

FINANCIAL STATEMENTS AND REPORT ON OPERATIONS

1.1.2016-31.12.2016

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REPORT ON OPERATIONS FOR THE FINANCIAL YEAR 2016

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 of Helen Ltd are 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 plants and heating 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%) started operation after the tunnel business of Helen Ltd had been transferred to the new company. 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 2016

The energy sector is currently going through a period of change that is rapidly and irrevocably changing the basis of the energy system, which means constant changes and challenges for the profitability of energy production. The slow economic recovery in Finland and the Eurozone has contributed to the diminished demand for electricity in Finland. Conversely, the supply of electricity has grown, as different support mechanisms have increased investments in renewable energy and especially in non-adjustable wind power. At the same time, power plants are being decommissioned, and there are no commercial grounds for building new power plants on the market conditions. Finland's dependence on imported electricity continues to increase, but transmission connections limit electricity transmission from one country to another.

The price of electricity remained at a low level with the exception of a momentary price spike in the autumn. The water supply situation deteriorated after the summer, and the fuel prices rose at the same time, which resulted in a rapid increase in the market price of electricity. The prices were at their highest in November, during a period of colder-than-normal weather. In December, the quoted prices of electricity took a downward turn.

Competition became tougher in the sale of domestic power. The extremely price-driven market has required constant proactive sales measures and pricing of offers. Competition in electricity sales to corporate customers also remained challenging throughout the year.

In 2016, the cold weather in January and the cool weather in June increased the demand for district heat on the previous year. The district cooling sales grew significantly due to an increase in customer numbers.

Konsernin tuloskehitys

Helen Group's results exceeded the forecast level, but remained clearly below the previous year's level. The drop in the operating profit was mainly due to the low market price of electricity, a lower electricity sales volume and increased fuel costs.

The net sales for 2016 stood at EUR 782 million (EUR 746 million) and the operating profit at EUR 75 million (EUR 110 million). District heat sales grew by 10% on the previous year's level to 6,633 GWh. At 6,649 GWh, the electricity sales volume fell by 7% on the previous year. District cooling energy sales grew by 13% on the previous year to 141 GWh. Electricity distribution in Helsinki increased by 2% to 4,424 GWh.

Group and parent company: Key figures

	Group		Parent company	
	2016	2015	2016	2015
Net sales, EUR mill.	782	746	664	634
Operating profit, EUR mill.	75	110	53	95
Operating profit, % of net sales	10	15	8	15
Profit before appropriations, EUR mill.	52	83	45	83
Investments, EUR mill.	90	115	53	74
Equity ratio	71	71	75	77
Return on equity (ROE), %	3	4	3	4
Employees as of 31 December	1 269	1 342	1 017	1 067
Balance sheet, EUR. mill.	2 720	2 721	2 564	2 510

Investments

Helen Group's investments totalled EUR 90 million. Investments in production and distribution for 2016 stood at EUR 46 million. An investment decision on the Salmisaari pellet-fired heating plant was made in March. An oil-fired heating plant was demolished in Salmisaari, and the required transfers of cables and pipelines were carried out. Foundation work for a new heating plant was started at the end of the year. A total of 26 kilometres of new district heating and cooling networks were constructed, and their share of all investments was EUR 14 million. Investments in the electricity network totalled EUR 33 million and those in the tunnel network EUR 3 million. Emission allowance purchases amounted to EUR 11 million.

Financing

In accordance with its financial policy updated in 2016, Helen Ltd manages the financing of its subsidiaries in a centralised way. The Group's equity ratio was 71%, and the amount of interest-bearing debts EUR 577 million at the close of the financial year.

The interest-bearing debts of Helen Ltd consist of the subordinated loan (EUR 157 million) taken out from the owner, a so-called senior debt (EUR 273 million) taken out from the owner, and loans taken out from financial institutions (EUR 104 million).

The subordinated loan taken out from the City of Helsinki can be repayed early, either partially or fully, if the borrower so wishes. The capital of the subordinated loan can only be repaid to the extent that the unrestricted shareholders' equity and the total amount of the subordinated loans at the time of repayment exceed the loss that is to be confirmed for the company's latest financial year or is included in the balance sheet of more recent financial statements. The annual interest rate for the loan is six per cent (6%).

The loan of Oy Mankala Ab taken out from the State Nuclear Waste Management Fund amounted to EUR 84 million at the end of the year.

Shares

The registered and fully paid share 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

Finland's largest solar power plant was commissioned in the Kivikko district of Helsinki in 2016. The solar power plant consists of 3,000 solar panels, and its estimated annual production corresponds to the annual consumption of about 350 one-bedroom flats. The total output of Helen's solar power plants exceeds one megawatt, which is about 13% of the solar power production connected to the national grid.

The construction of a large pellet-fired heating plant in Salmisaari began. This heating plant will be one of the biggest investments in renewable energy in Finland, and it will have the largest pellet boiler in Finland. The pellet-fired heating plant will be completed in early 2018.

The design of the new heating and cooling plant to be built underneath the Esplanade Park progressed in accordance with the time schedule. The investment will cover two industrial-scale heat pumps that will produce cooling and heat. They will increase the cooling output of the Esplanade cooling centre to a total of 50 megawatts. As a result of this investment, Helen's carbon dioxide emissions will be reduced by 20,000 tonnes per year. The new heating and cooling plant will be commissioned in spring 2018.

Helen started to produce district heat with domestic biogas derived from waste, which increased the use of renewable energy sources. At the same time, Helen introduced on the

market a renewable district heat product aimed at business customers, with production based on biogas in the early stages.

Helen Electricity Network Ltd started construction work in Kalasatama. The new substation in Kalasatama will support electricity distribution in the nearby areas and improve the security of electricity supply. The substation will be commissioned in autumn 2017. A new section will also be added to the underground distribution network in the area.

The largest electricity storage facility in the Nordic countries, located in the Suvilahti district of Helsinki, was introduced as part of the joint Nordic electricity system in August. In cooperation with Helen Electricity Network Ltd and Fingrid Oyj, Helen Ltd launched a three-year research project to promote the utilisation of electricity storage facilities. In the pilot project, new possibilities offered by a megawatt-scale electricity storage facility will be tested: flexible intermediate storage of electricity and new business models that can be developed by storing electricity.

Helen developed a completely new kind of service for consumers interested in responsible energy use and production. The Enne service offers its members useful tips for energy consumption and instructions on how to improve the efficiency of their energy use. The Enne service is available for everyone to join, regardless of their location or type of home. As part of the Enne service, Helen launched a Heat Pledge campaign aimed at testing the consumers' willingness to take part in demand response in connection with heating. Members of the service are given an opportunity to have a say on future energy solutions and to be among the first to test these solutions.

Employees

The parent company had 1017 (1,067) employees at the end of the year. The number of permanent employees was 976 (1016), or 95%, and the number of fixed-term employees was 41 (51). The average number of employees was 1,064 (1,111). A total of 30 (31) employees retired, and 7 (10) new permanent employees were recruited. The average age of the employees was 46.6 (46.1) with an average of 16 (17.5) years of service between them. A total of EUR 54 million (EUR 54 million) was paid as wages and salaries, including bonuses. In addition to statutory insurance, all employees are covered by group leisure-time accident insurance.

The average number of employees of Helen Electricity Network Ltd was 104 (108) and that of Suomen Energia-Urakointi Oy was 104 (167). The other subsidiaries did not have any employees at the end of 2016.

Research and development

New solutions for district heat production were identified on a wide scale: the most concrete one of these was to promote concept development of new bio-energy heating plants. Bio-energy heating plants are included in the assessment of alternative replacement investments in the Hanasaari B power plant and they are part of Helen's efforts to increase the use of renewable energy sources.

The multi-annual BEST, CCS and FLEXe research programmes by Clic Innovation Oy and the EU project CITYOPT were completed in 2016. Bioenergy expertise was enhanced through the BEST (Sustainable Bioenergy Solutions for Tomorrow) programme, to be utilised, e.g. in the planning of bio-energy heating plants. The overall conclusion of the CCS (Carbon Capture and Storage) programme is that carbon capture and storage may be a cost-effective alternative in the mitigation of climate change when aiming for major emissions reduction targets. The FLEXe (Future Flexible Energy Systems) project increased our understanding of bi-directional formation of the energy market and the consumers' interest in taking an active

part in a climate-neutral energy system. The CITYOPT project investigated energy storage solutions in the Kalasatama and Östersundom districts and confirmed the decision to invest in an electricity storage facility in Suvilahti, which is connected to the Nordic energy system.

Research and project development work was carried out in many different subject areas, with various forms of bioenergy often being the common denominator. Development work was carried out in new biofuels and project concepts in relation to, e.g. biogas, biocoal, circular economy and local energy solutions.

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.

During the year, Helen Ltd. launched a comprehensive new development programme for risk management, which 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. In risk management, a decision was also made to use standardised risk management procedures. The risk management and risk assessment of energy trading were also developed, and risk management-related workshops were arranged.

The electricity market is highly volatile and predictability is expected to weaken. Competition is becoming tougher in the end customer market. Fluctuation of electricity exchange prices will cause business risks in wholesale and retail sales and also in electricity procurement. The Helen Group is prepared for risks and uses derivatives to hedge procurement and sales. The most significant risks of fuel procurement are the volume risk and price risk. These risks are controlled, e.g. by means of procurement and derivative contracts.

Earnings-related pension insurances and a group life insurance were taken out at Keva. The rest of insurances are divided between three 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.

Environment

The long-term target of Helen Ltd is climate-neutral energy production by year 2050. Guidelines have also been set for Helen in a decision that the Helsinki City Council made in December 2015; the City Council decided to decommission the Hanasaari power plant in 2024 and to replace its production with renewable energy.

Helen Ltd aims to make progressive investments to reduce emissions and increase the use of renewable energy sources, and utilise all the possibilities offered by new technologies. The company also develops new energy production solutions together with its customers. The company's energy production falls within the scope of the EU Emissions Trading Scheme (EU ETS)

The Industrial Emissions Directive (IE Directive) that entered into force at the beginning of 2016 made the emission limits of local emissions, such as particle matter, sulphur dioxides and nitrogen oxides more stringent, in many cases reducing the amounts to less than half of their previous levels. The particulate emissions of Helen Ltd have already been at a very low level and even below the new emission limits. The efficiency of the desulphurisation plants of the power plants was also increased. Reducing emissions of nitrogen oxides required significant investments in emissions reduction technologies.

The impacts of the local emissions from Helen's energy production on air quality in the Greater Helsinki area are monitored as part of the air quality monitoring carried out by the Helsinki Region Environmental Services Authority HSY. The results of the monitoring show that the impacts of energy production on the air quality of Helsinki are minimal.

At Helen Ltd, the production and distribution of electricity, heat and cooling has been certified in accordance with the ISO 14001 environmental management standard. Helen Electricity Network Ltd applies an integrated quality and environmental management system that complies with the ISO 9001, ISO 14001 ja OHSAS standards. The environmental impacts of all offices are managed with the Green Office environmental programme.

Annual General Meeting

The Annual General Meeting of Helen Ltd was held on 21 March 2016. In addition to the ordinary issues discussed at the meeting, the Annual General Meeting decided to return to the City of Helsinki some of the capital invested in the Shareholders' Surplus Fund by transferring 40,000 shares of Helsingin Energiatunnelit Oy to the City.

KPMG Oy Ab was selected as the company's auditor. The auditor with the main responsibility was Kaija Pakkanen, Authorised Public Accountant.

Furthermore, on 18 January 2016, based on the shareholders' unanimous decision, the owner instructed the Board of Directors to implement the development programme of Helen Ltd in accordance with the City Council's decision of 2 December 2015, i.e. in compliance with the distributed implementation model based on separate production of heat only, and so that the purpose of the present Hanasaari energy supply area will be changed after the completion of a bio-energy heating plant by 31 December 2024 so that power plant operations in the area will end and the power plant will be shut down.

At the Annual General Meeting of 21 March 2016, the following persons were elected as members of the Shareholders' Permanent Nomination Board: Mari Puoskari, Chairman of the City Council of Helsinki; Tatu Rauhamäki, Chairman of the City Board of Helsinki; Jussi Pajunen, Mayor of Helsinki; Osku Pajamäki, Deputy Chairman of the City Board of Helsinki; and Veronika Honkasalo, Member of the City Council of Helsinki. By the shareholder's decision, Tuuli Kousa, Charman of the City Board's City Group Division, was elected as member of the Shareholders' Nomination Board to replace Mari Puoskari, Chariman of the City Council of Helsinki. During the year 2016, the Shareholders' Nomination Board convened four times.

Board of Directors

The following nine persons were members of the Board of Directors until the Annual General Meeting held on 21 March 2016: Pekka Majuri, Chairman, Osmo Soinivaara, Vice Chairman, Hanna-Maria Heikkinen, Mari Holopainen, Tapio Korhonen, Annukka Mickelsson, Hillevi Mannonen, Mikko Niinivaara, and Jouko Sillanpää. At the Annual General Meeting of 21 March 2016, Chariman Pekka Majuri, Vice Chairman Osmo Soinivaara, Hanna-Maria Heikkinen; Mari Holopainen; Annukka Mickelsson; Hillevi Mannonen; Mikko Niinivaara, and Jouko Sillanpää

were re-elected to the Board of Directors, and Marko Karvinen was elected as a new board member. Board member Mikko Niinivaara announced his resignation from the Board of Directors of Helen Ltd on 24 August 2016.

During the financial year of 1 January 2016 – 31 December 2016, the Board of Directors convened 14 times.

The Board committees

The Board committees include the Audit Committee and the Personnel and Rewards Committee. The committees help the Board in carrying out its duties. The Board appointed the Audit Committee and the Personnel and Rewards Committee from among its members. Both committees have at least three members. The members of the Audit Committee are Hillevi Mannonen as Chairman, and Hanna-Maria Heikkinen and Mari Holopainen as members. The committee meetings were regularly attended by the Auditor, the Chief Financial Officer, and the Vice President, General Counsel, as the secretary of the committee, as well as by other experts invited by the committee at any given time. The Audit Committee convened eight times during the year 2016.

The members of the Personnel and Rewards Committee were Pekka Majuri, Chairman, and Mikko Niinivaara and Osmo Soinivaara as members. After the Annual General Meeting held on 21 March 2016, the Board elected from among its members Annukka Mickelson as a new member of the Personnel and Rewards Committee. On 24 August 2016, board member Mikko Niinivaara announced his resignation from the Board of Directors of Helen Ltd and thus also from the Personnel and Rewards Committee. The committee meetings were regularly attended by the CEO, the Chief Financial Officer, and the Vice President, General Counsel, as the secretary of the committee. The Personnel and Rewards Committee convened five times during the year 2016. The term of office of the committees is one year, and it will end at the termination of the Annual General Meeting to be held in 2017.

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 558,795 (EUR 517,544) 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 1,305,913, 007.30, of which the profits from the previous financial years amount to EUR 33,974,375.03 and the profit from the financial year to EUR 20,766,238.82. The Board of Directors proposes to the Annual General Meeting that the company should pay a dividend of EUR 20,383.12/share, totaling EUR 20,383,120.00, and that EUR 34,357,493.85 should be held as retained earnings. The Board of Directors proposes that the distribution of dividends should take place on 31 March 2017. 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 for the future

The result for 2017 is expected to remain at the same level as in 2016. Uncertainties in the economy and the energy markets in Europe and Finland continue to have repercussions on our business operations. According to forecasts, the electricity market will be very challenging for electricity producers in the next few years. Uncertainty about the future is evident in the growing volatility of electricity prices.

The wholesale electricity price will remain low in the Nordic countries in the forthcoming years, and there seems to be no sign of increases in electricity prices. In Finland, the electricity price is expected to fall, when production at the Olkiluoto 3 nuclear power plant begins in 2018. It is not profitable to invest in unsubsidised electricity production. Subsidised wind power in particular makes prices volatile in the Nordic market in the short term, and higher prices can only be expected in the winter season, when production capacity may momentarily be inadequate.

The so-called winter package that the European Commission published at the turn of the year will provide an extensive steering framework for the energy and climate policy in the 2020s.

The implementation of the National Energy and Climate Strategy will have a considerable impact on the future of energy production in Finland.

The assessment of alternative replacement investments for the Hanasaari B power plant has continued and the time schedule has been specified. The next investment decisions can be expected in 2019 at the earliest. The solution of the energy future of Helen Ltd seems like a combination of several alternatives, and the days of big one-off investments seem to be over. In the longer term, the investments related to the development programme will have an adverse effect on the company's earnings potential.

PROFIT AND LOSS ACCOUNT 1.1.16-31.12.16	GROUP	
	2016	2015
	€	€
NET TURNOVER	782,118,992.18	745,806,302.57
Variation in work in progress	-319,457.58	-529,856.43
Work performed by the undertaking for its purpose and capitalized	4,316,771.86	5,718,836.16
Other operating income	6,062,051.79	10,896,430.79
Operating expenses		
Energy procurement	-107,603,311.09	-74,133,392.31
Purchase of electricity distribution	-443,717.34	-370,284.88
Materials, supplies and goods:		
Fuel	-281,733,752.30	-236,369,668.85
Variation in inventories	10,612,075.23 ^{incr}	388,240.18 ^{incr}
Purchase of materials and supplies	-15,755,016.94	-18,814,717.65
External services	-56,986,129.00	-52,856,517.03
Staff expenses	-81,309,452.11	-83,265,113.24
Depreciation and value adjustments	-124,582,510.08	-118,497,444.41
Other operating charges	-59,037,117.16	-68,325,513.81
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OPERATING PROFIT	75,339,427.46	109,647,301.09
Financial income and expense		
Income from associated companies	2,293,409.64	1,273,334.09
Dividend income	56,245.38	17,496.96
Other interest and financial income	2,652,267.71	2,896,964.46
Interest and other financial expenses	-28,721,944.46	-30,462,090.40
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PROFIT BEFORE APPROPRIATIONS AND TAXES	51,619,405.73	83,373,006.20
Income taxes	-10,460,607.25	-16,742,937.14
Minority interests	-420,170.07	-459,104.03
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PROFIT FOR THE FINANCIAL YEAR	40,738,628.41	66,170,965.03

BALANCE SHEET**GROUP**

31.12.2016

31.12.2015

€

€

ASSETS**NON-CURRENT ASSETS****Intangible assets**

Intangible rights	63,445,970.95	64,699,862.49
Goodwill	33,146,609.76	35,236,715.56
Other long-term expenses	997,896.10	18,294.84
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	97,590,476.81	99,954,872.89

Tangible assets

Land and waters	5,205,981.02	5,205,981.02
Buildings and constructions	379,130,262.73	389,202,364.88
Machinery and equipment	1,447,881,757.03	1,472,044,541.10
Advance payments and construction in progress	87,481,050.48	83,048,177.87
	-----	-----
	1,919,699,051.26	1,949,501,064.87

Investments

Holdings in group undertakings	-	-
Receivables from Group expenses	-	-
Investments in associated companies	61,306,743.73	59,793,334.09
Participating interests	243,609,518.66	242,857,054.36
Other investments	231,683.41	231,683.41
	-----	-----
	305,147,945.80	302,882,071.86

CURRENT ASSETS**Inventories**

Fuel	81,924,247.38	70,780,314.63
Work in progress	973,348.49	1,350,785.99
Consumables	1,566,532.17	2,098,389.69
	-----	-----
	84,464,128.04	74,229,490.31

Long term receivables

Loan receivables	39,004,720.00	39,004,720.00
Other receivables	48,807.32	17,325.72
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	39,053,527.32	39,022,045.72

Current receivables

Accounts receivable	32,349,428.23	19,513,428.61
Receivables from Group companies	-	-
Group account receivables	100,865,229.60	130,808,747.45
Other receivables	9,203,312.29	8,621,245.61
Prepayments and accrued income	91,779,039.18	79,324,351.07
	-----	-----
	234,197,009.30	238,267,772.74

Cash in hand and at banks

	39,580,905.82	17,247,140.81
	-----	-----
TOTAL ASSETS	2,719,733,044.35	2,721,104,459.20

BALANCE SHEET	GROUP	
	31.12.2016	31.12.2015
	€	€
EQUITY		
CAPITAL AND RESERVES		
Share capital	600,000,000.00	600,000,000.00
Invested unrestricted equity fund	1,251,172,393.45	1,255,180,810.67
Retained earnings	32,177,879.52	-
Profit for the financial year	40,738,628.41	66,170,965.03
	1,924,088,901.38	1,921,351,775.70
	-----	-----
MINORITY INTERESTS	6,137,721.49	1,716,048.69
LIABILITIES		
Long-term debts		
Subordinated loan	158,600,000.00	158,600,000.00
Loans from the parent community	252,350,000.00	272,950,000.00
Financing loans		
Other interest-bearing liabilities	83,737,058.22	87,172,056.15
Deferred tax liabilities	16,008,000.00	12,008,000.00
	649,342,117.06	615,730,056.15
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Current liabilities		
Financing loans	7,176,470.58	61,000,000.00
Loans from the parent community	20,600,000.00	20,600,000.00
Accounts payable	56,228,620.97	23,350,999.51
Other current liabilities	27,073,142.93	39,884,189.23
Deferred income and accrued liabilities	29,086,069.95	37,471,389.93
	140,164,304.43	182,306,578.67
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TOTAL EQUITY AND LIABILITIES	2,719,733,044.35	2,721,104,459.20
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CASH FLOW STATEMENT
GROUP

	2016	2015
	€	€
Cash flow from operating activities		
Operating profit	75,339,427.46	109,647,301.09
Corrections		
Depreciations according to plan	124,582,510.08	114,133,987.33
Other income and expenses without payments	-4,420,170.07	4,413,735.83
Financial income and expenses	-26,013,431.37	-26,274,294.89
Taxes	-6,460,607.25	-16,742,937.14
Share of profits of associated companies	2,293,409.64	1,206,665.91
Cash flow before change in working capital	165,321,138.49	186,384,458.13
Working capital		
Current receivables without interests	-25,904,236.02	-146,481,071.00
Group account receivables	29,943,517.85	-130,808,747.45 ¹⁾
Current receivables	-10,234,637.73	-74,229,490.31
Current liabilities without interests	15,681,255.19	112,714,578.66
	-----	-----
Cash flow from operating activities (A)	174,807,037.78	-52,420,271.97
Cash flow from investing activities		
Investments in material and immaterial goods	-92,666,662.34	-2,260,496,620.41
Capital gain of material and immaterial goods	250,561.95	92,543,238.23
Investments in other investments	-2,265,873.94	-302,882,071.86
	-----	-----
Cash flow from investing activities (B)	-94,681,974.33	-2,470,835,454.04 ²⁾
Cash flow from financing activities		
Current debts	-53,823,529.42	81,600,000.00
Long-term debts	29,612,060.91	603,722,056.15
Own capital	-33,579,829.93	1,855,180,810.67
EGET KAPITAL	-----	-----
Cash flow from financing activities (C)	-57,791,298.44	2,540,502,866.82 ³⁾
Change in cash flow (A + B + C) increase (+) or decrease (-)	22,333,765.01	17,247,140.81
Cash and cash equivalents at the beginning of the year	17,247,140.81	-
Cash and cash equivalents at the end of the year	39,580,905.82	17,247,140.81
	-----	-----
	22,333,765.01	17,247,140.81

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

2) Cash flow from investing activities in reference year 2015 includes assets transferred in connection with the establishment of Helen Ltd.

3) Cash flow from financing activities in reference year 2015 includes the majority shareholding of the establishment of Helen Ltd.

PROFIT AND LOSS ACCOUNT 1.1.16–31.12.16 PARENT COMPANY

	2016 €	2015 €
NET TURNOVER	664,091,804.63	633,814,353.03
Work performed by the undertaking for its purpose and capitalized	3,222,709.44	4,514,993.07
Other operating income	9,005,666.04	20,978,668.42
Operating expenses		
Energy procurement	-103,256,147.56	-69,388,385.15
Purchase of electricity distribution	-5,994,192.61	-5,974,602.70
Materials, supplies and goods:		
Fuel	-281,733,752.30	-236,369,668.85
Variation in inventories	11,143,932.75	-553,965.30
Purchase of materials and supplies	-9,160,922.36	-11,830,702.22
External services	-30,140,743.59 ^{incr}	-29,142,003.26 ^{decr}
Staff expenses	-65,468,233.68	-66,339,171.34
Depreciation and value adjustments	-84,079,342.28	-84,724,397.27
Other operating charges	-54,568,078.16	-59,752,580.11
	-----	-----
OPERATING PROFIT	53,062,700.32	95,232,538.32
Financial income and expenses		
Dividend income	5,876,245.38	7,537,496.96
Other interest and financial income	10,408,261.70	6,173,647.77
Interest and other financial expenses	-24,686,661.47	-25,885,699.31
	-----	-----
PROFIT BEFORE APPROPRIATIONS AND TAXES	44,660,545.93	83,057,983.74
Change in cumulative accelerated depreciation	-20,000,000.00	0.00
Income taxes	-3,894,307.11	-15,083,608.71
	-----	-----
PROFIT FOR THE FINANCIAL YEAR	20,766,238.82	67,974,375.03

BALANCE SHEET**PARENT COMPANY****31.12.2016****31.12.2015**

€

€

ASSETS**NON-CURRENT ASSETS****Intangible assets**

Intangible rights	63,121,944.82	63,329,405.90
	63,121,944.82	63,329,405.90

Tangible assets

Buildings and constructions	242,764,134.47	251,493,411.78
Machinery and equipment	1,061,407,317.67	1,076,528,185.97
Advance payments and construction in progress	45,511,077.55	54,383,581.74
	1,349,682,529.69	1,382,405,179.49

Investments

Holdings in group undertakings	393,092,154.96	382,100,572.18
Receivables from Group expenses	255,425,000.00	200,400,000.00
Holdings in associated companies	60,000,000.00	60,000,000.00
Participating interests	120,760,019.39	121,745,054.71
Other investments	231,683.41	231,683.41
	829,508,857.76	764,477,310.30

CURRENT ASSETS**Inventories**

Fuel	81,924,247.38	70,780,314.63
	81,924,247.38	70,780,314.63

Long term receivables

Other receivables	48,807.32	17,325.72
	48,807.32	17,325.72

Current receivables

Trade debtors	25,352,060.96	17,982,712.71
Loans receivable by group member companies	0.00	8,000,000.00
Group account receivables	86,482,726.13	113,595,878.23
Other receivables	4,375,095.31	4,893,979.18
Prepayments and accrued income	90,060,049.07	72,475,582.39
	206,269,931.47	216,948,152.51

Cash in hand and at banks

	33,555,509.86	12,230,346.53
TOTAL ASSETS	2,564,111,828.30	2,510,188,035.08

BALANCE SHEET**PARENT COMPANY**

	31.12.2016 €	31.12.2015 €
EQUITY		
CAPITAL AND RESERVES		
Share capital	600,000,000.00	600,000,000.00
Invested unrestricted equity fund	1,251,172,393.45	1,255,180,810.67
Retained earnings	33,974,375.03	0.00
Profit for the financial year	20,766,238.82	67,974,375.03
	-----	-----
	1,905,913,007.30	1,923,155,185.70
APPROPRIATIONS		
Cumulative accelerated depreciation	20,000,000.00	0.00
LIABILITIES		
Long-term debts		
Subordinated loan	157,000,000.00	157,000,000.00
Loans from the parent community	252,350,000.00	272,950,000.00
Financing loans	98,000,000.00	42,000,000.00
Other interest-bearing liabilities	157,274.33	56,641.90
	-----	-----
	507,507,274.33	472,006,641.90
Current liabilities		
Loans from credit institutions	6,000,000.00	6,000,000.00
Loans from the parent community <small>LÅNER FRÅN MODERSAMFUNDET</small>	20,600,000.00	20,600,000.00
Accounts payable	56,416,084.96	26,304,223.18
Other current liabilities	24,077,229.49	29,733,603.54
Accruals and deferred income	23,598,232.22	32,388,380.76
	-----	-----
	130,691,546.67	115,026,207.48
	-----	-----
TOTAL EQUITY AND LIABILITIES	2,564,111,828.30	2,510,188,035.08

CASH FLOW STATEMENT

PARENT COMPANY

	2016	2015
	€	€
Cash flow from operating activities		
Operating profit	53,062,700.32	95,232,538.32
Corrections:		
Depreciations according to plan KRAFTVERKSBRÄNSLEN	83,852,207.97	80,657,267.20
Other income and expenses without payments	227,134.31	4,067,130.07
Financial income and expenses	-8,402,154.39	-12,174,554.58
Taxes	-3,894,307.11	-15,083,608.71
Cash flow before change in working capital	124,845,581.10	152,698,772.30
Working capital		
DRIFTSKAPITAL		
Current receivables without interests	-16,466,412.66	-103,369,600.00
Group account receivables	27,113,152.10	-113,595,878.23 ¹⁾
Current receivables	-11,143,932.75	-70,780,314.63
Current liabilities without interests	15,665,339.19	115,026,207.48
	-----	-----
Cash flow from operating activities (A)	140,013,726.98	-20,020,813.08
Cash flow from investing activities		
Investments in material and immaterial goods	-51,399,793.35	-1,623,002,220.89
Capital gain of material and immaterial goods	250,561.95	92,543,238.23
Investments in other investments	-65,031,547.46	-764,477,310.30
	-----	-----
Cash flow from investing activities (B)	-116,180,778.86	-2,294,936,292.96 ²⁾
Cash flow from financing activities		
Long-term debts	35,500,632.43	472,006,641.90
Own capital	-38,008,417.22	1,855,180,810.67
	-----	-----
Cash flow from financing activities (C)	-2,507,784.79	2,327,187,452.57 ³⁾
Change in cash flow (A + B + C) increase (+) or decrease (-)	21,325,163.33	12,230,346.53
Cash and cash equivalents at the beginnig of the year	12,230,346.53	0.00
Cash and cash equivalents at the end of the year	33,555,509.86	12,230,346.53
	-----	-----
	21,325,163.33	12,230,346.53

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

2) Cash flow from investing activities in reference year 2015 includes assets transferred in connection with the establishment of Helen Ltd.

3) Cash flow from financing activities in reference year 2015 includes the majority shareholding of the establishment of Helen Ltd.

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 applied in the consolidated financial statements

Intragroup shareholding is eliminated with the acquisition cost method. Business transactions within the Group, the internal margin included in non-current assets and inter-company receivables and liabilities have been eliminated. In Group balance sheet, the difference of the acquisition cost and equity 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 goodwill has been reported on a net basis and presented as Group reserve. Minority interests has been separated from consolidated shareholders' equity and net profit 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 structures	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 2016 1,000 €	2015 1,000 €	PARENT COMPANY 2016 1,000 €	2015 1,000 €
1. Turnover				
Electricity sales	273,978	286,683,	273,978	286,683
Sales of electricity distribution	101,069	95,202		
Sales of electricity distribution	361,304	317,463	361,304	317,463
Other income	45,768	46,484	28,810	29,695
Total	782,119	745,806	664,092	633,814
2. Variation in work in progress	-319	-530	-	-
3. Work performed by the undertaking for its own	4,317	5,719	3,223	4,515
4. Other operating income				
Rents	2,812	2,770	-	1,918
Capital gains	251	304	251	296
Other	2,999	7,823	8,755	18,765
Total	6,062	10,896	9,006	20,979
5. Fuels and energy procurement				
Purchase of electricity	106,925	73,208	102,578	68,463
Purchase of heat	678	925	678	925
Purchase of electricity distribution	444	370	5,994	5,975
Purchase of fuels	281,734	236,370	281,734	236,370
Change in fuel stores	11,144	-554	11,144	-554
Total	378,637	311,427	379,840	312,287
6. External services				
Grid fees	19,521	14,963	-	-
Construction and land construction projects	11,244	13,914	3,889	6,674
Expert and consultant services	5,522	6,297	5,410	6,125
Environmental services	3,990	1,578	3,990	1,578
Other external services	16,711	16,104	16,853	14,765
Total	56,986	52,857	30,141	29,142
7. Staff				
Average number of personnel				
Number of monthly salaried employees	1,315	1,371	1,064	1,091
Number of hourly waged employees	-	20	-	20
Personnel	1,315	1,391	1,064	1,111
Staff costs				
Wages and salaries	65,870	67,334	52,995	53,640
Pension expenses	11,569	11,893	9,205	9,401
Other social charges	3,871	4,038	3,268	3,299
Total staff costs	81,309	83,265	65,468	66,339
Value of fringe benefits for tax purposes	219	176	219	176
Total	81,528	83,441	65,687	66,515
Remuneration of the Board and key management	894	795	559	518

	GROUP		PARENT COMPANY	
	2016	2015	2016	2015
	1,000 €	1,000 €	1,000 €	1,000 €
8. Other operating charges				
Land leases	7,958	7,287	6,048	5,615
Other leases	13,439	8,464	9,754	5,386
Information technology and expert services	10,922	10,154	10,729	9,579
Vehicle and equipment expenses	5,780	6,030	4,249	4,158
Representation and marketing	4,027	3,200	3,891	3,173
Insurance policies	1,673	1,396	1,464	1,252
Emission allowances	10,897	18,457	10,897	18,457
Audit fees	50	37	20	24
Other costs	4,290	13,302	7,516	12,108
Total	59,037	68,326	54,568	59,753
9. Financial income and expenses				
Share of profits of associated companies	2,293	1,273	-	-
Dividend income				
From Group undertakings	-	-	5,040	5,040
From associated companies	-	-	780	2,480
From others	56	17	56	17
Interest income on long-term investments				
From Group undertakings	-	-	9,887	5,491
Other interest and financial income				
From Group undertakings	-	-	-	108
From others	2,652	2,897	522	574
Total financial income	5,002	4,188	16,285	13,711
Interest expenses				
Interest expenses on a subordinated loan	9,420	9,420	9,420	9,420
Interest expenses on a senior debt	14,163	15,263	14,163	15,263
Other interest and financial expenses				
To Group undertakings	-	-	3	54
To others	5,139	5,779	1,101	1,148
Total financial expenses	28,722	30,462	24,687	25,886

	GROUP 2016 1,000 €	2015 1,000 €	PARENT COMPANY 2016 1,000 €	2015 1,000 €
10. Non-current assets				
Intangible assets				
Acquisition cost 1.1.	67,020	69,642	65,559	69,480
Increases 1.1.-31.12.	13,017	15,742	12,753	14,443
Decreases 1.1.-31.12.	10,670	18,364	10,670	18,364
Acquisition cost 31.12.	69,367	67,020	67,643	65,559
Depreciation 1.1.	2,302		2,230	
Depreciation 1.1.-31.12.	2,621	2,302	2,291	2,230
Book value 31.12.	64,444	64,718	63,122	63,329
Group goodwill				
Acquisition cost 1.1.	149,904	149,904		
Increases 1.1.-31.12.				
Decreases 1.1.-31.12.				
Acquisition cost 31.12.	149,904	149,904		
Depreciation 1.1.	7,719	-		
Depreciation 1.1.-31.12.	7,719	7,719		
Book value 31.12.	134,466	142,185		
Carried over from Group reserve	101,319	106,948		
Group goodwill in the balance sheet 31.12.	33,147	35,237		
Group reserve				
Value 1.1.	106,948	112,577		
Increases 1.1.-31.12.				
Decreases 1.1.-31.12.	5,629	5,629		
Value 31.12	101,319	106,948		
Book value 31.12.	101,319	106,948		
Carried over to Group goodwill	101,319	106,948		
Group reserve in the balance sheet 31.12.	-	-		
Land and waters				
Acquisition cost 1.1.	5,206	5,206		
Increases 1.1.-31.12.				
Decreases 1.1.-31.12.				
Acquisition cost 31.12.	5,206	5,206		
Book value 31.12.	5,206	5,206		
Buildings and structures				
Acquisition cost 1.1.	404,975	299,192	264,090	254,405
Increases 1.1.-31.12.	10,916	108,330	4,126	12,233
Decreases 1.1.-31.12.	2,044	2,548	5	2,548
Acquisition cost 31.12.	413,848	404,975	268,211	264,090
Depreciation 1.1.	15,773	-	12,597	-
Depreciation 1.1.-31.12.	18,945	15,773	12,850	12,597
Book value 31.12.	379,130	389,202	242,764	251,493
Machinery and equipment				
Acquisition cost 1.1.	1,556,013	1,556,184	1,142,359	1,174,153
Increases 1.1.-31.12.	75,109	99,741	53,813	57,709
Decreases 1.1.-31.12.	1,846	89,912	222	89,504
Acquisition cost 31.12.	1,639,277	1,566,013	1,195,950	1,142,359
Depreciation 1.1.	93,969	-	65,831	-
Depreciation 1.1.-31.12.	97,426	93,969	68,712	65,831
Book value 31.12.	1,447,882	1,472,045	1,061,407	1,076,528
Advance payments and fixed assets in progress				
Acquisition cost 1.1.	83,048	91,830	54,384	54,584
Increases 1.1.-31.12.	133,898	116,117	91,262	100,547
Decreases 1.1.-31.12.	129,466	124,899	100,134	100,747
Acquisition cost 31.12.	87,481	83,048	45,511	54,384
Book value 31.12.	87,481	83,048	45,511	54,384

Investments 31.12.2016	Domicile	GROUP Number	Share %	PARENT COMPANY			
				Book value €	Number	Share %	Book value €
Shares and holdings							
Shares and holdings							
Oy Mankala Ab	Iitti	-	-	-	42 500 262	100,00	254 600 000
Helen Sähköverkko Oy	Helsinki	-	-	-	42 000	100,00	84 000 000
Helsingin Energiatunnelit Oy	Helsinki	-	-	-	360 081	90,00	36 084 755
Suomen Energia-Urakointi Oy	Helsinki	-	-	-	3 625	60,40	3 407 400
Associated companies							
Voimapiha Oy	Helsinki	400 000	33,33	60 312 437	400 000	33,33	60 000
Suomen Merituuli Oy	Helsinki	1 000	50,00	994 306	-	-	-
Other shares							
Teollisuuden Voima Oyj	Helsinki	99 630 381	8,14	117 973 353	-	-	-
EPV Energia Oy	Vaasa	492 102	6,45	54 659 809	492 102	6,45	54 659 809
Pohjolan Voima Oy	Helsinki	190 150	0,86	15 058 025	190 150	0,86	15 058 025
Kemijoki Oy	Rovaniemi	39 095	1,60	50 176 665	39 095	1,60	50 176 665
Helsinki Halli Oy	Helsinki	12	-	201 826	12	-	201 826
Liikennevirta Oy	Helsinki	3 062	11,20	765 521	3 062	11,20	765 521
CLIC Innovation Oy	Helsinki	100	2,20	100 000	100	2,20	100 000
Powest Oy	Helsinki	4 436	-	29 840	4 436	-	29 840
Suomen Hyötytuuli Oy	Pori	276	12,50	4 876 146	-	-	-
Suomen Messut osuuskunta	Helsinki	1	-	17	1	-	17
Helsingin Konsernihankinta Oy	Helsinki	3	-	1	1	-	1

Other shares and similar rights of ownership

Subordinated loan Helen Sähköverkko Oy 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
Subordinated loan Suomen Energia-Urakointi Oy 30.4.2012 - 31.12.2017, rate of interest is the 5-year Finnish government bond interest rate + 1 percentage point.	2,400,000

	GROUP 2016 1,000 €	2015 1,000 €	PARENT COMPANY 2016 1,000 €	2015 1,000 €
11. Receivables				
Long-term receivables				
Long-term loan receivables from others	39,005	39,005		
Other receivables	49	17	49	17
Total	39,054	39,022	49	17
Short-term receivables from Group undertakings				
Intra-group loan, interest-bearing	-	-	-	8,000,000
Trade receivables	-	-	376	6,016
Accrued income and prepaid expenses	-	-	9,232	3,397
Total	-	-	9,608	17,413
Accrued income and prepaid expenses				
Accrued sales	79,672	72,120	77,714	66,015
Accrued direct taxes	2,356	299	2,356	299
Other accrued income	9,751	6,905	9,990	6,161
Total	91,779	79,324	90,060	72,476

	GROUP 2016 1,000 €	2015 1,000 €	PARENT COMPANY 2016 1,000 €	2015 1,000 €
12. Equity				
Share capital 1.7.2014	-	-	-	3
Increase in share capital 31.12.2014	-			599,998
Share capital 1.1. and 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 1.7.2014	-	-	-	98
Increase in invested unrestricted equity fund 31.12.2014	-	-	-	1,255,083
Increase in invested unrestricted equity fund 1.1.2015	-	1,255,181	-	-
Invested unrestricted equity fund 31.12.2015	1,255,181	1,255,181	1,255,181	1,255,181
Decrease in invested unrestricted equity fund 31.5.2016	4,008	-	4,008	-
Invested unrestricted equity fund 31.12.2016	1,251,172	1,255,181	1,251,172	1,255,181
Retained earnings 1.1.2016	66,171	-	67,974	-
Minority interests in retained earnings 31.5.2016 (increase)	7	-	-	-
Distribution of dividends 31.3.2016	34,000	-	34,000	-
Retained earnings 31.12.2016	32,178	-	33,974	-
Profit for the financial period 31.12.2016	40,739	66,171	20,766	67,974
Unrestricted shareholders' equity, total	1,324,089	1,321,352	1,305,913	1,323,155
Total equity	1,924,089	1,921,352	1,905,913	1,923,155
13. Liabilities falling due after five years				
Subordinated loan from the City	157,000	157,000	157,000	157,000
Other loans from the City	169,950	181,950	169,950	181,950
Loans from financial institutions	23,475	10,000	20,533	-
Nuclear waste management loan	83,580	82,115	-	-
Total	434,004	431,065	347,483	338,950

The subordinated loan of Helen Ltd from the City of Helsinki can be repaid early either in part or full if the borrower so wishes. The capital of the subordinated loan may be repaid only where the amount of unrestricted equity and all subordinated loans of Helen Ltd exceed the amount of loss in accordance with the balance sheet included in the company's financial statements confirmed for the last or the current accounting period at the time of payment. The annual interest of the loan is six per cent (6%).

The Helen 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 in the forthcoming year and in case of unforeseen events, the Group has provided a directly enforceable guarantee for the sum of EUR 12 million. TVO has exercised its right to borrow the funds back from the Nuclear Waste Management Fund. The Helen Group's share of the reloan is EUR 84 million, which is included in the long-term debt falling due after five years.

	GROUP 2016	2015	PARENT COMPANY 2016	2015
	1 000 €	1 000 €	1 000 €	1 000 €
14. Current liabilities				
Current liabilities to Group undertakings				
Accounts payable			3,873	2,721
Other liabilities			4,781	2,638
Accruals			132	1,596
Total			8,786	6,955
Current liabilities to associated companies				
Accounts payable	1,201	1,018	1,201	1,001
Total	1,201	1,018	1,201	1,001
Accruals				
Periodisation of holiday pay and holiday allowance	14,381	16,481	12,630	12,386
Interests	6,130	13,388	3,831	13,096
Accrued direct taxes	72	757		
Other accruals	8,503	6,845	7,137	6,907
Total	29,086	37,471	23,598	32,388
15. Commitments and contingent liabilities				
Security deposits				
Bank liabilities	3,101	4,065	3,101	4,065
Rental liabilities				
Due in 2017	4,407	4,386	3,642	3,590
Due at a later date	12,920	17,277	7,129	10,771
Leasing liabilities				
Due in 2017	1,776	2,169	847	956
Due at a later date	2,405	3,006	1,190	1,247
Directly enforceable guarantees	11,762	11,199	-	-
Construction and warranty guarantees	1,487	1,620	-	-

Oy Mankala Ab is committed to providing a shareholder loan to Teollisuuden Voima Oyj for a total maximum amount of EUR 24.4 million, of which EUR 24.4 million is outstanding.

Electricity derivatives

Group							Parent company						
2016	Amount, GWh		Total	Fair value, EUR 1,000			2016	Amount, GWh		Total	Fair value, EUR 1,000		
	under 1 yr	over 1 yr		under 1 yr	over 1 yr	Total		under 1 yr	over 1 yr		under 1 yr	over 1 yr	Total
Purchased	3,700	2,694	6,394	-12,385	-9,922	-22,308	Purchased	3,275	2,641	5,916	-11,770	-9,855	-21,625
Sold	4,229	1,920	6,149	-13,303	-4,734	-18,037	Sold	4,229	1,920	6,149	-13,303	-4,734	-18,037
Total				-25,688	-14,656	-40,344	Total				-25,073	-14,589	-39,662
2015							2015						
Purchased	4,360	4,558	8,918	-62,297	-52,533	-114,829	Purchased	3,919	4,504	8,423	-59,276	-51,968	-111,244
Sold	3,996	1,976	5,972	28,275	11,772	40,047	Sold	3,996	1,976	5,972	28,275	11,772	40,047
Total				-34,022	-40,761	-74,783	Total				-31,001	-40,196	-71,197

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						Parent company							
2016	Amount, GWh		Total	Fair value, EUR 1,000			2016	Amount, GWh		Total	Fair value, EUR 1,000		
	under 1 yr	over 1 yr		under 1 yr	over 1 yr	Total		under 1 yr	over 1 yr		under 1 yr	over 1 yr	Total
Purchased	6 357		6 357	466		466	Purchased	6 357		6 357	466		466
Sold							Sold						
Total				466		466	Total				466		466
2015						2015							
Purchased			0			0	Purchased			0			0
Sold							Sold						
Total						0	Total						0

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						Parent company							
2016	Amount, GWh		Total	Fair value, EUR 1,000			2016	Amount, GWh		Total	Fair value, EUR 1,000		
	under 1 yr	over 1 yr		under 1 yr	over 1 yr	Total		under 1 yr	over 1 yr		under 1 yr	over 1 yr	Total
Purchased	147		147	3 085		3 085	Purchased	147		147	3 085		3 085
Sold							Sold						
Total				3 085		3 085	Total			3 085			3 085
2015						2015							
Purchased			0			0	Purchased			0			0
Sold							Sold						
Total						0	Total						0

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

Konserni

2016	Amount, GWh		Total	Fair value, EUR 1,000		Total
	under 1 yr	over 1 yr		under 1 yr	over 1 yr	
Purchased	245		245	277		277
Sold						
Total				277		277
2015						
Purchased	679		679	88		88
Sold						
Total				88		88

Parent company

2016	Amount, GWh		Total	Fair value, EUR 1,000		Total
	under 1 yr	over 1 yr		under 1 yr	over 1 yr	
Purchased	245		245	277		277
Sold						
Total				277		277
2015						
Purchased	679		679	88		88
Sold						
Total				88		88

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.

Emissions trading

Helen Ltd has been granted emission allowances for a total of 7.1 million tonnes of CO₂ for 2013-2020. The estimated actual emissions in 2016 is 3.3 million tonnes of CO₂. In the 2016 trading, the emission allowances and corresponding allowances bought physically totalled 1.8 million tonnes of CO₂. In intangible assets in the balance sheet, emission allowances and corresponding allowances totalled 9 million tonnes of CO₂ on 31 December 2016.

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

	GROUP		PARENT COMPANY	
	2016	2015	2016	2015
	1,000 €	1,000 €	1,000 €	1,000 €
Interest rate swap 1				
Nominal value corresponding to the principal of the bullet loan	5,000	5,000	-	-
Fair value (according to the bank)	-94	-121	-	-

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	30,000	30,000
Fair value (according to the bank)	-579	-834	-579	-834

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 bullet loan	-	25,000	-	-
Fair value (according to the bank)	-	-397	-	-

Interest rate swap 3 has been drawn up for hedging the interest risk of an individual loan. Half of the interest rates of the below loan that had been converted to fixed rates were converted back to fixed rates with the interest rate swap. The due date and interest payment dates of the loan and the interest rate swap correspond with one another. The contract expired on 30 November 2016 and the contract had no escape clause (related to interest rate swap 4).

Interest rate derivatives

	GROUP 2016 1,000 €	2015 1,000 €	PARENT COMPANY 2016 1,000 €	2015 1,000 €
Interest rate swap 4				
Nominal value corresponding to the principal of the bullet loan	-	25,000	-	-
Fair value (according to the bank)	-	976	-	-

Interest rate swap 4 was used for converting half of the interest rate of a fixed-rate loan into a variable rate. The purpose of the contract was related to reducing, not hedging, the interest expenses. The capital of the interest rate swap is half of the capital of the below loan. The interest payment dates of the loan and the interest rate swap corresponded with one another. Interest changed to variable rate has been hedged separately into a fixed rate with an interest rate swap (interest rate swap 3). The contract expired on 7 December 2016, and it had no escape clause.

Interest rate swap 5

Nominal value corresponding to the principal of the bullet loan	-	25,000	-	-
Fair value (according to the bank)	-	22	-	-

Interest rate swap 5 was used for changing of the interest rate of the fixed-rate loan into a partly variable rate. The purpose of the contract was related to reducing, not hedging, the interest expenses. The due date and interest payment dates of the loan and the interest rate swap corresponded with one another. The contract expired on 7 December 2016, and it had no escape clause.

Interest rate swap 6

Nominal value corresponding to the principal of the bullet loan	-	5,000	-	-
Fair value (according to the bank)	-	-23	-	-

Interest rate swap 6 was drawn up for hedging the interest rate risk of an individual loan. Variable interest rates were converted to fixed rates with the interest rate swap. The capital, due date and interest payment dates of the loan and the interest rate swap corresponded with one another and the contract had no escape clause. The due date of the contract was accelerated to 7 March 2016 because the below loan was paid back prematurely.

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. Oikeudenkäynnit ja riita-asiat

Oy Mankala Ab, which is part of the Helen Group, is a shareholder (8.1%) of Teollisuuden Voima Oyj (TVO), which is constructing the Olkiluoto 3 nuclear power plant unit (OL3) at Olkiluoto in Eurajoki under a turnkey contract. The plant was due to be completed in 2009 according to the original schedule.

In 2012, TVO submitted a claim and a defence in arbitration proceedings in accordance with the rules of the International Chamber of Commerce (ICC) concerning the delay in the completion of OL3 and the ensuing costs. The monetary value of the company's costs and losses updated by TVO in July 2015 is about EUR 2.6 billion until December 2018, which, according to the schedule submitted by the OL3 supplier in September 2014, is the time of commencement of regular electricity production at OL3.

The arbitration proceedings were initiated in December 2008 by the OL3 supplier. The OL3 supplier's total monetary claim, updated in February 2016, is approximately EUR 3.52 billion. The sum is based on the supplier's updated analysis of events that occurred until September 2014, with certain claims quantified until the end of December 2014. The sum includes interest on overdue payments (calculated to June 2016) and a total of some EUR 1.45 billion of payments delayed by TVO under the plant contract, as well as approximately EUR 135 million in loss of profit claimed by the OL3 supplier. The supplier consortium companies (AREVA GmbH, AREVA NP SAS and Siemens AG) are jointly liable for their obligations under the plant supply contract.

TVO has received a final and binding part decision in the ongoing arbitration proceedings. In its part decision, the arbitration body deals with the matters in the initial stages of the dispute, such as the schedule, licensing and licensing terms, as well as system engineering. This includes a number of the facts on which TVO bases its principal claims against the plant supplier, as well as certain key issues on which the plant supplier's claims against TVO are based. In the part decision, the majority of the matters have been definitively settled in favour of TVO and, on the other hand, the majority of the plant supplier's claims have been rejected in this respect. The part decision does not take a stand on the monetary claims made by the parties.

The arbitration proceedings are still ongoing and further part decisions will be made before the final decision by the arbitration body to determine the liabilities of the parties. TVO regards its claims to be well justified, and it has found the supplier's claims unjustified. This view is confirmed by the contents of the part decision.

TVO has not recorded any receivables or provisions based on the claims presented in the arbitration proceedings.

TVO has sought to obtain detailed information from Areva about the reorganisation published by the company and its impacts on the OL3 project. As TVO has not received this kind of information, it submitted an application to the Nanterre Commercial Court in France at the end of September 2016. The objective of the application is to obtain an urgent assurance of the fact that all necessary financial and other resources, especially in relation to EPR technology expertise, are aimed at the completion and long-term use of the OL3 project and that the plant supplier Areva-Siemens will meet all its obligations in accordance with the plant delivery contract.

UNBUNDLING OF ELECTRICITY BUSINESS

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 1.1.2016 - 31.12.2016

	2016 €	2015 €
TURNOVER	274,139,436	294,108,101
Work performed by the undertaking for its own purpose and capitalised	268,229	93,862
Other operating income	221,014,101	247,298,994
Expenses		
Purchase of energy	-108,215,893	-69,522,426
Materials, equipment and goods:		
Power plant fuel purchases	-280,090,960	-234,851,018
Change in fuel stores	11,143,933	-553,965
Material and goods purchases	-3,547,244	-9,264,919
External services	-28,764,457	-11,412,224
Staff costs	-17,673,650	-16,426,843
Planned depreciations	-21,826,713	-39,214,688
Other operating charges	-19,257,491	-77,270,774
OPERATING PROFIT	27,189,291	82,984,100
Financial income and expenses:		
Financial income	1,096,427	2,725,182
Financial expenses	-9,216,761	-9,405,685
PROFIT BEFORE APPROPRIATIONS	19,068,957	76,303,597
Change in cumulative accelerated depreciation	-7,531,163	0
Income taxes	-1,822,008	-13,091,914
PROFIT FOR THE PERIOD	9,715,786	63,211,683

OTHER ELECTRICITY BUSINESS OPERATIONS BALANCE SHEET 31.12.

	2016 €	2015 €
ASSETS		
Non-current assets		
Intangible assets	54,595,955	60,819,034
Tangible assets	293,483,262	595,880,374
Investments	449,524,338	435,830,098
Advance payments on procurement and fixed assets in progress	14,416,380	-
Current assets		
Inventories	35,499,770	63,942,121
Receivables	146,936,653	132,230,492
TOTAL	994,456,358	1,288,702,119
EQUITY AND LIABILITIES		
Equity		
Share capital	222,600,000	300,019,089
SVOP fund	464,184,958	627,630,338
Retained profits	31,605,842	0
Profit for the period	9,715,786	63,211,683
Accumulated appropriations		
Depreciation difference	7,531,163	0
Liabilities		
Long-term		
Share of loans	198,095,450	249,290,861
Current liabilities	60,723,160	48,550,148
TOTAL	994,456,358	1,288,702,119

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 1.1.2016-31.12.2016

	2016 €	2015 €
TURNOVER	462,935	556,541
Expenses		
Equipment	0	-605
Natural gas purchases	-298,769	-374,077
External services	-26,338	-7,913
Staff costs	-4,455	-9,023
Depreciation	-62,052	-62,047
Other operating charge	-42,227	-56,638
OPERATING PROFIT	29,095	46,238
Financial income and expenses:		
Financial income	-	-
Financial expenses	-7,461	-36,731
PROFIT BEFORE APPROPRIATIONS	21,634	9,507
Income taxes	-4,327	-1,623
PROFIT FOR THE PERIOD	17,308	7,884

BALANCE SHEET FOR NATURAL GAS BUSINESS OPERATIONS 31.12.

	2016 €	2015 €
ASSETS		
Buildings and structures		
Network	929,691	991,738
CURRENT ASSETS		
Short-term receivables	42,854	-
TOTAL	972,545	991,738
EQUITY AND LIABILITIES		
Equity		
Share capital	245,407	245,407
SVOP fund	511,746	513,385
Retained earnings	3,942	0
Profit/loss for the accounting period	17,308	7,884
Liabilities		
Long-term liabilities	-	-
Capital loan and senior debt	194,143	203,913
Short-term liabilities	0	21,149
TOTAL	972,545	991,738

Key figures of natural gas network operations	2016	2015
Net investment, EUR		
Tangible asset	-	-
Return on capital invested, %	3,0	4,7

NATURAL GAS ENERGY SALES OPERATIONS

Profit and loss account 1.1.2016-31.12.2016

	2016	2015
	€	€
TURNOVER	1,421,082	1,304,282
Expenses		
Materials, equipment and goods:		
Natural gas purchases	-1,152,919	-1,143,345
Staff costs	-4,455	-9,023
Other operating charges	-42,664	-51,314
	211,044	100,600
TURNOVER	211,044	100,600
Financial income and expenses:		
Financial income	-	-
Financial expenses	-7,461	-36,731
PROFIT BEFORE APPROPRIATIONS	213,583	63,868
Income taxes	-42,717	-10,905
PROFIT FOR THE PERIOD	170,867	52,964

NATURAL GAS SALES OPERATIONS, BALANCE SHEET 31.12.

ASSETS	2016	2015
	€	€
Non-current assets	-	-
Current assets		
Short-term receivables	288,729	76,198
TOTAL	288,729	76,198

EQUITY AND LIABILITIES

Equity		
Retained earnings	26,482	0
Profit/loss for the accounting period	170,867	52,964
Liabilities		
Short-term liabilities	91,381	23,235
TOTAL	288,729	76,198