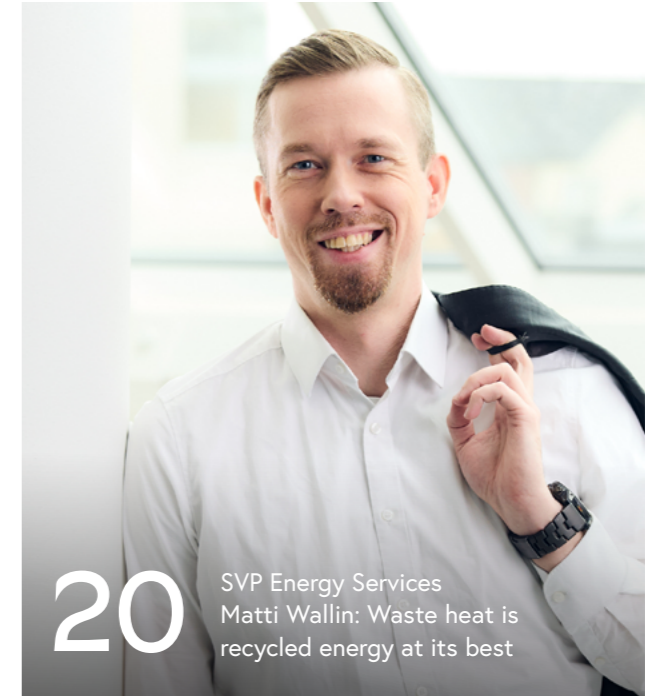




Annual Report  
2024





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# Vantaan Energia

## - The art of doing more with less

We are one of the largest urban energy companies in Finland and we solve the biggest challenges of our time by ensuring that energy and limited resources circulate as smartly as possible. We aim to become the leading circular energy company in the Nordics by 2035.

We are continuously developing new things so that the people of Vantaa can have access to affordable, reliable and sustainable energy and related services now and in the future.

- We keep Vantaa moving and warm at every moment of the year through energy production and distribution.
- We are one of the leading thermal waste processors in the Nordic countries. We offer thermal treatment services for non-recyclable waste to waste management companies and efficiently convert it into heat and electricity.
- 90% of the properties in Vantaa are heated by us and all the city's properties receive their electricity through our electricity networks.
- Our business areas are Energy Production, Power General Business, Energy Services, Circular Economy Business and Electricity Network Business.

Read more about us at [www.vantaanenergia.fi](http://www.vantaanenergia.fi)

Turnover

**291 M€**

Operating profit

**61 M€**

Employees

**381**

Investments

**131 M€**

Circular energy  
is the art of doing  
more with less

# Key figures

## Customer satisfaction (B2B)

### EPSI-rating

Vantaan Energia Energiapalvelut

Vantaan Energia Sähköverkot Oy

# 80.3

# 73.4

On a scale of 0-60 dissatisfied, 60-75 satisfied and over 75 very satisfied.  
For both companies, we were voted the best in Finland.

## Electricity supply security (average downtime)

Electricity transmission

# 1.6

min/customer

District heating

# 0.52

hour/customer

## Energy networks in Vantaa

# 580 km

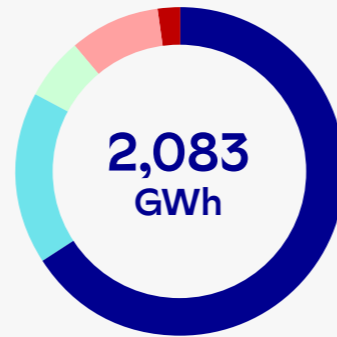
of district heating network

# 3,700 km

of electricity network

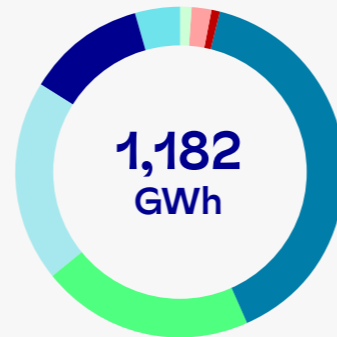
## Energy sources for energy production

### District heating



- Waste 66%
- Biofuels 17%
- Coal 6%
- Natural gas 9%
- Peat 2%

### Electricity



- Hydropower 39.5%
- Nuclear power 20.7%
- Wind power 19.7%
- Waste and other fuels 11.9%
- Biofuels 4.2%
- Coal 2.0%
- Natural gas 1.3%
- Peat 0.7%



# Events of 2024



## We committed to the Circular Economy Green Deal

We took concrete steps to promote a smart circular economy by becoming the first energy company to commit to the Ministry of the Environment's Circular Economy Green Deal. The measures required by the Circular Economy Green Deal are part of our project, the central objective of which is to rapidly cut carbon dioxide emissions from energy production and promote recycling solutions.

## Vantaa and Espoo district heating networks connected

The district heating pipelines of Vantaa and Espoo were connected in autumn 2024, and the heat exchanger station enabling heat trade is well on its way to being built in Vapaala, Vantaa.

We will start heat trade with Fortum towards the end of 2025; this will enable the district heating network between Vantaa and Espoo to transfer district heat produced with the most competitive production forms at any given time, depending on the current heat demand.



## We received Great Place To Work certification

GPTW certification is a testament to our commitment to building a great place to work and to improving the employee experience and work culture at our workplace. It also demonstrates to our external stakeholders that our employees feel that their workplace is a great place to work.

## Construction of Martinlaakso's electric boiler and thermal battery started

We are building a 60 MW electric boiler and a 700 MWh thermal battery in the Martinlaakso power plant area. Electrically produced heat will play an increasing role in the flexible heating system being built in Vantaa, where heat is sometimes produced with electricity, sometimes with other production methods – in the smartest way given the circumstances. For Vantaa residents, the electric boiler ensures that competitive district heating prices are maintained, when it is possible to utilize moments of cheap electricity in heat production.



## We started the Liike-energiaa -elämään program

Liike-energiaa elämään program is our way to collaborate with locals with the goal of helping the people of Vantaa to move more and find the joy of the movement.

For example, in collaboration with the Vantaa Marathon, we offer free and open Energetic Sunday Runs every Sunday at 10:00 AM at the Tikkurila Sports Park.



CEO Jukka Toivonen

## CEO's Review

# Becoming the Nordics' leading circular energy company

Circular energy produced smartly is based on recovering energy that previously went to waste. By doing more from less in this way, Vantaan Energia will remain reliable and affordable also during the clean transition.

At Vantaan Energia, we have been on a successful journey of change: just 10 years ago our energy production was based exclusively on fossil fuels, but next year we will be able to phase them out completely. Fossil fuels can be replaced with heat generated by the High-Temperature Incineration Plant and the Martinlaakso electric boiler. Before the world's largest cavern thermal energy storage facility, Varanto, becomes operational, we will still need the heating plants that currently use natural gas for those freezing winter days. We will replace fossil-based natural gas with biogas in 2026. The phase out of fossil fuels is a major milestone for us on our sustainability journey.

More than 90% of the properties in Vantaa are heated by us. Our circular energy-based choices have made Vantaa District Heating the most affordable in the Helsinki metropolitan area. At the core of a circular energy company's operations is the ability to put energy and materials back into circulation.

The project to recover carbon dioxide from the thermal treatment of non-recyclable waste is progressing, and its aim is to recover the carbon dioxide by 2035. We are now building a pathway to an investment decision that could be made in 2027. The project is currently in the permitting, zoning and partnering phase. Investments over the next 10 years will reach the billion-euro range. We also want to move forward in a controlled and responsible way, so that Vantaa District Heating remains affordable and reliable.

It's worth noting that we are now leading the way in creating a carbon capture and storage value chain that would offer new opportunities for Finnish industry. This is a project for all of Finland, not just Vantaan Energia. Accordingly, making the project a reality requires broad public support at the national and EU level.

We will set a science-based climate target in line with the Science Based Targets initiative (SBTi), and we commit to publicly report on the progress towards this target.

**Vantaa District Heating is based on circular energy**

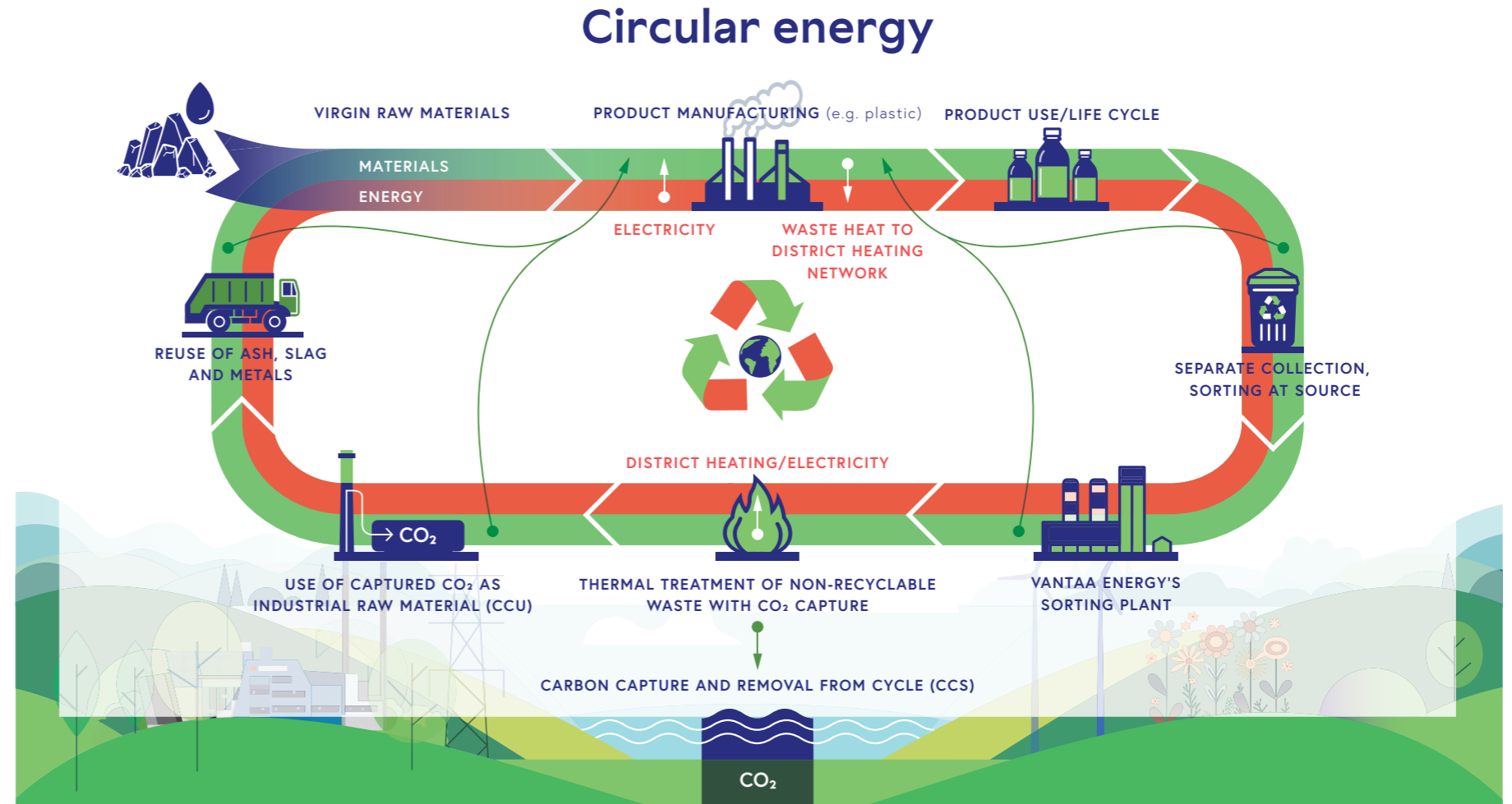
Through our future projects, we are developing Vantaa District Heating so that we get increasingly more previously wasted heat to warm buildings or for cavern thermal energy storage facility for use in the cold winter months. This is what we call circular energy. We are also increasing the production of heat based on clean electricity, which we use to generate heat when electricity prices are low. Thanks to advanced optimization, we are always able to produce and distribute heat in the smartest possible way.

One of the major projects under planning is a waste sorting plant to ensure that only non-recyclable waste ends up in thermal treatment. The commissioning of this plant would give us the opportunity to double the amount of plastics entering the recycling stream in the HSY area. At the same time, the share of fossil-based waste in thermal treatment would decrease.

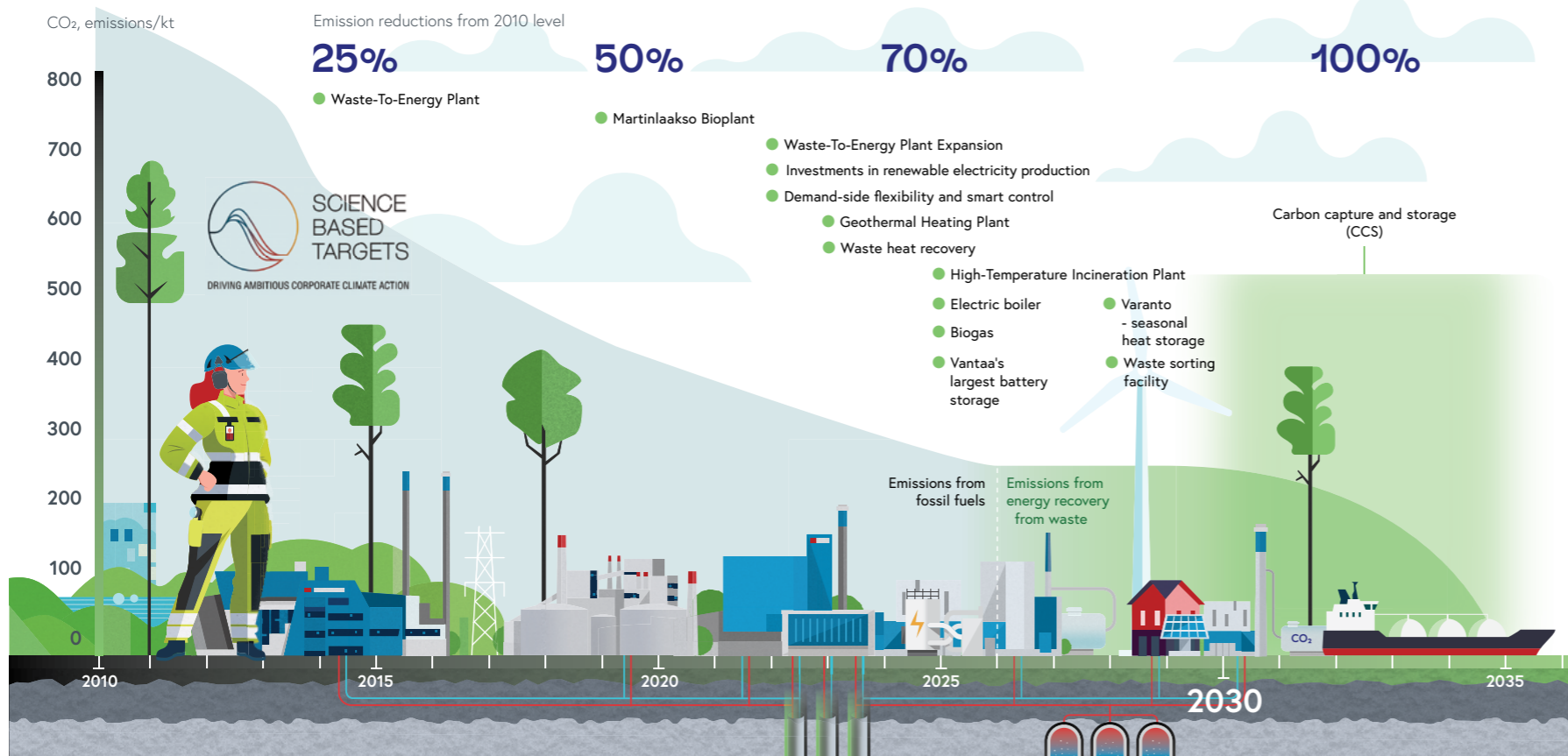
In addition to Varanto, we are also preparing for changes in the operating environment by exploring the possibility of building a second cavern thermal energy storage facility, Varanto II, at the Martinlaakso Power Plant site, in West Vantaa, in place of the coal field.

The district heating and electricity networks also need to be strengthened. Electricity power demand in Vantaa is expected to double by 2030. This means we will need to invest a lot into strengthening the electricity network.

Our strategy and planning very much reflects our alertness to changes in the operating environment. Geopolitics, regulatory changes and changes in customer behavior all have a major impact on us. We are a pioneer in the clean transition, but we are moving forward in a controlled and responsible way.



## Fossil-free energy production by 2026, capturing emissions from energy recovery of waste by 2030–2035



### From the Finnish series to the Nordic league

We differ from other domestic energy companies in many ways. We are among the largest, in terms of financial and production indicators. No other city in the Nordic countries has as high of a proportion of the city's properties heated by heat that is a byproduct of the thermal treatment of waste.

The circular economy business we have created around the thermal treatment of waste sets us apart from others. With the completion of Varanto, we will have the world's largest cavern thermal energy storage facility, creating energy efficiency on the scale of a large city. We also have the most ambitious target for waste heat recovery compared to our Nordic peers.

We feel that we have a clear group of peer companies in the major Nordic cities of Stockholm, Gothenburg, Oslo and Copenhagen. We aim to be the leading player in this group by 2035. Being the leader means that we are significant both in terms of progressiveness and size of operations, but we have no plans to expand geographically to other countries.

Making the thermal treatment of waste sustainable with the sorting plant and carbon capture, the ability to process large volumes of a wide range of waste, massive recovery of waste heat, the world's largest seasonal thermal energy storage and a significant amount of heating based on clean electricity will make us the leading player in the Nordic region by 2035.



Sustainability



Environmental and Sustainability Manager Minna Jokinen

# Sustainability is now under the magnifying glass

In the future, companies must be more transparent and accurate about the impacts of their business operations. New reporting requirements encourage us forward on sustainability path.

Vantaan Energia has been reporting on the social and environmental impacts of its operations to its stakeholders for more than 20 years, since 2002. During this time, we have developed our reporting based on the guidelines in force at the time.

It is fair to say that we are well prepared to meet the requirements of the latest guidance, the EU's Corporate Sustainability Reporting Directive. The directive is applicable to companies that meet certain criteria related to turnover, assets and number of employees.

We will publish our first directive-compliant sustainability report in 2026 as part of the Board of Directors' Annual Report.

Sustainability claims and related figures must be accurate and verifiable. As part of reporting, data management and calculation methods must be developed. We are constantly striving to develop the collection and digitalization of environmental and emissions data for the purpose of improving our own operations and reporting.

Reporting requirements bring structure, says **Minna Jokinen**, Environmental and Sustainability Manager at Vantaan Energia.

"It is not worth doing things just for the sake of reporting, but rather utilize the Reporting Directive to support the development of sustainability work. Preparing for the requirements of the Directive has helped us in developing responsibility, and we will continue our work regardless of any changes in the legislation".

The information must be comparable, but companies do not have to report on all the issues listed in the directive – only those that are relevant to the company and its stakeholders.

According to the directive, materiality must be assessed transparently from two perspectives. Firstly, what kind of impacts the company's operations have on the environment and society. Secondly, what factors external to the company pose risks or opportunities for its business.

For years, climate change mitigation has been at the top of Vantaan Energia's list of most material responsibility issues, and the company has a billion-euro investment program aimed at cutting emissions. In order to verify the emission reduction targets, we have decided to join in setting ambitious climate targets in accordance with the Science Based Target framework.

"If up to now we have mainly reported on our own operations, in the future we will also have to report on the responsibility of our value chains. For example, we will review our supply chains to ensure that they do not involve human rights risks or violations," says Jokinen.

We have long been working to ensure that we and our contractors share the same standards when it comes to occupational safety. Going forward, we will pay even more attention to the working conditions and the terms and conditions of our contractual partners and their subcontractors.

Substantiating sustainability requires us to collect information and actively communicate with the actors in our value chains.

# Our main sustainability goal is to rapidly reduce emissions from energy production

We will reduce carbon dioxide emissions from energy production by phasing out of the use of fossil fuels in energy production by 2026 at the latest and by making the thermal treatment of waste carbon neutral as quickly as possible thereafter. The total carbon dioxide emissions covered by the emissions trading scheme during 2024 were 100,309 tonnes. Fossil carbon dioxide emissions from waste boilers covered by the emissions trading monitoring obligation were 338,589 tonnes.

Despite the decrease in the use of fossil fuels, total emissions from energy production increased due to a change in the emission calculation method for waste thermal treatment, i.e. waste incineration.

This year's emissions are expected to decrease when the Electric Boiler, which uses renewable electricity, is put into operation.

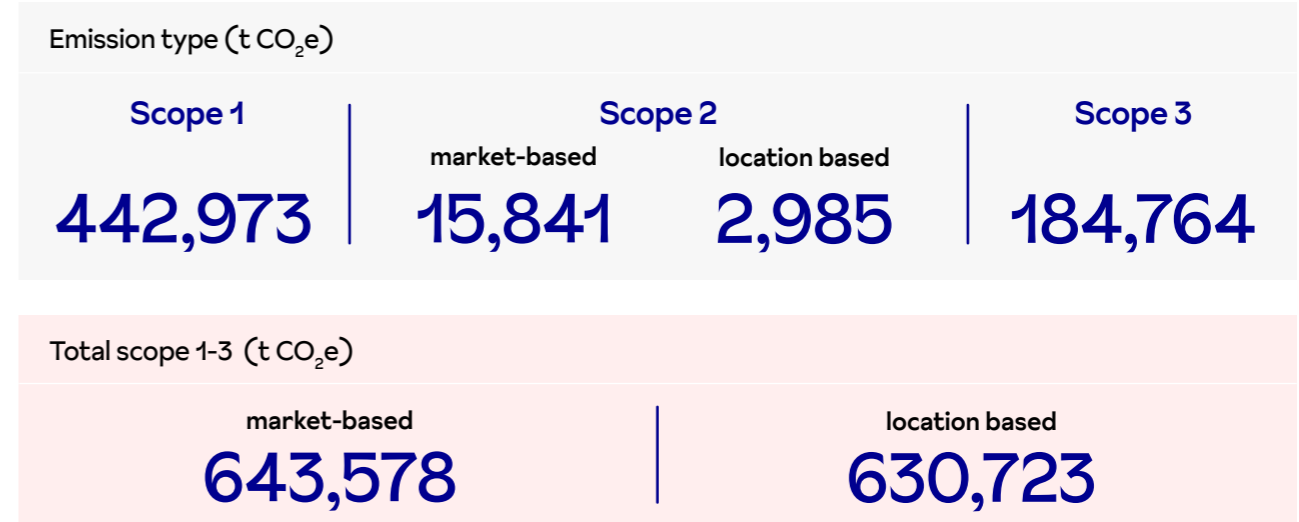
## We report Scope 1-3 emissions

Our emission calculation has been carried out in accordance with the GHG protocol, which is a global standard for measuring and managing greenhouse gases.

According to the protocol, emissions are sorted into three categories: scope 1, 2 and 3. Vantaan Energia's emission calculation covers the following classes and categories (marked in brackets):

### Scope 1: direct greenhouse gas emissions from own operations

- own energy production, fuel consumption of own vehicles and leased vehicles, and refrigerants used



### Scope 2: indirect greenhouse gas emissions from own operations

- transmission losses of purchased electricity and purchased co-ownership electricity

### Scope 3: other indirect greenhouse gas emissions

- purchased products and services, fixed assets, indirect emissions of fuels and energy, supply chain (waste, fuels and chemicals) transportation, treatment of waste and wastewater generated in operations, business travel, capital investments in co-ownership companies

The remaining scope 3 categories have been excluded from the emission calculation, as they do not belong to Vantaan Energia's business or their significance in terms of the overall emission calculation is negligible.

## We will set climate targets in accordance with the Science Based Targets Initiative (SBTi)

We have announced a commitment to a climate science-based emissions reduction target in accordance with the Science Based Targets Initiative (SBTi).

We will set targets during 2025 for validation by SBTi and we commit to publicly reporting on the progress of the target.



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Sustainability management

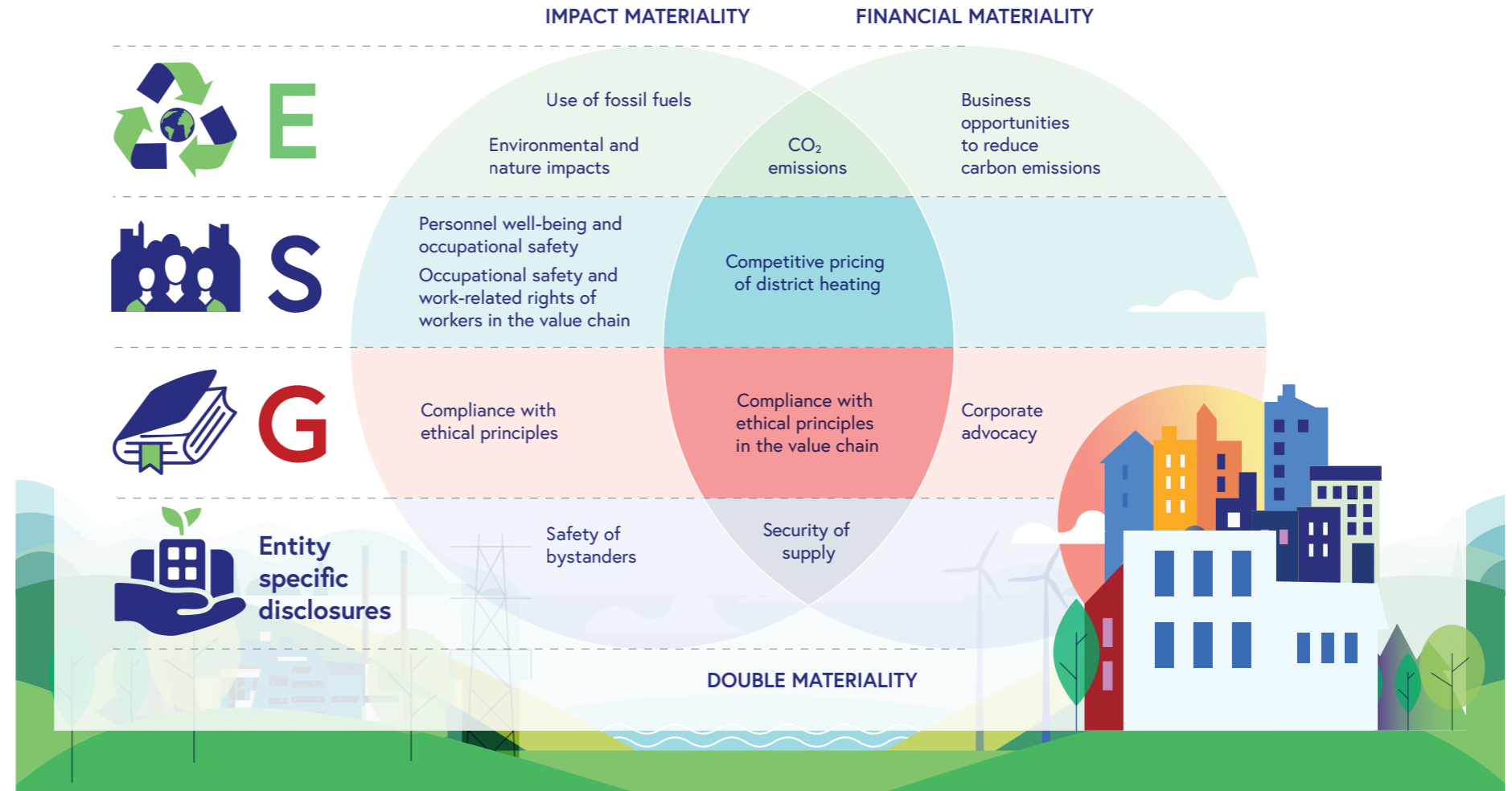
# Our sustainability targets

SDG framework target	Target	Outcome 2024
<b>Climate change mitigation</b>		
<ul style="list-style-type: none"> <li>– Climate change mitigation (environmental responsibility)</li> <li>– SDG target 13 – Climate action and SDG target 9 – Industry, innovation and infrastructure</li> </ul>	<p>We will phase out the use of fossil fuels in energy production in 2026.</p> <p>We aim to cut carbon dioxide emissions from thermal waste treatment using recovery technology by 2035 at the latest.</p> <p>95% of the electricity we produce will be climate neutral by 2026.</p>	<p>Actions underway: Our investment path aims to phase out the use of fossil fuels in energy production.</p> <p>Actions underway: Our carbon capture and storage projects are underway. The current phase of the project is aiming for a possible investment decision in 2027.</p> <p>Currently, 84.2% of the electricity we produce is climate neutral.</p>
<ul style="list-style-type: none"> <li>– Affordable, low-emission and reliable energy (social and economic responsibility)</li> <li>– SDG 7 – Affordable and clean energy and SDG 11 – Sustainable cities and communities</li> </ul>	<p>Lower-emission heating than the average in major Finnish cities (largest 6) by measuring the average of the emission factors for district heating.</p>	<p>Target not achieved. The emission factor for Vantaa's district heating was 191 kg CO<sub>2</sub>/MWh. The 6-city average was 105 kg CO<sub>2</sub>/MWh. The emission factors for district heating used in the comparison are taken from Finnish Energy's district heating emissions calculator.</p>
<ul style="list-style-type: none"> <li>– Material efficiency (environmental responsibility)</li> <li>– SDG 12 – Responsible consumption and production</li> </ul>	<p>We will reduce our own energy consumption by around 50 GWh per year in line with the Energy Efficiency Agreement and will help our customers to monitor their energy consumption and save energy.</p>	<p>Target achieved: 84.3 GWh of annual savings from improvements made.</p>
<b>Reliable energy supply</b>		
<ul style="list-style-type: none"> <li>– Affordable, low-emission and reliable energy (social and economic responsibility)</li> <li>– SDG 7 – Affordable and clean energy and SDG 11 – Sustainable cities and communities</li> </ul>	<p>Reliable electricity supply is better than in other similar populated areas. Our target is to limit supply disruptions to less than 0.2 hours/customer/year.</p> <p>Reliable supply of thermal energy is at a good level by industry comparison. Our target is to limit supply disruptions due to faults and damage to less than 0.8 hours/customer/year during the heating season.</p>	<p>Target achieved: The disruption time in 2024 was 0.0275 h/customer.</p> <p>Target achieved: The disruption time in 2024 was 0.52 h/customer.</p>

<h3>Promoting a circular economy</h3>			
<ul style="list-style-type: none"> <li>– Material efficiency (environmental responsibility)</li> <li>– SDG 12 – Responsible consumption and production</li> </ul>		<p>We plan to build a mixed waste sorting plant at our Waste-to-energy Plant. In addition to efficient household sorting, facility-based mixed waste sorting is also needed as a supplementary solution.</p>	<p>Actions underway: The sorting plant project is in the planning phase, aiming for an investment decision. According to the current plan, the mixed waste sorting plant is expected to be operational in 2028.</p>
		<p>Our goal is to sign new contracts every year, where we utilize the waste heat from our customers' cooling processes with service concepts that contribute to the overall efficiency of the energy system.</p>	<p>Target achieved: In 2024, several negotiations on waste heat were launched; for example, the waste heat from industrial operators in the vicinity of the Martinlaakso Power Plant is intended to be recovered and used in Vantaan Energia's district heating network.</p>
		<p>The target is to make more efficient use of material flows. Vantaan Energia aims to reduce the consumption of district heating makeup water and process water. The makeup water target is a maximum of 1.5 times the volume of the district heating network.</p>	<p>Target not achieved: The realized multiplier was 1.9.</p>
<h3>Our responsibility to stakeholders</h3>			
<ul style="list-style-type: none"> <li>– Affordable, low-emission and reliable energy (social and economic responsibility)</li> <li>– SDG 7 – Affordable and clean energy and SDG 11 – Sustainable cities and communities</li> </ul>	 	<p>More affordable heating than the average in large Finnish cities (heating costs/m<sup>2</sup> lower than the average of the 6 largest cities in the Finnish Real Estate Federation's index house comparison).</p>	<p>Target achieved: The average of the 6 largest cities in the Real Estate Federation's 2024 index house comparison was EUR 1.64/m<sup>2</sup> and Vantaan Energia's EUR 1.56/m<sup>2</sup>.</p>
		<p>Working in the company is safe. Our safety target is zero accidents at work.</p>	<p>Target not achieved: Group injury frequency rate (TRIF &gt; 0) in 2024 was 2.8.</p>
<ul style="list-style-type: none"> <li>– SDG 3 – Good health and well-being</li> </ul>		<p>The employee experience at Vantaan Energia is at a good level, and we are pursuing GPTW certification in the annual Great Place To Work employee survey.</p>	<p>Target achieved: The employee experience is at a good level and we achieved GPTW certification in the annual Great Place To Work employee survey.</p>
<ul style="list-style-type: none"> <li>– SDG 8 – Decent work and economic growth</li> </ul>		<p>We share responsibility for employing young people and increasing their knowledge of the energy sector, and we offer summer employment every year.</p>	<p>Target achieved: In 2024, we offered 36 summer employment for young people.</p>
		<p>The company's business is profitable. A good result also allows us to operate responsibly.</p>	<p>Target achieved: The company's business is profitable. Operating profit was EUR 60.6 million.</p>
<p>Linked to many of the SDG targets described above</p>		<p>Customers are our most important stakeholders. To deliver an even better service experience, we will continue to develop our understanding of our customers' needs and expectations. We aim to achieve a very high rating in customer satisfaction surveys.</p>	<p>Target achieved: The company's heating customers rated Vantaan Energia's operations as the best in Finland in the customer satisfaction survey conducted by EPSI Rating.</p>

# A double materiality analysis determines the most material sustainability themes for us

We completed our first CSRD double materiality assessment in 2024. The purpose of the materiality analysis is to help us understand the environmental and social impacts of our business and how it relates to the financial risks and opportunities we face. Our most significant sustainability theme is related to climate change management in accordance with our strategy, in addition to other environmental and natural impacts, our own personnel, ethical practices and labor rights in the value chain, energy pricing and security of supply are also taking center stage. In the future, we will update our double materiality assessment annually to ensure that the assessment takes into account any changes in the business and operating environment.



# How we create value

## OUR RESOURCES

<b>Personnel</b>	<b>381</b>
<b>Financial resources</b>	
• Balance sheet	<b>878,3 M€</b>
• Equity	<b>370,8 M€</b>
<b>Fuel breakdown of local production (GWh)</b>	
<b>Total</b>	<b>2 483 GWh</b>
Waste	67 %
Biofuel	18 %
Coal	7 %
Natural gas	6 %
Peat	2 %

<b>Ownership of electricity generation capacity in associated companies (MW)</b>	
• Hydropower	<b>122</b>
• Wind power	<b>118</b>
• Nuclear power	<b>36</b>
• Combined heat and power production	<b>6</b>
<b>Energy production and networks:</b>	
• 2 power plants	
• 5 heating plants	
• Electricity network <b>3 700 km</b>	
• District heating network <b>660 km</b>	

## OUR BUSINESSES

The art of doing more from less



## ADDED VALUE AND IMPACTS

<b>Personnel</b>	
• Salaries and remuneration	<b>29,6 M€</b>
• Accident frequency (LTA >1)	<b>1,4</b>
<b>Customers</b>	
<b>EPSI Rating</b>	
<b>customer satisfaction survey:</b>	
• Vantaa Energy Electricity Networks	<b>73,4 (B2B)</b>
• Vantaa Energy	<b>80,3 (B2B)</b>
For both companies, we were voted the best in Finland.	
<b>Economic impacts</b>	
• Turnover	<b>290,6 M€</b>
• Operating profit	<b>60,6 M€</b>
• Taxes	<b>80,3 M€</b>
• Dividends to owner cities	<b>22,0 M€</b>
• Investments	<b>131,2 M€</b>
<b>Delivery reliability</b> (average outage time)	
• Electricity transmission	<b>1,6 min</b> /customer
• District heating	<b>0,52 hours</b> /customer
<b>Production and electricity transmission volume (GWh)</b>	
• Heat production	<b>1 695</b>
• Electricity production	<b>1 182</b>
• Electricity transmission	<b>2 019</b>
<b>CO2- emissions</b>	
• Direct CO <sub>2</sub> emissions from own production	<b>439 054 t</b>
• Electricity emission factor	<b>38/kgCO<sub>2</sub>/MWh</b>
• District heating emission factor	<b>191/kgCO<sub>2</sub>/MWh</b>



# Varanto is the warm heart of the new energy system

A huge cavern thermal energy storage facility to be excavated under Kehä III will help Vantaan Energia and its customers adapt to fluctuations in energy availability and prices.

A cavern energy storage facility unique on a global scale is being built in the bedrock in Kuusikonmäki Eastern Vantaa. It will play a crucial role in the energy transition, where fossil fuels are replaced by renewable but weather-dependent energy sources.

In the future, there will be fewer and fewer conventional power plants that can supply power at the touch of a button.

We must be able to store heat when it is abundantly available at a low cost for use when the weather is cold.

"Cavern thermal energy storage facility is the heart of Vantaan Energia's hybrid heating system. Varanto is the heart of Vantaan Energia's heating system; like a hybrid car battery" says SVP, Circular Economy Business **Kalle Patomeri**.

The preparatory construction work for the cavern thermal energy storage facility, called Varanto, started in 2024. Construction work began with the excavation of the entrance tunnel opening in 2024.

In 2025, the construction of the cavern will shift into high gear, and the storage facility should be ready in 2028. Three thermal caverns will be excavated at a depth of 140 meters, each cavern will be around 300 meters long, 20 meters wide and 40 meters high.

The caverns will hold a total of around one million cubic meters of water, which stores heat. Thanks to the pressure of the groundwater, the cavern water can be heated up to 140 degrees without evaporating.

Precise limits have been set for vibration and noise from the excavation work, and staying within the limits is monitored through continuous measuring. The deeper the work goes, the quieter the vibrations and noise become.

The quality of groundwater and well water in the affected area is being monitored in accordance with a pre-established program.



SVP, Circular Economy Business Kalle Patomeri

# ”

A cavern thermal energy storage will play a crucial role in the energy transition, where fossil fuels are replaced by renewable but weather-dependent energy sources.

The quarried aggregate will be used for construction projects in the Helsinki metropolitan area.

Storable heat comes from several sources. Waste-to-energy plants must operate even in the summer, generating heat that exceeds demand. The surplus heat can be stored and used during the heating season.

Also various waste heat sources, such as data centers, generate a lot of waste heat during the summer season.

When wind turbines are running at full capacity, spot-price electricity is almost free. This is when it makes sense to use electricity to heat the water in the thermal caverns.

Two 60-MW electric boilers will be built in connection with the thermal energy storage facility.

"Varanto is a cavern thermal energy storage that is charged in the summer and used in the winter. In addition, heat is charged and discharged weekly, daily and even hourly, depending on whether cheap energy is available or not," says Patomeri.

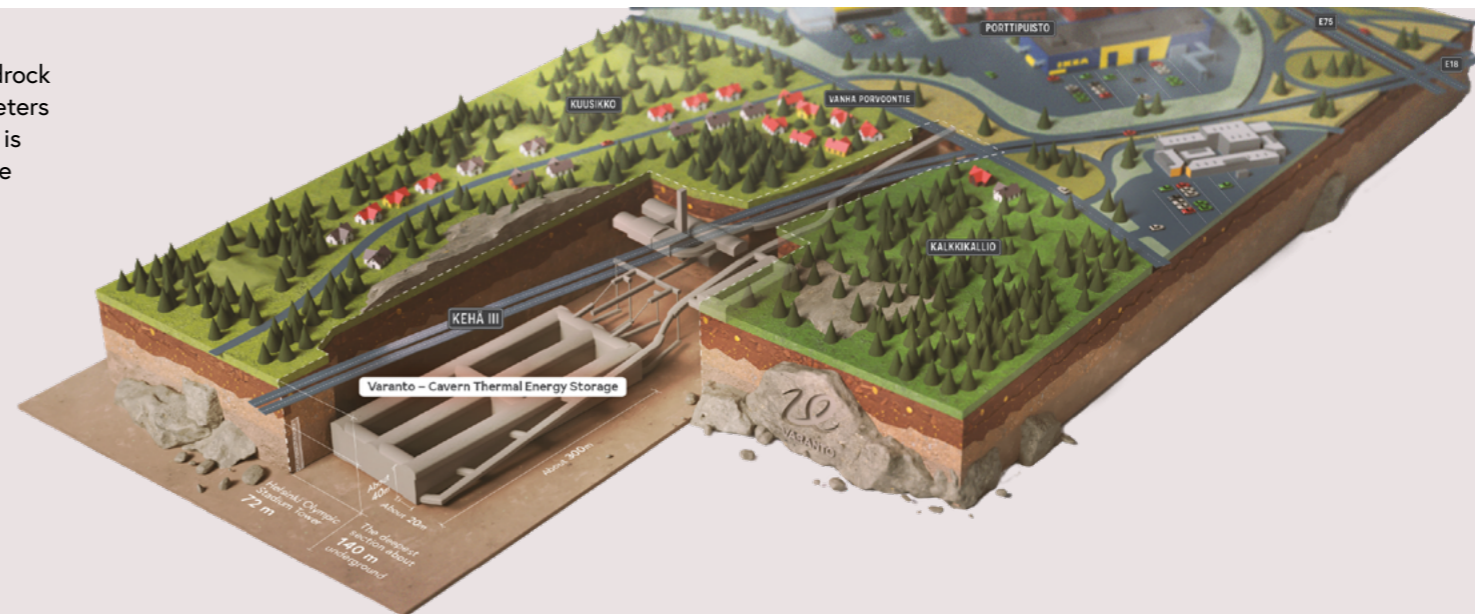
At the Martinlaakso Power Plant site, a dedicated electric boiler is already under construction to heat the water-filled heat accumulator on the side of the boiler.

Because Vantaa's district heating network is connected to the networks of Helsinki, Espoo, Kerava and Tuusula, heat can be transferred to and from Varanto across municipal borders.



The mouth of the Varanto was completed at the turn of the year.

Varanto will be built in the bedrock of Vantaa at a depth of 140 meters below ground level. The depth is equivalent to two towers of the Olympic Stadium.



# We are building carbon capture infrastructure for the whole of Finland

We are determined to push ahead with the project to capture and store carbon dioxide emissions from our waste-to-energy plants. Now, we need strong public support to bring this project to life.

When waste from the Helsinki metropolitan area is turned into energy in Vantaa, the total amount of bio- and fossil-based carbon dioxide emissions generated is around 650,000 tonnes per year. Our goal is to capture all of them by 2035.

"We want to advance carbon neutrality in both heat production and waste management. We are boosting the sustainability of waste-to-energy by more carefully separating recyclable materials from waste to be incinerated," explains **Matias Siponen**, Business Development Manager at Vantaan Energia.

Carbon capture and storage requires a broad value chain with multiple actors and many stages to be realized. Our waste-to-energy plants need to have a carbon capture plant built where the emissions are separated from the flue gases. The carbon dioxide will then be transported to a port for intermediate storage.

At the terminal, the gas will be liquefied and loaded onto a ship. The CO<sub>2</sub> would be pumped into geological formations in the seabed of the North Sea, permanently out of the atmosphere.

This scope of this billion-euro project is huge, and we need partners to make it happen.

"This is not just Vantaan Energia project, it's building a value chain for the whole of Finland. We are getting a new kind of critical infrastructure in our country, and future carbon capture projects can also build on this," Siponen emphasizes.

The planned transport and intermediate storage solutions will also open up opportunities for the further use of carbon dioxide. In terms of our emissions, final storage seems to be the most economical approach overall.

In 2024, upon completion of the preliminary techno-economic analyses for the capture plant, we decided to move to the preplanning phase. Next, we will start to assess the environmental impact of the construction project and advance the zoning and permitting processes.

In the best-case scenario, an investment decision could be made in 2027

In 2025, we will look for partners with whom we will continue to design the overall project and build the value chain. Making the project happen, would require significant public support from both national and The EU level.



Business Development Manager Matias Siponen

The captured carbon dioxide would be placed, for example, on the seabed in the territorial waters of Denmark and Norway or in suitable geological formations underground on the continent.





SVP, Energy Services Matti Wallin

## Waste heat is circular energy at its best

Waste heat recovery can rightly be counted as one way of producing district heat. Our goal is that one fifth of Vantaa's heat demand will be covered by waste heat by 2035.

Waste heat is generated in countless places and processes as a by-product of an actual activity or purpose: in freezing foods, in cooling hot computers in data centers, in cooling offices and homes. In production processes at bakeries and food processing plants.

"There are hundreds of sites in Vantaa that generate waste heat and are interesting from our point of view. Since we are trying to get a lot of production volume in the next few years, it is worthwhile to collect waste heat from slightly larger sites initially. There are dozens of those too," says **Matti Wallin**, SVP Energy Services at Vantaan Energia.

We estimate that the city has a total waste heat potential of around 700-800 gigawatt-hours. We aim to utilize half of this, 350-400 GWh, by 2035 as part of our district heat production structure.

"In our view, it makes sense from a risk management perspective to spread the procurement of waste heat to a number of different sites," Wallin opens the playbook.

If the quantitative target is met, waste heat will be able to cover about one fifth of Vantaa's annual district heating demand in 10 years' time.

In general, more waste heat is generated in summer than in winter, due to the demand for cooling. The opposite is true for heat demand. It would therefore be important to be able to store the thermal energy generated in summer for use in winter.

We have a solution also for this problem: a one-million-cubic-meter cavern thermal storage facility being excavated in the bedrock of East Vantaa; it is scheduled for completion in 2028.

During summer, surplus heat is also generated in the thermal treatment of waste. By using the stored surplus during winter cold spells, there is no need to rely on fossil-based natural gas, for example, for heat production.

We use waste heat sites for district heating production when it is profitable compared to other forms of production.

"We design and implement our waste heat production sites so that we can choose at any given moment how much of the waste heat we want to use from the site," says SVP Energy Services Wallin.

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We estimate that the city has a total waste heat potential of around 700-800 gigawatt-hours. We aim to utilize half of this, 350-400 GWh, by 2035 as part of our district heat production structure. This amount corresponds to approximately 10% of our current heat sales. The target is the most ambitious in the entire Nordic region.

### Heat from the freezer

The first large-scale site with waste heat we will start using for district heating is KWH Freeze's cold storage facility in Viinikkala. It is the largest of its kind in Finland.

We signed a service contract for waste heat with the company in December 2024. We will install three heat pump units on the property and transfer the waste heat generated in the cooling process to Vantaa's district heating network.

The heat production based on waste heat from the freezer storage is expected to start in autumn 2025. We invested more than EUR 5 million in the project, of which 25% is covered by an investment subsidy from the Ministry of Economic Affairs and Employment.

The waste heat potential of the site corresponds to around 2% of our annual district heat sales and the amount of raw waste heat energy to 6.5% of the waste heat production target we set for 2035.



KWH Freeze's cold storage facility located in Viinikkala, Vantaa, is the largest of its kind in Finland. Heat production based on waste heat from the cold storage facility is scheduled to start in autumn 2025.

# From Hazardous to Harmless – Treating Waste Safely

Non-recyclable hazardous waste will be made safe for people and the environment at Vantaan Energia's High-Temperature Incineration Plant. The thermal energy generated in treating the waste will be used to heat homes and buildings.

The classification of waste as hazardous is based on EU chemicals legislation. In incineration, an important criterion is the amount of chlorine in the waste. If the chlorine content exceeds the 1% limit, the waste must be treated at a higher temperature than normal to prevent emissions during incineration.

At Vantaan Energia's High-Temperature Incineration Plant, to be commissioned in 2025, complete combustion will be ensured by a two-stage combustion process in which temperatures reach 1,300 degrees Celsius. The flue gases will be scrubbed before being released into the atmosphere.

"The residual emissions are so minimal that they have virtually no impact on regional air quality," says SVP Circular Economy Business **Kalle Patomeri**.

The construction of the High-Temperature Incineration Plant next to the old Waste-to-Energy Plant was nearly completed in 2024. The plant's trial operation will start in March 2025, initially without waste.

Once the plant is up and running, waste loads will be delivered to the plant from as far as northern Finland. There are only two hazardous waste treatment plants in Finland, one in Vantaa and one in Riihimäki. Some waste may come from other parts of Europe as well.

Most of the waste is generated in the production processes of industrial facilities. Recycling facilities also generate rejects containing high levels of hazardous substances and requiring incineration.

Households also generate hazardous waste, such as expired medicines and solvent detergents sitting in the corner of the garage.

The common feature of all waste treated in a high-temperature plant is that it cannot be recycled safely and profitably.

Waste receiving and treatment are designed to prevent hazardous substances from mixing and causing chemical reactions.



SVP, Circular Economy Business Kalle Patomeri.

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Hazardous waste has to be treated to make it harmless so that it doesn't harm people, animals and plants, or water and soil. That's what this is about.

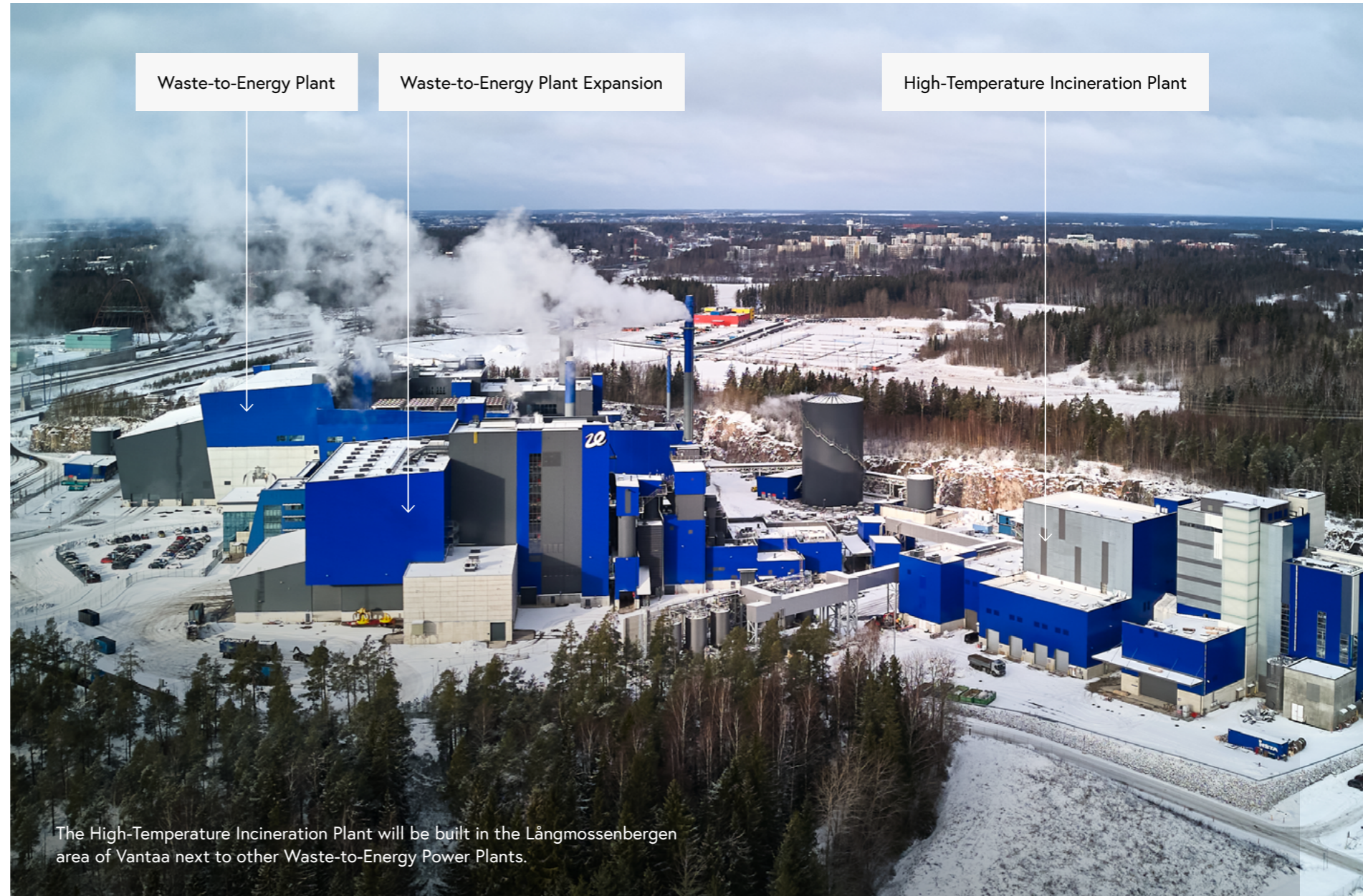
"Whenever waste is brought to the plant, a written certificate of its composition must be presented. We also analyze the waste ourselves. Only after the waste has passed the inspections is it accepted for treatment," explains Patomeri.

The new plant will be able to treat around 40,000 tonnes of hazardous waste per year. The resulting heat will cover 5-10% of Vantaa's district heating demand.

It is estimated that two thirds of the plant's business income will come from waste reception and treatment fees and one third from the sale of thermal energy.

The High-Temperature Incineration Plant was therefore built primarily for waste treatment, not for energy production.

"Hazardous waste has to be treated to make it harmless so that it doesn't harm people, animals and plants, or water and soil. That's what this is about."



The High-Temperature Incineration Plant will be built in the Långmossenbergen area of Vantaa next to other Waste-to-Energy Power Plants.



Team Leader Ismo Virtanen, Country Manager at EPSI Rating Finland  
Heidi Laitinen ja Customer Service Manager Janne Hartikainen

# Vantaa has Finland's most satisfied district heating and electricity transmission customers

To maintain customer satisfaction, an energy company must be able to meet a wide range of expectations.



Vantaan Energia and Vantaan Energia Sähköverkot performed excellently in the EPSI Rating's measurement of customer satisfaction in 2024.

In the district heating survey, we achieved top rankings both in overall customer satisfaction and among business customers. In the survey of electricity network companies, we scored highest in the business customer category and second in the residential customer category.

Customer expectations have grown and diversified. Price and quality remain important factors, but they are no longer enough to guarantee satisfaction. This is a challenging time for energy companies, notes **Heidi Laitinen**, Country Manager at EPSI Rating Finland.

"Customers want to feel that they are well taken care of and that their needs and wishes are recognized. They must get broad-ranging value for their money in order to be satisfied and loyal to the company."

Customer service must be excellent and available through multiple channels, digital services must work. Communication must be active and understandable. The number of customers demanding sustainability is increasing.

According to Laitinen, Vantaan Energia's success in meeting expectations has been excellent across the board.

"The survey results show that customers feel valued and that their needs are being met."

## We offer solutions

Vantaan Energia's sales and customer service team maintain an active dialogue with existing and potential customers of Vantaa District Heating.

"We always try to find the best possible economic and technical solution for the customer's project. Our building technology experts provide free consultations. This is an opportunity not to be missed," says Team Leader **Ismo Virtanen**.

We offer our expertise in improving the energy efficiency of your property or in choosing a heating system, for example. For large business customers, we have deepened our cooperation through energy partnership agreements.

For housing associations in Vantaa, we bring smart district heating technology to optimize the building's heat use and reduce heating costs. We installed a remotely controlled heat controller and connection to an artificial intelligence service in some 350 housing associations in 2024.

Customer satisfaction is reinforced by Vantaa District Heating's competitive price.

## Done right the first time

**Janne Hartikainen**, Customer Service Manager at Vantaan Energia Sähköverkot, believes that high customer satisfaction is the result of long-term work.

"Our key customer promise is that we will get the job done in a friendly manner and get it done right the first time. We have been striving for this in everything we do for years."

Satisfaction and the actions that increase it are built on the basics. The transmission price must be affordable and delivery reliability must be top notch.

We are among the most affordable grid companies in Finland. In 2024, we recorded the best delivery reliability performance in our company's history: the average outage time was only 1,6 min per customer for the year.

We are improving the functionality of our website to better meet the needs of our customers. The aim is to make it easy for customers to take care of business independently, when it is most convenient for them.

Customers' expectations can change quickly.

"You can't necessarily anticipate changes, but you do have to be able to react quickly to them," Hartikainen sums up.

# Electricity distribution networks – enabler of change

Reliable electricity transmission is key as society transforms its activities to be more climate friendly.

Energy transition is driven by an increase in electricity consumption.

At the same time, fluctuations in electricity prices and the popularity of spot-price electricity are increasingly driving consumption towards low-cost hours, and in the future towards quarterly hours. Customers have shown their flexibility, and automation is also making it easier to plan electricity use.

On the other hand, electricity users have become accustomed to being able to connect any size of load to the grid and using it at any time.

"The electricity market encourages customers to take advantage of low-cost hours. At the same time, as more higher volume electricity users connect to the grid, the power peaks during low-cost hours will increase even more," says **Janne Hartikainen**, Customer and Metering Services Manager at Vantaan Energia Sähköverkot.

The load on the networks is increasing.

In early 2025, the national grid operator Fingrid announced that it would have to restrict new high-volume consumers of electricity from being connected to

the transmission and distribution networks. This is due to grid constraints and faster-than-expected growth in electricity consumption.

The connection restriction applies to high-voltage customers in Uusimaa, Varsinais-Suomi and Häme who need more than 10 megawatts of power. It is expected that the restriction will remain in place until January 2027.

During this period, only the industrial sites in Vantaa that have already signed a connection contract with the customer will be connected to the grid. The possibility to connect other high-volume sites will be determined with Fingrid on a case-by-case basis in the future.

## Strengthening the networks is necessary

Connection restrictions may delay the implementation of some industrial projects important for the clean transition. However, much can be done even under the current constraints: it is possible to build more electric car charging points, replace oil boilers with electric heating, and increase small-scale production and electricity storage.



Customer and Metering Services Manager Janne Hartikainen

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## The load on the networks is increasing.

In the big picture, the transition is progressing.

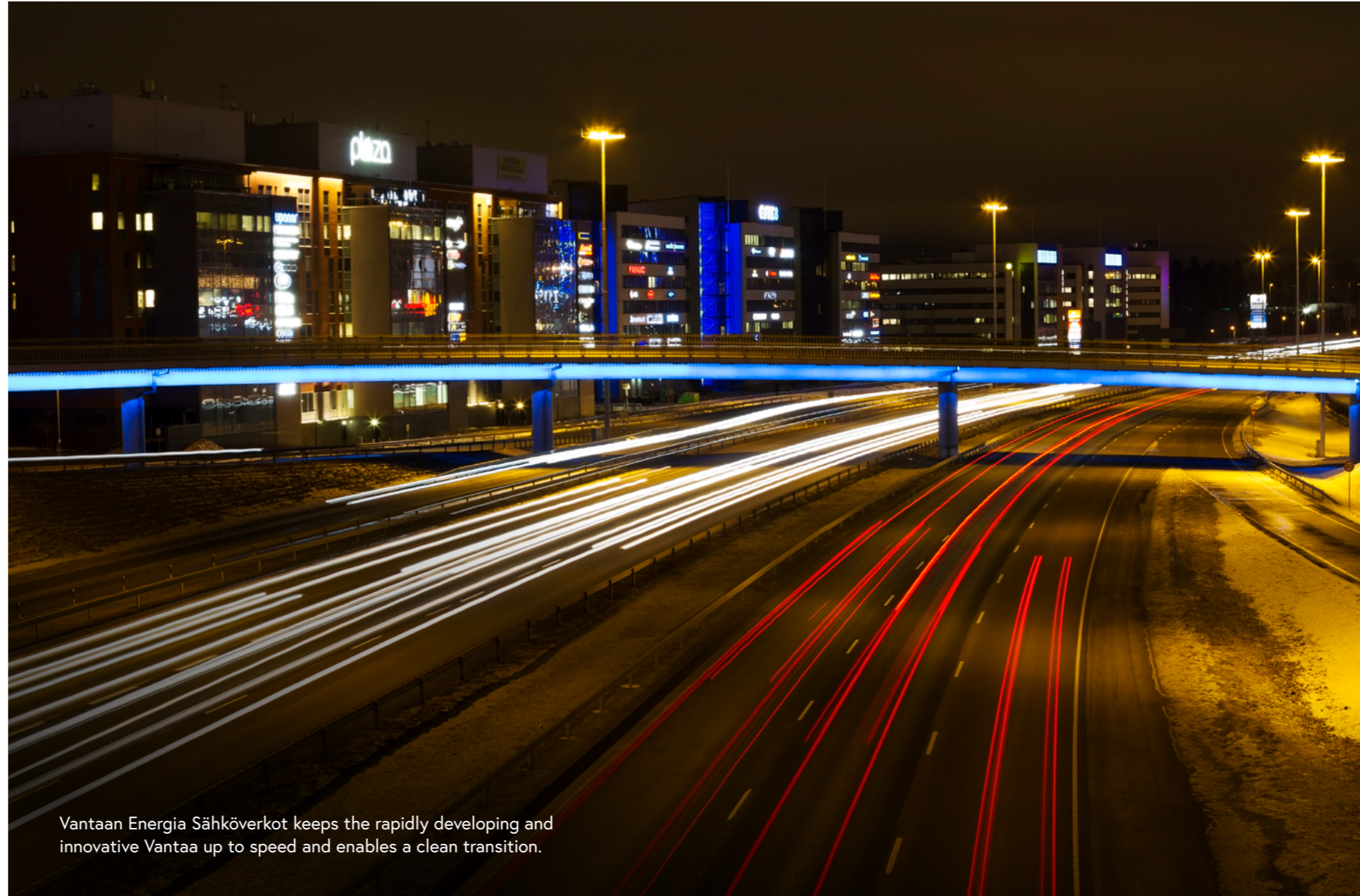
Vantaa has around 145,000 electricity usage points and more than 120,000 electricity transmission customers. "The load on the electricity networks can be reduced by using electricity wisely, increasing demand-side flexibility and investing in energy efficiency. Every customer participates in the green transition based on their own starting point and needs," notes Hartikainen.

Vantaan Energia Sähköverkot invests more than ten million euros in its networks every year. These investments enable new customers to be connected to the network and ensure operational reliability of the network. But building a new network and renovating an old one takes time.

Networks are being strengthened not only locally but also nationally. The networks in Vantaa are also connected to the national grid, and that places its own constraints on our operations.

Wind power production is concentrated to northern Finland and the west coast. From there, electricity has to be transmitted to the southern part of the country, where electricity consumption is growing rapidly. On average, it takes eight years to strengthen the main grid.

"Even though the networks are constantly being strengthened, their carrying capacity must still be taken into account to ensure the balance of the electricity system," Hartikainen emphasizes.



Vantaan Energia Sähköverkot keeps the rapidly developing and innovative Vantaa up to speed and enables a clean transition.

# We're powering the future of energy—starting now

Vantaan Energia offers young people meaningful summer jobs that don't compromise on safety. Students gain work experience, and we, as an employer, get the opportunity to know the talent of the future.

**Lari Packalén**, a mechanical engineer at Vantaan Energia, first joined the company through a summer job. During the summer of 2019, he worked as a fitter trainee in the waste-to-energy plant's maintenance unit.

"I remember it as a busy summer full of work. Every day there was something new. I also got to participate in the annual maintenance of the plant, which was carried out by hundreds of people."

Maintenance Manager **Mikko Grönlund** was Packalén's immediate supervisor and the trainer of his team's summer employees. He says that Lari was easy to train, as he already had experience with working at a job site and using tools. However, summer workers do not need previous work experience, Grönlund points out.

"You don't need skills or knowledge beforehand. The most important thing is motivation and interest, the desire to work and to learn new things. That will take you a long way."

Every year Vantaan Energia and Vantaan Energia Sähköverkot hire a total of 30-40 summer workers. Most of them are studying at a vocational school, polytechnic or university.

Power plants are classified as hazardous working environments, so summer workers must be of adult age. Some jobs require a driving license.

In addition to fitter trainees, we also hire development engineer and management trainees for summer positions. We also need production laborers for the power plants and the electricity and district heating networks.

On the office side, summer jobs are available e.g. in the digital team and in financial administration. There are also laboratory jobs in the energy sector.

## Real work

We want to be a responsible and fair employer that opens the door to meaningful working life for young people. At the same time, we ensure that we have good employees also in the future.

Summer workers contribute to the running of our core operations and are summer holiday substitutes for our permanent employees.



A mechanical engineer Lari Packalén, Maintenance Manager Mikko Grönlund ja HR Business Partner Riikka Pelli

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We want our summer workers to enjoy their time with us and to come to work with a smile on their face.

"Here you don't just sit around twiddling your thumbs. Young people get to do meaningful, real work and gain valuable work experience in their field of study and in the operations of a circular energy company," says **Riikka Pelli**, HR Business Partner at Vantaan Energia.

The feedback surveys that young people have anonymously answered at the end of the summer show that we have been successful and have developed as a summer employer.

"Overall satisfaction is at a high level, and the experience of finding meaningful work has grown stronger every year. We have also received good feedback about the induction process and mentoring."

Recruiting summer workers is a big annual effort for our supervisors and our HR team. We want to do it because offering summer jobs enables us to build a sustainable future and strengthen our positive employer image.

The number of applications is dozens of times higher than the number of openings. Team supervisors invite two or three candidates per position for an interview. We strive to make the one-on-one interview a pleasant and useful experience for the young person.

Recruitment decisions are made without unnecessary delay.

"Our aim is for a smooth recruitment process that is actively communicated to the applicants. We also immediately inform those who are not selected so that they have the opportunity to find summer work elsewhere," says Pelli.

### Safety first

Ensuring the safety of our employees is one of our top priorities as an employer. Safety plays a key role both in induction and in day-to-day operations.

In addition to the supervisor, a permanent employee – an induction mentor – is responsible for the induction of the summer worker. The threshold for the trainee to turn to the mentor is very low. In the maintenance team at the waste-to-energy power plant, every summer worker is typically paired with the same partner for the entire summer.

"At every step of the way, the permanent fitter gave a detailed explanation in advance of the risks associated with the job and the working environment and how to protect against them. If I had forgotten some protective equipment, the fitter would tell me to get it. We didn't go to a job site until everything was in order," Lari Packalén recalls his own summer trainee days.

Summer workers are not put into jobs that are too difficult. Before the work is performed, it is ensured that the worker has the prerequisites to do so successfully.

We also pay attention to creating a supportive atmosphere in which employees are valued and we show interest in them. Throughout the summer, Mikko Grönlund and the summer manager engage in a dialogue with the young people in their team about the things they would especially like to do or learn.

"Summer workers have the same right to an opinion as permanent employees. Even if it isn't always possible to fulfill their wishes, they are at least listened to. We want our summer workers to enjoy their time with us and to come to work with a smile on their face."

According to Packalén, a positive summer work experience has played a big role in his career path. It gave him the opportunity to show what kind of employee he is and to demonstrate his potential for development.

"Thank you to the 2019 maintenance team for giving me such a positive impression of Vantaan Energia as a workplace!"

Personnel

381

Average age of personnel

44.37 years

Accident frequency LTA ≥ 1

1.4

Development Manager Susanna Schauman, CIO Pasi Tuomi ja Production Engineer Samuli Björkbacka



## Into the future with data

Vantaan Energia is investing heavily in digital and data development. For example, we have created a digital forecast model of Vantaa's district heating network, which will allow us to optimize the use of the network.

Our operations generate a huge amount of data, such as numerical measurement data, which we can collect and process to improve our operational efficiency. In the future, this data will most likely also fuel artificial intelligence applications. That's why we have taken a determined approach in collecting and managing data.

We have created a data management model that is being rolled out across our company.

"The management model describes the practices and roles for data processing and defines the data access and sharing rights. Quality management is an essential part of the management model," explains Development Manager **Susanna Schauman**.

Raw data is transformed into valuable information through aggregation and analysis. This information enables us to optimize energy production and distribution, anticipate maintenance needs, improve our occupational safety and cybersecurity, and assess the sustainability of fuel supply chains, among other things.

"Our operational systems are controlled in real time, which requires a lot of data and related expertise," says CIO **Pasi Tuomi**.

### Digital Twin

In 2024, we launched Digital Twin, a digital forecasting model of our district heating network; the model is fed with real-time data.

"The digital model or platform is like a sandbox with sand and toys. When you put data on the platform, players come to the sandbox. Then things start happening," describes Production Engineer **Samuli Björkbacka**.

With Digital Twin, we can optimize the use of our district heating network and our local heat production, which further improves our delivery reliability. We are able to simulate different operating situations at our power plants and react more quickly to changing situations.

The digital district heating network forecasting model could be described as the important missing piece in the optimization of the heat delivery chain, a piece that has now been found and put into place. The more we learn about the behavior of the district heating network, the better we can predict its behavior in the future.

"With Digital Twin, we aim to deliver heat to our customers as timely as possible and at the lowest cost possible," says Björkbacka.

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High-quality and reliable data is key to the implementation of our company's strategy, competitiveness and cost-effective operations.

### Responsiveness and competitiveness

In 2024, we also reviewed our information security and data protection management system. In 2025, we will upgrade our centralized ERP system.

"It's a big effort that will affect many of the things we do. For example, the system is used to controlling our financial functions, procurements, and power plant operation and maintenance," says CIO Tuomi.

The customer interface enables consumption monitoring on mobile devices. In sales reporting, we are enhancing the real-time monitoring of customer account management so that we can respond more quickly to customers' needs.

Digital and data development will help us in anticipating and adapting to changes in our operating environment.

"High-quality and reliable data is key to the implementation of our company's strategy, competitiveness and cost-effective operations," says Development Manager Schauman.

The new digital solutions will enable us to offer better services to our customers and will strengthen our employer image as an innovative leader in the energy sector.



# We are prepared

Preparing for risks and disruptions in electricity networks is a daily, round-the-clock operation for us. In recent years, we have also increased our monitoring of critical sites.

Electricity supply disruptions can be roughly divided into 3 categories. Under normal operating conditions, short power outages can occur as a result of, e.g., individual cable faults. The next level of severity consists of major disruptions, e.g. storms or equipment failures that affect a broader group of customers. At the extreme end of the scale are emergencies, which at their most severe can lead to the declaration of a state of emergency and the use of emergency powers statutes. We are prepared for all these situations.

"Our basic mode of operation, normal everyday preparedness, supports us also in dealing with more serious situations. If a situation worsens, we will increase and strengthen our actions," says **Risto Lappi**, Managing Director of Vantaan Energia Sähköverkot.

We systematically assess the risks to our electricity networks and our operations both internally and with our stakeholders. We continuously improve our preparedness based on risk analyses. We also submit an updated preparedness and contingency plan to the Finnish Energy Authority at least once every three years.

We practice the operations in the plan periodically. The rescue department and the City of Vantaa, the National Emergency Supply Agency and the national grid operator Fingrid, as well as the network companies of neighboring municipalities are among those involved in large-scale joint exercises. In recent years, cooperation and the exchange of information have been increased.

In emergency situations, the majority of our personnel are reserved for our own use to ensure the security

of electricity supply. Our contractors and equipment are also exempt from use by the Finnish Defence Forces.

We monitor the functionality of electricity distribution from our manned control center 24/7, every day of the week, including public holidays. Our on-call electricians are ready to be deployed to repair faults – even in the middle of the night.

As a result of the escalated global situation and changes in the threat landscape, we are paying more attention to preparedness. There is a huge number of networks and related equipment around Vantaa, so choices have to be made also in terms of preparedness.

"We have stepped up surveillance of the most critical sites by increasing camera surveillance and tightening access control. The lock systems of electrical rooms are being replaced. We encourage our personnel to keep their eyes and ears open for suspicious activity," says Managing Director Lappi.

Personnel hired for critical positions in terms of electricity distribution must receive a security clearance from Finland's Security and Intelligence Service.

The role of strong data security in preparedness has been elevated. Information technology is in a constant state of change, as is the threat landscape related to it.

"We are in the process of upgrading our electricity network's operation control system, which will allow us to monitor and control our equipment remotely. The data security of the system is also of particular focus in the upgrade."



Managing Director, Vantaan Energia Electricity Networks, Risto Lappi



# Board of Directors' Report and Financial Statements

# Board of Directors' Report 2024

## 1 Overview

Vantaan Energia Group is comprised of the parent company Vantaan Energia Oy and its subsidiaries Vantaan Energia Sähköverkot Oy (share of ownership 100%) and Kiinteistö Oy Vapaalan Torpantie 2 (100%).

Vantaan Energia produces electricity and heat and offers energy and circular economy services to its customers. The company also offers business and energy services to Tuusulanjärven Lämpö Oy, which operates in the Tuusula and Järvenpää areas.

Vantaan Energia is owned by the City of Vantaa (60%) and the City of Helsinki (40%). 2024 was the company's 114th year of operation.

The subsidiary company Vantaan Energia Sähköverkot is responsible for electricity network operations in Vantaa.

The subsidiary Kiinteistö Oy Vapaalan Torpantie 2 owns the land on which the parent company's new heat exchanger station under construction will be located.

In 2024, Vantaan Energia's associated companies were (share of ownership in brackets): Svartisen Holding A/S (49.6%), Valvea Oy (49.0%), Oomi Palvelut Oy (28.3%) and Kolsin Voima Oy (22.5%).

The associated company Svartisen Holding A/S own the subsidiary company Eastern Norge Svartisen A/S (100%) in Norway. Oomi Palvelut Oy has the subsidiary companies Oomi Oy (100%) and Oomi Solar Oy (100%), and Kolsin Voima Oy has the subsidiary company Kolsin Vesivoimantuotanto Oy (100%).

## 2 Business development

The year 2024 started with cold winter weather, which pushed the spot price in the Finnish price zone to an all-time high of 890 €/megawatt-hour on 5 January. Despite the high spot prices in early January, derivative prices were generally on a downward trend in the early part of the year, as the weather normalized and European gas market prices fell due to low demand, stable supply and high storage levels.

The strong fluctuation in Finnish spot prices continued in the spring as a result of nuclear power outages and transmission constraints. Gas prices turned upwards as supply tightened and LNG demand in Asian markets increased. The higher gas prices supported the increase in emissions and electricity prices, especially in Central Europe, but the increase in derivative prices in the Nord Pool market was relatively minor.

In July-August, increased wind and solar generation pushed spot prices in the Nord Pool market to low levels. The further strengthening of the overall hydrological situation during autumn and early winter has kept Nordic electricity derivative prices on a downward trend throughout the second half of the year, with the exception of a few isolated short upturns.

The market price level of electricity was clearly lower than in the previous year. The annual average price on the spot market in Finland was 45.6 €/megawatt-hour, a decrease of 19% compared to the previous year. The main

reasons for the price decrease were increased wind power production and the improvement in the Nordic water situation towards the end of the year.

The company's total electricity production was 1,182 gigawatt-hours (GWh) (1,247 GWh in 2023). Vantaan Energia's own local electricity and heat production was based on co-generation at the Martinlaakso Power Plant and the Långmossebergen Waste-to-Energy Plant. These power plants accounted for 19% of the company's total electricity production. The company's share of co-owned electricity production was 81%. The annual electricity production of the Martinlaakso Power Plant decreased significantly from the previous year to 90 GWh (140 GWh). Heat production at the Martinlaakso Power Plant also decreased, to 555 GWh (749 GWh). Electricity production at the Waste-to-Energy Plant was 134 GWh (90 GWh) and heat production was 1,456 GWh (1,204 GWh).

Corrective measures have been taken to address the wood availability problem, caused by the Ukraine crisis, and the waste market challenges; volumes have returned to normal levels during 2024. Overall, waste volumes were slightly below the optimal level due to the availability challenges at the waste-to-energy plant and the challenges in Europe's waste supply chain. In 2024, the plant thermally treated 155,127 tonnes of European waste and 363,439 tonnes of domestic waste. The total amount of waste received was 559,012 tonnes. The availability of

the power plants was otherwise at normal levels, but the availability of the waste-to-energy plant expansion was affected by plant defects covered by warranty. The availability of the waste-to-energy plant was 97.43% (97.56%), the waste-to-energy plant expansion 92.99% (81.05%) and the Martinlaakso bioboiler 99.39% (98.6%).

As the exceptional situation in the energy market continued, the company ensured security of supply by continuing to use peat and coal in its energy production at the Martinlaakso Power Plant. At the end of the heating season that started in autumn 2024, in spring 2025 the company will permanently discontinue the use of both peat and coal.

Projects to phase out fossil fuels are progressing. The High-Temperature Incineration Plant under construction at Långmossebergen in Vantaa is almost complete, and hot tests with natural gas are starting in January 2025. The environmental permit application for the plant is currently being processed by the Southern Finland Regional State Administrative Agency.

The Martinlaakso Power Plant is currently undergoing an electric boiler plant and district heating battery project, which is slated for completion in 2025. In addition, efforts will be made to utilize waste heat from trade and industry in various smaller projects. The remaining natural gas use is expected to be replaced by biogas in 2026 at the latest. The combined effect of these projects will enable the company to replace the remaining fossil fuel use.

The company has continued its planning and development work to make its energy production carbon neutral. In line with the company's strategy, the reduction of carbon dioxide emissions is based on carbon capture and storage, increased production of electric heat, seasonal thermal energy storage, waste heat, and various hybrid solutions for heating customers.

In 2024, Vantaan Energia joined the Science Based Targets initiative (SBTi), in which an external operator assures that the company's emission reduction targets are in line with the Paris Agreement.

The decision to implement the seasonal thermal energy storage facility was made in March 2024 and the project has progressed in the design phase and in the pre-excavation preparations. The seasonal thermal energy storage facility is expected to be ready for use in 2028.

In the operation and maintenance of Vantaa's heating network and heating plants, the company performed better than the target. The disruption duration per heating customer clearly improved from the previous year and was 0.52 hours/customer (0.77 hours/customer). The company's target is to keep distribution disruptions caused by faults and damages permanently below 0.8 hours/customer during the heating season.

Weather conditions in 2024 were warmer than in the previous year, and the heating demand was around 5.8% lower than the long-term average (comparison period

1991-2020). District heating sales in the Vantaa region amounted to 1,695 GWh (1,711 GWh). The number of district heating customers increased by 14 and contracted district heating load by about 8 megawatts.

The Energy Services business continued to focus on pricing and service development and customer work. The promotion of the new pricing tariff for apartment buildings "Vantaan Energia's Smart District Heating," launched in 2023, continued and new sites were brought in under the tariff. The company signed more new energy partnership agreements and service contracts with customers, including services facilitating the efficiency and optimization of energy use in addition to the supply of energy. As of 1.10.2024, the price of district heat in Vantaa increased by 3.5-5% per product. The price increase was due to a general increase in the cost level. Despite the increase, district heating in Vantaa remained the most affordable in the Helsinki metropolitan area.

The company's heating customers rated Vantaan Energia's operations as the best in Finland in the 2024 customer satisfaction survey conducted by EPSI Rating. Customers rated the quality of the increased customer encounters as very good: 4.4 (on a scale of 1-5).

The wind power production of Suomen Hyötytuuli Oy, a company co-owned by Vantaan Energia, has continued to grow. The Alajoki-Peuralinna and Oosinselkä wind farm projects, which had already started their production trials

earlier, were completed in 2024. With a combined capacity of 185 MW, the wind farms almost doubled Suomen Hyötytuuli's capacity. Suomen Hyötytuuli's large Siikajoki wind farm, with 38 wind turbines, is under construction and scheduled for completion in spring 2025. In addition, in 2024 Suomen Hyötytuuli carried out a demerger to support the growth of its operations; the old company was split into three separate companies. The new companies are Suomen Hyötytuuli Oy, which owns the onshore wind farms, Tahkoluoto Offshore Oy, which owns the offshore wind development, and Arenso Oy, which consists of the personnel, project development and operations.

The need for flexibility in the Finnish electricity system is significant, especially with the growth of wind power. During the year, Vantaan Energia continued to explore investment opportunities in electricity storage facilities that could increase flexibility in the company's portfolio. Studies also continued on the development of solar power.

The number of customers and electricity access points served by the subsidiary company Vantaan Energia Sähköverkot increased as a result of the City of Vantaa's growth. At year-end, there were approximately 145,116 (144,311) electricity access points.

The amount of electricity transmitted to customers via the subsidiary's electricity network is impacted not only by the number of customers, but also by improvements in energy efficiency, outdoor temperatures and the

increased use of electricity as a replacement for other forms of energy, in particular for heating and transportation. As a result of the combined effect of the above factors, the amount of electricity transmitted in the electricity network was 2,019 GWh (1,971 GWh).

In EPSI Rating's 2024 customer satisfaction survey, electricity network customers rated the company's performance as the best in Finland in the business customer segment and the second best in the consumer customer segment.

Vantaan Energia Sähköverkot electricity transmission prices increased by an average of 2.1 percent on 1.11.2024. The average increase in the transmission price (excluding taxes) was 4.0%. The impact of the price change on customers' total bills varies based on the network service product and electricity consumption. Even after the increase, the company's transmission prices remain among the lowest in Finland.

## 3 Financial performance

The Group's turnover was 290.6 million euros (303.1 million euros in 2023). The turnover of the parent company Vantaan Energia was 247.9 million euros (260.6 million euros). The turnover of Vantaan Energia Sähköverkot was 43.9 million euros (43.6 million euros).

The operating profit of the Group was 60.6 million euros (65.7 million euros). The operating profit of the parent company was 46.7 million euros (43.9 million euros), and the operating profit of Vantaan Energia Sähköverkot was 10.6 million euros (15.4 million euros).

The factors affecting the change in the Group's and the parent company's turnover were, in particular, the lower electricity market price and changes in district heating prices.

The change in operating profit was affected not only by the decline in turnover, but also by the breakdown of fuel use. Fixed costs were higher than in the previous year due to, among other things, the reinstatement of the normal grid service fees charged by grid company Fingrid Oyj and the release of a mandatory provision in personnel costs in 2023.

The Group's profit before appropriations and taxes was 57.9 million euros (57.5 million euros). The parent company's profit before appropriations and taxes was 48.8 million euros (47.9 million euros). The parent company's income taxes amounted to 6.7 million euros (7.6 million euros).

The Group's gross investments in fixed assets were 131.2 million euros (107.8 million euros). Investments in power plants and heating plants were 99.8 million euros (61.9 million euros). The largest single investment, 83 million euros, was directed towards construction of the High-Temperature Incineration Plant. A total of 5.8 million euros (7.1 million euros) was allocated to refurbishments of the district heating network. A total of 3.0 million euros (5.0 million euros) was invested in production-related sha-

res. Other investments of the parent company amounted to 5.5 million euros (6.0 million euros). Investments of the subsidiary Vantaan Energia Sähköverkot amounted to 17.1 million euros (27.8 million euros).

Vantaan Energia has granted a loan of 6.5 million euros to its subsidiary Vantaan Energia Sähköverkot. The loan has a term of one year and will be repaid in full at the end of the loan period. The interest rate of the loan is 6-month Euribor + 1% margin.

### Key financial indicators:

Indicator	Group			Parent company		
	2024	2023	2022	2024	2023	2022
Turnover, MEUR	290.6	303.1	299.5	247.9	260.6	257.6
Operating profit, MEUR	60.6	65.7	57.4	46.7	43.9	35.0
% of turnover	20.8	21.6	19.2	18.8	16.8	13.6
Return on equity (%)	14.1	13.4	0.7	15.8	19.5	-8.6
Equity ratio (%)	42.2	42.0	34.4	38.8	30.3	22.7
Gross investments, MEUR	131.2	107.8	90.2	114.1	80.0	72.3
% of turnover	45.1	35.6	30.1	46.0	30.7	28.1

The return on equity in 2022 without the write-down of the value of Voimaosakeyhtiö SF shares (41.7 million euros) was 12.4% for the Group and 12.6% for the parent company.

## 4 Risk management

### 4.1 Risk management principles

#### Objectives

Vantaan Energia risk management objectives are to support the realization of targets set for business operations and to prevent the materialization of negative impacts. The Board of Directors of Vantaan Energia approves and performs a yearly review of the Group's risk management policy. The policy defines the key principles, responsibilities and processes for managing risks.

#### Organization

The Chief Executive Officer (CEO) of the parent company is responsible for Group-level risk management. The directors of the subsidiary and the different functions are responsible for risk management activities within their company or function and for the agreed reporting to the parent company's CEO, as well as for participating in Group-level management of key risks. The company is also responsible for the risk management services of Tuusulanjärven Lämpö Oy in accordance with the same principles.

The CEO is responsible for implementing the risk management policy and for organizing and developing risk management activities in accordance with business demands and good governance practices. The CEO receives expert assistance in developing risk management processes and methods.

Key risks of the Group and business functions have designated risk owners. The risk owner is responsible for ensuring that the risk description remains up-to-date and for developing the management of the key risk and associated actions.

Key risks and uncertainties have been identified and the key risks are systematically managed.

Since the start of the war in Ukraine, the focus of managing key risks has been on maintaining the security of supply and general safety. Risks related to fuel usability, availability and pricing have decreased. The company has been able to advance the investment projects related to its strategy as planned. In the prevailing geopolitical situation, threats related to cybersecurity have increased. The threat of various concrete incidents of sabotage and malicious violence has also remained high.

A major accident (e.g. equipment failure, fire, explosion) affecting production or the energy network has also been identified as a key risk. In terms of fire and rescue safety, measures to improve safety have been planned and partly implemented during the year. Occupational safety remains a particular focus of activity and its development is regularly monitored by management. Building security is also a key area for management to monitor.

Rapid changes in the energy market have highlighted the political risk in the sector. On the market side, energy market disruptions were less severe than in the previous two years and economic changes were more predictable.

Internal audit supports the company management and

organization in developing and maintaining the internal control system. The Group procures internal audit services from an external service provider. In 2024, internal audit services were provided by Deloitte Oy.

#### Reporting and monitoring

Vantaan Energia's Board of Directors receives an annual report of significant changes in risk management principles, key risks and their management. The functions report on their risks to the CEO. Financing and market risks are regularly reported to the parent company's CEO and to the Board of Directors. Risk management monitoring is part of management's annual clock. Key risk management personnel annually hold a separate risk management development day.

#### Development projects, management actions and reviews 2024

In 2024, the Group continued to develop the cybersecurity monitoring service and detection handling system introduced in the previous year. In response to the NIS2 Directive and the corresponding Finnish legislation, the TIHA project was launched to develop information security and data protection to meet compliance requirements, including at the documentation level. The Group has also prepared for denial-of-service attacks and access management has been developed.

From a security of supply perspective, the early winter of the operating year was as planned in terms of fuel availability. Only waste was subject to occasional chal-

lenges. The new heating season that began at the end of the year started with a good situation in fuel procurement and good plant availability. The stockpiles and availability of waste, biofuel and reserve fuel oil are good. Gas supply has continued as planned. The situation with critical spare parts has been reviewed, and the situation is good both in terms of the production plants and the energy networks.

For Fennovoima Oy's terminated nuclear power plant project, the company, as one of the shareholders of Voimaosakeyhtiö SF, is preparing to finance both Voimaosakeyhtiö SF and, through it, Fennovoima Oy so that that Fennovoima Oy remains operational and capable of defending its interests in current and future litigation. Litigation is expected to last for several years. Another objective is to preserve the value of the assets and maintain the possibility of realization.

In terms of preparedness and contingency planning, the company participated in a few larger preparedness exercises and developed its own operations by conducting small-scale exercises by business area.

In 2024, internal audits focused on data network segmentation, knowledge management, and waste supply chains.

With regard to internal control, the company's key guidelines were reviewed. From the risk-management perspective, key elements are the Code of Conduct, methods for legislative monitoring, related-party guidelines, and guidelines on compliance with competition law, among others. Systematic procedures are in place to assess the

Group's level of information security and effectiveness of data protection.

The Board of Directors of Vantaan Energia reviewed all Group-level internal operating policies in 2024. The Board also reviewed the Group's key risks.

#### 4.2 Risk descriptions

Risk management is the identification, assessment, implementation of control measures and active monitoring of risks. At Vantaan Energia, risks are classified in accordance with the risk policy into financial risks, strategic risks, operational risks and hazard risks

#### Financial risks

The focus of the Group's risk management is on financial risks. Financial risks are grouped into market risks (different commodity price risks, e.g. fuels and electricity), counterparty risks and finance risks.

Vantaan Energia's hedging practices are based on the market risk policy approved by the Board of Directors of the parent company and on more detailed business-specific hedging guidelines. The company's own electricity production and co-owned production, as well as electricity and fuels used for heat production in line with the production forecast for the coming years, are hedged through derivative instruments and bilateral OTC transactions in accordance with the Group's market risk policy. Appropriate solutions are taken to hedge against commodity vol-

ume risk. The policy defines practices for market risk management, control and reporting.

The company has prepared separate instructions for managing counterparty risks. There are credit guidelines for customer business, procurement guidelines for managing suppliers, and separate guidelines for managing market and financial risks of the various parties. Related party guidelines and a Code of Conduct for personnel and suppliers are also part of this set of guidelines.

Financial risks are managed in accordance with the financial risk policy. With regard to financial risks, the policy provides guidance on capital structure management, the principles of external financing arrangements, consideration of refinancing risk, liquidity risk and liquidity management, and investments as part of liquidity management. It also provides guidelines for the management of interest-rate risks. The policy defines practices for the management, control and reporting of finance risks.

Reports on market and financial risks are regularly provided to the parent company's CEO and Board of Directors.

### Strategic risks

Vantaan Energia strives for operational and financial success in the energy sector. The company actively seeks to develop its production capacity to respond to the challenges of the energy and circular economy markets. New projects include an electric battery, large thermal energy storage facilities and a possible sorting plant for mixed waste. The Group is investing in long-term customer re-

lations and the development of transmission network capacity as electrification gains momentum.

The carbon capture and storage project is a major enabler of waste's emission reductions. Strong and diversified public support is required for the project to be realized.

Vantaan Energia will continue investments to enable the phase out of fossil-based production fuels in 2026 and to capture carbon dioxide emissions from the thermal treatment of waste by 2035. Recovered CO<sub>2</sub> can either be utilized or permanently stored. This means a high level of investment throughout the current decade. Effective management practices are needed to control costs, ensure fuel availability and meet energy delivery schedules.

From a delivery reliability and security of supply perspective, a diversified energy production structure is critically important to mitigate strategic risks.

In the energy sector, policy and regulatory initiatives and changes are often difficult to predict and have a significant impact on the sector's capacity to operate. Climate, energy and waste policies have significant impacts on Vantaan Energia's strategic choices. Society's demands for lower electricity transmission prices, the high electricity price levels caused by the energy crisis and payment difficulties faced by customers in connection with high electricity bills have led to the preparation of legislation that adversely affects electricity market operators and thus to an increase in the level of political risk in the sector.

Vantaan Energia actively engages with relevant policymakers, influencers and officials to discuss the operating

environment challenges and opportunities that are key to the company in an effort to achieve a favorable development for the company. Through sector associations (Finnish Energy ry, Urban Energy Finland ry, Bioenergia ry), the company also actively participates in work aimed at proactively influencing the development work of an authority's oversight system or other steering mechanism. In its own operations, the Group anticipates changes in regulation or guidance and strives for operating models that are as flexible as possible and adaptable to changes in regulation or guidance. Vantaan Energia reports on its lobbying activities to the Transparency Register.

Strategic risks are addressed within the Group in conjunction with the strategy process.

### Operational risks

Operational risks at Vantaan Energia are related to disruptions in the functioning of systems, such as production plants, energy networks and information systems, shortcomings in processes, operational instructions or expertise, human errors and potential contractual shortcomings.

In 2024, operational risks were managed through, e.g., corporate security work.

As a new production unit, a High-Temperature Incineration Plant is being built at the company's waste-to-energy site. Particular attention has been paid to the related environmental, rescue and occupational safety issues.

Personal safety practices have been developed as a separate project. Operational reliability, measured in

terms of inconvenience to customers from outages, power plant and grid failures, has been at a very good level. Information security development has focused on the implementation and deployment of an information security and data protection management model.

Practical operational risk management has also been conducted, e.g. through the procurement of critical spare parts, materials and other special components, and by enlarging stockpiles.

Strengthening occupational safety culture is a focus area in the implementation of the Group's strategy. The key target in this area is to reduce accidents and achieve a zero-accident year.

Numerous measures have also been taken during the year to develop rescue operations and improve building security. These have also emerged as strategically important areas of particular focus for management.

### Hazard risks

Hazard risks can target the environment, personnel, property, business continuity or stakeholders. Insurance is an important risk management tool for managing hazard risks. Insurance policies are part of the Group's risk management policy.

The largest insurance targets are the Group's assets and business continuity insurance. During 2024, asset and business continuity insurance was put out to tender.

## 5 Personnel

### Personnel numbers and its development

On average, a total of 381 (350 in 2023) people were employed by Vantaan Energia Group during the financial period. The strategy of Vantaan Energia Group has included and continues to include various development projects that have created a need for additional resources and new roles. The increase in the number of employees within the year is mainly due to the High-Temperature Incineration Plant, which is planned to be completed in 2025, and for which people have been recruited already in 2024. In addition, the need for data analytics and data utilization in the future has been recognized throughout the Group, and thus data analysts have been recruited in the business functions and Group service units.

### Wages and remuneration

Wages and remuneration amounted to a total of 29.6 million euros (25.1 million euros).

The remuneration schemes used for blue-collar, white-collar and upper-white-collar employee groups are based on job requirements and personal qualifications. Vantaan Energia and Vantaan Energia Sähköverkot have a short-term (one calendar-year) incentive system for all staff, and a longer-term incentive system for designated key personnel, consisting of consecutive three-year performance periods.

### Occupational safety

In 2024, occupational safety was developed in many different areas. Team-level target setting took into account work safety measures developed by the teams themselves and 15-minute-long safety briefings were held monthly for all personnel; on the systems development side, procedures for job-specific risk assessment and the investigation of anomalies were introduced.

The Group's accident frequency (TRIF) in 2024 was 2.8 (3.1). The number of workplace accidents remained the same as in the previous year. One of the two accidents at work resulted in five days of absence from work. All work accidents and near misses are investigated and measures to prevent similar incidents in the future are explored for the root causes of the incidents.

Vantaan Energia's occupational safety actions aim for zero accidents. The goal is to have a safe workplace where occupational safety is observed, proactive measures are taken and anomalies are learned from in order to continuously improve occupational safety.

### Wellbeing at work

In occupational health care cooperation, high-quality basic occupational health care work was continued, and the daily processes of occupational health care were clarified and actively communicated to personnel. The occupational health rate, i.e. the percentage of employees with no sickness absences, was 34.26%. (33.10%).

The Group actively monitors coping at work, and the physical and mental wellbeing of personnel are taken care of in cooperation with occupational health care. In 2025, measures for career development management and workplace wellbeing are planned to be implemented in cooperation with occupational health care.

### Competence

The development projects related Vantaan Energia Group's strategy have led to an increase in the number of employees. The recruitment of new competencies and roles has also contributed to an increase in the number of employees. The increase in personnel numbers creates a significant need for successful recruitment, induction and the development and maintenance of employee competencies. It is also important to proactively identify future competence needs. This requires strengthening supervisory work and developing change management skills across the Group.

Vantaan Energia's strategic capabilities were highlighted and the related competencies were developed through various activities during 2024. Training, information sessions and other activities were also used to increase employee understanding of the importance of strategic capabilities in ensuring business success. In 2024, the Energy Academy was established within the Group to provide information on various training opportunities.

The digital and data skills of personnel were strengthened, for example by providing quick information sessions

on AI and its use. Data skills have also been strengthened through the creation of new data roles within the Group; in these roles, data-savvy individuals form a matrixed team across organizational boundaries.

Digitalization is driven forward on an ongoing basis, and a person in charge has been appointed to work together with our digital partners and functions' representatives to systematically identify areas for improvement in our operations.

### Employee experience

In 2024, the international Great Place to Work Trust Index employee survey was introduced. In the employee survey conducted in early 2024, Vantaan Energia earned Great Place to Work certification. To earn certification, a company must have a Great Place to Work Trust Index® survey score of at least 65%. The score achieved by Vantaan Energia Group was 70%. The response rate of Vantaan Energia was 86% (301/352 respondents). Based on the survey results, 82% of employees consider Vantaan Energia to be a great place to work. The strongest results in the employee survey statements were in the areas of work safety and equality.

Three areas for development at the Group level emerged from the employee survey: development of inclusion, improving dialogue and cooperation, and improving remuneration and recognition. In addition, each team identified its own team-specific development areas to be advanced.

During 2024, progress was made in three of the Group's development areas; for example, a small task force of employees was established to develop remuneration, resulting in a streamlined performance bonus process and increased communication on bonuses, among other things. In addition, the Group's monthly personnel briefings were revamped by increasing dialogue, showcasing a monthly success, and highlighting more teams and different experts.

In addition, in the autumn of 2024, training was held for the Group's supervisors; it covered topics such as leadership experience, the basic pillars of leadership and the importance of feedback. After the training, a survey of supervisory work was carried out, asking respondents about supervisors' cooperation skills, among other things. According to the results of the supervisor survey, a good atmosphere and smooth cooperation between teams are emphasized in day-to-day management. Cooperation within the team and with other teams and stakeholders is smooth and the interaction is easy. However, the supervisor survey indicated that there is still room for improvement in the communication between the different teams, as well as in the siloing of units and in the level of cooperation.

### Key personnel-related indicators:

Indicator	Group				Parent company			
	2024	2023	2022	2021	2024	2023	2022	2021
Average number of employees during the financial period	381	350	328	298	318	287	266	235
Permanent employees 31.12.	378	331	317	300	316	271	262	240
– monthly salaried workers	364	307	291	271	312	258	246	224
– hourly workers	14	24	26	29	4	13	14	16
– male	320	283	270	256	266	222	222	205
– female	58	48	47	44	50	39	38	35
Temporary workers 31.12.	12	18	19	17	11	16	16	13
Average age of employees, years	44.37	44.54	45.39	45.41	44.23	44.61	44.62	45.46
Wages and remuneration, MEUR	29.6	25.1	24.4	21.5	25.3	21.0	20.5	17.8
Accident frequency								
– indicator LTA>1	1.4	1.5	3.3	5.3	1.7	0	4.1	6.8
– indicator TRI>0	2.8	3.1	3.3	7.1	3.4	1.9	4.1	6.8

## 6 Environment

### 6.1 Environment-related operating principles and management systems

The goal of Vantaan Energia's environmental work is to be a responsible and active player in mitigating climate change and in minimizing the impact of the company's activities on the environment. The minimal requirements of Vantaan Energia's environmental work are the legal and operational requirements of the company's operating environment. The most significant environmental impacts are caused by energy production and distribution. Environmental impacts are mitigated by reducing carbon dioxide emissions and increasing the share of carbon-neutral production, for example, and by exploring implementation options for the capture of carbon dioxide emissions from waste incineration. Preparation of the EIA procedure for the CCS project started in late 2024.

Vantaan Energia continues investments that aim to phase out the use of fossil-based production fuels in 2026 and to recover the carbon dioxide emissions from the thermal treatment of waste by 2035. The recovered carbon dioxide can either be utilized or stored permanently. Fossil fuels are planned to be replaced by electric boilers and energy storage, biogas and waste heat.

Environmental management is based on the Group's corporate safety and responsibility policies. Energy Production and Circular Economy Business functions' environmental and quality management systems are compliant with ISO 14001:2015 and ISO 9001:2015 standards.

The company is participating in the Energy Efficiency Agreements system during the period 2017–2025.

### 6.2 Significant environmental aspects and achieved improvements

The company's most significant environmental aspects relate to fuel use and the associated carbon dioxide emissions, other emissions from energy production and the generation of waste from energy production. In 2024, the company invested 25 million euros in environmental protection. The most notable environment-related investments were focused on the High-Temperature Incineration Plant, the seasonal thermal energy storage Varanto, and the Martinlaakso Power Plant's district heating battery.

An appeal against the 2022 environmental permit decision for the High-Temperature Incineration Plant under construction was made to the Administrative Court of Vaasa. The Administrative Court of Vaasa referred the environmental permit for the High-

Temperature Incineration Plant back to the Regional State Administrative Agency in summer 2024.

The EIA procedure for the incineration of hazardous waste at the waste-to-energy plant expansion was completed in July 2024, at which time the ELY Center provided a reasoned conclusion.

Construction of an electric boiler and district heating battery started at the Martinlaakso Power Plant in late 2024.

The environmental and water permit of the seasonal thermal energy storage facility was completed with the project being granted an environmental permit in 2024 regarding underground construction noise. The permit decision is final. Construction of the storage facility entrance is underway.

### 6.3 Level of environmental protection in relation to requirements

The company aims to systematically identify the environmental risks associated with its operations. In conjunction with production-related projects, an assessment of environmental impacts and the necessary risk assessments are always carried out. The company ensures that environmental liabilities related to its operations are sufficiently documented where required and that necessary provisions are made for the remediation costs of environmental damage caused.

Management is not aware of environmental cases that could have an impact on the company's financial position. There are no provisions for environmental liabilities in the mandatory provisions included in the 2024 financial statements.

In 2024, there were 189 exceedances of emission limit values at power plants. There were 30 exceedances at the Martinlaakso Power Plant and 159 at the Waste-to-Energy Plant (11 at the Waste-to-Energy Plant and 148 at the Waste-to-Energy Plant Expansion). Regarding the

Waste-to-Energy Plant, the exceedances were mainly related to carbon monoxide emissions; regarding the Martinlaakso Power Plant, the exceedances were mainly related to the coal-fired boiler's sulfur emissions and nitrogen oxide emissions. The exceedances occurred mainly during startup and shutdown of the coal-fired boiler. The carbon monoxide emission exceedances in the Waste-to-Energy Plant Expansion were related to combustion control, which led the equipment supplier to make changes to the boiler's combustion air system.

The exceedances of the emission limit values by the production plants did not cause significant emissions to air, nor did they cause interruptions in production. Further, the cases did not result in sanctions or other financial liabilities for the company.

The Martinlaakso Power Plant, the Waste-to-Energy Plant's gas turbine facility and five heating plants are within the scope of the Emissions Trading Scheme. In addition, the Vantaa Waste-to-Energy Plant's waste-fired boilers were included in the Emissions Trading Scheme monitoring obligation from the beginning of 2024, but they are not yet subject to the allowance surrendering obligation. The carbon dioxide emissions from the waste-fired boilers are measured continuously from the boiler stacks and the share of fossil carbon dioxide emissions is determined by analyses. Due to a change in the monitoring methodology, carbon dioxide emissions increased compared to the previous year. Previously, emissions from waste-fired boilers were calculated using emission factors.

In 2024, the total carbon dioxide emissions covered by the Emissions Trading Scheme was 100,309 tonnes (190,193 tonnes). Fossil-based carbon dioxide emissions from the waste-fired boilers covered by the Emissions Trading monitoring obligation amounted to 338,589 tonnes.

The Waste-to-Energy Plant and the Martinlaakso Power Plant are registered under the guarantee of origin schemes for heat and electricity. For waste incineration, the guarantee of origin applies to energy produced from the biogenic fraction of waste and to the biofuels at Martinlaakso.

#### 6.4 Level of environmental protection in relation to the nature and scale of operations

The company regularly monitors the development of its key environmental performance indicators and the achievement of the targets set for them. Key environmental indicators relate to fuel consumption, emissions to air, and waste.

#### 6.5 Relation of the annual report to other environmental reporting

From 2024, the company publishes an annual report with a section on sustainability that includes information on the status and development of the company's environmental management.

Environmental indicators	2024	2023	2022
Carbon dioxide emissions from local (Vantaa) production (CO <sub>2</sub> t)	439,054	365,939	423,101
Emissions from local (Vantaa) production/energy produced in Vantaa (CO <sub>2</sub> g/kWh)	190	165	180
Environmental expenditure (MEUR)			
– investments in environmental protection	25	8	13
Environmental liabilities (mandatory provisions, MEUR)	0	0	0
Exceedances of emission limit values (no.)	189	297	75
Environmental damages (no.)	0	0	0
Fuel consumption (GWh)			
– coal	176	406	610
– natural gas	157	120	91
– oils	1	1	26
– mixed waste	1,657	1,372	1,177
– peat	163	75	59
– bio	456	488	627
Total	2,610	2,462	2,590
Emissions from energy production (t)			
– NO <sub>2</sub>	757	741	785
– SO <sub>2</sub>	84	140	193
– particles	6	3	2
Waste			
– ash and slag (t)	149,711	131,839	122,894
– utilization (%)	84	85	77

## 7 Social responsibility

Vantaan Energia's Sustainability Policy guides everything the Group does in terms of sustainability. The Sustainability Policy defines how Vantaan Energia takes responsibility for the environment, people and good governance.

The aim of Vantaan Energia's sustainability work is to manage the environmental and social impacts of the Group's operations and to meet the expectations of the Group's employees, customers, owners and other stakeholders. The order of priority of the most material impacts has been specified, and it is reviewed annually. Sustainability is an integral part of Vantaan Energia's management, and sustainability targets guide our actions through our incentive schemes.

Vantaan Energia plays an important societal role as a producer and distributor of heat and electricity for local residents, businesses and organizations. The Group's operations have an impact on the living and operating costs and on the carbon footprint of local residents and businesses. Vantaan Energia's strategy is based on an investment development path that aims to provide the people of Vantaa with low-emission, affordable and reliable energy while respecting biodiversity.

We are an important player in society's security of supply. We are aware of our responsibility, as electricity and heat are essential for virtually every activity. We have a significant role in Finland's waste management. We take precautions to ensure the continuity of our operations in all situations, and we are able to quickly return to normal

operations after disruptions. We operate on the energy market fairly and without discrimination.

In addition to financial performance indicators, our remuneration system includes metrics related to sustainability. In the annual short-term incentive scheme for all personnel, safety work is driven by measuring occupational accidents and the absences caused by them. Management and key personnel are also engaged in longer term development and sustainability through a long-term incentive scheme that monitors the development of specific emissions from energy production. In the electricity network business, the long-term incentive scheme includes delivery reliability metrics. There are also delivery reliability metrics for local energy production and distribution.

Our goal is to reduce carbon emissions from energy production by phasing out fossil fuels in normal energy production in 2026 at the latest and then recovering carbon dioxide emissions from the thermal treatment of waste by 2035.

Vantaan Energia's Energy Production and Circular Economy businesses have been awarded ISO 14001 environmental certification, and we are committed to continuously reducing the environmental and nature impacts of our operations.

We have published a roadmap for our biodiversity work, which aims to minimize the impact our operations have on nature. We report on the progress of this work.

At the core of our strategy is growing the circular economy business operations, the business benefits of which are based on the efficient recovery of energy and materials. In 2024, we committed to the Ministry of the Environment's Circular Economy Green Deal and to annual reporting to the Ministry on the related actions and implementation. The five actions in the commitment promote, e.g., combustion-free heat generation solutions, improving energy efficiency, promoting materials recycling, and carbon capture. We are committed to the national energy-efficiency agreement action plans for energy production and energy services.

We are committed to taking responsibility for the well-being and safe working environment of our personnel, as well as for a culture of teamwork and community spirit. The overall wellbeing and good motivation of our personnel are key in the implementation of our strategy. Together with our employees, we plan different ways to maintain a sense of community, for example through club activities and various events.

We are committed to equal treatment and equal opportunities, for example through our commitment to gender pay equality.

In partnership with occupational health care, we actively monitor working capacity to ensure the physical and mental wellbeing of our personnel.

Our aim in occupational safety is to ensure that all our employees and our partners return home in good health at

the end of the workday. Occupational safety is closely monitored and ambitious targets for it are set annually in our incentive schemes. Vantaan Energia's occupational safety strategy aims to achieve zero accidents by the end of 2025.

We aim to provide heat at a lower price than the average of our peer cities. We are committed to keeping electricity transmission prices as stable, predictable and reasonable as possible.

Vantaan Energia makes annual donations to charitable or similar causes. The amount earmarked for donations is decided annually by the Annual General Meeting and its allocation is the responsibility of the Board of Directors together with the CEO.

We are committed to active, reliable, open and interactive communication with our customers, personnel and other stakeholders. We cooperate with NGOs and local actors. We track the opinions our customers and stakeholders have about us through a number of annual surveys and events, which we use to improve our operations.

Vantaan Energia has a clear management system that reports regularly and adequately to the Board of Directors regarding the state of the company and the achievement of its objectives.

Our risk management aims to ensure business continuity in all situations. Key areas of risk management and preparedness include financial and market risks, wide-scale business security, information security and data protection.

## 8 Research and development

We are committed to communicating openly and honestly about matters of importance to the company and to communicating about them in a clear and timely manner. We maintain an active dialogue with our personnel and with various stakeholders, such as owner representatives, customers, partners, various NGOs, the media and political decision-makers.

We take a clear and open position on legislative developments that are relevant to us, and we discuss them with our stakeholders. We report on our interactions to the Transparency Register and are committed to following the Transparency Register Advisory Board's recommendations on good lobbying practices. Vantaan Energia is politically neutral and does not contribute to political activities.

We require our employees and suppliers to commit to our Code of Conduct. We develop our supply chain accountability management and we take action if anomalies are detected.

Vantaan Energia is a Group focusing on the production of energy services; its investment in research and development is relatively low. The primary method of participating in development projects is by funding R&D projects that contribute to the company's business and by providing company expertise and data for use by the projects. The company's research activities rely on the sector's partnership networks and good collaboration with leading energy research facilities and universities. For example, several university-level theses were completed for Vantaan Energia in 2024.

Among the projects promoted during the year were the BLOCKCC project, which explores regional energy solutions and heat demand-response, and the GADB project, which explores green financing for real estate and mortgages.

The company is a shareholder of Clic Innovation Oy, a bioeconomy and cleantech-focused product development company. Vantaan Energia is also a member of the Finnish Clean Energy Association and Green Net Finland ry. Sector-related research has also been supported through participation in research funded by Business Finland and Finnish Energy ry.

In 2024, the Group continued the Venturing activity to scan startup companies, launched in the previous year. The scan looks for suitable partners among the startups. This supports business development by finding innovative solutions for the value chains of Vantaan Energia's businesses. No new investments were made in 2024 as a result of the Venturing activity.

Several energy production projects were advanced with the aim of achieving carbon neutrality in energy production, first by phasing out fossil fuels in energy production in 2026 and then by capturing emissions from the thermal treatment of waste starting in 2035 at the latest. The completion of these projects will ensure affordable, reliable and low-emission energy for the people of Vantaa.

Vantaan Energia continued to work with several customers on smart heating, waste heat recovery and heat demand-response projects. The Ministry of Economic Affairs and Employment granted the company 7.5 million euros in investment aid for the recovery of waste heat for the Martinlaakso area. Moreover, progress was made in several energy efficiency and regional energy projects were advanced with customers, especially in collaboration with the City of Vantaa and its Group companies.

## 9 Governance

Vantaan Energia's Annual General Meeting was held on 28.3.2024 and it addressed topics reserved for annual general meetings as specified in Section 9 of the company's articles of association.

The members of the Board of Directors elected at the 2023 Annual General Meeting continued in their roles: Tommi Valtonen (Chair), Pia Pakarinen (Vice Chair), Sari Antila, Päivi Laakso, Mika Niikko, Antti Nummi and Matias Pajula. The two-year term of the Board ends upon conclusion of the 2025 Annual General Meeting.

In 2024, the Board met a total of 11 times.

KPMG Oy Ab served as the company's auditor and the principal auditor was Authorized Public Accountant Juha Huuskonen.

Jukka Toivonen (M.Sc., MBA) served as the Chief Executive Officer of the company.

## 10 Notable legal matters

In its decision of 20.6.2024, the Administrative Court of Vaasa annulled the environmental permit for the High-Temperature Incineration Plant under construction at Långmossen in Vantaa and referred it back to the Regional State Administrative Agency. Vantaan Energia submitted a new permit application to the Regional State Administrative Agency of Southern Finland on 2.9.2024. The environmental permit is still being processed by the Regional State Administrative Agency. On 19.7.2024, the Finnish Safety and Chemicals Agency Tukes granted a chemical safety permit for the High-Temperature Incineration Plant. The chemical safety permit was appealed to the Helsinki Administrative Court, which rejected the requested enforcement ban in its decision of 18.12.2024. In other respects, the Administrative Court continues to process the appeal.

Vantaan Energia Sähköverkot, along with other distribution network companies in Finland, received confirmation from the Finnish Energy Authority in December 2021 that monitoring methods applicable to the assessment

of reasonable profit levels were exceptionally modified for 2022 and 2023 during the ongoing monitoring period 2020-2023. Together with other distribution network companies, on 17.1.2022, the company appealed the Finnish Energy Authority's decisions to the Market Court. The case is pending in the Market Court.

On 29.12.2023, the Energy Authority issued confirmation decisions for electricity network operators. In its decisions, the Energy Authority sets out the methodology for assessing the reasonableness of the profit of the network operators' network operations in the 6th (2024-2027) and 7th (2028-2031) monitoring periods. Vantaan Energia Sähköverkot, together with other distribution network companies, appealed the decisions of the Energy Authority to the Market Court on 29.1.2024. The case is pending in the Market Court.

Vantaan Energia and Vantaan Energia Sähköverkot are also involved in a few dispute cases. The financial impact of these cases is estimated to be minor.

## 11 Events following the financial period

On 24.1.2025, Svartisen Holding AS (49.6% ownership), an associated company of Vantaan Energia, and Hafslund AS announced an agreement with the Norwegian company Orkla to acquire Sarpsfoss Limited. Sarpsfoss Limited owns the Borregaard power plant and 50% of the Sarp power plant, as well as the Mossefossen power plant. The transaction is subject to approval by the relevant competition authorities and the Norwegian Ministry of Energy.

On 27.1.2025, Vantaan Energia and Rantakairan Sähkö Oy agreed on a deal regarding the shares of Oomi Palvelut Oy; through the deal, Vantaan Energia's ownership in Oomi Palvelut Oy increased to 28.587% (28.3% before the deal).

Vantaan Energia's new associated company Suomen Aurinkovoima Oy (25% ownership) started its operations on 5.2.2025.

The detailed participation and assessment plan related to the change in the zoning plan for the Waste-to-Energy Power Plant site was published on 11.2.2025. Vantaan Energia Ltd initiated the application for the zoning plan change in order to implement its planned mixed waste sorting plant and the carbon dioxide recovery plant at the site.

## 12 Future outlook

Finland's climate policy actions are framed by the UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, which complements it and binds industrialized countries, the Paris Agreement, which binds all parties, and the European Union (EU) climate and energy policy. In international climate policy, Finland is part of the European Union and is bound by the EU's climate policy objectives. Finland has ratified the UNFCCC, the Kyoto Protocol and the Paris Agreement together with other EU member states.

The EU's target is to reduce greenhouse gas emissions by a minimum of 55 percent by 2030, compared to 1990 levels, and to be carbon neutral by 2050.

Finland's national target is to be carbon neutral by 2035. Finland's current government program includes strong support for nuclear, hydro, wind and solar power, hydrogen economy, and carbon capture and utilization solutions. Clean energy production is becoming a key factor in Finland's competitiveness.

Vantaan Energia is owned by the cities of Vantaa and Helsinki; both seek to be carbon neutral by 2030.

Vantaan Energia continues investments aiming to enable the phase out of fossil-based production fuels in 2026 and to recover carbon dioxide emissions from the thermal treatment of waste by 2035. The recovered carbon dioxide can either be utilized or permanently stored.

Vantaan Energia's investments in the energy recovery of non-recyclable waste and in the use of renewable bioenergy in energy production result in the Helsinki metropolitan area's most economical heat for the company's customers and in a reduction of air emissions. These investments and the realization of the company's future projects aiming to phase out the use of fossil-based production fuels and to reach carbon neutrality will enable stable heating prices also in the coming years.

The importance of the circular economy in the company's development and business growth will be further reinforced through new investment projects. The excavation work for the seasonal thermal energy storage project, which will make extensive use of various sources of waste heat and fluctuations in electricity market prices, is scheduled to start in 2025. When completed in 2028-2029, the seasonal thermal energy storage facility will reduce both the use of wood chips and, more broadly, carbon dioxide emissions from the company's energy production.

During 2025, the company will deploy a 60-MW electric boiler and associated district heating battery at the Martinlaakso Power Plant site and an approximately 10-MW electric battery at the Rekola substation. The investments will take advantage of the large fluctuations in electricity

prices resulting from the growth in weather-dependent electricity production and the growing need for rapid balancing capacity for energy production and consumption.

Together with its partners, Vantaan Energia is planning several projects aimed at increasingly competitive and low-emission energy production, such as the electric boiler, heat pump and thermal energy storage solutions, the large-scale recovery of waste heat, demand-response solutions for heat, and carbon capture combined with final storage or recovery as new products.

Improving energy efficiency plays an important role in reducing greenhouse gas emissions. The EU's collective target is to improve energy efficiency by at least 11.7% compared to projections made in 2020. In Finland, energy efficiency improvements are primarily achieved through voluntary energy efficiency agreements, Vantaan Energia participates in the Energy Efficiency Agreement by implementing measures to continuously improve the energy efficiency of the company and its customers.

From an electricity grid perspective, the strong electrification of heat production in the Vantaa region and the region's increasing use of electricity in transport and commerce will boost electricity use in the region significantly already in the upcoming years. Subsidiary Vantaa Energi Sähköverkot mission is to develop the electricity network in the region and provide a viable platform for a clean electricity market.

The projected robust growth in electricity use will require a substantial reinforcement of the transmission and distribu-

tion network in the Vantaa region. It will also be necessary to strengthen the transmission network feeding the region to enable the transition to a clean energy system.

A tram line is also being built in Vantaa, which will lead to significant construction needs in the region's distribution network.

At the end of 2023, the Energy Authority published new monitoring methods for electricity network operations for the 2024-2027 and 2028-2031 periods. The new monitoring methods create uncertainty regarding the realization potential of the above-mentioned investments in the coming years.

The work to strengthen biodiversity is part of the company's sustainability program launched in 2023. The company is committed to Finnish Energy's goal of the sector's net positive impact on nature by 2035. The company has identified key areas for biodiversity preservation, and in the coming years will deepen its understanding of the impacts in these areas and how it can counteract adverse impacts and enhance positive impacts.

As part of its sustainability program, Vantaan Energia will expand its sustainability reporting to comply with the EU's Corporate Sustainability Reporting Directive, which entered into force in 2024. From 2025 onwards, the company will report on sustainability from a double materiality perspective in conjunction with its annual report. This will mean reporting on the social and environmental impacts of the company's business activities and reporting on the impacts of the sustainability themes on the busi-

ness itself. The company is also participating in the international climate commitment, SBTi, and the sustainability data reported by the company will be verified by an external party.

The tightening of the global political situation puts even more emphasis on the importance of ensuring business security and security of supply for energy companies. The continuing strong war of aggression by Russia in Ukraine, the expanded conflicts in the Middle East and the sabotage of infrastructure serving society have a direct and an indirect impact on the energy market and its players.

Vantaan Energia will continue to prepare for possible exceptional situations in 2025 that could threaten energy supply, production and transmission by ensuring a diversified supply of fuels and the reliable delivery of heat and electricity. Special attention will continue to be paid to overall corporate security.

The availability and prices of the fuels used by Vantaan Energia and the price developments of its other production factors affect the future cost development of the electricity and heat produced by the company. In addition to cost developments, Vantaan Energia's result will continue to be affected by fluctuations in the wholesale price of electricity.

Despite the changes in the operating environment and the uncertainties, Vantaan Energia Group's operating performance is expected to remain strong.

## 13 Board of Directors' proposal on the distribution of profit

Based on the financial statement as at 31.12.2024, the parent company's distributable funds are:

- Retained earnings	170,329,066.44 €
- Profit for the financial period	38,489,092.43 €
Total	208,818,158.87 €

The Board of Directors proposes that a dividend of 12.86 euros per share, totaling 22,002,276.88 euros, be distributed on the basis of the balance sheet for the financial year ending 31.12.2024.

There have been no material changes in the financial position of the company since the close of the financial year. The company's liquidity is good and, in the opinion of the Board of Directors, the proposed distribution of profit does not jeopardize the company's solvency.

## 14 Company shares

The share capital of the company is divided as follows:

Owner	2024	
	No.	€
City of Vantaa	1,026,545	2,053,090
City of Helsinki	684,363	1,368,726
<b>Total</b>	<b>1,710,908</b>	<b>3,421,816</b>

The nominal value of the share is 2.00 euros. All shares carry an equal right to dividends and company assets.

# Income statement

Euros	Group		Parent company	
	2024	2023	2024	2023
<b>Turnover</b>	<b>290,612,312.15</b>	<b>303,086,565.61</b>	<b>247,890,725.00</b>	<b>260,587,880.14</b>
Production for own use	7,389,854.92	5,762,148.10	5,237,572.40	3,628,659.06
Other operating income	10,996,310.83	9,641,013.86	14,603,549.79	12,906,807.92
Materials and services	-130,304,959.51	-148,506,727.52	-120,987,473.26	-141,353,019.21
Personnel expenses	-35,885,660.51	-29,166,357.46	-30,454,125.26	-24,714,365.24
Depreciation and amortization	-36,474,229.26	-34,933,868.14	-24,873,500.30	-24,599,962.43
Other operating expenses	-49,012,309.98	-46,570,324.26	-44,707,516.26	-42,550,716.08
Share of profit of associated companies	3,249,881.06	6,374,461.15	-	-
<b>Operating profit</b>	<b>60,571,199.70</b>	<b>65,686,911.34</b>	<b>46,709,232.11</b>	<b>43,905,284.16</b>
Financial income and expenses	-2,690,048.06	-8,158,591.92	2,078,602.54	4,020,599.67
<b>Profit before appropriations and taxes</b>	<b>57,881,151.64</b>	<b>57,528,319.42</b>	<b>48,787,834.65</b>	<b>47,925,883.83</b>
Appropriations				
Change in depreciation difference	--	--	1,439,214.93	179,761.45
Group contribution			-5,000,000.00	2,000,000.00
Income taxes	-7,627,623.89	-9,943,681.55	-6,737,957.15	-7,611,790.10
Other direct taxes	0.00	-2,252,685.11	0.00	-2,252,685.11
<b>Profit for the period</b>	<b>50,253,527.75</b>	<b>45,331,952.76</b>	<b>38,489,092.43</b>	<b>40,241,170.07</b>

# Balance sheet

Euros	Group		Parent company	
	31.12.2024	31.12.2023	31.12.2024	31.12.2023
<b>ASSETS</b>				
<b>Non-current assets</b>				
Intangible assets				
Intellectual property rights	3,049,217.21	3,329,324.65	194,255.92	326,301.12
Other long-term expenses	4,644,266.86	5,675,251.06	3,997,610.75	4,518,929.22
	7,693,484.07	9,004,575.71	4,191,866.67	4,845,230.34
Tangible assets				
Land and water	9,096,271.92	7,487,865.25	8,595,785.03	6,987,378.36
Buildings and structures	108,377,244.01	117,872,013.73	95,590,201.26	104,400,478.88
Electricity network	148,328,255.84	145,263,989.63	--	--
District heating network and equipment	96,323,605.06	91,297,538.52	96,323,605.06	91,297,538.52
Machinery and equipment	49,693,357.65	54,630,339.98	48,891,561.71	53,803,122.18
Other intangible assets	1,765,092.53	2,110,119.29	1,765,092.53	2,110,119.29
Assets under construction	183,376,216.71	86,581,182.75	177,430,999.94	83,965,939.49
	596,960,043.72	505,243,049.15	428,597,245.53	342,564,576.72
Investments				
Shareholdings in Group companies	721,000.00	--	797,000.00	76,000.00
Shareholdings in associated companies	66,659,513.49	67,674,982.43	84,829,530.11	84,876,330.11
Other shares and interests	89,628,611.14	87,548,332.35	89,625,810.09	87,545,531.30
Other long-term investments	1,129,543.75	954,543.75	1,129,543.75	954,543.75
	158,138,668.38	156,177,858.53	176,381,883.95	173,452,405.16
<b>Non-current assets, total</b>	<b>762,792,196.17</b>	<b>670,425,483.39</b>	<b>609,170,996.15</b>	<b>520,862,212.22</b>
<b>Current assets</b>				
Inventories				
Materials and supplies	13,938,120.83	12,077,237.42	13,938,120.83	12,077,237.42
Oil stock	7,088,600.29	7,813,336.86	7,088,600.29	7,813,336.86
Coal stock	4,472,741.48	4,030,253.96	4,472,741.48	4,030,253.96
Bio stock	3,282,867.81	0.00	3,282,867.81	0.00
Advance payments	1,168,605.12	0.00	1,168,605.12	0.00
	29,950,935.53	23,920,828.24	29,950,935.53	23,920,828.24
Non-current receivables				
Other receivables	4,500.00	4,500.00	0.00	0.00
Prepayments and accrued income	1,083,705.46	1,191,487.64	140,020.80	171,136.32
Deferred tax assets	611,368.10	778,520.95	0.00	0.00
Current receivables				
Trade receivables	46,059,467.36	48,761,053.89	29,255,484.98	31,701,342.26
Connection fee receivables	163,324.60	553,823.88	52,256.26	98,404.60
Receivables from Group companies	5,367,939.93	5,512,679.92	10,832,263.97	15,891,180.95
Other receivables	9,744,614.73	23,677,056.65	9,567,442.24	23,424,494.53
Prepayments and accrued income	6,586,572.34	14,387,655.57	5,953,636.19	13,568,426.52
Receivables, total	69,621,492.52	94,866,778.50	55,801,104.44	84,854,985.18
Cash and cash equivalents	15,897,887.38	18,390,502.20	10,172,518.47	13,882,815.72
<b>Current assets, total</b>	<b>115,470,315.43</b>	<b>137,178,108.94</b>	<b>95,924,558.44</b>	<b>122,658,629.14</b>
<b>Assets total</b>	<b>878,262,511.60</b>	<b>807,603,592.33</b>	<b>705,095,554.59</b>	<b>643,520,841.36</b>

Euros	Group		Parent company	
	31.12.2024	31.12.2023	31.12.2024	31.12.2023
<b>LIABILITIES AND EQUITY</b>				
<b>Equity</b>				
Share capital	3,421,816.00	3,421,816.00	3,421,816.00	3,421,816.00
Retained earnings	317,140,191.76	292,818,189.24	170,329,066.44	151,097,846.62
Profit for the period	50,253,527.75	45,331,952.76	38,489,092.43	40,241,170.07
<b>Equity, total</b>	<b>370,815,535.51</b>	<b>341,571,958.00</b>	<b>212,239,974.87</b>	<b>194,760,832.69</b>
<b>Accumulated appropriations</b>				
Depreciation difference	--	--	73,268,096.27	74,707,311.20
<b>Provisions</b>	<b>3,056,840.50</b>	<b>3,892,604.75</b>	<b>3,056,840.50</b>	<b>3,892,604.75</b>
<b>Liabilities</b>				
Non-current liabilities				
Connection fees	148,486,063.34	147,463,830.76	93,052,579.71	93,285,297.75
Loans from financial institutions	167,938,461.56	95,520,512.84	167,938,461.56	95,520,512.84
Other non-current liabilities	925,929.31	1,144,875.68	925,929.31	1,144,875.68
Deferred tax liability	33,648,759.97	33,076,419.01	--	--
	350,999,214.18	277,205,638.29	261,916,970.58	189,950,686.27
Current liabilities				
Loans from financial institutions	77,582,051.28	112,982,051.28	77,582,051.28	112,982,051.28
Advances received	0.00	56,100.00	0.00	0.00
Trade payables	25,687,379.08	23,752,217.13	23,577,923.37	23,501,689.65
Payables from Group companies	231,771.62	17,142,789.09	5,924,484.53	17,631,697.35
Other payables	36,525,412.91	4,670,990.58	36,524,442.86	4,669,529.29
Accruals and deferred income	13,364,306.52	26,329,243.21	11,004,770.33	21,731,565.25
	153,390,921.41	184,933,391.29	154,613,672.37	180,209,406.45
<b>Liabilities, total</b>	<b>504,390,135.59</b>	<b>462,139,029.58</b>	<b>416,530,642.95</b>	<b>370,160,092.72</b>
<b>LIABILITIES AND EQUITY, TOTAL</b>	<b>878,262,511.60</b>	<b>807,603,592.33</b>	<b>705,095,554.59</b>	<b>643,520,841.36</b>

# Cash flow statement

Euros	Group		Parent company	
	31.12.2024	31.12.2023	31.12.2024	31.12.2023
<b>Cash flow from operating activities</b>				
Profit before appropriations	57,881,151.64	57,528,319.42	48,787,834.65	47,925,883.83
Adjustments				
Planned depreciation	36,474,229.26	34,933,868.14	24,873,500.30	24,599,962.43
Other income and expenses not including payments	-4,996,388.44	-15,384,238.42	-1,746,507.57	-8,446,899.51
Financial income and expenses	2,690,048.06	8,158,591.92	-2,078,602.54	-4,020,599.67
Cash flow before change in working capital	92,049,040.52	85,236,541.06	69,836,224.84	60,058,347.08
Change in working capital				
Change in inventories	-3,035,566.09	12,014,168.34	-3,035,566.09	12,014,168.34
Change in current receivables	23,884,861.68	100,305,502.54	22,899,399.56	102,297,077.34
Change in current liabilities	-6,278,941.48	6,995,290.73	-5,277,012.16	5,428,725.74
Cash flow from operating activities before financial items and taxes	106,619,394.63	204,551,502.67	84,423,046.15	179,798,318.50
Interest and other financial expenses paid	-5,791,438.16	-7,019,864.31	-5,791,367.78	-7,019,864.29
Dividends received from operations	4,353,282.07	11,964,525.10	4,353,282.07	11,964,525.10
Interest received from operations	1,721,214.98	2,700,382.57	2,271,245.20	2,968,374.16
Direct taxes paid	-9,968,148.93	-4,775,398.40	-9,780,099.61	-4,564,923.08
<b>Cash flow from operating activities</b>	<b>96,934,304.59</b>	<b>207,421,147.63</b>	<b>75,476,106.03</b>	<b>183,146,430.39</b>
<b>Cash flow from investing activities</b>				
Investments in tangible and intangible assets	-129,367,417.04	-74,831,756.71	-112,364,620.99	-46,546,241.25
Gains from divestments of tangible and intangible assets	381,262.72	99,634.45	145,375.84	99,634.45
Other investments	-3,543,669.27	-12,822,791.72	-3,543,669.27	-12,822,791.72
Dividends received from investments	72,174.93	0.00	72,174.93	0.00
Other adjustments to investments	298,223.81	0.00	103,448.05	0.00
<b>Cash flow from investing activities</b>	<b>-132,159,424.85</b>	<b>-87,554,913.98</b>	<b>-115,587,291.44</b>	<b>-59,269,398.52</b>
<b>Cash flow before financing activities</b>	<b>-35,225,120.26</b>	<b>119,866,233.65</b>	<b>-40,111,185.41</b>	<b>123,877,031.87</b>

Euros	Group		Parent company	
	31.12.2024	31.12.2023	31.12.2024	31.12.2023
<b>Cash flow from financing activities</b>				
Proceeds from long-term liabilities	125,000,000.00	0.00	125,000,000.00	0.00
Payment of long-term liabilities	0.00	0.00	0.00	0.00
Proceeds from short-term liabilities	47,662,556.40	190,814,799.27	47,662,556.40	190,814,799.27
Payment of short-term liabilities	-119,831,169.11	-334,622,136.39	-119,831,169.11	-334,622,136.39
Increase (-)/decrease (+) in loan receivables	0.00	0.00	5,000,000.00	-4,000,000.00
Increase (-)/decrease (+) in long-term receivables	-111,164.19	12,393,749.07	-187,830.85	12,317,082.41
Increase (+)/decrease (-) in connection fees	1,022,232.58	2,297,854.47	-232,718.04	-48,782.98
Dividends paid	-21,009,950.24	-18,050,079.40	-21,009,950.24	-18,050,079.40
Group contributions received and paid	0.00	--	0.00	2,000,000.00
Other	0.00	0.00	0.00	0.00
<b>Cash flow from financing activities</b>	<b>32,732,505.44</b>	<b>-147,165,812.98</b>	<b>36,400,888.16</b>	<b>-151,589,117.09</b>
<b>Change in cash and cash equivalents</b>	<b>-2,492,614.82</b>	<b>-27,299,579.33</b>	<b>-3,710,297.25</b>	<b>-27,712,085.22</b>
<b>Cash and cash equivalents 1.1.</b>	<b>18,390,502.20</b>	<b>45,690,081.35</b>	<b>13,882,815.72</b>	<b>41,594,900.94</b>
<b>Cash and cash equivalents 31.12.</b>	<b>15,897,887.38</b>	<b>18,390,502.02</b>	<b>10,172,518.47</b>	<b>13,882,815.72</b>



**Vantaan Energia Oy**

Peltolantie 27, 01300 Vantaa  
PL 95, 01301 Vantaa  
Vaihde 09 829 01