

Vantaan Energia Keski-Uusimaa: Report of Corporate Social Responsibility 2022





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Vantaa Energia Keski-Uusimaa Oy

Vantaan Energia Keski-Uusimaa creates local well-being for our customers in Järvenpää and Tuusula. We produce heat and heat-related services, and we ensure reliable heating distribution to homes and properties.

Our heat production is climate-friendly, we develop our operations continuously, and we strengthen the security of heat supply. Vantaan Energia Keski-Uusimaa is owned by Infranode, Keva and Vantaa Energy.

Vantaan Energia Keski-Uusimaa produces its electricity and heat at the Järvenpää power plant. There are also 4 heating plants in the areas of Järvenpää and Tuusula for the purpose of heat production. The length of the heating network owned by Vantaan Energia Keski-Uusimaa is 214 kilometres.



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keski-uusimaa

JÄRVENPÄÄN VOIMALAITOS

**HYVÄÄ
ENERGIAA
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Corporate Social Responsibility review 2022

The energy crisis challenged the entire sector

Vantaan Energia Keski-Uusimaa Oy is a company that focuses on heat-related business operations, with a main task of producing heat and heat-related services in the areas of Tuusula and Järvenpää. The company also produces electricity at the Järvenpää power plant. Vantaan Energia Keski-Uusimaa is owned by Infranode, Keva and Vantaa Energy.

The year 2022 was the company's second full year of operation under its current ownership. Where the operations in 2021 mainly focused on activities related to the establishment of the new company, the focus point in 2022 was responsibility. In practice, for example, the efficiency of power plants has been improved significantly.

However, part of the responsibility-related objectives were reformed since the Russian war of aggression and the consequential energy crisis forced the entire sector to rely on the use of non-renewable energy.

- We consider it self-evident that there is enough heat in the pipes and electricity in the sockets, but since the energy crisis, this was no longer the case. From Vantaan Energia Keski-Uusimaa's perspective, the focus in responsibility-related matters had to be moved from the environment to people's well-being. Our duty was to ensure that there was enough heat in homes in Tuusula and Järvenpää for the entire winter, describes Kalle Patomeri, Production Director at Vantaa Energy.



The carbon neutrality 2030 objective is still valid

Vantaan Energia Keski-Uusimaa had prepared for disruptions in the fuel markets in a timely manner, already in 2021. When the forecasts of fuel delivery disruptions came true in the spring of 2022, Vantaan Energia Keski-Uusimaa was among the first to acquire replacement fuels. Preparation was worthwhile since the security of supply was maintained.

A new strategy has now been prepared for the company and it aims to keep to its objective of making all of Vantaan Energia Keski-Uusimaa's production carbon-neutral by 2030. There are no quick solutions available because, in addition to fuel deliveries, the import of wood was also suspended from Russia to Finland. As a result, there is also a lack of biofuel.

- We are currently planning on ways to give up fossil fuels still during this decade. However, no-one knows what the coming years hold.

There is, however, light at the end of the tunnel. This year, solid recovered fuels (SRF), consisting

of plastics, cardboard and wood, will be imported to Finland from the EU area. The mass is made of fragments that have not otherwise been able to be utilised in the sorting process but can be easily burned in power plants with wood. The demand for recovered fuel has rocketed but it is still more affordable and environmentally friendly than, say, gas, oil, coal or peat which have emission fees that increase their prices.

Vantaan Energia Keski-Uusimaa to join Vantaa Energy's quality and environmental management system

From the perspective of standard households, no significant changes have occurred to Vantaan Energia Keski-Uusimaa's operations in 2022. However, alongside the response to the challenges of the energy crisis, for example, the energy efficiency of various customer-oriented solutions has been developed.

- The usability of district heating has been lifted to a whole new level, which has made the customer-specific downtime for district



heating customers to be extremely low, clearly below sector-specific recommendations, Patomeri mentions.

From the perspective of corporate social responsibility, one of the key reforms has been to include Vantaan Energia Keski-Uusimaa as part of Vantaa Energy's certified quality and environmental management system. Therefore, the work for a more sustainable tomorrow continues.

- In the long term, the reform of production and making it fossil-free continue to be a realistic objective, which is aimed to be achieved step by step, Patomeri assures.



Vantaan Energia Keski-Uusimaa: key performance indicators





Key financial indicators

Key figure	y. 2022	y. 2021	y. 2020*
Turnover, million euros	42.5	33.0	9.6
Operating income, million euros	-4.1	4.9	0.1
Return on equity -%	-2.3%	8.6%	-0.2%
Equity ratio -%	67%	51%	49%
Number of customers (pcs)	1,361	1,345	1,312
Heat sales (GWh)	347	356	306
Electricity sales (GWh)	88	84	73
Gross investments, million euros	3.1	4.1	3.6

*) deviating financial period 1 August - 31 December 2020

The figures of the subsidiary merged with the company were used as reference details for the years 2021 and 2020.



Key environmental indicators

Key figure	y. 2022	y. 2021	y. 2020
Carbon dioxide emissions from production (CO ₂ t)	24,776	18,383	9,190
Exceeded emission thresholds (pcs)	14	20	2
Environmental damage	0	0	0
Fuel consumption (GWh):			
Bio	376	409	401
Recovered fuels	79	64	29
Natural gas	29	62	34
Oil	5	0	0
Peat	21	0	0
Emissions from energy production (t):			
SO ₂	14	7	5
NO ₂	156	148	134
Particles	1	1	1



Key environmental indicators

Key figure	y. 2022	y. 2021	y. 2020
Waste:			
Ashes and slag, tonnes (t)	7,337	4,341	3,434
Environmental investments, million euros	0,3	0,2	0
Specific emission factor of	53	41	24
heat production (gCO ₂ /kWh)	62	37	21
Fossil CO ₂ specific emission factor of total production (gCO ₂ /kWh)			
Specific emissions of total production(mg/kWh):			
SO ₂	35	14	12
NO ₂	389	295	313
Particles	2	2	2
Heat production (GWh)	401	417	345
Electricity production (GWh)	87	84	73

Vantaan Energia Keski-Uusimaa: corporate social responsibility targets until 2026 and results for 2022





Corporate social responsibility targets until 2026 and results for 2022

In electricity, climate neutrality has already been reached in practice, with the share of renewables being over 90 percent. A new target is to increase the share of renewable fuel to 90 percent in both electricity and heat production in 2026.

The share of renewable fuel in 2022 was 83 percent (85 percent in 2021).

The share of renewable energy decreased slightly compared to the previous year, because, as a result of the Ukrainian war, we had to replace a small amount of biofuels with recovered fuels and peat to safeguard heat and electricity production at the Järvenpää power plant.

The entire oil system at the Jamppa power plant was replaced in 2023 to ensure environmental safety and the security of supply.

We are planning to phase out the use of natural gas and oil from 2026 onwards.

Natural gas and oil accounted for 7 percent of fuel consumption in 2022 (12 percent in 2021).

Our objective is to strengthen the heat transfer connections to neighbour municipalities and acquire renewable heat through trading. The utilisation of renewable gas and waste energy in energy production is also promoted.

There are also plans, for example, to improve the district heating transfer connection to Vantaa's network. This would allow the fossil-free heat stored in the heat storage facility planned for Vantaa to also be utilised in the district heating networks of Järvenpää and Tuusula.



We are reducing our own energy consumption in accordance with the energy efficiency agreement by about 10 GWh per year, and we help our customers to monitor their energy consumption and save energy.

The Raportointikansio service is used for the monitoring of energy consumption, and its user numbers are increasing continuously. The features of the Raportointikansio service are developed on the basis of customer feedback. Energy efficiency services are actively offered to customers. An example is the Etevä Energiaetsivä service in which Vantaan Energia Keski-Uusimaa Oy carries out a comprehensive survey on the property's energy efficiency and prepares a report for repair needs. In addition to this, we help our customers keep the heat distribution devices in good condition with an inspection and maintenance service of the heat distribution centre, or the customers can order a renovation service for the replacement of the heat distribution centre. Good, functioning and regularly serviced devices help the customer implement energy-saving measures.

We are planning the implementation of a district heat accumulator in order to reduce the consumption of fossil fuels and to safeguard a reliable energy supply.

The heat accumulator will enable the fluctuations of heat production and demand to be balanced on a day-to-day level. The planning of a heat accumulator is strongly connected to the improvement of heat transfer connections with neighbour municipalities.



The reliable supply of heat energy is at a good level in sector-level comparisons. Our aim is to keep supply disruptions due to faults and damage in the heating season below 0.8 hours/customer/year.
The actual downtime caused by faults and damage in the heating season 2022 was 0.39 hours/customer.

We aim to sign new contracts each year to take advantage of the waste energy of our customers with ser-vice concepts that promote the overall efficiency of the energy system.

Waste energy sites are aimed to be actively identified in both the existing property stock and in future projects. Open discussions are carried out with potential operators in terms of projects, and we aim to do our share in enabling customers' projects.

We aim to halve the consumption of tap water by 2026.

In 2022, water consumption reduced by 14 percent compared to the previous year, totalling approximately 102,000 m³ (119,000 m³ in 2021).

Many different process changes are being studied at the Järvenpää power plant to reduce water consumption. In 2023, there are plans to implement projects for recovering the output water of the power plant boiler and reduce the amount of effluent of flue gas condensate.

Our company is a safe environment to work in. Our safety target is zero occupational accidents.

There have been no occupational accidents in 2022 in the service provided by Vantaa Energy in the area of Vantaan Energia Keski-Uusimaa.



The company's operations are economically viable. A good result also enables responsible operations.

The company's turnover resulted in a loss of EUR 4.1 million in 2022.

Customers are our key stakeholders. To achieve an even better service experience, we are further de-veloping our understanding of the needs and expectations of our customers. In customer satisfaction sur-veys, our target is to be at an excellent level.

In 2022, we carried out a brand image study. According to the feedback provided by customers, we are doing the right things and our operations are constantly developing. As examples, the climate-friendliness of operations and the scope of the service range have developed since the previous similar study.

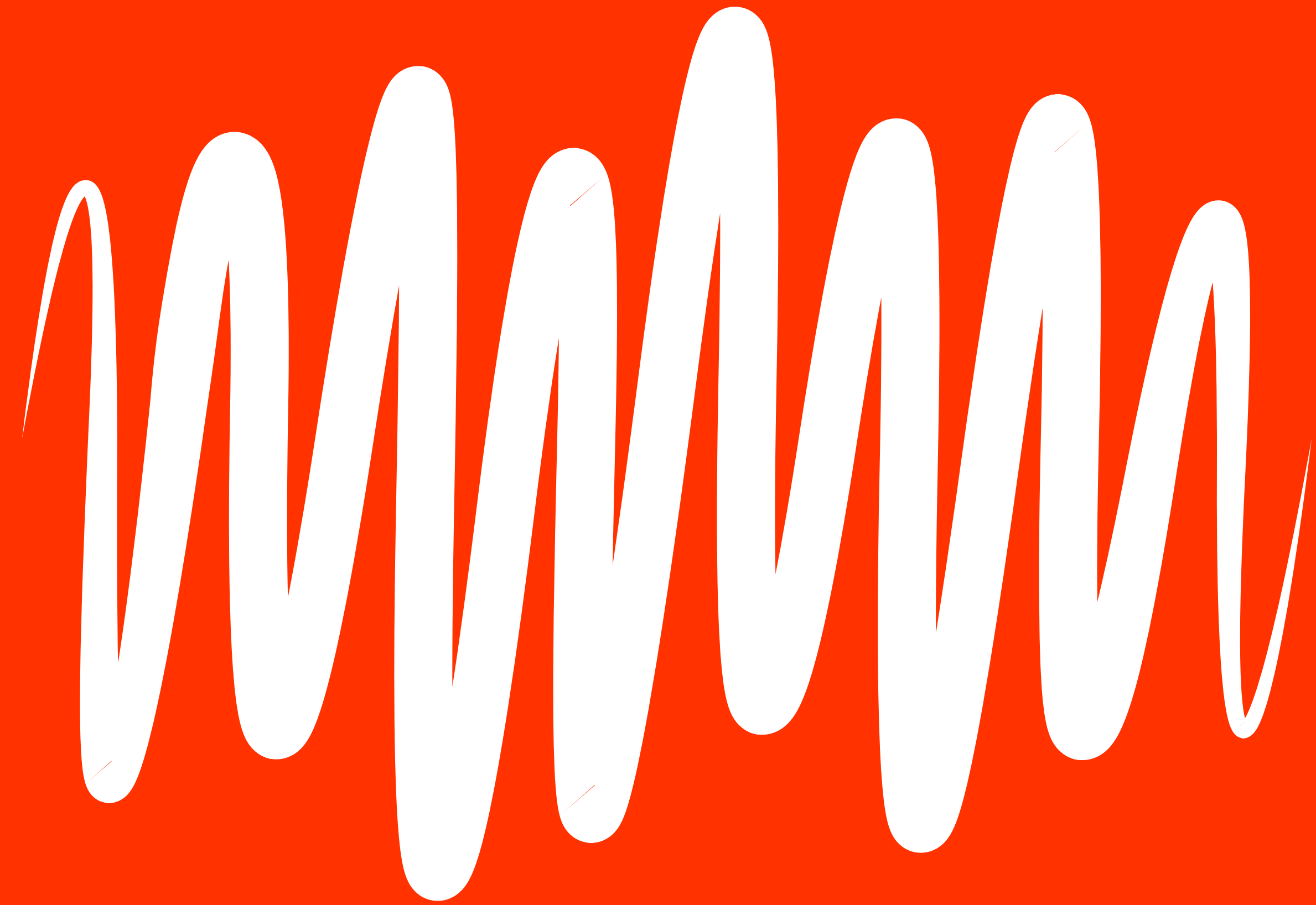
We carried out a customer satisfaction survey in 2021. The result was 4.0 (scale 1-5).

For our own part, we are involved in supporting the carbon neutrality targets of Järvenpää and Tuusula via the strategic partnership.

Within the framework of partnership agreements, we support the carbon neutrality targets of Järvenpää and Tuusula and we actively share our own thoughts and services, for example, in regional development projects. We are able to work in close interaction already during the regional planning stage, which means that we can bring our own expertise to projects already at a very early stage.

The responsibility aspect is taken into account in procurements. We require that our suppliers comply with the Code of Conduct.

There were no deviations in the compliance with the responsibility aspect in 2022.



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