

A white zigzag line graphic positioned above the year "2021".

2021

Sustainability report

**We will be a
carbon-neutral
energy company
in 2030.**



28

We invest in low-emission energy production



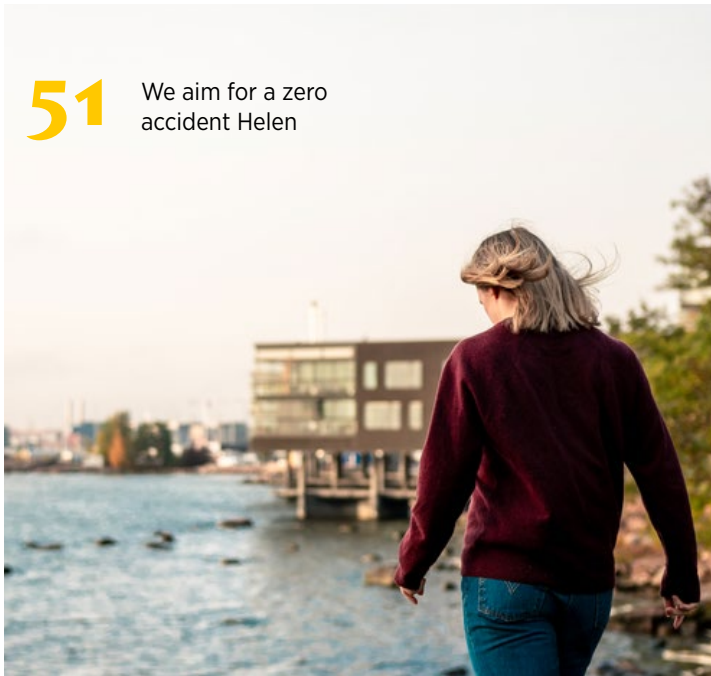
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We respect biodiversity in our operations



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Sustainability is part of our supplier chain management



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We aim for a zero accident Helen

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See energy in a new light.



Year 2021 and strategy

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HELEN IN BRIEF

Helen Ltd helps to make everyday life a little easier for more than 550,000 customers in Finland.

In addition to heat, cooling and electricity, we offer solutions for regional and renewable energy, smart buildings and e-mobility.

We develop a smarter carbon-neutral energy system that enables everyone to produce, use and save energy with respect for the environment.

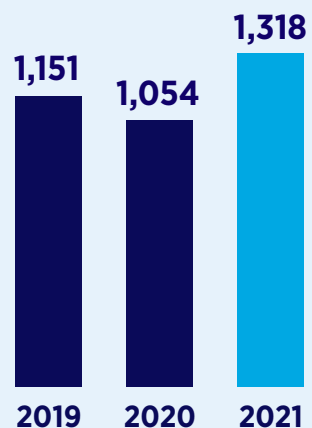
Our aim is to achieve carbon neutrality in our energy production in 2030 – let's joint forces and turn the opportunities of the new energy era into reality!

The Helen Group consists of the parent company **Helen Ltd** and the subsidiaries **Helen Electricity Network Ltd, Oy Mankala Ab, Helsingin Energiatunnelit Oy, Tuulipuisto Lakiakangas 3 Oy, and Kristinestad Tupaneva Oy**. The associated companies consolidated in the Group accounts are **Voimapiha Oy, Suomen Merituuli Oy, Liikennevirta Oy, Böle Vindkraft Ab/Oy, Pjelah Vindkraft Ab/Oy, Kristinestad-Tjock Vindpark Ab, &charge GmbH, and Think Outside AS**.

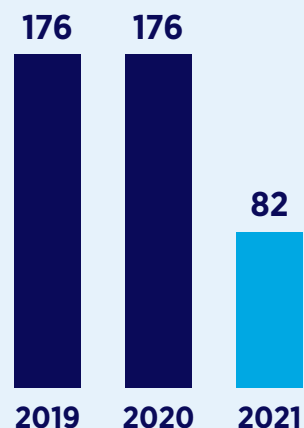
Helen Ltd is a company owned by the City of Helsinki.

Key figures 2021

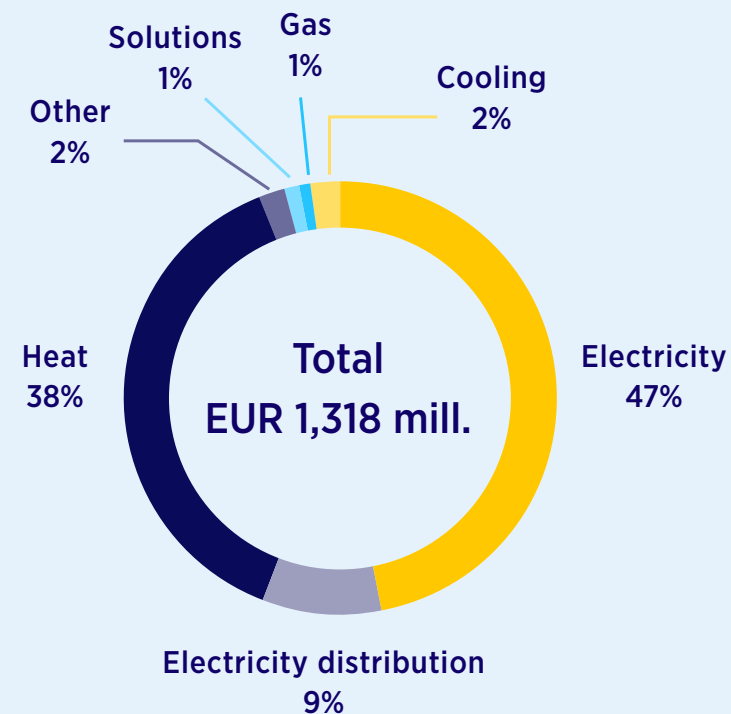
Turnover, EUR mill.



Operating profit, EUR mill.



Breakdown of turnover



Group's turnover
EUR **1,318** mill.

Operating profit
EUR **82** mill.

Operating profit %
6

Personnel
1,015

More than
550,000
customers



CEO's review

Year 2021 strongly defined our way forward to a carbon-neutral future. Rapid changes in the global markets, the dramatic increase in the prices of fuels and emission allowances, and the realisation of our investments in carbon neutrality attest that a new page is turning in the history books of energy production not only at Helen, but also elsewhere in the world.

The changes mean that production will transition at an accelerated pace towards renewable, emission-free and distributed energy production. For us at Helen, this has been a new, inspiring period in our history spanning more than one hundred years. We will make the energy transition possible together with our customers and partners.

AT THE HEART OF ENERGY TRANSITION

Carbon-neutral energy production has recently become a strong topic of social debate. The tightening legislation directs the development and accelerates the customers' transition towards renewable energy. The European Commission's Fit for 55 legislative package will provide a framework for achieving the climate target. The EU Taxonomy of Sustainable Finance, on the other hand, directs financing of sustainable projects and that way it also has an impact on Helen's investments.

We at Helen have a crucial role as a pathfinder in the energy sector. Sustainability is a key part of our strategy and vision: to be the most customer-oriented energy company in Finland and make the opportunities of the new energy era available to everyone.

In 2021, the transition in energy production was reflected in the decision of Helen's Board of Directors to bring forward the end of production at the Hanasaari power plant and the phasing out of coal use at the Salmisaari power plant. These decisions are significant in terms our carbon neutrality target, but they also have a concrete impact on the number of employees and their tasks through the structural change. As a result of the changes, we launched cooperation negotiations with respect to just over 400 employees in the Production and Asset Management business unit. As a result of mitigating measures, the maximum number of employees that may be facing redundancy is estimated to be 288 at the end

of the negotiations. Any staff reductions will be implemented during 2022–2025 while the phasing out of coal use in the Hanasaari and Salmisaari power plants is under preparation.

IMPORTANCE OF SUSTAINABILITY IS GROWING

The understanding of responsible business operations among our customers, owners and other stakeholders is constantly increasing. There is a call for transparency in the measures and results in the entire supply chain, which spurs Helen to meet the growing expectations.

Our ambitious target is to be carbon-neutral by year 2030. Our reformed sustainability programme for 2022–2024 supports this work one step at a time. At the same time, we will update our sustainability reporting to comply with the international GRI framework: you are now reading Helen's first sustainability report based on the GRI standards.

RESPONSIBLE SOLUTIONS MAKE PROGRESS

Despite the COVID-19 pandemic, energy production and distribution ran smoothly at Helen in 2021, and the projects on carbon-neutral, distributed production progressed according to plan. The construction of the Vuosaari bioenergy heating plant is progressing rapidly, the Mustikkamaa heat caverns will soon be commissioned, the first geothermal heating plant in Helsinki is in its pilot phase in Ruskeasuo, and bedrock is being excavated to build the seventh heat pump in Katri Vala.

The investments we have made in the production of renewable and emission-free electricity and heat have already brought our emissions back on a good declining path. In 2021, Helen's direct greenhouse gas emissions were about 2 per cent higher than in 2020, however, specific emissions were down by about 1.4 per cent on 2020.

We have also been swift in digital development: With the Oma Helen service, our customers receive all the information they need, e.g. on their electricity consumption, the production of solar panels and the use of a virtual battery. In 2021, the service had as many as 180,000 users.

In addition, data and artificial intelligence are in evidence in the investments made by Helen Ventures in growth companies in the energy sector during the year.

In terms of wind power, early 2022 will be eventful when the Lakiakangas 3 wind farm is completed and starts to generate electricity. At the end of 2021, we also decided on a new significant investment in wind power in Närpiö and Kristiinankaupunki. The project will triple Helen's wind power production.

In solar business, we took huge leaps forward in services for enterprises and housing companies. As a result of the new credit calculation service, the electricity of a solar power plant can be distributed for use by the residents in addition to the housing company.

The electric vehicle charging network expanded further, with the current number of charging points being more than 280. For enterprises, we introduced a new service model that enables the provision of charging without a high one-off investment.

Our heat service to housing companies extended to include both geothermal heat and the exhaust air heat pump. Geothermal heat is also available based on a service model with a monthly fee, offering carefree geothermal heat controlled by Helen, without a high one-off investment.

In 2021, sustainability became an even stronger driver of change in the energy sector. Trailblazers in the real estate business have identified that renewable energy forms are more advantageously priced than fossil ones and the repayment periods are financially sensible. This has increased investments in renewable energy production, such as new wind power shares and geothermal heat, by enterprises and housing companies.

A reliable electricity network enables energy distribution and it has a significant role in the energy transition. Despite COVID-19, Helen Electricity Network (HSV) was able to build and maintain the electricity network in 2021 according to plan together with its partners. In terms of the operation of the electricity network, special attention was paid to the availability and safeguarding of critical resources for operation services and fault repairs during the year.

TOWARDS ENERGY PRODUCTION OF THE FUTURE

Hot topics of debate in the energy sector, such as hydrogen and small modular reactors, will open new business opportunities for Helen. We are strongly involved in the research and development projects of these technologies.

In addition to major carbon neutrality measures, in the sustainability programme we have wanted to highlight biodiversity, which we respect in all our activities. In 2021, we identified the most significant impacts of our activities on biodiversity. The procurement of bioenergy and hydropower were identified as the most significant factors having an impact on biodiversity. We communicate openly and transparently about matters related to energy and the impacts.

The employees' commitment to safeguarding key services to society when working in the office or at home was a significant factor for many of our successes in 2021, which was still marked by the COVID-19 pandemic. We aim to support the occupational wellbeing of our employees through lectures, events and campaigns and, above all, by investing in the quality of supervisory work.

Helen has a diverse energy production portfolio, and it is important for us to safeguard energy supply in all situations.

I believe that on this basis we are able to create new, responsible products and services in the energy transition in order to reduce the carbon footprint of our customers and to build a carbon-neutral future.

AFTER THE REPORTING PERIOD

Our operating environment has changed radically after the reporting period due to the war in Ukraine. The war is reflected in our business operations, but due to the diverse energy production portfolio we are able to safeguard energy supply in all situations. We have decided to procure coal from elsewhere than Russia for the time being. As a company, we comply with the sanctions effective at any given time.

Juha-Pekka Weckström
President and CEO

Strategy and business operations

Our aim is to have an even smarter, carbon-neutral energy system that enables everyone to produce, use and save energy with respect for the environment. We develop even smarter and cleaner solutions in an open-minded manner in order to meet the energy challenges of today and tomorrow, together with our customers.

We aim to be carbon neutral by year 2030.

We offer an easier and more carefree everyday life and invite our customers – all 550,000 of them – to join us in building a better tomorrow. We are a trailblazer, we seize the opportunities of the future already today, and we lead the change in the entire industry.



Our vision is to be the most customer-oriented energy company in the market.

Our strategic targets

1. Bolder and swifter

We act as an innovative compass for the energy transition, constantly developing new, even more sustainable energy solutions together with our customers and partners. We are more customer-oriented and we invest in the development of expertise and competence that are most important to us. We carry out more cooperation and utilise swift methods and the possibilities of digitalisation in order to streamline decision-making. We further improve the customer experience and our internal operating models, and we streamline the completion of our order-delivery processes.

2. Higher return

Our stable and increasingly more efficient product and service business in electricity, heat and cooling enable investment in the solution business.

3. Strengthening the solution business

It is our goal that new solution areas, such as regional renewable energy, smart property solutions and e-mobility, will bring significant growth. We actively help our customers to find the overall package that meets their sustainability targets.

4. Towards carbon-neutral energy

We aim for a carbon-neutral energy system. We create an increasingly cleaner, smarter and more flexible energy system, and we are a forerunner in sustainable energy systems.

5. A partner network that supports growth

We carry on an increasing amount of cooperation with our customers, strengthen our partner network, and invest in growth companies.

Our journey to carbon neutrality

We aim to achieve carbon neutrality in our energy production in 2030. In 2022, we at Helen continue this work by preparing a new carbon neutrality programme to guide us towards this target one step at a time.

IN 2021 we took historic leaps towards this target. We made the decisions to close the Hanasaari power plant and cease production by spring 2023 at the latest and to phase out the use of coal at the Salmisaari power plant in spring 2024. With these decisions, we will phase out coal use more than five years sooner than previously planned.

IN 2023, our carbon dioxide emissions will also decrease by almost 50 per cent on the 1990 level as a result of the decommissioning of the Hanasaari power plant. The production will be replaced with waste heat, bioheat, solar and wind power, and storage of energy.

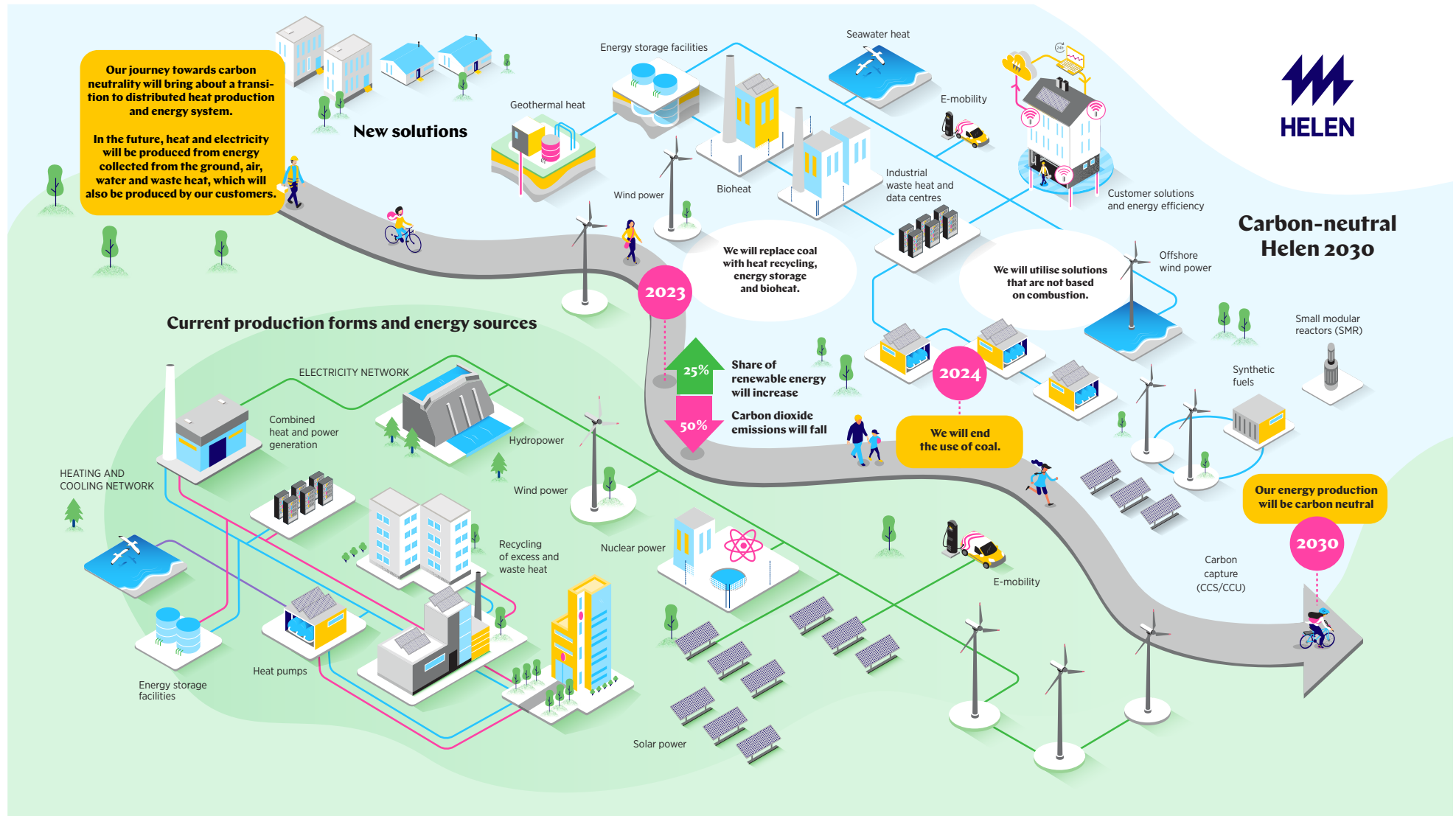
IN 2024 we will phase out the use of coal at the Salmisaari power plant and our production will be completely carbon-free. After coal production at Salmisaari has ended, we aim to reduce carbon dioxide emissions of energy production by at least 60 per cent. We move towards distributed heat production and energy system.

IN 2030, our energy production will be completely carbon-neutral. By 2030, the carbon dioxide emissions of our energy production will fall by at least 85 per cent on the 1990 level. We will offset the remaining emissions.

IN THE 2030s, we will strive to also reduce the rest of the emissions. In the 2040s, our path will take us towards carbon negativity. Small modular reactors, carbon capture and synthetic fuels made from hydrogen are solutions that are likely to be in commercial use in the 2030s.



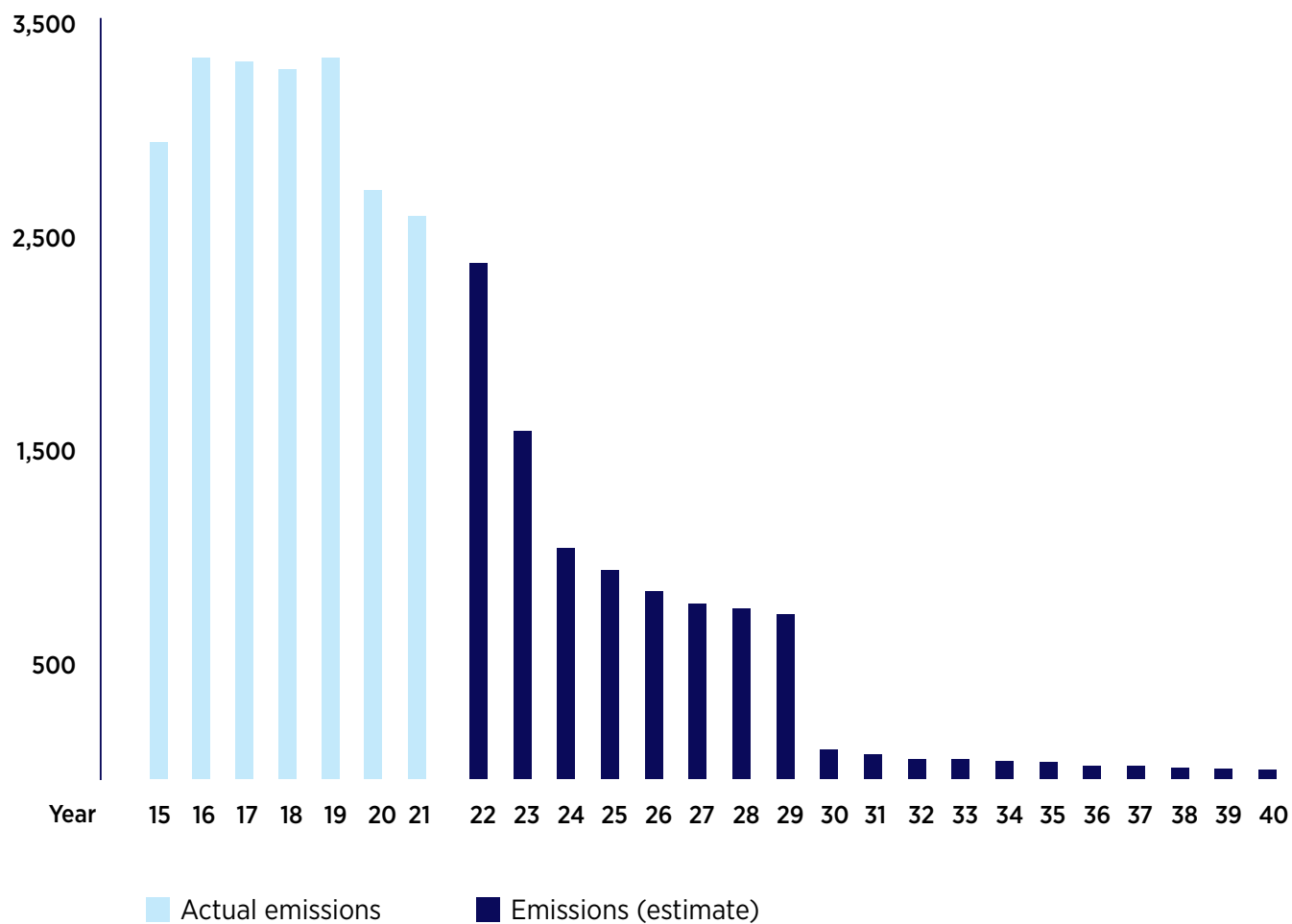
Roadmap to carbon neutrality



We reduce emissions

The investments we have made in the production of renewable and emission-free electricity and heat have already turned our emissions on a good declining path. Although the number of our customers has constantly grown, our emissions have remained at the same level. In 2023, our carbon dioxide emissions will also decrease by almost 50 per cent on the 1990 level as a result of the decommissioning of the Hanasaari power plant.

CO₂ emissions, kt



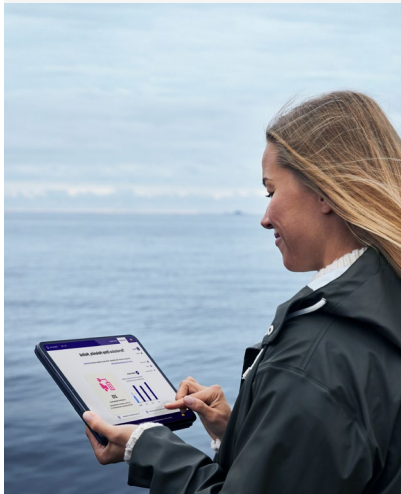
Facing the future together, one step at a time.



Sustainability at Helen

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Highlights of sustainability 2021



Helen was the first Finnish energy company to commit to setting a science-based emissions reduction target.

The target of the commitment is to limit the temperature rise to 1.5 degrees in accordance with the Paris Agreement. The scientific basis of the target is ensured by the international Science Based Targets organisation, which is a cooperation body of, e.g. the United Nations Global Compact and the World Wide Fund for Nature. Helen's emission target is currently in the process of being accepted by the organisation.

Helen strengthened its position in the wind power market

We are building wind power in Ostrobothnia in partnership with Fortum. The investment will triple Helen's wind power production. Lakiakangas 3 wind farm is in production in early 2022.



Sustainable Brand Index

is the most extensive brand survey on sustainability in the Nordic countries, capturing the citizens' views of the sustainability of companies.

In 2021, Helen was Finland's second most responsible operator in the industry



In e-mobility, significant cooperation agreements were signed

Helen's charging services can now be used at Hesburger restaurants, the charging points of the City of Espoo, and in Citycon shopping centres. In addition, Helen launched cooperation with Green-Mobility that offers a service for shared use of EVs.



Construction of geothermal heating plant started

The geothermal heating plant built in Ruskeasuo acts as Helen's pilot site for testing and developing drilling technology and other technical solutions for new geothermal heat sites. The geothermal heating plant will be completed during 2022.

We promoted the use of electricity in streetworks and sought more quiet and more environmentally friendly methods of building and maintaining an energy network

In summer 2021, Helen Electricity Network and Eltel Networks tested the use of an electric excavator on a street works in Helsinki.

We increased customers' own energy awareness with an easy-to-use digital channel

With the Oma Helen service and website, our customers receive all the information they need, e.g. on their electricity consumption, the production of solar panels and the use of a virtual battery. In 2021, the service had as many as 180,000 users.

We invested especially in supporting coping at work during the COVID-19 pandemic

We focused especially on the development of leadership and interaction that increase wellbeing at work in remote working. Despite the exceptional times, the result of our eNPS (Employee Net Promoter Score) survey was a good 5.



Our long-term and structured work to develop occupational safety was rewarded with record results

In 2021, we lodged a record high number of safety observations, more than 4,000 in all. As a result of our work, our lost-time incident frequency (LTIF) was below five for the first time.

We offered world-class security of supply through partnerships

A reliable electricity network is important in terms of the functioning of society. Helsinki has the most reliable electricity network in Europe with a reliability of 99.9991 per cent. We build and maintain the electricity network together with our partners.

We engage citizens in the planning of the energy future

In 2021, Helen took part in the streetworks of the year competition organised by the City of Helsinki, in which the Runeberginkatu worksite of Helen Ltd received a special mention.

Key sustainability themes

Every few years, Helen implements an extensive stakeholder dialogue on how the company’s sustainability work is meeting the expectations and views of the employees and key stakeholders.

The topics and discussions of the stakeholder dialogue provide valuable information about the themes that should be studied in our sustainability work.

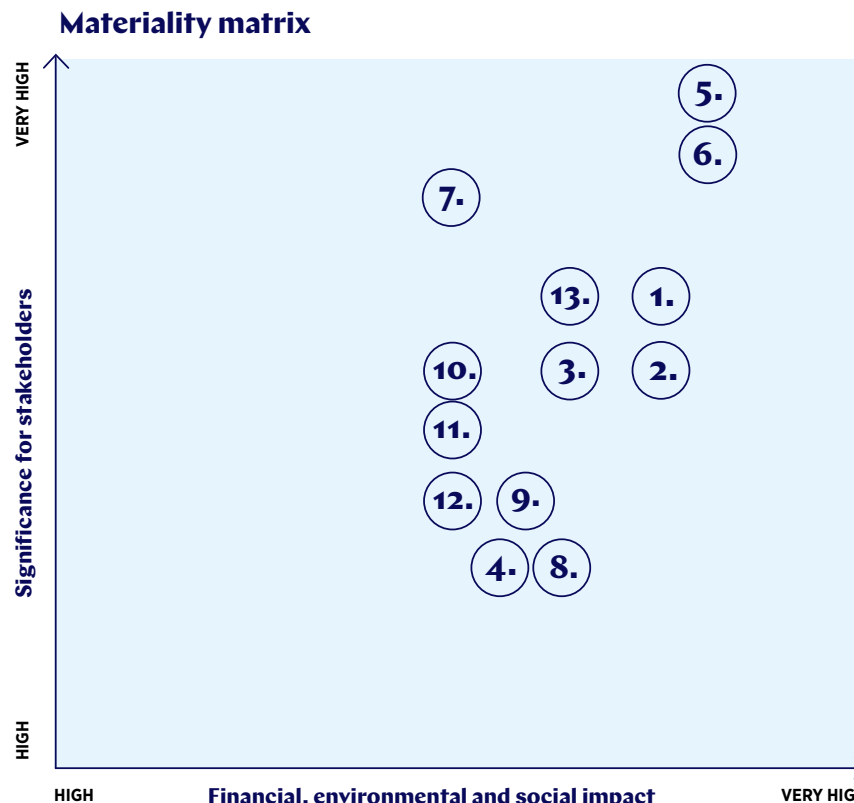
With the aid of online dialogue, we combine the extensive ideas of stakeholders with Helen’s internal working. That way we can ensure that the voice of stakeholders is heard at Helen and we can concentrate on the matters raised in the dialogue and on their meanings.

In May 2021, we implemented a stakeholder dialogue as an online survey open to all. We received a total of 481 responses. The highest number of responses came from our customers (36%), employees (30%) and Helsinki residents (13%).

The respondents agreed that phasing out the use of coal and the active development of renewable alternatives are the most important issues in the development of Helen’s sustainability. According to our stakeholders, the most important measures to support phasing out the use of coal are the utilisation of waste heat and the storage of energy.

It is encouraging that the comments of the respondents of the stakeholder dialogue have become even more diversified, covering not only the production methods and their environmental impacts, but also other areas of sustainability. We received a number of excellent development ideas through the survey, e.g. concerning innovation pilots, competitions and campaigns. They all shared one feature: cooperation. Cooperation was hoped for with housing companies, students, enterprises other than non-governmental organisations. The brainstorming of areas and methods of cooperation focused on the multi-channel nature and diversity of communications and organisation of events. In the future, we are committed to even tighter cooperation with our stakeholders on our way towards more responsible energy future.

The stakeholder survey acts as a valuable basis for Helen’s sustainability work and for deciding on our key sustainability themes. Based on the dialogue, we present the business units with proposals on concrete measures and give the management suggestions on future sustainability themes. We take the measures into account in our everyday work and monitor their progress with various indicators. The materiality matrix on sustainability was updated on the basis of the stakeholder dialogue.



LIFE CYCLE OF PRODUCTS AND SERVICES

- 1. Development of new low-carbon solutions
- 2. Security of supply
- 3. Customer experience
- 4. Supply chain sustainability

CARBON-NEUTRAL ENERGY SYSTEM

- 5. Carbon-neutral production, products and services
- 6. Investments in carbon-neutral production

OPENNESS AND TRANSPARENCY

- 7. Interaction, cooperation and transparency
- 8. Responsible leadership and reporting

RESPONSIBLE EMPLOYER

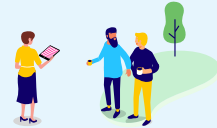
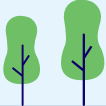


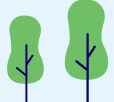
- 9. Employee experience
- 10. Occupational health and wellbeing

BIODIVERSITY

- 11. Hydropower and fish passage
- 12. Minimising local emissions
- 13. Sustainability of bioenergy

Sustainability programme

In 2021, we implemented an extensive stakeholder dialogue, on the basis of which we built a sustainability programme for 2022–2024.

Theme	Aspects 2022–2024	Indicator	Target
Life cycle of products and services	We develop safe products and services that meet the customers' needs and support carbon neutrality, the entire life cycle of which is on a sustainable basis. We offer our customers reliable and modern digital solutions.	<p>Customer experience</p> <ul style="list-style-type: none"> Digitalisation of customer experience EPSI rating results every two years (in 2021 Helen scored 72.0 and industry average was 71.2) <p>New solutions and partner networks</p> <ul style="list-style-type: none"> Number of projects and their progress Production and share (%) of renewable energy/carbon-neutral energy <p>Security of supply</p> <ul style="list-style-type: none"> Annual outage time (electricity, district heat, cooling) 	<ul style="list-style-type: none"> User target for Oma Helen 2022: 300,000 Average customer outage time 2022: electricity 5 min., district heat 3.5 h, cooling 4.2 h 
Carbon-neutral energy system	We want to be carbon-neutral by 2030. We divide the carbon neutrality target into concrete milestones and communicate about our progress.	<p>Climate</p> <ul style="list-style-type: none"> Reduction of CO₂ emissions in accordance with the SBT initiative (Scope 1-3) Investments in carbon-neutral production (EUR) 	<ul style="list-style-type: none"> Carbon-neutral by 2030
Biodiversity	Our operations respect biodiversity, aiming for long-term net positivity. We use only sustainable biomass. 	<p>Environment</p> <ul style="list-style-type: none"> We create and implement the strategy and targets on biodiversity Airborne emissions (SOx, NOx, particulates) Impacts on waterways Share of sustainably produced biomass and pellets 100% 	<ul style="list-style-type: none"> Targets and measures according to the biodiversity strategy Pellets and biomass used are sourced from certified suppliers and are 100% sustainable 
Responsible workplace	We aim for a zero-accident workplace where everyone is involved in the development of occupational safety. With a good level of occupational safety, we want to impact the employees' occupational wellbeing and the improvement of the productivity and quality of work.	<p>Employees and occupational safety</p> <ul style="list-style-type: none"> Occupational wellbeing and employee engagement (eNPS) Occupational safety (accident frequency) Occupational health 	<ul style="list-style-type: none"> eNPS result: 10 by 2023 Accident frequency (LTIF): 4.0
Openness and transparency	Our operations are open and transparent. We communicate regularly about the impacts of our activities. We also manage the changes resulting from the energy transition responsibly in our operating environment.	<p>Sustainability and openness</p> <ul style="list-style-type: none"> SBI result (Sustainable Brand Index) every two years Development of sustainability reporting 	<ul style="list-style-type: none"> SBI result: Top 3 in the energy sector in Finland 



We support the UN sustainable development goals

With our operations, we support the UN sustainable development goals and help our customers to achieve their sustainability targets.

SDG	Goal	Target	Helen's target
	Ensure affordable, reliable, sustainable and modern energy for all	<p>7.1 By 2030, ensure universal access to affordable, reliable and modern energy services.</p> <p>7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.</p>	<p>Our target is a carbon-neutral energy system by 2030. We create an increasingly cleaner, smarter and more flexible energy system, and we are a forerunner of sustainable energy systems.</p> <p>Indicators Security of supply / annual outage time Production and share of renewable energy</p>
	Decent work and economic growth	<p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p>We aim for a zero-accident workplace where everyone is involved in the development of occupational safety. With a good level of occupational safety, we want to impact the employees' occupational wellbeing and the improvement of the productivity and quality of work.</p> <p>Indicators Lost-time incident frequency Employee survey, eNPS Biodiversity Sustainability in supply chains, sustainability survey and audits</p>
	Build resilient infrastructure and promote sustainable industry and innovations	<p>9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.</p> <p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.</p>	<p>Our power plants and energy distribution network are a visible, and sometimes also invisible, part of Helsinki. We develop our worksites in order to improve the experience of customers and citizens.</p> <p>Indicators Number of new products Investments in carbon-neutral production</p>
	Ensure sustainability of consumption and production methods	<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources.</p> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.</p>	<p>Reduction of environmental impacts is an important part of our activities. Climate change mitigation has a significant impact on our planning of future energy solutions and our future investments.</p> <p>Indicators CO₂ emissions Airborne emissions</p>
	Take urgent action to combat climate change and its impacts	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.</p> <p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.</p>	<p>Our target is to achieve carbon neutrality by year 2030.</p> <p>Indicators Targets of the Science Based Targets initiative Reduction of CO₂ emissions Carbon-neutral products and services, reducing the customer's carbon footprint</p>

Stakeholder cooperation

In order to operate responsibly, it is important for us to know our stakeholders and their expectations.

Our aim is to communicate about our operations and to openly discuss their impacts on the environment and society together with all our key stakeholders.

We at Helen want to involve city residents, customers, partners and other stakeholders in the creation of a carbon-neutral future.

By joining forces, we will make the opportunities of a new energy era into reality.



Stakeholders	Stakeholders' expectations	Measures	Indicators
Customers	Security of supply, sustainability, price responsibility, openness and transparency, carbon neutrality, customer experience, efficient and functioning services, interaction with customers, utilisation of waste heat, innovative solutions	<ul style="list-style-type: none"> • Taking care of electricity issues on a mobile phone in the Oma Helen service 	<ul style="list-style-type: none"> • Security of supply • SBI • Number of Oma Helen users
Owner: City of Helsinki	Stable turnover, financial result, carbon neutrality, good governance, sustainable operating model	<ul style="list-style-type: none"> • Profitable business operations • Close cooperation with the City of Helsinki to promote carbon neutrality projects especially after Helsinki Energy Challenge and in the roadmap workshops on carbon-neutral heating • Open decision-maker events and newsletter for decision-makers 2-3 times a year • Interactive communications with various council groups • Board work 	<ul style="list-style-type: none"> • Progress of carbon neutrality (communicating about the targets and progress especially in the sustainability report) • Positive result and payment of dividend to the City of Helsinki
City residents and neighbours	Carbon neutral energy, open communications, security of energy supply, infrastructure e.g. for EVs, district heat and district cooling, fish passage past hydropower plants	<ul style="list-style-type: none"> • Open doors and events • Communications • Joint projects • Good energy scholarship competition for hobby groups and societies 	<ul style="list-style-type: none"> • Investments in infrastructure • R&D investment
State and the EU	Active dialogue, conformance	<ul style="list-style-type: none"> • Influencing the operating preconditions of energy for the future • Following energy trends and responding to them 	<ul style="list-style-type: none"> • Statements made
Authorities	Conformity, smooth permit processes	<ul style="list-style-type: none"> • Active dialogue • Development of cooperation 	<ul style="list-style-type: none"> • Number of deviations
Employees	Occupational wellbeing and safety, development and training, impartiality, equality, sustainability	<ul style="list-style-type: none"> • Training events • Policies • Employee experience 	<ul style="list-style-type: none"> • Employee surveys
Trade associations	Active dialogue, continuous development, promotion of shared themes	<ul style="list-style-type: none"> • Active participation in committees and working groups in the energy sector 	<ul style="list-style-type: none"> • List of memberships of associations and membership fees
Non-governmental organisations	Carbon neutrality, biodiversity, sustainability, open communications, responsible procurement, fish passage past hydropower plants, cooperation, and involvement of associations in the development of operations	<ul style="list-style-type: none"> • Stakeholder webinars (topics of webinars in 2021: Offsetting as part of carbon neutrality, energy generated through non-combustion from the margin to mainstream, and SMR) 	<ul style="list-style-type: none"> • Participants of stakeholder events and feedback
Partners	Cooperation projects, investments in startups, shared sustainability themes, R&D	<ul style="list-style-type: none"> • Building of a carbon-neutral energy future together 	<ul style="list-style-type: none"> • Number of start-up investments • Money invested in R&D
Subcontractors, suppliers	Liquidity, scheduled projects, conformance, partnership, safety	<ul style="list-style-type: none"> • <u>Supplier Code of Conduct</u> 	<ul style="list-style-type: none"> • Respondents of sustainability survey and implementation of remedial measures
The media	Open and reliable communications, accessibility for dialogue	<ul style="list-style-type: none"> • Active dialogue • Clear press releases at the right time 	<ul style="list-style-type: none"> • Encouraging Helen's experts to take part in the debate

We create responsible value

With our operations, we create value for our customers and for society, as well as for our owner, the City of Helsinki. By utilising capital in an efficient and responsible way, we offer competitive energy and a good digitalising customer experience and support our customers in energy efficiency and meeting the carbon neutrality targets.



Sustainability management

The management of our sustainability issues is based on Helen’s strategy and values, its corporate governance, and the Group’s sustainability policy and code of conduct.

Our aim is to have an even smarter, carbon-neutral energy system that enables everyone to produce, use and save energy with respect for the environment. As sustainability is a key part of our strategy, the Helen Group’s Board of Directors has the ultimate decision-making authority in sustainability issues. Our sustainability work is coordinated by the Sustainability and Public Affairs team. Practical sustainability work is carried out in the everyday work of all the business areas.

Our targets related to the environment and sustainability are part of the shared set of indicators on strategic management and the performance bonus system for the personnel and the management. We monitor the implementation of the targets on a monthly basis in Helen’s Management Group and in the management groups of the business areas. The Board of Directors of Helen Ltd monitors especially the strategically important occupational health and safety issues and the development of our target on carbon neutrality. We carry out practical sustainability and environmental management with the aid of operating

systems and environmental guidelines.

In addition, the following standards are applied in our operations:

ISO 14001 standard on environmental management systems:

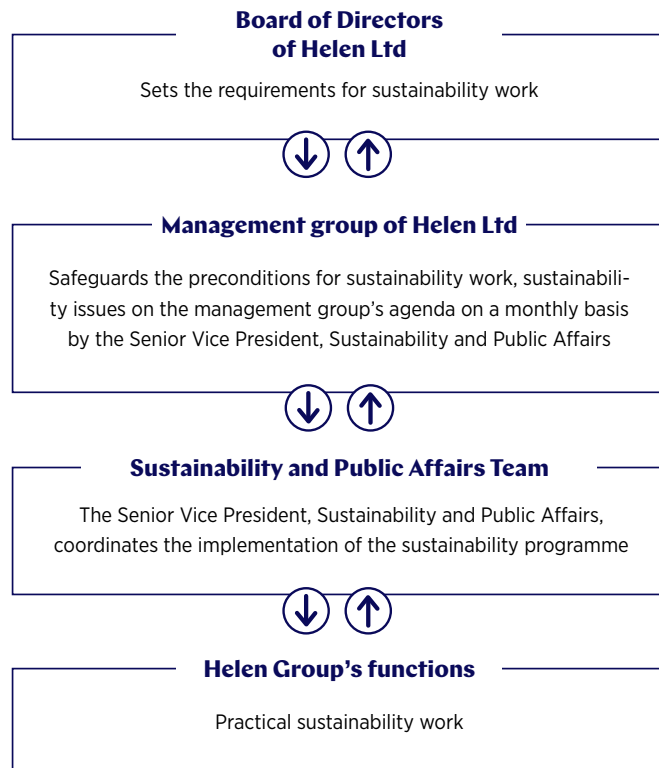
Helen’s electricity generation, the production and distribution of heating and cooling, and fuel procurement are certified in accordance with the ISO 14001 standard on environmental management systems.

ISO 45001 standard on the occupational health and safety management system:

The occupational health and safety system of Helen Ltd and Helen Electricity Network Ltd has been certified in accordance with the ISO 45001 standard.

ISO 55001 standard for asset management:

The standard ISO 55001 is complied with in the asset management of Helen Ltd and Helen Electricity Network Oy, however, the standard is not certified.



Our operations are guided by the following international initiatives and frameworks:

- Scienced Based Targets
- The principles of the UN Global Compact initiatives
- UN Sustainable Development Goals
- UN Guiding Principles on Business and Human Rights
- The Declaration on Fundamental Principles and Rights at Work of the International Labour Organisation
- Energy efficiency agreements implementing the EU Directive on Energy Efficiency

Our work is guided by the Helen Group’s policies:

- Personnel policy
- Values
- Sustainability policy
- Code of conduct

We seek energy of the new era from the depths of the sea and the bowels of the earth, from the air, and from waste heat.



Climate

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We are moving towards carbon-neutral energy production

Climate change mitigation is one of the most significant challenges of our time. The transition to carbon-neutral energy production is a key focus area of our operations and development work.

We have made a conscious effort to work towards carbon neutrality for several years. Carbon-neutral energy production means production that does not increase the amount of carbon dioxide in the atmosphere and that way warm up the climate.

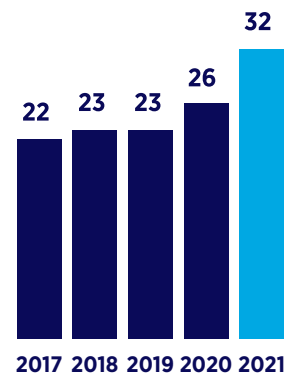
In 2021, the share of renewable energy in our production increased to 16 per cent. We generate renewable energy from hydropower, wood pellets, wind power and solar energy, as

well as from various waste energy flows with heat pumps.

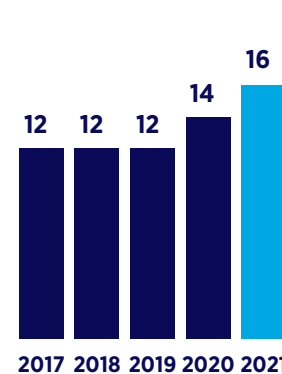
The growth in renewable energy production was due to the increased use of wood pellets and heat pumps in heat production, and hydro and wind power in electricity production.

Overall, carbon-neutral production grew to 32 per cent. We generate carbon-neutral energy from nuclear power and renewable energy.

Share of carbon-neutral production, %



Share of renewable energy in energy production, %



ENERGY PRODUCTION IN 2021

In 2021, we produced a total of 5,484 GWh of electricity, which is slightly less than in the previous year. Heat production, on the other hand, grew by up to 17 per cent due to a colder winter, totalling 7,490 GWh. Our cooling production amounted to 200 GWh. We produce energy mainly in our power plants and heating plants in different parts of Helsinki. We also supplement our production from outside Helsinki through our subsidiaries and associated companies, as well as purchases.

Origin of electricity GWh	2021	2020	2019	2018	2017
Coal	1,341	1,375	1,980	2,100	1,790
Natural gas	1,740	2,320	2,220	2,290	2,140
Nuclear power	1,402	1,455	1,520	1,460	1,370
Renewable	1,000	950	820	880	990
Total	5,484	6,100	6,540	6,730	6,290

Origin of district heat GWh	2021	2020	2019	2018	2017
Coal	3,419	2,960	3,940	3,850	1,980
Natural gas	2,280	2,720	2,270	2,510	4,320
Heat pumps	842	495	545	570	570
Biomass	614	217	185	190	150
Oil	335	31	60	80	70
Total	7,490	6,423	7,000	7,200	7,090

Origin of cooling GWh	2021	2020	2019	2018	2017
Heat pumps	190	151	157	156	126
Absorption	4	5	11	16	9
Compressor cooling	4	7	3	12	0
Free cooling	2	8	2	2	6
Total	200	171	173	187	141

USE OF FUELS

In 2021, we used a total of 10,756 GWh of fuels in our production. We use several fuels in our production, such as natural gas, coal and renewable biomass. Due to the high price of natural gas, we used approximately 22 per cent less gas throughout the entire year than in the previous year, which, on the other hand, was seen in increased use of oil and coal.

At the same time, the production of energy from various waste heats, such as from the heat of purified waste water and the waste heat of properties, almost doubled compared with the previous year. In addition, the amount of pellets used was almost three times as much as in the previous year.

The overall efficiency of our use of fuels was 97.27 per cent. The energy intensity of our own energy production was 1.03.

Use of fuels	2021	2020	2019
Non-renewable fuels, mass/volume*			
Natural gas, m ³	423,130,208	543,200,979	481,909,018
Coal, t	790,300	701,929	976,800
Fuel oil, t	37,026	3,686	9,205
Renewable fuels, mass*			
Biomass, t	141,905	50,207	46,725
Non-renewable fuels, energy**			
Natural gas, GWh	4,298	5,522	4,877
Coal, GWh	5,356	4,793	6,696
Fuel oil, GWh	432	43	105
Renewable fuels, energy**			
Biomass, GWh	670	243	226

*Fuel amounts are defined with measurements or on the basis of purchase accounts.

**The energy content of fuels has been calculated on the basis of measured amounts used and heat values.

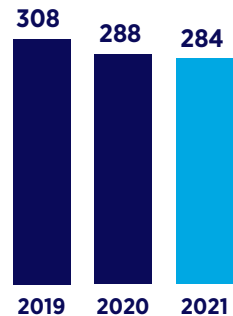
We reduce emissions

The reduction of carbon dioxide emissions is one of our key sustainability targets. We were the first Finnish energy company to commit to setting a science-based emissions reduction target (Science Based Targets).

Our emissions calculation is based on the international Greenhouse Gas (GHG) protocol, i.e. in addition to CO2 emissions, also taking into account other greenhouse gases that are calculated according to the life cycle. In addition to direct stack emissions (Scope 1), indirect emissions from operations, such as those from properties and mobility (Scope 2) and purchases (Scope 3) are included in the calculation. We started using calculation according to the GHG protocol in 2021. The emissions reported for 2019 and 2020 have been converted to obtain comparable results.

Emission intensity of greenhouse gas emissions*

eqvCO₂/kWh



*The following emissions are included in the emission intensity of greenhouse gases: Scope 1, Scope 2 (market-based emissions) and Scope 3. The result is divided by the total amount of electricity and district heat sold.

In 2021, Helen's direct greenhouse gas emissions (Scope 1) were about 2 per cent higher than in 2020 due to the market price of fuels and the cold end to the year. However, thanks to our systematic carbon neutrality work, the specific emissions fell in 2021.

OTHER GREENHOUSE GAS EMISSIONS

In addition to carbon dioxide, the flue gases of power plants contain smaller amounts, e.g. methane and nitrous oxide, which are stronger greenhouse gases than carbon dioxide. In addition, strong greenhouse gases (F-gases) are used in cooling and electrical equipment as refrigerant, which can end up in the atmosphere as a result of a leak. We use SF6 gas, i.e. sulphur hexafluoride, in electrical equipment as an insulation

agent and as an arc-quenching medium. We use gas in closed systems only. We also take care of the leakproofness of SF6 equipment and the recovery and recycling of gas, and we monitor the gas balance on a regular basis.

We keep a record of the amount of F-gases and prevent leakage in the equipment with appropriate maintenance and inspections. In 2021, leakages totalled 170 kilograms (202: 138 kilograms).

The climate impacts of other greenhouse gas emissions are very small in comparison with our carbon dioxide emissions. Helen's emissions target according to the Science Based Target is currently in the process of approval by the SBT organisation. After the process has been completed, we will introduce reporting according to the Science Based Target, in connection of which we will also specify our emissions targets further, if necessary.

Further information about the specific emissions and origin of the electricity, heat and cooling sold by us is available on our [website](#).

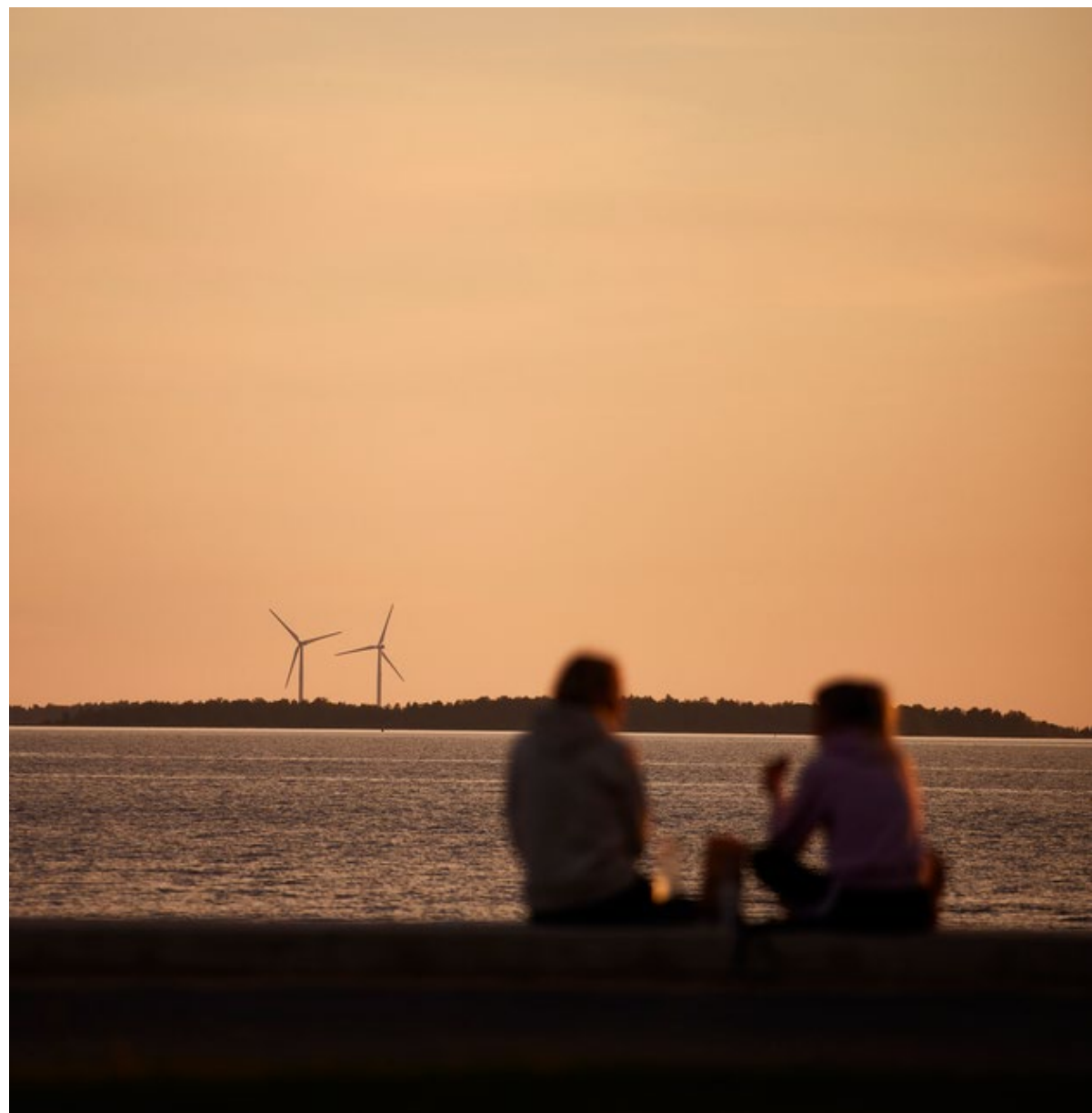
Emissions, tCO ₂ e	2021	2020	2019
Direct greenhouse gas emissions (Scope 1)	2,780,767	2,724,969	3,237,626
Direct biogenic carbon dioxide emissions	267,485	88,883	94,744
Indirect greenhouse gas emissions of energy (Scope 2) – Market-based emissions	8,631	6,231	7,353
Indirect greenhouse gas emissions of energy (Scope 2) – Location-based emissions	40,053	22,079	32,422
Other indirect greenhouse gas emissions (Scope 3)	883,510	781,781	808,128

We invest in low-emission energy production

We contribute especially to investments that promote the transition towards a carbon-neutral energy system. Our investments in carbon-neutral production in 2021 totalled EUR 184 million.

In 2021 we continued investment in bioheat, the utilisation of waste heat and the heat of seawater, geothermal heat, and wind power. The investments mainly progressed according to schedule. The prevailing COVID-19 situation and the prolonged delivery times due to a problem in the availability of components may, however, result in schedule risks.

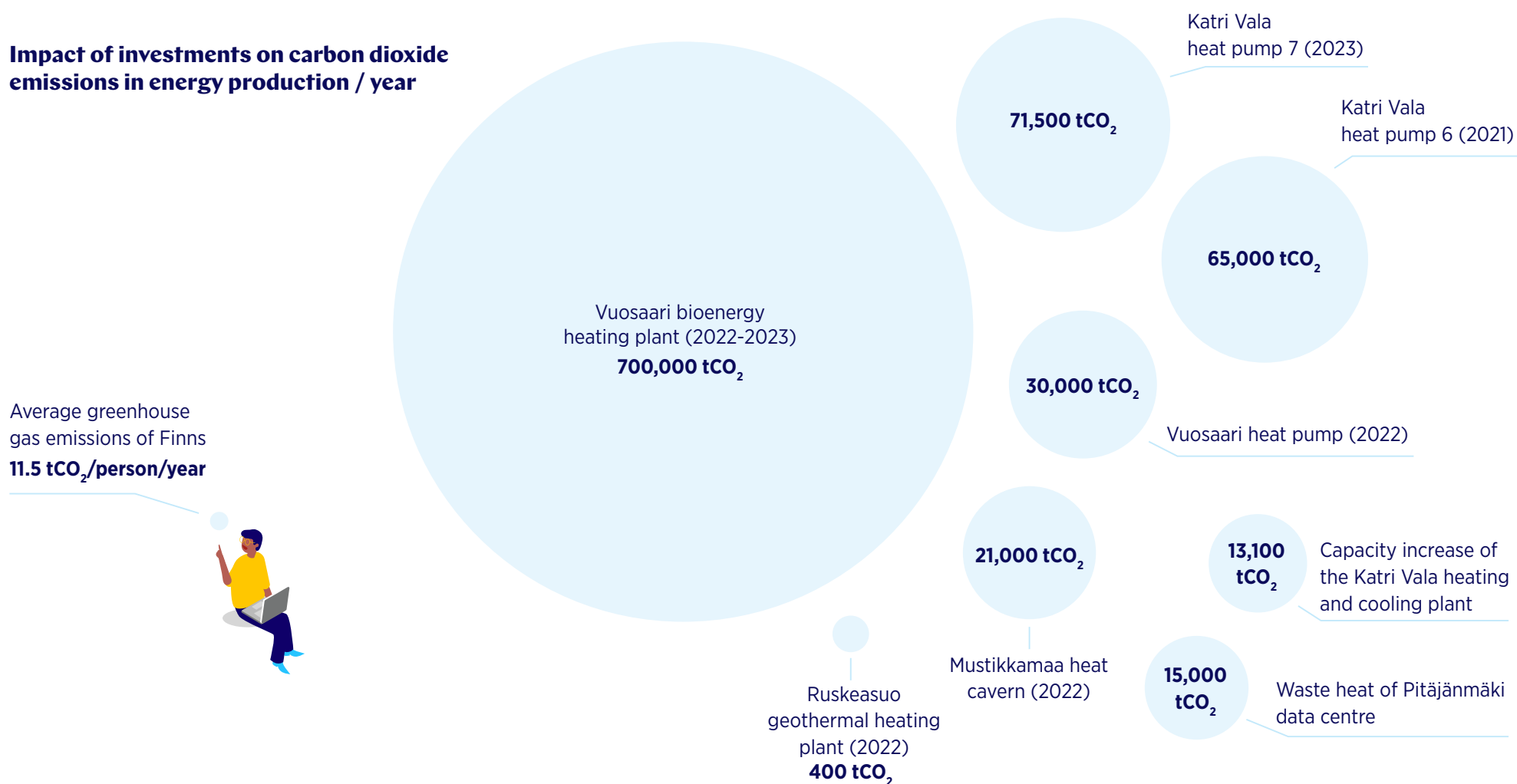
In addition to investments made in carbon-neutral production, we invested a total of EUR 52 million in infrastructure, of which EUR 28 million was invested in district heat and cooling networks, EUR 22 million in the electricity network, and EUR 2 million in the tunnel network.



Our investments reduce carbon dioxide emissions

Currently, we promote our carbon neutrality target with a total of 20 projects. In addition, nine future projects are in the preliminary planning phase.

Impact of investments on carbon dioxide emissions in energy production / year



HISTORICALLY HIGH INVESTMENTS ARE MAKING PROGRESS

In 2021, we continued the construction of the new bioenergy heating plant in Vuosaari. Starting production in autumn 2022, the heating plant completes the replacement of the Hanasaari heat capacity. The main fuel of the bioenergy heating plant is wood chips, which is obtained as a by-product of forestry and cannot be utilised in other ways. The new plant will reduce carbon dioxide emissions by 700,000 tonnes per year.

In Mustikkamaa, we are building the largest cavern heat storage facility in Finland. The commissioning of the facility was postponed to spring 2022 due to repairs of water leaks. The heat caverns will balance the consumption peaks in the district heating network around the year and reduce carbon dioxide emissions by 21,000 tonnes a year.

Drilling of the first medium-depth geothermal heat well in Helsinki was launched in Ruskeasuo in September 2021. To be completed for production towards the end of 2022, the geothermal heating plant will produce carbon-neutral district heat into the district heating network and cooling into the district cooling network to be distributed to local residents. The plant will reduce carbon dioxide emissions by 400 tonnes per year.

WASTE HEAT PLAYS A KEY ROLE IN A CARBON-NEUTRAL FUTURE

We make a substantial contribution to the utilisation of waste and excess heat. The Katri Vala heating and cooling plant utilising purified waste water with a heat pump was expanded in 2021 when the sixth heat pump of the plant started production use. The heat pump achieved higher production outputs than planned. The heat pump reduces carbon dioxide emissions by 65,000 tonnes a year.

The construction work of the seventh heat pump in Katri Vala also continued in 2021. The pump will start production use in 2023. The heat pump reduces carbon dioxide emissions by 71,500 tonnes a year.

We are building a heat pump in connection with the

Vuosaari power plant, utilising the power plant's own cooling water circulation and the heat of sea water as a source of heat. The construction work of the Vuosaari heat pump was close to completion in 2021. The commissioning of the heat pump will be adjusted to the energy market situation in 2022. The heat pump reduces carbon dioxide emissions by 30,000 tonnes a year.

CARBON-NEUTRAL ELECTRICITY FROM NUCLEAR POWER

In 2021, we increased our share of nuclear power produced in Olkiluoto. Helen's subsidiary Oy Mankala Ab purchased the shares of Teollisuuden Voima Oyj (TVO) owned by the Loiste Group. In future, we will have more emission-free electricity as a result of the share transaction with the Loiste Group. The reactor of Olkiluoto 3 started up in December 2021. Electricity generation of Olkiluoto 3 reactor will start in March and regular electricity generation in July 2022.

WE ARE INCREASING WIND SOLAR POWER PRODUCTION

In the next few years, we will significantly increase our wind power production. All turbines of the Lakiakangas 3 wind farm to be built in Ostrobothnia were erected in 2021, and the entire electricity generation capacity will be available during the early part of 2022. Helen's wind power production will be tripled as a result of the new investment. An electricity storage facility is also under construction in connection with the power plant.

We are investing in wind power together with Fortum by building two wind farms in Ostrobothnia in the vicinity of Närpiö and Kristiinankaupunki. The wind farms will be in use by 2024 at the latest. The project will triple Helen's wind power production and, after the investment, we will produce up to one terawatt-hour of wind power per year. This amount corresponds to a quarter of electricity consumption in Helsinki.

In addition, the construction of the three wind farms of Suomen Hyötytuuli is progressing to schedule. The wind farms will be ready for production in 2022 and 2023.

Helen also has ongoing investments in solar energy and hydropower. Together with customers, we built a total of 4 MW new solar capacity, and we are also investing in hydropower refurbishment projects.

WE ARE EXPANDING EV CHARGING INFRASTRUCTURE

The share of electric cars in Finland's vehicle fleet is now growing strongly. In January 2022, the number of EVs exceeded the milestone of 100,000 vehicles, and the share of fully electric vehicles of all new registrations grew to 24 per cent. We are making strong investments in building a nationwide network of fast and high-power charging stations, serving especially the transition to the use of fully electric vehicles. The most significant expansions to the charging network in 2021 were implemented together with Citycon shopping centres and Hesburger.

ELECTRICITY NETWORK ENABLING THE ENERGY TRANSITION

We have built a strong and Europe's most reliable electricity network with a long-term approach. The use of renewable energy, the ongoing energy transition, and distributed energy production will increase the need for electricity distribution in Helsinki.

The future solutions planned for our electricity network support the implementation of Helsinki's carbon neutrality target at the same time as the city grows. Advanced automation and two-way energy metering, combined with the strong infrastructure of the electricity network, will enable a flexible system of distributed energy production in the future.

Our research and development projects promote future solutions

Our research and development projects aim to support the life-cycle thinking of energy production, the digital innovations and the development of our customer experience. Our research and development projects promote future solutions.

OUR RESEARCH AND DEVELOPMENT ACTIVITIES FOCUS ON SELECTED THEMES, WHICH ARE:

- Low-emission energy production
- Energy system as an enabler of carbon-neutral society
- Solution business

We see, e.g. the utilisation of seawater as an alternative with a very high potential in heat production of the future because it is based on known heat pump technology and good availability. We are currently carrying out a study on extensive utilisation of seawater heat pumps in replacing fossil fuels.

Small modular reactors also provide us with new, interesting opportunities related to emission-free energy production. We are studying the utilisation of small-scale nuclear power in district heat production in the two-year EcoSMR (Finnish Ecosystem for Small Modular Reactors) project funded by Business Finland. The project brings together Finnish actors to develop business around the possibilities of small modular reactors.



CASE

Helen is studying replacing of coal with the heat of seawater

A unique heat pump utilising the heat of seawater is currently being built at Helen's Vuosaari power plant. Utilisation of seawater in heat production is an excellent example of Helen's plan to increase the use of renewable energy and non-combustible sources of energy in the future.

Helen has studied the utilisation of heat from seawater in heat production already since 2016. In May 2021, Helen launched an environmental impact assessment on a new large heat pump plant that makes use of the heat of seawater. The project supports Helen's target of building a distributed city energy system where heat and electricity are produced in a carbon-neutral way from energy recovered from the ground, air, water and waste heat.

The low emissions of a seawater heat pump plant are based on the same principle as other heat pumps: the heat pumps use both electricity and the thermal energy of seawater in the production of heat. The planned location of the heat pumps is the Salmisaari power plant area.

The preliminary study includes three alternatives of implementing seawater heat recovery: a short and a long seawater tunnel and the utilisation of phase transition heat of the freezing of water in heat production.

"The smart energy system and the existing district heating and cooling networks in Helsinki make it possible to combine new technologies and production methods in a flexible way. At Helen, heat pumps are regarded as an important part of the future energy system comprising, for example, recovery of waste heat. Therefore, the new heat pump plant planned for Salmisaari will support Helen's target of achieving carbon neutrality by 2030," says **Timo Aaltonen**, Helen's Director, Production and Asset Management.

In the planning phase, alternative implementation methods, such as alliances and various hybrid models, are studied in the construction project. At the end of 2021, Helen selected Boost Brothers as a strategic partner for the study on seawater heat recovery.

The project is currently in the strategy phase, and no actual implementation decision has been made yet. The environmental impact assessment process of the project was launched in the summer, and the EIA report is due to be completed during 2022.

CASE

Green hydrogen supports transition to a carbon-neutral energy system

Hydrogen is the most common element in the universe. It also has a key role in Helen's future. Many industrial processes need hydrogen, most of which is currently produced from fossil natural gas. Today, the majority of hydrogen is used by the chemical industry. However, the production of fossil hydrogen causes a significant amount of greenhouse gas emissions that accelerate climate change.

Hydrogen can also be produced with emission-free electricity with no carbon dioxide emissions. As a result of technological advances and cheaper prices of renewable electricity production, the potential of green hydrogen produced in an emission-free way has grown significantly in the past few years. Green hydrogen can be used for reducing industrial greenhouse gas emissions significantly in sectors where it would otherwise be almost impossible to achieve carbon-neutral production.

Hydrogen will also play a key role in Helen's future. Helen is currently investing strongly in emission-free wind power, which will be needed in the production of green hydrogen. The Lakiakangas wind farm completed in Ostrobothnia in January 2022 alone will increase Helen's wind power production fivefold. In addition, Helen's district heating network acts as a good platform for the utilisation of waste heat from hydrogen production. Helen also has competence, technology and infrastructure that contribute to the building of hydrogen solutions.

However, in order to be implemented, a hydrogen economy will also need partnerships between both enterprises and research institutes. Therefore, Helen is investing in cooperation at the domestic level in the national hydrogen cluster of Finnish companies and at the international level, e.g. with the Norwegian clean energy company Horisont Energi.

We take part in international research projects

We are involved in several international research projects.

The MySMARTLife project is part of the EU's Horizon 2020 programme to test new solutions for climate change mitigation in three forerunner cities: Helsinki, Hamburg and Nantes. The SysFlex project deals with the energy transition, electrification of the energy sector, electricity networks, and the efficient and coordinated use of demand flexibility.

We are also taking part in the FlexCHX EU project coordinated by VTT, studying the possibilities of using hydrogen as part of the synthesis gasification technology. Of the new business opportunities, hydrogen economy combined with the utilisation of carbon dioxide has been one of the main themes of the study from Helen's point of view.

We are also involved in the BECCU and eFuels Co-Innovation projects of Business Finland, studying the possibilities of power-to-X technologies where transport fuels or high-grade end products in the chemical industry are produced with carbon dioxide and hydrogen. The contents of hydrogen-related studies have been expanded with the examination of new business opportunities. We strive to find the best practices for utilising hydrogen technology in a carbon-neutral energy system while seeking new business models based on a hydrogen economy at the same time.

CASE

Helen Ventures invests in a sustainable future

Helen Ventures is an investment company specialised in innovative and transformational European startups, operating in the energy, e-mobility, circular economy, carbon freedom, and digital solutions sectors. In 2021, an investment policy was drawn up for Helen Ventures, and it was approved by Helen's Board of Directors.

The policy describes in further detail the targets, operating method, responsibilities and reporting of strategic investment of Helen Ventures. The investment policy outlines that the Ventures function must take into account the risks and possibilities related to the environment, social factors and good governance (ESG) in its investment activities. In addition, Helen Ventures is a member of the Leaders for Climate Action initiative, due to which processes and practices supporting the ESG factors are included in the shareholders' agreements drawn up for the target companies.

In 2021, the investments of Helen Ventures emphasised the utilisation of data and artificial intelligence in the sustainable energy production of the future. Helen Ventures invested in four growth companies: the Norwegian company Think Outside working with hydropower, the German LiveEo utilising satellite images in the monitoring of infrastructure, the Austrian Enspired that uses algorithms in electricity trading, as well as &charge that develops e-mobility software for customer engagement.



Looking beyond the horizon. For the sake of all of us.



Environment

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We respect biodiversity

The loss of biodiversity and excessive consumption of natural resources are the greatest challenges of our time in addition to climate change. Helen aims to know the environmental impacts of the energy we produce for its entire life cycle and to act with respect towards biodiversity.

In 2021, we reviewed the key impacts of our operations on biodiversity and prepared Helen's first biodiversity strategy, which will be published in 2022.

The most significant factors having an impact on biodiversity as a result of our operations:

- sustainability of biomass used in energy production
- impact of hydropower on local waterways

SUSTAINABILITY OF BIOMASS

Replacing fossil fuels with biomass is one step towards a carbon-neutral future. In accordance with our biodiversity strategy, we take into account the preservation of forest biodiversity in the procurement of the biomass we use.

Our aim is that 100 per cent of the biomass we use either has sustainable certification or it is from otherwise controlled sources. That way we are able to ensure a responsible and legal production and supply chain for fuel.

We require that the production of our fuel suppliers takes into account sustainable forestry and biodiversity. We recognise the significance of deadwood to biodiversity in production forests, and we know the key principles of maintaining and producing deadwood. We ensure the fuel suppliers'



knowledge of the significance of deadwood to forest biodiversity.

The pellets we used in 2021 were certified as follows: PEFC-certified pellets totalled 45.85 per cent, FSC-certified 6.72 per cent, SBP-controlled 33 per cent, and the rest 14.43 per cent were from otherwise controlled sources in the way accepted by the certificates.

IMPACTS OF ENERGY PRODUCTION ON WATERWAYS

The impacts of energy production on waterways mainly include conducting warmed-up seawater, which is used as cooling water in the production plants, back into the sea.

In 2021, we used 68,312,325 m³ of seawater as cooling water, which was conducted into the sea. The heat ending up in the sea along with cooling waters may increase eutrophication of the sea, i.e. the growth of algae. Warming of the waterways also creates improved means of survival for invasive species.

The majority of the heat we produce is utilised as district heat, which considerably diminishes the volume of heat conducted into the sea and, that way, the impacts on watercourses. We also utilise the heat of purified waste water in the Katri Vala heating and cooling plant, which reduces the volume of waste heat ending up in the sea.

We monitor the impacts of our operations on the waterways by taking part in the joint monitoring programme of the Helsinki and Espoo sea areas. Based on the monitoring, the impacts of energy production on the waterways have been found to be minor.

In addition to cooling waters, small amounts of waste and washing waters from power plants, as well as neutralised washing waters from wastewater treatment plants and laboratories, are conducted into the sea. We monitor the flow rate, temperature, temperature rise, acidity and hydrocarbon, i.e. oil contents, of the waters we conduct into the sea and report them to the authorities. The entry of oil into the waterways is prevented with oil separation pools equipped with alarm systems.

CASE

Hydropower has an impact on local water systems

Hydropower is a renewable energy form, but it alters the ecosystems of local water systems and restricts the migration of fish. In addition, hydropower production requires regulation of waters, which also has an impact on their recreational use.

Helen offsets the disadvantage caused by our hydropower plants located in the western branch of the River Kymijoki with the fishery management fee that is used for, e.g. restocking of fish. In addition, the company is involved in the continuation research project of the Natural Resources Institute investigating the management measures for migratory fish populations in regulated rivers, e.g. along the Rivers Iijoki, Oulujoki, Kemijoki, Ala-Koitajoki, Pielisjoki, Lieksanjoki, and Kymijoki. The project monitors the behaviour of migratory fish (salmon, trout, whitefish) in already built areas. Helen uses the scientific data collected in connection with both current project areas and in new implementation solutions to improve the passage of migratory fish. The objective is to reduce the impacts of emission-free hydropower on fish migration.

In 2021, Helen was involved in a project that studied the functioning of the Fishheart solution in guiding the fish past power plant dams. The project investigated especially the smolt heart that helps the downstream migration of smolt in dammed rivers. Cooperation with the Ministry of Agriculture and Forestry and the Uusimaa Centre for Economic Development, Transport and the Environment also continues. The objective is to find the best and most cost-effective way to safeguard the passage of migratory fish on the River Kymijoki past the power plant dams of Ahvenkoski and Klåsarö.

We monitor emissions affecting air quality

Depending on the fuel used, in addition to greenhouse gases, other impurities such as nitrogen oxides, sulphur dioxide, particulates and small amounts of heavy metals also end up in the atmosphere with the flue gases of production plants. In the environmental permits of the plants, strict limit values have been set for emissions affecting air quality.

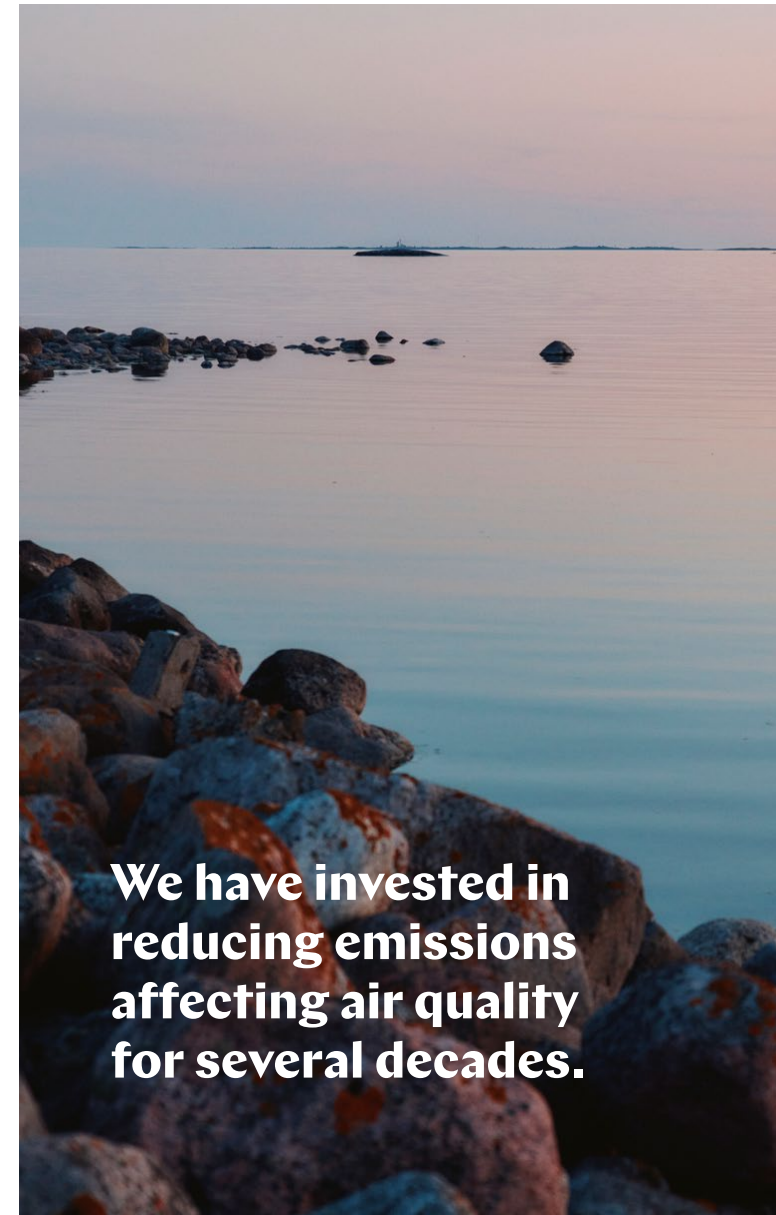
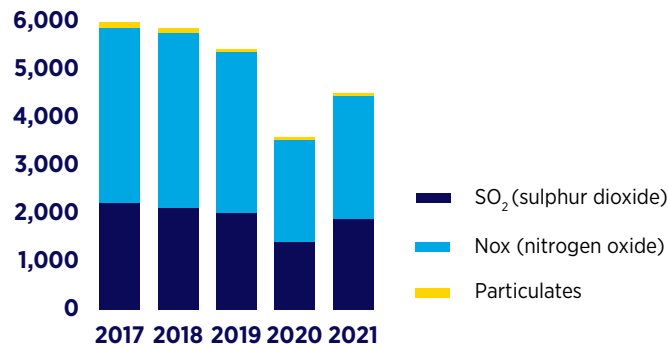
We monitor the emissions of the plants according to the monitoring plans approved by the authorities. Monitoring at the power plants is continuous, and the correctness of measurements is verified by an outside expert each year. The emissions of less frequently used reserve and peak load boilers are measured as one-off measurements at least every few years. Any exceeding of emission limits is reported to the environmental authorities, and emissions are reported annually.

We have invested in reducing emissions affecting air quality for several decades. In addition to investments, we can have an impact on emissions with the range of fuels: more and more each year, we have replaced heavy fuel oil in our heating plants with natural gas and light fuel oil. Phasing out the use of coal

in 2024 will reduce emissions to considerably less than half of the current level.

The impacts of emissions from energy production on the air quality in the Helsinki metropolitan area are monitored as part of the air quality monitoring carried out by the Helsinki Region Environmental Services Authority HSY. Fuel gases from energy production are directed to the atmosphere via high stacks, and they disperse over a greater area and therefore do not result in high concentrations at the breathing level. In addition to constant monitoring, the spreading and impacts of emissions on the natural environment are studied.

Fuel gas emissions,
tonnes



We have invested in reducing emissions affecting air quality for several decades.

We minimise our environmental impacts

We carry out active work to minimise our environmental impacts. In 2021, there were no significant breaches of the environmental permit regulations.

DURING THE YEAR, THERE WERE THREE ENVIRONMENTAL DEVIATIONS:

- Ground-borne noise from the Katri Vala heating and cooling plant was detected in some local dwellings in 2021. We carried out extensive noise reduction measures at the plant during the year. We are monitoring the sufficiency of these measures with noise level measurements and will take further action on the basis of the results.
- A production outage took place at the Salmisaari power plant in autumn 2021 due to a technical fault. A human error took place during the production outage, as a result of which cooling water that was warmer than normal ended up in the sea from the power plant via a seawater channel for about half an hour. The incident caused death of most sensitive fish species. We increased the security of the plant's automation system to prevent a similar occurrence in the future.
- Higher than normal hydrocarbon concentrations were detected in the discharge water pumped into the sea from the underground light fuel oil storage facility at Salmisaari in early 2021. The situation did not cause any harm to the aquatic organisms because the discharge water was diluted with a large quantity of cooling water from the power plant before ending up in the sea. As a result of the change made in the pumping method, the hydrocarbon concentrations returned to the normal level.



We utilise by-products and waste

The waste from our energy production mainly consists of ashes as a by-product of solid fuel combustion, as well as end products of desulphurisation.

We aim to utilise by-products as efficiently as possible. We use the by-products, e.g. in cement manufacture and earth construction. By utilising by-products, we reduce the use of pristine mineral aggregate and soil.

In 2021, we produced a total of 114,000 tonnes of by-products (102,000 tonnes in 2020). We were able to utilise by-products in various areas of application. All in all, the share of by-product utilisation was at a good level of 91 per cent (93 per cent in 2020).

In addition to by-products of energy production, the operation and maintenance of production plants and distribution networks produce scrap metal and other normal industrial waste, as well as smaller amounts of waste oils and other hazardous waste. In 2021, this kind of waste amounted to a total of 10,813 tonnes, of which hazardous waste accounted for about 514 tonnes. We utilised 87 per cent of the waste as material and 10 per cent as energy (93 per cent and 4 per cent in 2020).

Primarily, we aim to prevent the production of waste. Any waste we produce is sorted and recycled wherever possible. We maintain waste bookkeeping and hand over waste only to transport companies that are in the waste management register and to recipients entitled to receive the waste in question. Ordinary waste is sorted, and material suitable for utilisation, such as metal, is delivered for reuse. Hazardous waste is delivered to licensed hazardous waste processing plants.

91%

Utilisation of by-products



97%

Utilisation of other waste



We make the opportunities of a new energy era available to everyone.



Products and services

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We provide sustainable and safe products and services

In addition to electricity, heat and cooling, we offer our customers solutions for the utilisation of regional renewable energy, improvement of energy efficiency and charging of electric vehicles. We develop even cleaner and smarter solutions in an open-minded manner in order to meet the energy requirements of our customers now and in the future.

Our target is carbon-neutral energy production in 2030. The steps we are taking to reach that target also directly reduce the emissions of our district heating customers. Among our most significant measures to promote carbon neutrality of district heating is the replacement of coal-based production in Hanasaari and Salmisaari, e.g. with the utilisation of waste heat, storage of heat, bioheat and distributed heat production.

Our customers have been able to acquire their district heat as carbon-neutral for several years. Our consumer, housing

company and business customers can reduce their carbon footprint with the aid of Renewable District Heat and Recycled Heat products, which are produced from waste heat. The cooling we offer to businesses and housing companies in Helsinki has been carbon-neutral since 2020.

We offer renewable electricity to all our customers. In addition to traditional electricity contracts for consumers formed of several energy sources, our range of contracts includes the Environmental Electricity contract that combines hydro, wind and solar power. In addition, our consumer customers can hire solar panels or a share in our wind power plant and meet the majority of the energy they use with electricity they have produced themselves.

Our business range also focuses on carbon-neutral electricity products. We help our customers to achieve their sustainability targets by building turnkey solutions that include carbon-neutral energy products and maintenance services. For our business customers, we offer both solar and wind power with the PPA (Power Purchasing Agreement) model, the long contract periods of which enable a stable electricity price. We increase the security of renewable energy supply by utilising electricity storage facilities and digital solutions.

We constantly develop and expand our services to ensure that the green transition is even more effortless also for our housing company customers. Our services with a monthly fee, such as Kiinteistövahti, smart heat distribution centre and geothermal heat, make it possible for housing companies to reduce their carbon footprint without major initial investment. For professional property owners, the assessment and improvement of energy efficiency is an important first step to reduce emissions. We offer housing companies a diverse range of solutions to improve energy efficiency.

Our goal is that:

- Carbon-neutral and competitive energy solutions, smart property solutions, e-mobility and new turnkey solutions will bring a turnover of at least EUR 100 million in 2025.
- Flexible overall solution, service and product packages support our customers in achieving carbon neutrality targets and help them in the move towards a new energy era.
- Distributed energy production and hydrogen solutions support our transition towards a new energy era.
- The availability of wind power plays a key part in the current renewable energy solutions and in the production of green hydrogen in the future.

WE DEVELOP CARBON-NEUTRAL AND ENERGY-EFFICIENT SOLUTIONS TOGETHER WITH OUR CUSTOMERS

We constantly concept design and test products and services that support energy efficiency and sustainable development together with our customers.

In 2021, the service model used in solar energy was expanded to wind power with the Omatuuli service. In the Omatuuli service, the customer can purchase a share in our Lakiakangas wind farm, i.e. part of the electricity consumed by their home is produced by wind power.

Our aim is to expand our carbon-neutral service range in the future, for example, by utilising the waste heat of data centres and the district cooling network and through product development of heat pump solutions and electricity storage facilities.

As a result of our new solutions, the number of customers utilising renewable electricity is clearly rising. In 2021, the number of small-scale customers who selected environmental products grew by 70 per cent year on year. Similarly, the number of customers choosing solar power systems and e-mobility solutions has multiplied during the year. In 2021, the number of business customers for solar power plants tripled, and solutions for single-family houses grew by 35 per cent. Our target is to continue the development of new customer-oriented products and services and to invest especially in the overall range during 2022.

We develop cleaner and smarter energy solutions for our customers' needs in an open-minded manner.

CASE

Sponda and Helen join forces in building an emission-free future

Helen and the real estate investment company Sponda carry on close cooperation to implement a carbon-neutral future. The target of the long-term cooperation is to increase the share of renewable energy in the total consumption of Sponda's properties and to develop energy efficiency in the properties.

For Sponda, it was clear from the very beginning that no off-the-peg solutions would be accepted in the cooperation, and it wanted to build larger-scale cooperation with its energy partner. From 2022, 100 per cent of electricity consumption in Sponda's properties will be produced with emission-free wind power. Half of this will be produced in Helen's Lakiakangas wind farm, which was completed in Ostrobothnia. The new farm is a good example of an energy solution developed together with Helen and its customer, which enables buying wind power also in the form of greater shares of the power plant's production. A similar model has also been used previously in cooperation between Sponda and Helen in solar power production.

"With the help of Helen, we have made a major leap towards our carbon neutrality target. Wind power is renewable and emission-free energy, which has an important role in achieving the climate targets. It also promotes domestic energy self-sufficiency. As a key real estate company, we have an opportunity and an obligation to promote work for slowing down climate change. It is great that together with Helen we are able to promote the implementation of our sustainability targets," says **Pirkko Airaksinen**, Head of ESG at Sponda.

"Climate work needs bold partners such as Sponda, with whom we can promote global climate targets and create new kinds of sustainability solutions for businesses," says Helen's Key Account Manager **Mika Kannisto**.

The real estate investment company Sponda has been selected as one of the most sustainable real estate companies in Europe in the international Global Real Estate Sustainability Benchmark (GRESB) assessment.

Digital solutions are at the core our energy transition

We are accelerating the transition to carbon neutrality with various digital services, IoT solutions, energy data, and digital user experience.

Thanks to our strong market position, we have an accurate understanding of our customers' energy consumption and emissions. The visibility of emissions data and the planning of measures based on it are also important to our customers. Digital services are present in our customers' everyday lives in all phases of our services, whether it be the acquisition of suitable solar panels, energy management of properties or charging of electric vehicles.

We constantly increase the number of digital customer encounters. In Oma Helen service, our customers can closely monitor their energy consumption and the production of the solar panels they own. At the end of 2021, the service was used by 180,000 customers.

An example of our new digital services is the algorithm utilising artificial intelligence for more accurate forecasting of heat consumption and more efficient planning of energy production. The solution already reduces thousands of tonnes of carbon dioxide emissions per year.



We maintain a high security of supply

The reliability of the electricity and district heating networks in Helsinki is at an excellent level. Helen is committed to maintaining a high security of supply also in the distributed energy system of the future. Our diverse energy mix has been built over a long period of time to ensure that the security of energy supply withstands even serious supply disruptions.

Changes in urban infrastructure and new and neighbourhood construction have increased significantly over the past few years, which has had an impact on the amount of work in district heating and cooling and, that way, on the increase in the number and duration of outages.

Maintaining a high security of supply is extremely important to us also in the future. We take account of the security of supply in all stages of the planning, operation and maintenance of energy production and distribution systems. We step up the measures and methods that reduce the number and times of outages even further. We always plan the work on a case by case basis to ensure that an outage can be either minimised

or avoided altogether through advance preparation and high standard of planning.

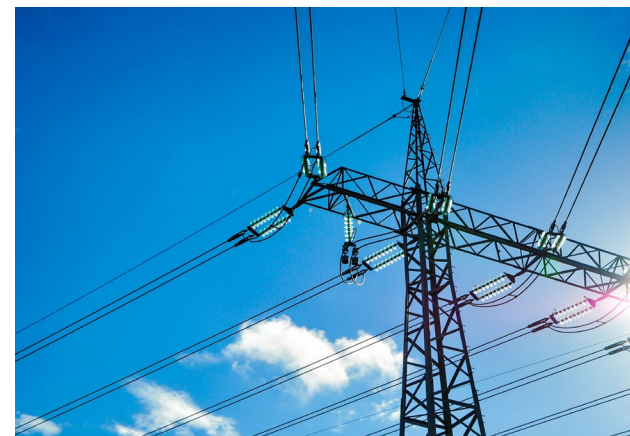
In 2021, the average outage time of our district heating customer was shortened to about 2.54 hours (3.03 hours in 2020). The total number of outages was 528 (509 in 2020), of which 95 were unplanned, unexpected repairs (62 in 2020). The rise in the number of outages was contributed to, e.g. by the increase in leaks and in disconnections due to the number of leaving customers. All in all, the fall in the average outage time was contributed to by improved efficiency in outage measures and planning and in the use of alternative technical measures (e.g. pressurized pipeline hot tapping and line stopping, ball valve) on a case by case basis. The target for outage time for 2022 is 3.5 hours.

In 2021, the average outage time of our district cooling customers was about 1.79 hours (4.48 hours in 2020). There were a total of 18 outages (20 in 2020). The number of outages were on average at the same level as in the previous year, but the average outage time fell considerably at the same time as the number of customers increased. The fall was affected significantly by the extensive expansions of the cooling network towards the district of Töölö in December 2020, which further increased the outage time in the previous year. The target for outage time for 2022 is 4.2 hours.

In 2021, the average annual outage time of our electricity distribution customers was 4.7 minutes (1.2 minutes in 2020). In the past few years, the average power cut has lasted 1.2–4.7 minutes per Helsinki resident. Our aim is to keep the outage

levels below 5 minutes. We have succeeded well in this target and, for example, in 2020 we set the European record in the reliability of electricity supply with an outage time of 1.2 minutes. The higher figure in 2021 was due to a single, more widespread fault.

Excellent reliability in electricity distribution is the result of goal-oriented work carried out over the years. We have replaced the ageing electricity network each year in a systematic way, which keeps the number of faults down in the electricity network. We have also made extensive investment in increasing automation in the electricity network. With automation, any faults that may cause power cuts are quickly found and isolated from the rest of the network, and the electricity can be restored to the customers via another route.



We take care of sustainability in the supply chain

Helen is a significant buyer of goods and services. Our target is that our suppliers make a commitment with us to economically, socially and ecologically sustainable operations.

We procure our products from the best suppliers in the field in order to safeguard long-term and stable operations. In 2021, Helen had 1,947 active suppliers, 306 of which were new suppliers. Of our suppliers, 93 per cent operate in Finland, 6.3 per cent elsewhere in the EU or in the UK, 0.6 per cent in North America, and 0.1 per cent each in China, India and Japan. The total volume of procurement from these suppliers in 2021 was about EUR 985.2 million. Fuel purchases accounted for about 34 per cent of our procurement.

The coal we procured in 2021 came from Russia. We procured natural gas from Russia and via the Baltic Connector pipeline. The fuel oil we use as start-up and reserve fuel and as fuel in peak-load heating plants came from Finnish and Nordic refineries.

The majority of the wood pellets we use are manufactured in Finland from by-products of the sawmill and wood processing industries. In 2021 we also procured pellets from Estonia and Russia. The raw materials of pellets procured from overseas were by-products of the sawmill and wood processing industry, as well as round wood not suitable for use in the forest industry.

In 2021, the ISO 14001 environmental management certificate was issued for our fuel procurement.

SUSTAINABLE PROCUREMENT

The greatest environmental impacts of our supply chain, such as greenhouse gas emissions and impacts on biodiversity, are related to fuel procurement. In addition, key social sustainability aspects, such as occupational health and safety, and sanction list and human rights issues, are also related to these.

Our procurement processes comply with the legislation and regulations in accordance with our own ethical guidelines and good business practice. As part of sustainable operations, our suppliers are required to commit to the [Supplier Code of Conduct](#), [Code of Ethics](#), and the [CSR policy](#).

We combat grey economy by complying with the Contractors' Liability Act. We monitor together with our suppliers that the agreed matters are carried out also with respect to the subcontractors.

We take supply chain sustainability into account in our entire procurement process. In connection with competitive tendering, we request all tenderers to submit an account of sustainable development in their operations. Taking the nature of procurement into account, we also aim to use sustainability aspects in the comparison criteria in our procurement decisions. We also request further information on individual purchases with respect to, e.g. sustainable development considerations



related to the manufacture, use and disposal of products or the provision of a service.

In 2021, we made procurements from a total of 306 new suppliers, 13 per cent of which were assessed in accordance with the environmental and social criteria. A total of 39 suppliers were included in the assessment. Of these, a total of 17 suppliers were identified to have current or potential negative environmental impacts and five to have current or potential negative social impacts. The identified risks are related especially to the use of child or forced labour in the excavation of minerals used as raw material in solar panels and electricity storage facilities and in the manufacture of various components.

We have increased knowledge of sustainability in the procurement chain within different business units, for example, through training related to human rights and sanctions list requirements. The objective of training is to increase our employees' understanding and competence for identifying and assessing sustainability risks and measures related to various sectors, suppliers, parts of the world, and product groups.

We monitor and prevent negative social impacts of our supplier chain, for example, by supporting well-known Finnish suppliers, by avoiding purchases from high-risk countries, and by carrying out supplier audits and HSEQ assessments. In 2021, we carried out a total of five audits. In addition, in our procurement chain, we systematically utilise supplier eligibility criteria, sanctions list reviews, and Helen's Supplier Code of Conduct.

If any irregularities are discovered in relation to a supplier in connection with the sustainability survey or audit, we will communicate the failings to the supplier and monitor the measures in accordance with our procurement principles. If necessary, we will suspend the procurement by utilising substitutive products and services. If the failings cannot be remedied due to their nature, we will classify the supplier as an unacceptable supplier.

CASE

We take part in international cooperation to prevent forced labour

The potential use of the Chinese minority group, the Uyghurs, in forced labour has been connected to silicon used in the manufacture of solar panels. Regardless of the place of manufacture of the panels, the majority of the main raw materials, monocrystalline silicon, is produced in China.

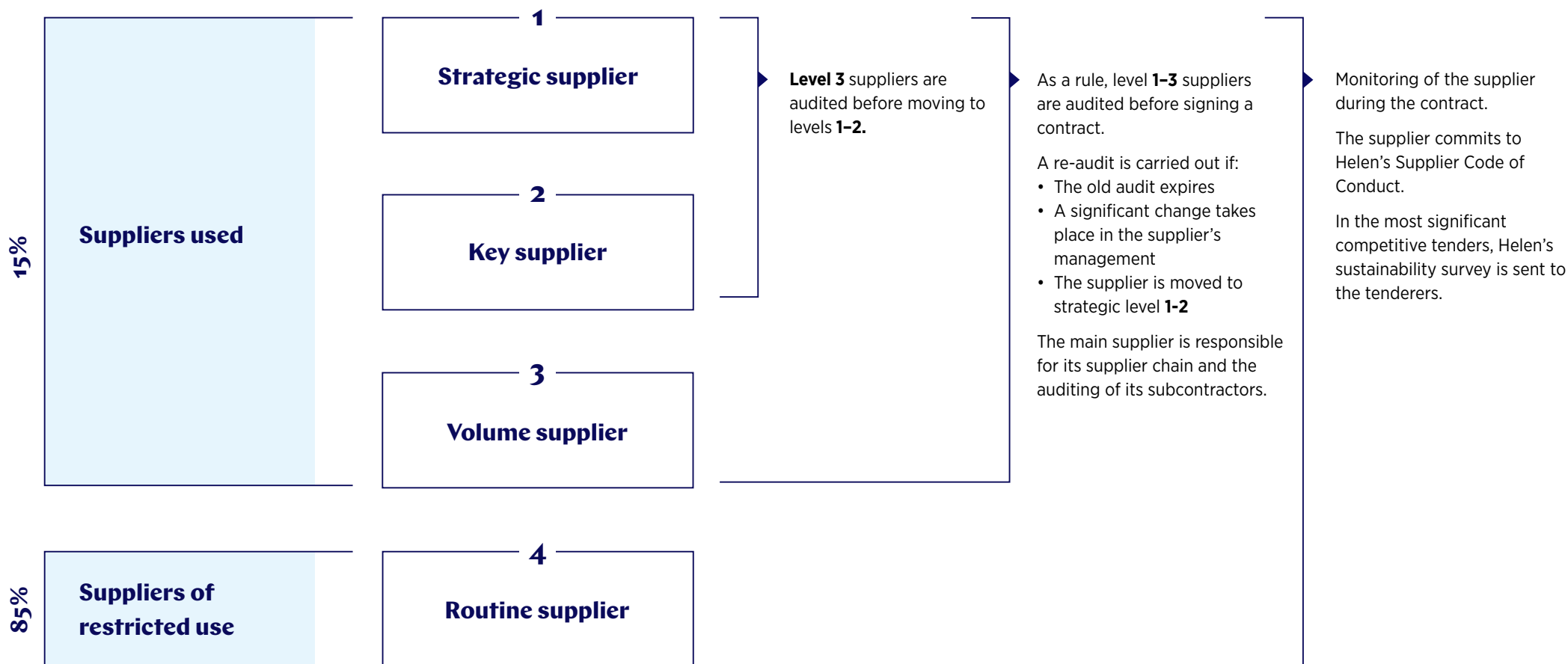
We have identified the risk of forced labour related to the production of solar panels, and we have become familiar with the operation of our solar panel suppliers, certificates issued by third parties, and the audit practices. The solar panel suppliers used by Helen have signed an agreement opposing forced labour and that way committed not to use forced labour.

Our sustainability work is constantly developed. We carry out sustained work to ensure that our own production, as well as the entire procurement chain and the life cycle of products and services, are sustainable. All our suppliers also commit to Helen's Supplier Code of Conduct that prohibits forced labour. We monitor the compliance with the Supplier Code of Conduct with sustainability surveys and audits.

All our solar panel suppliers have effective ISO-9001, ISO 14001 and OHSAS 18001 certification. In addition, our suppliers are committed to monitoring their own procurement chain down to the raw material level and to evaluating the raw material suppliers on a regular basis.

We also carry on international cooperation to root out forced labour. To increase transparency in the procurement chain, our suppliers signed in 2021 a commitment of the umbrella organisation of the field, the Solar Energy Industries Association SEIA, to stamp out forced labour. We are also involved in the HSEQ cluster where we assess the occupational health and safety issues, environmental sustainability, and quality output of our service suppliers in partnership with other industrial client companies.

Sustainability in supplier management





**We are a
trailblazer in
the energy sector.**



Work community

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We provide a responsible workplace

We want to offer Helen's employees a safe and inspiring workplace where our personnel is able to grow and develop their competence in view of the needs of the future.

At the end of 2021, Helen employed a total of 1,015 professionals in different fields (993 in 2020) with an important role in enabling a carbon-neutral future. Our employees work in the areas of modern energy solutions, electricity, heat and cooling sales, electricity distribution, business development, and production. The majority of the work related to our operations is carried out in employment relationships that are long at Helen – an average of 14 years. In addition, service providers' personnel also work in our plants in connection with annual maintenance. For the summer season of 2021 we hired a total of 74 summer employees.

OUR HUMAN RESOURCE MANAGEMENT IS BASED ON VALUES DRAWN UP TOGETHER

Our values are the cornerstone of all our work. These cornerstones are applied by each and every employee of Helen in their own work regardless of their task or location.

Our jointly created values are:

- world-class expertise
- champions of cooperation
- from people to people
- make it happen

BASED ON THE VALUES, WE HAVE DEFINED THE MAIN PRINCIPLES OF OUR HUMAN RESOURCE MANAGEMENT:

- equality and non-discrimination
- first-rate and value-driven management
- HR planning that implements our strategy
- incentive and fair remuneration
- systematic development of strategic talents
- an inspiring, idea-rich, healthy and safe workplace

The key target of our human resource management is to strengthen the employee experience of Helen's personnel. We monitor the development of the employee experience regularly with an employee survey, which was carried out in the entire Helen Group in October 2021. Eighty per cent of our employees responded to the survey. The commitment indicator used in the survey is the international eNPS (Employee Net Promoter Score) scoring, in which a proportionate percentage of detractors is subtracted from that of promoters. The results may range between -100 and +100, and values above zero are interpreted as good. Helen scored 5 in the survey. Our target is to achieve a score of 10 in the eNPS survey by 2023.

Workplace communication has an important role in strengthening the employee experience. In workplace communication, we aim for open, active and inclusive communication, where we emphasise every Helen employee's role as a communicator. We constantly develop means and channels to create and maintain an internal, active dialogue with all Helen's employees.

In 2021, workplace communication was strongly characterised by change communication required by the energy transition and, for the second year running, the COVID-19 pandemic. During the year, we updated our intranet both technically and in terms of its contents. The new intranet supports our targets of every Helen employee as a communicator even better than before.

Diverse utilisation of digital communication channels has been highlighted at a time when a large number of our employees have worked remotely, with no opportunities for physical meetings. We have supported and inspired our employees to disseminate information, interact with one another and to carry out collective work, e.g. with the aid of Microsoft Teams. We also continued live streaming events concerning subjects that applied to individual units, the whole company and the entire energy sector. In the events, both experts and the management were able to highlight important themes, provide information and discuss in real time across organisation borders. The COVID-19 pandemic has proven that we at Helen are capable of working efficiently also without physical contact with our colleagues.



Helen's organisation is impacted by the transition in energy production

We have for long been preparing for changes in the energy sector. Dialogue with the employees and investing in personnel communications have played a critical role in all structural changes of our organisation.

In addition to positive emission and energy-efficiency impacts, the transition in the energy sector also has significant societal and social impacts that effect our employees in many different ways. In 2021, this was reflected in the decision of Helen's Board of Directors to bring forward the end of production at the Hanasaari power plant and the phasing out of coal use at the Salmisaari power plant. These decisions enable early transition away from coal towards a distributed energy system, but they also resulted in concrete pressures for change in the

structure of our organisation. In autumn 2021, Helen launched cooperation negotiations with respect to just over 400 employees in the Production and Asset Management business unit.

The starting points for the employee negotiations were good because we carry on a regular, active and continuous dialogue with the employees in the company's extended management team, in the co-operation committee and in meetings with the HR managers. The negotiations closed in mid-December and, as a result of mitigating measures, the number of employees that may be facing redundancy is estimated to be reduced to 288. Any staff reductions will be implemented during 2022–2025 while the phasing out of coal use in the Hanasaari and Salmisaari power plants is under preparation.

During the cooperation negotiations, a change security package was agreed with employee representatives where every effort is made in cooperation to further mitigate the impacts on employees. The change security plan includes measures related to, e.g. staff training, redeployment and job-seeking support.

Occupational safety is at the heart of our operations

Occupational safety is one of our key sustainability targets. Structured, systematic and long-standing occupational safety work is an important part of the everyday lives of Helen's employees.

The basic objective of our work is to maintain and promote the health, safety and work capacity of the employees in cooperation with the management, the personnel, the occupational health service, and the occupational safety and health cooperation organisation. We always act in accordance with the laws and regulations, the provisions and contracts concerning the industry and our own safety guidelines, and expect our partners to do the same. In support of our management, we use the ISO 45001-certified occupational health and safety system that is integrated to apply to the operations of the entire Helen Group and all our employees. The occupational safety of our partners and service providers is also managed and the results are monitored actively at Helen's power plants, offices and worksites.

We provide all our employees more extensive occupational health services than the statutory requirement. In 2021, in cooperation with the occupational health service, we gave particular priority to coping at work, for example, by carrying out a survey on psychosocial workload, offering various training

courses, and by boosting access to the services of an occupational health psychologist. We also carry on close and extensive cooperation with occupational health services to identify and prevent work-related hazards and disadvantages and to develop working conditions. The occupational health service also takes part, e.g. in workplace surveys, accident investigations and preventative work, when necessary. Our absence due to sickness remained at a very good level throughout the year: 2.5 per cent at Helen Ltd and 1.4 per cent at Helen Electricity Network Ltd.

We constantly monitor and develop our occupational safety activities. More detailed operating models, responsibilities and targets are presented as part of our occupational health and safety system and in the occupational safety and health policy, which is updated each year. We report on the safety development to the management team and the Board of Directors on a monthly basis. We carry out regular audits on our operations both internally and externally.

IMPACTS ON THE COVID-19 PANDEMIC ON OCCUPATIONAL SAFETY

As a security of supply company, we comply with special occupational safety guidelines during the coronavirus pandemic in order to safeguard the operating preconditions of energy production. Our work is coordinated by the COVID-19 team with extensive representation from different parts of the organisation. The team monitors the general COVID-19 situation, provides information and guidelines and takes necessary decisions in order to manage the situation.



In 2021, we made a total of 4,051 safety observations.



We also combine the aspects of occupational safety and coping at work in our hybrid strategy that supports the phased return to the workplace. The strategy aims to create preconditions for an excellent workplace that supports our employees to achieve their best performance.

IDENTIFYING HAZARDOUS SITUATIONS AND MANAGING RISKS ARE PART OF OUR EVERYDAY WORK

We aim for a zero-accident workplace where everyone is involved in the development of occupational safety.

In order to develop safety, it is important that all hazards, risks, accidents and near-accidents are identified, reported and learned from.

We carry out regular occupational safety rounds and risk assessments as part of our everyday work. After we have identified the hazards, we assign responsibility for remedial measures in order to reduce the risk level. The matters learned from hazardous situations are communicated on efficiently within the organisation.

In addition to regular occupational safety rounds, every employee can take part in reporting occupational safety obser-

vations and submitting development ideas of their own accord with our EHS system. We encourage our employees to make observations and reward it on a monthly basis. We aimed for at least 2,660 safety observations in 2021. The number of safety observations during the year was 4,051, of which

- 1,116 were reported by individuals
- 2,935 were made during safety rounds

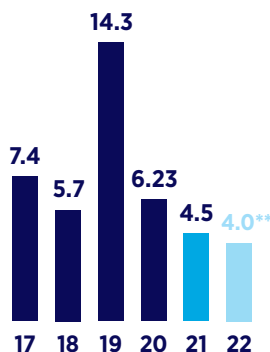
In addition, in 2021 we introduced the updated rapid risk form that encourages employees to consider the risks of the task before starting work. A total of 422 forms were completed.

WE AIM FOR A ZERO ACCIDENT HELEN

The objective of continuous improvement is to raise the level of our occupational health and safety operations in order to be a zero accident workplace in the future. In 2021, there were a total of 26 occupational accidents, 9 of which resulted in absence from work lasting more than one day. The most common reason for the accidents was falling or slipping, accounting for about half of all accidents. There were no serious or fatal occupational accidents during the year.

In 2022, our accident frequency target at Helen Ltd is 4 and at Helen Electricity Network Ltd 0. The difference in the targets is due to the fact that Helen Electricity Network has outsourced its tasks to its partners to a significant extent.

Accident frequency (LTIF*)



* LTIF = number of accidents resulting in absence from work per 1,000,000 working hours. The accident frequency includes only our own personnel. However, we also monitor the number of accidents among our service providers and record them in our reporting system.

**Target

ACTIVE COMMUNICATIONS AND TRAINING ARE THE BASIS OF OUR DEVELOPMENT WORK

We promote a good occupational safety culture by providing excellent orientation for our employees. All of our employees and contractors must pass the basic course on occupational safety organised online. With the course, we ensure that the employees have a command of the basics of occupational safety and carrying out the work in the workplace is as safe as possible. In 2021, 85 per cent of our employees had passed the course. As part of orientation, we also discuss with every new employee that they have the right to refrain from work if the task cannot be carried out safely.

In addition, the Helen Group has various company-specific orientation courses on occupational safety, as well as the monthly safety session video recording that provides information on topical safety-related issues. The objective of the safety session videos is to raise awareness about work-related hazards, disadvantages and workload factors, and about methods for their management, and to activate a dialogue and promote occupational wellbeing.

Convening four times a year, the occupational safety and health committees are a common forum for the employees and the employer, with representation by the employer and all employee groups.

We believe that emphasising positive safety issues is an excellent way to boost the safety culture. In addition to its statutory tasks, the occupational safety and health committee grants each year the “occupational safety and health deed of the year” award to a person or group that has done particularly well to improve occupational safety and to prevent accidents during the year in question.

CASE

Staying well at work and at home – Helen’s safety coaches offer support in everyday occupational safety action

Occupational safety is something that Helen does not compromise on. In everyday occupational safety activities, Helen’s employees are supported by safety coaches who train their colleagues on safe practices in the workplace.

Each of Helen’s 15 safety coaches have their own area of operation where they provide support for employees in everyday safety work in Helen’s power plants and at other places of business. The coaches also develop occupational safety activities, e.g. by testing new occupational safety equipment, by developing training materials, safety documentation and guidelines and by monitoring the safety observations made in their own area of operation.

In addition, the coaches take part in organising safety rounds, in the implementation of the monthly safety session, and in identifying hazards and assessing risks. The coaches also provide regular information about the latest occupational safety situation to the occupational safety and health manager. The safety coaches aim to provide information and tools for each and every employee at Helen to help them ensure safety in their and their colleagues’ daily life.



We enable professional development

The target of competence development is to enable the career path of Helen’s employees on a business-driven basis, taking everyone’s individual strengths into account.

In our competence development strategy, we ensure that competence development is business driven. Our objective is that the operating models and structures support the employees’ career development according to their individual strengths, enabling diverse roles and flexible models for implementation of tasks. At Helen, competence development is based on the 70/20/10 model where the majority of knowledge (70%) is obtained from job-related experiences, while some learning takes place by networking and coaching (20%) and

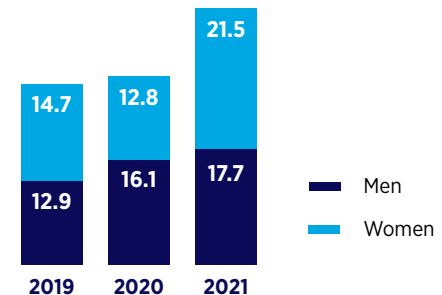
the smallest proportion through training (10%). Based on our personnel survey, our absolute strengths in the entire Helen Group lie in the employees’ experience in the growth and development opportunities offered by the company.

WE OFFER INDIVIDUAL CAREER PATHS AND DEVELOPMENT OPPORTUNITIES

We support line managers in the planning of business-driven training, for example, with the Tavoiteklintikka (Target Clinic) concept that helps participants to set for their teams personal targets derived from the strategy. All employees of the Helen Group discuss with their line manager about performance targets and their personal development twice a year. In the performance appraisal, the set targets are reviewed and updated, and the required competence and opportunities to develop also in the future are ensured together with the line manager.

Total
19,254
training hours

Breakdown of training hours



In addition, an assessment of performance and potential is implemented with all employees once a year. The criteria for performance evaluation include results and professional competence, cooperation, safety, occupational wellbeing and responsibility, and conduct according to the values. The basis of our evaluation process is to support our employees to fulfil their potential in both the professional and the functional sense and that way to also create a basis for changes in the working life and for transforming of roles.

Our competence development strategy also includes successor planning and career path thinking that open opportunities, as well as advance and expand competence. We support our employees with various training programmes in different stages of the career path. For example, in the Helen Academy which has been operational for a few years, we have trained about 40 members of our key personnel in themes related to the strategy, customer accounts and management. In addition, in 2021 we organised a continuing education programme for shift workers at Vuosaari in preparation of the commissioning of the bioenergy heating plant to be opened in the Vuosaari power plant area.

WE DEVELOP FIRST-RATE AND VALUE-DRIVEN MANAGEMENT

We build world-class management by developing, measuring and assessing our management culture in a systematic way. We clarify the roles and their expectations, and we offer supervisors and the management feedback on their conduct with 360 degree evaluation. We also strengthen self-management skills, as well as aptitude and leadership within the organisation. In 2021, we organised, e.g. training and lectures for the employees and line managers concerning self-management, leadership in exceptional situations, management of remote work, and interaction promoting occupational well-being in remote work. We also offered personal coaching.

CASE

International recognition for Helen's work – Business Development Manager Kristiina Siilin to represent Finland in the World Economic Forum

Helen aims to develop even smarter and cleaner solutions in an open-minded manner in order to meet the needs of today and the energy challenges of tomorrow. One of Helen's employees working towards this target is Business Development Manager **Kristiina Siilin**, whose input was recognised last year when she was selected for the Finnish Flow programme. As a result of the selection, Siilin will represent Finland in the week-long meeting of the World Economic Forum (WEF) in Davos in Switzerland in spring 2022.

Eight young people under 35 years of age, who are forerunners in their own fields and share the ability to drive change with their own competence and personality, were selected for the programme. In her work at Helen, Siilin focuses especially on electricity storage and flexibility in the energy system, which have a key role in building a carbon-neutral energy system of the future.

“The target of the Finnish Flow programme is to give a voice to Finnish experts and take them to the right tables to discuss global topics, such as solutions to tackle climate change. There are influential people present at the World Economic Forum, ready to make big decisions to promote these themes. For Helen, WEF offers, e.g. an opportunity to find new partners and promote new business, such as the hydrogen economy,” explains **Sari Mannonen**, Senior Vice President, Solutions Business & Portfolio Development.

“Davos gathers together over 20,000 participants from all over the world each year. It is great to represent Finland and to have an opportunity to tell about Helen's energy solutions at one of the most influential business events in the world,” Siilin sums up.

The World Economic Forum (WEF) is an international foundation aiming to promote public-private cooperation to tackle global challenges. Finnish Flow is a Finnish business community that coordinates participation of Finnish businesses in the annual meeting of the World Economic Forum held in Davos in Switzerland. Finnish Flow's mission is to create an annual tradition where Finnish expertise and the solutions offered by Finnish enterprises to global sustainability challenges are prominently presented at Davos.

We respect diversity

We treat all employees in an equal and non-discriminatory manner.

In our opinion, diversity applies to us all because we all have our own backgrounds, opinions, qualifications, and values. We are different in terms of our physical capabilities and characteristics. Each of us is ageing and anyone of us can also become ill or disabled. Therefore, in our everyday lives, we actively oppose all discrimination, and we do not accept harassment or inappropriate conduct in any shape or form.

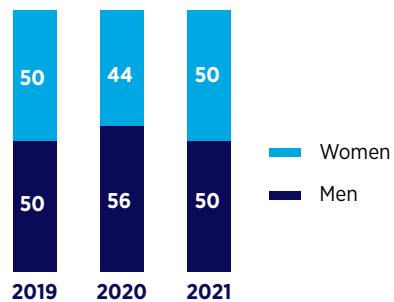
We have carried on long-standing work to increase diversity among our employees. For example, the number of women at Helen has grown from 30 per cent to 35 per cent in 2017-2021. The educational background of employees is also becoming more diverse.

The majority of our employees are still experts in the technical field, but other educational backgrounds have also gained ground over the past few years. Experts in the commercial field and social sciences showed the most growth: their proportion has increased from 16 per cent to 20 per cent since 2017. The use of fixed-term workforce fell to 5.6 per cent in 2021 from 6.2 per cent in 2020.

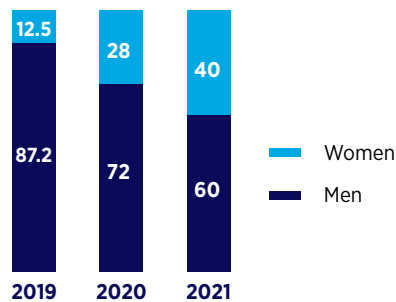
In order to offer a safe workplace for all current and future employees of Helen, we comply with the Helen Group's personnel policy, according to which all Helen's employees are treated in an equal and non-discriminatory manner. As a basis for our work, we draw up an equality and non-discrimination plan each year in cooperation with personnel representatives. We also monitor the implementation of equality and non-discrimination each year on the basis of personnel statistics and studies. In 2021, there were no cases of discrimination at Helen.



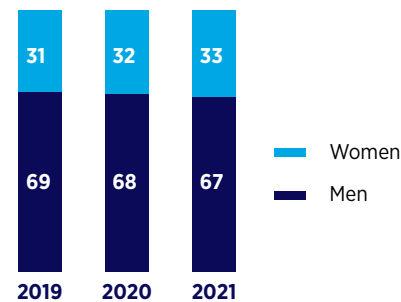
Members of the Board of Directors, total, %



Management Group, total, %



Employees, total, %



In 2021, women accounted for 50 per cent of the members of Helen's Board of Directors and 40 per cent of the Management Group.

We have equal remuneration

Incentive and fair remuneration is one of the main principles of our human resource management.

We believe that incentive and fair remuneration is necessary in order to attract and retain gifted employees. Helen's remuneration is based on the collective labour agreements for the energy industries. About 95 per cent of our employees are covered by the collective labour agreements. In terms of workers and salaried employees, remuneration is also affected by the job demands evaluation systems based on the collective labour agreements of Finnish Energy. In addition, the IPE evaluation system is also used in the evaluation of the level of job demands among senior salaried employees. With the job demands evaluation systems, we also contribute to ensuring equality in remuneration.

In autumn 2021, we carried out a pay survey, according to which gender equality is implemented well at Helen. The average pay of female and male employees of Helen in euros and as a percentage was used as the reference data. The wage gap between men and women was less than 4 per cent in all job demand categories. In the previous survey in 2019, the wage gap in all job demand categories was less than 6.5 per cent.

REMUNERATION AIMS TO STEER OUR PERFORMANCE IN A GOAL-ORIENTED WAY

Our remuneration is active, open and fair so that it steers our operations in the desired way. Remuneration, recognitions, special thanks, and continuous feedback and showing the way are also an important part of leadership work. Our remuneration includes, e.g. recognitions on special days and rewarding on good performance. Performance-related rewarding consists of the common performance bonus model for the entire Helen Group, as well as a one-off reward in connection with a significant achievement or performance. A team's joint achievement can also be celebrated in a team event.

In accordance with our non-discrimination principles, all employee benefits, such as sport and cultural benefits, are available on an equal basis to permanent, fixed-term and part-time employees of the Helen Group.



Our remuneration is active, open and fair.

Our activities are open and transparent.



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Ethics as part of our corporate culture

The ethical operating principles are part of our corporate culture and the basis for all our operations, supporting the success and profit-making ability of our business operations.

The ethical operating principles are part of our corporate culture and the basis for all our operations, supporting the success and profit-making ability of our business operations.

The most important commitment directing the work of Helen's employees is the Helen Group's Code of Conduct, which is based on our values and is in line with the ethical principles of our owner (the City of Helsinki). The Code of Conduct determines the operating principles that all employees of the Helen Group must comply with. It also sets out how we treat each other, our business partners and other stakeholders and how we conduct our business.

In accordance with the Code of Conduct, the Helen Group does not accept bribery in any shape or form. We do not accept from stakeholders personal benefits, gifts or similar that would deviate from normal hospitality nor do we offer them. We do not provide direct or indirect financial support for political parties, organisations or individual politicians. We do not use any operator, representative or other third party to

carry out measures that are in conflict with the Helen Group's ethical operating principles.

Helen's Code of Conduct is audited and, if necessary, updated each year in the first Board meeting after the Annual General Meeting. The managers are responsible for ensuring that the employees are aware of the Code of Conduct. In unclear cases, the employees shall contact with their manager or the Helen Group's lawyer for advice on conduct in any given situation.

TRAINING

Guidelines and training are an important part of compliance management at Helen.

We have created for the personnel, e.g. guidelines based on the Market Abuse Regulation. In addition, we provide training on competition law and data protection, and on the obligations set out in the REMIT regulation (EU Regulation No 1227/2011 on wholesale electricity market integrity and transparency). In 2021, the personnel took part in these training events as follows:

- Competition law: 79%
- Data protection: 86%
- REMIT: 82%

In 2021, we also provided a separate competition law training event for Helen's management, which was recorded for the use of all employees. A separate targeted training course on competition law was also held for the employees of Helen Electricity Network Ltd in 2021.

REPORTING OF MISCONDUCT

In 2018, the Helen Group introduced an internal reporting channel for suspected misconduct. As a result of the national implementation of the directive to protect persons who report breaches of EU law, the so called Whistleblower Directive, we expanded the use of the internal reporting channel to public stakeholders already in 2021. The reporting channel is managed by an external, impartial body.

The Helen Group's Vice President, General Counsel, reports annually to the Audit Committee of the Board of Directors on the compliance with laws and regulations and on any reports received via the reporting channel, as well as on any measures. In 2021, one report on suspected misconduct was submitted via the reporting channel, and it did not result in measures.

The Code of Conduct determines the operating principles that all employees of the Helen Group must comply with.

Digital sustainability

Information security and cyber security are an important part of Helen's sustainability.

Helen is an organisation vital for the security of supply, and we take cyber security seriously. Long-term information security and cyber security work has created a strong foundation, on the basis of which we constantly develop and evaluate our response capacity.

Information security and cyber security are also important bases in the development of digital services in order to ensure sustainability in the solutions we offer to our customers.

Data and artificial intelligence speed up Helen's transition to carbon-neutral energy production and create new business opportunities. At the same time, they also bring with them new kind of sustainability, as a result of which we complemented our data principles in terms of responsible use of data and artificial intelligence in summer 2021.

The new data principles define the roles, documentation requirements, risk management and processes in Helen's sustainable development. We are also working on an online course aimed at the entire organisation in order to support the employees' understanding and competence of safe use of data and AI.

DATA BREACHES

We are not aware of any data breaches in 2021 with a high risk to the rights and freedoms of an individual. The Data Protection Ombudsman received two requests for clarification concerning the interpretation of direct marketing rules or an alleged lack of clarity. In terms of the other request, the ombudsman has confirmed that the processing has closed and the processing of the other request is still ongoing. There were seven personal data requests, all of which have been responded to.

The Data Protection Team convened four times during the year. In addition, we carried out a serious risk impact assessment on a total of three systems and applications.

CASE

Helen speeds up data cooperation with new Partner platform

Openness and transparency are increasingly more powerful business drivers. With the Partner platform, Helen makes its data capital available to its customers.

In November 2021, as part of its data strategy, Helen published the Partner platform for sharing open data. The new tool enables data exchange cooperation with Helen's partners and customers. The platform offers stakeholders a smooth channel to utilise data in Helen's possession in a managed, scalable and safe way. The objective is not only to improve customer experience, but also to enable new kind of data cooperation between Helen and its partners.

Currently, the Partner platform provides information about electricity consumption to the customers of Helen and Helen Electricity Network and a view to solar power production to business customers. In addition, customers can authorise third parties to use their data found on the platform they are using.

The platform is constantly developed, and soon information will be available, for example, on district heat consumption and Helen's emissions, and on the roadmap to carbon-neutral production. In addition, the option of, e.g. offering more detailed emission data to customers is also studied.

The objective of the Partner platform is to create new kind of added value to Helen's customers in the future either directly or indirectly with other partners. Moreover, the data entered in the Partner platform can also be beneficial to, e.g. researchers, educational establishments or the media for other purposes, e.g. understanding and accelerating the emissions reduction target in the energy sector.

Unlike many other resources, data can be utilised over and over. In addition, its value increases significantly when various experts combine it with other data. Helen's Partner platform aims to offer new possibilities for this development.

The Partner platform is available at open.helen.fi.

Transparent and open advocacy

Our social influence is based on our values and our Code of Conduct.

The principles of Helen's advocacy are:

- Advocacy seamlessly supports our business operations
- We are a prominent and active energy company that represents the interests of our customers
- Our advocacy is open and honest, and decision-makers trust in our expertise.

To increase sustainability in advocacy, we support the establishment of a transparency register in Finland. Our aim in all encounters is an open dialogue, to which all our experts are committed.

We carry on advocacy work in line with our principles in many different organisations. In 2021, we paid a total of some EUR 400,000 in membership fees.

Helen membership fees 2021

Adato Energia Oy	PSK Standardisointi
Aikakauslehtien Liitto ry	Pääomasijoittajat ry
Bioenergia ry	Rakli ry
Climate Leadership Council ry	SIAPWS Suomi ry
Energiatoteellisuus ry	Sisäilmäyhdistys ry
FIBS ry	Startup Maria Oy
Finnish data center forum ry	Suomen Asiakkuusmarkkinointi Oy
Finnish Startup Community ry	Suomen Automaatioseura ry
Finnsecurity ry	Suomen Lvi-liitto SuLVi ry
Forum Virium Helsinki Oy	Suomen osto- ja logistiikkayhdistys ry
GBC Suomi ry	Suomen Riskienhallintayhdistys ry
Green Net Finland Ry	Suomen Voimalaitosyhdistys ry
Helsingin seudun kauppakamari	Sähköinen liikenne ry
Henkilöstöjohdon ryhmä HENRY ry	Teollisuuslakimiehet ry
International Flame Research Foundation Suomen kansall.os.	Tietojohtaminen ry
Kunnossapitoyhdistys Promaint ry	Varalaite Ry
Procom Viestinnän ammattilaiset ry	VGB PowerTech e.V. der Grosskraftwerksbetreiber
Projektiyhdistys ry	Word Energy Council Finland ry (ent. Energiafoorumi ry)



Open and accessible communication

Openness, timeliness, truthfulness and accessibility are among our most important principles in communication.

In addition to our own employees, the main target groups of our communication are the current and potential customers and the owner, the City of Helsinki. Other key target groups for us are partners, political decision-makers and civil servants, opinion leaders and media representatives, as well as potential employees, the scientific community, technology trendsetters, start-ups, and the general public.

We communicate to our customers mainly through our website, customer magazine, email newsletters and social media channels. With our customer communication, we want to help our customers to understand the energy transition and offer up-to-date information about ways of saving energy and making use of the opportunities of the new energy era.

The principle of accessibility directs us not only to ensure the technical accessibility of our digital services, but also the clarity and readability of the contents we produce. We want to provide a diverse service to target groups speaking different languages, and we offer information on our website and customer magazine in Finnish, Swedish and English.

Financial sustainability

We are a major player and employer in the energy sector. Economic sustainability is a basic requirement for our operations.

With our operations, we create value for our customers and for society, as well as for our owner, the City of Helsinki. Cash flows arise from sales proceeds from customers, expenses to service and goods suppliers, dividends to the owner, i.e. the City of Helsinki, investments, staff remuneration, and taxes.

In 2021, we received a total of EUR 730,000 in government grants. The majority of the grants were received for a project where we convert the Mustikkamaa rock caverns into the largest cavern heat storage facility in Finland. Our operations also have

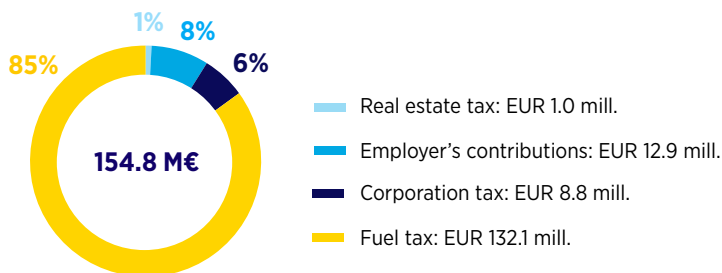
indirect financial impacts on society. We also have an indirect impact on the tax revenues of the state and several municipalities by employing about a thousand people.

HELEN'S TAX FOOTPRINT

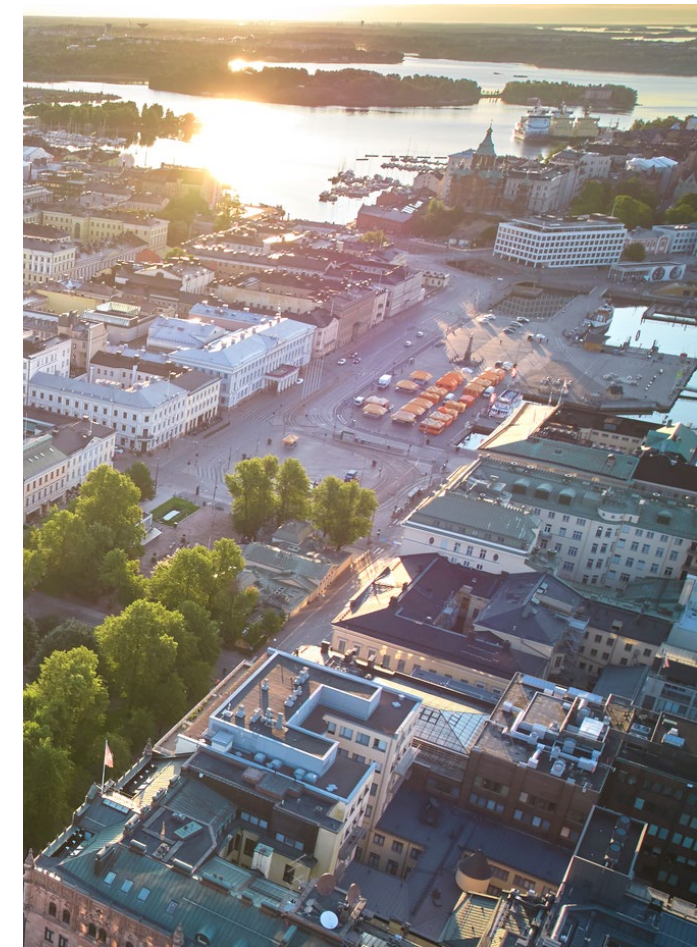
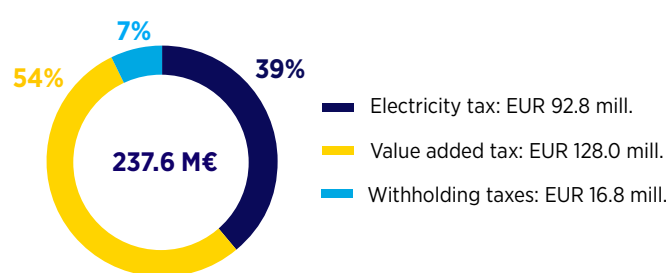
The tax footprint describes our impact on society. The tax footprint means the tax revenue and tax-like payments generated for society by the company's business operations.

Helen Ltd and its subsidiaries pay all their taxes in Finland. In 2021, the Helen Group paid a total of almost EUR 155 million in taxes and tax-like payments (EUR 116 million in 2020).

Taxes and tax-like payments 2021



Taxes remitted 2021



CASE

Helen aims to break the price rise of district heat in the short term

The energy sector is currently undergoing a strong transition towards a carbon-neutral future. The change has also had an impact on the consumer prices of Helen's district heat.

Transition from fossil energy production to renewable energy is one of the key means to mitigate global warming. As a result of new technologies, the share of electricity in the end consumption of energy will increase. At the same time, the increase of price variations, weather fluctuations and growth in the availability of electricity will bring challenges to the electricity market. As the heating market and services become more diversified, e.g. as geothermal heat and other new products become more common, also Helen invests in the development of its production forms and services offered to the customers.

The market development has also had an impact on the energy prices paid by consumer customers. The strong increase in the cost level of the energy proportion of district heat manifested itself for the customers for the first time in the summer season 2021. In autumn 2021, Helen reported that the total price of the district heat product for consumer customers will rise by 15 per cent for the winter, spring and summer season 2022. In order to offer a longer outlook for district heat customers, Helen published the prices for three price periods at the same time.

The total price of district heat consists of two parts: fixed contracted water flow fee (25 per cent of the price) and the seasonal energy fee (75 per cent of the price). The energy fees were subject to cost pressure, and the fees are updated four times a year: at the beginning of January, March, May and October.

The rise in the energy fee was due to the increase in excise duty at the turn of the year 2021, as well as the exceptionally strong growth in the price of fuels, emission allowances and electricity at the same time. For example, the global prices of a critical fuel in heat production, natural gas, have risen by a huge 530

per cent between the winter seasons of 2021 and 2022. As this is a price increase that pushes up necessary living costs, Helen did not pass the cost increases in full on to the consumer prices.

The contracted water flow fees for district heating were also reconciled during 2021, utilising digital metering that is now in use by all customers. Therefore, Helen is now capable of allocating the bills according to the customers' heat consumption in an even more balanced way. At the same time, customers who have taken energy efficiency measures to reduce their heat demand will be able to take advantage of the measures through lower bills. Helen aims to support its customers in taking advantage of energy efficiency measures, e.g. with the energy renovation service.

The rise in fossil fuel prices can be seen in the energy prices in the Helsinki region more than elsewhere in Finland because areas with a lower population density and energy demand have been able to phase out the use of fossil fuels at a faster pace.

Helen is taking constant measures to break the district heat price increase for customers already in the short term, although extra pressures are mounting from the markets. Helen has accelerated the transition to carbon-neutral production and decided to bring forward the phasing out of coal-based production at Salmisaari to 2024. The Hanasaari coal-fired power plant will close in spring 2023. The Vuosaari bioenergy heating plant will be commissioned in the heating season of 2022–2023, and the seventh heat pump in the Katri Vala heating and cooling plant will be completed in 2023.

The objective of the investments is to succeed in the energy transition and to introduce technologies and services developing around clean energy for the use of Helsinki residents.

Risk management

For us, risk management means a systematic and predictive way of identifying, analysing and managing uncertainties related to our activities.

Our comprehensive risk management is directed by the Helen Group's risk management policy, which describes the targets, procedures, responsibilities and reporting related to risk management. In accordance with the policy, we regularly identify and assess the key risks and uncertainties in our operating environment. We assess the likelihood of risks and their impact on business operations from five points of view: economy, customer experience, sustainability, security of supply, and employees.

In our risk register, we have identified a total of 40 risks, which are estimated to have at least a moderate impact on the sustainability of our operations. The most significant sustainability risks of the identified business risks are related to safety, service security, supply chains, climate change and security of supply.

SECURITY

Security-related threats may be aimed at, for example, our employees, city residents or our basic functions. We prevent the threat to our security by taking care of our energy production and distribution system and by providing a safe work environment. In addition, we constantly assess and develop the level and capabilities of cyber security. The security practices and risk management methods are regularly audited as part of our quality and environmental certificates.

SECURITY OF SUPPLY

Helen is responsible for its promises to its stakeholders. Our key stakeholders are customers to whom we deliver electricity, heat and cooling and our other energy products without interruption in accordance with our customer pledge.

As an active player in society, Helen ensures energy supply in the Helsinki region. Risks concerning the security of supply pose a threat to the functioning of the energy system. Risks are managed by maintaining the equipment in accordance with the condition management programme and by investing in the maintenance and development of a versatile energy system.

SUPPLY CHAINS

The sustainability risks of supply chains are related to negative phenomena in the supply chains. These may be, e.g. shortcomings related to the human rights, health and safety of employees, the use of raw materials and natural resources, emissions, or compliance with legislation.

Helen manages risks related to supply chains by carrying out extensive background checks on suppliers, performing supplier audits and by using certified supply chains, for example, in biofuel procurement.

CLIMATE CHANGE

Risks having an impact on Helen as a result of climate change include, e.g. energy price fluctuation due to weather phenomena, as well as the risk of flooding. Risks are managed by optimising and protecting energy procurement and with plant-specific guidelines.

We have also identified risks that may have an impact on the implementation of Helen's carbon neutrality programme and its measures to combat climate change. We manage these

risks by making provisions for key scenarios and by preparing several alternatives at the same time.

NATIONAL SECURITY OF SUPPLY

National security of supply means safeguarding critical production, services and infrastructure that are necessary in terms of the livelihood of people, the economic life, and the defence of the country in serious disruptions and emergencies. Energy production, transmission and distribution systems are part of Finland's critical infrastructure. Helen aims to identify and prevent risks that have an impact on its operations and to diminish the impact of any risks where they may arise. We are involved in exercises that develop and maintain the Helsinki region and the national security of supply.



We carry out regular evaluation of risks related to sustainability.



Our report for 2021 complies with the GRI framework for the first time, applying the core level.

Description of the report

The sustainability report describes sustainability in the entire Helen Group, as well as its management and key events during 2021. Our report is based on the core level of the GRI framework of the international Global Reporting Initiative. The reporting period is 1 January – 31 December 2021. The previous report was published on 30 March 2020, but in terms of its extent it did not correspond to the report now published and was not based on the GRI framework.

The report is published in Finnish, English and partly in Swedish, and it is available on Helen's website www.helen.fi. The sustainability report has not been verified externally.

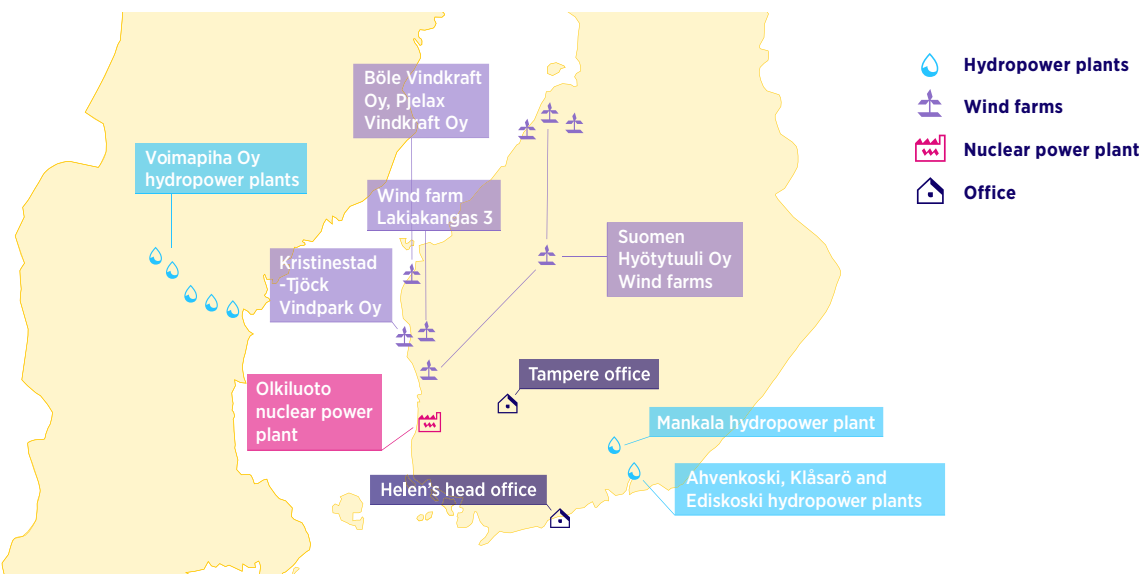
The contents of the report are based on the materiality analysis updated in 2021 and on the sustainability programme. The sustainability programme is based on the key themes in terms of Helen's key impacts, stakeholder expectations and business targets.

The materiality analysis was carried out on the basis of an extensive stakeholder analysis, and it was approved by the Management Groups of Helen Ltd and Helen Electricity Network Ltd. Sustainability and Public Affairs team together with the business units has built the sustainability programme for 2022–2024 on the basis of material issues.

We constantly develop our reporting, and any changes in the calculation or reporting methods are described separately in the future reports. The report describes the impacts of Helen's own operations. The report contains information about all Group companies and subsidiaries with the objective that it covers Helen's operations in Finland. If a figure has not been fully available, this has been mentioned separately in the item in question or in the GRI index.

Maiju Westergren

Vice President, Sustainability and Public Affairs



cations networks. The City of Helsinki owns 10% of Helsingin Energiatunnelit Oy.

Tuulipuisto Lakiakangas 3 (60%) is built in Ostrobothnia in partnership with project developer CPC Finland. The project supports Helen's target to increase wind power production fivefold in two years. In addition to the wind farm, Helen and CPC Finland established an electricity distribution company, which was transferred to the ownership of Fingrid Oyj in 2021.

Kristinestad Tupaneva Oy (60%) is an electricity distribution company serving wind power production at Lakiakangas.

New companies in the Group are the wind power companies **Böle Vindkraft Ab/Oy, Pjelas Vindkraft Ab/Oy, and Kristinestad-Tjock Vindpark Ab/Oy**. Helen made further investment in wind power (40%) at the end of 2021. Two wind farms, **Pjelas-Böle and Kristinestad Norr**, will be built in the vicinity of Närpiö and Kristinankaupunki.

Companies of the Helen Group

The Helen Group consists of the parent company **Helen Ltd** and the subsidiaries **Helen Electricity Network Ltd, Oy Mankala Ab, Helsingin Energiatunnelit Oyj, Kristinestad Tupaneva Oy, and Lakiakangas 3 Oy**. New companies in the Group are the wind power companies **Böle Vindkraft Ab/Oy, Pjelas Vindkraft Ab/Oy, and Kristinestad-Tjock Vindpark Ab/Oy**. The associated companies consolidated in the Group accounts are **Voimapiha Oy, Suomen Merituuli Oy, and Liikennevirta Oy**.

Helen Ltd is owned by the City of Helsinki, and it offers its customers electricity, district heat and district cooling, as well as diverse services for small-scale energy production, for customers' own energy use and for improving its efficiency. Energy is generated in power plants located in Helsinki, as well as in other production plants and through power assets owned by the company. Helen Ltd is owned by the City of Helsinki.

Helen Electricity Network Ltd (100%) focuses on electricity network operations by virtue of the Electricity Market Act. It also offers its customers electricity transmission and distribution services in almost all districts of Helsinki. The business operations of the network company account for about 13% of the Helen Group's net sales.

Oy Mankala Ab (100%) is a production company that owns the Mankala, Ahvenkoski, Kläsarö and Ediskoski hydropower plants located on the River Kymijoki. Oy Mankala Ab owns 8.1% of Teollisuuden Voima Oy, 16.1% of Suomen Hyötytuuli Oy and 50% of Suomen Merituuli Oy.

Helsingin Energiatunnelit Oy (90%) serves the energy, water management and telecommuni-



GRI index

Code	Contents	Location	Further information/Comments
GRI 102: General disclosures 2016			
Organisational profile			
102-1	Name of the organisation	Year 2021 > Helen in brief	
102-2	Activities, brands, products and services	Year 2021 > Helen in brief	
102-3	Location of headquarters	Operating principles > Helen Group's companies	
102-4	Location of operations	Operating principles > Helen Group's companies	
102-5	Ownership and legal form	Year 2021 > Helen in brief	
102-6	Markets served	Operating principles > Helen Group's companies	
102-7	Scale of the organisation	Year 2021 > Key figures 2021	
102-8	Information on employees and other workers	Responsible work environment > Helen as a workplace	Further information on appendix, p. 77
102-9	Supply chain	Products and services > Procurement and supply chain	
102-10	Significant changes to the organisation and its supply chain	Year 2021 > Helen in brief; Operating principles > Description of the report	
102-11	Precautionary Principle or approach		Helen complies the precautionary principle in its operations. Environmental impacts are investigated with an EIA procedure as required by the legislation on the environmental impact assessment procedure or, in smaller projects, with the environmental survey. Power plants are obliged to have an environmental permit.
102-12	External initiatives	Sustainability at Helen > Sustainability management	
102-13	Membership of associations	Operating principles > Transparent and open advocacy	
Strategy			
102-14	Statement from senior decision-maker	Year 2021 > CEO's review	
Business ethics			
102-16	Values, principles, standards, and norms of behaviour	Operating principles > Business ethics	
102-17	Mechanisms for advice and concerns about ethics	Operating principles > Reporting of misconduct	

Code	Contents	Location	Further information/Comments
Governance			
102-18	Governance structure	Sustainability at Helen > Sustainability management	www.helen.fi
Stakeholder engagement			
102-40	List of stakeholder groups	Sustainability at Helen > Stakeholder cooperation	
102-41	Collective bargaining agreements	Sustainable work environment > Remuneration	
102-42	Identifying and selecting stakeholders	Sustainability at Helen > Stakeholder cooperation	
102-43	Approach to stakeholder engagement	Sustainability at Helen > Stakeholder cooperation	
102-44	Key topics and concerns raised	Sustainability at Helen > Key sustainability themes	
Reporting principles			
102-45	Entities included in the consolidated financial statements	Year 2021 > Helen in brief	
102-46	Defining report content and topic boundaries	Operating principles > Description of the report	
102-47	List of material topics	Sustainability at Helen > Sustainability programme	
102-48	Restatements of information	Operating principles > Description of the report	
102-49	Changes in reporting	Operating principles > Description of the report	
102-50	Reporting cycle	Operating principles > Description of the report	
102-51	Date of most recent report	Operating principles > Description of the report	
102-52	Reporting cycle	Operating principles > Description of the report	
102-53	Contact point for questions regarding the report	Operating principles > Description of the report	
102-54	Claims of reporting in accordance with the GRI Standards	Operating principles > Description of the report	
102-55	GRI content index	Operating principles > GRI index	
102-56	External assurance	Operating principles > Description of the report	
GRI 103: Management approach 2016			
Management approach			
103-1	Explanation of the material topic and its boundary	Operating principles > Description of the report	
103-2	The management approach and its components	Sustainability at Helen > Sustainability management	
103-3	Evaluation of the management approach	Sustainability at Helen > Sustainability management	

Code	Contents	Location	Further information/Comments
MATERIAL TOPICS			
GRI 200 Economic topics 2016			
GRI 201: Economic performance			
201-1	Direct economic value generated and distributed	Operating principles > Financial sustainability	
201-4	Financial assistance received from government	Operating principles > Financial sustainability	
GRI 203: Indirect economic impacts			
203-1	Infrastructure investments and services supported	Climate > Investments	
203-2	Significant indirect economic impacts	Year 2021 > Value creation; Operating principles > Financial sustainability	
GRI 205: Anti-corruption			
205-1	Operations assessed for risks related to corruption	Products and services > Responsible procurement and supply chain	
205-2	Communication and training about anti-corruption policies and procedures	Operating principles > Business ethics	
205-3	Confirmed incidents of corruption and actions taken		No cases
GRI 206: Anti-competitive behaviour 2016			
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices		No cases
GRI 207: Tax 2019			
207-4	Country-by-country reporting	Operating principles > Financial sustainability	
GRI 300 Environmental topics			
GRI 301: Materials 2016			
301-1	Materials used by weight or volume	Climate > Use of fuels	
GRI 302: Energy 2016			
302-3	Energy intensity	Climate > Use of fuels	

Code	Contents	Location	Further information/Comments
GRI 303: Water and effluents 2018			
303-1	Interactions with water as a shared resource	Environment > Impacts of energy production on waterways	
303-2	Management of water discharge-related impacts	Environment > Impacts of energy production on waterways	
303-3	Water withdrawal	Environment > Impacts of energy production on waterways	
303-4	Water discharge	Environment > Impacts of energy production on waterways	
303-5	Water consumption	Environment > Impacts of energy production on waterways	
GRI 304: Biodiversity 2016			
304-2	Significant impacts of activities, products and services on biodiversity	Environment > Biodiversity	
GRI 305: Emissions 2016			
305-1	Direct (Scope 1) GHG emissions	Climate > Reduction of emissions	
305-2	Energy indirect (Scope 2) GHG emissions	Climate > Reduction of emissions	
305-3	Other indirect (Scope 3) GHG emissions	Climate > Reduction of emissions	
305-4	GHG emissions intensity		
305-5	Reduction of GHS emissions	Climate > Reduction of emissions	
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx) and other significant air emissions	Climate > Reduction of emissions	
GRI 306: Waste 2020			
306-1	Waste generation and significant waste-related impacts	Environment > By-products and utilisation of waste	
306-2	Management of significant waste-related impacts	Environment > By-products and utilisation of waste	
306-3	Waste generated	Environment > By-products and utilisation of waste	
306-4	Waste diverted from disposal	Environment > By-products and utilisation of waste	
GRI 307: Environmental compliance 2016			
307-1	Non-compliance with environmental laws and regulations	Environment > Environmental deviations	
GRI 308: Supplier environmental assessment 2016			
308-1	New suppliers that were screened using environmental criteria	Products and services > Responsible procurement and supply chain	
308-2	Negative environmental impacts in the supply chain and actions taken	Products and services > Responsible procurement and supply chain	

Code	Contents	Location	Further information/Comments
GRI 400 Social aspects			
GRI 401: Employment 2016			
401-1	New employee hires and employee turnover	Appendices, p. 77	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Responsible work environment > Remuneration	
GRI 402: Labour/management relations 2016			
402-1	Minimum notice periods regarding operational changes	Responsible work environment > Helen as a workplace	
GRI 403: Occupational health and safety 2018			
403-1	Occupational health and safety management system	Responsible work environment > Occupational safety	
403-2	Hazard identification, risk assessment and incident investigation	Responsible work environment > Occupational safety	
403-3	Occupational health services	Responsible work environment > Occupational safety	
403-4	Worker participation, consultation, and communication on occupational health and safety	Responsible work environment > Occupational safety	
403-5	Worker training on occupational health and safety	Responsible work environment > Occupational safety	
403-6	Promotion of worker health	Responsible work environment > Occupational safety	
403-9	Work-related injuries	Responsible work environment > Occupational safety	Reported with respect to own employees
403-10	Work-related ill health		In 2021, there was one case of occupational disease where an additive contained in protective gloves caused a very rare allergic reaction.
GRI 404: Training and education 2016			
404-1	Average hours of training per year per employee	Responsible work environment > Development of competence	Further information in appendix, p. 78
404-3	Percentage of employees receiving regular performance and career development reviews	Responsible work environment > Development of competence	
GRI 405: Diversity and equal opportunity 2016			
405-1	Diversity of governance bodies and employees	Responsible work environment > Diversity	Further information in appendix, p. 77
405-2	Ratio of basic salary and remuneration of women to men	Responsible work environment > Diversity	

Code	Contents	Location	Further information/Comments
GRI 406: Non-discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	Responsible work environment > Diversity	
GRI 408: Child labour 2016			
408-1	Operations and suppliers at significant risk for incidents of child labour	Products and services > Responsible procurement and supply chain	
GRI 409: Forced or compulsory labour 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	Products and services > Responsible procurement and supply chain	
GRI 414: Supplier social assessment 2016			
414-1	New suppliers that were screened using social criteria	Products and services > Responsible procurement and supply chain	
414-2	Negative social impacts in the supply chain and actions taken	Products and services > Responsible procurement and supply chain	
GRI 415: Public policy 2016			
415-1	Political contributions	Operating principles > Business ethics	
GRI 416: Customer health and safety			
GRI 417: Marketing and labelling			
417-2	Incidents of non-compliance concerning product and service information and labelling		No cases
417-3	Incidents of non-compliance concerning marketing communications		No cases
GRI 418: Customer privacy 2016			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Operating principles > Digital sustainability	
GRI 419: Socioeconomic compliance 2016			
419-1	419-1 Non-compliance with laws and regulations in the social and economic area		No cases

GRI G4 Electric Utilities Sector Disclosures

			2021	2020	2019
EU-29	Power outage duration	Customer's annual outage time (minutes) (SAIDlep)	4.74	1.2	1.5
	Heat customer's annual outage time (hours)		2.4	3.03	1
	Cooling customer's annual outage time (hours)		4.34	4.48	1
EU-4	Length of distribution network	District heating network 1,415 km, district cooling network 93 km, electricity distribution network 6,500 km			
			2021	2020	2019
EU-12	Amount of losses in electricity distribution	Losses MWh	10,5720 MWH	10,1195 MWH	9,7714 MWH
			2021	2020	2019
EU-30	Average availability of power plants*		86.91%	98.25%	98.63%

*Average availability of the Salmisaari, Hanasaari and Vuosaari power plants, calculated according to PKS standard 6021

Helen's own meters

Location

Origin of electricity	Climate > Carbon-neutral energy production
Origin of district heat	Climate > Carbon-neutral energy production
EPSI rating	Sustainability at Helen > Sustainability programme
Security of supply (electricity, district heat, district cooling)	Products and services > Security of supply
eNPS	Responsible work environment > Helen as a workplace

Appendices

GRI 102: General disclosures 2016

102-8 Information on employees and other workers

Employees	2021		2020		2019	
	Men	Women	Men	Women	Men	Women
Contract of employment						
Permanent	641	317	637	295	629	280
Fixed-term	35	22	37	24	34	14
Employment relationship						
Full-time	666	323	660	296	647	276
Part-time	10	16	14	23	16	18

The information was gathered from the HR portal in 2021 and 2022 and from Populus in 2019. The employees have a contract of employment.

GRI 401: Employment 2016

GRI 401-1 New employee hires and employee turnover

New employee hires 2021	Employee group	Number of employment relationships	Percentage of employment relationship started, %
Employment relationships started	>30	24	22.4%
	31-50	72	67.3%
	>51	11	10.3%
Employment relationships started	Men	63	58.9%
	Women	44	41.1%

Employee turnover 2021	Employee group	Turnover
	<30	3.40%
	31-50	14.30%
	>51	6.50%
	Men	8.20%
	Women	10.10%
Total turnover	Personnel	12.20%

GRI 404: Training and education 2016

404-1 Average hours of training per year per employee

Hour of training/person/year	2021	2020	2019
Men	17.7	16.1	12.9
Women	21.5	12.8	14.7

Hour of training/person/year	2021	2020	2019
Senior salaried employees and managers	25.0	24.4	19.5
Salaried employees	13.7	7.6	9.6
Employees	11.3	5.7	8.6

Hour of training/person/year	Men 2021	Women 2021	Men 2020	Men 2020	Men 2019	Women 2019
Senior salaried employees and managers	22.6	29.2	27.6	18.4	18.2	22.0
Salaried employees	14.0	13.3	7.9	7.1	9.7	9.5
Employees	12.0	7.3	5.6	6.8	9.3	5.2

In 2020 and 2019, 0 hours used as duration of online training courses. Since 2021, the duration of online training courses has also been reported.