
Acquisition cost 1.1.	**5,206**	5,206		
Increases 1.1.-31.12.	**54**			
Decreases 1.1.-31.12.				
Acquisition cost 31.12.	**5,260**	5,206		
Book value 31.12.	**5,260**	5,206		
Buildings and structures				
Acquisition cost 1.1.	**425,438**	413,848	**271,271**	268,211
Increases 1.1.-31.12	**6,938**	12,768	**3,444**	3,061
Decreases 1.1.-31.12.		1,178		
Acquisition cost 31.12.	**432,375**	425,438	**274,715**	271,271
Depreciation 1.1.	**53,944**	34,717	**38,634**	25,447
Depreciation 1.1.-31.12.	**19,567**	19,226	**13,387**	13,187
Book value 31.12..	**358,864**	371,494	**222,694**	232,637
Machinery and equipment				
Acquisition cost 1.1.	**1,724,828**	1,639,277	**1,224,339**	1,195,950
Increases1.1.-31.12.	**63,339**	86,114	**35,117,819.57**	28,685
Decreases 1.1.-31.12.	**1,270**	564		296
Acquisition cost 31.12.	**1,786,896**	1,724,828	**1,259,457**	1,224,339
Depreciation 1.1.	**290,582**	191,395	**204,375**	134,542
Depreciation 1.1.-31.12.	**99,221**	99,187	**70,247**	69,832
Book value 31.12.	**1,397,093**	1,434,246	**984,835**	1,019,964
Advance payments and fixed assets in progress				
Acquisition cost 1.1.	**72,373**	87,481	**61,713**	45,511
Increases 1.1.-31.12.	**59,575**	83,524	**32,553**	50,419
Decreases1.1.-31.12.	**71,194**	98,632	**41,493**	34,217
Acquisition cost 31.12.	**60,754**	72,373	**52,773**	61,713
Book value 31.12.	**60,754**	72,373	**52,773**	61,713

Investments 31.12.2018

	Domicile	Group Number	Group Share %	Group Book value	Parent company Number	Parent company Share %	Parent company Book value
Shares and holdings				**€**			**€**
Shares in group companies							
Oy Mankala Ab	Iitti				42,500,262	100.0%	**297,600,000**
Helen Sähköverkko Oy	Helsinki				42,000	100.0%	**84,000,000**
Helsingin Energiatunnelit Oy	Helsinki				360,081	90.0%	**36,084,755**
Suomen Energia-Urakointi Oy	Helsinki				3,625	60.4%	**3,407,400**
Associated companies							
Voimapiha Oy	Helsinki	400,000	33.3%	**64,184,473**	400,000	33.3%	**60,000,000**
Liikennevirta Oy	Helsinki	16,553	35.1%	**699,907**	16,553	35.1%	**3,333,476**
Suomen Merituuli Oy	Helsinki	1,000	50.0%	**992,408**			
Other shares							
Teollisuuden Voima Oyj	Helsinki	113,464,729	8.1%	**117 973 353**			
EPV Energia Oy	Vaasa	503,006	6.2%	**55,750,209**	503,006	6.2%	**55,750,209**
Pohjolan Voima Oyj	Helsinki	201,316	0.6%	**15,683,321**	201,316	0.6%	**15,683,321**
Kemijoki Oy	Rovaniemi	39,095	1.6%	**50,176,665**	39,095	1.6%	**50,176,665**
Helsinki Halli Oy	Helsinki	12		**201,826**	12		**201,826**
CLIC Innovation Oy	Helsinki	100	2.2%	**100,000**	100	2.2%	**100,000**
Suomen Hyötytuuli Oy	Pori	276	12.5%	**8,047,396**			
Suomen Messut osuuskunta	Helsinki	1		**17**	1		**17**
Helsingin Konsernihankinta Oy	Helsinki	3		**1**	1		**1**

Other investments

Capital loan, Helen Electricity Network Ltd, 1.10.2006–30.9.2026, interest is the reference rate of interest confirmed by the electricity market authority + 2 percentage points	**146,000,000**
Loan Helen Electricity Network Ltd, instalment is fixed rate of 5% of total loan	**32,260,000**
Loan Helen Electricity Network Ltd, bullet	**20,000,000**
Loan Helen Electricity Network Ltd, bullet	**21,000,000**
Loan Helen Electricity Network Ltd, bullet	**5,000,000**
Loan Helsingin Energiatunnelit Oy, instalment is fixed rate of 5% of total loan	**41,625,000**

11. Receivables

	Group 2018 1,000 €	Group 2017 1,000 €	Parent company 2018 1,000 €	Parent company 2017 1,000 €
Long-term receivables				
Long-term loan receivables from others	**55,280**	47,143		
Other receivables	**17**	17	**17**	17
	55,298	47,160	**17**	17
Short-term receivables from Group undertakings				
Intra-group loan, interest-bearing			**6,570**	6,570
Trade receivables			**416**	348
Receivables			**8,051**	8,595
			15,036	15,514
Accrued income and prepaid expenses				
Accrued sales	**117,227**	81 815	**105,564**	77,245
Accrued direct taxes	**627**	4 813	**483**	2,453
Other accrued income	**1,849**	8 988	**8,396**	10,617
	119,702	95 616	**114,443**	90,315

12. Equity

	Group 2018	Group 2017	Parent company 2018	Parent company 2017
Share capital 31.12.	**600,000**	600,000	**600,000**	600,000
Restricted shareholders' equity, total	**600,000**	600,000	**600,000**	600,000
Invested unrestricted equity fund 31.12.	**1,251,172**	1,251,172	**1,251,172**	1,251,172
Retained earnings 1.1.	**100,307**	72,917	**76,783**	54,741
Minority interests in retained earnings				
Distribution of dividends	**31,200**	20,383	**31,200**	20,383
Edellisen tilikauden voiton oikaisu		84		
Retained earnings 31.12.	**69,107**	52,450	**45,583**	34,357
Profit for the financial period 31.12.	**89,501**	47,857	**42,386**	42,426
Unrestricted shareholders' equity, total	**1,409,780**	1,351,479	**1,339,142**	1,327,956
Total equity	**2,009,780**	1,951,563	**1,939,142**	1,927,956

13. Liabilities falling due after five years

	Group 2018	2017	Parent company 2018	2017
	1,000 €	1,000 €	**1,000 €**	1,000 €
Subordinated loan from the City	**157,000**	157,000	**157,000**	157,000
Other loans from the City	**128,750**	149,350	**128,750**	149,350
Loans from financial institutions	**15,333**	21,067	**14,667**	19,067
Nuclear waste management loan	**83,580**	83,580		
Total	**384,663**	410,996	**300,417**	325,417

The capital loan that Helen Ltd has taken out from the City of Helsinki may be returned prematurely either in full or in part if the borrower so wishes. The loan capital may be returned only to the extent that the amount of Helen Oy's unrestricted shareholders' equity and all capital loans at the time of payment exceeds the losses confirmed for the company's last completed financial period or balance sheet included in a more recent financial statement. The annual interest for the loan is six per cent (6%).

The Group owns shares in the Finnish nuclear power company Teollisuuden Voima Oyj (TVO), which is legally obliged to cover in full the decommissioning of its nuclear power plants and the final disposal of spent nuclear fuel through the Nuclear Waste Management Fund. In order to cover its share of TVO's fund target for the forthcoming year and in case of any unforeseen events, Oy Mankala Ab has provided a directly enforceable guarantee for the sum of EUR 11 million. TVO has exercised its right to borrow the funds back from the Nuclear Waste Management Fund. Oy Mankala Ab's share of the reborrowing is EUR 84 million, which is included in the long-term debt falling due after five years.

14. Current liabilities

	Group 2018	2017	Parent company 2018	2017
Current liabilities to Group undertakings				
Accounts payable			**4,655**	3,309
Other liabilities			**5,185**	8,906
Accruals			**760**	519
			10,601	12,735
Current liabilities to associated companies				
Accounts payable	**1,924**	1,163	**1,924**	1,163
	1,924	1,163	**1,924**	1,163
Accruals				
Periodisation of holiday pay and holiday allowance	**13,217**	14,429	**10,249**	11,372
Interests	**4,250**	4,124	**3,332**	3,598
Accrued direct taxes	**2,764**	508		
Other accruals	**7,721**	10,229	**5,038**	4,348
	27,952	29,289	**18,619**	19,318

15. Commitments and contingent liabilities

	Group 2018	2017	Parent company 2018	2017
Security deposits				
Bank liabilities	**33**	33	**33**	33
Rental liabilities				
Due in 2019	**4,150**	3,953	**3,336**	3,199
Due at a later date	**3,086**	9,201		3,929
Leasing liabilities				
Due in 2019	**1,398**	1,478	**523**	705
Due at a later date	**1,214**	1,791	**673**	999
Directly enforceable guarantees	**11,065**	15,258		
Construction and warranty guarantees	**1,510**	1,444		

Oy Mankala Ab is committed to providing a shareholder loan to Teollisuuden Voima Oyj for a total maximum amount of EUR 36.6 million, of which EUR 20.3 million is outstanding.

16. Related party transactions

Transactions between Helen Ltd and Group companies:

		2018	2017
Oy Mankala Ab	Sales	**382**	**468**
	Purchases	**35,121**	**30,865**

As the owner of a power plant company operating under the Mankala principle Helen Ltd bears the costs of the company's operations and, in return, receives electricity at cost price.

		2018	2017
Helen Sähköverkko Oy	Sales	**8,761**	**9,840**
	Purchases	**8,337**	**7,258**
	Dividend income	**25,200**	**25,200**
	Interest income	**8,141**	**8,551**
Helsingin Energiatunnelit Oy	Sales	**1,117**	**1,199**
	Purchases	**5,903**	**5,864**
	Interest income	**2,174**	**2,359**
Suomen Energia-Urakointi Oy	Sales	**184**	**167**
Voimapiha Oy	Dividend income	**4,160**	**2,080**

Electricity derivatives

Group

2018	Amount, GWh			Fail value, EUR 1,000		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased	2 759	1 423	4 182	14 788	4 344	19 133
Sold	4 596	2 178	6 774	-20 021	-5 220	-25 241
Total	-1 837	-755	-2 592	-5 233	-876	-6 108
2017						
Purchased	2 452	1 247	3 700	-7 650	2 504	-5 145
Sold	2 891	721	3 612	-6 774	-2 082	-8 857
Total	-439	526	87	-14 424	422	-14 002

Parent company

2018	Amount, GWh			Fail value, EUR 1,000		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased	2 617	1 193	3 810	12 770	2 576	15 347
Sold	4 596	2 178	6 774	-20 021	-5 220	-25 241
Total	-1 979	-985	-2 964	-7 251	-2 644	-9 894
2017						
Purchased	2 299	1 026	3 325	-7 449	2 135	-5 314
Sold	2 891	721	3 612	-6 774	-2 082	-8 857
Total	-593	305	-288	-14 223	53	-14 171

The purpose of electricity derivative trades is to hedge future purchases and sales of electricity taking place at the market price. All trading takes place in a controlled way within accepted risk limits and operating guidelines. Derivatives trading implements the risk management policy approved by Helen's Board of Directors and the guidelines on the operating principles and risk management in energy trading. The majority of derivative contracts are Nordic electricity futures products of Nasdaq Commodities, which are traded on in the Nordic commodity derivatives exchange Nasdaq OMX Oslo ASA. The maximum duration of the derivatives is five years as from the balance sheet date.

All derivatives have hedging properties and therefore their fair values, i.e. the value changes concerning future accounting periods, have not been recognised in the result of the last completed accounting period. In later accounting periods, the realised result of the derivatives is recognised for the same period as the hedged items.

Physical electricity sale and purchase contracts are drawn up through Nord Pool AS. Hourly-based sales and purchases are netted at the Group level and presented either as income or expenses according to the status of either net seller or net purchaser at any given time. The entry practice is identical with that of electricity derivatives.

Currency derivatives

Group

2018	Amount, EUR 1,000			Fair value, EUR 1,000		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased	22,512		22,512	696		696
Sold	18,439		18,439	-270		-270
Total	4,073		4,073	426		426
2017						
Purchased	10 778	2 112	12,889	-183	-28	-210
Sold	4,897		4,897	99		99
Total	5,880	2,112	7,992	-84	-28	-112

Parent company

2018	Amount, EUR 1,000			Fair value, EUR 1,000		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased	22,512		22,512	696		696
Sold	18,439		18,439	-270		-270
Total	4,073		4,073	426		426
2017						
Purchased	10 778	2 112	12,889	-183	-28	-210
Sold	4,897		4,897	99		99
Total	5,880	2,112	7,992	-84	-28	-112

Currency derivatives are used for hedging coal purchases in USD. The maximum duration of the derivatives is one year as from the balance sheet date.

Coal derivatives

Group

2018	Amount, 1,000 t			Fair value, EUR 1,000		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased	288		288	550		550
Sold	186		186	1,476		1,476
Total	102		102	2,026		2,026
2017						
Purchased	171	30	201	1,783	38	1,821
Sold	55		55	-93		-93
Total	116	30	146	1,690	38	1,727

Parent company

2018	Amount, 1,000 t			Fair value, EUR 1,000		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased			288	550		550
Sold	186		186	1,476		1,476
Total	102		102	2,026		2,026
2017						
Purchased	171	30	201	1,783	38	1,821
Sold	55		55	-93		-93
Total	116	30	146	1,690	38	1,727

Coal derivatives are used for hedging physical purchases of coal taking place in the future. The derivatives are implemented as cash payments, and their maximum duration is one year as from the balance sheet date.

Emission derivatives

Group

2018	**Amount 1,000 t**			**Fair value, EUR 1,000**		
	under 1 yr	over 1yr	Total	under 1 yr	over 1 yr	Total
Purchased						
Sold						
Total						
2017						
Purchased						
Sold						
Total						

Parent company

2018	**Amount 1,000 t**			**Fair value, EUR 1,000**		
	under 1 yr	over 1 yr	Total	under 1 yr	over 1 yr	Total
Purchased						
Sold						
Total						
2017						
Purchased						
Sold						
Total						

The purpose of use of emission derivatives is based on the trading need for hedging the difference between actual and predicted emissions and the emission allowances granted in the initial allocation. Emission derivatives are futures contracts ending with physical delivery, and their maximum duration is one year as from the balance sheet date. There wasn't any emission derivatives in financial year 2018.

Emissions trading

Helen Ltd has been granted emission allowances for a total of 6.9 million tonnes of CO_2 for 2013-2020. The estimated actual emissions in 2018 is 3.3 million tonnes of CO_2. In the 2017 there wasn't emission trading. In intangible assets in the balance sheet, emission allowances and corresponding allowances totalled 4.0 million tonnes of CO_2 on 31 December 2018.
In accounting, emission allowances are dealt with using the so-called net method in accordance with statement 1767/2005 of the Finnish Accounting Standards Board.

Interest rate derivatives

EUR 1,000	**Group 2018**	**Group 2017**	**Parent company 2018**	**Parent company 2017**
Interest rate swap 1				
Nominal value corresponding to the principal of the bullet loan		5,000		
Fair value (according to the bank)		-43		
Interest rate swap 1 has been drawn up for hedging the interest risk of an individual loan. Variable interest rates have been converted to fixed rates with the interest rate swap. The capital, due date and interest payment date of the loan and the interest rate swap correspond with one another. The contract expires on 31 October 2018 and the contract has no escape clause. Interest is paid monthly.				
Interest rate swap 2				
Nominal value corresponding to the principal of the bullet loan		30,000		30 000
Fair value (according to the bank)		-199		-199
Interest rate swap 2 has been drawn up for hedging the interest risk of an individual loan. Variable interest rates have been converted to fixed rates with the interest rate swap. The capital, due date and interest payment date of the loan and the interest rate swap correspond with one another. The contract expires on 28 June 2018 and the contract has no escape clause. Interest is paid quarterly.				
Interest rate swap 3				
Nominal value corresponding to the principal of the loan	**22,000**	22,000	**22,000**	22 000
Fair value (according to the bank)	**-163**	130	**-163**	130
Loan amortization begins 30 November 2021.				
Interest rate swap 3 has been drawn up for hedging the interest risk of an individual loan. Variable interest rates have been converted to fixed rates with the interest rate swap. The repayment programme, due dates and interest payment dates of the principal amount of the loan and the interest rate swap correspond with one another. The contract expires on 30 November 2028 and the contract has no escape clause. Interest is paid every six months.				

Only swaps, caps, collars or other instruments that unambiguously limit the maximum level of interest rate are used in interest rate hedging.

The fair values of derivatives are based on the market prices at the balance sheet date. Changes in the value of derivative contracts drawn up for hedging purposes are recorded in profit or loss for the same period as the underlying instruments they are hedging. If there are derivative contracts that have been drawn up for purposes other than hedging, their unrealised loss shall be recognised in profit or loss for the accounting period.

16. Foreign currencies

Items denominated in a foreign currency have been valued at the exchange rate applying at the balance sheet date.

17. Court proceedings and disputes

Helen's subsidiary Oy Mankala Ab is taking part in the construction of the 1,600-MW Olkiluoto 3 nuclear power plant unit through its shareholding in Teollisuuden Voima Oyj (TVO). According to the plant's supplier, the AREVA-Siemens consortium, regular electricity generation in the unit will commence in January 2020 (TVO stock exchange release 29 November 2018). The financing of the Olkiluoto 3 nuclear power unit has been arranged with external funding, through share issues and with shareholder loans between the owners and TVO. Oy Mankala Ab owns about 8.14% of the Olkiluoto 3 nuclear power plant unit and is committed to financing the construction in proportion to its shareholding. At the end of December 2018, Oy Mankala Ab's shareholder loan to TVO amounted to EUR 55 million. The amount of the remaining commitment of Oy Mankala Ab to the OL3 unit is about EUR 20 million.

In accordance with the settlement agreement signed in March 2018, TVO and the OL3 EPR plant supplier withdrew from arbitration proceedings by virtue of the rules of the International Court of Arbitration (ICC) concerning the delay in the completion of the OL3 EPR power plant unit and the resulting costs. In June 2018, the arbitration court confirmed settlement on the arbitration proceedings with an arbitration ruling, and the arbitration proceedings were terminated. The parties also withdrew the pending appeals in the General Court of the European Union.

The settlement agreement between TVO and the companies in the plant supplier consortium, Areva NP, Areva GmbH and Siemens AG, as well as the parent company of the Areva companies, Areva SA, which is fully owned by the state of France, concerning the completion of the OL3 EPR project and the disputes regarding the project entered into force at the end of March.

The settlement agreement stipulates that:
In order to provide and maintain adequate and competent technical and human resources for the completion of the OL3 EPR project, Areva will source the necessary additional resources from Framatome S.A.S., whose majority owner is Electricité de France (EDF).

The supplier consortium companies undertake that the funds dedicated to the completion of the OL3 EPR project will be adequate and will also cover all applicable guarantee periods. For this purpose, a trust mechanism funded by Areva companies has been set up to secure the financing of the costs of completion of the OL3 EPR project.

The turnkey principle of the OL3 EPR plant contract and the joint and several liability of the supplier consortium companies remain in full force.
The agreement also noted the plant supplier's schedule in force at the time of signing the agreement, according to which regular electricity production in the unit would have commenced in May 2019.

The arbitration was settled by financial compensation of EUR 450 million to be paid to TVO in two instalments by the supplier consortium companies. TVO received the first instalment, EUR 328 million, when the settlement agreement became effective in March 2018. The second instalment of EUR 122 million is payable upon completion of the OL3 EPR power plant unit or by 31 December 2019 at the latest.

UNBUNDLING OF ELECTRICITY BUSINESS OPERATIONS

By virtue of the Electricity Market Act, a company operating in the electricity market shall unbundle electricity network operations from other electricity trade operations by the company. Further details about unbundling are set out in the decree of the Ministry of Trade and Industry (79/2005).

Electricity network operations are unbundled into a separate limited company. Other electricity business operations consist of electricity production and sale business operations.

Non-current and current assets have been allocated according to the matching principle. The allocation of share capital, funds and non-current liabilities is based on the risk bearing of business operations. Current liabilities are allocated according to the matching principle.

Allocation of income and expenses has taken place according to the matching principle with the aid of internal accounts. Income taxes are recognised in relation to income formation. Income, expenses, receivables and debts of unbundled business operations also include the company's internal items.

OTHER ELECTRICITY BUSINESS OPERATIONS PROFIT AND LOSS ACCOUNT 1.1.2018 - 31.12.2018

	2018	2017
	€	€
TURNOVER	**328,336,245**	268,528,997
Work performed by the undertaking for its own purpose and capitalised	**596,370**	252,273
Other operating income	**279,410,181**	239,597,343
Expenses		
Purchase of energy	**-122,971,078**	-107,292,862
Aineet, tarvikkeet ja tavarat:		
Power plant fuel purchases	**-358,384,925**	-304,219,760
Change in fuel stores	**2,006,429**	2,006,429
Material and goods purchases	**-3,694,547**	-3,124,702
External services	**-18,382,480**	-21,980,797
Staff costs	**-22,564,499**	-15,843,854
Planned depreciation	**-22,013,997**	-21,806,078
Other operating charges	**-23,658,55**	-20,393,564
OPERATING PROFIT	**38,679,243**	15,723,425
Financial income and expenses:		
Financial income	**4,379,302**	2,657,993
Financial expenses	**-8,640,555**	-8,865,424
PROFIT BEFORE APPROPRIATIONS	**34,417,990**	9,515,994
Change in cumulative accelerated depreciation	**-24,477,077**	-4,226,298
Income taxes	**-1,988,182**	-1,057,939
PROFIT FOR THE PERIOD	**7,952,730**	4,231,757

OTHER ELECTRICITY BUSINESS OPERATIONS BALANCE SHEET 31.12.

1,000 €	**2018**	2017
	€	€
ASSETS		
Non-current assets		
Intangible assets	**30,367,350**	44,044,798
Tangible assets	**255,959,411**	269,740,024
Investments	**479,210,194**	458,623,234
Advance payments on procurement and fixed assets in progress	**1,386,829**	19,306,041
Current assets		
Inventories	**39,746,345**	35,864,670
Receivables	**177,496,286**	152,825,831
Total	**984,166,415**	980,404,599
EQUITY AND LIABILITIES		
Equity		
Share capital	**222,600,000**	222,600,000
SVOP fund	**464,184,958**	464,184,958
Retained profits	**17,908,932**	25,935,178
Profit for the period	**7,952,730**	4,231,757
Accumulated appropriations		
Depreciation difference	**40,795,129**	11,757,460
Liabilities		
Long-term		
Share of loans	**167,228,250**	188,226,850
Current liabilities	**63,496,416**	63,468,396
Total	**984,166,415**	980,404,599

UNBUNDLING OF NATURAL GAS BUSINESS OPERATIONS

The unbundling principles of the natural gas business operations are set out in Chapter 5 of the Natural Gas Market Act (508/2000) and in the decree of the Ministry of Trade and Industry (222/2005).
Non-current and current assets have been allocated according to the matching principle.
The allocation of share capital, funds and non-current liabilities is based on the risk bearing of business operations. Current liabilities are allocated according to the matching principle.
Allocation of income and expenses has taken place according to the matching principle.
Depreciation periods according to plan are presented in the notes concerning depreciation.
Income taxes are recognised in relation to income formation. Income, expenses, receivables and debts of unbundled business operations also include the company's internal items.

NATURAL GAS NETWORK OPERATIONS

Profit and loss account 1.1.2018-31.12.2018	**2018**	2017
	€	€
TURNOVER	**179,485**	171,429
Expenses		
External services	**-7,495**	-13,809
Staff costs	**-6,652**	-15,977
Depreciation	**-62,048**	-62,052
Other operating charge	**-31,435**	-33,791
OPERATING PROFIT	**71,855**	45,800
Financial income and expenses:		
Financial income		
Financial expenses	**-4,824**	-6,595
PROFIT BEFORE APPROPRIATIONS	**67,030**	39,205
Income taxes	**-13,406**	-7,841
PROFIT FOR THE PERIOD	**53,624**	31,364

Balance sheet for natural gas operations 31.12.	**2018**	2017
	€	€
ASSETS		
Buildings and structures		
Network	**805,596**	867,643
CURRENT ASSETS		
Short-term receivables	**192,248**	115,871
Total	**997,843**	983,514
EQUITY AND LIABILITIES		
Equity		
Share capital	**245,407**	245,407
SVOP fund	**511,746**	511,746
Retained earnings	**12,464**	10,625
Profit/loss for the accounting period	**53,624**	31,364
Liabilities		
Long-term liabilities		
Capital loan and senior debt	**174,603**	184,373
Short-term liabilities	**0**	0
Total	**997,843**	983,514

Key figures of natural gas network operations	2018	2017
Net investment	€	€
Tangible asset		
Return on capital invested	7.2%	4.7%

NATURAL GAS ENERGY SALES OPERATIONS

Profit and loss account 1.1.2018-31.12.2018	2018	2017
	€	€
TURNOVER	**1,968,808**	1,911,529
Expenses		
Materials, equipment and goods:		
Natural gas purchases	**-1,694,751**	-1,699,042
Staff costs	**-6,652**	-15,977
Other operating charge	**-31,435**	-33,791
TURNOVER	**235,971**	162,719
Financial income and expenses:		
Financial income		
Financial expenses	**-4,824**	-6,595
PROFIT BEFORE APPROPRIATIONS	**231,147**	156,124
Income taxes	**-46,229**	-31,225
PROFIT FOR THE PERIOD	**184,917**	124,899

Natural gas sales operations, balance sheet 31.12.	2018	2017
ASSETS	**€**	€
Non-current assets		
Current assets		
Short-term receivables	**251,281**	223,574
Total	**251,281**	223,574
EQUITY AND LIABILITIES		
Equity		
Retained earnings	**66,363**	98,674
Profit/loss for the accounting period	**184,917**	124,899
Liabilities		
Short-term liabilities		
Total	**251,281**	223,574