

SAVON VOIMA OYJ

Annual report 2021



SAVON
VOIMA

2021

SAVON VOIMA OYJ ANNUAL REPORT



**SAVON VOIMA OYJ, SAVON VOIMA VERKKO OY,
SAVON VOIMA JOENSUU OY**

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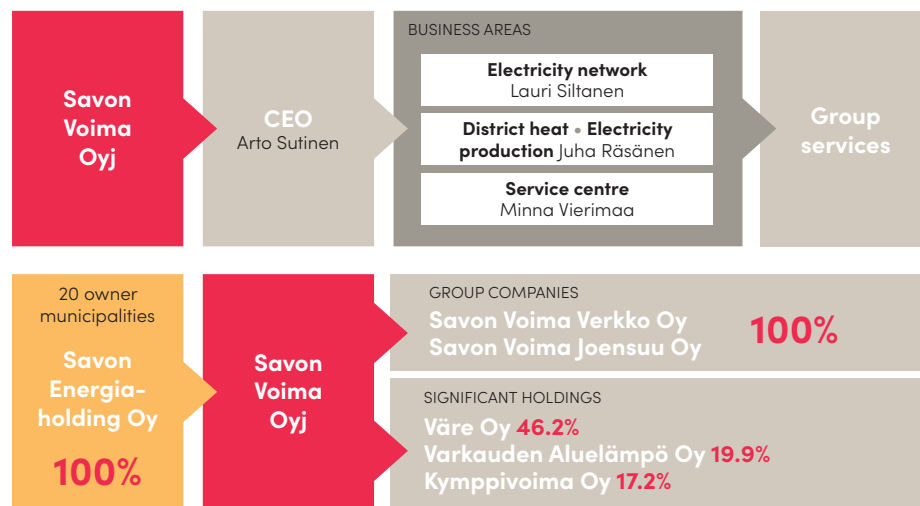
PRESS: Offsetpaino L. Tuovinen Ky

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Safe and secure power from Savo since 1947

Group structure 1 January 2022



Savon Voima Oyj is wholly owned by Savon Energiaholding Oy, which is owned by the 20 municipalities in our network area.

The group's business activities include the distribution of electricity and network services, the production and distribution of district heat, power generation and customer service and invoicing solutions offered to other operators in the energy sector.



Read more:
savonvoima.fi/organisaatio



CEO's review

Last year was Savon Voima's 75th financial year. The pandemic continued to affect our lives in many ways, creating uncertainty for the market. Exceptional fluctuations were seen in the energy commodity markets: electricity market prices and emission allowance prices rose to new records towards the end of the year. The year was successful for Savon Voima, and the work done in previous financial years to achieve growth began to bear fruit.

In 2021, the average price of electricity in the price area of Finland was EUR 72.30/MWh (28.0). The spot price of electricity more than doubled compared to 2020. On average, the area price for Finland was 16 per cent (+156%) higher than Nord Pool's system price, which was EUR 62.30/MWh. Price formation in the Nordic market area seems to have become more sensitive to price fluctuations as a result of the opening of transmission links in Europe. Europe has suffered from a shortage of gas due to the need for heat and increased demand from industry, while the Nordic countries have suffered from low rainfall and little wind. The situation has not been helped by the run-down of Germany's nuclear power, which has significantly increased the need for coal and natural gas. As a result of the combined effect of these, the price of emission allowances increased from around EUR 40 to EUR 90 per tonne of carbon dioxide.

The overall price of energy products increased significantly, causing a price crisis and a debate on energy poverty. Consumers and businesses, especially in Europe, had challenges in paying their gas bills. Therefore, several countries compensated for bills to individual consumers. Exceptionally, the states of Norway and Sweden also began to explore the possibility of support. An aid package of approximately SEK 6 billion in total is being prepared in Sweden. There has also long been a regionally graduated electricity tax in Norway and Sweden, which in turn compensates for the cost of electricity transmission in sparsely populated areas. The energy transition will continue for a long time to come, so the debate is expected to continue.

In recent years, the legislative changes in the operating environment have been rapid. In July 2021, the European Commission published a proposal for the *Fit for 55* climate package. From Savon Voima's point of view, the proposals were in line with expectations, but their ambitious level again influenced the updating of our strategy. Last year's strategic target of halving carbon dioxide by 2025 was changed so that our accelerated strategy aims to phase out emissions from electricity production by 2026, when we will stop using peat completely. The year 2030 was kept as our carbon neutrality target for total energy production. In practice, the renewed strategy requires abandoning the share of electricity production that causes emissions and making district heat emission-free through accelerated investments. The increased price of emission allowances supports the change because we do not want to increase customer prices, but rather to aim for a stable level.

In addition to the climate package, the EU decided on the classification of sustainable financing through the Taxonomy Regulation. It will impose conditions on access to financing for companies where climate action is not progressing sufficiently. Contrary to the scientific basis, nuclear power remained a so-called transitional mode of production, although the classification of bioenergy recognises its potential as a substitute for fossil fuels. Subsequently,

in February 2022, the European Commission proposed that nuclear energy be included in the EU taxonomy. The Commission's proposal will now be passed to the European Parliament and the Council of the European Union.

Russia's reprehensible attack on Ukraine on 24 February 2022 triggered a new era in world politics, which, in addition to the enormous suffering faced by Ukrainians, causes concern and a sense of insecurity both in Finland and in the rest of Europe. In addition to security of supply issues, the conflict is bringing uncertainty and price pressure to the fuel and electricity markets. The war and the resulting sanctions and possible counter-sanctions may also affect the financial markets and the availability of fuels, products and components. Savon Voima began to prepare for the situation even before it escalated into an unlawful attack on Ukraine, for example, by increasing its fuel stocks. We are following the situation and markets closely and taking the necessary measures to ensure the continuity of our basic task, which is vital for the functioning of society. Naturally, we comply with all rules and regulations that apply to our operations, including any sanctions that restrict our operations. At the moment, our business operations are running normally, but it is not yet possible to fully assess all the effects and consequences of the war on Savon Voima. However, it is clear that the war will cause greater volatility both in the energy commodity market and in other markets. The crisis also sadly reminds us of the urgency of Europe's energy transition.

During 2021, we continued with the reform of the structures of district heat pricing that is promoting the green transition in district heating. The objective of the pricing reform is to encourage energy savings, and in the future, the demand charge will be determined by actual consumption in all networks.

The sales of heat and steam increased by approximately 15 per cent to 1,222 (1,063) gigawatt-hours. The cumulative heat demand was the highest since 2012. The waste heat from industrial processes and heat recovery from flue

gases produced 21 (21) per cent of district heat. The amount of electricity generated was 520 gigawatt-hours (489). The distribution of electricity to customers in network services amounted to 1,868 gigawatt-hours (1,746).

A total of approximately 950 (760) km of electricity network was renovated to be weatherproof. After 2021, the weatherproof electricity network covers approximately 78,000 customers. Around Midsummer, faults were caused by the Vieno and Aatu storms. More than 30,000 of our customers were momentarily without electricity during the storms. Approximately 93 per cent of the damage due to the storms took place in the parts of the network that have not been renovated yet. The total cost of the storms was approximately EUR 3.9 million for Savon Voima Verkko, more than half of which was standard compensation for the damage caused to customers by the interruption of electricity supply.

The Electricity Market Act was amended, and the amendments entered into force on 1 August 2021. The objective of the amendment was to require the Energy Authority to cut the profit and asset value base of distribution system operators. The protection of authorities' decisions and the fixed-term nature of the regulation methods were overridden by retroactive legislation, thereby jeopardising the protection of companies' assets and the predictability of decisions. The Energy Authority updated the unit prices used to carry out the calculations of asset value to a level below the cost level at the time of construction, without taking into account inflation or, for example, the actual construction costs of last year. In the case of Savon Voima Verkko, the regulation methods, which changed in the middle of the regulatory period, weakens the possibilities to carry out the investments required by law to develop the security of supply. There are still approximately 40,000 customers covered by non-refurbished parts of the network in our network area. For these customers, the slowdown in investment in renovation is disappointing, as they can only experience the improved fault repair speed indirectly. The

change is so important for the legal protection of DSO companies that, together with other DSO companies, we have appealed to the Market Court.

Last summer, the fishways of Juankoski and Karjalankoski were in use for the first time. They are intended to enable migratory fish to reach their breeding areas in Lake Vuotjärvi and the rivers and streams that run into it. According to the permit conditions, these fishways must be kept open every year at least from 1 May to 31 October. In addition, the conditions require that, for a minimum of three years, we monitor the functioning of the fishways and, above all, the way in which lake trout on their breeding migration put to use the new detours provided by the hydro-electric power plants. The results of the first migration season show that the endangered lake salmon has found a passage. However, lake salmon's restoration to the water system will require time, patience and the restoration of spawning areas above the power plants.

In accordance with the principles of the circular economy, several improvements were made at the Iisalmi power plant. The Iisalmi power plant's own waste heat is recovered as district heat with the new heat pump technology, and the condensation water that forms in the flue gas scrubber is processed into raw water for the power plant's use. The amount of raw water and fuels purchased has been decreasing as planned since the introduction of the equipment.

The municipality of Leppävirta and Savon Voima signed a cooperation agreement to increase energy efficiency. Savon Voima utilises the condensation heat from the refrigeration equipment at the ski arena and ice rink in the Vokkola area. The system will produce more than 10 per cent of the entire heat demand of the Leppävirta urban area. In its strategy, Savon Voima is committed to developing forms of heat production not based on combustion, such as air-water heat pump production.

The ELY Centre for North Savo awarded Sa-

von Voima the *Mukana yhteisellä polulla* (On a common path) symbol for its work for a carbon-neutral region.

We are also looking at the possibilities of utilising geothermal energy in a consortium of several energy companies in Tampere. Launched in the summer of 2021, the research project examines how hydraulic hammer technology and the Deep Geothermal Single Well system are suitable for drilling a geothermal well 3 km deep in Finnish soil. In addition to the Tampere study, Savon Voima has prepared its own preliminary study in Joensuu with the Geological Survey of Finland (GTK). The aim of the study is to learn more about the geology of the soil and the potential of geothermal heat production in the Joensuu region. Both projects are still ongoing, but it can already be assumed from these experiences that geoenergy is not a revolutionary technology for district heat production.

Savon Voima is involved in Finland's largest wind power project through Kymppivoima Oy. The annual energy production of the wind farm will be over 1.3 terawatt-hours. This corresponds to approximately 2 per cent of the entire Finnish electricity production in 2020. Savon Voima's share is approximately 15 per cent of the entire Lestijärvi wind farm project. This means a share of 68 megawatts of the maximum power and nearly 200 gigawatt-hours of the predicted annual output energy. Savon Voima's share of energy corresponds to the annual consumption of approximately 40,000 households in blocks of flats or terraced houses. Construction began immediately, and the project is expected to be completed at the end of 2024. Savon Voima expects a similar amount of energy from the production at Olkiluoto 3 starting in spring 2022.

Savon Voima refinanced its loan portfolio in December 2021, about one year ahead of the previous plan. The arrangement spread the refinancing risk over several years and took advantage of the exceptional pricing situation on the financial market. In addition, the new funding package responded to the challenges of the future carbon neutrality investment pro-

gramme and prepared for the opportunities presented by the energy transition.

Savon Voima Group's net sales were EUR 228.5 (189.6) million, an increase of 20.5 per cent from the previous year. The group's operating profit was EUR 48.1 (24.3) million and operating margin EUR 113.3 (87.8) million. The operating profit increased by 98 per cent from the previous year. The operating margin increased by 29 per cent.

The investments totalled EUR 56.6 (52.7) million. The investments were mainly directed at the weatherproofing investments of EUR 43.3 (43.1) million for the electricity network in the whole region. The investments in production and heating amounted to EUR 12.4 (8.9) million.

The bioenergy programme was maintained in accordance with the ownership strategy, and around 98 per cent of the heat sources in Savo were domestic and local energy sources. The share of renewable energy sources, including Joensuu, was 72 (68) per cent. The bioenergy programme is applied to the reduction of carbon dioxide emissions, mainly through the abandonment of peat. The taxation of peat nearly doubled at the beginning of 2021 to approximately EUR 5.7 per kilowatt-hour.

Our goals are still zero accidents and zero environmental damage, and our new goal is zero data breaches. In 2021, there were no accidents leading to absence. By investing in a proactive observation culture, we aim for better safety management. The group's objective is to work at least 1,000 days without accidents. At the end of the year, the number of days without an accident was 504.

Savon Voima is preparing for the audit of information security, environmental and energy efficiency systems in 2022 in order to strengthen the culture of systematic and continuous development. The internal audits are ongoing, and the external audit is scheduled for the summer of 2022.

The group's rate of sickness-related absenc-

es was 2.4 per cent (1.7%), while the average age of the employees was 45 years. For the second year in a row, the staff managed to cope well with the exceptional working arrangements caused by the pandemic. For a company operating in several municipalities, an additional challenge was brought by the municipality-specific vaccination arrangements and the fact that, in some municipalities, vaccination was not possible through occupational health care.

Savon Voima's strategy aims to achieve a regionally leading position in the energy transition. The group has grown strongly over the past two years, and the growth is expected to continue as the emission-free share of production increases. As emissions decrease competitively, we want to offer our customers the best benefit from the development. We are looking to the future with confidence, and climate work is at the heart of our work. Our goal is carbon-neutral production by 2030, which also requires that customers' energy use be steered intelligently so that, among other things, the infrastructure required for electric transportation be made available at every home.

The objective of the owner municipalities in Savo is to achieve a reasonable and stable profit and to increase the value of the company. In accordance with the will of the owners, we are preparing to launch water management services in the future.

I express my sincere thanks to our excellent employees, partners and owners after a successful year. I would like to thank our customers for their trust in our operations throughout our long history.

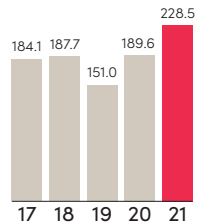
Siilinjärvi, 8 March 2022



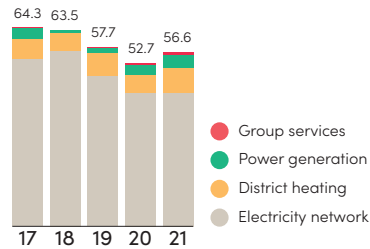
Arto Sutinen

Savon Voima in numbers

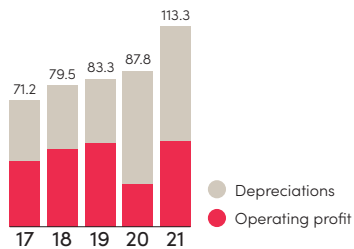
Net sales (MEUR)



Investments (MEUR)



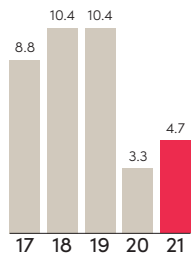
Operating margin (MEUR)



Net sales and operating profit by business (MEUR)

	Net sales		Operating profit	
	2021	2020	2021	2020
Savon Voima Verkko Oy	109.1	96.8	45.0	30.0
District heating	87.0	76.7	17.3	17.2
Power generation	33.1	16.4	9.2	-4.3
Savon Voima Group total	228.5	189.6	48.1	24.3

Return on investment (%)

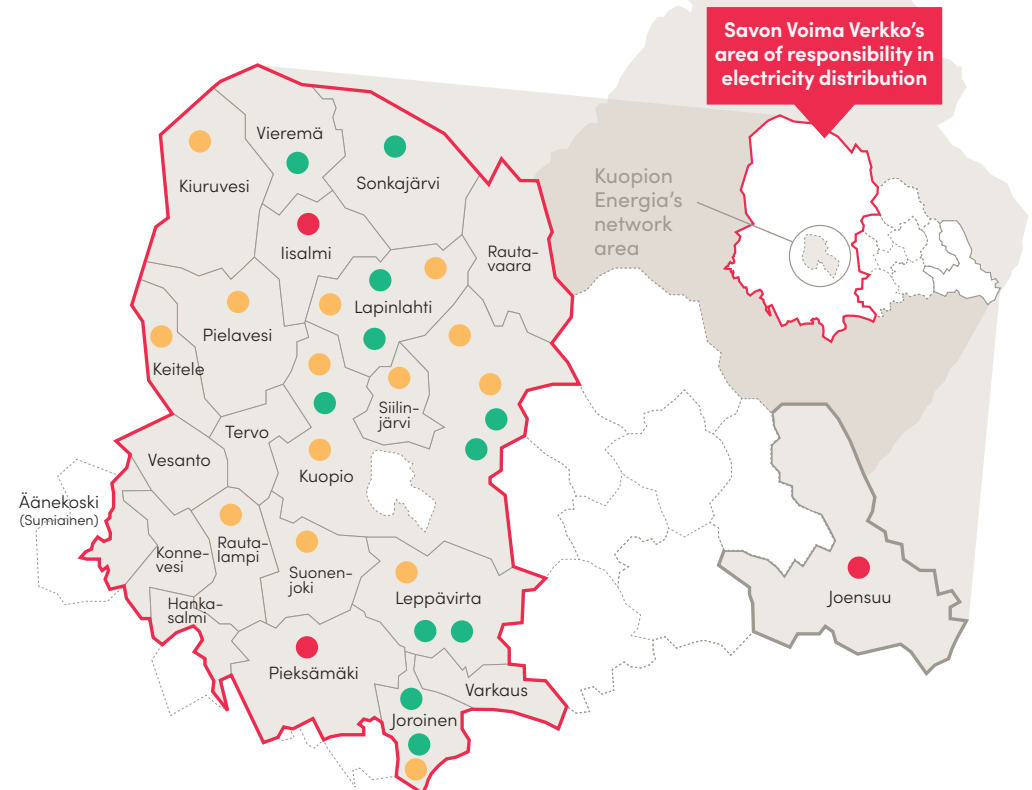


Service network

We produce and sell district heat in the area of 21 district heating networks. We generate electricity at our 11 hydroelectric power plants and three cogeneration power plants in Joensuu, Iisalmi and Pieksämäki.

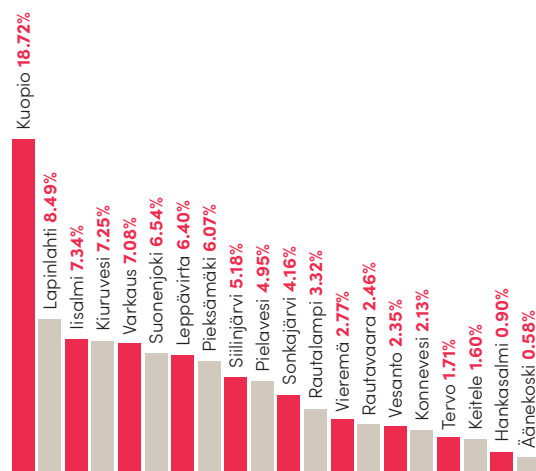
Savon Voima Verkko Oy is responsible for the transmission of electricity and other network services to approximately 118,000 households and companies in North Savo and parts of South Savo and Central Finland. The electricity network is over 27,000 km long, about 230 m per customer.

- Separate production of district heat
- Combined heat and power generation (CHP)
- Hydroelectric power generation



Savon Voima's tax footprint

Ownership structure of Savon Energiaholding Oy as of 1 January 2021



Savon Voima is owned by the municipalities through Savon Energiaholding Oy. The ownership background defines a clear value base for the way in which the company bears its social responsibility, including taxes.

Savon Voima's operations nearly always affect the well-being and economic development of the surrounding community. It therefore has a responsibility to ensure that its financial resources are sufficient and developed in such a way that these basic tasks are not compromised. Naturally, the responsible operation of the company requires lawful activities in all respects.

Savon Voima's operations are guided by legislation in the energy sector, which sets its own requirements from electricity safety to promoting fairness in the energy market. As a significant developer, Savon Voima participates in the prevention of the grey

economy and tax evasion by complying with the provisions of the Act on the Contractor's Obligations and Liability when Work is Contracted Out and also by requiring it from all its service providers.

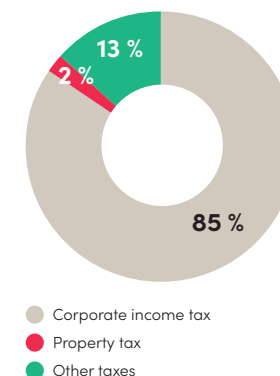
Savon Voima operates only in Finland and pays all its taxes to Finland.

In 2021, the Savon Voima Group consisted of Savon Voima Oyj and its wholly owned subsidiaries Savon Voima Joensuu Oy and Savon Voima Verkko Oy. The group structure is the result of both the mandatory provisions of the Electricity Market Act to legally and functionally separate the electricity distribution network operations and the expansion of the group's operations through mergers and acquisitions to Joensuu. The group structure is of no economic benefit to Savon Voima. Transmission pricing between group companies is guided on the one hand by the relevant tax legislation

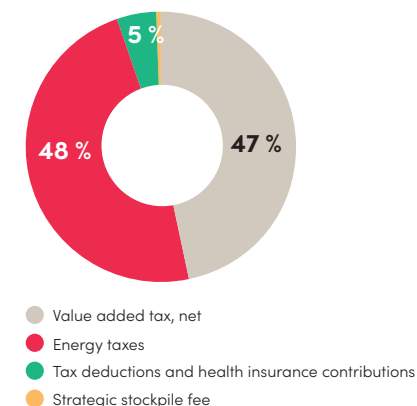
Savon Voima Group's taxes (EUR thousand)

Background information	2021	2020	2019
Net sales	228,460	189,627	151,002
Earnings before tax	44,592	18,153	44,978
Average personnel	207	191	154
Tax paid by the company	2021	2020	2019
Corporate income tax	10,989	4,536	4,064
Property tax	305	346	260
Other taxes	1,708	9,067	599
Total	13,001	13,972	4,923
Tax collected by the company	2021	2020	2019
Value added tax, net	30,856	28,042	22,269
Energy taxes	31,526	31,000	32,311
Tax deductions and health insurance contributions	3,234	3,141	2,251
Strategic stockpile fee	227	212	219
Total	65,844	62,395	57,050

Tax paid by the company 2021



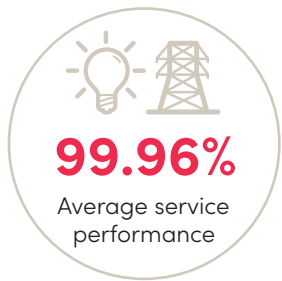
Tax collected by the company 2021



of Finland and the European Union and on the other hand by the control model implemented by the Energy Authority to regulate the fairness of electricity distribution charges, which in fact leads to stricter control of distribution charges between group companies. Savon Voima Joensuu Oy is to be merged into Savon Voima Oyj in the future. The date of the merger will be defined based on operational considerations.

The energy sector is highly regulated, and many operations are subject to licence. For this reason, Savon Voima pays various annual fees related to control, permits and decisions. In 2021, such payments reached EUR 474,000.

According to Savon Voima's internal instructions, taxes and other official payments are disbursed at the latest on the due date.



Electricity network

Electricity network	2021
Sites – consumption	116,509
Sites – production	2,337
110 kV	509 km
45 kV	127 km
110/20 kV stations	36
45/20 kV stations	3
20 kV network	11,964 km
0.4 kV network	15,236 km
20/0.4 distribution substations	10,608

Distribution volume (MWh)	2021
0.4 kV	1,449,822
20 kV	238,657
110 kV	112,916
Distribution volume to other networks	66,636

Degree of cabling	2021
Medium-voltage network	19%
Low-voltage network	45%
Underground cabling total	33%

Investments (MEUR)	2021
Medium-voltage network	16.0
Low-voltage network	5.8
Transforming stations	12.6
Electric stations	2.6
Distribution network	1.4
Compensation for land use	1.5
Measuring instruments	0.7
Other	3.0
Total	43.3

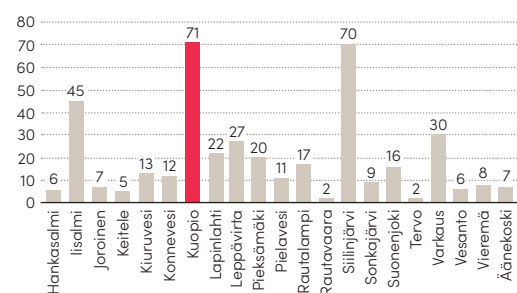
Key figures, electricity quality	2021	2020
17. Fault outage (h/customer, year)	3,741	7,588
19. Maintenance outage (h/customer, year)	0.807	0.556
Total	4.55	8.14
18. Fault outage (pcs/customer, year)	8.39	9.496
20. Maintenance outage (pcs/customer, year)	0.209	0.238
Total	8.60	9.73
26.a Fault outage (pcs/year)	2,276	1,912
26.b Maintenance outage (pcs/year)	848	917
26.c High-speed automatic reclosing (pcs/year)	1,102	812
26.d Delayed automatic reclosing (pcs/year)	1,475	584
Total	5,701	4,225

Key to electricity quality indicators:
17. and 19. = Energy-weighted average outage time (h/customer, year) • 18. and 20. = Energy-weighted average number of outages (pcs/customer, year) • 26. = Numbers of interruptions per year in the medium-voltage network (pcs/year)

New electricity connections

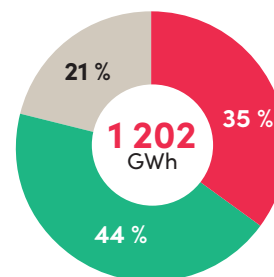
Residential building
159
Recreational building
101
Other
146
Total
406

New electricity connections by municipality



District heat and electricity production

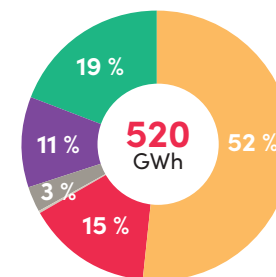
Origin of sold district heat



- Combined heat and power generation (CHP)
- Separate production of heat
- Heat recovery and waste heat from industry

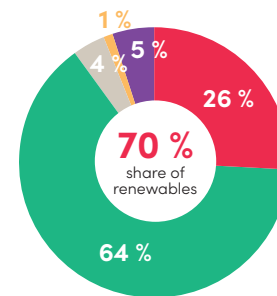
Origin of produced electricity

Own production and shares of production



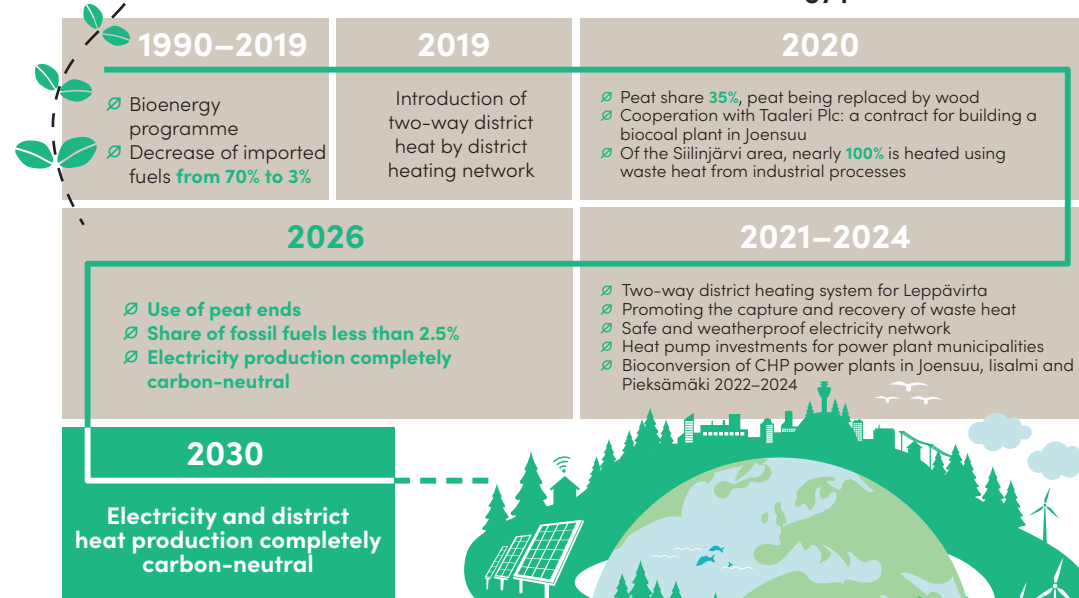
- CHP (own)
- Nuclear power
- Hydropower
- Wind power
- CHP
- Hydropower (own)

Energy sources of our own CHP, heat and steam production

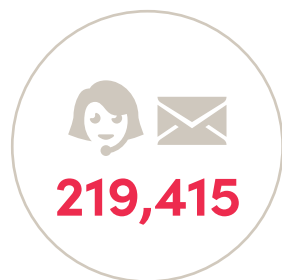


- Peat
- Wood-based fuels
- Heavy and light fuel oil and gas
- Biogas and oil
- Purchase of heat

A vision to reduce carbon dioxide emissions in energy production



Customer service



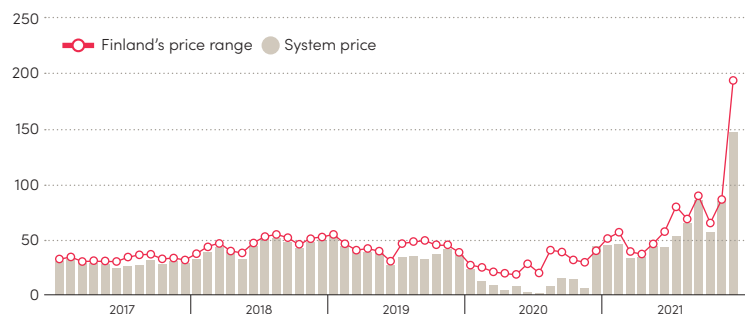
In 2021, we took care of a total of **219,415** customer contacts.



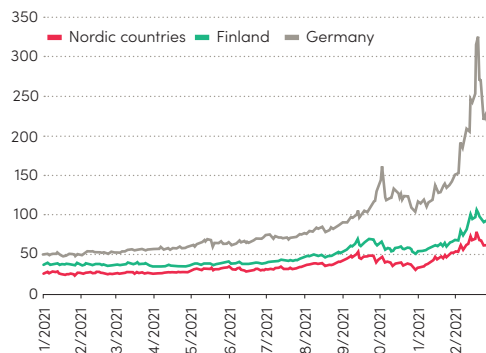
83% of our customers felt that they could settle their affairs at once.

Development of market prices for electricity

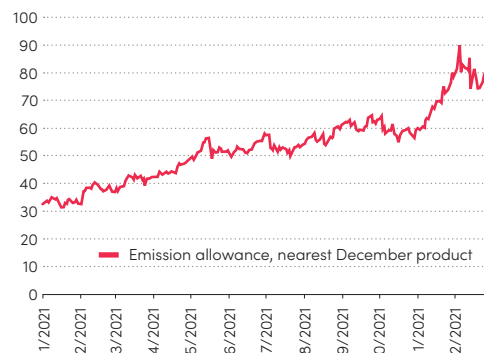
Development of monthly spot prices (EUR/MWh)



Development of prices for electricity derivatives (EUR/MWh)

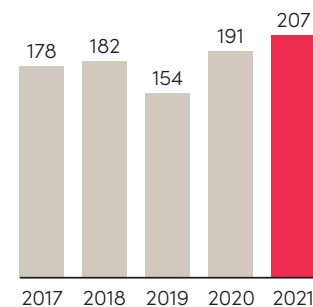


Development of the price of emission allowance (EUR/tCO₂)

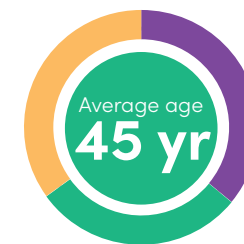


Personnel

Average personnel



women's share of the personnel



average years of experience



trainees and students in 2021

Sickness absences and accidents	2021	2020
Sickness absences (%) Of theoretical regular working hours	2.4	1.7
Those with no absences (%) Percentage of total staff with no sickness absences during the review period	44.4	56
Number of accidents Accidents at work resulting in more than one day's absence	0	3
Frequency of accidents The number of accidents at work resulting in at least one day of incapacity for work per one million working hours (does not include accidents on the way to and from work) = number of accidents at work x 1,000,000/working hours	0	9.1



We passed the halfway point in our goal of 1,000 days without accidents!

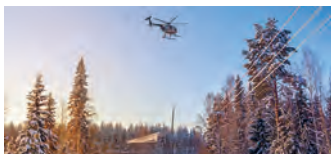
Year 2021 at Savon Voima



savonvoima.fi/tiedotteet

Read all our press releases from 2021.

1 January



◉ We made intensified checks of the snow load situation of the electricity network by helicopter flights. For the first time, we used a helicopter with a pile hung from it in order to shake off snow from wires and tree branches.

2 February

◉ On 1 February, we launched the Kipinä campaign offering summer jobs, traineeships and thesis work to students of various fields. We employed a total of 15 trainees and students in 2021.

◉ At the Iisalmi power plant, we introduced new water treatment equipment. Wood fuel and peat carry water to the plant, and the water is recovered with a flue gas scrubber and water treatment equipment, as the condensation water formed in the flue gas scrubber is processed into raw water for the power plant's use.



◉ Savon Voima was awarded the *Mukana yhteisellä polulla* (On a common path) symbol of the Hiilineutraali Pohjois-Savo (Carbon Neutral North Savo) project. This is a community recognition for organisations committed to joint climate work.

3 March

◉ On 22 March, we were involved in the energy sector's joint statement to safeguard the conditions for the production of district heat.

4 April



◉ We deployed the Maavesi (Kiekka) hydroelectric plant after renovation. In the renovation, the old technology was replaced, improving adjustability and overall efficiency. As a result of the new equipment, the environmental load and risks caused by the plant decreased, as new turbine designs are lubricated with water instead of oil.



◉ On 21 April, we opened the Karjalankoski and Juankoski fish ladders for the first time for migratory fish.

5 May

◉ We entered into an agreement with Calefa Oy on a new heat pump system for the Iisalmi power plant. The system processes the Iisalmi power plant's previously unused waste heat into district heat and also produces district heat from the open air in the summer.

◉ On 28 May, we published the interim report for January–April: net sales EUR 94.0 million and operating profit EUR 31.5 million.



◉ On 31 May, approximately 2,000 one-year-old brown trout were planted in the Laakajoki river in Sonkajärvi and the Huutokoski rapids in Joroinen as a cooperation between Savon Voima and Savo-Karjalan Ympäristötutkimus Oy. The objective is to strengthen the migratory fish populations and improve their living conditions through planting yearlings and restoring their living environment.

6 June



◉ A consortium of urban energy companies started drilling a deep geothermal well in Tarastenjärvi, Tampere. Savon Voima is involved in a consortium that studies geothermal energy.

◉ We entered into a cooperation agreement with the municipality of Leppävirta to implement an energy solution that supports the municipality's carbon negativity objective. Condensation heat from the refrigeration equipment at the ski arena and ice rink in the Vokkola area covers nearly the entire heat requirement of the sports and accommodation facilities in the area.

◉ On 15 June, the Vieno storm cut off electricity in the distribution area of Savon Voima Verkkö, and on 23 June, the Aatu storm caused widespread destruction. Approximately 30,000 customers were without electricity during the Aatu storm. The total costs of the storms, including fault repair and standard compensation costs, were EUR 3.9 million.

7 July

◉ We started piloting an operation optimisation system based on artificial intelligence at the Kiltua hydroelectric power plant. In the past, AI-based production forecast models have been used at our CHP plants in Iisalmi, Joensuu and Pieksämäki. The system predicted the flow of water into the water system above the hydroelectric power plant and thereby predicted the amount of water available for production. In addition, the system made a forecast of the electricity market.

8 August

◉ We gradually switched to invoicing based on hourly time series.

◉ The reform of the Electricity Market Act entered into force.

◉ On 28 August, We organised the inauguration of the Karjalankoski and Juankoski fish roads in Juankoski with festive ceremonies. Many guests were invited, and an open public event was held at Juankoski ironworks.

9 September

◉ We entered into an agreement with Sumitomo SHI FW Energia Oy on the bioconversion of the Joensuu power plant. The modernisation of the boiler plant will enable the production of heat with fully renewable fuels in an environmentally friendly and efficient way.

10 October

◉ On 1 October, we published the interim report for January–August: net sales EUR 138.5 million and operating profit EUR 28.2 million.

◉ We participated in the national energy saving week at the municipal *Asiaa energiasta* (About energy) events in Kuopio, Varkaus, Iisalmi and Joensuu.



◉ In August–October, the migration of fish was monitored on the new fishway of Karjalankoski, and based on the results, we confirmed the functionality of the fishway. According to a survey carried out at the same time, the Lastukoski regulating dam in Nilsä does not appear to form a barrier to fish migration under typical flow conditions.

11 November

◉ We introduced a new heat pump system at the Iisalmi power plant, which processes the power plant's previously unused waste heat into district heat and also produces district heat from the open air in the summer.

◉ On 19 November, The consortium formed by Kymppivoima, Kuopion Energia and Oulun Energia signed an agreement with OX2 to build a 455.4 MW wind farm in Lestijärvi. Savon Voima's share through Kymppivoima is approximately 15%, which increases power generation by 32%.

12 December

◉ On 9 December, We published the results of the hydrogen economy survey, which showed that there is potential in the Savo-Karelia region to promote the hydrogen economy, but starting off requires cooperation and clarity in the legislation governing the hydrogen economy.



Report of the Board of Directors and financial statements for 2021

Report of the Board of Directors

FINANCIAL YEAR 1 January–31 December 2021

Savon Voima Group

Savon Voima Oyj is a wholly owned subsidiary of Savon Energiaholding Oy, which is owned by 20 municipalities. On 31 December 2021, the Savon Voima Group consisted of the parent company Savon Voima Oyj and its subsidiaries Savon Voima Verkko Oy and Savon Voima Joensuu Oy. Associated companies include Kymppivoima Oy (17.2%), Kymppivoima Hankinta Oy (25.0%) and Väre Oy (46.2%).

Savon Voima Group's business operations include the electricity distribution network operations carried out by Savon Voima Verkko Oy in the electricity network owned by the company itself, the production of district heat and electricity, the distribution of district heat and the sale of district heat. Operations related to district heating and power generation are carried out in both the group's parent company Savon Voima Oyj and its wholly owned subsidiary Savon Voima Joensuu Oy.

Consolidated earnings and financial position for 2021

Financial performance (MEUR)	2021	2020	2019
Net sales	228.5	189.6	151.0
Depreciation and reduction in value	65.2	63.5	36.4
Operating profit	48.1	24.3	46.9
Profit before appropriations	44.8	18.3	45.3
Profit for the financial year	32.0	11.6	37.1
Key figures (% of net sales)	2021	2020	2019
Operating profit	21.1	12.8	31.1
Profit before appropriations	19.6	9.6	30.0
Other key figures	2021	2020	2019
Return on equity (%)	7.2	2.8	9.2
Return on investment (%)	4.7	3.3	10.4
Equity ratio (%)	38.7	37.6	76.5
Liquidity, quick ratio	1.3	1.2	0.7
Investments total (MEUR)	56.6	52.7	57.7
Investments in electricity distribution (MEUR)	43.3	43.1	48.5
Investments in power generation (MEUR)	4.4	3.3	1.5
Investments in district heating (MEUR)	8.0	5.6	7.7
Increase in connection fees (MEUR)	1.3	11.3	1.1

Savon Voima Group's net sales in 2021 were EUR 228.5 million, compared to EUR 189.6 million in 2020. The net sales increased by 20.5 per cent. The group's operating profit was EUR 48.1 (24.3) million. The operating profit increased by 98 per cent. The growth in both net sales and operating profit was mainly due to the record-high level of the market price of electricity and the colder than average year, whereas in 2020, the market price of electricity was record-low and the weather warmer than usual, especially in the winter months. The availability of energy production plants remained good in 2021, especially in the latter part of the year when the market price of electricity was at its highest. The availability of the electricity network was also better than in the previous year. The prices of network service fees with tax were increased by an average of 6.0 per cent at the beginning of 2021.

Personnel expenses amounted to EUR 13.4 (10.7) million. The main factor contributing to the increase in personnel expenses was the increase in the number of personnel in Joensuu, when the operation and maintenance functions of energy production were transferred from the contract partner to Savon Voima's own operations during the second tertial of 2020. The changes in personnel expenses caused by this change did not have a full impact until 2021. Reciprocally, the change had a decreasing effect on the group's other operating expenses.

The group's operating expenses excluding personnel expenses were EUR 98.1 (91.8) million, an increase of 6.9 per cent from the previous year. The amount of expenses was mainly increased by the higher volume of energy production than in the previous year and decreased by the lower costs of repairing storm damage to the electricity network and standard replacement costs.

The group's depreciation amounted to EUR 65.2 (63.5) million, an increase of 2.6 per cent from the previous year. The depreciation includes EUR 14.1 million in depreciation of goodwill on consolidation arising from the Joensuu share transaction.

The group's net financing costs were EUR 3.4 (6.0) million. Profit before appropriations and taxes amounted to EUR 44.8 (18.3) million.

The group's taxes were EUR 12.6 (6.5) million. The profit for the financial year was EUR 32.0 million, compared to EUR 11.6 million in 2020.

The group's gross investments in fixed assets totalled EUR 56.6 million. A total of EUR 43.3 million was spent on the construction of the electricity network. EUR 8.0 million was invested in the district heating network and heat production. Investments in power generation amounted to EUR 4.4 million. Other investments amounted to EUR 0.9 million.

Connection fees increased by EUR 1.3 million. The increase came from Savon Voima Verkko Oy's connection fees.

Savon Voima Group's interest-bearing debt financing is concentrated in the parent company. The group's loans from financial institutions were refinanced in late 2021. The debt capital of the new financing agreement is divided into maturities of three, five and seven years. During the financial year, the group's loans were amortised by EUR 31.3 million net. At the end of the financial period, the group's long-term loans amounted to EUR 560 million and short-term loans to EUR 20 million. To ensure liquidity, an overdraft facility has been added to the consolidated account. In addition, the group has a five-year revolving credit facility and a commercial paper programme for short-term financing needs. There was no credit limit or financial limit on the consolidated account and no commercial paper was issued at the end of the financial year.

At the end of 2021, the group's equity ratio was 38.7%, compared to 37.6% in the previous year. As measured by quick ratio, liquidity was good, 1.3 (1.2). For the purpose of calculating the key figures, connection fees have been treated as an equity-like item.

Key events in 2021

January

- Enhanced checks of the snow load situation of the electricity network were carried out by helicopter flights. For the first time, we used a helicopter with a pile hung from it in order to shake off snow from wires and tree branches.

February

- New water treatment equipment was introduced at the Iisalmi power plant. Wood fuel and peat carry water to the plant, and the water is recovered with a flue gas scrubber and water treatment equipment, when the condensation water produced in the flue gas scrubber is used to produce raw water for the power plant.

April

- The Maavesi (Kiekka) hydroelectric power plant was commissioned after renovation. In the renovation, the old technology was replaced, improving adjustability and overall efficiency. As a result of the new equipment, the plant's environmental load and risks were significantly reduced, as the new turbine designs are lubricated with water instead of oil.

June

- A consortium of urban energy companies started drilling a deep geothermal well in Tarastenjärvi, Tampere. Savon Voima is involved in a consortium that studies geothermal energy.
- On 15 June 2021, the Vieno storm cut off electricity in the distribution area of Savon Voima, and on 23 June 2021, the Aatu storm caused widespread destruction. Approximately 30,000 customers were without electricity during the Aatu storm. The total costs of the storms, including fault repair and standard compensation costs, were EUR 3.9 million.

July

- Piloting of an AI-based operation optimisation system was started at the Kiltua hydroelectric power plant. In the past, AI-based production forecast models have been used at our CHP plants in Iisalmi, Joensuu and Pieksämäki.

August

- We gradually switched to invoicing based on hourly time series.
- The reform of the Electricity Market Act entered into force.

September

- An agreement was entered into with Sumitomo SHI FW Energia Oy on the bioconversion of the Joensuu power plant. The modernisation of the boiler plant will enable the production of heat with fully renewable fuels in an environmentally friendly and effective way.

November

- A new heat pump system was introduced at the Iisalmi power plant, which processes the power plant's previously unused waste heat into district heat and also produces district heat from the open air in the summer.
- On 19 November 2021, the consortium formed by Kymppivoima, Kuopion Energia and Oulun Energia signed an agreement with OX2 to build a 455.4 MW wind farm in Lestijärvi. Savon Voima's share through Kymppivoima is approximately 15 per cent, which increases electricity production by 32 per cent.

Energy markets

The price of wholesale electricity in Finland was 7.23 cents/kWh last year. This is 158 per cent higher than in 2020. Last year, the system price in the Nordic countries was 6.23 cents/kWh, compared to 1.09 cents/kWh in the previous year. Both average prices are the highest in the history of the Nordic electricity market. The price of emission allowances was higher than ever, and the price of natural gas was also high. These factors pushed up electricity prices in Central Europe, which was also reflected in high prices in the Nordic countries. In addition to this, the reservoirs in southern Norway contained less water than usual.

In 2021, Finland's electricity consumption amounted to 86 TWh (terawatt hours), which was six per cent more than in the year before. Consumption in industry was 38 TWh, an increase of 3 per cent from the previous year. Other consumption was 48 TWh, an increase of 8 per cent. Adjusted for temperature, consumption amounted to 86 TWh, which is 2 per cent more than in 2020.

In 2021, Finland's electricity production volume increased from the previous year by 2 TWh (3%) to 69 TWh. The production of hydropower amounted to 16 TWh, which is 1 per cent less than in 2020. The production of wind power was slightly over 8 TWh, an increase of 2 per cent. The production of solar power was slightly over 0.3 TWh, an increase of 40 per cent. The combined production of heat and power (CHP) amounted to 19 TWh, an increase of 7 per cent from 2020. The production of nuclear power amounted to 23 TWh, which also increased by 1 per cent from the previous year. The volume of condensate production increased by 34 per cent to 3 TWh.

Finland's net export amounted to 17 TWh, which is 15 per cent more than in 2020. Due to high electricity prices, net import from Russia increased by 206 per cent to 9 TWh. Net import from Sweden increased by 19 per cent to 15 TWh. Net export to Estonia were 6.6 TWh, so there was no significant change from the previous year.

The price of emission allowances continued its rise that began the previous year. Due to the high price of natural gas, Central Europe used more coal in energy production than gas, which increased the demand for emission allowances. In addition, the price was supported by the European Union's Fit for 55 legislative package. At the end of trading, the price of the emission allowance (EUADEC-21) was EUR 79.38/tCO₂, compared to EUR 32.72/tCO₂ at the beginning of the year. Growth during the year was 143 per cent.

According to statistics of the energy industry, Finland's carbon dioxide emissions from energy production amounted to 10.3 million tonnes in 2021, which was 15 per cent more than in 2020. Due to the colder winter than in the previous year, separate production of district heat increased, which increased emissions. Emissions from electricity production grew by only 0.6 per cent.

In 2021, the average temperature in our operating area was 2.1 degrees cooler than in the year before.

BUSINESS OPERATIONS OF SAVON VOIMA GROUP

District heating

In the group's district heating business, net sales grew from the previous year due to colder weather than the previous year and totalled EUR 87.0 (76.7) million, an increase of 13 per cent from the previous year. The operating profit from district heat was EUR 17.3 (17.2) million.

2021 was colder than previous years, which affected the amount of district heat produced and sold. The realised group-level heat and steam sales in 2021 amounted to 1,222 GWh (1,063), which is 15 per cent more than in 2020.

A total of 1,862 GWh (1,530) of fuels and purchased heat were used, including fuels for electricity production and separate sites such as steam and local heat. A total of 1,429 GWh (1,282) of fuels and purchased heat were used in the production of district heat. The share of renewable heat sources in the production of district heat was 72 per cent (68), the rest of the heat sources being peat, heavy and light fuel oil, and liquefied petroleum gas.

The use of peat in district heat production decreased by around five percentage points from the previous year, as the share of peat among the heat sources was 24 per cent (29).

The share of oil and liquefied petroleum gas in the production of district heat was 3.7 per cent. The share of oil and liquefied petroleum gas in heat production grew at the group level compared to the previous years due to the cold beginning of the year and the cold December. The outage of the Joensuu power plant in early 2021 also increased the use of oil. The demand for biofuels continued to grow in 2021 as a result of the increase in the price of emission allowances. The increase in demand pushed up the prices of all biofuel grades. However, the availability of biofuels in the operating area was good during the year.

In the Savo region, more than 92 per cent (94) of district heat was produced from domestic and local heat sources. In the Joensuu region, the share of imported fuels of all acquired fuels was 37 per cent. The imported fuel came mainly from Russia.

A total of 60 new district heating customer relationships were established during the year. Correspondingly, 29 customers terminated their contract for district heating during the year. At the end of the year, the total number of customers was 5,787. A total of 3,817 metres of new district heating network was built, and 5,693 metres of old pipelines were renovated. At the end of 2021, the total length of the networks was 624 km.

The most significant new investment completed during 2021 was an industrial-scale heat pump purchased for the Iisalmi power plant, which can be used to recover waste heat flows from the power plant and to produce district heat from the open air during the summer.

Waste heat sites were actively mapped in the operating area. In the cooperation project with the municipality of Leppävirta, Savon Voima captures condensation heat from the ski arena and ice rink in the Vokkola area and utilises it in the heating of buildings in the area and in the district heating network of Leppävirta. The arrangement covers part of the heat demand of the municipality of Leppävirta with waste heat from the Vokkola area.

Power generation

In 2021, the net sales in power generation were EUR 33.1 (16.4) million. The realised operating profit was EUR 9.2 (–4.3) million. The operating result of power generation improved due to higher prices and a higher production volume.

In 2021, the production volume of electricity amounted to 520 GWh (489), which is 6 per cent higher than in the corresponding period of the previous year. The volume of our own back pressure production was 269 GWh, which is 29 per cent higher than in the year before.

During the year, the production volume of hydropower amounted to 99 GWh, which is 8 per cent more than in a normal year. Compared to the previous year, the production volume decreased by 20 per cent. 2020 was exceptionally rainy.

The production shares owned through Kymppivoima Oy produced 152 GWh of electricity, which is 5 GWh less than in the previous year's comparison period. The decrease in production was due to the decrease in the share of production that causes emissions. Wind power produced 15 GWh of electricity.

Electricity distribution network business

The net sales in network business were EUR 109.1 (96.8) million. The net sales increased by 12.7 per cent. The operating profit from network business was EUR 45.0 (30.0) million. The operating profit increased by 50.0 per cent. The prices of network service fees with tax were increased by an average of 6.0 per cent at the beginning of 2021, and the pricing of other products was also revised.

A total of 2,099 GWh (1,966) of electricity was distributed, which was 6.8 per cent more than in the year before. The average (energy-weighted) fault outage time experienced by the customer was 3 hours 44 minutes (7 hours 35 minutes). This represents a service rate of 99.96 per cent (99.91) of the hours of the year.

A total of EUR 43.3 million was spent on investments for the electricity network. In 2021, the construction of the weatherproof network in accordance with the investment programme proceeded according to the target. The weatherproof network currently covers approximately 78,000 customers, representing approximately 66 per cent of our 118,700 customers. A total of approximately 950 km of electricity network was renovated to be weatherproof. A total of 165 km (200) of medium voltage network and 430 km (410) of low voltage network were cabled. Another important area in the construction of a secure electricity network is the moving of overhead lines to roadsides. This was carried out for 225 km (125). The rate of underground cabling for the whole electricity network is 33 per cent, for the medium voltage grid 19 per cent and for the low voltage grid 45 per cent.

406 new connections (421) were built, and 336 connections (526) were deactivated. The treatment of the forest areas next to the electric power lines was carried out for 350 km in sensitive parts of the distribution network. 80 km of forests next to high-voltage lines were treated. According to the normal annual programme, 2,090 km of roads with power lines were cleared.

The most important urban underground cabling project was the renovation in the urban area of Joroinen. In Pieksämäki, cabling work was carried out in three different places in the urban area: in Nokkala, Säälampi and Rahkpuisto. Of the connections between urban areas, the renovation of the trunk connection between Pielavesi and Tervo was completed. The urban area of Nilsia was also connected to the previously completed cabling of Lastukoski.

Extensive underground cabling was carried out in the Simonsalo and Leppäkaarre areas in Siilinjärvi and in the urban area of Kiuruvesi. Of the construction sites of the regional network, the renovation project of the 110-kilovolt line between Alapitkä and Pielavesi was completed.

RESULT OF THE PARENT COMPANY AND SUBSIDIARIES

Savon Voima Oy runs the group's power generation and district heating business in North Savo and parts of South Savo. In addition, the company has been responsible for the group's financial management, personnel services, communications, marketing, ICT operations, invoice lifecycle services and customer services as well as environmental and land use services during the financial year. In the financial year 2021, the net sales of the company were EUR 73.7 (60.4) million and operating profit EUR 10.3 (4.1) million. The profit for the financial year was EUR 53.2 (8.1) million.

Savon Voima Joensuu Oy runs a district heating business in the city of Joensuu and generates power at a combined heat and power (CHP) plant in Joensuu. In the financial year, the net sales of the company were EUR 52.9 (39.5) million and operating profit EUR 16.4 (9.5) million.

Savon Voima Verkko Oy runs electricity distribution network operations in electricity network owned by the company itself and is a distribution system operator as referred to in the Electricity Market Act in its own area of responsibility. In the financial year, the net sales of the company were EUR 109.1 (96.8) million and operating profit EUR 45.0 (30.0) million.

Net sales by company (MEUR)	2021	2020	2019
Savon Voima Oy	73.7	60.4	64.3
Savon Voima Joensuu Oy	52.9	39.5	–
Savon Voima Verkko Oy	109.1	96.8	94.0
The group's internal transactions	–7.2	–7.1	–7.3
Savon Voima Group total	228.5	189.6	151.0
Operating profit by company (MEUR)	2021	2020	2019
Savon Voima Oy	10.3	4.1	12.8
Savon Voima Joensuu Oy	16.4	9.5	–
Savon Voima Verkko Oy	45.0	30.0	36.0
Consolidated entries and eliminations	–23.6	–19.3	–1.9
Savon Voima Group total	48.1	24.3	46.9

Financial statements, parent company			
	2021	2020	2019
Financial performance (MEUR)			
Net sales	73.7	60.4	64.3
Planned depreciation	11.6	11.3	12.1
Operating profit	10.3	4.1	12.8
Profit before appropriations	17.5	-0.1	12.4
Profit for the financial year	53.2	8.1	23.2
Key figures as % of net sales			
Operating profit	14.0	6.8	19.9
Profit before appropriations	23.7	-0.2	19.2
Equity ratio	20.6	16.0	64.4
Return on equity	-1.8	-1.7	7.5

Personnel

The Savon Voima Group has a personnel plan, the implementation of which is regularly reported to the Board of Directors of the parent company, which monitors the implementation and development of the plan.

During the year, the average number of employees was 207 (191) and at the end of the year the number of employees was 206 (213). During the year, 13 new permanent employees started (11; in addition, two fixed-term jobs were turned into permanent ones). 15 (10) permanent employees and 5 (5) retired persons left the service. At the end of the year, the average age of the permanent employees was 45 (46) years and 20 (23) per cent of the employees were women. At the end of the year, the average length of service was 15.1 years.

During the year, the arrangements due to the COVID-19 pandemic continued in the form of remote work and other special arrangements. The office staff worked mainly remotely in the spring and autumn. In energy production and electricity network operations, we intensified the measures provided for in the contingency plan. In practice, the main impact of the exceptional working methods was on participation in training activities. Some of the internal training was postponed and the content modified to be implemented remotely. As remote work increased, the rules for remote work were revised and a hybrid work handbook was drawn up in cooperation with the staff. A personnel survey was carried out in April–May and a follow-up pulse survey in November–December. The COVID-19 pandemic affected training arrangements, and some of the training was postponed to 2022.

The group's overall rate of sickness-related absences was 2.4

per cent (1.7%), and 44.4 per cent (56%) of the employees had no sickness absences during the year. The average number of working days lost due to the work disability was 5.7 (3.9). There were no accidents that caused at least one day of work disability during the year (in 2020: 3 pcs).

A total of 829 (1,388) hours of training related to occupational safety was given, involving 86 staff members. Regular safety sessions were held for the entire staff, and various safety themes were presented on a monthly basis. In the spring, an occupational safety day was held for the production staff as a virtual training on chemical safety. Savon Voima Verkko's staff, on the other hand, had their first occupational safety day, which included a visit to the occupational safety training area in Kuopio.

The staff's well-being at work was developed for the office staff and Joensuu staff through the Motivire programme, which had started earlier for production staff, with the aim of providing them with information on their own fitness for work, recovery and coping at work and of guiding their personal development.

Personnel key figures			
Group	2021	2020	2019
Personnel on average	207	191	154
Personnel at the end of the financial year	206	213	150
Salaries paid (EUR thousand)	12,492	10,313	8,068
Total personnel expenses (EUR thousand)	13,396	10,671	8,426

Personnel key figures			
Parent company	2021	2020	2019
Personnel on average	129	131	116
Personnel at the end of the financial year	128	129	113
Salaries paid (EUR thousand)	7,634	6,997	6,011
Total personnel expenses (EUR thousand)	8,863	7,824	8,880

Risk management

Risk management is implemented in the Savon Voima Group as part of normal management work and strategic planning. The group's general risk management objectives and principles have been defined. The objective of the group's risk management is to support the achievement of the goals of the business strategy and to prevent undesirable operational deviations.

The political environment and legislation have a significant impact on the conditions for operation in the energy sector. Possible increased regulation, the position of fuels used, the development of emission control mechanisms and the market environment and various tax solutions are factors that can have a detrimental effect on the financial position and profitability of the Savon Voima Group.

The group has plans for significant investments in the coming financial years, especially in relation to the electricity distribution network. For this reason, the availability of financing and the changes in interest rates are sources of uncertainty for the business. The risks of long-term investments are also increased by the fact that the population development in the group's operating area has been mainly negative, with the exception of individual local variations.

The key financial risks for Savon Voima Group are caused by fluctuations in market prices and volumes as well as potential challenges for counterparties to meet their obligations. Price risks are mainly related to wholesale electricity prices, emission allowance prices and fuel prices.

The price development in the electricity market mainly affects the group's production business. Factors having an impact on the price of electricity in the Nordic market in the short term include the water supply situation, the fluctuation in wind power, temperature, the prices of emission allowances, the price of fuels and the export and import situation between countries. The volume risk is caused by, among other things, fluctuations in the production of electricity and heat and fluctuations in the demand in retail sale. The counterparty risk consists of contracts with third parties.

Savon Voima hedges against the price risks of electricity by concluding electricity derivative contracts for production and loss electricity. For hedging operations, the group has a risk management policy for energy trade approved by the Board of Directors of the parent company, the implementation of which is monitored systematically.

The energy trade risk management policy is prepared by the group's internal energy trade risk management committee (RMC) and approved by the group's Board of Directors on the proposal of the CEO of Savon Voima. Businesses involved in energy trade implement a risk management policy on a daily basis. RMC, the group's Management Team and the CEO are responsible for the continuous supervision of the implement-

tation. The risk management situation in energy trade, risk positions and their estimated development are reported to the Board of Directors of Savon Voima Oyj on a monthly basis. Savon Voima Group's interest-bearing debt financing is centralised in the parent company. With the acquisition of the Joensuu heat business carried out in 2020, the group's balance sheet structure changed and the amount of interest-bearing debt increased significantly. As a result, the group's financial and interest rate risks have increased significantly. The availability of financing and the changes in interest rates are sources of uncertainty for the business. For the management of financial risks, the group has a financial policy and financial strategy approved by the Board of Directors of the parent company, the implementation of which is systematically monitored as part of the regular monthly reporting.

In accordance with the financial policy, the long-term objective is to manage the risks related to access to finance and the possible re-financing of maturing financial instruments by arranging the group's financing in a multi-channel manner using financial instruments of different types and maturities.

As the group's interest-bearing liabilities are mainly floating-rate loans, any increase in market interest rates may have a significant impact on the group's profit development. In accordance with the group's financial policy, Savon Voima hedges against changes in market interest rates with interest derivatives that are only used for hedging purposes. A significant part of the group's debt financing is hedged by interest rate swaps.

Due to the inherent seasonal fluctuation of the group's business operations, the timing of cash flow income and expenses is not even for each month and financial year. This gives rise to liquidity risk associated with the business. In addition, as the group's amount of debt has increased, the liquidity risk has increased in the long term as a result of the increase in loan repayments and interest payments. In addition to the financial policy and investment policy confirmed by the Board of Directors of the parent company and the cash flow forecasts, liquidity risk is managed by maintaining sufficient overdraft and revolving credit facilities and a commercial paper programme at the group's disposal.

Savon Voima Oyj has a 17.2 per cent share in Kymppivoima Oy, a company operating on the Mankala principle. In accordance with the Mankala principle, the owner company is entitled to the electricity produced by the Mankala company in proportion to its ownership of each series of shares. The owner company is responsible, in proportion to its ownership of each

series of shares, for the Mankala company's power generation costs, which consist of variable costs, fixed costs, depreciations and financing costs. These financing costs are also affected by interest rate derivative contracts entered into by Kymppivoima Oy. Risks related to the Mankala liabilities are managed through corporate governance and active participation in the management of the Kymppivoima Group.

Operational risks refer to potential losses due to the malfunctioning of internal processes or systems, external factors or human errors. Operational risks are managed in accordance with the specified principles of risk management, such as risk management operating and information systems, process descriptions, operating instructions, regular observation and monitoring rounds, personnel training and preventive maintenance and condition monitoring of equipment and networks.

Due to the nature of the business, IT and information security risks are also a significant risk area. The group has an information security policy approved by the Board of Directors of the parent company, the implementation of which is systematically monitored as part of the regular reporting to the Management Team and the Board of Directors. In addition, the group continued the development project for the information security management model, launched in 2019 with the aim of developing a group-wide certified information security management model. The project reached certification readiness in late 2021.

The risks of damage with the most significant economic impact relate to physical damage to production facilities, damage to the distribution network and system failures. These can also result in the operations being interrupted and third parties becoming accountable. The aim is to prevent damage through high-quality operations, which are ensured by, for example, operating instructions, personnel training and preventive risk management measures. In addition, damage risks are prepared for by means of appropriate property, business interruption, liability and personal insurance, if it is reasonable and appropriate in terms of costs, taking into account the impact of the risks.

Risk management solutions offered by external service providers are used in identifying, evaluating and monitoring risks other than those described above.

Environmental matters and responsibility

The implementation of the Savon Voima Group's environmental policy is regularly reported to the Board of Directors of the

parent company, which monitors the implementation and development of the policy. The Board of Directors is not aware of any environmental risks affecting the financial position of the company that would differ from the risks generally associated with the nature of the industry or with government decisions and future legislation.

Environmental risk management and proactive observations are part of the group's daily operations, and no significant environmental damage occurred during 2021.

During 2021, the focus was on developing an environmental management model in accordance with SFS-EN ISO 14001 for certification readiness.

As regards environmental liability, a separate summary report will be published for 2021.

Emission allowances and trading

Savon Voima Oyj's emission trading covers district heat and power generation in Iisalmi, Pieksämäki and Joensuu.

The realised emissions in Iisalmi and Pieksämäki in 2021 were 61,766 tonnes of carbon dioxide before verification (verified in 2020: 74,632 tCO₂). Savon Voima Oyj received a total of 13,212 EUA of free emission allowances for the 2021 surrenders. To cover the deficit, emission allowances were purchased for surrender at an average price of EUR 23.18, which resulted in costs of EUR 1.1 million. For Joensuu, the realised emissions were 11,603 tonnes of carbon dioxide (93,175 tCO₂) and the costs of emission allowances were EUR 2.0 million.

In order to reduce carbon dioxide emissions, the group aims to increase the use of wood-based and other low-emission fuels and to improve the efficiency of power plants.

The hydroelectric power plants of Savon Voima Oyj and the power plants of Iisalmi, Pieksämäki and Joensuu are covered by the Guarantee of Origin system for electricity produced from renewable energy sources. The Guarantee of Origin (GoO) system is based on the EU's Renewable Energy Directive. The guarantee of origin is a certificate of the origin of electricity produced from renewable energy sources. The origin of electricity must be verified if it is sold as renewable. Nationally, the certification of the origin of electricity is based on the Act on Verification and Notification of Origin of Electricity. Guarantees of origin were issued for a total of 275.8 GWh directly for the electricity production of the company's own hydroelectric and CHP power plants.

Key identifiable areas by risk category are the following:

STRATEGIC RISKS	
Risk	Management
Changes in regulation	Monitoring of development through cooperation between Finnish Energy and authorities; analysis of changes, impact assessment and consideration in strategic planning
Energy and environmental risks	Participation in technology projects and representation of interests, monitoring and analysis of the development of the energy market
Functionality of the energy commodity and emission allowance market	Active influencing and preparing for market disturbances
Significant investments	Planning, monitoring and ex post evaluation of investments
Risks related to the reputation of the industry and the company	Proactive and active communication, communication with stakeholders and customers and observation of the general opinion
Risks for regional economy, negative demographic change	Monitoring of development and use of research data in planning
OPERATIONAL RISKS	
Risk	Management
Operational errors	Operating instructions, process descriptions and operating system, risk management information system
Risks in using power plants and the network	Risk manual, operating systems and risk management information system
Information technology and information security risks	Information management strategy and architecture, information security policy, guidelines and control, risk management information system, Cyber insurance
FINANCING AND MARKET RISKS	
Risk	Management
Interest rate, liquidity and financial market risks	Financial policy, investment policy, financial strategy, active monitoring and analysis of financial markets, systematic control and reporting
Counterparty risks	Financial policy, investment policy, credit control included in energy trade risk management policy
Mankala responsibilities	Corporate governance, participation in the management of Kymppivoima Oy and supervision by Kymppivoima Oy
Energy trade risks	Risk management policy and control in energy trade
RISKS OF ACCIDENT	
Risk	Management
Personal Injury	Occupational health and safety policy, personal insurance, EHS guidelines and minimum requirements, other guidelines, training, preventive action
Extensive storm damage	Blackout guidelines, preparedness and communication plans, preventive action
Power plant or other damage	Property and business interruption insurance, contingency and communication plans, risk management information system, preventive action
Environmental damage	Environmental policy, risk management information system, protection guidelines, contingency and communication plans, operating systems, insurance, preventive action

Research and development

Savon Voima is looking at the possibilities of utilising geothermal energy in a consortium of several energy companies in Tampere. The project examines how hydraulic hammer technology and the Deep Geothermal Single Well system are suitable for drilling a geothermal well 3 km deep in Finnish soil. In addition to the Tampere study, Savon Voima has prepared its own preliminary study in Joensuu with the Geological Survey of Finland (GTK). The study is examining the geology of the soil and the potential of heat production in the Joensuu region.

Savon Voima Group companies are involved in the following research and development projects:

- The development project for the energy technology RDI ecosystem in North Savo, which involves several regional energy companies as well as Savonia University of Applied Sciences and the University of Eastern Finland. Savon Voima is involved in Energy Cluster North Savo, which was established as a result of the project, together with energy sector companies in the region.
- The FarmGas-PS2 project, which aims to promote the use of biogas in North Savo. The development project is led by the Natural Resources Institute Finland (Luke), and Savonia University of Applied Sciences is involved in the implementation. The project duration is 1 June 2021–31 August 2023. In 2021, the project identified suitable areas for the decentralised biogas production concept, based on, among other things, the feed volumes and location of farms, and planned basic operating models for farms.
- Savon Voima is involved in the BIOSCOPE project aiming at the growth of bioeconomy in North Karelia. The aim of the project is to develop research, knowledge and innovation centres based on regional strengths.
- The BITUM project, which ended in 2021. The project was a joint venture between Savonia, UEF and the companies involved. Among other things, the project aimed at finding ways to improve the conditions for replacing fossil fuels with renewable ones and at examining the suitability of biowaste and other waste components for boiler plant fuel.
- The development project 5G:llä vauhtia digitalisaatioon (5G to accelerate digitalisation), which involves several companies in the region, Savonia University of Applied Sciences and Savo Vocational College. Some of the aims of the project are to increase the awareness of companies in the region about telecommunications technology, to identify industrial applications in partner

companies and to find generalisable technical solutions to the partners' applications through a pilot project.

- The two-year project Joustava ja toimintavarma sähköverkko (Flexible and reliable electricity network) with LUT University. The operation section was concerned with the role of operation as part of the development of the security of supply of the electricity network, for example by means of reserve power, and the support for energy demand response solutions. The power pricing section examined the pricing structures of network services that take into account the future use of electricity (e.g. electric cars, heat pumps) and the increase in small-scale production. The regulatory section examined the effects of changing regulation on the operation of electricity networks.

- The RDI and learning project of Savonia University of Applied Sciences for the development of training and learning environments in the field of technology, which created a modern learning environment for electric station technology and land management. It enables research into phenomena related to the energy transition as well as vocational further education.

Savon Voima Verkko Oy participates in Finnish Energy's Electricity Research Pool, which organises and promotes research related to the technology and business development of electricity power engineering, electricity distribution and service production in Finland. The company is also involved in other development working groups in the field.

Changes in the ownership and management of the company

There were no changes in the ownership of Savon Voima Oyj during the financial year. All members of the Board of Directors of Savon Voima Oyj were re-elected at the Annual General Meeting held on 9 April 2021, and there were no changes in the composition of the Board of Directors during the financial year.

General meetings

The Annual General Meeting of Savon Voima Oyj was held on 9 April 2021. The financial statements were approved, the Board of Directors and the CEO were discharged from liability, and a dividend of EUR 9,512,811.00 was resolved to be paid. Ernst & Young Oy was selected as the auditor, with Elina Laitinen, Authorised Public Accountant, as the principal auditor.

Significant changes in the group structure during the financial year

There were no material changes in the group structure during the financial year.

Share capital and shares

Savon Voima Oyj's share capital is EUR 968,577.12, which is divided into 576,534 shares. The nominal value of the share is EUR 1.68.

The company's shares are divided into A and K series as follows:

- There are 192,178 shares in series A.
- There are 384,356 shares in series K.

Every share in series K has 20 votes in the annual general meeting. Every share in series A has one vote in the annual general meeting.

The shares in series A are privileged for a 10 per cent dividend of the nominal value, after which a dividend up to 10 per cent of the nominal value is paid to series K shares. If there is distributable dividend left after that, series K shares and series A shares have an equal right to the dividend.

Shares are not encumbered by consent or redemption clauses.

Administration and management

Board of Directors

Chairperson

Juha Koukka, CEO M.Sc. (Econ.)

Deputy Chairperson

Vesa Löjtönen, Municipal Manager, MA

Jari Kääriäinen, Lawyer, LL.M.

Ossi Martikainen, Farmer, M.Soc.Sc.

Tarja Tikkanen, Chairperson of the Board of Directors, LL.B., LL.M.

Auditor

Ernst & Young Oy, Authorised Public Accountant Firm,
Elina Laitinen, Authorised Public Accountant, as the principal auditor

CEO

Arto Sutinen, M.Sc. (Econ.)

Management Team

Arto Sutinen, CEO, Chairperson

Lauri Siltanen, electricity network

Juha Räsänen, energy production and district heating

Toni Vainikainen, finance, funding and risk management

Minna Vierimaa, personnel, communications and marketing
Tuomas Räsänen, ICT and digitalisation

Kirsi Tarvainen serves as the Secretary of the Management Team.

Significant events after the financial year

In January 2022, Savon Voima Verkko Oy, together with Finnish Energy and other distribution system operators (71 pcs), filed a complaint to the Market Court about changes in the control methods made by the Energy Authority.

Business development in the financial year 2022

All of the group's businesses are heavily dependent on energy demand fluctuations, which are primarily influenced by winter season temperatures. In addition, the production business depends on the market price for wholesale electricity, which is influenced not only by demand but also by the price development of fuels and emission allowances, and especially by the water and snow situation in Norway and Sweden. Price formation in the Nordic market area is also affected by the opening of new transmission links in the rest of Europe. The predictability of wholesale electricity prices has been further hampered by the strongly increased production of renewable energy, the volume of which is itself dependent on weather factors, and by the uncertainties associated with the volume of imported electricity.

In addition to weather conditions, such as storms causing major disruptions, the result of network business is affected by changes in regulation. The change in the methods for regulating the reasonableness in pricing of electricity carried out by the Energy Authority at the end of 2021 has an impact on the profitability of the investments already made in the electricity network, and it will also weaken Savon Voima Verkko Oy's future opportunities to carry out investments necessary for the maintenance and development of the distribution network. In addition to the company's net sales and profitability, changes in regulation methods may also have a detrimental effect on the availability or terms of financing.

In recent years, the operating environment has changed rapidly, particularly in legislative terms. In July 2021, the European Union published the Fit for 55 climate package, which aims to reduce carbon dioxide emissions in the EU by at least 55% by 2030. From Savon Voima's point of view, the proposals were in line with expectations, but their ambitious target level was taken into account in the group's updated strategy. The pre-

vious strategic target of halving carbon dioxide by 2025 was changed so that we aim to stop emissions from electricity production by the end of 2026. The aim is also to stop using peat altogether by 2026 at the latest. 2030 was kept as the group's carbon neutrality target for total energy production. In practice, the renewed strategy requires abandoning the share of electricity production that causes emissions and making district heat emission-free through accelerated investments. This will increase the group's investment needs in the coming years.

The pricing of district heat was changed as of the beginning of 2022. The change harmonised the pricing of products in different district heating networks. In all district heating networks, a model was introduced where the demand charge is determined by actual consumption. The objective of the price change is to encourage energy savings and support the green transition in district heat. The change has no incremental effect on average customer prices.

Russia attacked Ukraine on 24 February 2022. Following the start of the war, the United States, European Union and United Kingdom, among others, have imposed economic sanctions that restrict access by Russia and named Russian companies and individuals to capital and financial markets and trade with these operators. The war and the resulting sanctions and possible counter-sanctions may affect the commodity and financial markets, for example. Savon Voima's activities have already been affected by the war, for example, through rising prices of fuels and certain other commodities. 22 per cent of Savon Voima's fuel purchases in 2021 were imported fuels, mostly from Russia. The group is mapping and negotiating alternative supply channels for fuels from Russia, especially for heating seasons beginning in late 2022 and thereafter. However, it is not yet possible to fully assess the effects and consequences of the war in Ukraine on the group's operations.

Overall, the group's future prospects are affected by increased uncertainty in the energy markets and changes caused by regulation. Together with the tense geopolitical situation and the uncertainties relating to the natural gas market, for example, they will cause greater volatility in the energy commodity market than previously. Changes in the methods of monitoring the pricing of the distribution network will also affect the group's results and financial position. As a result of these factors, the group's fluctuation in results between financial years is expected to increase in the future. The Savon Voima Group's operating profit excluding non-recurring items for 2022 is expected to be at a lower level than in 2021.

Use of the profits

The distributable funds of Savon Voima Oyj on 31 December 2021 were as follows:

Retained earnings	76,391,900.04
Profit for the financial year	53,223,589.78
	129,615,489.82

The financial situation of the company has not changed significantly since the end of the financial year, and the solvency test referred to in Chapter 13, Section 2 of the Limited Liability Companies Act does not affect the amount of distributable funds. The Board of Directors proposes that a dividend of EUR 24.31 per share, or 576,534 x EUR 24.31, be distributed to the shares in series A and K.

Total	14,015,541.50
To be held as retained earnings	115,599,948.32
	129,615,489.82

Board of Directors and Management Team



JUHA KOUKKA (b. 1968)
*Chair of the Board of Directors,
CEO, M.Sc. (Econ.)*

2016– Savon Voima Oyj, Chairperson of the Board of Directors
2016– Savon Energiaholding Oy, Member of the Board of Directors
2016– Savon Voima Oyj, Member of the Board of Directors



VESA LÖTJÖNEN (b. 1959)
*Vice Chair of the Board of Directors,
Municipal Manager of Siilinjärvi, MA*

2011– Savon Voima Oyj, Vice Chair of the Board of Directors
2010–2011 Savon Voima Oyj,
Member of the Board of Directors



JARI KÄÄRIÄINEN (b. 1967)
*Member of the Board of Directors, LL.B., LL.M.,
Lawyer Asiantajotoimisto Kääriäinen Oy*

2020– Savon Voima Oyj, Member of the Board of Directors



OSSI MARTIKAINEN (b. 1970)
*Member of the Board of Directors, Account
Manager, Regional Council of Pohjois-Savo,
M.Soc.Sc.*

2012– Savon Voima Oyj, Member of the Board of Directors
2010– Savon Energiaholding Oy,
Chair of the Board of Directors
2008–2010 Savon Energiaholding Oy,
Member of the Board of Directors



TARJA TIKKANEN (b. 1960)
*Member of the Board of Directors, Chair of the
Board of Directors of the group KPY Coopera-
tive, LL.B., LL.M.*

2011– Savon Voima Oyj, Member of the Board of Directors
2011– Savon Energiaholding Oy,
Member of the Board of Directors



ARTO SUTINEN
President and CEO



LAURI SILTANEN
*Vice President, Electricity
Network, Savon Voima
Verkko Oy*



JUHA RÄSÄNEN
*Vice President, Electricity
Generation and District
Heating*



TUOMAS RÄSÄNEN
ICT and Digitalization Director



TONI VAINIKAINEN
Chief Financial Officer



MINNA VIERIMAA
*Chief Human Resources
Officer, Marketing &
Communications*



**Financial statements of Savon Voima Oyj
for the financial year 1 January–31 December 2021**

Consolidated balance sheet 31 December 2021

EUR thousand ASSETS	31 December 2021		31 December 2020	
NON-CURRENT ASSETS				
Intangible assets				
Intangible rights	3,083		3,413	
Goodwill	395,153		409,265	
Other capitalised long-term expenses	7,566	405,802	7,492	420,170
Tangible assets				
Land and water areas	1,806		1,790	
Buildings and constructions	51,444		53,115	
Electricity network	355,346		337,102	
Heat distribution network	53,372		53,541	
Machinery and equipment	113,503		127,907	
Data network	1,707		1,430	
Advance payments and acquisitions in progress	24,871	602,048	21,437	596,323
Investments				
Holdings in participating interests	43,575		47,690	
Other shares and holdings	1,434	45,010	1,432	49,122
Total non-current assets	1,052,860		1,065,615	
CURRENT ASSETS				
Inventories				
Raw materials and consumables		6,221		6,011
Receivables (long-term)				
Other receivables	63		63	
Deferred tax assets	742	805	862	925
Receivables (short-term)				
Sales receivables	38,605		30,383	
Receivables from participating interests	229		207	
Other receivables	429		23,737	
Prepayments and accrued income	2,457	41,720	4,273	58,599
Financial fixed assets				
		60		36
Cash in hand and at banks		81,010		26,486
Total current assets	129,816		92,057	
Total assets	1,182,677		1,157,672	

EUR thousand CAPITAL, RESERVES AND LIABILITIES	31 December 2021		31 December 2020	
CAPITAL AND RESERVES				
Share capital	969		969	
Premium fund	1		1	
Reserve fund	612		612	
Retained earnings	266,872		264,679	
Profit for the financial year	31,982	300,435	11,629	277,889
Statutory provisions		3,333		4,103
LIABILITIES				
Connection fees		154,472		153,206
Long-term				
Loans from financial institutions	560,000		581,600	
Deferred tax liabilities	71,391	631,391	69,889	651,489
Short-term				
Loans from financial institutions	20,000		29,700	
Advance payments	90		114	
Premiums	62		128	
Accounts payable	33,539		24,601	
Liabilities to participating interests	8,685		1,148	
Other liabilities	14,316		9,838	
Accruals and deferred income	16,352	93,044	5,455	70,984
Total capital, reserves and liabilities	1,182,677		1,157,672	

Consolidated income statement

1 January–31 December 2021

EUR thousand	1 January–31 December 2021		1 January–31 December 2020	
NET SALES	228,460		189,627	
Share of associated companies' result	-4,018		236	
Other operating income	417		440	
MATERIALS AND SERVICES				
Raw materials and consumables				
Purchases during the financial year	68,163		54,717	
Change in inventories	-210	67,953	350	55,067
Personnel expenses		13,396		10,671
Depreciation and reduction in value		65,213		63,538
Other operating expenses		30,178		36,724
OPERATING PROFIT	48,119		24,304	
Financial income and expenses				
Interest and financial income	297		281	
Interest and financial expenses	-3,666	-3,369	-6,293	-6,012
Profit before appropriations	44,750		18,292	
Group contributions given	-158		-139	
Profit before tax	44,592		18,153	
Income tax	-12,611		-6,524	
PROFIT FOR THE FINANCIAL YEAR	31,982		11,629	

Consolidated cash flow statement

1 January–31 December 2021

EUR thousand	2021	2020
Cash flow from operating activities		
Cash receipts from sales	220,143	195,234
Cash receipts from other operating income	417	440
Payments made for operating expenses	-89,290	-99,153
Cash flow from operating activities before financial items and taxes	131,270	96,520
Interest and other financial expenses paid for operating activities	-6,124	-4,469
Interest received from operating activities	130	192
Dividends received from operating activities	142	141
Direct taxes paid	-2,076	-5,726
Cash flow from operating activities (A)	123,343	86,658
Cash flow from investments		
Investments in tangible and intangible assets	-52,964	-55,435
Proceeds from sale of tangible and intangible assets	11	23
Other investments	-2	0
Acquisition of shares	0	-519,856
Capital repayments from associated companies	96	169
Capital paid to associated companies	0	0
Cash flow from investments (B)	-52,858	-575,099
Cash flow from financing activities		
Increase in connection fees	1,266	962
Change in receivables	0	-50
Short-term loan security deposit	23,725	-23,725
Withdrawals of long-term loan	580,000	587,500
Repayments of long-term loan	-611,300	-22,392
Payment of debt transferred in mergers and acquisitions	0	-24,726
Group contribution paid	-139	-333
Dividends paid	-9,513	-9,513
Cash flow from financing activities (C)	-15,961	507,724
Change in cash and cash equivalents (A+B+C)	54,524	19,283
Cash and cash equivalents 1 Jan.	26,490	5,207
Transferred in mergers and acquisitions	0	2,000
Transfer of assets	0	0
Cash and cash equivalents 31 Dec.	81,014	26,490

Parent company's balance sheet 31 December 2021

EUR thousand ASSETS	31 December 2021		31 December 2020	
NON-CURRENT ASSETS				
Intangible assets				
Intangible rights	1,948		1,818	
Other capitalised long-term expenses	41	1,989	48	1,866
Tangible assets				
Land and water areas	795		795	
Buildings and constructions	31,651		32,345	
Machinery and equipment	29,189		34,174	
Heat distribution network	18,814		18,658	
Data network	318		0	
Advance payments and acquisitions in progress	1,531	82,299	2,117	88,089
Investments				
Holdings in group companies	525,359		525,359	
Holdings in participating interests	44,120		44,293	
Other shares and holdings	1,415	570,893	1,415	571,067
Total non-current assets	655,182		661,021	
CURRENT ASSETS				
Inventories				
Raw materials and consumables		2,722		2,827
Receivables (long-term)				
Other receivables		511		723
Receivables (short-term)				
Sales receivables	8,297		6,603	
Receivables from group companies	67,323		34,039	
Receivables from participating interests	227		203	
Other receivables	415		23,725	
Prepayments and accrued income	956	77,217	3,894	68,464
Financial fixed assets		60		36
Cash in hand and at banks		47,816		19,014
Total current assets	128,326		91,064	
Total assets	783,507		752,086	

EUR thousand CAPITAL, RESERVES AND LIABILITIES	31 December 2021		31 December 2020	
CAPITAL AND RESERVES				
Share capital	969		969	
Premium fund	1		1	
Reserve fund	612		612	
Retained earnings	76,392		77,786	
Loss for the financial year				
Profit for the financial year	53,224	131,197	8,119	87,486
Appropriations				
Accumulated depreciation difference		19,267		21,380
Statutory provisions		2,124		3,360
LIABILITIES				
Connection fees		12,544		12,614
Long-term				
Loans from financial institutions	560,000		581,600	
Liabilities to participating interests	2	560,002	0	581,600
Short-term				
Loans from financial institutions	20,000		29,700	
Advance payments	90		114	
Premiums	18		18	
Accounts payable	9,362		8,829	
Liabilities to group companies	5,920		1,760	
Liabilities to participating interests	8,685		1,148	
Other liabilities	360		844	
Accruals and deferred income	13,938	58,373	3,232	45,644
Total capital, reserves and liabilities		783,507		752,086

Parent company's income statement

1 January–31 December 2021

EUR thousand	1 January–31 December 2021		1 January–31 December 2020	
NET SALES	73,715		60,393	
Other operating income	583		582	
MATERIALS AND SERVICES				
Raw materials and consumables				
Purchases during the financial year	32,580		25,069	
Change in inventories	105	32,685	89	25,158
Personnel expenses	8,863		7,824	
Depreciation and reduction in value	11,606		11,298	
Other operating expenses	10,875		12,601	
OPERATING PROFIT	10,268		4,093	
Financial income and expenses				
Interest and financial income	10,932		2,096	
Interest and financial expenses	-3,663	7,269	-6,290	-4,194
Profit before appropriations and taxes	17,537		-101	
Appropriations				
Change in depreciation difference	2,113		1,096	
Group contribution	44,578	46,691	9,111	10,207
Income tax	-11,005		-1,987	
PROFIT FOR THE FINANCIAL YEAR	53,224		8,119	

Parent company's cash flow statement

1 January–31 December 2021

EUR thousand	2021	2020
Cash flow from operating activities		
Cash receipts from sales	71,289	58,506
Cash receipts from other operating income	583	582
Payments made for operating expenses	-35,233	-47,530
Cash flow from operating activities before financial items and taxes	36,638	11,558
Interest and other financial expenses paid for operating activities	-6,121	-4,466
Interest received from operating activities	1,646	2,006
Dividends received from operating activities	142	141
Direct taxes paid	-1,084	-3,883
Cash flow from operating activities (A)	31,222	5,356
Cash flow from investments		
Investments in tangible and intangible assets	-6,506	-7,084
Proceeds from sale of tangible and intangible assets	11	23
Shares in subsidiaries	0	-519,856
Capital repayments from associated companies	96	169
Share capital paid to associated companies	0	0
Cash flow from investments (B)	-6,398	-526,748
Cash flow from financing activities		
Increase in connection fees	-71	-32
Short-term loan security deposit	23,725	-23,725
Withdrawals of long-term loan	580,002	587,500
Repayments of long-term loan	-611,300	-22,392
Receivables from granted interest-bearing loans	-500	-8,300
Cash receipts from interest-bearing receivables	0	24,403
Payment of debt transferred in mergers and acquisitions	0	-24,726
Group contribution paid	-139	-333
Dividends received	9,120	0
Dividends paid	-9,513	-9,513
Group contribution received	12,654	14,500
Cash flow from financing activities (C)	3,979	537,383
Change in cash and cash equivalents (A+B+C)	28,802	15,991
Cash and cash equivalents 1 Jan.	19,019	3,028
Cash and cash equivalents 31 Dec.	47,821	19,019

The Savon Voima Group is part of the Savon Energia-holding Group. The Group's parent company is Savon Energiholding Oy, domiciled in Siilinjärvi. The consolidated financial statements are available at Kapteeninväylä 5, 70900 Toivala, Finland, or at the email address kirjanpito@savonvoima.fi.

ACCOUNTING PRINCIPLES

Scope of the consolidated financial statements

In addition to the parent company Savon Voima Oyj, the consolidated financial statements include the subsidiaries Savon Voima Verkko Oy, Savon Voima Joensuu Oy and Savon Energia Oy. The last-mentioned company has no operations. It also includes the associated companies Kymppivoima Oy, Kymppivoima Hankinta Oy and Väre Oy.

Changes in the group structure

Savon Voima Joensuu Oy has, together with Joensuun Biocoal Oy, set up a joint venture, Itä-Suomen Biomassa Oy, in which Savon Voima Joensuu Oy has a 70 per cent holding. The company is a subsidiary of Savon Voima Joensuu Oy with no share capital. The company was registered in the Trade Register on 5 May 2021 but did not have any activities during the financial year 2021. The company is not included in the consolidated financial statements because it is not necessary in order to give a true and fair view of the group's financial performance or financial position.

Accounting principles applied to the consolidated financial statements

The consolidated financial statements have been drawn up using the acquisition cost method. Business transactions within the group and the internal margin included in non-current assets, as well as inter-company receivables and liabilities, have been eliminated.

In the consolidated balance sheet, the difference between the acquisition cost and equity of the subsidiaries has been allocated according to the group's share of ownership to the fixed assets and liabilities that are considered to be the basis of the consolidation asset. The unallocated consolidation asset, i.e. the consolidated goodwill, is depreciated in 5–30 years in general. The 30-year depreciation period is applied to the subsidiary Savon Voima Joensuu Oy, acquired on 10 January 2020, which has high long-term income expectations. Savon Voima Joensuu Oy has a strong market position in its area, a high level of competence and good quality production assets. The subsidiary plays an important strategic role in the operations of the parent company and the group. In the opinion of the management, the chosen period of 30 years is realistic and in accordance with the principle of prudence.

Associated companies are included in the consolidated financial statements using the equity method. In the case of Kymppivoima Oy, the consolidation has been carried out with portions per series of shares because, according to Kymppivoima Oy's articles of association, the company's shareholders are responsible for the purchase costs of electricity in proportion to their ownership of each series of shares, are entitled to receive the acquired energy in proportion to their ownership of each series of shares and are entitled to the company's net assets and profits in proportion to their ownership of each series of shares when distributing assets other than in the dissolution of the company. If, in the event of the liquidation of the company, the debts and liabilities exceed the assets received from the liquidation, the shareholders of the relevant series of shares are responsible for the debts and liabilities exceeding the assets in proportion to their ownership of each series of shares.

Calculation principles related to derivative instruments and hedging measures

The valuation of derivatives complies with the basic rule of Chapter 5, Section 2 of the Accounting Act. The objective of risk management in the Savon Voima Group is to support the achievement of the targets of the business strategy. Electricity price risk is the company's key business risk to be hedged. The price development in the electricity market mainly affects the group's production business. Factors having an impact on the price of electricity in the Nordic market in the short term include the water supply situation, the fluctuation of wind power production, temperature, the prices of emission allowances for carbon dioxide, the price of fuels and the export and import situation between countries.

The company hedges against electricity price risks by drawing up electricity derivative contracts for electricity production. The price risk of carbon dioxide emission allowances is hedged against with emission allowance derivative contracts and by taking into account the costs of emission allowances in production planning. For hedging operations, the company has a risk management policy for energy trade and procurement approved by the Board of Directors, the implementation of which is monitored systematically.

The fair values of derivative instruments and the values of underlying instruments are presented in note 23. Value changes of derivative contracts drawn up for hedging purposes have not been dealt with through profit or loss, but their realised profits/losses are recorded in the income statement and balance sheet for the same period with the physical contracts they are hedged with. In accordance with the above-mentioned risk policy, we do not engage in speculative derivatives trade. The premiums of hedging options are recorded in the income statement for the same period as the physical contracts they are hedged with.

Savon Voima hedges against interest rate risk associated with long-term floating-rate loans by using interest rate derivatives. The group's financial policy sets guidelines for interest derivatives used. Derivatives are used for hedging purposes only. Significant interest rate risks are hedged by cash flow hedges. As a rule, hedging against interest rate risks is done using derivatives with interest rate determination and payment terms that are inversely as similar as possible to the current and future floating-rate loans and that are otherwise as identical as possible to the critical terms of the hedged item, so that the derivatives used are genuinely and effectively hedging. Interest rate derivatives that are deemed to be genuinely hedging and whose terms correspond to the terms of current variable interest loans are stated as liabilities in note 22. The negative fair value change of those derivatives, which are not deemed to be effectively and genuinely hedging, is recognised in the financial items of the income statement and in the statutory provisions of the balance sheet.

Financial internal rate of interest

The internal rate of interest for financing used in the Savon Voima Group companies is determined according to the average cost of capital (WACC) determined for each year by the Energy Authority, which in 2021 was 5.35 per cent. No premium or margin is added to or deducted from this value.

Inventories

The acquisition cost of inventories is assessed at the weighted average price.

Financial securities

Financial assets and financial securities are valued at their fair value so that, in terms of shares, the value is the rate of exchange at the balance sheet date, while fund investments are valued at the redemption price at the balance sheet date and commercial papers at their nominal value.

Comparability

The accounting policies remained the same in 2021 as they were in 2020.

Company stocks

The company has two series of shares, series K and series A. Every share in series K has 20 votes in the annual general meeting. Every share in series A has one vote in the annual general meeting. The shares in series A are privileged for a 10 per cent dividend of the nominal value, after which a dividend up to 10 per cent of the nominal value is paid to series K shares. If there is distributable dividend left after that, series K shares and series A shares have an equal right to the dividend. Series K shares total 384,356 and series A shares total 192,178.

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
1. NET SALES BY BUSINESS AREA				
Electricity distribution	105,295	93,573		
Electricity sales*	32,319	15,996	19,456	11,743
District heat sales	86,114	75,533	46,399	40,879
Installation and service sales	2,437	2,463	7,603	7,684
Connection fee income	1,315	1,186	247	72
Other operations	980	876	10	15
Total	228,460	189,627	73,715	60,393
*) Savon Voima Oyj's electricity sales consist of electricity produced by both its own and jointly owned power plants.				
2. OTHER OPERATING INCOME				
Rental income	263	257	426	414
Grants and compensations received	-4	89	0	78
Sales profits	11	23	11	23
Other	146	71	146	66
Total	417	440	583	582
3. PERSONNEL EXPENSES				
Wages and salaries	12,492	10,313	7,634	6,997
Pension insurance expenses	2,071	1,500	1,236	939
Other indirect employee costs	388	238	265	204
Total	14,952	12,050	9,135	8,140
Activated wages and salaries	-1,556	-1,380	-273	-316
Wages and salaries in the income statement	13,396	10,671	8,863	7,824
Management's salaries				
CEOs and their deputies	317	476		
Board members	107	118		
Management's salaries in total	424	594	310	409
Pension commitments of the Boards of Directors and CEOs: The retirement age of CEOs of the group companies is 61–65 years.				
Average number of employees				
White-collar workers	136	129	86	88
Blue-collar workers	71	62	43	43
Total	207	191	129	131
Number of employees at the end of the year	206	213	128	129

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
4. DEPRECIATIONS				
The values of fixed assets are based on the original acquisition costs minus accrued planned depreciations. Depreciations have been calculated on a straight-line basis over the economic life of the acquisition cost. No depreciations have been made for land areas. The depreciation period for the goodwill arising from the acquisition of Savon Voima Joensuu Oy is 30 years. The depreciation period is based on an estimate of the expected return. The acquisition cost of machinery and equipment included in movable fixed assets that were introduced in 2020 and 2021 and are under the scope of application of Section 30 of the Act on the Taxation of Business Income have been depreciated by double the regular depreciation amount.				
Planned depreciation periods by balance sheet item				
Buildings and constructions 15–40 years, heat distribution network 14–40 years, electricity network 20–25 years, machinery and equipment 3–25 years, other long-term expenses 3–50 years, consolidated goodwill 5–30 years				
Planned depreciations by balance sheet item				
Long-term expenses	2,242	1,987	337	153
Buildings and constructions	5,111	5,136	3,204	3,187
Electricity network – depreciations	21,413	20,021	0	0
– reductions in value	407	741	0	0
Heat distribution network	3,353	3,227	1,755	1,690
Data network	419	275	5	0
Machinery and equipment	17,902	17,685	6,287	6,252
Goodwill	14,113	14,113	0	0
Connection fees	253	353	18	16
Total	65,213	63,538	11,606	11,298
5. AUDITOR'S FEES				
Audit fees	72	73	33	24
Other fees	1	7	0	7
Total	73	80	33	31
6. FINANCIAL INCOME AND EXPENSES				
Income from interests in group companies			9,120	0
Return on investments	142	141	142	141
Total income from investments held as non-current assets	142	141	9,262	141
Interest income				
From group undertakings			1,574	1,874
From others	156	140	97	80
Total	156	140	1,671	1,955
Total financial income	297	281	10,932	2,096
Interest expenses				
To group undertakings			0	0
To others	-3,834	-3,901	-3,831	-3,897
Other financial expenses	168	-2,392	168	-2,392
Total financial expenses	-3,666	-6,293	-3,663	-6,290
TOTAL FINANCIAL INCOME AND EXPENSES	-3,369	-6,012	7,269	-4,194
7. APPROPRIATIONS				
Change in depreciation difference			2,113	1,096
Group contributions received			44,736	9,250
Group contributions given	-158	-139	-158	-139
Total appropriations	-158	-139	46,691	10,207

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
8. INCOME TAX				
Income taxes from actual operations	10,989	4,536	10,792	2,063
Change in deferred tax liability	1,502	2,064	0	0
Change in deferred tax assets	119	-76	213	-76
Total	12,611	6,524	11,005	1,987
9. FIXED ASSETS BY BALANCE SHEET ITEM				
Intangible rights				
Acquisition cost 1 Jan.	29,714	27,931	11,486	10,849
Additions during the financial year	789	1,804	484	659
Disposals during the financial year	-6	-22	-6	-22
Acquisition cost 31 Dec.	30,497	29,714	11,965	11,486
Accumulated depreciation 1 Jan.	-26,301	-25,231	-9,669	-9,506
Depreciation during the financial year	-1,113	-1,069	-348	-163
Accumulated depreciation 31 Dec.	-27,414	-26,301	-10,017	-9,669
Book value 31 Dec.	3,083	3,413	1,948	1,818
Accumulated depreciation difference 1 Jan.			178	66
Change in depreciation difference			35	112
Accumulated depreciation difference 31 Dec.			214	178
Consolidated goodwill				
Acquisition cost 1 Jan.	423,378	0		
Transferred in mergers and acquisitions	0	423,378		
Disposals during the financial year	0	0		
Acquisition cost 31 Dec.	423,378	423,378		
Accumulated depreciation 1 Jan.	-14,113	0		
Accumulated depreciation of disposals				
Depreciation during the financial year	-14,113	-14,113		
Accumulated depreciation 31 Dec.	-28,225	-14,113		
Book value 31 Dec.	395,153	409,265		
Other capitalised long-term expenses				
Acquisition cost 1 Jan.	18,746	17,427	525	525
Additions during the financial year	1,456	1,319	0	0
Acquisition cost 31 Dec.	20,202	18,746	525	525
Accumulated depreciation 1 Jan.	-11,254	-9,983	-477	-470
Depreciation during the financial year	-1,382	-1,271	-6	-6
Accumulated depreciation 31 Dec.	-12,636	-11,254	-483	-477
Book value 31 Dec.	7,566	7,492	41	48
Accumulated depreciation difference 1 Jan.			-9	-7
Depreciation difference transferred in mergers and acquisitions			0	0
Change in depreciation difference			-2	-2
Accumulated depreciation difference 31 Dec.			-11	-9

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
Land and water areas				
Acquisition cost 1 Jan.	1,790	1,450	795	795
Additions during the financial year	16	340	0	0
Disposals during the financial year	0	0	0	0
Acquisition cost 31 Dec.	1,806	1,790	795	795
Book value 31 Dec.	1,806	1,790	795	795
Buildings and constructions				
Acquisition cost 1 Jan.	130,498	109,633	100,965	99,686
Additions during the financial year	3,440	14,380	2,511	1,279
Transferred in mergers and acquisitions	0	6,485		
Disposals during the financial year	0	0	0	0
Acquisition cost 31 Dec.	133,937	130,498	103,476	100,965
Accumulated depreciation 1 Jan.	-77,382	-72,246	-68,620	-65,433
Accumulated depreciation of disposals	0	0	0	0
Depreciation during the financial year	-5,111	-5,136	-3,204	-3,187
Accumulated depreciation 31 Dec.	-82,494	-77,382	-71,824	-68,620
Book value 31 Dec.	51,444	53,115	31,651	32,345
Accumulated depreciation difference 1 Jan.			5,966	6,570
Change in depreciation difference			-426	-604
Accumulated depreciation difference 31 Dec.			5,540	5,966
Electricity distribution network				
Acquisition cost 1 Jan.	601,583	558,418	152	152
Additions during the financial year	40,068	43,164	0	0
Disposals during the financial year	0	0	0	0
Acquisition cost 31 Dec.	641,651	601,583	152	152
Accumulated depreciation 1 Jan.	-264,481	-243,717	-152	-152
Accumulated depreciation of disposals	0	0	0	0
Impairments	-407	-741	0	0
Depreciation during the financial year	-21,417	-20,023	0	0
Accumulated depreciation 31 Dec.	-286,305	-264,481	-152	-152
Book value 31 Dec.	355,346	337,102	0	0
Accumulated depreciation difference 1 Jan.			0	0
Change in depreciation difference			0	0
Accumulated depreciation difference 31 Dec.			0	0

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
Heat distribution network				
Acquisition cost 1 Jan.	91,424	53,173	55,004	53,173
Additions during the financial year	3,184	31,104	1,911	1,831
Transferred in mergers and acquisitions	0	7,147		
Disposals during the financial year	0	0	0	0
Acquisition cost 31 Dec.	94,608	91,424	56,914	55,004
Accumulated depreciation 1 Jan.	-37,883	-34,656	-36,346	-34,656
Depreciation during the financial year	-3,353	-3,227	-1,755	-1,690
Accumulated depreciation 31 Dec.	-41,236	-37,883	-38,101	-36,346
Book value 31 Dec.	53,372	53,541	18,814	18,658
Accumulated depreciation difference 1 Jan.			-2,714	-2,633
Change in depreciation difference			-125	-81
Accumulated depreciation difference 31 Dec.			-2,839	-2,714
Data network				
Acquisition cost 1 Jan.	3,817	2,855	0	0
Additions during the financial year	696	962	324	0
Disposals during the financial year	0	0	0	0
Acquisition cost 31 Dec.	4,513	3,817	324	0
Accumulated depreciation 1 Jan.	-2,387	-2,112	0	0
Accumulated depreciation of disposals	0	0	0	0
Depreciation during the financial year	-419	-275	-5	0
Accumulated depreciation 31 Dec.	-2,806	-2,387	-5	0
Book value 31 Dec.	1,707	1,430	318	0
Accumulated depreciation difference 1 Jan.			0	0
Change in depreciation difference			76	0
Accumulated depreciation difference 31 Dec.			76	0
Machinery and equipment				
Acquisition cost 1 Jan.	259,629	169,678	123,485	121,695
Additions during the financial year	3,494	48,189	1,302	1,932
Disposals during the financial year	-64	-141	-64	-141
Transferred in mergers and acquisitions	0	41,902	0	0
Acquisition cost 31 Dec.	263,058	259,629	124,724	123,485
Accumulated depreciation 1 Jan.	-131,722	-114,182	-89,312	-83,200
Accumulated depreciation of disposals	64	141	64	141
Depreciation during the financial year	-17,898	-17,681	-6,287	-6,252
Accumulated depreciation 31 Dec.	-149,556	-131,722	-95,535	-89,312
Book value 31 Dec.	113,503	127,907	29,189	34,174
Accumulated depreciation difference 1 Jan.			17,959	18,480
Depreciation difference transferred in mergers and acquisitions			0	0
Change in depreciation difference			-1,672	-521
Accumulated depreciation difference 31 Dec.			16,287	17,959

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
Advance payments and work in progress				
Acquisition cost 1 Jan.	21,437	25,037	2,117	361
Additions during the financial year	20,951	17,006	1,399	2,101
Disposals during the financial year	-17,517	-20,605	-1,985	-345
Acquisition cost 31 Dec.	24,871	21,437	1,531	2,117
Book value 31 Dec.	24,871	21,437	1,531	2,117
Shares and holdings				
Acquisition cost 1 Jan.	49,122	49,056	571,067	51,381
Additions during the financial year	2	0	0	519,856
Disposals during the financial year	0	0	-77	0
Capital repayments	-96	-169	-96	-169
Profit for the financial year for the associated companies	-4,018	237		
Acquisition cost 31 Dec.	45,010	49,122	570,893	571,067
Book value 31 Dec.	45,010	49,122	570,893	571,067
Total balance sheet items				
Acquisition cost 1 Jan.	1,631,137	1,014,658	865,596	338,616
Additions during the financial year	74,095	158,268	7,931	527,658
Disposals during the financial year	-17,587	-20,768	-2,132	-508
Transferred in mergers and acquisitions	0	478,912	0	0
Capital repayments	-96	-169	-96	-169
Reconciliation of balance sheet value	-4,018	237		
Acquisition cost 31 Dec.	1,683,531	1,631,137	871,299	865,596
Accumulated depreciation 1 Jan.	-565,522	-502,127	-204,575	-193,418
Accumulated depreciation of disposals	64	141	64	141
Impairment	-407	-741	0	0
Depreciation during the financial year	-64,806	-62,795	-11,606	-11,298
Accumulated depreciation 31 Dec.	-630,671	-565,522	-216,117	-204,575
Book value 31 Dec.	1,052,860	1,065,615	655,182	661,021
Accumulated depreciation difference 1 Jan.			21,380	22,476
Depreciation difference transferred in mergers and acquisitions			0	0
Change in depreciation difference			-2,113	-1,096
Accumulated depreciation difference 31 Dec.			19,267	21,380
10. DEFERRED TAX ASSETS				
Of statutory provisions *)	655	814	414	666
Of advances for expenses	87	47	87	47
Total	742	862	501	713
*) In the financial year 2020, deferred tax assets were recorded as a change in equity to the extent that they related to previous financial years.				
11. RECEIVABLES FROM GROUP COMPANIES				
Short-term receivables				
Sales receivables			40	21
Loan receivables			17,733	17,233
Prepayments and accrued income			4,813	4,131
Other receivables			44,736	12,654
Total			67,323	34,039

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
12. OTHER RECEIVABLES				
Short-term loan security deposit	0	23,725	0	23,725
Other receivables	429	12	415	0
Total	429	23,737	415	23,725
13. KEY ITEMS INCLUDED IN ACCRUED INCOME				
Emission allowances	131	559	131	559
Social insurance	0	12	0	11
Income tax and other tax	78	2,799	0	2,799
Other accrued income	2,248	902	825	525
Total	2,457	4,273	956	3,894
14. FINANCIAL FIXED ASSETS				
Replacement price	60	36	60	36
Book value	60	36	60	36
15. CHANGES IN EQUITY				
Restricted equity				
Share capital 1 Jan. and 31 Dec.	969	969	969	969
Premium fund 1 Jan. and 31 Dec.	1	1	1	1
Reserve fund 1 Jan. and 31 Dec.	612	612	612	612
Total restricted equity	1,582	1,582	1,582	1,582
Unrestricted equity				
Other equity 1 Jan.	276,308	273,511	85,905	86,690
Distribution of dividends	-9,513	-9,513	-9,513	-9,513
Adjustments of previous financial years	77	681	0	609
Profit for the financial year	31,982	11,629	53,224	8,119
Total unrestricted equity	298,854	276,308	129,615	85,905
Total equity 31 Dec.	300,435	277,889	131,197	87,486
Proportion entered under other equity from accumulated depreciation difference	249,787	239,455		
16. CALCULATION OF DISTRIBUTABLE EQUITY				
Total unrestricted equity			129,615	85,905
Distributable assets			129,615	85,905
17. STATUTORY PROVISIONS AND DEFERRED TAX LIABILITIES				
Improvement of impregnation plots	243	243		
Losses on the sale of properties	104	104	104	104
Interest rate derivatives	2,020	3,256	2,020	3,256
Spoil area	966	500		
Deferred tax liabilities	71,391	69,889	0	0
Total	74,724	73,993	2,124	3,360
18. LIABILITIES TO GROUP COMPANIES				
Short-term liabilities				
Accounts payable			37	57
Other short-term liabilities			5,884	1,703
Total			5,920	1,760

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
19. LIABILITIES TO PARTICIPATING INTERESTS				
Short-term liabilities				
Accounts payable	8,250	911	8,250	911
Other short-term liabilities	435	237	435	237
Total short-term liabilities	8,685	1,148	8,685	1,148
20. KEY ITEMS INCLUDED IN DEFERRED LIABILITIES				
Electricity derivatives and futures	209	62	209	62
Wages and salaries including social costs	3,870	2,521	2,437	1,533
Pension, administration	1	1	1	1
Interests	173	1,471	173	1,471
Income tax	7,004	811	6,909	0
Other deferred liabilities	5,095	588	4,208	164
Total	16,352	5,455	13,938	3,232
21. CONTINGENT LIABILITIES				
General pledges for below debts				
Loans from financial institutions	580,000	611,300	580,000	611,300
Real estate mortgages	0	0	0	0
Corporate mortgages	0	0	0	0
Leasing liabilities				
Payable during current financial year	318	324	269	244
Payable at a later date	392	387	348	294
Total leasing liabilities	710	711	618	538
Rent liabilities				
Payable during current financial year	930	909	924	903
Payable at a later date	2,853	3,680	2,722	3,544
Total rent liabilities	3,783	4,589	3,647	4,447
Guarantees				
Guarantees on behalf of subsidiaries			92	172
Guarantees on behalf of participating interests	24,763	21,714	24,763	21,714
Bank guarantee liabilities	720	720	670	670
Total guarantees	25,483	22,434	25,526	22,556
Liability to adjust VAT on property investments	49,721	49,727	5,195	5,389

22. OTHER RESPONSIBILITIES IN ENERGY PRODUCTION COMPANIES

Savon Voima Oyj has a 17.22 per cent holding in Kymppivoima Oy, which operates on the Mankala principle. In accordance with the Mankala principle, Savon Voima Oyj is entitled to electricity produced by Kymppivoima Oy in proportion to its ownership of each series of shares. Savon Voima Oyj is responsible, in proportion to its ownership of each series of shares, for Kymppivoima Oy's electricity purchase costs, which consist of variable costs, fixed costs, depreciations and financing costs. The financing costs are also affected by interest rate derivative contracts entered into by Kymppivoima Oy.

Savon Voima Oyj's imputed liability for Kymppivoima Oy's loans is EUR 34.7 million, for hedges on loans EUR 21.9 million and for the market value of the hedges EUR -2.0 million. In a special issue by Kymppivoima Oy in December 2021, Savon Voima Oyj subscribed for the company's XXI series of shares, the subscription payment for which will be made at the dates and amounts separately announced by Kymppivoima Oy's Board of Directors. The amount to be paid for the subscribed shares is estimated at EUR 15,169,630.00 in 2022-2024.

On 1 November 2021, Savon Voima Oyj gave an undertaking to Kymppivoima Oy to participate in the financing of the project development of industrial-scale solar power with equity financing of EUR 120,071.00. The payment of the contribution depends on Kymppivoima Oy's decision to start implementing the project development.

EUR thousand	GROUP		PARENT COMPANY	
	2021	2020	2021	2020
23. INTEREST RATE DERIVATIVES with terms and cash flows consistent with the loans				
Interest rate swap contract 1 + interest rate option 1				
Notional value corresponding to the principal of the loan 31 Dec.	261,720	264,375	261,720	264,375
– Contract expiration date 10 Jan. 2023				
– Floating interest rate Euribor 6 months				
– Fixed interest rate 0.0984%				
Fair value of derivatives contract	–380	–627	–380	–627
Interest rate swap contract 2 + interest rate option 2				
Notional value corresponding to the principal of the loan 31 Dec.	261,720	264,375	261,720	264,375
– Contract expiration date 6 Feb. 2023				
– Floating interest rate Euribor 6 months				
– Fixed interest rate 0.0890%				
Fair value of derivatives contract	–254	–465	–254	–465
Interest rate swap contract 3				
Notional value corresponding to the principal of the loan 31 Dec.	256,410	256,410	256,410	256,410
– Contract expiration date 31 Dec. 2027				
– Floating interest rate Euribor 6 months				
– Fixed interest rate –0.0360%				
Fair value of derivatives contract	2,012	–3,129	2,012	–3,129
Interest rate swap contract 4				
Notional value corresponding to the principal of the loan 31 Dec.	153,846	153,846	153,846	153,846
– Contract expiration date 31 Dec. 2027				
– Floating interest rate Euribor 6 months				
– Fixed interest rate –0.0464%				
Fair value of derivatives contract	1,319	–1,899	1,319	–1,899
Interest rate swap contract 5				
Notional value corresponding to the principal of the loan 31 Dec.	102,564	102,564	102,564	102,564
– Contract expiration date 31 Dec. 2027				
– Floating interest rate Euribor 6 months				
– Fixed interest rate –0.0450%				
Fair value of derivatives contract	886	–1,273	886	–1,273
Interest rate swap contract 6				
Notional value corresponding to the principal of the loan 31 Dec.	151,232		151,232	
– Contract expiration date 31 Dec. 2032				
– Floating interest rate Euribor 6 months				
– Fixed interest rate –0.2780%				
Fair value of derivatives contract	2,554		2,554	
Interest rate swap contract 7				
Notional value corresponding to the principal of the loan 31 Dec.	83,668		83,668	
– Contract expiration date 31 Dec. 2032				
– Floating interest rate Euribor 6 months				
– Fixed interest rate –0.6385%				
Fair value of derivatives contract	90		90	

The market values of interest rate derivatives are based on market prices at the closing date (according to the bank). Interest swap contracts that are not hedging are dealt with through profit or loss. The nominal value of the interest rate swap contracts with terms and cash flows not consistent with the loans to be hedged is EUR 30,000,000. The market value of these hedges is EUR –2,019,612.32. The contracts will mature between 31 December 2026 and 2 January 2027. Reduction of the reserve of interest rate derivatives totalled EUR 1,236,519.80 in 2021.

24. ELECTRICITY DERIVATIVES

Electricity price risk is hedged with electricity derivative contracts. The main objective of hedging is to reduce the impact of electricity price changes on the results. The hedging strategy covers several years within the scope of risk-taking authorities. The hedging strategy is constantly assessed as the market situation changes. The company hedges electricity production and the purchase of electricity for heat production with derivatives. Electricity derivatives are acquired for hedging purposes. The hedges have been found to be effective, and for this reason, the derivatives are presented in the notes to the financial statements.

Open total positions of forwards 31 Dec. 2021					
MtM	PRODUCTION (kEUR)	BROKERAGE (kEUR)	HEAT (kEUR)	EMISSION ALLOWANCES (kEUR)	TOTAL (kEUR)
Forwards	–18,152	6,837	84	2,291	–8,941
Total	–18,152	6,837	84	2,291	–8,941

Derivatives brokerage

For derivatives brokerage, Savon Voima's risk is limited to the counterparty. The counterparty risk is managed with credit insurances or other guarantee adjustments, such as bank guarantees. Customers of derivatives brokerage report their electricity position and efficiency of hedging in their financial statements, and those numbers are not included in Savon Voima's financial statements. Derivatives brokerage contracts have terms that prevented their unilateral transfer to Väre Oy, and they will therefore remain with Savon Voima Oyj until the maturity of the contracts, unless an earlier transfer of contract is agreed with counterparty.

Year	Brokerage MWh
2022	183,960
2023	192,720
2024	122,976
Total	499,656

Hedging of electricity production

In the hedging of production, 54 per cent of system price risk (SYS) and 52 per cent of area price risk (EPAD) are hedged in 2022. Correspondingly, 19 per cent (SYS) and 17 per cent (EPAD) are hedged for 2023. The hedging is done effectively by bilateral contracts with system and area price differential products and products containing both components at Finnish prices. The company has estimated the electricity production amounts and drawn up derivatives contracts for hedging electricity production in accordance with the following table.

Hedging of electricity production	2023	2022
MWh, SYS	577,938	616,817
MWh, EPAD	577,938	616,817
SYS hedging MWh	111,101	330,243
SYS hedging %	19%	54%
EPAD hedging MWh	100,678	319,221
EPAD hedging %	17%	52%

Number of electricity derivatives contracts Production hedging	2021	2020
Amount MWh	856,850	369,468
Acquisition value kEUR	20,595	5,894
MtM kEUR	–18,152	–1,915

Emission allowance derivatives Heat and power production	2021	2020
Amount MWh	40,000	130,000
Acquisition value kEUR	935	3,089
MtM kEUR	2,291	1,138

Hedging of electricity for heat production	2021	2020
Amount MWh	3,504	10,074
Acquisition value kEUR	112	320
MtM kEUR	84	–67

25. ADDITIONAL INFORMATION ON ELECTRICITY TRADE BUSINESS REQUIRED BY SECTION 77 OF THE ELECTRICITY MARKET ACT**Separation of the balance sheet and income statement**

The unbundling of the income statement is almost completely based on direct allocation of profits and costs to various business operations in the accounting. Only financing items have been allocated according to the matching principle. Non-current assets in the balance sheet are obtained from the fixed assets system by business unit and almost all other balance sheet items on the basis of the balance sheet account. The rest are allocated to the business units according to the matching principle, using the most appropriate division ratio, such as the division of personnel or fixed assets, as the allocation principle at the given time. The group comprises the power generation business of Savon Voima Oyj and Savon Voima Joensuu Oy.

BALANCE SHEET OF THE ELECTRICITY TRADE BUSINESS, assets	GROUP		PARENT COMPANY	
	31 December 2021	31 December 2020	31 December 2021	31 December 2020
EUR thousand				
NON-CURRENT ASSETS				
Intangible assets				
Intangible rights	10	10	10	10
Tangible assets				
Land and water areas	1,079	1,079	739	739
Buildings and constructions	19,002	17,990	17,966	16,873
Machinery and equipment	23,501	25,041	5,682	6,038
Advance payments and acquisitions in progress	2,310	1,458	368	1,451
	45,892	45,569	24,755	25,101
Investments				
Holdings in group companies	0	0	1	1
Holdings in participating interests	24,483	24,657	24,483	24,657
Other shares and holdings	609	609	609	609
	25,093	25,266	25,093	25,267
Total non-current assets	70,995	70,845	49,859	50,378
CURRENT ASSETS				
Inventories				
Raw materials and consumables	1,138	766	270	249
Receivables (long-term)				
Deferred tax assets	87	0	87	0
Receivables (short-term)				
Receivables from group companies	12,686	2,157	12,686	2,157
Receivables from participating interests	70	64	70	64
Other receivables	149	0	149	0
Prepayments and accrued income	347	936	201	923
	13,253	3,157	13,107	3,144
Financial fixed assets	5	3	5	3
Cash in hand and at banks	6,310	2,312	3,639	1,449
Total current assets	20,792	6,238	17,107	4,846
Total assets	91,787	77,084	66,965	55,224

BALANCE SHEET OF THE ELECTRICITY TRADE BUSINESS, capital, reserves and liabilities	GROUP		PARENT COMPANY	
	31 December 2021	31 December 2020	31 December 2021	31 December 2020
EUR thousand				
CAPITAL AND RESERVES				
Share capital	74	74	74	74
Premium fund	0	0	0	0
Reserve fund	47	47	47	47
Unrestricted equity				
Retained earnings from previous years	32,119	32,931	5,813	5,928
Result for the financial year	9,292	-517	10,531	1,786
	41,411	32,414	16,344	7,714
Total capital and reserves	41,531	32,535	16,465	7,835
Appropriations				
Accumulated depreciation difference	0	0	12,430	12,080
Statutory provisions	308	375	57	248
LIABILITIES				
Long-term				
Loans from financial institutions	19,242	27,671	19,242	27,671
Short-term				
Loans from financial institutions	1,522	2,264	1,522	2,264
Accounts payable	10,546	5,659	3,336	3,320
Liabilities to group companies	3,107	442	4,720	0
Liabilities to participating interests	4,649	774	4,649	774
Accruals and deferred income	10,784	7,159	4,482	863
Other short-term liabilities	99	205	61	170
Total short-term	30,706	16,502	18,771	7,390
Total liabilities	49,948	44,174	38,013	35,061
Total capital, reserves and liabilities	91,787	77,084	66,965	55,224

26. INCOME STATEMENT OF THE ELECTRICITY TRADE BUSINESS

INCOME STATEMENT OF THE ELECTRICITY TRADE BUSINESS	GROUP		PARENT COMPANY	
	1 Jan.–31 Dec. 2021	1 Jan.–31 Dec. 2020	1 Jan.–31 Dec. 2021	1 Jan.–31 Dec. 2020
EUR thousand				
NET SALES	33,143	16,376	20,280	12,122
Other operating income	134	142	144	130
Materials and services	0	0	0	0
Raw materials and consumables	47	47	47	47
Purchases during the financial year	17,659	12,719	11,109	8,726
Personnel expenses	1,609	1,424	1,030	896
Depreciation and reduction in value	2,186	3,386	1,485	1,452
Other operating expenses	2,661	3,292	1,787	2,392
OPERATING PROFIT	9,162	-4,304	5,014	-1,214
Financial income and expenses				
Interest and financial income	0	0	0	0
Interest and financial expenses	-85	-8	-85	-8
PROFIT BEFORE APPROPRIATIONS	9,077	-4,312	4,929	-1,222
Appropriations				
Change in depreciation difference	0	0	350	284
Group contribution	5,382	2,157	10,729	2,157
PROFIT BEFORE TAX	14,459	-2,155	16,008	1,219
Income tax	-5,168	1,638	-5,477	567
PROFIT FOR THE FINANCIAL YEAR	9,292	-517	10,531	1,786

27. SAVON VOIMA VERKKO OY'S BALANCE SHEET 31 Dec. 2021

EUR thousand ASSETS	31 December 2021		31 December 2020	
NON-CURRENT ASSETS				
Intangible assets				
Intangible rights	1,032		1,495	
Other capitalised long-term expenses	7,525	8,557	7,444	8,939
Tangible assets				
Land and water areas	671		655	
Buildings and constructions	3,040		2,889	
Electricity network	14,860		16,662	
Machinery and equipment	355,350		337,104	
Data network	1,389		1,430	
Advance payments and acquisitions in progress	18,493	393,802	18,820	377,560
Investments				
Other shares and holdings	17	17	17	17
Total non-current assets	402,376		386,517	
CURRENT ASSETS				
Inventories				
Receivables (long-term)				
Deferred tax assets	49		49	
Other receivables	3	52	3	52
Receivables (short-term)				
Sales receivables	22,430		17,546	
Group receivables	1,216		780	
Receivables from group companies	14		12	
Prepayments and accrued income	1,345	25,006	342	18,681
Cash in hand and at banks		22,917		4,070
Total current assets	47,974		22,802	
Total assets	450,350		409,319	

EUR thousand	31 December 2021		31 December 2020	
CAPITAL, RESERVES AND LIABILITIES				
CAPITAL AND RESERVES				
Share capital	500		500	
Other reserves				
Reserve for invested unrestricted equity	5,000		5,000	
Retained earnings	570		568	
Profit for the financial year	1	6,071	2	6,070
Appropriations				
Accumulated depreciation difference		243,682		225,818
Statutory provisions		243		243
LIABILITIES				
Long-term				
Connection fees		131,645		130,309
Total		131,645		130,309
Short-term				
Advance payments received	44		110	
Accounts payable	15,599		10,959	
Liabilities to group com- panies	39,930		27,035	
Other short-term liabilities	11,992		7,678	
Accruals and deferred income	1,145	68,709	1,098	46,880
Total liabilities		200,354		177,188
Total capital, reserves and liabilities		450,350		409,319

28. SAVON VOIMA VERKKO OY'S INCOME STATEMENT
1 Jan.–31 Dec. 2021

EUR thousand	1 Jan.–31 Dec. 2021	1 Jan.–31 Dec. 2020
NET SALES	109,062	96,782
Other operating income	64	36
MATERIALS AND SERVICES		
Raw materials and consumables		
Purchases during the financial year	14,294	13,448
Personnel expenses	1,423	1,209
Depreciation and reduction in value	27,487	26,243
Other operating expenses	20,934	25,927
OPERATING PROFIT	44,987	29,990
Financial income and expenses		
Interest and financial income	55	59
Interest and financial expenses	-1,284	-1,229
		-1,147
		-1,088
Profit before appropriations and taxes	43,759	28,902
Appropriations		
Change in depreciation difference	-17,864	-19,463
Group contributions given	-25,791	-9,250
Income tax	-102	-187
PROFIT FOR THE FINANCIAL YEAR	1	2

29. SHARES AND HOLDINGS

Name	Pcs	Group's share %	Parent company's share %	Book value (KEUR)
Group companies				
Savon Voima Joensuu Oy	91,197,543	100	100	519,856
Savon Voima Verkkö Oy	1,000	100	100	5,500
Savon Energia Oy	100	100	100	3
Associated companies				
Kymppivoima Oy	471,574	17.2	17.2	24,443
Kymppivoima Hankinta Oy	2,500	25.0	25.0	40
Väre Oy	4,619,375	46.2	46.2	19,637
Other significant holdings				
Varkauden Aluelämpö Oy	19,900	19.9	19.9	615

Signatures of the Board of Directors and auditor's note

Signatures to the financial statements and annual report

Siilinjärvi, 31 March 2022

Tarja Tikkanen

Juha Koukka
*Chairperson of the
Board of Directors*

Vesa Lötjönen

Jari Kääriäinen

Ossi Martikainen

Arto Sutinen
CEO

(The financial statements were signed electronically.)

Auditor's note

A report on the audit of accounts was submitted today.

Siilinjärvi, 31 March 2022

Ernst & Young Oy
Authorised Public Accountant Firm

Elina Laitinen
Authorised Public Accountant

(The auditor's note was signed electronically.)

Report on the Audit of Financial Statements

Opinion

We have audited the financial statements of Savon Voima Oyj (business identity code 0171351-2) for the financial year 1 January–31 December 2021. The financial statements comprise the balance sheets, income statements, cash flow statements and notes for the group as well as the parent company.

In our opinion, the financial statements give a true and fair view of the group's and the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the *Auditor's Responsibilities for the Audit of Financial Statements* section of our report. We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Board of Directors and the CEO for the Financial Statements

The Board of Directors and the CEO are responsible for the preparation of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the CEO are also responsible for such internal control as they determine is necessary to enable the preparation

of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the CEO are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of the Board of Directors' and the CEO's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant

deficiencies in internal control that we identify during our audit.

Other Reporting Requirements

Other Information

The Board of Directors and the CEO are responsible for the other information. The other information comprises the report of the Board of Directors.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. Our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations requirements.

If, based on the work we have performed, we conclude that there is a material misstatement of the report of the Board of Directors, we are required to report this fact. We have nothing to report in this regard.

Siilinjärvi, 31 March 2022

Ernst & Young Oy
Authorised Public Accountant Firm

Elina Laitinen, Authorised Public Accountant



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