

Oulun Energia in 2023

**WE OFFER SUSTAINABLE
ENERGY AND CIRCULAR
ECONOMY SOLUTIONS**



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Oulun Energia has a long history, but at the same time, is eager to modernise.

FROM THE CEO

A YEAR MARKED BY MANY SUCCESSES

The Oulun Energia Group's net sales for 2023 increased by almost 6 per cent to 284 million euros and the operating profit improved by 56 per cent to 61 million euros. We succeeded in just-in-time electricity production and reacted swiftly to the market. Energy production profits were strengthened by the high usability of our power plants as well as our operational efficiency and flexibility.

The development of Oulun Energia's next-generation energy system continued, and we made rapid progress in the utilisation of waste heat and the electrification of production, among other things. With the 40-megawatt electric boiler that began its trial run at the Laanila industrial park at the end of the year, we are able to produce heat more sustainably when electricity is affordable.

We boosted our transition towards renewable energy production. Oulun Energia is taking part with a significant share in one of Finland's largest solar power plant to be completed in Heinineva in Lapua in 2025, and we will continue to increase our wind energy capacity.

At the end of the year, together with our partner P2X Solutions, we prepared a large industrial-scale hydrogen project, which was announced in early 2024. Green

hydrogen is also a solution for cutting emissions from heat production. Waste heat created as a by-product could be transferred into the district heating network.

We made great progress on our journey towards carbon-neutral energy production by 2030. We were able to reduce carbon dioxide emissions and the use of peat significantly. The share of renewable energy sources rose to 74 per cent. We also continued doing volunteer environmental work. For example, the Merikoski fish pass we built has enabled good living conditions for migratory fish and the ability to migrate from the sea past the power plant into the Oulujoki river for as long as 20 years.

All this provides a good starting point for 2024, which is also our company's 135th year of operation. Oulun Energia has a long history, but at the same time, is eager to modernise. As one of the top companies in Northern Finland, Oulun Energia offers a great opportunity to promote the development of the energy sector in the energy transition and to pursue national and international growth in the circular economy.

Arto Sutinen
CEO

OULUN ENERGIA IN BRIEF

The Oulun Energia Group has a solid foundation in energy production and in providing heat and electricity a safe journey to the people. In addition, we offer circular economy solutions to support the sustainable growth of businesses. Our roots go as far back as 1889 and today, we employ approximately 250 energy industry experts. We take responsibility for people and our environment, with a goal of carbon-neutral energy production by 2030.

The parent company of the Oulun Energia Group is Oulun Energia Oy, which is entirely owned by the City of Oulu. The parent company, in turn, owns one hundred per cent of all its subsidiaries: Oulun Energia Sähköverkko Oy, Syklo Oy, Turveruukki Oy, and Huoltovoima Oy. In addition, Oulun Energia Oy is a significant shareholder of the following companies: Oomi Palvelut Oy, Ensin Palvelut Oy, Kolsin Voima Oy, Voimapato Oy, and Pasaati Holding Oy.

Key figures 2023

Net sales
283.9 MEUR

Operating profit
61.3 MEUR

Employees
251

Customers, electric
power network
119,363

Customers, district
heating
11,031

Amount of electricity
produced
1,153 GWh

Amount of heat produced
2,278 GWh

Carbon-neutral energy
production
75%

Business areas

ENERGY PRODUCTION

Our job is to produce electricity and heat for the region's residents and businesses.

ENERGY SERVICES

We are responsible for the transmission and distribution of heat within our own distribution network in Oulu and for providing energy services for our customers.

CIRCULAR ECONOMY SERVICES

We offer businesses a comprehensive network of circular economy services to achieve innovative growth.

ELECTRICITY NETWORK SERVICES

We are responsible for the transmission and distribution of electricity in our own distribution network, which covers the Oulu central urban area, Kiiminki, and Yli-li.

OULUN ENERGIA'S POWER PLANTS IN 2023



Merikoski power plant

PRODUCES HYDROELECTRICITY

Completed: **1948**

Electric power: **40 MW**



Toppila 2

PRODUCES ELECTRICITY AND DISTRICT HEATING

Completed: **1995**

Main fuel: **biomass**

Fuel power: **315 MW**

Electric power: **120 MW**

District heat power: **170 MW**



Laanila ecopower plant

PRODUCES STEAM FOR INDUSTRY, AS WELL AS HEAT AND ELECTRICITY

Completed: **2012**

Fuel power: **53 MW**

Fuel: **non-recyclable waste**



Laanila biopower plant

PRODUCES ELECTRICITY AND DISTRICT HEATING, AS WELL AS PROCESS STEAM FOR INDUSTRY

Completed: **2020**

Main fuel: **biomass**

Fuel power: **215 MW**

Electric power: **70 MW**

District heat power: **175 MW**



BOLDLY EMBRACING THE FUTURE

In our strategy, we are boldly embracing the future and growing into an energy and circular economy company.

OULUN ENERGIA'S STRATEGY 2021-2025

Customer-centric

We listen, anticipate, and respond to our customers' needs.

Our customers rely on our responsible operations and value our contribution as a local sustainer of well-being.

Finland's most energetic workplace

At Oulun Energia, both our work and our workers are well. Meaningful work, clear objectives, good leadership, and an inspiring atmosphere motivate success. With us, you can boldly create new things and be successful.

Boldly embracing the future

We are looking to grow with the circular economy and industrial partnerships.

We are strengthening our current operations through digitisation and are developing better practices together.

A responsible pioneer

We take responsibility for people and our environment. We are moving together towards carbon-neutral energy production in 2030. It is important to us that future generations can be proud of the results of our work.

Financial objectives

Profitability improvement and controlled growth

OUR VISION

We are building the future in a way that future generations can be proud of.

OUR MISSION

We are strengthening northern vitality by recycling good energy.

OUR VALUES

Together – Responsibly
– Enthusiastically



TRENDS IN THE OPERATING ENVIRONMENT

Combatting climate change

Transitioning to a circular economy

Changing customer needs

Digitisation

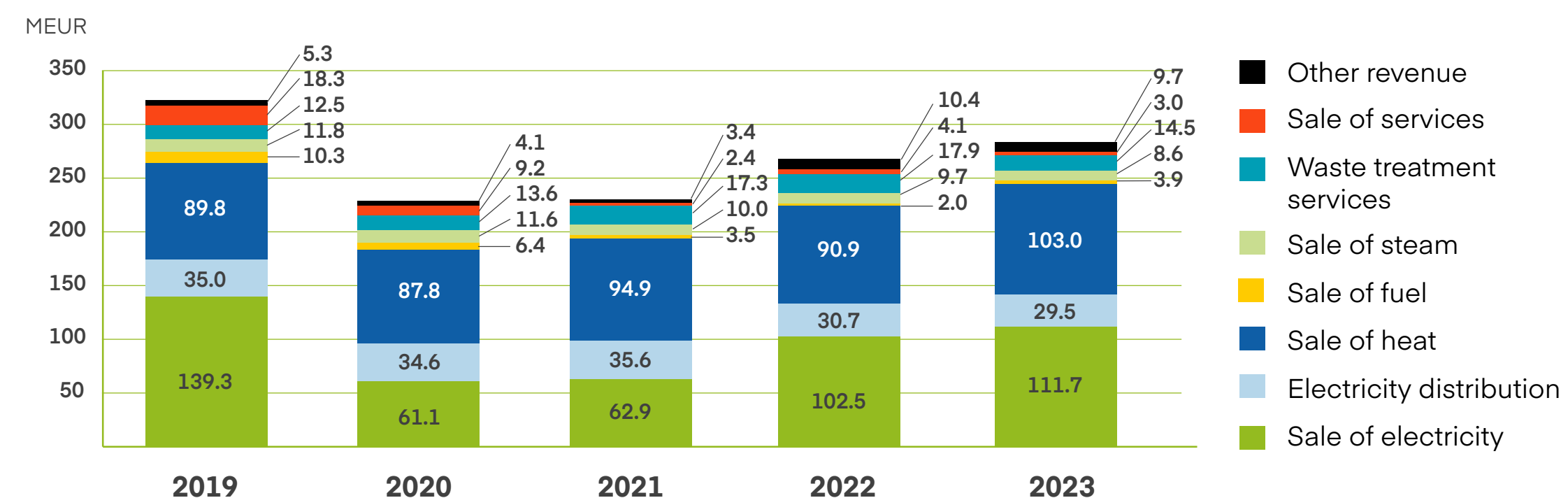
Networked business models

FINANCIAL DEVELOPMENT IN 2023

KEY FIGURES

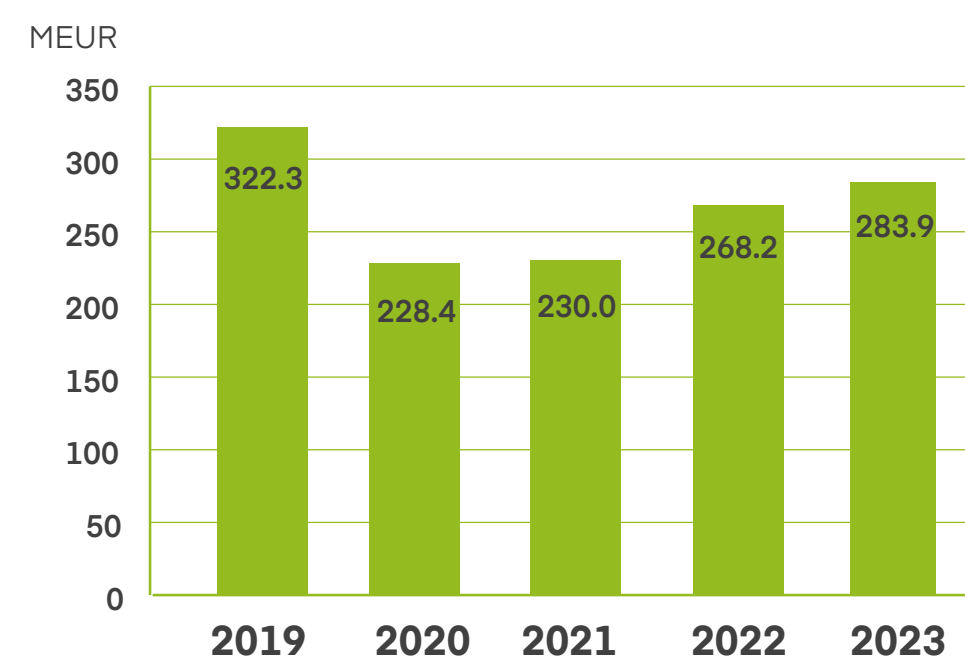
	2023	2022
Net sales (MEUR)	283.9	268.2
Operating profit (MEUR)	61.3	39.3
Investments (MEUR)	60.0	35.1
Net sales/person (MEUR)	1.09	1.08
Operating profit/person (MEUR)	0.24	0.16
Approx. number of employees	260	249

DISTRIBUTION OF SALES REVENUE *

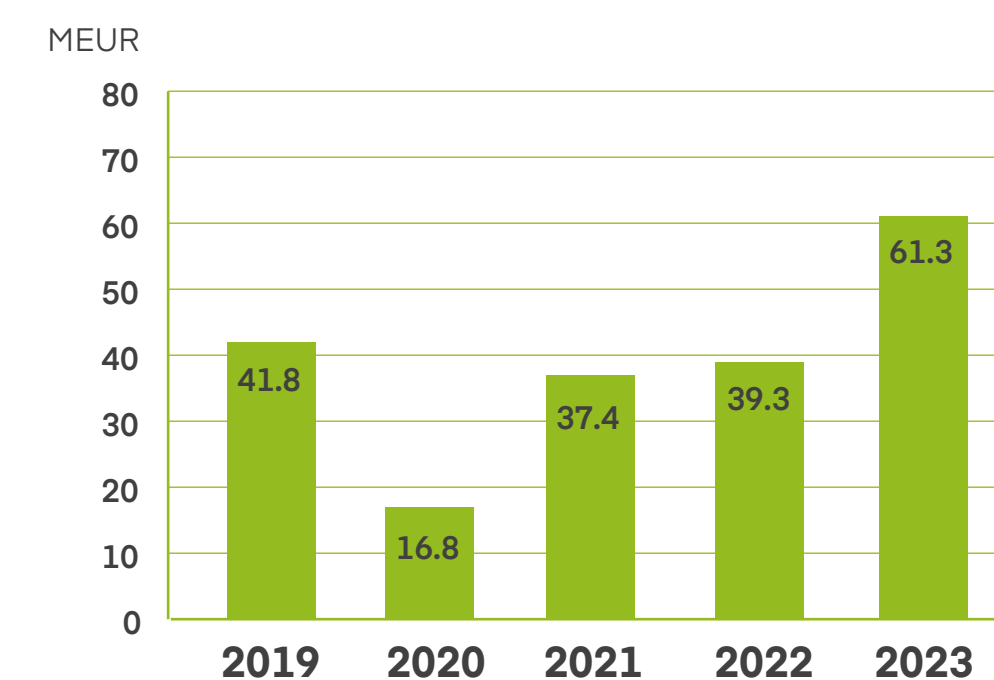


* Total for Oulun Energia Oy, Oulun Energia Sähköverkko Oy, Syklo Oy, and Turveruukki Oy. Internal business operations eliminated. The years 2020 and 2021 are not comparable to the previous years due to the transfer of the sale of electricity business operations to Oomi Oy in 2020 and the sale of Oulun Energia Urakointi Oy to Destia in 2021.

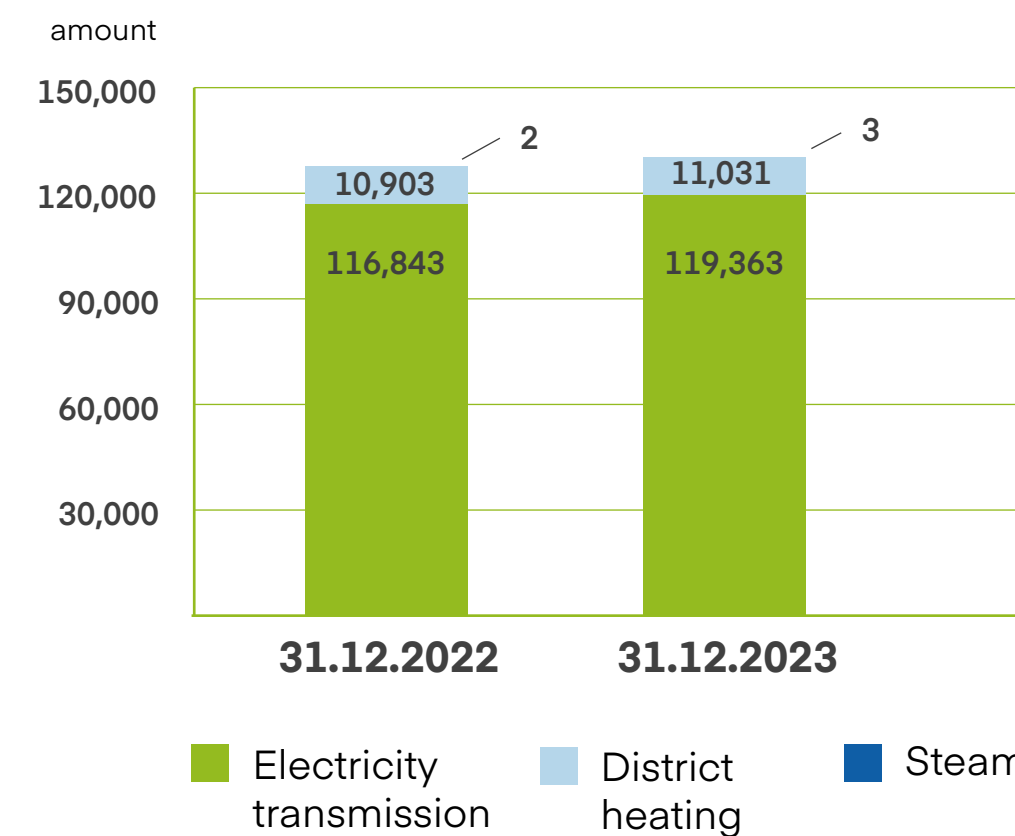
NET SALES



OPERATING PROFIT



NUMBER OF CUSTOMERS



2023 HIGHLIGHTS

ELECTRICAL CONTRACTING AGREEMENT WITH ELVERA

Oulun Energia Sähköverkko Oy signed a three-year electrical contracting agreement with network and infrastructure service operator Elvera. The agreement covers the construction, maintenance, metering, fault management, and on-call work of the electricity network. The cooperation guarantees the electric power network services sufficient resources and competent knowledge in electrical contracting work.

[Read more on our website.](#)



THE MILJÖÖ INNOVATION GRANT FOR PROJECTS PROMOTING SUSTAINABLE DEVELOPMENT AND INNOVATIONS

Each year, we grant the Miljöö Innovation Grant to support projects that promote carbon neutrality, smart energy solutions and technologies, the circular economy, and bio-based solutions, for example. In the 2023 application round, we granted a total of 124,500 euros to nine different projects.

[Read more on our website.](#)



ARTO SUTINEN BECAME THE CEO

Arto Sutinen started as Oulun Energia's new managing director in December 2023. Sutinen transferred to Oulun Energia from Savon Voima, where he worked as the Group's CEO. Sutinen has a very strong knowledge of the energy sector and experience as an office-holder in several national organisations.

[Read more on our website.](#)



THE SHARE OF PEAT IN ENERGY PRODUCTION CONTINUED TO DECLINE

To accelerate our journey towards carbon-neutral energy production by 2030, we are committed to phasing out peat use in 2025. The share of peat use in our energy production decreased significantly compared to the previous year: The share was 15 (2022: 21) per cent.

[Read more on page 11.](#)

NEW DISTRICT HEATING SERVICE PACKAGES – REILU, ONNI, AND VALVE

Our new district heating service packages, launched in autumn 2023, are the carefree and reliable Reilu, 100% carbon-neutral Onni, and Valve, designed for businesses, which monitors consumption intelligently. All of our customers can conveniently monitor their district heat consumption with our redesigned mobile app.

[Read more on our website.](#)



INVOLVEMENT IN THE LAPUA SOLAR POWER PLANT PROJECT

We made our largest solar power investment decision by being involved in the Lapua solar power plant project with a significant share of 30 per cent. The field, which will be built on a former peat production land, will produce approximately 70 gigawatt hours of electricity per year in its first phase.

[Read more on our website \(in Finnish\).](#)



Nokia's smart energy centre utilises the waste heat produced from cooling

In late summer 2023, Oulun Energia started building a smart and an environmentally friendly energy centre in connection with Nokia's facilities and production areas that will be completed in 2025 and are located in Linnanmaa, Oulu. When completed, the energy centre will provide the cooling required for Nokia's operations. The waste heat produced from the cooling is utilised in Oulun Energia's district heating network.

The size of the project is significant for Oulun Energia and for the whole Oulu region. There are only a few plants in Finland that are able to produce district heat from the waste heat of the space and completely optimise its energy flows effectively. The utilisation of waste heat in the district heating network is part of Oulun Energia's strategy towards carbon-neutral energy production by 2030. We are purposely moving towards this goal with this project.

The waste heat produced from the operation of the energy centre is used to responsibly produce approximately 70,000 megawatt hours of carbon-neutral district heat per year. The district heat produced corresponds to approximately 4 per cent of Oulun Energia's annual district heat demand. Oulun Energia is designing and implementing the energy centre for Nokia as a service that includes building a heat pump plant, supplying cooling, and capturing waste heat for the district heating network.

The Laanila industrial area is developing and attracting new operators

The development of the Laanila industrial area is one of our priorities in the current strategic plan. The goal is to develop the Laanila area into an attractive destination for our partners in need of clean and competitive energy.

At the moment, a biopower plant that produces energy, district heating, and process steam in an energy-efficient manner and an ecopower plant that processes non-recyclable waste into steam, heat, and electricity form the basis of the operations. The steam produced by the biopower and ecopower plants is recovered into use for the region's industrial processes.

In 2022, we made investment decisions totalling approximately 19 million euros for the development of the Laanila industrial area, and the investments progressed according to plan in 2023. Towards the end of the year, we introduced an electric boiler that utilises emission-free electricity for the production of district heat. The electric boiler power has a 40-megawatt output and can be used to produce heat for customers at very competitive prices during times of affordable electricity. The investment in



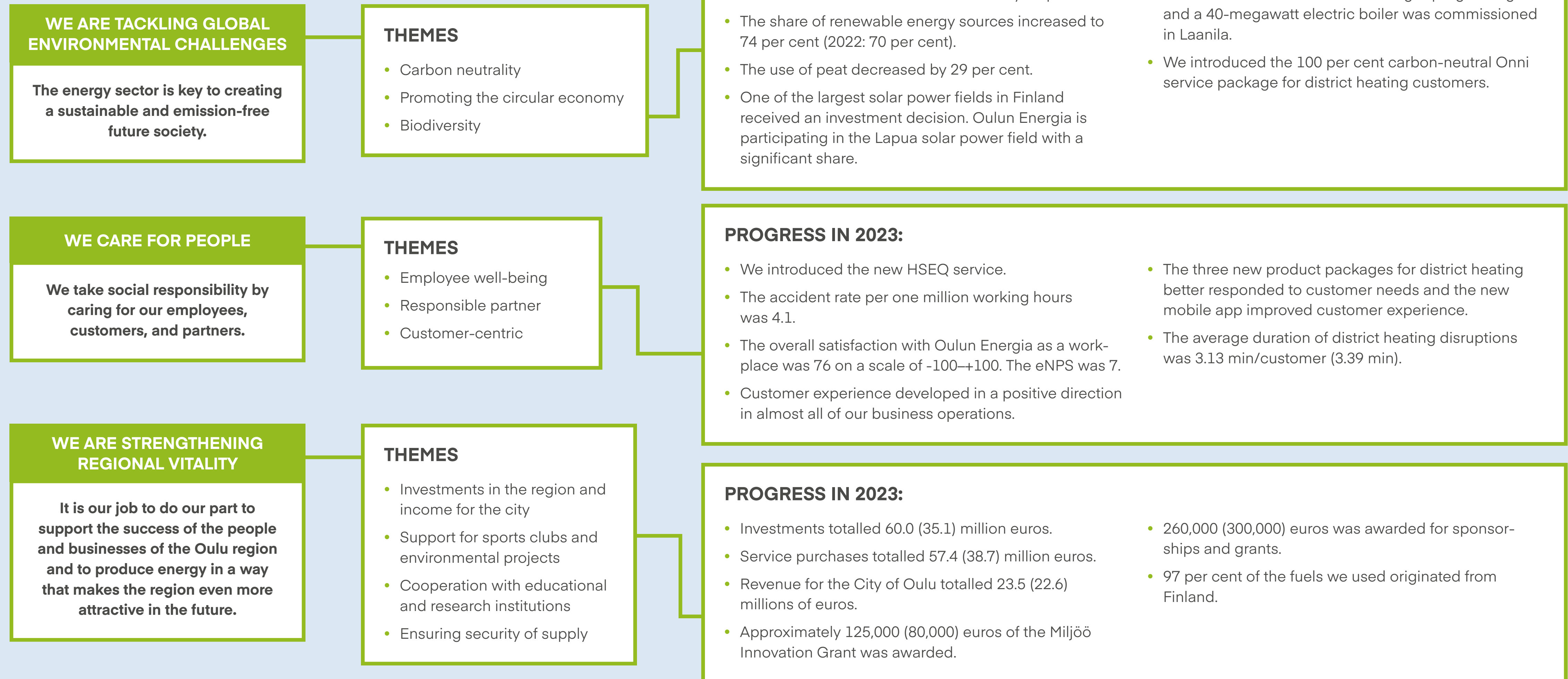
the electric boiler is also an important point in our path to carbon neutrality because it enables us to reduce the use of oil.

At the ecopower plant, we introduced a new turbine with a 6-megawatt output, which enables us to produce electricity from waste fuels as well. A fixed chipper to streamline the processing of fuelwood into the biopower plant's fuel will be completed in the first half of 2024. With it, we can improve the security of supply of wood chip distribution and reduce the environmental impacts when the chipping is carried out without the use of fossil fuels. Heat pump investments are also in the plans to improve energy efficiency and reduce fuel demand in both of the Laanila power plants.

Industry using process steam can be integrated around the biopower plants, providing new opportunities for the region's bioeconomy. Oulun Energia gained an important partner when Junnikkala Oy's Oulu sawmill started its operations in the Laanila area in 2023. Our biopower plant is responsible for distributing heating energy to the sawmill drying units. In turn, the bioenergy residues from the sawmill will be recovered in Oulun Energia's production of electricity and heat.

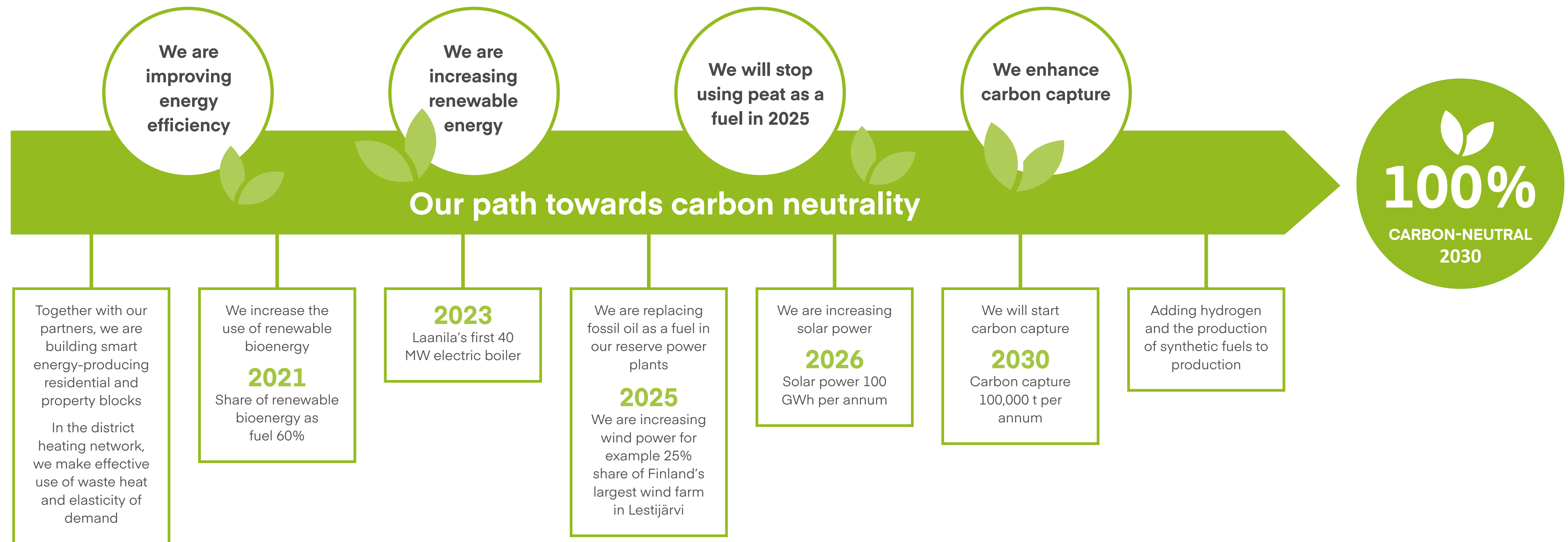
OUR RESPONSIBILITY PROGRAM

We want to be a pioneer in all three of the dimensions of responsibility; in relation to people, the economy, and the environment.



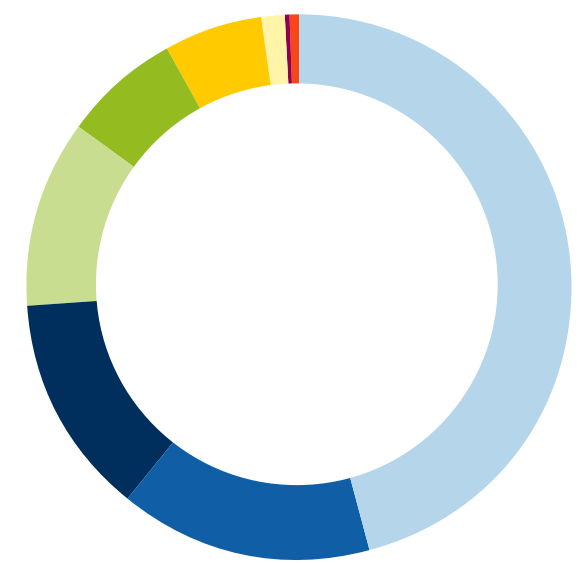
AIMING FOR CARBON NEUTRALITY BY 2030

Oulun Energia's aim is to achieve carbon neutrality in energy production by 2030. Our path to carbon neutrality is guiding us towards this goal. This includes improving energy efficiency, phasing out the use of peat as a fuel, increasing the share of renewable energy, and enhancing carbon capture.



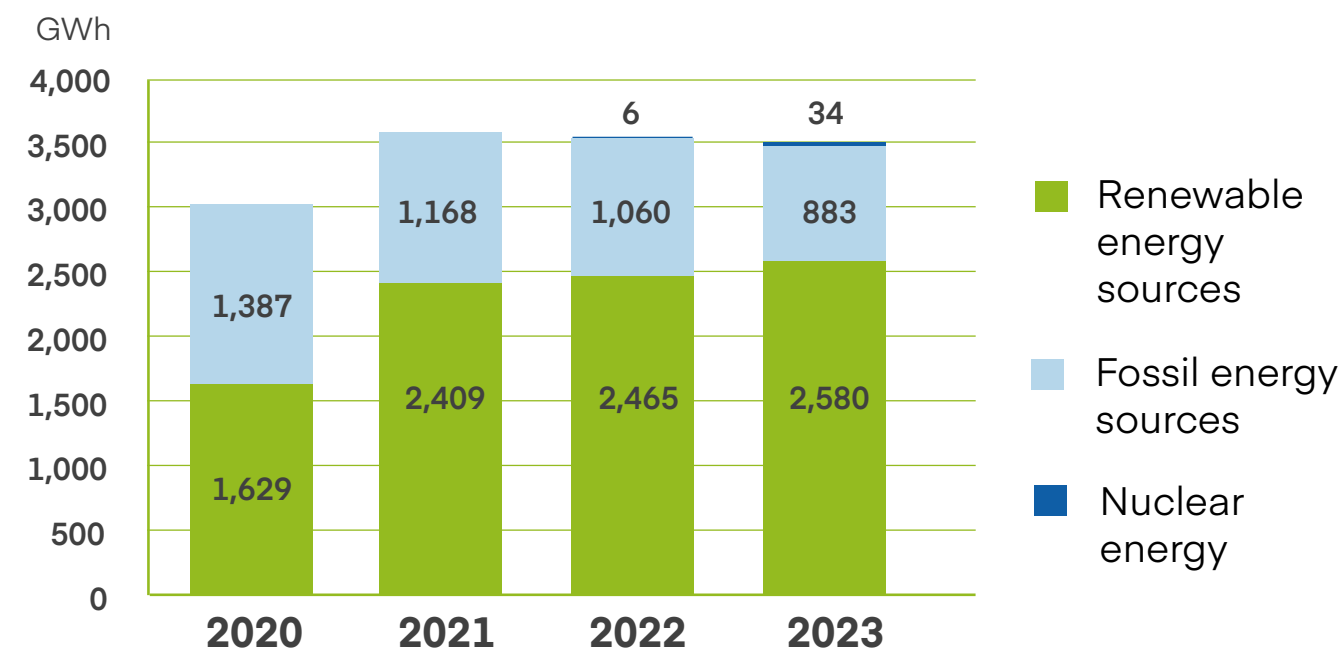
In 2023, we reduced our carbon dioxide emissions by 18 per cent compared to the previous year, and the share of renewable energy sources was 74 per cent.

ENERGY PRODUCTION ENERGY SOURCES, OWN AND PARTLY OWNED PRODUCTION, GWH



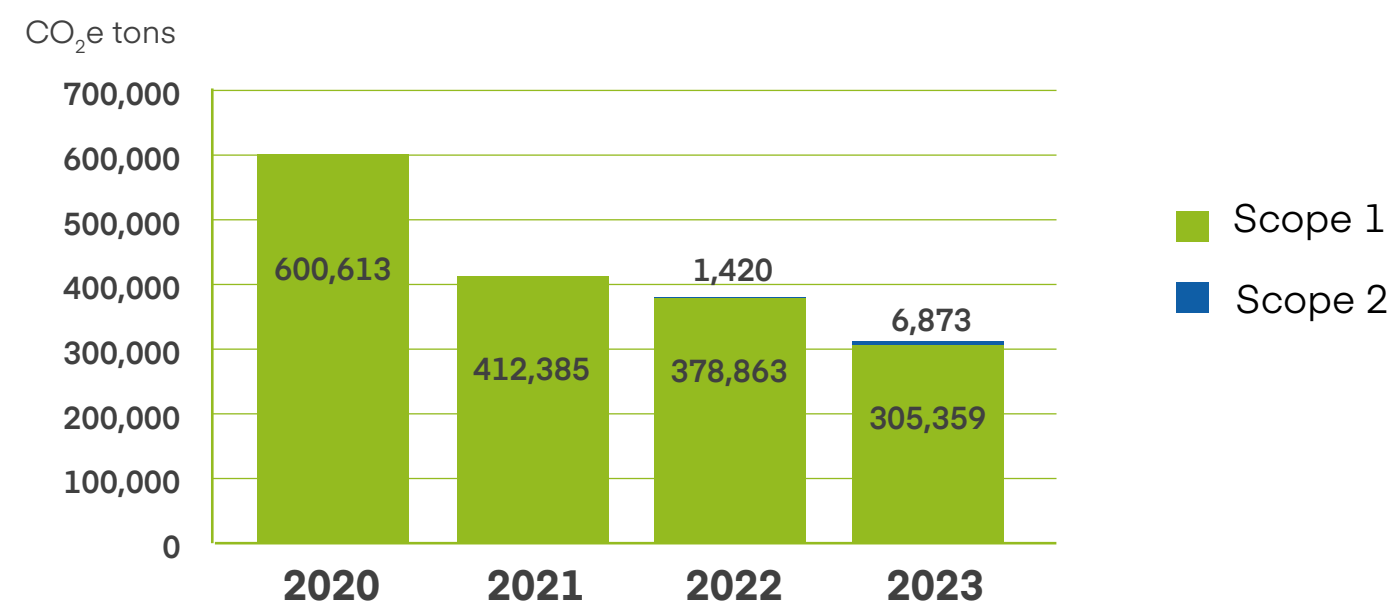
- Wood and other renewable solid fuels 46% (1,593 GWh)
- Peat 15% (517 GWh)
- Water 13% (445 GWh)
- Waste 11% (370 GWh)
- Wind 7% (253 GWh)
- SRF 6% (194 GWh)
- Oil 2% (59 GWh)
- Demolition wood 1% (31 GWh)
- Nuclear 1% (34 GWh)

ENERGY SOURCES CATEGORISED INTO RENEWABLE AND FOSSIL SOURCES

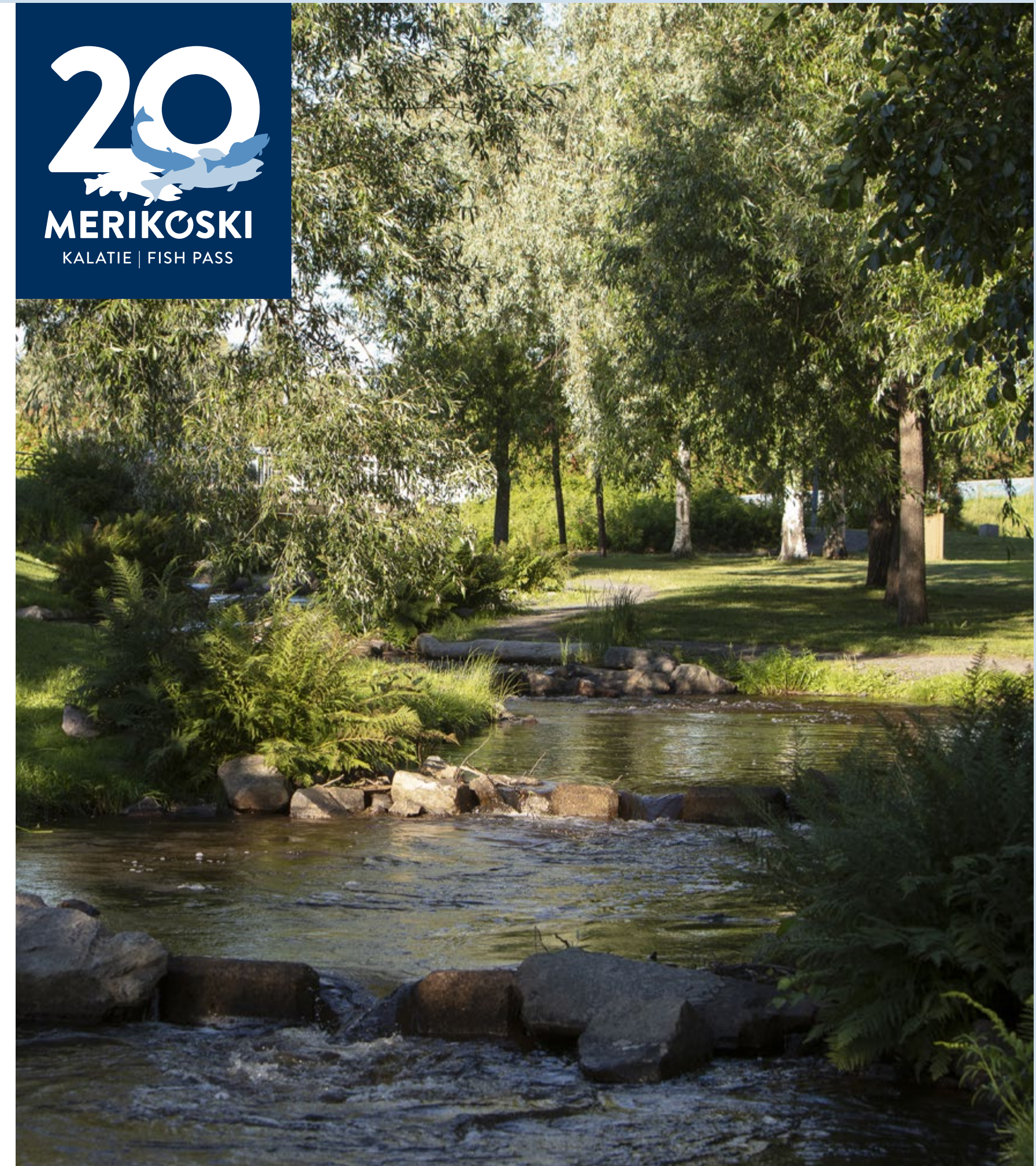


Including both our own and partly owned energy production.

OUR OWN CO₂e EMISSIONS



The emissions of 2016 (base year) have been calculated retroactively in 2020. Scope 2 has been calculated since 2022.



MERIKOSKI FISH PASS CELEBRATED 20 YEARS

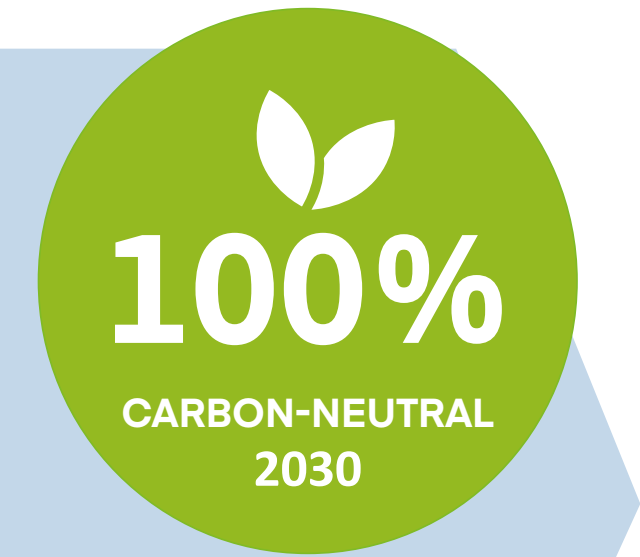
The Merikoski fish pass, which has become a well-known and popular landmark, allows fish to migrate from the sea past the power plant to the upper course of the Oulujoki river. In 2023, the fish pass celebrated exactly 20 years since its commissioning, during which more than 16,000 salmon and almost 3,000 trout have migrated up it.



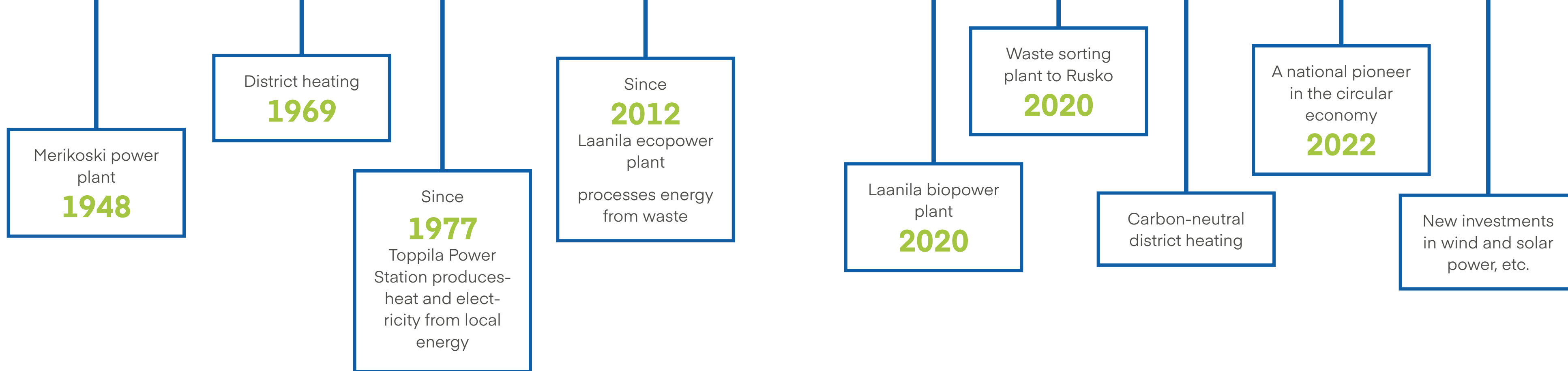
In the past decades, we have laid a solid foundation for energy production and for heat and electricity to have a safe journey to the people.

**In the 2020s,
the energy transition
challenges us in
a new way.**

We are heavily investing and will continue to invest in the circular economy and in new energy solutions.



Our most significant investments and development activities



Read more about us at www.oulunenergia.com

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