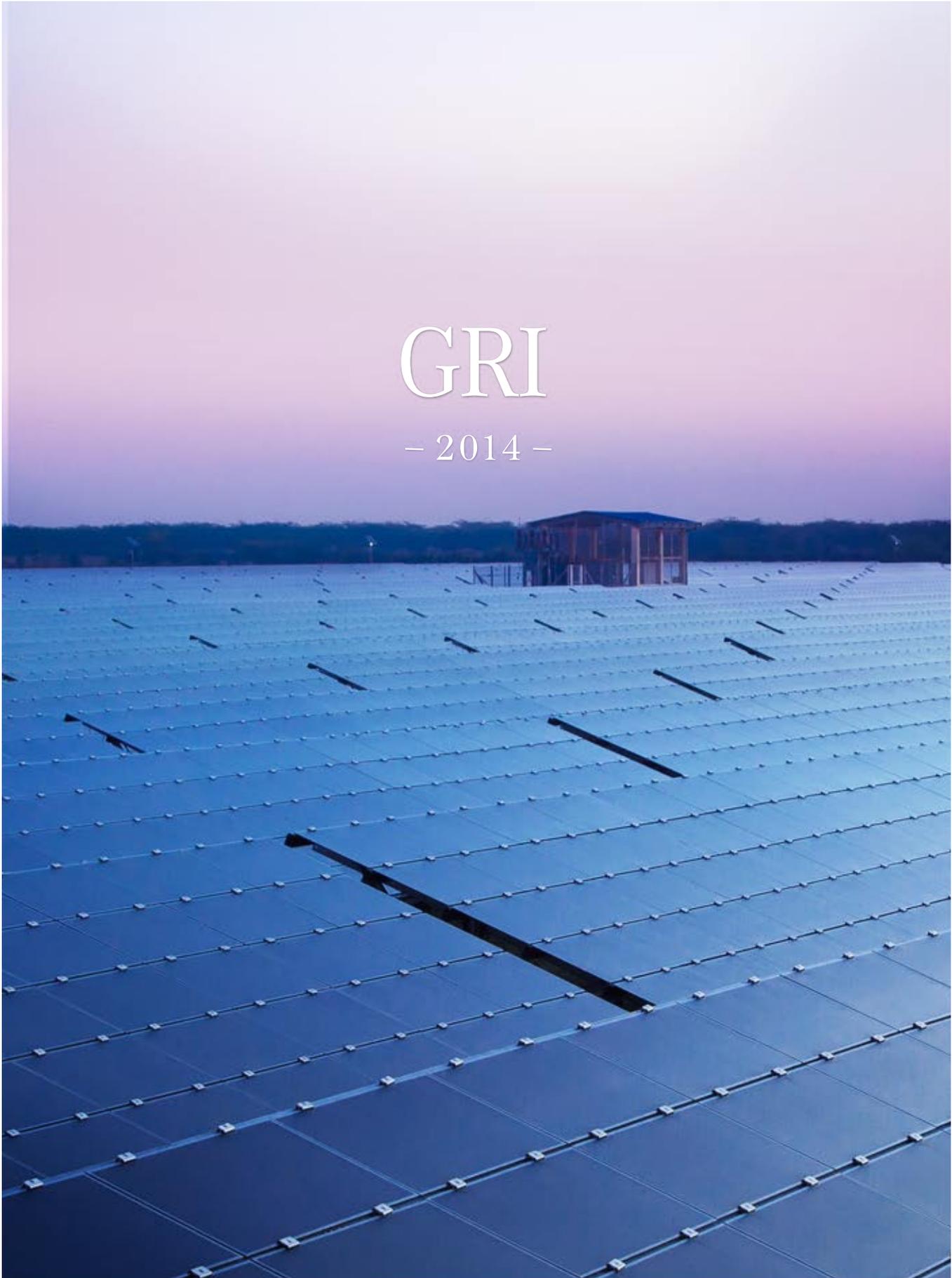


# GRI

– 2014 –



Next generation  
energy company



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# Fortum's Annual Report 2014

*Fortum is an energy company highly committed to sustainability. We strive to respond to the needs of our customers by generating, selling and distributing low-carbon electricity and heat and by offering energy-sector expert services.*

## GRI

*We report annually on sustainability in accordance with the Global Reporting Initiative Reporting Guidelines. Our reporting for 2014 follows the core option of the GRI G4 Guidelines. Deloitte & Touche Oy has provided limited assurance for the sustainability information presented on our Finnish language web report with the boundaries presented in the assurance statement.*

## Standard disclosures

Sustainability is an integral part of our strategy. We report on sustainability in accordance with the GRI G4 Guidelines and the Electric Utilities Sector Disclosures. Of the general standard disclosures, the strategy, analysis and our Group-level sustainability targets and their realisation have been described mainly in the [Strategy section](#) of our report. We describe the key stakeholder groups and stakeholder engagement in the [Society section](#) of our report. We describe sustainability governance practices in the [Governance section](#) of our report.

We have reported other general and specific standard disclosures required by the GRI G4 Guidelines and the sector disclosures in this GRI section. In particular, we focus on describing the material aspects we have identified for the economic, environmental and social responsibility and the related indicators.

The image shows three vertical green panels, each with an icon at the top and a list of bullet points below. The first panel is titled 'Economic responsibility' and features an icon of a building, a bar chart, and a Euro symbol. The second panel is titled 'Environmental responsibility' and features an icon of a mountain, a river, and a recycling symbol. The third panel is titled 'Social responsibility' and features an icon of a factory, a power line, and a person walking.

Economic responsibility	Environmental responsibility	Social responsibility
<ul style="list-style-type: none"> <li>• Competitiveness, performance excellence and responsible business operations generate long-term value and growth</li> </ul>	<ul style="list-style-type: none"> <li>• Competence in CO<sub>2</sub>-free hydro and nuclear and energy-efficient CHP production</li> <li>• Development of new climate and environmentally benign energy systems and forms</li> </ul>	<ul style="list-style-type: none"> <li>• Security of supply of electricity and heat to customers</li> <li>• Good corporate citizenship</li> <li>• Employee well-being and competence development</li> <li>• Occupational safety</li> <li>• Responsible business conduct</li> </ul>

# Report content

This year we are not publishing a separate sustainability report; we are reporting about sustainability as part of our Annual Report. We have reported the information required by the Global Reporting Initiative (GRI) G4 reporting guidelines and the Electric Utilities Sector Disclosures in different sections of the Annual Report (see [the GRI index](#)). We have reported the specific standard disclosures with indicators in the GRI section of the Annual Report. We will publish the Annual Report in its entirety online, in Finnish and in English, on our website at [annualreport2014.fortum.com](http://annualreport2014.fortum.com).

The Annual Report describes our operations and the material sustainability aspects for us and for our stakeholders in 2014, and includes some information from January-February 2015 as well. The Sustainability Report for 2013 was published in March 2014. Fortum reports sustainability information annually; we will publish the next report in March 2016.

The individuals who can provide more information related to the Annual Report are listed on our [Contacts page](#).

## Report scope and boundaries

Reporting related to operations and management covers all functions under Fortum's control, including subsidiaries in all countries of operation. The consolidation includes the parent company Fortum Corporation and all the companies in which Fortum Corporation has the power to govern the financial and operating policies and in which it generally holds, directly or indirectly, more than 50% of the voting rights. Possible deviations to this principle are reported in conjunction with information applying different boundaries. A list of the Fortum's subsidiaries is in [Note 42 Subsidiaries by segment](#) to the Financial Statements.

The most significant change in the report boundary compared to the 2013 report is related to the AB Fortum Värme samägt med Stockholms stad company (Fortum Värme). Application of the new IFRS standards has resulted in Fortum Värme being classified in the Financial Statements as a joint venture and it is consolidated with the equity method as of 1.1.2014. Until 2013, Fortum Värme was treated as a Group subsidiary in which non-controlling owners had a 50% share. As

of 2014, joint venture Fortum Värme is not included in Fortum's sustainability targets or key indicators or in the descriptions of management practices. In this report, we present joint venture Fortum Värme separately in terms of material sustainability aspects and indicators.

Information from previous years is mainly presented as pro forma information, i.e. presented on the basis of the organisation and the functions of each year; the impacts of ownership changes in production facilities, for example, have not been updated afterwards in the previous indicators. An exception to this is joint venture Fortum Värme, whose share has been removed from 2013 information whenever possible. The corresponding removal has not been made in the information for 2012. Possible deviations from this rule are presented with the indicator.

## Material aspects and defining the report content

Material sustainability aspects included in the report and the reporting boundaries are presented in table [Standard disclosures / Material aspects](#). The selection of material aspects is based on GRI G4 reporting guidelines and on Fortum's own and our stakeholders' views regarding the significance of the impacts. As the premise for the process, we used the aspects material to the sector as presented in the Implementation Manual and Electric Utilities Sector Disclosures document. Our understanding of stakeholder views is based on the result of the One Fortum survey, the stakeholder sustainability survey, and the EPSI customer satisfaction survey, as well as information gained through other [stakeholder collaboration](#). Our own assessment of the significance of the impacts is based on the systematic monitoring and reporting of indicators for over 20 years.

## Capacity changes

### New and acquired capacity

In 2014, the Nyagan gas-fired power plant's third unit was commissioned in Russia. At the end of the year, we also commissioned the Kapeli solar power plant in India.

The plants and the capacities acquired during the year are included in the reporting starting from the moment of possession. The same

applies to built new capacity and new plants commissioned during the year.

### Divested capacity

Fortum divested its electricity distribution business in Finland on 24 March 2014, and both its electricity distribution business and heat business in Norway on 30 June 2014. These businesses are not included in the 2014 reporting.

Fortum divested its Grangemouth power plant in Great Britain on 1 October 2014. The plant data are included in the reporting until the end of September 2014.

## Measurement and calculation principles

Data for economic performance indicators is collected from the audited financial statements and from financial accounting and consolidation systems.

The environmental information of the report covers the plants for which Fortum is the legal holder of the environmental permit. In such cases, the plant information is reported in its entirety. The only exception is the calculation of specific CO<sub>2</sub> emissions from Meri-Pori power plant, where the calculation covers only Fortum's share of production and emissions as specified in the operation agreement between Fortum and Teollisuuden Voima Oy. In the specific emissions calculation, the production shares of minority holdings are also included in the total production.

Fortum utilises a Group-wide database with instructions for collecting site-level environmental data. Sites are responsible for data input, emissions calculations and assurance. The Corporate Sustainability unit compiles all data and is responsible for disclosed sustainability information.

Fortum's CO<sub>2</sub> emissions subject to the EU Emissions Trading Scheme are annually verified at the site-level by external verifiers. Direct and indirect greenhouse gas emissions have been reported in accordance with the Greenhouse Gas Protocol and based on the Greenhouse Gas Analysis performed by an external consultant.

Fortum's human resources (HR) management system is currently used in all Fortum's

operating countries and is the main system for employee-related personal and job data. In Russia, the employee data system covers mainly superiors. In addition, Russian operations have their own, local data system. Other social responsibility data, such as occupational health-related data, originates from various data systems and is collected by designated individuals and delivered to the Corporate Sustainability unit in the format recommended by GRI.

## Global Compact reporting

Fortum has been a member of the United Nations Global Compact initiative since June 2010. This report describes the realisation of the Global Compact's ten principles in Fortum's operations. Global Compact approves the use of the indicators in the GRI Guidelines in Communication on Progress (COP) reporting. The GRI index presents the indicators used to measure Fortum's performance in fulfilling the principles of

human rights, labour standards, the environment and anti-corruption.

Fortum joined the Caring for Climate initiative in November 2013. Fortum meets the reporting requirements of the Caring for Climate initiative by participating annually in the assessment in the CDP's climate change programme and by publishing its response on the CDP website.

## Material aspects

The chosen material aspects of sustainability are based on the GRI G4 Guidelines and on

Fortum's own view and its stakeholders' views on the significance of the impacts.

Identified material aspect	Why the aspect is material	Boundary within organisation on a divisional basis <sup>1)</sup>	Boundary outside organisation. Stakeholders impacted by aspect.	Geographical boundary of impact	Reported indicators
<b>Economic responsibility</b>					
Economic performance	Competitiveness, security of supply and market-driven production enable long-term profitable growth. A financially strong company can shoulder responsibility for the environment, take care of its employees, monitor its supply chain, meet customer expectations, and produce excellent value to its shareholders.	Whole organisation	Upstream (suppliers, investors) Downstream (customers, investors, public sector)	All reporting countries. Especially Finland, Sweden and Russia	G4-EC1 G4-EC2 G4-EC3 G4-EC4
Plant decommissioning <sup>2)</sup>	Producers of nuclear waste in Finland and Sweden are responsible for nuclear waste management and final disposal as well as the related costs. The legal obligation also applies to decommissioning nuclear power plants.	NTP	Downstream (communities) Upstream (suppliers)	Finland and Sweden	Aspect does not have indicators
System efficiency <sup>2)</sup>	Better energy efficiency reduces the use of primary energy and the environmental impacts of energy production and use. We offer energy-efficiency services also to customers. Until the end of 2014, Fortum had a Group-level five-year average target (>70%) for efficiency of fossil fuel-based production.	Whole organisation	Downstream (communities, customers)	All operating countries, except India where production is solar power	EU11 EU12
<b>Environmental responsibility</b>					
Materials	We use large volumes of fuels in electricity and heat production.	Own production NTP HESS Russia	Upstream (suppliers)	All operating countries, except India where production is solar power	G4-EN1 G4-EN2
Energy	We use large volumes of fuel and other energy sources, like hydropower, in electricity and heat production.	Own production Whole organisation	Upstream (suppliers)	All operating countries, except India where production is solar power	G4-EN3 G4-EN5 G4-EN6
Water	Water is an important global sustainability issue for stakeholders.	Own production NTP HESS Russia	Downstream (communities)	All operating countries	G4-EN8

Biodiversity	Hydropower production, electricity distribution and fuel procurement can have an impact on local biodiversity. Also fossil fuel-based energy production may weaken local biodiversity particularly in Russia.	Own production NTP HESS Russia Distribution	Upstream (suppliers)	Finland, Sweden, Baltics, Russia	G4-EN13 EU13
Emissions	Fuel combustion in electricity and heat production generates emissions into the air. Statutory limitations target emissions in our operating countries.	Own production NTP HESS Russia	Downstream (communities)	All operating countries, except India where production is solar power	G4-EN15 G4-EN16 G4-EN17 G4-EN18 G4-EN21
Effluents and waste	Power plants use huge volumes of water for cooling or as process water. The combustion of solid fuels generates significant amounts of ash and gypsum. Nuclear power production generates low-, medium- and high-level radioactive nuclear waste.	Own production NTP HESS Russia	Downstream (communities)	All operating countries	G4-EN22 G4-EN23 G4-EN24
Compliance	Compliance with legislation in all our operating countries forms the foundation of our social operating license.	Own production Whole organisation	Downstream (communities)	All operating countries	G4-EN29
Supplier environmental assessment	Environmental impacts from our supply chain are related mainly to fuels, particularly coal, uranium, and bioenergy. The possible environmental impacts related to the procurement of raw materials are included in the pre-selection and audits of Fortum's suppliers.	NTP HESS Russia	Upstream (suppliers)	International	G4-EN32 G4-EN33
Environmental grievance mechanisms	Our operations are guided by Fortum's values, the Code of Conduct and the Supplier Code of Conduct. A grievance mechanism offers stakeholders a channel for reporting misconduct.	Whole organisation	Whole supply chain	All operating countries, international	G4-EN34
<b>Social responsibility</b>					
<b>Sub-category: Labour practices and decent work</b>					
Employment	We are a significant employer in our operating countries. We aspire to be a desired employer that attracts and engages employees at all levels.	Personnel Whole organisation	Downstream (communities)	All operating countries	G4-LA1 G4-LA2 EU18
Labour/Management relations	Collaboration between the employees and the employer is based on local legislation, agreements and Fortum's Code of Conduct.	Personnel Whole organisation	Downstream (society, trade unions)	All operating countries	G4-LA4
Occupational health and safety	We strive to be a safe workplace for our employees as well as for contractors working for us and for service providers.	Personnel Whole organisation	Upstream (suppliers, contractors)	All operating countries	G4-LA5 G4-LA6
Training and education	We aim to create interesting career and development opportunities to continuously advance personal professional skills and know-how. It is important to us to secure the expertise required to implement the strategy.	Personnel HTP NTP HESS Russia		All operating countries	G4-LA9 G4-LA10 G4-LA11
Diversity and equal opportunity	We value diversity and we promote equal treatment and opportunities in recruiting, remuneration, personnel development and advancement, regardless of race, religion, political views, gender, age, nationality, language, sexual orientation, marital status, or disability.	Personnel Whole organisation		All operating countries	G4-LA12
Equal remuneration for women and men	We want to offer our personnel a fair, transparent and competitive remuneration system.	Personnel Whole organisation		All operating countries	G4-LA13
Supplier assessment for labour practices	About 50% of the goods and services we acquire originate from risk countries. Violations related to social issues are more likely to occur in these countries than in non-risk countries.	NTP HESS Russia	Upstream (suppliers)	International	G4-LA14 G4-LA15

Labour practices grievance mechanisms	Our operations are guided by Fortum's values, the Code of Conduct and the Supplier Code of Conduct. A grievance mechanism offers stakeholders a channel for reporting possible misconduct.	Whole organisation	Whole supply chain	International	G4-LA16
<b>Sub-category: Human rights</b>					
Investment	Fortum has operations in countries where the legislation and practices are not necessarily consistent with all internationally recognised human rights standards.	NTP HESS Russia	Upstream (suppliers, contractors)	Russia, India	G4-HR1 G4-HR2
Non-discrimination	Fortum has operations in countries where the legislation and practices are not necessarily consistent with all internationally recognised human rights standards.	Personnel Whole organisation		All operating countries	G4-HR3
Freedom of association and collective bargaining	Fortum has procurements from suppliers that operate in risk countries. With the exception of India, freedom of association and collective bargaining are protected by legislation in Fortum's operating countries.	Personnel Whole organisation	Upstream (suppliers)	International	G4-HR4
Child labour	Fortum has procurements from suppliers that operate in risk countries. Of our operating countries, India has not ratified the International Labour Organisation's (ILO) Convention on the minimum age and the worst forms of child labour.	HPT NTP HESS Russia	Upstream (suppliers)	International	G4-HR5
Forced or compulsory labour	Fortum has procurements from suppliers that operate in risk countries. Fortum has not identified risks related to the use of forced labour in Fortum's own operations.	HPT NTP HESS Russia	Upstream (suppliers)	International	G4-HR6
Assessment	Alongside the current businesses, we are pursuing a platform for future growth by exploring and developing new sources of growth that support our strategic core areas. Human rights assessments are part of the assessment process for projects.	Own production HPT NTP HESS Russia	Downstream (communities) Business partners	International	G4-HR9
Supplier human rights assessment	About 50% of the goods and services we acquire originate from risk countries. Violations related to social issues are more likely to occur in these countries than in non-risk countries.	NTP HESS Russia	Upstream (suppliers)	International	G4-HR10 G4-HR11
Human rights grievance mechanisms	Our operations are guided by Fortum's values, the Code of Conduct and the Supplier Code of Conduct. A grievance mechanism offers stakeholders a channel for reporting possible misconduct.	Whole organisation	Whole supply chain	International	G4-HR12
<b>Sub-category: Society</b>					
Local communities	Fortum's future operations in India may require the acquiring of significant land areas and thus will impact local communities. Hydropower production has impacts on local communities.	Own production HPT HESS	Downstream (communities)	India, Finland, Sweden	G4-SO2
Anti-corruption	We have identified corruption and bribery as a significant business risk, and we absolutely reject corruption and bribery.	Whole organisation	Whole supply chain	International	G4-SO3 G4-SO4 G4-SO5
Public policy	The significance of energy issues will grow continuously in society, and we want to engage in an active dialogue to develop the sector.	Whole organisation	Downstream (communities)	All operating countries	G4-SO6
Anti-competitive behaviour	Strict adherence to competition legislation is part of compliance in operations.	Whole organisation	Whole supply chain	All operating countries	G4-SO7
Compliance	Compliance with legislation in all our operating countries forms the foundation of our social operating license.	Whole organisation	Whole supply chain	International	G4-SO8

Grievance mechanisms for impacts on society	Our operations are guided by Fortum's values, the Code of Conduct and the Supplier Code of Conduct. A grievance mechanism offers stakeholders a channel for reporting possible misconduct.	Whole organisation	Whole supply chain	International	G4-SO11
Disaster/Emergency planning and response <sup>2)</sup>	We produce energy at hydro, nuclear and CHP plants and we distribute electricity and heat. Exceptional situations may have significant impacts on society. The operational security of our operations is of utmost importance to us.	Whole organisation	Downstream (society, customers)	All operating countries, except India	This sector-specific aspect doesn't have indicators
<b>Sub-category: Product responsibility</b>					
Product and service labelling	Fortum complies with national legislation that is based on EU legislation regarding the origin of electricity. It requires that electricity producers report the origin of the produced electricity, the CO <sub>2</sub> emissions, and the amount of radioactive waste. Customer satisfaction is a prerequisite for our business and we monitor it regularly.	HESS Russia Distribution	Downstream (customers)	All operating countries	G4-PR3 G4-PR5
Marketing communications	Fortum is a significant retailer of electricity and heat. Advertising and marketing communications is a key part of the electricity and heat retail business.	HESS Russia Distribution	Downstream (customers)	All operating countries, except India	G4-PR7
Access <sup>2)</sup>	Electricity and heat security of supply is a prerequisite for a functioning society. Security of supply requires power plant operations to be as uninterrupted as possible.	Whole organisation	Downstream (communities, customers)	All operating countries	EU28 EU29 EU30

1) Divisions:

HPT: Hydro Power and Technology

NTP: Nuclear and Thermal Power

HESS: Heat, Electricity Sales and Solutions

Russia

Distribution

2) Sector-specific aspect

# Management approach

Sustainability is an integrated part of the strategy, and the Group-level sustainability targets and results for 2014 are presented in the section discussing [Fortum's strategy](#). Fortum's financial results are reported in the Financial Statements section under [Financial performance and position](#).

Fortum's values and Code of Conduct form the foundation of our sustainability management. Fortum's Group-level policies are approved by the Board of Directors, and our public policies can be found on our [website](#). The policies are supplemented with Group-level instructions and manuals, and they are approved by either the President and CEO or by the head of the function responsible for the instruction.

## International commitments and initiatives

Fortum respects and supports the United Nations Universal Declaration of Human Rights, the United Nations Convention on the Rights of the Child, and the core conventions of the International Labour Organisation (ILO). Additionally, Fortum recognises in its operations the UN Guiding Principles on Business and Human Rights, the statutes of the OECD Guidelines for Multinational Enterprises, the International Chamber of Commerce's anti-bribery and anti-corruption guidelines, and the Bettercoal initiative's Code on responsible coal mining. Fortum has been a member of the UN Global Compact initiative since June 2010 and joined the UN

Caring for Climate initiative in November 2013.

The steering effect of Group-level policies, instructions, and international commitments and initiatives on the management of economic responsibility, environmental responsibility and social responsibility is presented in the table below. The management approach related to material aspects we have identified are presented in more detail for [economic](#), [environmental](#), [labour practices and decent work](#), [human rights](#), [society](#) and [product responsibility](#). Additionally, more detailed information on the management of the impacts related to material aspects is provided in connection of the indicator descriptions. Fortum's corporate governance is described in the 2014 [Corporate Governance Statement](#).

### The steering effect of international commitments and initiatives and Group-level policies and instructions

	Economic responsibility	Environmental responsibility	Social responsibility: Labour practices and decent work	Social responsibility: Human Rights	Social responsibility: Society	Social responsibility: Product responsibility
Fortum's values	x	x	x	x	x	x
Fortum Code of Conduct	x	x	x	x	x	x
Fortum Supplier Code of Conduct	x	x	x	x	x	x
The United Nations Universal Declaration of Human Rights			x	x		
The United Nations Convention on the Rights of the Child			x	x		x
The core conventions of the International Labour Organisation			x	x		
The UN Global Compact initiative	x	x	x	x	x	
The UN Caring for Climate initiative		x				
The statutes of the OECD Guidelines for Multinational Enterprises	x	x	x	x	x	x
The International Chamber of Commerce's anti-bribery and anti-corruption guidelines	x				x	
The Bettercoal initiative's Code on responsible coal mining	x	x	x	x	x	
Group risk policy	x	x	x	x	x	x
Sustainability policy (including environmental, and occupational health and safety policies)	x	x	x	x	x	x
Fortum guidelines and minimum requirements for EHS management		x	x	x	x	
Biodiversity guidelines		x			x	
Guidelines on sustainability assessment		x	x	x	x	
Human resources policy			x	x	x	

Fortum Accounting manual	x				x
Group manual on investment evaluation and approval procedure	x				x
Fortum Group instructions for anti-bribery	x				x
Fortum Group instructions for safeguarding assets	x				x
Group instructions for conflicts of interest	x				x
Group instructions on Competition Law	x				x
Fortum security guidelines		x	x	x	x
Sponsorship steering document					x
Responsible advertising and marketing guidelines					x
Environmental marketing guidelines					x

## Economic

Economic performance indicators	Description
<b>Material aspects</b>	<p>Economic performance</p> <p>Plant decommissioning (sector-specific aspect)</p> <p>System efficiency (sector-specific aspect)</p>
<b>Targets</b>	<p>Our goal is to achieve excellent financial results in strategically selected core areas through strong expertise and responsible ways of operating. We believe that competitiveness, security of supply and market-driven production enable long-term profitable growth. A financially strong company can shoulder responsibility for the environment, take care of its employees, monitor its supply chain, meet customer expectations, and produce excellent value to its shareholders.</p> <p>Each new research and development target is assessed against the criteria of carbon dioxide emissions reduction and resource efficiency. Likewise, each new investment proposal is assessed against sustainability criteria as part of Fortum's investment assessment and approval process. In our investments we seek the kinds of economically profitable alternatives that provide the opportunity to increase capacity and reduce emissions.</p> <p>We measure financial performance with the return on capital employed (target: 12%), return on shareholders' equity (target: 14%), and capital structure (target: comparable net debt/EBITDA about 3).</p> <p>The realisation of financial targets in 2014 is reported in the Financial performance and position section of the Financial Statements.</p> <p>Read more:  <a href="#">Financial performance and position section of the Financial Statements</a></p>
<b>Policies</b>	<p>The financial management system is based on Group-level policies and their specifying instructions, and on good governance, effective risk management, sufficient controls and the internal audit principles supporting them. Other key elements steering financial management are presented in the table Steering effect of international commitments, initiatives, Fortum policies and instructions.</p> <p>Read more:  <a href="#">The steering effect of Group-level policies, instructions, and international commitments and initiatives -table</a></p>
<b>Responsibilities</b>	<p>The CFO and the Group's Financial unit, division management, and ultimately the CEO and the Board of Directors, are responsible for issues related to finances and financial statements and for broader financial responsibility issues.</p> <p>The Group's short-term incentive (STI) system contains financial key indicators. The STI covers all Fortum employees.</p> <p>Read more:  <a href="#">Group's short-term incentive (STI) system</a></p>
<b>Specific actions</b>	<p>We arranged special training about taxation-related risks, such as changes in the tax landscape and new markets, and about risks related to fixed sites.</p>

Read more:

[Fortum as a tax payer](#)

<b>Monitoring and follow-up</b>	The Board decides on the company's financial targets as a part of the annual business planning process. Realisation of the targets is monitored on monthly basis both at the division level and by Fortum's Executive Management Team. Fortum's management monitors the realisation of financial targets quarterly as part of the business performance assessment, and key indicators are regularly reported to Fortum's Board of Directors. Financial key indicators related to investments are monitored in investment forums.
<b>Results</b>	<p>Fortum's net sales for 2014 were EUR 4,751 million and the net cash from operating activities was a strong EUR 1,762 million. After distributing added value to stakeholders, EUR 4,005 million was left to develop our own operations.</p> <p>Taxes borne for the financial period were EUR 156 million in Finland and EUR 279 million in Sweden. Our tax footprint provides a more detailed picture of us as a tax payer.</p> <p>Our biggest investments, EUR 340 million, were in Russia.</p> <p>Our performance in material aspects of economic responsibility is reported in more detail in the following sections:</p> <p><a href="#">Economic performance: EC1, EC2, EC3, EC4</a></p> <p><a href="#">Pensions: Financial Statements, Note 32 Pension obligations</a></p> <p><a href="#">Plant decommissioning: Financial Statements, Note 30</a></p> <p><a href="#">System efficiency: EU11, EU12</a></p>

## Environment

Environmental performance indicators	Description
<b>Material aspects</b>	<ul style="list-style-type: none"> <li>Materials</li> <li>Energy</li> <li>Water</li> <li>Biodiversity</li> <li>Emissions</li> <li>Effluents and waste</li> <li>Compliance</li> <li>Supplier environmental assessment</li> <li>Environmental grievance mechanisms</li> </ul>
<b>Targets</b>	<p>In environmental responsibility, we emphasise the efficient use of natural resources and the need to mitigate climate change. Our expertise in carbon dioxide-free hydro and nuclear power production and in energy-efficient CHP production helps us in realising environmental responsibility. Through research and development work we are creating prerequisites for environmentally benign energy solutions.</p> <p>We measure the realisation of the environmental responsibility with the following indicators, for which we have set Group-level targets:</p> <ul style="list-style-type: none"> <li>- Specific CO<sub>2</sub> emissions</li> <li>- Energy efficiency</li> <li>- Significant environmental non-compliances</li> <li>- Number of supplier audits (aspect: supplier environmental assessment)</li> </ul> <p>The realisation of our environmental targets in 2014 is reported in the Strategy section in the table Sustainability targets and performance in 2013-2014.</p> <p>Supply chain management is reported in the Strategy section table Other sustainability targets and related performance in 2013-2014 as well as in the indicator EN32.</p> <p>Read more:</p> <p><a href="#">Sustainability targets and performance in 2013-2014</a></p> <p><a href="#">Supply chain management in the indicator EN32</a></p>
<b>Policies</b>	<p>Environmental management is based on Fortum's sustainability policy and on the Group's goal to certify all operative functions in accordance with the ISO 14001 standard. The other key steering elements of environmental management are presented in the table Steering effect of international commitments, initiatives, Fortum policies and instructions.</p>

We assess environmental risks as part of the Group's risk assessment process.

Read more:

[International commitments, initiatives, Fortum policies and instructions](#)

[Risk management](#)

**Responsibilities**

The management of the divisions and the Group functions, and ultimately the CEO and the Board of Directors, are responsible for issues related to sustainability. The Board has not appointed any member to be specifically responsible for sustainability issues; instead, its decisions rely on the knowledge of Fortum's Executive Management Team and the Group's sustainability experts, and on expert statements.

The Group's short-term incentive (STI) system contains environmental key indicators. The STI covers all Fortum employees.

Read more:

[Short-term incentive system](#)

**Specific actions**

We have described our actions to reduce environmental impacts in the following sections:

[Environmental impacts of CHP production](#)

[Biomass and other biofuels, and waste-derived fuels](#)

[Improving energy efficiency](#)

[Compliance with the Industrial Emissions Directive \(IED\)](#)

[Hydropower production/reducing environmental impacts](#)

Investigating EHS non-compliances and implementation of corrective measures

**Monitoring and follow-up**

EHS non-compliances are reported monthly and key indicators for CO<sub>2</sub> emissions and energy efficiency are reported quarterly to the Fortum's Executive Management Team as part of the business performance assessments. The Group's key indicators are reported regularly to Fortum's Board of Directors and are published in Fortum's Interim Reports.

Internal and external auditors regularly audit our ISO 14001 standard-compliant management system. Deloitte & Touche Oy has provided limited assurance for Fortum's Finnish-language sustainability reporting with the boundaries presented in the assurance statement. We use the Dow Jones Sustainability Assessment as an external benchmark when assessing our sustainability performance. We map our stakeholders' views annually with the One Fortum survey and with separate sustainability surveys.

**Results**

At year-end, 100% of our operative functions were ISO 14001 certified.

The five-year average of our specific CO<sub>2</sub> emissions from our electricity production in EU was 60 g/kWh at the end of December 2014 and the five-year average of our specific CO<sub>2</sub> emissions from our total energy production was 198 g/kWh. Both results are better than targeted.

The efficiency of fuel-based production was 64%, and the five-year average after December 2014 was 63%, which means that the target level was not achieved.

There were 27 significant EHS non-compliances in Fortum's operations.

In 2014, Fortum conducted 14 supplier audits and the co-owned Fortum Värme conducted 9. Additionally, one of Fortum's coal suppliers completed a self-audit process in line with the Bettercoal Initiative. The self-assessment and auditing process of Fortum's biggest coal supplier was pending at the end of the year.

Our performance in material aspects of environmental responsibility is reported in more detail in the following sections:

[Group sustainability targets and performance in 2013-2014](#)

[Materials: EN1, EN2](#)

[Energy: EN3, EN5, EN6](#)

[Water: EN8](#)

[Biodiversity: FN13, EU13](#)

[Emissions: EN15, EN16, EN17, EN18, EN19, EN21](#)

[Effluents and waste EN22, EN23, EN24](#)

[Compliance: EN29](#)

[Supplier environmental assessments: FN32, FN33](#)

[Grievance mechanisms related to the environment: Ethics and integrity and EN 34](#)

# Labour practices and decent work

**Social performance indicators: Labour practices and decent work**

Material aspects	Description
	Employment Labour/Management relations Occupational health and safety Process safety Training and education Diversity and equal opportunity Equal remuneration Supplier assessment for labour practices Labour practices grievance mechanisms

**Targets**

We aspire to be a desired and safe workplace for our employees and for contractors and service providers working for us. We believe that all injuries can be avoided. Our social responsibility targets are related to employee well-being and competence development, work and process safety, responsible business practices and responsible operations in our supply chain, and good corporate citizenship.

We measure the realisation of social responsibility with the following indicators for which we have set Group-level targets:

- Lost Workday Injury Frequency (LWIF), Fortum personnel
- Lost Workday Injury Frequency (LWIF), contractors
- Number of supplier audits (aspect: supplier labour practices)

We have set a target for Total Recordable Injury Frequency (TRIF) for Fortum personnel. From the beginning of 2015, the TRIF has been classified as a Group-level target. Our goal is to avoid serious work injuries, which we classify as fatalities and accidents resulting in a permanent disability or a long absence.

The realisation of our social responsibility targets in 2014 is reported in the Strategy section in the table Sustainability targets and performance in 2013-2014. TRIF and supply chain management are reported in the Strategy section table Other sustainability targets and related performance in 2013-2014.

Read more:  
[Sustainability targets and achievements in 2013-2014](#)

**Policies**

Safety management is based on Fortum’s sustainability policy and on the Group’s target to certify all operative functions in accordance with the OHSAS 18001 standard. The other key elements steering safety management are presented in the table Steering effect of international commitments, initiatives, Fortum policies and instructions.

We assess safety risks as part of the Group’s risk assessment process. Everyday safety management is guided with about 20 Group-level Environment, Health and Safety (EHS) instructions and EHS training events. The Group-level instructions are supported by local-level instructions, which address in more detail the material safety issues and local special requirements. They include, e.g., nuclear power plant safety and dam safety. The instructions cover Fortum employees and contractor employees.

Personnel management is based on Fortum’s human resources policy and the supporting Group-level HR processes: strategic planning, recruiting, personnel development, performance management, remuneration, and employment and workforce administration.

Read more:  
[International commitments, initiatives, Fortum policies and instructions](#)  
[Risk assessment process](#)

**Responsibilities**

The management of the divisions and the Group functions, and ultimately the CEO and the Board of Directors, are responsible for issues related to sustainability. The Board has not appointed any member to be specifically responsible for sustainability issues; instead, its decisions rely on the knowledge of Fortum’s Executive Management Team and the Group’s sustainability experts, and on expert statements.

The Group’s short-term incentive (STI) system contains occupational safety key indicators. The STI covers all Fortum employees.

Read more:

[Short-term incentive system](#)

**Specific actions**

Our safety development work is based on continuous improvement. In 2014 we developed the assessment of contractor performance and the Group-level environment, health and safety instructions. We have described these actions in Our stakeholders section.

We assess the level of operations of our business partners through pre-selection and supplier audits. During the year we arranged one training event for contractors in Sweden focusing on the Supplier Code of Conduct's requirements and work safety practices. A total of 50 service and goods suppliers took part in the training.

Read more:

[Safety actions](#)

**Monitoring and follow-up**

Fortum employee and contractor Lost Workday Injury Frequency (LWIF) is reported monthly to Fortum's Executive Management Team. The key indicators for safety are reported to the Executive Management Team every quarter as part of the business performance assessment. The Group's key indicators are reported regularly to Fortum's Board of Directors and are published in Fortum's Interim Reports.

Monitoring work well-being is part of the Fortum Sound employee survey. The survey's well-being index measures employee views on, e.g., the openness of the dialogue in the work community, personal accountability, and how challenging work tasks are.

In addition to the work well-being index, work well-being is monitored also with other Group-level indicators, like illness-related absences, reported quarterly to the Executive Management Team, and the ratio between actual retirement age and the statutory start of the retirement pension.

The results of the supplier surveys and audits assessing the realisation of labour rights and practices are recorded along with corrective measures into the supplier database, which is accessible to all Fortum employees. Fortum has set a Group target for the number of audits, and the audits that are conducted are reported quarterly to operative management.

Internal and external auditors regularly audit our OHSAS 18001 standard-compliant management system.

Deloitte & Touche Oy has provided limited assurance for Fortum's Finnish-language sustainability reporting with the boundaries presented in the assurance statement. We use the Dow Jones Sustainability Assessment as an external benchmark when assessing our sustainability performance. We map our stakeholders' views annually with the One Fortum survey and with separate sustainability surveys.

**Results**

At year-end, 74% of our operative functions were OHSAS 18001 certified.

Fortum's Lost Workday Injury Frequency (LWIF) was 1.0 in 2014. It meets the Group-level injury frequency target, which is less than one injury per million working hours for own employees. The Lost Workday Injury Frequency for contractors was 3.2, which is also better than the target of 3.5. Unfortunately, in 2014 there were three fatal accidents involving contractor employees in Fortum's operations. Because of these fatalities, all construction sites and important maintenance work were inspected in terms of high-risk work and work performed at heights.

Our performance in the material aspect of labour practices and decent work are reported in more detail in the following sections:

[Employment: G4-10, G4-11, LA1, LA2 and EU18](#)

[Labour/Management relations: LA4](#)

[Occupational health and safety: LA5, LA6](#)

[Process safety](#)

[Training: LA9, LA10, LA11](#)

[Diversity and equal opportunity: LA12](#)

[Equal remuneration: LA13](#)

[Supplier assessment: environment, labour practices and human rights: LA14, LA15](#)

[Labour practices grievance mechanisms: LA16](#)

# Human rights

Social performance indicators: Human rights	Description
<b>Material aspects</b>	<p>Investment</p> <p>Non-discrimination</p> <p>Freedom of association and collective bargaining</p> <p>Child labour</p> <p>Forced or compulsory labour</p> <p>Assessment</p> <p>Supplier human rights assessment</p> <p>Human rights grievance mechanisms</p>
<b>Targets</b>	<p>Our goal is to operate in accordance with the UN Guiding Principles on Business and Human Rights, and to apply these principles in our own operations as well as in country and partner risk assessments and supplier audits.</p> <p>Our social responsibility includes operating as a good corporate citizen and taking care of our own employees and the surrounding communities. We advance the well-being and safety of the work community, respect for individuals, and mutual trust and responsible operations in our supply chain and more broadly in society.</p> <p>We have set a Group-level target for the number of supplier audits. Supply chain management is reported in the Strategy section in the table Other sustainability targets and related performance in 2013-2014 and in the HR indicators we have reported.</p> <p>Read more:  <a href="#">Sustainability targets and achievements in 2013-2014</a></p>
<b>Policies</b>	<p>The elements of our human rights management are described in the table Steering effect of international commitments, initiatives, Fortum policies and instructions.</p> <p>Read more:  <a href="#">International commitments, initiatives, Fortum policies and instructions</a></p>
<b>Responsibilities</b>	<p>The management of the divisions and the Group functions, and ultimately the CEO and the Board of Directors, are responsible for issues related to sustainability. The Board has not appointed any member to be specifically responsible for sustainability issues; instead, its decisions rely on the knowledge of Fortum's Executive Management Team and the Group's sustainability experts, and on expert statements.</p>
<b>Specific actions</b>	<p>Fortum has included the UN Guiding Principles on Business and Human Rights (protect-respect-remedy) as a part of a systematic country and counterparty risk assessment.</p> <p>A sustainability assessment is carried out for all of our investment projects and takes into consideration the environmental, occupational health and safety, and social impacts of the project. Projects requiring approval by the Fortum Executive Management Team are additionally subject to an assessment and approval by Group-level sustainability experts. The sustainability assessment includes a human rights evaluation, especially in new operating areas.</p> <p>We assess the level of operations of our business partners through pre-selection and supplier audits.</p>
<b>Monitoring and follow-up</b>	<p>The results of the supplier surveys and audits assessing the realisation of labour rights and practices are recorded along with corrective measures into the supplier database, which is accessible to all Fortum employees. Fortum has set a Group target for the number of audits, and the audits that are conducted are reported quarterly to operative management.</p> <p>Country-specific reports that address also human rights are presented to Fortum's Board of Directors when needed.</p> <p>Deloitte &amp; Touche Oy has provided limited assurance for Fortum's Finnish-language sustainability reporting with the boundaries presented in the assurance statement. We use the Dow Jones Sustainability Assessment as an external benchmark when assessing our sustainability performance. We map our stakeholders' views annually with the One Fortum survey and with separate sustainability surveys.</p>
<b>Results</b>	<p>In 2014 a human rights impact assessment was conducted for 30 countries. A more detailed country assessment was conducted for two countries.</p> <p>Our performance in the material aspect of human rights is reported in more detail in the following sections:  <a href="#">Investment: HR1, HR2</a></p>

[Non-discrimination: HR3](#)  
[Freedom of association and collective bargaining, Child labour, and Forced or compulsory labour: HR4, HR5, HR6](#)  
[Assessment: HR9](#)  
[Supplier human rights assessments: HR10, HR11](#)  
[Human rights grievance mechanisms: HR12](#)

## Society

Social performance indicators: Society	Description
<b>Material aspects</b>	<p>Local communities                      Anti-corruption                      Public policy                      Anti-competitive behaviour                      Compliance                      Grievance mechanisms for impacts on society                      Disaster/Emergency planning and response (sector-specific aspect)</p>
<b>Targets</b>	<p>We believe that an excellent financial result and ethical business are intertwined. We follow good business practices and ethical principles in all our operations. We compete fairly and ethically and work within the framework of applicable competition laws and Group competition instructions. We avoid all situations where our own personal interests may conflict with the interests of the Fortum Group. Notably, we never accept or give a bribe or other improper payment for any reason.</p> <p>Our customer relations are based on honesty and trust. We treat our suppliers and subcontractors fairly and equally. We select them based on their merit and we expect them to consistently comply with our requirements and with Fortum's Supplier Code of Conduct.</p> <p>We report on our compliance with regulations and on the ethicalness of our business in the Governance section, and in the GRI section under Ethics and integrity.</p> <p>Read more:  <a href="#">Compliance</a>  <a href="#">Ethics and integrity</a></p>
<b>Policies</b>	<p>The elements of our social and compliancy management practices are described in the table Steering effect of international commitments, initiatives, Fortum policies and instructions.</p> <p>Read more:  <a href="#">International commitments, initiatives, Fortum policies and instructions</a></p>
<b>Responsibilities</b>	<p>The management of the divisions and the Group functions, and ultimately the CEO and the Board of Directors, are responsible for issues related to sustainability. The Board has not appointed any member to be specifically responsible for sustainability issues; instead, its decisions rely on the knowledge of Fortum's Executive Management Team and the Group's sustainability experts, and on expert statements.</p>
<b>Specific actions</b>	<p>Code of Conduct training is provided as part of the induction programme of all new employees. During the year, special training was continued on anti-corruption and anti-competitive behaviour.</p> <p>A renewal of the online training course on the Code of Conduct is planned to be implemented in 2015.</p> <p>Read more:  <a href="#">Compliance Management and Code of Conduct</a></p>
<b>Monitoring and follow-up</b>	<p>The risk assessment on compliance is part of the Group's risk assessment process, and the results are reported twice per year as part of the business performance assessment process. Significant risks and violations are reported regularly to the Audit and Risk Committee.</p> <p>Fortum has a channel available to all stakeholder groups for the reporting of misconduct.</p> <p>Read more:</p>

[Risks and violations](#)

<b>Results</b>	<p>The suspected misconduct reported in 2014 and their classifications are reported under Ethics and integrity.</p> <p>Our performance in material social aspects is reported in more detail in the following sections:</p> <p><a href="#">Local communities: SO2</a></p> <p><a href="#">Anti-corruption: SO3, SO4, SO5</a></p> <p><a href="#">Anti-competitive behaviour: SO7</a></p> <p><a href="#">Compliance: SO8</a></p> <p><a href="#">Disaster/Emergency planning and response</a></p>
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## Product responsibility

Social performance indicators: Product responsibility	Description
<b>Material aspects</b>	<p>Product and service labelling</p> <p>Marketing communications</p> <p>Access (sector-specific aspect)</p>
<b>Targets</b>	<p>Our goal is to present products and services truthfully in all our marketing and communication materials. We do not present misleading statements and we strictly follow responsible marketing communication guidelines. In statements regarding environmental issues, we follow the regulations for environmental marketing.</p> <p>We offer our customers environmentally friendly electricity and heat products and services, and we are one of the leading suppliers of CO<sub>2</sub>-free electricity in the Nordic markets.</p> <p>We have set Group-level targets:</p> <ul style="list-style-type: none"> <li>- SAIDI (system average interruption duration index)</li> <li>- Energy availability of CHP plants</li> <li>- Customer satisfaction</li> </ul> <p>The realisation of our availability and customer satisfaction targets in 2014 is reported in the Strategy section in the table Sustainability targets and performance in 2013-2014. Compliance is reported in the indicator PR7.</p> <p>Read more:</p> <p><a href="#">Electricity and heat products and services</a></p> <p><a href="#">Sustainability targets and performance in 2013-2014</a></p>
<b>Policies</b>	<p>The elements of our management practices related to product responsibility are described in the table Steering effect of international commitments, initiatives, Fortum policies and instructions. Additionally, our operations are guided by responsible marketing and environmental marketing guidelines.</p> <p>Read more:</p> <p><a href="#">International commitments, initiatives, Fortum policies and instructions</a></p>
<b>Responsibilities</b>	<p>The management of the divisions and the Group functions, and ultimately the CEO and the Board of Directors, are responsible for issues related to sustainability. The Board has not appointed any member to be specifically responsible for sustainability issues; instead, its decisions rely on the knowledge of Fortum's Executive Management Team and the Group's sustainability experts, and on expert statements.</p>
<b>Specific actions</b>	<p>In 2014, we started the Customer in the Centre campaign.</p> <p>We constantly have several projects under way to improve the availability and reliability of CHP plants. In 2014, we made improvements in, e.g., fuel feed systems, steam circuits, and electricity and automation systems. The average energy availability of Fortum's CHP plants in 2014 was 94.7%; the annual target was 95%. We improved the availability of our hydropower plants with refurbishments. The load factor describing the availability of the Loviisa nuclear power plant was high by international standards: 90.9% (2013: 92.5%).</p>

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Read more:

[Customer in the Centre campaign](#)

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**Monitoring and follow-up**

The SAIDI and energy availability results are reported monthly to Fortum's Executive Management Team. Additionally, the key indicators are reported quarterly to the Executive Management Team as a part of the business performance assessments. The Group's key indicators are reported regularly also to Fortum's Board of Directors and are published in Fortum's interim reports.

Customer satisfaction is monitored annually with the One Fortum survey and the EPSI customer satisfaction survey. The results of the surveys are presented to Fortum's management and they are used to develop the business. Customer satisfaction and Fortum's reputation are part of the Group-level sustainability target setting, and they are reported annually to the Board of Directors.

Compliance is reported on twice per year as part of the business performance assessments.

Read more:

[One Fortum survey and the EPSI customer satisfaction survey](#)

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**Results**

In 2014, there were no marketing communication or product labelling violations. We served our customers well and our customer satisfaction improved in all divisions.

In 2014, the average duration of power outage per customer (SAIDI) was 97 minutes in Sweden, which is better than the target of 100 minutes.

The average energy availability of Fortum's CHP plants was 94.7%, which is slightly lower than the target of 95%.

Read more:

[Customer satisfaction](#)

[Power outages and plant availability](#)

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## Ethics and integrity

We believe there is a clear connection between high standards of ethical business practices and excellent financial results. As an industry leader, we go beyond simply obeying the law: we embrace the spirit of integrity and uphold the highest standards of ethical business conduct wherever we operate. The [Fortum Code of Conduct](#) and [Fortum Supplier Code of Conduct](#) articulate that spirit by defining how we treat others, engage in business, and safeguard our corporate assets, and what we expect from our suppliers and business partners.

Fortum's [Board of Directors](#) is responsible for the company's mission and values and has approved the Fortum Code of Conduct. The Supplier Code of Conduct, based on the 10 principles of the UN Global Compact, has been approved by the Head of Procurement and purchasing steering group.

Compliance risks are managed as part of Fortum's operational [risk management framework and control procedures](#). This process also includes risks related to sustainability and business ethics. A systematic compliance risk assessment is included in the annual business planning process, and follow-up is a part of the quarterly performance review. Line management regularly reports on the business ethical compliance activities to the

Fortum Executive Management Team and further to the Audit and Risk Committee.

Fortum's compliance process includes a [grievance mechanism](#). The same mechanism is used for reporting any suspected misconduct relating to the environment, labour practices, decent work or human rights violations. "The Raise a concern" channel is available for all stakeholders and may also be used by suppliers and partners to report cases of suspected misconduct related to the procurement process. In Russia, Fortum has a separate compliance organisation in place and employees are encouraged to use the channels provided by the compliance organisation. They may, however, also use the "Raise a concern" channel should they so wish.

In 2014, altogether 225 concerns were raised. The vast majority of the concerns, 197, were received via the channels provided in Russia. During the reporting period, 113 cases led to an investigation and 98 investigations were closed. At the end of the year, there were 15 investigations ongoing, 11 of which in Russia. Two concerns by suppliers were raised via the "Raise a concern" channel. Both were related to a possible conflict of interest; the investigations were still ongoing at year-end.

Roughly half of the investigated cases were related to non-compliance either with

company rules or with laws and regulations. In these cases, corrective action was taken by reviewing and developing existing processes and instructions and by providing training to employees. Fortum has zero tolerance towards alcohol and drug use. Some 19% of the cases were related to alcohol abuse during working hours. As the result of the investigations, nine employment contracts were terminated either by immediate dismissal or by mutual agreement, and 11 written warnings were given. The number of cases reported to police was 4; these have advanced to court proceedings. In 23 of the cases investigated, there was no cause for actions to be taken.

No cases of suspected corruption or bribery were detected in 2014. At the end of 2014, the local district court in Sweden issued a decision on a matter that was reported in Fortum's Sustainability Report 2013, relating to a possible malpractice of a person employed by the joint venture Fortum Värme. The person was found guilty of accepting bribes and condemned to conditional imprisonment and fines. The parties have appealed the decision. The employment contract was terminated in 2013. In addition, a suspected case of bribery targeting a former Fortum employee and originating from the year 2006 is due in court in Sweden in March 2015. The employment contract was terminated in 2006.

# Assurance

Fortum reports on sustainability as part of the Annual Report. The 2014 Annual Report is published in Finnish and English on our website at [annualreport2014.fortum.com](http://annualreport2014.fortum.com). Information about sustainability has been compiled in accordance with the GRI G4 Reporting Guidelines. The reporting takes into consideration the Electric Utility Sector Disclosures. In our own assessment, our reporting follows the core option of the GRI G4 Reporting Guidelines. We have also adhered to the AA1000 Accountability

Principles Standard (AA1000APS) in our reporting.

Fortum Oyj's auditor Deloitte & Touche Oy has provided limited assurance for the sustainability information presented on Fortum's Finnish language website with the boundaries presented in the assurance statement.

Deloitte & Touche Oy has also provided limited assurance for emissions calculations (Scope 1-3) based on the GHG protocol

according to the requirements published by CDP (Verification of Climate Data). The assurance statement will be delivered to CDP as part of Fortum's CDP reporting.

The report content is not updated after assurance, and any amendments to the content will be reported the following year.

## Read more about

- [Assurance statement](#)

## Assurance statement

### Independent assurance report on Fortum's sustainability reporting

#### To the Management of Fortum Corporation

We have been engaged by Fortum Corporation (hereafter: Fortum) to provide limited assurance on Fortum's sustainability reporting for the reporting period of January 1, 2014 to December 31, 2014. The information subject to the assurance engagement is the sustainability performance data in sections "This is Fortum", "Business", "In Society" and "GRI" of the Annual Report 2014 (hereafter: Sustainability reporting material). The information subject to the assurance engagement is the Finnish version of the reporting published in the website <http://annualreport2014.fortum.com/fi>

Furthermore, the assurance engagement has covered Fortum's adherence to the AA1000 AccountAbility Principles with moderate level of assurance.

#### Management's responsibility

Management is responsible for the preparation of the Sustainability reporting material in accordance with the Reporting criteria as set out in Fortum's reporting principles, the Sustainability Reporting Guidelines (G4 Core) of the Global Reporting Initiative and principles of inclusivity, materiality and responsiveness as set out in the AA1000 AccountAbility Principles (2008) (AA1000APS). This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation

and fair presentation of the Sustainability reporting material that are free from material misstatement, selecting and applying appropriate criteria and making estimates that are reasonable in the circumstances. The scope of the Sustainability reporting material and the information included therein depends on the material sustainability aspects identified by Fortum's as well as Fortum's reporting principles.

#### Auditor's responsibility

Our responsibility is to express a limited (moderate) assurance conclusion on the Fortum's Sustainability reporting material based on our engagement. This assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Fortum for our work, for this report, or for the conclusions we have reached.

We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 to provide public limited assurance on performance data within the Fortum's Sustainability reporting material. In addition, we have used the criteria in AA1000 Assurance Standard (2008) to evaluate the adherence to principles as set out in AA1000APS (2008) for type 1 moderate level assurance. This requires that we plan and perform the engagement to obtain required level of assurance about whether any matters come to our attention that cause us to believe that the Sustainability reporting material has not been prepared, in all

material respects, in accordance with the Reporting criteria.

We did not perform any assurance procedures on the prospective information, such as targets, expectations and ambitions, disclosed in the Sustainability reporting material. Consequently, we draw no conclusion on the prospective information.

A limited (moderate) assurance engagement with respect to sustainability reporting involves performing procedures to obtain evidence about the information disclosed in the Sustainability reporting material. The procedures performed depend on the practitioner's judgment, but their nature is different from, and their extent is less than, a reasonable assurance engagement. It does not include detailed testing of source data or the operating effectiveness of processes and internal controls and consequently they do not enable us to obtain the assurance necessary to become aware of all significant matters that might be identified in a reasonable assurance engagement.

Our procedures on this engagement included:

- Assessing the suitability of the reporting policies and criteria used by management and the consistent application of such policies, the inclusiveness of the stakeholders as well as the responses on the stakeholder dialogue and the overall presentation of these in the Sustainability reporting material;
- Conducting interviews with senior management responsible for sustainability at Fortum to gain an understanding of Fortum's targets for sustainability as

part of the business strategy and operations;

- Reviewing internal and external documentation to verify to what extent these documents and data support the information included in the Sustainability reporting material and evaluating whether the information presented in the Sustainability reporting material is in line with our overall knowledge of sustainability targets and management at Fortum;
- Conducting interviews with employees responsible for the collection and reporting of sustainability information and reviewing of the processes and systems for data gathering, including the aggregation of the data for the Sustainability reporting material;
- Performing analytical review procedures and testing data on a sample basis to assess the reasonability of the presented sustainability information;
- Performing a site visit to selected sites in Nyagan, Russia to review compliance to reporting policies, to assess the reliability of the sustainability data reporting process as well as to test the data collected for sustainability reporting purposes on a sample basis;
- Evaluating the application of the AA1000APS (2008) principles of stakeholder inclusivity, materiality and responsiveness;

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### Observations & Recommendations

Based on our limited (moderate) assurance engagement, we provide the following recommendations in relation to the AA1000APS (2008) principles. The recommendations are to improve Fortum's management and reporting of sustainability in

the future and they do not affect our conclusion:

- **Inclusivity** – Fortum has a comprehensive stakeholder inclusiveness process in place and throughout this process Fortum has identified the relevant key stakeholder groups for its operations. We recommend Fortum to continue regular stakeholder engagement through different channels and to continue to participate in open discussion with the general public.
- **Materiality** – Fortum has a process in place to determine important and material issues for Fortum's stakeholders. In 2014 Fortum has utilized the GRI G4 guidelines and reviewed the sustainability aspects that are material for Fortum's business and its stakeholders. We recommend Fortum to continue concentrating on the most material aspects in its sustainability reporting.
- **Responsiveness** – Fortum has adequate procedures in place to respond to issues that are material to its stakeholder and Fortum is committed to communicate responses in a manner that meets the needs and expectations of its stakeholders so they can take informed decisions. We recommend Fortum to further develop the open communication in an integrated manner to support Fortum's business.

### Our independence and competences in providing assurance to Fortum

We complied with Deloitte's independence policies which address and, in certain cases, exceed the requirements of the Code of Ethics of the International Ethics Standards Board for Accountants (IESBA) in their role as independent auditors and in particular preclude us from taking financial, commercial, governance and ownership positions which might affect, or be perceived

to affect, our independence and impartiality and from any involvement in the preparation of the Sustainability reporting material. We have confirmed to Fortum that we have maintained our independence and objectivity throughout the year and in particular that there were no events or prohibited services provided which could impair our independence and objectivity.

This engagement was conducted by a multidisciplinary team including assurance and sustainability expertise with professional qualifications. Our team is experienced in providing sustainability reporting assurance.

### Conclusion

On the basis of the procedures we have performed, nothing has come to our attention that causes us to believe the Sustainability reporting material for the year from January 1, 2014 to December 31, 2014, is not prepared, in all material respects, in accordance with the AA1000APS (2008) AccountAbility Principles or that the Sustainability reporting material is not reliable, in all material respects, with regard to the reporting criteria.

Espoo 24.3.2015

Deloitte & Touche Oy

Jukka Vattulainen  
Authorized Public  
Accountant

Lasse Ingström  
Authorized Public  
Accountant

**Deloitte.**



# GRI index

## GENERAL STANDARD DISCLOSURES

Code	Description	Section	Further information / Omission and reason for omission	Assurance <sup>1)</sup>	Global Compact
<b>STRATEGY AND ANALYSIS</b>					
G4-1	Statement from the most senior decision-maker	<a href="#">This is Fortum/CEO's review</a>			X
G4-2	Description of key impacts, risks and opportunities	<a href="#">This is Fortum/CEO's review</a> <a href="#">This is Fortum/Strategy/Sustainability embedded in the strategy</a> <a href="#">This is Fortum/Operating environment and market development</a>			X
<b>ORGANISATIONAL PROFILE</b>					
G4-3	Name of the organisation	Name of the organisation: Fortum Oyj			X
G4-4	Primary brands, products, and services	<a href="#">Business/Group Business structure</a> <a href="#">In Society/Stakeholders/Main stakeholder groups/Customers</a>			X
G4-5	Location of headquarters	<a href="#">This is Fortum/Operations and market areas</a>			X
G4-6	Countries where the organisation operates	<a href="#">This is Fortum/Operations and market areas</a> <a href="#">Business/Group Business structure</a>			X
G4-7	Nature of ownership and legal form	<a href="#">Financials/Operating and financial review/Fortum share and shareholders</a>			X
G4-8	Markets served	<a href="#">This is Fortum/Operations and market areas</a> <a href="#">Business/Group Business structure</a>			X
G4-9	Scale of the organisation	<a href="#">Business/Group Business structure</a> <a href="#">Financials/Operating and financial review/Fortum share and shareholders</a> <a href="#">Financials/Notes to the consolidated financial statements/5. Segment reporting/5.7 Group-wide disclosures</a>			X
G4-10	Workforce	<a href="#">GRI/Social/Labour Practices and Decent work/Employment/G4-10</a>  <a href="#">This is Fortum/Year 2014 in figures/Social summary</a>	Only total working hours of contractors is reported. We do not track contractors' working hours with the accuracy required by the sector supplement breakdown.	X	X
G4-11	Coverage of collective bargaining agreements	<a href="#">GRI/Social/Labour Practices and Decent work/Employment/G4-11</a>	Sector-specific requirements not reported. We do not track	X	X

*This is an automatically generated PDF document of Fortum's online Annual Report and may not be as comprehensive as the complete Annual Report, which is available at <http://annualreport2014.fortum.com/>*

			which of our contractors are within the sphere of collective bargaining agreements.		
G4-12	Supply chain	<a href="#">In Society/Stakeholders/Main stakeholder groups/Suppliers of goods and services</a> <a href="#">In Society/Generating economic value/Distribution of added value 2014</a>			X
G4-13	Significant changes during the reporting period regarding size, structure, ownership or supply chain	<a href="#">GRI/Standard disclosures/Report content</a> <a href="#">Financials/Operating and financial review/Fortum share and shareholders</a> <a href="#">In Society/Stakeholders/Main stakeholder groups/Suppliers of goods and services</a>			X
G4-14	Addressing the precautionary principle	<a href="#">Financials/Operating and financial review/Risk management/Risk management framework and objectives</a> <a href="#">GRI/Standard disclosures/Management approach</a>			
G4-15	External charters, principles or initiatives endorsed	<a href="#">GRI/Standard disclosures/Management approach</a>			
G4-16	Memberships in associations	<a href="#">In Society/Stakeholders/Main stakeholder groups/Authorities and energy industry organisations</a> <a href="#">A list of collaboration partners on Fortum's website</a>			
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES</b>					
G4-17	Entities included in the organisation's consolidated financial statements	<a href="#">Financials/Notes to the consolidated financial statements/42. Subsidiaries by segment</a> <a href="#">GRI/Standard disclosures/Report content</a>			
G4-18	Process for defining report content	<a href="#">GRI/Standard disclosures/Report content</a>			
G4-19	Material aspects identified	<a href="#">GRI/Standard disclosures/Material aspects</a>			
G4-20	Aspect boundary for each material aspect within the organisation	<a href="#">GRI/Standard disclosures/Material aspects</a>			
G4-21	Aspect boundary for each material aspect outside the organisation	<a href="#">GRI/Standard disclosures/Material aspects</a>			
G4-22	Restatements of information provided in previous reports	<a href="#">GRI/Standard disclosures/Report content</a>			
G4-23	Significant changes from previous reporting periods in the scope and aspect boundaries	<a href="#">GRI/Standard disclosures/Report content</a>			
<b>STAKEHOLDER ENGAGEMENT</b>					
G4-24	List of stakeholder groups engaged	<a href="#">In Society/Stakeholders/Main stakeholder groups</a> <a href="#">In Society/Stakeholders/Stakeholder collaboration</a>			X
G4-25	Identification and selection of stakeholders	<a href="#">In Society/Stakeholders/Stakeholder collaboration</a>			X

G4-26	Approaches to stakeholder engagement	<a href="#">In Society/Stakeholders/Stakeholder collaboration</a>			X
G4-27	Key topics and concerns raised through stakeholder engagement	<a href="#">In Society/Stakeholders/Stakeholder collaboration</a> <a href="#">In Society/Stakeholders/Main stakeholder groups</a> <a href="#">Business/Our operations/Hydropower/Stakeholder views</a> <a href="#">Business/Our operations/Nuclear power/Stakeholder views</a>			X
<b>REPORT PROFILE</b>					
G4-28	Reporting period	<a href="#">GRI/Standard disclosures/Report content</a>			X
G4-29	Date of the previous report	<a href="#">GRI/Standard disclosures/Report content</a>			X
G4-30	Reporting cycle	<a href="#">GRI/Standard disclosures/Report content</a>			X
G4-31	Contact information	<a href="#">Contact information</a>			X
G4-32	GRI content index	<a href="#">GRI/GRI-index</a> <a href="#">GRI/Assurance</a>			X
G4-33	Approach regarding external assurance	<a href="#">GRI/Assurance</a>			
<b>GOVERNANCE</b>					
G4-34	Governance structure and committees	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum</a>			X
G4-35	Delegating authority	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum</a> <a href="#">GRI/Standard disclosures/Management approach (Subtopics)</a>			X
G4-36	Positions with responsibility	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum</a> <a href="#">GRI/Standard disclosures/Management approach (Subtopics)</a>			X
G4-37	Consultation with stakeholders	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum</a> <a href="#">In Society/Stakeholders</a>			X
G4-38	Composition of the Board of Directors	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/ Board of Directors</a>			X
G4-39	Position of the Chair of the Board	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/ Board of Directors</a>			X
G4-40	Selection of the Board	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/ Shareholders' Nomination Board</a>			X
G4-41	Avoiding conflicts of interest	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/ Board of Directors</a>			X
G4-42	Board's role in setting the organisation's purpose, values and strategy	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/ Board of Directors</a> <a href="#">Governance/Corporate Governance Statement/Internal controls in relation to financial reporting/Compliance Management and Code of Conduct</a>			X

		<a href="#">Financials/Operating and financial review/Financial performance and position/Sustainability</a>			
G4-43	Board's knowledge	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/Shareholders' Nomination Board</a>			X
G4-44	Board's performance evaluation	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/Board of Directors</a>			X
G4-45	Board's role in the identification and management of risks	<a href="#">Financials/Operating and financial review/Risk management In Society/Stakeholders</a>			X
G4-46	Reviewing the effectiveness of risk management	<a href="#">Financials/Operating and financial review/Risk management</a>			X
G4-47	Frequency of risk reviews	<a href="#">Financials/Operating and financial review/Risk management</a>			X
G4-48	Approval of the sustainability report	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/Board of Directors</a> <a href="#">Working order of the Board on Fortum's website</a>			X
G4-49	Communicating critical concerns	<a href="#">GRI/Standard disclosures/Ethics and integrity</a> <a href="#">Governance/Corporate Governance Statement/Internal controls in relation to financial reporting/Compliance Management and Code of Conduct</a>			X
G4-50	Critical concerns reported to the Board	<a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/Board Committees</a>			X
G4-51	Remuneration policies for the Board and senior executives	<a href="#">Governance/Remuneration</a>			X
G4-52	Remuneration	<a href="#">Governance/Remuneration</a>			X
G4-53	Inclusiveness of stakeholders' views regarding remuneration	<a href="#">Governance/Remuneration</a> <a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/Shareholders' Nomination Board</a>			X
<b>ETHICS AND INTEGRITY</b>					
G4-56	Values and business principles	<a href="#">Governance/Corporate Governance Statement/Internal controls in relation to financial reporting/Compliance Management and Code of Conduct</a>			X
G4-57	Advice on ethical and lawful behaviour	<a href="#">Governance/Corporate Governance Statement/Internal controls in relation to financial reporting/Compliance Management and Code of Conduct</a>			X
G4-58	Reporting concerns about unethical or unlawful behaviour	<a href="#">Governance/Corporate Governance Statement/Internal controls in relation to financial reporting/Compliance Management and Code of Conduct</a> <a href="#">GRI/Standard disclosures/Ethics and integrity</a>			X
<b>GENERAL STANDARD DISCLOSURES FOR SECTOR (ELECTRIC UTILITY)</b>					
EU1	Installed capacity	<a href="#">GRI/Environmental/Energy/EN3</a>			

EU2	Net energy output	<a href="#">This is Fortum/Year 2014 in figures/Sales and production</a>	We do not disclose a country-specific breakdown of production volumes.		
EU3	Number of customer accounts	<a href="#">Business/Our operations/Power and heat distribution/Power distribution</a>			
EU4	Length of transmission and distribution lines	<a href="#">GRI/Economic/System efficiency/EU12</a>			
EU5	Allocation of CO <sub>2</sub> emission allowances	<a href="#">GRI/Economic/Economic performance/EC2</a>			

1) X = Externally assured

## SPECIFIC STANDARD DISCLOSURES

Code	Description	Section <sup>2)</sup>	Further information / Omission and reason for omission	Assurance <sup>1)</sup>	Global Compact
<b>DISCLOSURES ON MANAGEMENT APPROACH</b>					
G4-DMA	Management approach	<a href="#">GRI/Standard disclosures/Management approach</a>			
<b>ECONOMIC RESPONSIBILITY</b>					
G4-DMA	Management approach to economic responsibility	<a href="#">GRI/Standard disclosures/Management approach/Economic</a>			X
<b>Economic performance</b>					
G4-EC1	Direct economic value generated and distributed	<a href="#">EC1</a>		X	
G4-EC2	Financial implications and other risks and opportunities due to climate change	<a href="#">EC2</a>	Costs of managing climate change risks and opportunities are not reported. Management of risks and opportunities is an integral part of Fortum's strategy and therefore classified as business-confidential information.	X	X
G4-EC3	Coverage of the organization's defined benefit plan obligations	<a href="#">EC3</a>		X	
G4-EC4	Financial assistance received from government	<a href="#">EC4</a>	Assistance by type and by country is not reported. The total amount of assistance received is not significant.	X	
<b>Plant decommissioning</b>					
G4-DMA	Management approach	<a href="#">Plant decommissioning</a> <a href="#">Financials/Notes to the consolidated financial statements/30. Nuclear related assets and liabilities</a>			

System efficiency					
EU11	Average generation efficiency of thermal plants	<a href="#">EU11</a>		X	
EU12	Transmission and distribution losses	<a href="#">EU12</a>	Transmission and distribution losses and technical and non-technical losses are not itemised; they are reported as a whole. Data is not collected at this level of detail.	X	
ENVIRONMENTAL RESPONSIBILITY					
G4-DMA	Management approach to environmental responsibility	<a href="#">GRI/Standard disclosures/Management approach/Environment</a>	More detailed information on management approach to environmental responsibility is disclosed in conjunction with some aspects and the description of their indicators.		X
Materials					
G4-EN1	Use of materials	<a href="#">EN1</a>	PCB inventory is not reported. The information is not available. The aim is to have an inventory by 2020.	X	X
G4-EN2	Recycled materials used	<a href="#">EN2</a>		X	X
Energy					
G4-EN3	Energy consumption within the organisation	<a href="#">EN3</a>		X	X
G4-EN5	Energy intensity	<a href="#">EN5</a>		X	X
G4-EN6	Reduction of energy consumption	<a href="#">EN6</a> <a href="#">Business/Our operations/Electricity and heat sales/Energy-efficiency services</a>		X	X
Water					
G4-EN8	Total water withdrawal by source	<a href="#">EN8</a>		X	X
Biodiversity					
G4-EN13	Habitats protected or restored	<a href="#">EN13</a>		X	X
EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	<a href="#">EU13</a>		X	
Emissions					
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	<a href="#">EN15</a> <a href="#">This is Fortum/Year 2014 in figures/Environmental summary</a> <a href="#">EN18</a>		X	X
G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope 2)	<a href="#">EN16</a>		X	X
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	<a href="#">EN17</a>		X	X
G4-EN18	Greenhouse gas (GHG) emissions intensity	<a href="#">EN18</a> <a href="#">This is Fortum/Year 2014 in figures/Environmental summary</a>		X	X
G4-EN21	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions	<a href="#">EN21</a>		X	X

		<a href="#">This is Fortum/Year 2014 in figures/ Environmental summary</a>			
<b>Effluents and waste</b>					
G4-EN22	Total water discharge by quality and destination	<a href="#">EN22</a>	Emissions are not broken down by effluent treatment method. The aim is to have a breakdown by 2018.	X	X
G4-EN23	Total weight of waste by type and disposal method	<a href="#">EN23</a>  <a href="#">Business/Our operations/Nuclear power/Nuclear waste management</a> <a href="#">This is Fortum/Year 2014 in figures/ Environmental summary</a>		X	X
G4-EN24	Total number and volume of significant spills	<a href="#">EN24</a>		X	X
<b>Compliance</b>					
G4-EN29	Significant fines and non-monetary sanctions for noncompliance with environmental laws and regulations	<a href="#">EN29</a>		X	X
<b>Supplier environmental assessment</b>					
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	<a href="#">GRI/Social/Labour Practices and Decent work/Supplier assessment: Environment, labour practices and human rights</a>		X	X
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	<a href="#">EN33</a>		X	X
<b>Environmental grievance mechanisms</b>					
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	<a href="#">EN34</a>  <a href="#">GRI/Standard disclosures/Ethics and integrity</a>		X	X
<b>SOCIAL RESPONSIBILITY: LABOUR PRACTICES AND DECENT WORK</b>					
G4-DMA	Management approach to social responsibility, labour practices and decent work	<a href="#">GRI/Standard disclosures/Management approach/Labour practices and decent work</a>	More detailed information on management approach to social responsibility is disclosed in conjunction with some aspects and the description of their indicators.		X
<b>Employment</b>					
G4-LA1	New employee hires and employee turnover	<a href="#">LA1</a>  <a href="#">This is Fortum/Year 2014 in figures/ Social summary</a>		X	X
G4-LA2	Employee benefits by significant operating countries	<a href="#">LA2</a>	Breakdown of employee benefits is not done by country. The aim is to have a breakdown by 2018.	X	
EU18	Contractor and subcontractor employees that have undergone relevant health and safety training	<a href="#">EU18</a>	The number of trained contractors is reported as a whole, not by contractor group. All contractors are trained. The breakdown is not material.	X	

Labour/Management relations					
G4-LA4	Minimum notice periods regarding operational changes	<a href="#">LA4</a>		X	X
Occupational health and safety					
G4-LA5	Workforce represented in formal health and safety committees	<a href="#">LA5</a>		X	
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities	<a href="#">LA6</a>  <a href="#">This is Fortum/Year 2014 in figures/ Social summary</a>	Not broken down by contractors' lost workdays by region and gender. The information is not tracked at this level of detail.	X	X
Training and education					
G4-LA9	Average hours of training per employee	<a href="#">LA9</a>	Not reported for all countries. The information is not available. The aim is to get the information for all countries by 2020.	X	X
G4-LA10	Programmes for skills management and lifelong learning	<a href="#">LA10</a>		X	
G4-LA11	Percentage of employees receiving regular performance and career reviews	<a href="#">LA11</a>	Not reported by employee group. The information is not available. The aim is to get the information and to report by employee group by 2020.	X	X
Diversity and equal opportunity					
G4-LA12	Composition of governance bodies and breakdown of employees	<a href="#">LA12</a>  <a href="#">Governance/Corporate Governance Statement/Governing bodies of Fortum/ Board of Directors</a>  <a href="#">This is Fortum/Year 2014 in figures/ Social summary</a>		X	X
Equal remuneration for women and men					
G4-LA13	Ratio of basic salary and remuneration of women to men	<a href="#">LA13</a>	Reporting doesn't cover the "labourers" employee group because of the small size of the group.	X	X
Supplier assessment for labour practices					
G4-LA14	Percentage of new suppliers that were screened using labour practices criteria	<a href="#">GRI/Social/Labour Practices and Decent work/Supplier assessment: Environment, labour practices and human rights</a>		X	X
G4-LA15	Significant actual and potential negative impacts for labour practices in the supply chain and actions taken	<a href="#">GRI/Social/Labour Practices and Decent work/Supplier assessment: Environment, labour practices and human rights</a>		X	X
Labour practices grievance mechanisms					
G4-LA16	Number of grievances about labour practices filed, addressed, and resolved through formal grievance mechanisms	<a href="#">LA16</a>  <a href="#">GRI/Standard disclosures/Ethics and integrity</a>		X	

SOCIAL RESPONSIBILITY: HUMAN RIGHTS					
<b>G4-DMA</b>	Management approach to social responsibility, human rights	<a href="#">GRI/Standard disclosures/Management approach/Human rights</a>	More detailed information on management approach to social responsibility is disclosed in conjunction with some aspects and the description of their indicators.		X
<b>Investment</b>					
<b>G4-HR1</b>	Human rights screening or clauses included in significant investment agreements	<a href="#">HR1</a>	Percentage of human rights assessments and agreements that have human rights-related terms is not reported. The aim is to obtain this information by 2020.	X	X
<b>G4-HR2</b>	Employee training on human rights policies or procedures	<a href="#">HR2</a>		X	X
<b>Non-discrimination</b>					
<b>G4-HR3</b>	Incidents of discrimination and corrective actions taken	<a href="#">HR3</a>		X	X
<b>Freedom of association and collective bargaining</b>					
<b>G4-HR4</b>	Supporting the right to freedom of association and collective bargaining in risk areas	<a href="#">HR4</a>		X	X
<b>Child labour</b>					
<b>G4-HR5</b>	Measures taken to eliminate child labour in risk areas and in operations of significant suppliers	<a href="#">HR5</a>		X	X
<b>Forced or compulsory labour</b>					
<b>G4-HR6</b>	Measures taken to eliminate forced and compulsory labour in risk areas and in operations of significant suppliers	<a href="#">HR6</a>		X	X
<b>Assessment</b>					
<b>G4-HR9</b>	Operations that have been subject to human rights reviews or impact assessments	<a href="#">HR9</a>	Country-specific breakdown is business confidential and is not reported.	X	X
<b>Supplier human rights assessment</b>					
<b>G4-HR10</b>	Percentage of new suppliers that were screened using human rights criteria	<a href="#">GRI/Social/Labour Practices and Decent work/Supplier assessment: Environment, labour practices and human rights</a>		X	X
<b>G4-HR11</b>	Significant actual and potential negative human rights impacts in the supply chain and actions taken	<a href="#">GRI/Social/Labour Practices and Decent work/Supplier assessment: Environment, labour practices and human rights</a>		X	X
<b>Human rights grievance mechanisms</b>					
<b>G4-HR12</b>	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	<a href="#">HR12</a>  <a href="#">GRI/Standard disclosures/Ethics and integrity</a>		X	X

SOCIAL RESPONSIBILITY: SOCIETY					
G4-DMA	Management approach to social responsibility, society	<a href="#">GRI / Standard disclosures / Management approach / Society</a>	More detailed information on management approach to social responsibility is disclosed in conjunction with some aspects and the description of their indicators.		X
<b>Local communities</b>					
G4-SO2	Operations with significant actual and potential negative impacts on local communities	<a href="#">SO2</a>		X	X
EU22	Number of people physically or economically displaced and compensation		Not reported because our projects have no significant displacements of people, and information on total amounts of compensation is not available.		
<b>Anti-corruption</b>					
G4-SO3	Operations assessed for risks related to corruption and the significant risks identified	<a href="#">SO3</a>		X	X
G4-SO4	Communication and training on anti-corruption policies and procedures	<a href="#">SO4</a>	For business partners, the most material types of collaboration partners are reported without a complete breakdown by region.	X	X
G4-SO5	Confirmed incidents of corruption and actions taken	<a href="#">SO5</a>		X	X
<b>Public policy</b>					
G4-SO6	Total value of political contributions	<a href="#">SO6</a>		X	X
<b>Anti-competitive behaviour</b>					
G4-SO7	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes	<a href="#">SO7</a>		X	
<b>Compliance</b>					
G4-SO8	Significant fines and non-monetary sanctions for non-compliance with laws and regulations	<a href="#">SO8</a>		X	
<b>Grievance mechanisms for impacts on society</b>					
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	<a href="#">SO11</a>  <a href="#">GRI/Standard disclosures/Ethics and integrity</a>		X	
<b>Disaster/Emergency planning and response</b>					
G4-DMA	Management approach	<a href="#">Disaster/Emergency planning and response</a>			
SOCIAL RESPONSIBILITY: PRODUCT RESPONSIBILITY					
G4-DMA	Management approach to social responsibility, product responsibility	<a href="#">GRI/Standard disclosures/Management approach/Product responsibility</a>			
<b>Product and service labeling</b>					
G4-PR3	Product and service information required by procedures	<a href="#">PR3</a>		X	

G4-PR5	Results of surveys measuring customer satisfaction	<a href="#">PR5</a>		X	
<b>Marketing communications</b>					
G4-PR7	Total number of incidents of noncompliance with regulations and voluntary codes concerning marketing communications	<a href="#">PR7</a>		X	
<b>Access</b>					
EU28	Power outage frequency	<a href="#">EU28</a>		X	
EU29	Average power outage duration	<a href="#">EU29</a>		X	
EU30	Average plant availability factor	<a href="#">EU30</a>	We report the energy availability of our power plants, not the stoppage hours and time availability. Energy availability is more material in terms of impact.	X	

1) X = Externally assured

2) If a path is not provided, the indicator is reported in conjunction with the relevant aspect.

# Economic responsibility

## Economic performance

### EC1 Direct economic value generated and distributed

We analyse the economic impacts of our operations and the produced well-being on the different stakeholders in our operating

countries and market areas. The key stakeholders include shareholders and investors, customers, personnel, suppliers of goods and services, and the public sector. In terms of suppliers of goods and services, we also assess the global impacts, paying particular attention to suppliers of goods and services operating in risk countries. In 2014,

the difference between added value generated and distributed to stakeholders was EUR 4,005 (2013: 869) million for the development of own operations.

#### Monetary flows by stakeholder group in 2012-2014

EUR million		2014	2013 <sup>1)</sup>	2012
<b>Generation of added value</b>				
Income from customers	Income from customers on the basis of products and services sold and financial income.	4,901	5,630	6,398
Divestments	Income from divestment of shares, business activities or plants	3,219	210	
Purchases from suppliers	Cash payments to suppliers of raw materials, goods and services	-2,240	-2,766	-3,002
Fortum produced added value		5,880	3,073	3,396
<b>Distribution of added value</b>				
Employees compensation	Wages, salaries, remunerations and other indirect employee costs	-413	-460	-543 <sup>2)</sup>
Funders compensation	Dividends paid to investors, interest, realised foreign exchange gains and losses and other financial expenses	-958	-1,212	-1,514
Public sector	Income and production taxes paid, support for society and donations	-504	-532	-593
Distributed to stakeholders		-1,875	-2,204	-2,650
<b>Retained in business</b>		<b>4,005</b>	<b>869</b>	<b>746</b>

1) Comparative period information for 2013 has been restated due to the accounting change for Fortum Värme.

2) Comparative period information for 2012 has been restated due to the accounting change for pensions.

The distribution of the economic added value generated by our operations to the most significant operating areas is reported in the following parts of the Annual Report:

- [Sales by country based on customer location](#)
- [Employee costs by country](#)
- [Taxes](#)

Investments are not included in the calculation of distributed added value in accordance with GRI, but we have included investments in our own assessment of

economic impacts, as their annual volume and impact on the society is significant. Capital expenditure by country and by production type is presented in Financial Statements [Note 19.2 Investments](#).

### Read more about

- [Our economic impacts](#)

### EC2 Financial implications and other risks and opportunities due to climate change

Climate change poses financial, regulatory and physical risks as well as opportunities for Fortum. As energy production and use is the largest source of greenhouse gases, the energy sector has a central role in building a low-carbon future. The energy industry has established visions and roadmaps of the future energy system and is prepared to

invest in new climate-benign production capacity, provided that the related policy framework and preconditions of society are in place.

The primary impact of climate regulation for Fortum is the price of carbon dioxide in EU emissions trading and the cost arising from it. This also determines the financial value for the reduction of emissions. The price of CO<sub>2</sub> increases the production cost of fossil-based energy, but it also raises the prices of energy products. The best way to reduce the risk related to the price of carbon dioxide is to increase CO<sub>2</sub>-free and low-carbon production capacity.

Our energy production in Finland, Poland and the Baltic countries is subject to the EU's emissions trading scheme. In Russia there is no comparable control system for greenhouse gases. In 2014, about 94% (2013: 90%) of our electricity production in the EU was CO<sub>2</sub>-free. In 2014, we had a total of 49 (2013: 51) plants in six member states within the EU's emissions trading scheme. About 98% of the CO<sub>2</sub> emissions in the EU area were included in the emissions trading system. In 2014, Fortum was granted 1.4 (2013: 1.8) million tonnes in free emissions allowances. The company's emissions in the EU emissions trading scheme were 3.6 (2013: 5.1) million tonnes. Thus, in terms of emissions allowances, Fortum showed a deficit.

In the third, ongoing ETS period, 2013-2020, the volume of our free emissions allowances will decrease significantly, because electricity production has to purchase all allowances from the market or auctions. Only in Poland and the Baltic countries will our CHP plants

receive free allowances also for electricity production on the basis of the derogation rules of the Emissions Trading Directive.

In Russia, our CO<sub>2</sub> emissions will grow in upcoming years as a result of the increasing energy production capacity. In Russia, carbon dioxide emissions do not yet have economic value.

Fortum is participating in two international climate funds, the Prototype Carbon Fund (PCF) and the Testing Ground Facility (TGF). In 2014, we received a total 227,047 emission reduction units from these funds. All emission reduction units received were CER units. We have so far received a total of 999,077 emission reduction units, and we estimate that we will still receive about 200,000 units during the funds' operating period.

Fortum is exposed to physical risks of climate change, including changes in weather patterns that may change energy demand and supply from, e.g., hydropower plants. More frequent and intensive storms may impact the operation and maintenance of the distribution network. Higher precipitation and temperature may affect hydropower production, dam safety and bioenergy supply. In addition to climate change mitigation, we are also taking measures to adapt our operations to climate change and to take the impacts into consideration, e.g. in production planning and in evaluating growth projects.

We expect the concern about climate change result in an increasing demand for low-carbon and energy-efficient energy products and solutions. Our know-how in

CO<sub>2</sub>-free hydro and nuclear power and in energy-efficient CHP as well as research and development in the future energy system and technologies can prove to be a competitive advantage. We are investing in CO<sub>2</sub>-free production in Europe and see business opportunities in providing climate-benign energy solutions for sustainable urban living and the electrification of transport.

## Read more about

- [Risks and opportunities of climate change for Fortum](#)

## EC3 Coverage of the organization's defined benefit plan obligations

Our pension arrangements conform to the local regulations and practices in each operating country; the arrangements are discussed in Financial Statements [Note 32 Pension obligations](#).

## EC4 Financial assistance received from government

We received financial support from the public sector in the form of production-related subsidies, investments, R&D and other significant grants (over EUR 0.5 million) totalling EUR 3 (2013: 8) million. The figure excludes free emission allowances and electricity certificates. The Finnish State owns 50.8% of Fortum.

# Plant decommissioning

Provisions related to nuclear power are covered in the financial statement, note 30, [Nuclear related assets and liabilities](#).

In Finland and Sweden, the producers of nuclear waste are responsible for management and final disposal of the nuclear waste and for the related costs. In Finland, nuclear waste management principles and timetables were decided on already back in the 1980s, and the construction of waste management solutions has advanced according to plans.

The licence holders are responsible for the management of power plant waste generated during the operation of the Loviisa and

Olkiluoto nuclear power plants and for the management of future decommissioning waste. The practical implementation of the final disposal of spent nuclear fuel from the companies is handled by Posiva Oy, which is co-owned by Fortum and TVO. Posiva Oy's construction licence application for the spent nuclear fuel encapsulation plant and final disposal facility is currently under assessment by the Government and the Radiation and Nuclear Safety Authority STUK. The Radiation and Nuclear Safety Authority noted in its statement in February 2015 that the plant can be built to be safe. Preparedness to start final repository

operations is estimated to be achieved around 2020.

Svensk Kärnbränslehantering AB (SKB) handles the final disposal of the nuclear waste generated by Fortum's co-owned nuclear power plants in Sweden. In March 2011, the company submitted a construction licence application to build an encapsulation and final disposal plant for spent fuel; the application is still being reviewed by the authorities. The final repository for spent fuel is planned to be built at Forsmark. After construction and a test-run period, disposal operations could start in the late 2020s.

## Read more about

- [Our nuclear power production](#)

# System efficiency

## EU11 Average generation efficiency of thermal plants

Until the end of 2014, Fortum had a Group-level target (>70%) for overall efficiency of fuel-use as a 5-year average. Efficiency in

2014 was 64.0% (2013: 59.4%) and the 5-year rolling average 63.2% (2013: 63.6%). The calculation covers power plants and heat boilers.

The accompanying table presents the average thermal efficiency of our power plants by country and by fuel. Co-firing

covers various combinations of coal, natural gas, biomass, waste-derived fuels and peat. For CHP plants, the efficiency calculations take into account both electricity and heat production.

## Read more about

- [Combined heat and power production](#)

### Average thermal efficiency by country and fuel type

%	Coal	Gas	Biomass	Co-firing
Finland	40		95	82
Russia		61		59
Poland	66	84		62
The Baltic countries			69	74
Great Britain		81		

## EU12 Transmission and distribution losses

At the end of 2014, Fortum had power transmission business only in Sweden. The total length of Fortum's power distribution

and transmission networks was about 71,600 km. Overhead lines accounted for 22,600 km and underground cables 49,000 km.

Our electricity transmission and distribution losses in Sweden totalled 795 (2013: 813)

GWh. The losses were 3.0% (2013: 3.2%) of the total amount of electricity transmitted and distributed. Guarantees of origin (CO<sub>2</sub>-free electricity) were acquired for all the electricity purchased to compensate for network losses.

# Environmental responsibility

## Materials

### EN1 Use of materials

Our materials use mainly consists of fuels. In our operations, we aim to use natural resources efficiently and sparingly.

#### Fuel consumption in 2012-2014

	2014	2013	2012 <sup>1)</sup>
<b>Non-renewable fuels</b>			
Natural gas, million m <sup>3</sup>	8,148	7,844	7,844
Coal, 1,000 t	2,539	2,843	2,536
Waste-derived fuel, fossil 1,000 t	87	221	320
Peat, 1,000 t	161	227	269
Fuel oil, 1,000 t	13	18	49
Nuclear fuel, t	23	20	21
<b>Renewable fuels</b>			
Biomass and bio liquids, 1,000 t	1,264	1,428	1,790
Waste-derived fuel, renewable 1,000 t	177	633	486

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

#### Fuel consumption by country in 2014

	Finland	Russia	Poland	Other countries	Total
Natural gas, million m <sup>3</sup>	84	7,805	6	254	8,148
Coal, 1,000 t	800	1,336	402		2,539
Biomass and bio liquids, 1,000 t	321		193	751	1,264
Waste-derived fuel, 1,000 t	122			141	264
Peat, 1,000 t	98			63	161
Fuel oil, 1,000 t	11	2			13
Nuclear fuel, t	23				23
Other fuels, 1,000 t				2	2

In 2014, we used 8.1 billion m<sup>3</sup> of natural gas and 4.2 million tonnes of solid and liquid fuels. Natural gas and 68% (2013: 67%) of solid and liquid fuels were of non-renewable origin.

Joint venture Fortum Värme used a total of 1.6 (2013: 1.7) million tonnes of fuel, of which various biomasses and bio liquids accounted for 451,000 (2013: 667,000) tonnes, waste derived fuels 930,000 (2013:

765,000) tonnes and coal 207,000 (2013: 249,000) tonnes.

The reported volumes are based on measurements at the power plants and heat-only boilers. The energy content of the fuels is described in [EN3](#).

### EN2 Recycled materials used

We used 264,000 (2013: 221,000) tonnes of waste-derived fuels in Finland and Lithuania. Recycled input materials accounted for 6% (2013: 5%) of the total mass of solid and liquid fuels used.

In Sweden, joint venture Fortum Värme used 930,000 (2013: 765,000) tonnes of

waste-derived fuels, which was 58% (2013: 45%) of total fuel use.

Reported volumes are based on measurements at the power plants using waste-derived fuels.

## Energy

### EN3 Energy consumption within the organisation

#### Fuel consumption

Fortum's fuel consumption in own energy production was 117 terawatt-hours (TWh), or

422 (2013: 419) petajoules (PJ). The most significant fuel was natural gas, which accounted for 65% (2013: 63%) of the total fuel consumption. The shares of uranium and coal were 19% (2013: 20%) and 11% (2013: 13%) correspondingly.

#### Fuel consumption in 2012-2014

petajoules	2014	2013	2012 <sup>1)</sup>
Natural gas	276.1	264.5	273.8
Nuclear fuel	81.6	83.3	89.0
Coal	46.8	53.0	51.0
Waste-derived fuel, fossil	0.8	1.0	3.3
Peat	1.6	2.2	2.7
Other fossil	0.6	1.0	2.1
<b>Non-renewable fuels total</b>	<b>407.5</b>	<b>405.0</b>	<b>421.9</b>
Biomass and bio liquids	12.5	12.3	21.9
Waste-derived fuel, renewable	1.5	1.2	4.9
<b>Renewable fuels total</b>	<b>14.0</b>	<b>13.5</b>	<b>26.8</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

Biomass and bio liquids accounted for 3.0% (2013: 3.1%) and waste-derived fuels 0.5% (2013: 0.5%) of our total fuel consumption.

In Sweden, joint venture Fortum Värme used a total of 6.2 TWh, or 22 (2013: 26) PJ of fuels. Biomass and bio liquids accounted for 31% (2013: 44%) and waste-derived fuels 42% (2013: 29%) of total fuel consumption.

Fuel consumption has been calculated based on the volumes and fuel-specific heat values measured at the power plants. Uranium consumption has been calculated as the thermal heat generation in the reactors.

#### Consumption of electricity and heat

Our external electricity procurement for power plants and heat boilers was 401 (2013: 406) GWh. In addition, 795 (2013: 813) GWh was purchased to offset losses in electricity transmission and distribution in Sweden.

In 2014, we did not buy heat or steam for own use from external suppliers.

Joint venture Fortum Värme's external electricity purchases totalled 839 (2013: 934) GWh.

Reported electricity consumption is based on measurements at our sites.

#### Electricity generation and heat production

Corresponding to the fuel consumption and electricity production discussed above, we produced about 34,900 (2013: 31,100) GWh of electricity, 33,700 (2013: 31,900) GWh of heat and steam and 16 (2013: 12) GWh of cooling for sale at our own power plants and heat-only boilers.

In addition, we generated about 22,300 (2013: 18,000) GWh of hydro, solar and wind power, including our power shares in the shared companies.

Joint venture Fortum Värme produced 1,048 (2013: 1,207) GWh of electricity, 7,074 (2013: 8,164) GWh of district heat, 460 (2013: 455) GWh of cooling and 96 (2013: 106) GWh of town gas. In addition, Fortum Värme produced 263 GWh of wind power with leased wind turbines.

Our total power generation and heat production by energy source are shown in the following tables. The tables have been consolidated in accordance with the boundaries applied in financial reporting. The figures for power generation include also power shares in the hydro, wind and nuclear power plants of shared companies.

64% of our total power generation was carbon-free and 32% was produced from renewable energy sources. 6% of our total heat production was produced from renewable, carbon-free energy sources.

**Fortum's power production by energy source in 2012–2014**

TWh	2014	2013	2012 <sup>1)</sup>
Hydro power	22.3	18.0	25.2
Nuclear power	23.8	23.7	23.4
Natural gas	22.5	20.0	19.4
Coal	3.6	4.0	3.3
Biomass	0.9	1.1	1.3
Peat	0.1	0.1	0.1
Other	0.2	0.5	0.3
<b>Total</b>	<b>73.4</b>	<b>67.4</b>	<b>73.1</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms stad

**Fortum's heat production by energy source in 2012-2014**

TWh	2014	2013	2012 <sup>1)</sup>
Natural gas	26.7	26.1	27.0
Coal	5.1	4.6	5.3
Biomass and bioliquids	2.0	2.8	4.9
Heat pumps, electricity	0.1	0.3	3.4
Waste-derived fuel	0.3	0.4	1.9
Oil	0.1	0.1	0.4
Peat	0.3	0.3	0.4
<b>Total</b>	<b>34.6</b>	<b>34.6</b>	<b>43.3</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

**Energy production capacity**

Our power generation and heat production capacities on 31 December 2014 are shown in the following tables. The figures comply with the boundaries used in financial reporting and they include power shares from hydro, wind and nuclear power plants of shared companies.

**Total energy consumption within Fortum**

Our total energy consumption, calculated as the difference between the procured energy resources (fuels and electricity) and net production, was 167 (2013: 195) PJ.

**Power generation capacity by country and energy source**

MW	Finland	Sweden	Russia	Poland	Baltic countries	India	Total
Hydropower	1,526	3,088					4,615
Nuclear power	1,460	1,820					3,279
Wind and solar power		30				15	45
Natural gas	284		4,501	5	17		4,807
Coal	1,212		257	228			1,697
Biomass and bioliquids	55			24	68		147
Other fuels	14	12			8		34
<b>Total</b>	<b>4,551</b>	<b>4,950</b>	<b>4,758</b>	<b>257</b>	<b>93</b>	<b>15</b>	<b>14,624</b>

### Heat production capacity by country and energy source

MW	Finland	Russia	Poland	Baltic countries	Total
Natural gas	1,432	12,575	57	333	14,397
Coal	265	891	1,089		2,245
Biomass and bioliquids	195		43	381	619
Peat	32			79	111
Other fuels	12			18	30
<b>Total</b>	<b>1,936</b>	<b>13,466</b>	<b>1,189</b>	<b>811</b>	<b>17,402</b>

### EN5 Energy intensity

In combustion-based energy production, we aim to utilise the fuel as efficiently as possible. Until 2014, we measured our energy efficiency with the overall efficiency of fuel use. This is calculated by dividing the energy (electricity and heat) produced with fuels by the heat energy of the fuels used. Our target was to achieve the efficiency of 70%, calculated as a five-year average. In 2014, the fuel use efficiency was 64% and the five-year average 63% (2013: 64%).

The energy intensity of our own production was 1.37 (2013: 1.46). The intensity figure has been calculated by dividing the sum of fuel consumption and external electricity procurement by the total energy production, including hydro power and solar power.

### EN6 Reduction of energy consumption

We apply the principle of continuous improvement in developing the energy efficiency of the existing power plant fleet. Our target is to achieve over 1,400 GWh of annual energy savings by the year 2020 as compared to 2012. This energy savings is equal to the annual heat energy need of more than 75,000 homes (18,500 kWh per home) or more than the annual production of over 200 wind turbines of 2.5 MW. During 2013 and 2014, we have already achieved 681 GWh or 49% of this target. The actions implemented in 2014 produced a total savings of 592 GWh (2 131 TJ).

The most important measures have been

- The integration of the district heat networks of the Chelyabinsk CHP-1 and CHP-2 power plants in 2014.

This investment enables optimal operation of the power plants and maximal production of the new energy-efficient gas turbine units at CHP-1. The annual energy savings is an estimated 469 GWh.

- The hydropower plant refurbishments produce 61 GWh of new hydropower annually; the improvements implemented in 2014 account for 20 GWh.
- Heat recovery from sealing steam and other waste heat streams was implemented at Joensuu power plant, giving an annual fuel savings of 17.5 GWh.

### Read more about

- [Our products for reducing customers' energy consumption](#)
- [Hydropower refurbishments](#)
- [Our other actions increasing energy efficiency](#)

## Water

### EN8 Total water withdrawal by source

We withdrew a total of 2,178 (2013: 2,312) million cubic metres of water, of which the majority, 2,094 (2013: 2,231) million cubic metres, was used as cooling water for condensers in thermal power plants. The temperature of the water flowing through the condensers rises slightly but the volume of water remains unchanged when it is pumped back into the water system. Power plants in

Russia and Poland also use cooling towers, in which part of the water evaporates into the atmosphere. The water added to the cooling towers' water circulation was previously reported as cooling water. Since 2013, this water is reported as part of the process water because the volume and quality of the water change significantly in the cooling towers' water circulation. In Russia, water is used also for pumping ash from coal-fired power plants into ash ponds.

Reported water withdrawal is based on water flow measurements at power plants and heat boilers.

In hydropower production, all the water runs through turbines, so the water volume and quality remain unchanged. Hydropower production is not included in the above mentioned figures for water withdrawal.

### Water withdrawal by source in 2012-2014

million m <sup>3</sup>	2014	2013	2012 <sup>1)</sup>
Sea water	1,573	1,702	1,629
Fresh surface water	594	598	573
Tap water	6.1	6.8	8.1
Other source	5.8	5.3	0.2
<b>Total</b>	<b>2,178</b>	<b>2,312</b>	<b>2,210</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

### Water use in 2012-2014

million m <sup>3</sup>	2014	2013	2012 <sup>1)</sup>
Cooling water	2,094	2,231	2,017
Process and auxiliary water	84 <sup>2)</sup>	82 <sup>2)</sup>	64
Recycled water	14	12	10

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

2) Cooling tower make-up water counted as process water starting from 2013

## Biodiversity

Fortum’s impacts on biodiversity are primarily related to hydropower production the company has in Finland and Sweden. Hydropower construction and the related regulating of water change the conditions in water systems and thus may impact the diversity of the aquatic habitat and, in particular, the fish population. Emissions of energy production based on fossil fuels may decrease local biodiversity especially in Russia. In addition, our electricity distribution operations and fuel procurement may have a negative impact in areas that are rich in biodiversity. Biodiversity aspects are taken into consideration in fuel procurement.

Fortum’s Biodiversity guidelines set the principles for taking biodiversity into consideration and for managing the impacts of the company’s operations on biodiversity. In January 2014, we joined the Finnish Business & Society’s (FiBS) Corporations and Biodiversity programme. We also participated in the Master Class training within the framework of the programme.

The main impacts on biodiversity are assessed in the pre-feasibility phase of a project, and, in bigger projects, also as part of the Environmental Impact Assessment (EIA) process. We offset and [reduce the impacts of hydropower production](#) on biodiversity by stocking fish and through [voluntary environmental projects](#).

In electricity network operations, underground cabling protects biodiversity and reduces the impact on the landscape and birds. The share of underground cables of our electricity network in Sweden is 68%. Measures to prevent bird collisions and electric shocks include isolation of the live parts of the network, mounting marker balls on overhead lines and installing landing perches on poles. New power lines are built in public areas and along roadsides whenever possible.

During 2014, we started gathering data on the volume of certified wood fuel in Finland, Sweden, Poland and the Baltics. This kind of fuel originates from sustainable energy sources in which special attention is paid to biodiversity.

### EN13 Habitats protected or restored

River fish habitats, particularly for grayling and trout, were restored in four areas along the Vuoksi river in Finland in 2013-2014. The areas are located in the section of the river between the Tainionkoski and the Imatra power plants, and they are about 0.45 hectares in size; about 0.2 hectares of it was restored in 2014. We used Fortum’s habitat modelling in the restoration planning. In the restoration, the shoreline areas of the channels dredged during hydropower

construction were shaped, gravelled and rocked to become spawning areas for grayling and trout.

We implemented the project in partnership with the city of Imatra, the Finnish Association for Nature Conservation (FANC) and the Southeast Finland Centre for Economic Development, Transport and the Environment (ELY centre). A restoration expert from the ELY centre participated in the restoration planning and guidance. The follow-up study done by the ELY centre in 2014 found wild trout in two of the three restoration areas. So there are good signs of a successful restoration, but the final results can be seen in a few years.

In Sweden, restoration opportunities to protect the Gullspång river’s unique salmon population were studied during the year. Restoration opportunities were also studied in the Rottan river. In the Bulsjöån river, the integration of the local endangered freshwater pearl mussel was monitored through a research project in collaboration with the local environmental authorities.

## EU13 Biodiversity of offset habitats compared to the biodiversity of the affected areas

### Eldbäcken biochannel

In conjunction with the construction of our new Eldforsen hydropower plant located on the Västerdalälven river in Sweden, in 2011 we released water into the old river bed as a voluntary environmental measure and built a 500-meter-long bypass, or biochannel, to support biodiversity. One purpose of the Eldbäcken biochannel was to offset the biodiversity lost in conjunction with the hydropower plant construction. However, another goal of the project is to study how different species colonise the channel habitat and how they can be used to replace the decreased biodiversity.

The biochannel is a joint project of Fortum and Karlstad University, and the shaping of the channel and the studies are continuing. In 2014 the channel was widened and wood material was added to it to increase the diversity; habitats were also created for the endangered freshwater pearl mussel. The fish population in the channel has been studied with electro fishing and the results are promising: The studies in 2014 found burbot (*Lota lota*), minnows (*Phoxinus phoxinus*) and brown trout (*Salmo trutta*) in the channel. The biodiversity of the biochannel probably isn't as high as the diversity in the pre-construction river channel, but it supports the biodiversity in the entire river and locally.

### Imatra's urban brook

In 2014, the city of Imatra built an urban brook bypassing the Imatra hydropower plant. The purpose of the brook is to act as a

substitute habitat, particularly as an area for spawning and for juvenile fish, for the Vuoksi river's rare trout population. We participated in the project by allowing the use of our land and the water bypassing our power plant for free. In particular, trout reproduction areas have decreased in the Vuoksi river as a consequence of hydropower plant construction.

The fish reproduction area of the about kilometre-long brook is about 0.2 hectares. The biodiversity of a brook differs from the original habitat of a big river, and its value for juvenile fish production will be seen within some years. The brook channel was finished and water was released into it at the end of the year, so it will take a few years for it to evolve into a juvenile fish production area. The development is accelerated by introducing organic material and local trout to the channel.

## Emissions

### EN15 Direct greenhouse gas (GHG) emissions (Scope 1)

Our direct greenhouse emissions were 20.5 (2013: 20.7) million CO<sub>2</sub>-equivalent tonnes.

The share of carbon dioxide from direct greenhouse gas emissions was over 99%.

The share of direct greenhouse gas emissions of our total greenhouse gas emissions was 80%.

#### Direct GHG emissions in 2012-2014

MtCO <sub>2</sub> eq	2014	2013	2012 <sup>1)</sup>
CO <sub>2</sub>	20.3	20.5	20.7
CH <sub>4</sub>	0.01	0.01	0.1
N <sub>2</sub> O	0.15	0.14	0.2
HFCs	0.0	0.008	0.005
SF <sub>6</sub>	0.0	0.001	0.001
<b>Total</b>	<b>20.5</b>	<b>20.7</b>	<b>21.0</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

Of the carbon dioxide emissions, 82% (2013: 75%) originated from the Russian operations and 11% (2013: 17%) from Finland. Carbon dioxide emissions increased in Russia with the commissioning of the new capacity and decreased in Finland due to the decline in condensing power production.

Fortum's direct biogenic carbon dioxide emissions were 1.3 (2013: 1.2) million tonnes.

Joint venture Fortum Värme's direct greenhouse gas emissions were 1,0 (2013: 1,0) million tonnes and direct biogenic

carbon dioxide emissions 1.3 (2013: 1.2) million tonnes.

Carbon dioxide emissions as well as methane and nitrous oxide emissions have been calculated based on plant-specific fuel data. Specific CO<sub>2</sub> emission factors are based on IPCC publications.

The specific CO<sub>2</sub> emissions from electricity generation, as requested by the document "Electric Utilities Sector Disclosures", are shown under the indicator EN18.

### EN16 Indirect greenhouse gas (GHG) emissions (Scope 2)

Greenhouse gas emissions from the production of electricity purchased for our own use were 136,000 tonnes of carbon dioxide equivalent. Carbon dioxide emissions accounted for over 99% of this.

The share of Scope 2 greenhouse gas emissions of our total greenhouse gas emissions was 1%.

Scope 2 greenhouse gases of joint venture Fortum Värme were 56,000 tonnes.

The Scope 2 emissions have been estimated on the basis of country-specific breakdowns of electricity production.

Fortum Markets buys the electricity sold to customers from the Nordic electricity exchange. Scope 2 greenhouse gas emissions are not known for the production of the electricity sold in the electricity

exchange. Consequently, we can not estimate the share of Scope 2 greenhouse gas emissions in the electricity sold to customers.

### Indirect GHG emissions (Scope 2) by country in 2014

tCO <sub>2</sub> eq	2014
Finland	5,000
Sweden	2,000
Russia	119,000
Other countries	10,000
<b>Total</b>	<b>136,000</b>

### Indirect GHG emissions (Scope 2) in 2012-2014

tCO <sub>2</sub> eq	2014	2013 <sup>1)</sup>	2012 <sup>1)</sup>
CO <sub>2</sub>	136,000	309,000	143,000
CH <sub>4</sub>	57	600	300
N <sub>2</sub> O	389	5,200	3,300
<b>Total</b>	<b>136,000</b>	<b>315,000</b>	<b>147,000</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

## EN17 Other indirect greenhouse gas (GHG) emissions (Scope 3)

Since 2013, we have reported the Scope 3 greenhouse emissions in accordance with requirements of the Corporate Value Chain (Scope 3) Accounting and Reporting standard.

The majority of our Scope 3 emissions are caused by the production and transportation

of fuels, purchases of goods and services, and investments. Other activities (e.g. employee travel and waste management) account for less than 1%.

In 2014, our Scope 3 greenhouse gas emissions were an estimated 5.0 million tonnes. This was 19% of our total greenhouse gas emissions.

We estimate that all of our Scope 3 greenhouse gases come from fossil energy sources.

The Scope 3 greenhouse gas emissions of joint venture Fortum Värme were 260,000 tonnes.

The volumes describing the scope of the various activities have been obtained from our monitoring and reporting system. The specific emission factors used in calculating the greenhouse gas emissions are based on different literature sources.

### Indirect GHG emissions (Scope 3) in 2013-2014

tCO <sub>2</sub> eq	2014	2013 <sup>1)</sup>
Fuel procurement	4,800,000	4,919,000
Purchased good and services	112,000	286,000
Capital goods	51,000	196,000
Other activities	21,000	61,000
<b>Total</b>	<b>4,984,000</b>	<b>5,462,000</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

## EN18 Greenhouse gas (GHG) emissions intensity

Our specific CO<sub>2</sub> emissions (Scope 1) from total energy production were 189 (2013: 204) g/kWh. The five-year average, including

2014, increased to 198 (2013: 197) g/kWh. The five-year average of the specific CO<sub>2</sub> emissions from total energy production have been increasing during the last five years, although we are below the target level of <200 g/kWh. The increase in the specific emissions is a result of the increase in the relative share of our Russian energy

production based on natural gas and coal in our total production.

Our specific CO<sub>2</sub> emissions (Scope 1) from power production in the EU were 39 (2013: 64) g/kWh and the five-year average, including 2014, was 60 (2013: 60) g/kWh. The specific CO<sub>2</sub> emissions from our power

production are low compared to other European power producers. Our specific emissions in 2013 were about one-fifth of the 328 g/kWh average specific emissions of major European utilities.

Including our Russian power production, our specific emissions were about 60% of the average level of European utilities. European reference data for 2014 is not yet available.

The boundary for electricity production's specific carbon dioxide emissions differs from other environmental reporting. Fortum's production shares in associate companies are also included. This production is based on

hydro and nuclear power, and it doesn't cause any direct carbon dioxide emissions.

The specific carbon dioxide emissions (Scope 1) by country from electricity production, as required by the document Electric Utilities Sector Disclosures, are presented in the following tables.

In the calculation of electricity production's specific emissions, CHP plant emissions have been allocated for electricity and heat using the efficiency method presented in the Greenhouse Gas Protocol guidelines, using heat production efficiency of 90% and electricity production efficiency of 40%.

Fortum Markets acquires all of the electricity it sells to end consumers from the Nordic electricity exchange. In 2014, a guarantee of origin was acquired for all the electricity (10.2 TWh) sold in Finland and Sweden, and the electricity was sold to the end user as carbon-free. In Norway, Fortum Markets sold 1.7 TWh of electricity, 0.3 TWh of which as carbon-free hydro electricity. The specific carbon dioxide emissions of the Nordic electricity exchange's residual distribution for 2014 will be known in June 2015. In 2013 it was 258 g/kWh.

**Specific CO<sub>2</sub> emissions of total electricity generation in 2012-2014**

g/kWh	2014	2013	2012
Finland	57	115	48
Sweden	0	0	0
Russia	464	506	508
Poland	675	631	659
Estonia	69	103	167
Latvia	75	182	337
Lithuania	154	286	-
India	0	0	-
Great Britain	365	359	368
<b>Fortum total</b>	<b>177</b>	<b>209</b>	<b>168</b>

**Specific CO<sub>2</sub> emissions of electricity generation from fossil fuels in 2012-2014**

g/kWh	2014	2013	2012
Finland	758	730	675
Russia	464	506	508
Poland	675	631	659
Latvia	330	333	337
Great Britain	365	359	368
<b>Fortum total</b>	<b>482</b>	<b>519</b>	<b>515</b>

**EN21 NO<sub>x</sub>, SO<sub>x</sub>, and other significant air emissions**

In 2014, our thermal energy production emitted 28,700 (2013: 30,800) of nitrogen oxides (NO<sub>x</sub>), 20,400 (2013: 22,000) tonnes

of sulphur dioxide (SO<sub>2</sub>) and 21,300 (2013: 20,800) tonnes of particles. Reduction in sulphur and nitrogen emissions was caused primarily by decreased condensing power production in Finland.

Reporting of emissions from our European power plants is based on continuous measurement. At our Russian power plants

and at most heat only boilers, emissions are calculated using fuel data and fuel specific emission factors. Emission factors can be based on measurements at regular intervals or information from the boiler manufacturer.

### Fortum's SO<sub>2</sub>, NO<sub>x</sub> and particle emissions in 2012-2014

thousand tonnes	2014	2013	2012 <sup>1)</sup>
SO <sub>2</sub>	20.4	22.0	19.8
NO <sub>x</sub>	28.7	30.8	29.4
Particles	21.3	20.8	16.0

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

77% (2013: 70%) of the flue-gas emissions (SO<sub>2</sub> and NO<sub>x</sub>) and 98% (2013: 96%) of the particle emissions originated from the Russian operations. The most significant source of particle emissions (14,800 tonnes in 2014) was the Argayash power plant in Russia.

Our mercury emissions into air were 126 (2013: 122) kg.

The specific emissions for sulphur oxide, nitrogen oxides and particles are presented in the following table in line with the document "Electric Utilities Sector Disclosures".

### Specific emissions of energy production in 2014

g/MWh	SO <sub>2</sub>	NO <sub>x</sub>	Particles
Total energy production	193	271	201
Energy production with fuels	333	468	348

## Effluents and waste

### EN22 Total water discharge by quality and destination

Energy production's impacts on water systems are caused by the thermal load of cooling water discharges and the impurities in wastewater effluents. All wastewater is conducted directly to municipal sewage treatment plants or cleaned on-site before being discharged into water systems.

In 2014, we used a total of 2,094 million (2013: 2,231) cubic meters of cooling water, which was discharged back into water systems. The thermal load on the water systems was 18 (2013: 19) TWh. The biggest single user of cooling water was the Loviisa nuclear power plant, which withdrew from and discharged to the sea 1,377 million cubic meters of cooling water. The Loviisa nuclear power plant's thermal load on the sea was 16 TWh. Temperature measurements indicate that the cooling water has increased the temperature of surface water by 1-2 °C

within a 1-2 kilometre distance from the discharge point.

Our plants generated a total of 33 (2013: 34) million m<sup>3</sup> of wastewater, of which 95% was released into the environment after being treated.

The reported waste water volumes are based on flow measurements at our power plants and heat boilers.

### Waste water emissions by recipient in 2012-2014

million m <sup>3</sup>	2014	2013	2012 <sup>1)</sup>
Sea	9.0	9.6	9.1
Fresh water system	22.4	22.3	22.9
Municipal sewage	1.2	1.6	2.7
Other recipient	0.5	0.1	0.3

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

During the year, about 1.8 tonnes of oil was released into water systems with the wastewater discharges from our power plants. In addition, about 1.5 tonnes of oil was released into the environment in three separate oil spill incidents.

Oil emission calculations are based on analyses of periodically taken water samples and flow measurements.

In recent years there have been frequent violations of wastewater permits at Russian

power plants. They have been examined in more detail in indicator [EN29](#).

## EN23 Total weight of waste by type and disposal method

Our thermal power plants use millions of tonnes of solid fuels annually. Ash from incineration and gypsum from flue gas desulphurisation account for the clearly largest share, over 90% on average, of the by-products and wastes from our energy production. All energy production generates normal industrial waste, which is either recycled or disposed of at landfill sites. Some of the waste is classified as hazardous and is transported for treatment at licensed hazardous waste facilities. The volume of radioactive wastes generated in nuclear power production is small, but special solutions are needed in their treatment and disposal.

The total volume of by-products and wastes was 697,000 (2013: 742,000) tonnes.

### Ash and gypsum

About 659,000 (2013: 677,000) tonnes of ash, 9,800 (2013: 29,000) tonnes of gypsum and 9,800 (2013: 15,800) tonnes of other desulphurisation product were generated. About 56% of the ash was generated at Russian plants, 16% in Finland and 16% in Poland. Reduced volume of ash and gypsum was primarily caused by decreased condensing power production in Finland.

In Europe, ash and gypsum from desulphurisation are utilised and recycled as efficiently as possible. In Russia, ash is stored in ponds because there are no other uses for it, with the exception of building embankments for ash ponds. In addition, the wet ash handling makes utilisation more difficult. The ash recycling rate at Fortum was 34% (2013: 38%) and the gypsum recycling rate 100% (2013: 99%).

Gypsum was utilised as a raw material in the gypsum board industry. Fly ash was used in the construction material industry, in road

construction and in backfilling mines. In Finland, the Joensuu power plant received an environmental permit for the construction of a noise barrier to be built from the plant's ashes around the power plant site. The CE-marking for the bottom ash of our power plants was granted in 2014.

Any remaining by-products that cannot be utilised are disposed of in landfills or put into intermediate storage. About 434,000 (2013: 420,000) tonnes of ash and 9,800 (2013: 15,800) tonnes of desulphurisation product from Suomenoja power plant were disposed of in landfill sites. The desulphurisation product from the Suomenoja power plant has no potential for utilisation.

The reported volumes of ash and gypsum from our European power plants are based on weighing of the truckloads. At our Russian power plants ash volumes are calculated based on the ash contents of coal.

### Ash and gypsum handling in 2012-2014

thousand tonnes	2014	2013	2012 <sup>1)</sup>
Ash utilisation	226	257	369
Ash disposal	434	420	351
Gypsum utilisation	9.8	28.8	8.1
Gypsum disposal	0	0.3	1.0

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

### Nuclear waste

We used 22.7 (2013: 20.1) tonnes of uranium fuel at the Loviisa nuclear power plant and produced a corresponding amount of high-level radioactive nuclear waste. 2.88 (2013: 2.50) g/MWh of spent fuel was generated per produced energy unit.

Until 1996, the spent fuel was returned to the fuel supplier in Russia. Since 1997, all spent fuel has been stored at the power plant site. At the end of 2014, the plant units' fuel basins and the separate spent fuel storage facility had a total of 633 tonnes of spent nuclear fuel. The spent fuel will eventually be moved to the final repository, which Posiva Oy is planning in the Olkiluoto bedrock.

In addition to spent fuel, about 141 (2013: 160) m<sup>3</sup> of low- and intermediate-level radioactive waste was produced. Intermediate-level waste includes liquid evaporation waste and spent ion exchange resins. For now, they are stored in storage tanks in the plant area. At the end of 2014,

the storage tanks had 658 m<sup>3</sup> of evaporation waste and 566 m<sup>3</sup> of ion exchange resins. The total radioactivity of the liquid waste at the end of 2014 was 15.8 TBq. Before final disposal, the liquid waste is solidified in concrete. The solidification plant is in the finishing phase and will be commissioned during 2016 at the latest.

Dry, low-level radioactive waste consists mainly of slightly contaminated materials generated in conjunction with maintenance and repair work. After the level of radioactivity has been measured, some of the low-level radioactive waste can be classified as non-radioactive waste and released from control to be recycled or placed in ordinary landfills. 121 tonnes of metals, among other things, were released from control for recycling and 24 tonnes of mixed waste for transport to a landfill in 2014.

Low- and intermediate-level nuclear waste is disposed of in the underground repository at the power plant site in Loviisa. During 2014,

about 40 (2013: 38) m<sup>3</sup> of low-level maintenance waste was disposed of in the repository. By the end of 2014, a total of 1,927 m<sup>3</sup> of low-level waste had been placed in the repository. The total radioactivity of the low-level waste placed in the repository at the end of 2014 was 448 GBq.

### Other waste

Our operations generated a total of 27,700 (2013: 33,800) tonnes of waste (excluding the gypsum and ash deposited in landfills); of this amount, 2,500 (2013: 5,000) tonnes was hazardous waste. The oils containing PCB were transported to hazardous waste treatment plants as part of hazardous waste.

The reported volumes of other waste are based on the information provided by the waste companies.

### Read more about

- [Nuclear waste management](#)

**Waste handling in 2012-2014**

thousand tonnes	2014	2013	2012 <sup>1)</sup>
Recycling/recovery	7.7	8.8	12.7
Landfill	17.5	21.3	18.8
Hazardous waste recovery	0.1	1.3	4.7
Hazardous waste disposal	2.4	4.0	5.8
<b>Total</b>	<b>27.7</b>	<b>35.3</b>	<b>42.0</b>

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

**EN24 Total number and volume of significant spills**

In 2014, there were three oil spills of more than 100 litres (2013: 9) into the

environment. The total estimated volume of the oil spills was about 1,500 litres. The oil spills did not cause major environmental impacts.

**Major spills in 2014**

Location	Description	Quantity (l)
Joensuu power plant, Finland	Fuel oil to soil	1,000
Skedvi hydropower plant, Sweden	Hydraulic oil to river	200
Edeforsen hydropower plant, Sweden	Transformer oil to soil	300
<b>Total</b>		<b>1,500</b>

**Compliance**

**EN29 Significant fines and non-monetary sanctions for non-compliance with environmental laws and regulations**

There were no significant environmental non-compliances or permit violations in our European operations in 2014 (2013: 2). The

total number of permit violations related to wastewater discharges in Russia was 15, i.e. slightly higher than the previous year (2013: 12).

At the beginning of 2014 Fortum received a corporate fine of SEK 140,000 for an inadequate volume of water flow at the Ljunga hydropower plant in Sweden in 2011.

An audit carried out by regulatory authorities at Chelyabinsk CHP-2 power plant lead to a

total fine of RUB 12,000 for non-compliances in waste and wastewater management.

Studies continued at the Russian plants on measures to reduce the discharge water permit violations. The technical malfunctions occurring during the year were repaired, but development projects requiring investments were not implemented. The permit violations were caused by high concentrations in the feed water, technical malfunctions at the plant, and problems stemming from the coal quality.

**Supplier environmental assessment**

**EN32 Percentage of new suppliers that were screened using environmental criteria**

The assessment of our suppliers covers aspects related to environmental responsibility, labour practices and human

rights. The assessment of suppliers is addressed as a whole in the section [Supplier Assessment: Environment, labour practices and human rights](#).

**EN33 Significant actual and potential negative environmental impacts in the supply chain and actions taken**

The most significant environmental impacts of our supply chain are related mainly to

fuels, particularly to coal and biomasses. We purchase fuels from international and local suppliers. We recognise that open-pit coal mining can be challenging in terms of environmental protection, and working conditions in underground mines can create occupational health and safety concerns. The acquisition of biomass involves environmental risks, such as illegal logging and loss of biodiversity, but there are also economical, social and reputational risks related to human rights, labour rights and land ownership. In 2014, we had 134 fuels suppliers, 11% of them operate in risk countries.

We started the sustainability-related supplier audits in 2012 and we have aimed to increase the number of audits every year. In the audit, we assess the supplier's compliance with the requirements in Fortum's Supplier Code of Conduct. Audits are always done on-site and they include a production inspection, employee interviews, and a review of documents and records.

In 2014, we audited 14 suppliers (2013:13), around 70% of which operate in risk countries. Out of audited suppliers, only one non-conformity related to environmental issues was found. The supplier has made a corrective action plan and we are monitoring the implementation of it.

We are member of the [Bettercoal initiative](#), and we use the Bettercoal Code and tools in assessing the sustainability of the coal supply chain. In 2014, a total of 14 coal suppliers conducted a self-assessment in line with the Bettercoal initiative and one mine was audited. At the end of the year, the approval of the self-assessment and auditing process of Fortum's largest coal supplier was pending.

We have recognised the challenges related to the origin of biomass and other biofuels, and we are developing measures to verify the traceability and sustainability of the fuels. The verification system in use at Fortum's Joensuu bio-oil plant integrated with power

plant is approved for bio-oil production by the Energy Authority.

The joint venture Fortum Värme purchased biomass and bio-oil from Sweden, Finland, Russia, Brazil and Malaysia, among others. Fortum Värme conducted a total of nine audits of its own suppliers of biofuel and its biggest contractors. Fortum Värme is a participant in the WWF Global Forest & Trade Network (GFTN) through GFTN Sweden and became a member of the Forest Stewardship Council (FSC) in 2012. Additionally, Fortum Värme has been a member of the Roundtable of Sustainable Palm Oil (RSPO) since 2005 and in 2014 became a member of the Roundtable of Responsible Soy organisation.

### Read more about

- [Responsible fuel purchasing](#)

## Environmental grievance mechanisms

### EN 34 Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms

There was one grievance filed during the review period regarding noise nuisance experienced by some neighbours of the

Jelgava power plant. The power plant's night-time lighting was also considered a strong nuisance.

The noise caused by the power plant's operation does not exceed the permitted limits, but we have addressed the concern in the neighbourhood by, e.g., enclosing the equipment and by applying other technical solutions to reduce the noise level. The lighting in the power plant area is something that cannot be reduced because adequate

lighting at night is a necessity for safe operations. Besides, there are other neighbours who consider the lighting of the plant as an improvement of urban environment and safety of the neighbourhood.

There were no other grievances filed through formal grievance channels, nor were there any grievances carried over from a previous review period.

# Social responsibility

## Labour practices and decent work

### Employment

#### G4-10 Total workforce

In 2014, an average of 8,821 (2013: 9,532) employees [worked at Fortum](#). The biggest number of employees was in Russia, 4,196 (2013: 4,245) employees on average.

The number of Fortum's permanent employees on 31 December 2014 was 8,260 (2013: 9,515), i.e. 96.1% (2013: 96.2%) of the personnel. From these the number of full-

time employees was 8,078 (2013: 9,264) and part-time 182 (2013: 251).

The percentage of fixed-term employees was 3.9% (2013: 3.8%). In general, Fortum does not use supervised employees. The joint venture Fortum Värme is included in the 2013 figures.

Fortum uses contractors as needed. Contractors worked mainly in construction and maintenance work. The exact breakdown

of hours is not reported. Contractor employees worked at Fortum sites for a total of approximately 1,359,000 (2013: 1,753,000) days during the year. The figure is based on contractors' hourly logs and on estimates based on job costs and average hourly rates. The figure has been calculated on the basis of an 8-hour work day.

#### Workforce by employment contract and employment type, broken down by region and gender

	Finland		Sweden		Russia		Poland		Other countries		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
<b>Employment contract</b>												
Permanent	1,431	543	764	400	2,959	1,033	471	130	346	183	5,971	2,289
Fixed-term	40	26	13	24	137	84	1	1	0	6	191	141
<b>Employment type (permanently employed)</b>												
Full-time	1,407	510	728	347	2,956	1,032	471	129	334	164	5,896	2,182
Part-time	24	33	36	53	3	1	0	1	12	19	75	107

#### G4-11 Coverage of collective bargaining agreements

We respect our employees' freedom of association and collective bargaining, and we do not monitor the degree of unionisation of our employees. We apply local collective bargaining agreements in all countries where we operate, in compliance with the scope of each respective agreement.

Collective agreements cover about 90% of Fortum's employees.

In Latvia, Sweden and Russia, all personnel are within collective bargaining agreements. In Finland, all personnel except top management are within collective bargaining agreements. In Estonia, approximately 25% of the personnel are within the collective agreements, and in Poland, 32% of the personnel are within the national collective bargaining agreements. There are no collective agreements in Lithuania. Employment contracts are based on local legislation and on the company's human resources policy.

#### LA1 New employee hires and employee turnover

During the year, 619 (2013: 552) new employees joined Fortum and 668 (2013: 910) employment relationships were terminated. Divestments and outsourcing reduced the number of personnel by a total of 468 (2013: 126). There were 34 (2013: 36) employees on international assignment. Departure turnover in 2014 was 8.1% (2013: 9.7%). The joint venture Fortum Värme is included in the 2013 figures.

Total number and rate of new employee hires and employee turnover by age group, gender and region

New employee hires	Finland		Sweden		Russia		Poland		Other countries	
	M	F	M	F	M	F	M	F	M	F
age group	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.
below 30	8	13	27	10	147	37	2	2	5	2
30-50	20	17	26	3	169	48	11	2	19	11
over 50	0	1	5	1	22	4	4	0	3	0
<b>New recruits, %<sup>2)</sup></b>	1.4	1.6	5.0	1.2	8.5	2.2	2.8	0.7	5.1	2.5

Employees leaving	Finland		Sweden		Russia		Poland		Other countries	
	M	F	M	F	M	F	M	F	M	F
age group	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.
below 30	8	4	11	12	65	29	3	1	2	2
30-50	37	14	28	27	118	41	19	5	13	12
over 50	31	3	7	8	88	34	26	3	16	1
<b>Departure turnover, %<sup>2)</sup></b>	3.9	1.1	4.0	4.0	6.8	2.6	8.0	1.5	5.9	2.8

Employees leaving, employee's initiative	Finland		Sweden		Russia		Poland		Other countries	
	M	F	M	F	M	F	M	F	M	F
age group	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.
below 30	5	4	11	12	59	25	2	1	1	2
30-50	19	11	25	25	80	22	3	3	6	11
Over 50	5	0	4	4	46	15	4	1	2	1
<b>Voluntary departure turnover, %<sup>2)</sup></b>	1.5	0.8	3.4	3.5	4.6	1.6	1.5	0.8	1.7	2.6

Average length of service for employees leaving	Finland		Sweden		Russia		Poland		Other countries <sup>1)</sup>	
	M	F	M	F	M	F	M	F	M	F
age group	years	years	years	years	years	years	years	years	years	years
below 30	4	2	3	4	2	2	3	1	1	3
30-50	9	5	9	9	7	6	13	7	7	5
over 50	31	33	20	15	20	16	17	19	12	5

1) Data for Estonia is not complete

2) Percentage is calculated from country's number of employees

Service years of the permanent employees in 2012-2014, %

	2014	2013 <sup>1)</sup>	2012 <sup>1)</sup>
0-5 yrs.	32	34	35
6-10 yrs.	20	18	15
11-15 yrs.	10	10	10
16-20 yrs.	10	10	10
21-26 yrs.	11	11	11
27-30 yrs.	9	8	9
31+	9	9	10

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

## LA2 Employee benefits by significant operating countries

In principle, our employee benefits are applicable for all employee groups and working hours groups, for permanent and temporary and for full- or part-time employees. Our most significant operating countries are the Nordic countries, the Baltic countries, Russia and Poland. Employee benefits, like occupational health care, insurance, parental leaves and pensions are typically country-specific and comply with local legislation and the prevailing market situation. Typical fringe benefits may include, for example, car and mobile phone benefits. In addition to fringe benefits, we also provide various other employee benefits. These include, for example, longevity pay and gifts for years of service, discounted electricity prices and recreational and leisure activities. These benefits are generally for all employees.

In Finland we participate in the Tekes EVE - Electric Vehicle Systems Programme. Employees choosing an electric company car receive a monthly monetary subsidy. The subsidy applies to battery electric vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs).

Personnel in Finland have also the possibility to join the insurance fund [Enerkemi](#). The purpose of Enerkemi is to grant benefits in accordance with the Sickness Insurance Act as well as certain additional benefits according to the rules of the Fund. The Fund operates as an employee sick fund. The additional benefits are significantly better than market practices. The benefits include additional compensation for medicine, dental care and various medical devices.

We encourage our employees to exercise and to enjoy culture. In Finland, Sweden and Russia, all Fortum employees can join different personnel clubs offering activities related to sports, nature and the arts. In 2014, we supported employee recreational and leisure activities in our biggest operating countries with EUR 992,000.

- In Finland, the support for clubs, fitness and culture vouchers, and activities related to vacation homes was EUR 315,549.
- In Sweden, the support for clubs was EUR 107,890.

- In Poland, the support for employee fitness was EUR 18,892. The support for other recreational and well-being activities, including support for leisure activities and donations to pensioners, was EUR 162,047.
- In Russia, support for employee recreational activities, leisure camps and other social activities was about EUR 387,247. In Russia, recreational activities of employees' children (7-14 years) are also supported by contributing to the expenses of summer camps.

In 2014, we conducted a survey on employee benefits in our biggest operating countries. In the next phase, the survey will be done also in the smaller operating countries. The aim of these surveys is to ensure the competitiveness of benefits compared to market practices and the compliance with regulations and decrees in all our operating countries. Based on the survey, we can state that our benefits in our most significant operating countries are in a good level.

### Incentive schemes

Fortum's short-term incentive scheme, i.e. bonus system, supports the realisation of the Group's financial performance targets, sustainability targets, values and structural changes. The system ensures that the performance targets of individual employees align with the targets of the division and the Group. All Fortum employees, with the exception of certain personnel groups in Poland and Russia, are covered by the system. In Poland and Russia there are other incentive schemes. In 2014, nearly EUR 13 million from year 2013, i.e. about 85% of the target level, was paid to individuals belonging to the Fortum's short-term incentive scheme.

The purpose of Fortum's long-term incentive system, i.e. share bonus system, is to support the achievement of the Group's long-term targets by committing key individuals. The Board of Directors approves the Fortum management members and key individuals entitled to participate in the share bonus system. The Board of Directors can also exclude individual participants from the system. Participation in the system precludes the individual from being a member in the Fortum Personnel Fund.

### Pensions

Fortum's pension arrangements are presented in Financial Statements Note 32 [Pension obligations](#), and in the Governance

section [Pensions](#). Fortum has taken life insurance to the top management.

## EU18 Contractor and subcontractor employees that have undergone relevant health and safety training

The safety of employees of subcontractors and contractors is as important to Fortum as the safety of own employees. Contractor safety targets are set based on a continuous improvement principle. Safety incidents and accidents are reported, accidents are investigated, and safety performance indicators are monitored on a monthly basis. Contractor and subcontractor safety is considered in all work phases – from the selection of subcontractors for the actual work to the post-performance evaluation. Requirements are set forth in the corporate-level safety instructions and the procurement organisation's instructions, and they are further specified in local instructions.

One of the key elements in the instructions is the requirement to provide proper induction training and on-site orientation to all workers, including contractors, before starting the work. Effective induction training ensures a good understanding of site-specific risks, procedures and safety requirements. Induction training is valid only for a limited period, typically, not more than three years.

Induction training includes, at minimum, site-specific safety requirements, rules, instructions, work permit procedures, the main risks of the site and how to prepare for them, the required personnel protective equipment, near-miss and incident reporting, emergency response, inspections, housekeeping, fire protection, first-aid systems, evacuation plans, and the contact data for the individuals responsible for these tasks.

Induction training including safety training is provided for all contractors and subcontractors who work at Fortum's sites and facilities. Local organisations are responsible for implementing the training. Verification that the safety requirements presented in the induction training are understood is ensured by using interpreters, when needed, and by testing.

## Labour/Management Relations

Collaboration between employees and employer is based on local legislation, local agreements and [Fortum's Code of Conduct](#). In Finland, Fortum's employee representation system is site-, company- and division-specific, and representatives in the cooperation bodies are chosen by the employee representatives from amongst themselves.

Group collaboration meetings in Finland are held at least twice a year in conjunction with the Group's financial statements and interim reports. In addition to Group collaboration meetings, there are also division- or function-level cooperation bodies that meet a few times per year. The cooperation and employment group is comprised of seven representatives chosen from amongst the delegates. This group holds meetings approximately five times per year under the supervision of the Senior Vice President of Human Resources. It is the decision-making body in Finland-level collaboration issues, and it appoints personnel representatives for the preparation of various development projects.

In Sweden, the system is fundamentally identical to Finland. In Sweden, collaboration between personnel representatives and Fortum management at the central level takes place in the Council (Sverigerådet) that convenes twice a year. The collaboration forms are based on the agreement made between the company and personnel representatives. Additionally, there are a

significant number of meetings held locally during the year.

In Estonia, the Working Councils of various functions convened three times during 2014. A council is for cooperation between an employer and the employee representatives; the focus is on resolving, for example, occupational health and safety issues in the enterprise. Additionally, there are meetings between personnel representatives and employer representatives on an as-needed basis.

In Poland, some 30 meetings were arranged with the local labour union. The meetings focused on salary- and benefits-related issues, occupational safety, improving collaboration, and harmonisation of benefits.

In Russia, in line with local legislation, the collective bargaining agreement and the Fortum Code of Conduct, division management closely collaborates with union representatives within the labour relations board and veteran council. These bodies meet on an as-needed basis to resolve various matters related to management and employee relations.

As a rule, the Fortum European Council (FEC) convenes once a year. FEC is a Europe-wide cooperation body in which employees and employer representatives meet to discuss Fortum matters. In 2014, the Fortum European Council (FEC) held a meeting in May in Estonia, and personnel

representatives from Finland, Sweden, Poland, and Estonia participated. Issues on the Council's agenda included the CEO's review; themed workshops included occupational health and safety, well-being and reviews of Fortum's Estonian operations.

### LA4 Minimum notice periods regarding operational changes

In situations of organisational restructuring, we negotiate with personnel representatives in compliance with each country's local legislation and contractual procedures. In situations involving personnel reductions, Fortum aims primarily to support the re-employment of its personnel.

In Finland, the minimum notice period depends on the scale of upcoming changes and it varies from three to seven weeks. In Poland, Latvia and Estonia, the minimum notice period is four weeks. In Russia, minimum notice period varies from nine and eleven weeks. In Sweden, Norway and Lithuania, there is no regulated minimum notice period. In India, the minimum notice period varies from 30 days to 90 days.

The minimum notice period is based on local legislation, collective agreements or employment contracts, which are in harmony with the local legislation and agreements.

## Occupational health and safety

### LA5 Workforce represented in formal health and safety committees

Workplace well-being and work safety are regularly addressed in local-level occupational safety committees, which operate in line with local legislative requirements and represent all personnel groups. The committees exist in all our significant operating countries.

All our employees are within the sphere of occupational health care. Our occupational health care is organised in all countries of operation in accordance with local laws and regulations. We emphasise the significance of

preventive activities in promoting well-being in the company as well as employee counselling for work-related or serious illnesses.

Fortum conducts regular examinations in accordance with local laws; employees who in their work are exposed to e.g. noise, dust, radiation or perform shift work are within the sphere of the examinations. Occupational health care participates also in various discussions and assessments in the work community. The occupational health care professionals support supervisors by providing information on preventive actions as well as alternatives when the ability to work decreases. Occupational health care also offers methods and tools for these situations.

In 2014, there were, on average, 2,096 (2013: 2,412) employees in Finland within the sphere of Fortum's occupational health care. About 83% (2013: 90%) of them used Fortum's own occupational health care services and about 17% (2013: 10%) used contracted health clinics. The total costs of Fortum's own occupational health care in Finland were about EUR 0.94 (2013: 1.2) million. The occupational health care costs per person in Finland, calculated from the share paid by Fortum, were EUR 542 (2013: 569). Preventive activities accounted for 53% (2013: 45%) of occupational health care visits.

In Sweden, all employees are within the sphere of occupational health care services. 318 (2013: 439) employees used the services. Occupational health care costs in

Sweden were EUR 335 per person (2013: 113). The figures for 2013 also include the joint venture Fortum Värme's data.

In Russia, employees are within the sphere of a medical expenses insurance plan and can use private medical services. Also each production plant in Russia has a healthcare station with nursing-level first-aid services.

## LA6 Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities

In reporting injuries we comply with the principles of the United States Occupational Safety & Health Administration (OSHA) and ILO's Practices on Recording and Notification of Occupational Accidents and Diseases to the extent they conform to the legislation in Fortum's countries of operation.

Our performance in occupational safety for own personnel further improved in 2014. The lost workday injury frequency (LWIF) per million working hours for Fortum's own personnel remained at the previous year's good level of 1.0 (2013: 1.0). There were 15 (2013: 16) work-related injuries resulting in an absence, and the country breakdown was: Finland 6, Russia 5, Poland 4. There were no injuries resulting in an absence in other countries. 13 of the injuries occurred with male employees. Two of the injuries occurred to female employees; one in Russia and one in Poland.

Fortum personnel's total recordable injury frequency (TRIF) per million working hours, which includes also minor injuries that do not lead to an absence, improved to 2.0 (2013: 2.5).

There were no work-related fatalities to own personnel during 2014. There were 6 (2013: 3) serious occupational injuries resulting in an absence of more than 30 days to own personnel. Personnel absence days resulting from work-related injuries increased compared to 2013 and was 590 days (2013: 499). In calculating lost days, the lost work days starting from the injury are counted, based on the Group instructions.

Safety management at Fortum also encompasses contractors and service providers working at Fortum sites. The LWIF per million working hours for contractors improved and was 3.2 in 2014 (2013: 3.9). There were a total of 35 (2013: 54) contractor injuries resulting in an absence. The country breakdown of contractor injuries resulting in an absence was: Russia 13, Finland 13, Sweden 6, Poland 1, Germany 1, Great Britain 1. There were no injuries resulting in an absence in other countries. All of the injuries happened to males.

The fatalities and serious injuries during the year were a big disappointment. Three work-related fatalities involving contractor employees occurred in 2014. Two were in Sweden and one in Russia, and all of the perished were men. There were 9 (2013: 10) serious injuries, i.e. resulting in an absence of more than 30 days, to contractor employees.

We strive to ensure safe and healthy work conditions for personnel and support the maintenance and development of working capacity. The monitoring of sickness-related absences is defined at the Group-level, and the rate of absence due to sickness was 2.4% (2013: 2.5%); the rate of absence due to sickness was 2.2% (2013: 2.3%) for males and 2.9% (2013: 3.3%) for females. The sickness rate is calculated based on the reported theoretical working hours of the permanent employees. The figures for 2013 also include the joint venture Fortum Värme.

In 2014, there were 8 (2013: 4) cases of suspected occupational diseases in Finland. The suspected occupational diseases are

related to noise and asbestos. One of the suspected noise-related cases has been determined to be non-occupational; investigations are still under way for the other suspected cases. All the cases of suspected occupational diseases involved males.

### Joint venture Fortum Värme

In terms of safety, the joint venture Fortum Värme had a very mixed year. There were no injuries resulting in an absence for own personnel (2013: 4). The total recordable injury frequency (TRIF) per million working hours, which includes also minor injuries that do not lead to an absence, improved and was 3.7 (2013: 6.9). The lost workday injury frequency per million working hours for contractors improved in 2014 and was 10.8 (2013: 13.2). There were a total of 20 (2013: 22) contractor employee work-related injuries resulting in an absence. One of the injuries occurred to a female worker. Contractor injuries in plant maintenance work reduced clearly in 2014 to 4 (2013: 14), but the serious accidents in the CHP8 construction project were a very big disappointment. Two male employees of a contractor perished in an accident at the project work site.

### Improving contractor safety

Contractor safety remains a major challenge and will continue to be a focus area in 2015. The biggest challenges are still the construction and upgrade projects in Russia and Sweden. To improve the situation, several ongoing initiatives have been extended and new development projects have been started. To emphasise the importance of contractor safety, the contractor LWIF was made a Group-wide sustainability key indicator in 2014.

Contractor safety is also more closely linked to the short-term incentive systems. In 2015, we will improve operating models for construction projects to enhance safety, and intensify the use of the contractor management model – from contractor selection to final assessment of performance.

### Key safety figures in 2012-2014

	2014	2013	2012 <sup>4)</sup>
Lost workday injury frequency (LWIF) <sup>1)</sup> , own personnel	1.0	1.0	1.5
Lost workday injuries, own personnel	15	16	29
Lost workday injury frequency (LWIF) <sup>1)</sup> , contractors	3.2	3.9	3.8
Lost workday injuries, contractors	35	54	57
Total recordable injury frequency, own personnel <sup>2)</sup>	2.0	2.5	3.4
Fatalities, own personnel	0	0	0
Fatalities, contractors <sup>3)</sup>	3	1	1

1) LWIF = Lost workday injury frequency per one million working hours

2) TRIF = Total recordable injury frequency per one million working hours

3) Additionally two contractor fatalities in joint venture Fortum Värme

4) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

### Occupational accidents, accident frequencies and absense days due to occupational accidents in 2014 by region and gender

	Finland	Sweden	Russia	Poland	Great Britain	Germany	Estonia	Latvia	Lithuania	India
<b>Own personnel</b>										
Occupational accidents causing absence, men	6	0	4	3	0	0	0	0	0	0
Occupational accidents causing absence, women	0	0	1	1	0	0	0	0	0	0
LWIF, men	2.3	0	0.7	3.6	0	0	0	0	0	0
LWIF, women	0	0	0.5	4.4	0	0	0	0	0	0
Absence from work due to occupational accidents for men, days	80	0	257	225	0	0	0	0	0	0
Absence from work due to occupational accidents for women, days	0	0	7	21	0	0	0	0	0	0
<b>Contractors<sup>1)</sup></b>										
Occupational accidents causing absence, men	13	6	13	1	1	1	0	0	0	0
Occupational accidents causing absence, women	0	0	0	0	0	0	0	0	0	0
LWIF, men	12.5	4.9	1.7	1.9	35.5	6.9	0	0	0	0
LWIF, women	0	0	0	0	0	0	0	0	0	0

1) The number of contractor absense days due to occupational accidents not available

### Sickness absence rate of the permanent employees in 2012-2014

	2014		2013		2012	
	Male	Female	Male	Female	Male	Female
Finland	2.3	3.7	2.7	3.1	2.8	3.2
Sweden	2.0	4.1	2.3 <sup>1)</sup>	3.7 <sup>1)</sup>	2.2 <sup>1)</sup>	3.9 <sup>1)</sup>
Russia	2.0	2.0	2.0	1.9	2.1	2.2
Poland	3.6	4.7	2.6	4.6	3.5	5.0
Other countries	2.0	2.2	2.3	2.9	2.9	3.0

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

## Read more about

- [Occupational and plant safety](#)

## Training and education

### LA9 Average hours of training per employee

time being, registered in Finland, Sweden, Poland and Norway.

In 2014, the total number of training hours was 9,810. Courses and licenses are, for the

#### Training hours 2014

	Total number of training hours for employees	Average training hours per employee	Total number of training hours for females	Average training hours per female	Total number of training hours for males	Average training hours per male
<b>Finland</b>	8,992	4.41	2,055	3.61	6,937	4.72
Blue-collar	1,918	4.98	29	3.22	1,889	5.02
White-collar	7,074	4.27	2,026	3.61	5,048	4.61
<b>Other countries <sup>1)</sup></b>	818	0.31	260	0.35	558	0.29
Blue-collar	144	0.30	1	0.25	143	0.30
White-collar	674	0.31	259	0.35	415	0.29
<b>Grand Total</b>	<b>9,810</b>	<b>2.10</b>	<b>2,315</b>	<b>1.78</b>	<b>7,495</b>	<b>2.22</b>

1) Other countries: Sweden, Poland, Norway

### LA10 Programmes for skills management and lifelong learning

We offer our employees support in their professional development needs based on a 70/20/10 approach in learning and development: through on-the-job learning, learning through others and through training. Training includes both internal training programmes and, on a needs basis, external training. In 2014, training costs totalled approximately EUR 3.6 (2013: 4.6) million.

All our new employees go through an induction programme, such as Fortum Passport, the online on-boarding programme. It covers several topics, including the Code of Conduct, sustainability principles and safety. In addition, Fortum arranges an induction day, Fortum Day, which is a face-to-face event with the new recruits in different countries. In 2014, 136 (2013: 107) employees learned about Fortum's operations through the Fortum Passport programme. Fortum Day had 74 employee participants in Finland and Sweden.

As part of Leading Performance and Growth initiative launched in 2010, we have continued to develop a culture of leadership and coaching through the coaching training offered for employees and by developing team activities. By the end of 2014, around one thousand Fortum supervisors had participated in the initiative-based training for supervisors and over a hundred people in the coaching training.

Fortum offers MASTER courses for the new managers to ensure they have the skills needed to perform in their managerial role. In addition, the intention is to harmonise and develop the way of operating in HR processes in Fortum. The main themes of the MASTER courses in 2014 were performance and development discussions, recruitment, labour law, remuneration, leadership growth, working environment and a new theme, workforce administration. There was a total of 16 MASTER training days with 134 participants.

In 2014, a total of 25 young supervisors from different Fortum countries started in the new, four-module Navigator Programme. The main aim of the programme is to build internal

capabilities and develop leaders for future business.

We aim to keep the skills and competencies of our personnel at a level that maintains and improves their value in the job market. In case of redundancies, we offer outplacement services and, case by case, investigate the possibilities to arrange vocational training in co-operation with local unemployment authorities or vendors. Retraining for employees who continue working is arranged based on organisational and individual needs.

In case of redundancies, the content of the severance package that we offer is decided on the basis of local needs. The financial compensation is usually based on the years of employment at Fortum.

For employees nearing retirement age, we arrange training regarding pension-related issues and practicalities. Intended retirees have the possibility to talk about and get support for pre-retirement planning from occupational health, if needed. They also have the possibility to use the services offered by retirement insurance companies.

### Level of education of the permanent employees in 2012-2014

%	2014	2013 <sup>1)</sup>	2012 <sup>1)</sup>
Doctorate	1	1	1
University	41	37	35
Lower university	6	7	7
College	26	26	26
Vocational	22	22	22
Compulsory	4	3	3
Not indicated	0	4	6

1) Includes joint venture AB Fortum Värme samägt med Stockholms Stad

## LA11 Percentage of employees receiving regular performance and career reviews

Our permanent employees in all operating countries are within the scope of the performance and development discussion processes, which are implemented in all employee groups, and on a personal and/or team level. The annual performance and development reviews support the employee/supervisor dialogue about goals, achievements and opportunities for professional development. The discussions aim to commit and motivate employees,

engage them in the implementation of the strategy, business goals and operating plans, and improve operational planning, the workplace atmosphere and the flow of information, as well as promote performance and growth at the individual and corporate level.

Personal and/or team-specific targets aligned with Fortum's strategy are set at the beginning of the year. At the same time, the needed competence is verified and last year's performance is assessed. The achievement of targets forms the basis for incentives to be paid. Permanent employees who have a minimum of three months of employment in Fortum are within the scope of Fortum's incentive plan.

The performance and development process applies to all permanent employees, however, the electronic tool used in the process in 2014 covered about 67% (2013: 67%) of the personnel globally, out of which the performance and development process was conducted for 93% (2013: 97%). The performance and development process was nearly equally completed among female employees 95% (2013: 95%) and male employees 92% (2013: 98%). The company-wide completion rate will be available when all countries and employee groups are covered by the electronic tool.

## Diversity and equal opportunity

### LA12 Composition of governance bodies and breakdown of employees

We promote equal treatment and opportunities in recruiting, remuneration, development and career advancement, regardless of the employee's race, religion, political views, gender, age, nationality, language, sexual orientation, marital status or disabilities. We do not track the proportion of

minorities in our personnel. Any form of harassment is forbidden and addressed immediately. In Finland and Sweden, there are separate guidelines in place for workplace harassment and discrimination. In 2014, there were [two alleged cases of discrimination reported](#) (2013: 0).

The average age of our permanent employees was 44 years (2013: 44), and the share of employees over 50 years was 33% (2013: 36%). Women accounted for 28% (2013: 28%)

of our total personnel. Women accounted for 33% (2013: 31%) of the Group- and division-level management teams. The [Board of Directors](#) comprised eight members, three of them, including the Chairman, were women.

Personnel age distribution of permanent employees by age group, gender and personnel group

age group	Finland				Sweden				Russia				Poland				Other countries			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	b	w	b	w	b	w	b	w	b	w	b	w	b	w	b	w	b	w	b	w
below 30	37	65	0	48	10	63	0	53	370	130	25	107	1	6	0	8	24	14	0	25
30-50	187	610	6	305	56	324	0	240	997	587	207	399	126	119	0	74	84	102	8	103
over 50	151	381	1	183	72	239	1	106	592	283	164	131	110	109	2	46	83	39	10	37

b = blue-collar

w = white-collar

Group- and division-level management, by age and gender

age group	Men	Women
below 30	0	0
30-50	40	13
over 50	14	14

## Equal remuneration for women and men

### LA13 Ratio of basic salary and remuneration of women to men

In line with our remuneration policy, we offer a fair, transparent and competitive compensation portfolio to our employees. Salaries and wages are compliant with established practices in each country and based on local legislation and labour market agreements. Salary level is based on personal work performance, on defined competence requirements, and on the market situation in each country.

The comprehensive implementation of our human resources data management system enables the reporting of pay equality in all our operating countries. In addition to the

centralised HR data management system, a separate, local, data system is also used in Russia and therefore the data on Russia's pay equality is reported separately. Our reporting covers all personnel groups except "workers". A comparison in this group is not possible because of the small group sizes. Likewise, the number of personnel in some of our operating countries is so small that a country-specific comparison is not reliable. We have reported these countries collectively under "Other countries".

In our operating countries, the base salaries of female employees were, on average, 10% less than the male base salaries in all personnel groups. The total number of personnel included in the comparison was 3,770 of which 1,294 (34%) are female. The differences varied between countries; years

of service and job grade levels had the most impact on the differences. The relative number of females in terms of these comparison factors affected the salary differences.

Fortum's short-term incentive (STI) system includes a personal performance indicator. We have included the STI in the pay equality comparison for the personal bonus multiplier. The difference between male and female in personal bonus multiplier was 0.4%.

In Russia, the difference between female and male salaries and wages was +0.6% for comparable grade levels (1,728 individuals). There was no comparison made for the personal bonus multiplier.

### The basic salary, remuneration and other key factors of women compared to men, %

Country	Basic salary and personal bonus		Job grades		Service years
	Basic salaries	Personal bonus coefficient	Roles until middle management and specialists	Jobs with tactical or strategical role	Average service years
Finland	-15	-0.80	-6.96	-0.46	-14
Sweden	-19	2.20	-9.66	0.33	-17
Poland	10	6.20	10.84	-0.44	-27
Other countries <sup>1)</sup>	-22	-3.30	0.93	-1.37	-24
Total <sup>1)</sup>	-10	0.40	-3.36	-0.41	-20

1) Do not include Russia

## Supplier assessment: Environment, labour practices and human rights

### EN32, LA14 and HR10 Percentage of new suppliers that were screened using environmental criteria, labour practices and human rights criteria

We expect our business partners to act responsibly and to comply with the [Fortum Code of Conduct](#) and [Fortum Supplier Code of Conduct](#). In 2014, approximately half of our total volume of purchases was purchased from suppliers operating in Europe, mostly in Finland, Sweden and Poland. 15% of Fortum's purchases, excluding the Russia Division's purchases, came from risk countries. When the Russia Division's local purchases are included, our purchases from risk countries accounted for 50% of the total volume of purchases.

Fortum's Supplier Code of Conduct is implemented in all of Fortum's operating countries and it is included in all purchase agreements exceeding EUR 50,000. With the Supplier Code of Conduct, Fortum aims to ensure, among other things, that the supplier provides safe working conditions for its employees, complies with rules and regulations, and reduces the environmental impacts caused by its operations.

We assess the level of operations of our business partners through pre-selection and supplier audits. Pre-selection includes a supplier questionnaire and verification of credit. We use the supplier questionnaire to identify general and sustainability-related practices, and it covers issues related to labour practices, human rights, health and safety, and environment. The supplier questionnaire also helps to identify high-risk suppliers and the need for any further actions. The questionnaire also helps suppliers to understand our expectations for compliance with the Supplier Code of Conduct.

We perform pre-selection when the volume of the purchase exceeds EUR 50,000 and, in the case of a Nordic supplier, EUR 100,000. Majority of our purchases is from the Nordic countries and remain below EUR 100,000. In

2014, Fortum conducted pre-selection on 150 (2013: 200) suppliers and it covered 7% of the new suppliers. This figure does not include the Russia Division's suppliers, as they have their own pre-selection.

The Russia Division conducts the pre-selection in accordance with Russian procurement law, and bidding is open to all companies. In the Russian operations, we set supplier requirements for business principles and ethics, and we pay special attention to anti-corruption and conflicts of interest. Participating in bidding requires the potential suppliers to also endorse their commitment to compliance with Fortum's Supplier Code of Conduct.

Fortum is a member of the [Bettercoal initiative](#), and uses the Bettercoal Code and tools in assessing the sustainability of the coal supply chain.

We started the sustainability-related supplier audits in 2012 and we have aimed to increase the number of audits every year. In the audit, we assess the supplier's compliance with the requirements in Fortum's Supplier Code of Conduct. Audits are always done on-site and they include a production inspection, employee interviews and a review of documents and records. If non-compliances are found, the supplier makes a plan for corrective actions and we monitor the implementation of it. The suppliers we select to be audited are from risk countries or they have a significant supply contract. In 2014, we conducted a total of 14 (2013: 13) audits of suppliers operating in risk and in non-risk countries in Bulgaria, China, Poland, Czech Republic, Sweden and Russia. The most significant non-compliances identified in the audits were related to occupational safety, overtime hours, working hours of young workers, and management of the suppliers' own subcontractors

The joint venture Fortum Värme conducted a total of nine audits of its own suppliers of biofuel and its biggest contractors.

Our goal in 2015 is to audit 15 suppliers or contractors. The joint venture Fortum Värme has set its own goal of ten audits. Our goal is also to update the supplier selection criteria to be based on a systematic comprehensive risk assessment and to take into use a

simplified, lighter auditing model. The lighter model will enable also the buyer to verify a supplier's practices.

### Read more about

- [Responsible supply chain management](#)

### LA15 and HR11 Significant actual and potential negative impacts for labour practices and human rights in the supply chain and actions taken

The majority of our purchases are from countries, where the local regulation related to labour practices is strong and well implemented. In 2014, excluding the Russia Division's suppliers, we had 125 suppliers operating in risk countries and, when included, 1,448 suppliers. Our risk country classification is based on the ILO Decent Work Agenda, the Human Development Index of the United Nations and the Corruption Perceptions Index by Transparency International. Violations related to labour practices and human rights are more probable in risk countries than in no-risk countries.

In terms of reviewing labour practices, the focus is on health and safety issues and on compliance with working hours and remuneration legislation. In human rights, the elimination of child and forced labour and discrimination are important, as is freedom of association. If non-compliances are found, we require the supplier to make a plan for corrective actions and we monitor the implementation of it.

In 2014, we conducted a total of 14 (2013:13) audits of suppliers, around 70% of which operate in risk countries. Out of the audited suppliers, we found non-compliances related to labour practices with seven (50%) of them. The majority of the non-compliances were related to health and safety, but there were non-compliances related to working hours legislation as well. Out of the audited suppliers, we found non-compliances related to human rights with three (21%) of them. The observed non-compliances were related to

the working hours of young employees. Young employees are above the minimum age, but under 18 years. Suppliers with observed non-compliances have provided

corrective action plans and we are monitoring the implementation of them.

The joint venture Fortum Värme conducted a total of nine audits of its own suppliers of biofuel and its biggest contractors.

## Labour practices grievance mechanisms

### LA16 Number of grievances about labour practices filed, addressed, and resolved through formal grievance mechanisms

There was one grievance filed during the review period regarding the labour practices of contractor employees at a power plant

construction site in Russia. The social areas at the source of the grievance were repaired.

There were no other grievances filed through formal grievance channels, nor were there any grievances carried over from a previous review period.

## Human rights

### Investment

#### HR1 Human rights screening or clauses included in significant investment agreements

A sustainability assessment is carried out for all of our investment projects and it takes into consideration the environmental, occupational health and safety, and social impacts of the project. Projects requiring approval by the Fortum Executive Management Team are additionally subject to an assessment and approval by Group-level sustainability experts. The sustainability assessment includes a human rights evaluation, especially in new operating areas. A human rights assessment is also part of the systematic assessment of country and counterparty risk when planning a project.

In 2014, one significant investment project outside the EU and Russia was implemented when a new solar power plant was built in India. Fortum's human rights assessment

model was used in this project. Additionally, a lighter version of the model was used in the assessment of projects under planning in [30 different countries](#).

Fortum's Supplier Code of Conduct is implemented in all of Fortum's operating countries and it is included in all purchase agreements exceeding EUR 50,000.

#### HR2 Employee training on human rights policies or procedures

The online course for Fortum's Code of Conduct includes training in human rights-related issues and the Code of Conduct e-learning is part of the induction programme of new Fortum employees.

Our own personnel are responsible for conducting the sustainability-related supplier audits, which cover the most important human rights aspects related to purchases. By conducting the audits on our own, we gain

a better idea of the supplier's practices while increasing the supplier's understanding of human rights issues. Fortum's auditors each receive 1.5 days of internal training, during which they review the requirements of the Supplier Code of Conduct, the sub-areas to be audited, and the tools to be used to verify compliance with the requirements. After the training, supplier audits are started together with an experienced auditor.

In 2014, we trained nine auditors from Russia and Sweden. The total number of training hours was 108 and less than 1% of our personnel participated in the training. In 2015, we will continue training auditors and developing competence in different divisions and countries. Those who have completed the internal training are recommended to also complete auditor training on the Social Accountability (SA8000) standard. With the exception of one auditor, the SA8000 auditor training has been completed by all of the trained auditors who regularly conduct audits.

## Non-discrimination

### HR3 Incidents of discrimination and corrective actions taken

There were two incidents of alleged discrimination reported in 2014 (2013: 0); one was handled internally and the other will

go to court proceedings in 2015. The incident handled internally resulted in termination of employment for the employee who was guilty of discrimination.

## Freedom of association and collective bargaining, child labour and forced and compulsory labour

### HR4 Supporting the right to freedom of association and collective bargaining in risk areas

### HR5 and HR6 Measures taken to eliminate child and forced labour in risk areas and in operations of significant suppliers

We respect employees' right to freedom of association and collective bargaining as well as the inviolability and integrity of labour union representatives. In our operating countries, freedom of association and collective bargaining are guaranteed by law. The exception to this is India, which has not ratified the International Labour Organisation's (ILO) Convention on the right to freedom of association and collective bargaining. In India, we comply with the same practices as in other countries of operation, and we do not limit or prohibit the right to freedom of association.

All forms of child labour are strictly prohibited and in violation of Fortum's Code of Conduct. Of our operating countries, India has not ratified the International Labour Organisation's (ILO) Convention on the minimum age and the worst forms of child labour. Our functions in India require job applicants to be of adult age.

All forms of forced labour are strictly prohibited and in violation of Fortum's Code of Conduct. We have not identified risks related to the use of forced labour in our own operations.

In 2014, about half of the total volume of our procurements was purchased from Europe, mainly from suppliers operating in Finland, Sweden and Poland. Our purchases from risk countries accounted for 15%, excluding the Russia Division's purchases. If the Russia Division's local procurements are included in the calculation, our purchases from risk countries were 50% of the total volume of procurements. Our risk country classification is based on the ILO's Decent Work Agenda, the Human Development index published by the UN, and the Corruption Perceptions index published by Transparency International. In these countries, violations related to human

rights and social issues are more likely than in non-risk countries.

In 2014, we continued sustainability-related supplier audits, and we audited a total of 14 (2013: 13) suppliers. About 70% of the audited suppliers operate in risk countries. The audits assess how effectively the supplier meets the requirements of Fortum's Supplier Code of Conduct. The audits also assess what kinds of guidelines the supplier has in place to prevent the use of child and forced labour as well as how the right to freedom of association is realised by the supplier.

In conjunction with material supplier audits conducted in China, we found non-compliances related to working hours of young workers. The suppliers with the non-compliances have made a plan for corrective measures, and we are monitoring the implementation of the plan. The audits conducted did not reveal non-compliances related to freedom of association and collective bargaining, but we did give a recommendation to two material suppliers to improve the communication between personnel and management.

The joint venture Fortum Värme conducted a total of nine audits of its own suppliers of biofuel and its biggest contractors.

## Assessment

### HR9 Operations that have been subject to human rights reviews or impact assessments

We have a process in place for country and partner risk assessment. The process has two parts: a light and a deep assessment, and it

also covers human rights reviews and impact assessments. A light assessment is done for all new countries in where our business unit is planning the sales of operation or maintenance services, for example, and it is based on publically available sources. In 2014, thirty of these assessments were made. A deep assessment was done for two countries. We consider the breakdown by

country required by the indicator as a business secret and we do not report it.

## Supplier human rights assessment

### HR10 Percentage of new suppliers that were screened using human rights criteria

Our supplier assessments cover aspects related to environmental responsibility, work conditions and human rights, and the supplier assessments are reviewed as a whole in section [Supplier assessment: Environment, labour practices and human rights](#).

### HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken

The actual and potential negative impacts related to working conditions and human rights are reviewed as a whole in the section [Supplier assessment: Environment, labour practices and human rights](#).

## Human rights grievance mechanisms

### HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms

There were two grievances filed during the review period regarding cases of alleged

discrimination, which are reported on under indicator [HR3](#).

There were no other grievances filed through formal grievance channels, nor were there any grievances carried over from a previous review period.

## Society

### Local communities

We communicate openly, honestly and proactively, and we engage in a dialogue with the influential stakeholder groups located in the vicinity of our power plants. We carry out collaboration projects with local communities. We conduct environmental impact assessments (EIA) for our projects in accordance with legislative requirements. Hearing of stakeholders is part of the EIA process. The environmental impact assessments and reports are publicly available. In addition, relevant stakeholders are heard in all licensing procedures.

### SO2 Operations with significant actual and potential negative impacts on local communities

In the future, the construction of large solar power plants in India may have an impact on the livelihoods, land use and transport routes of the local population. Minimising local impacts and collaborating with stakeholders is taken into consideration in the project planning phase.

Our hydropower production in [Sweden and Finland](#) has positive and negative impacts on local communities. Hydropower production and water regulation may alter the flow rate and the range and rhythm of the

water level in waterways, compared to their natural state. Hydropower construction and use may weaken the reproduction and living habitats for fish. The changes may have also negative impacts on local communities. The most significant negative impacts are related to the recreational use of water systems, particularly on the shores of lakes that are strongly regulated, and the impacts on fishing. Power plant dams also form an obstacle to boating. We mitigate and compensate the adversities through [numerous measures](#), such as stocking fish and building boat launch ramps.

### Read more about

- [Local collaboration](#)

## Anti-corruption

### SO3 Operations assessed for risks related to corruption and the significant risks identified

In all our countries of operation and business units, corruption-related risks are managed as part of operative risk management and control procedures. The assessment of corruption-related risks is carried out on a regular basis, is documented, and covers the entire company. We use procedures to ensure the prevention, oversight, reporting and enforcement based on the requirements prescribed in international legislation.

We have included a systematic compliance risk assessment in business plans, and risk monitoring is part of the business performance review. Line management regularly reports its activities to the Fortum Management Team and further to the Board of Directors' Audit and Risk Committee to ensure compliance with regulations.

The significant risks we have identified include bribery and corruption, fraud and embezzlement, non-compliance with legislation or company guidelines, conflicts of interest, improper use of company assets, and working under the influence of alcohol or drugs.

#### Read more about

- [Compliance Management and Code of Conduct](#)

## Public policy

### SO6 Total value of political contributions

We do not award donations to political parties or to any kind of political activities,

### SO4 Communication and training on anti-corruption policies and procedures

Anti-corruption principles have been included in Fortum's Code of Conduct since 2007; all our employees and members of the Fortum Board of Directors have participated in the Code of Conduct training. Completing the Code of Conduct e-learning course is part of the induction programme of new employees.

In 2014, we continued the extensive anti-corruption training for different functions. In planning the training, we took into consideration the risk profiles of the different functions, and we used purchasing authority of a certain monetary value as a special criterion. The Legal department arranged a total of 25 training events for people working e.g. with procurements and investments. Additionally, Russia's compliance organisation arranged one division-level, seven regional and 20 plant-specific training events. The measures taken during the year are reported to the Board's Audit and Risk Committee.

We communicated about the Code of Conduct and ethical business practices via, e.g., the online personnel magazine and the intranet as part of Fortum Sound employee survey communications. We emphasised ethical business practices also in customer communication articles on the intranet.

We append our Supplier Code of Conduct to all purchase agreements that have a value in excess of EUR 50,000. These agreements account for about 95% of our total purchase volume, and geographically they primarily target Finland, Sweden, Russia, Poland and Estonia. Collaboration partners in this group include fuel, material and service suppliers.

religious organisations, authorities, municipalities or local administrators.

### SO5 Confirmed incidents of corruption and actions taken

We have internal procedures in place for dealing with potential cases of corruption in a professional manner, in accordance with applicable laws and with respect to the rights and personal integrity of all parties involved. We investigate each incident in accordance with these procedures, including a hearing of the relevant persons and parties, and, if needed, we decide on the appropriate consequences and corrective actions.

Additionally, after each incident, we determined the need to increase awareness about Fortum's Code of Conduct. We can do this, e.g., through e-learning or by arranging in-person training to ensure that the employee is fully aware of what we consider appropriate business conduct and what the employee's responsibility is in cases of non-compliance.

No cases of suspected corruption or bribery were detected in 2014. At the end of 2014, the local district court in Sweden issued a decision on a matter that was reported in Fortum's Sustainability Report 2013, relating to a possible malpractice of a person employed by the joint venture Fortum Värme. The person was found guilty of accepting bribes and condemned to conditional imprisonment and fines. The parties have appealed the decision. The employment contract was terminated in 2013. In addition, a suspected case of bribery targeting a former Fortum employee and originating from the year 2006 is due in court in Sweden in March 2015. The employment contract was terminated in 2006.

#### Read more about

- [Ethics and integrity](#)

## Anti-competitive behavior

### SO7 Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes

In 2014, a court ruling in Russia found the Russia Division's heat business guilty of

abuse of a dominant position. We have appealed the decision to a higher court.

According to the ruling, the Russia Division's heat business had entered into a competition-restricting agreement in 2010 with the administration of the city of Tyumen and the heat distribution network operator. The agreement was terminated in 2013, and we have reported the incident in our 2013 Sustainability Report. According to the

court's ruling in 2014, the agreement restricted companies engaged in heat-only production from entering the heat market in some areas of Tyumen. The fines related to the court ruling are presented under indicator [SO8](#).

## Compliance

### SO8 Significant fines and non-monetary sanctions for non-compliance with laws and regulations

In Russia, we paid fines totalling about RUB 33 million related to the court ruling

presented in indicator [SO7](#). There were no non-monetary sanctions imposed.

## Grievance mechanisms for impacts on society

### SO11 Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms

There were no grievances filed about impacts on society during the review period, nor were

there any grievances carried over from a previous review period.

## Disaster/Emergency planning and response

### Contingency planning, related plans and training

The main disaster and emergency situations we prepare for are related to our operations, such as power plant and dam safety and securing the uninterrupted distribution of electricity and heat. For dam and nuclear safety, emergency preparedness obligations in Finland and Sweden are based on regulatory provisions; likewise, there are terrorism-related preparedness obligations in Russia. Otherwise, emergency preparedness obligations prescribed by authorities are of a general nature. Based on its own risk

assessment, Fortum independently defines the crisis and exceptional situations it prepares for and drafts action plans for.

Fortum's crisis management and business continuity plans are prepared for the Group, division and local levels. The testing and updating of the crisis management and continuity plans are the responsibility of each division and line organisation. Crises impacting Group operations more broadly are managed at the Group level. Crisis communication instructions have been prepared for e.g. power and heat outages and for the Loviisa nuclear power plant. Corporate Security is responsible for crisis management

development, e.g. for organising rehearsals. Corporate Communications is responsible for crisis communication.

In 2014, a crisis rehearsal was held for Fortum's Executive Management Team. In Finland, the annual emergency exercise related to a nuclear power accident was held at the Loviisa power plant. Participants in the exercise included Loviisa power plant's emergency preparedness organisation, Fortum's Executive Management Team, Communications, and the Nuclear and Thermal Power division, as well as key authorities: emergency response centre, national rescue services, police and the

Radiation and Nuclear Safety Authority. In late 2014, the emergency preparedness organisation held crisis preparedness rehearsals in Stockholm and Karlstad, Sweden. Among other things, the exercises tested the operation of alarm systems and the crisis preparedness team's actions in a

flood situation related to a dam accident. Fire safety and rescue rehearsals were held in Estonia and Latvia. Cyber security risks were addressed during the year by drafting a cyber security plan.

A goal for 2015 in preparing for crises and exceptional situations is to improve the risk management related to data security, and fire and rescue operations.

## Product responsibility

### Product and service labeling

#### PR3 Product and service information required by procedures

For our products, the most pertinent obligatory product information requirement is valid for all the electricity we produce in EU countries. We comply with EU legislation-based national legislation on the origin of electricity. This requires the electricity producer to disclose the origin of the produced electricity, the carbon dioxide emissions and the amount of radioactive waste.

In 2014, Fortum Markets sold electricity to private and business customers in Finland, Sweden and Norway. Electricity was acquired from the Nord Pool electricity exchange. Depending on the type of electricity agreement, customers receive electricity generated from different energy sources. The origin of the electricity is verified in

accordance with the European Guarantee of Origin system.

Sources used to produce the electricity sold by Fortum Markets in 2013:

- 37% renewable energy (35% was sold as eco-labelled electricity)
- 58% nuclear power
- 5% fossil fuels

Emissions generated in the production of electricity sold by Fortum:

- Accumulation of spent nuclear fuel: 1.6 mg/kWh
- Carbon dioxide: 32 g CO<sub>2</sub>/kWh

Due to the Nordic reporting practice, figures for 2014 will be available in summer 2015.

#### PR5 Results of surveys measuring customer satisfaction

The international and independent EPSI Rating annually surveys the customer satisfaction of electricity companies in Finland, Sweden and Norway. According to 2014 EPSI survey, the general electricity sector customer satisfaction remained at the same level in Finland, decreased slightly in Sweden, and improved in Norway. Fortum's customer satisfaction improved in Finland and Norway, but decreased in Sweden. According to the EPSI survey, Fortum's customer loyalty improved the most of all electricity companies in Finland. Customer loyalty and customer willingness to recommend Fortum were also visible in the growing customer base. Customer assessment of the quality of Fortum's products and services also improved.

#### Customer satisfaction<sup>1)</sup> in 2012-2014

	2014	2013	2012
Finland	74	71	68
Sweden	63	65	64
Norway	70	69	69

1) In Finland and Norway research method was EPSI, in Sweden Svenskt Kvalitetsindex

We measure customer satisfaction and development of the company's reputation and the factors impacting it among the different stakeholder groups annually with the extensive One Fortum survey. The survey covers customers, public administration, capital markets, non-governmental organisations and opinion makers, and Fortum's personnel. In Finland and Sweden, we also survey the views of the general public. As in the previous year, in 2014 we conducted the survey in Finland, Sweden,

Norway, Poland, the Baltic countries and Russia.

Our reputation has remained strong amongst the most important stakeholder groups and, despite a small decline, is still the strongest among stakeholder groups within the capital markets. Among public administration representatives, our reputation improved for the third consecutive year.

Our reputation improved in Finland among all stakeholder groups and especially among

customers. Customer satisfaction improved the most in the heat business. Satisfaction slightly decreased among private electricity customers, but improved among business customers in all market areas. Customers of the Power Solutions unit continue to be very satisfied and more loyal and willing to recommend Fortum than previously.

Our reputation is still the weakest among the general public and decreased from 2013, as our reputation weakened in Sweden. Opinion makers and non-governmental organisations

have a more positive attitude towards Fortum than previously.

## Marketing communications

### PR7 Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications

There were no violations of regulations and voluntary principles observed in 2014.

## Access

We apply international indicators (SAIFI, SAIDI and CAIDI) to measure electricity distribution reliability.

### EU28 Power outage frequency

The number of fault-based power outages per customer (SAIFI) in our Swedish electricity network in 2014 was 1.15 (2013: 1.01).

### EU29 Average power outage duration

The average duration of power outages per customer (SAIDI) in our Swedish electricity network in 2014 was 97 (2013: 103)

minutes. The average duration of power outages caused by faults (CAIDI) was 81 (2013: 92) minutes. The average duration of power outage per customer (SAIDI) target set for 2014 was a maximum of 100 minutes.

### EU30 Average plant availability factor

We measure the availability of our CHP and hydropower plants with an energy availability indicator. It is calculated by dividing the power plant's actual production with the theoretical maximum production in the period under review. The calculation excludes planned maintenance outages. However, if an outage of a CHP plant is longer than planned,

this is considered a fault, which decreases the availability. For hydropower plants, outages due to faults and unplanned or prolonged outages decrease the availability factor only if they lead to spillage.

The average energy availability of our CHP plants in 2014 was 94.7%; the target was 95%. The average energy availability of our hydropower plants was 99.96%. The load factor describing the energy availability of the Loviisa nuclear power plant was 90.9% (2013: 92.5%), which is high by international standards.

# Acronyms and units

## Acronyms used in the report

Acronym	Term	Definition
GRI	Global Reporting Initiative	International organisation promoting sustainability reporting
EHS	Environment, Health and Safety	-
CHP	Combined Heat and Power	-
LWIF	Lost Workday Injury Frequency	Frequency of injuries that lead to absence from work for one or more days
TRIF	Total Recordable Injury Frequency	Frequency of all injuries that require medical treatment
SAIDI	System Average Interruption Duration Index	Cumulative duration of power outages per customer in a specified time interval
CAIDI	Customer Average Interruption Duration Index	Average duration of power outages in a specified time interval
SAIFI	System Average Interruption Frequency Index	Number of power outages per customer in a specified time interval
CER	Certified Emission Reduction	Emission reduction unit in projects under Clean Development Mechanisms
ERU	Emission Reduction Unit	Emission reduction unit in Joint Implementation projects
IUCN	International Union for Conservation of Nature	-

## Quantities and units used in the report

### Energy

1 terawatt hour (TWh) = 1,000 gigawatt hours (GWh) = 1,000,000 megawatt hours (MWh) = 1,000,000,000 kilowatt hours (kWh)

1 terawatt hour (TWh) = 3,600 terajoules (TJ)

1 terajoule (TJ) = 278 megawatt hours (MWh)

1 petajoule (PJ) = 1000 terajoules (TJ)

### Capacity

1 megawatt (MW) = 1,000 kilowatts (kW) = 1,000,000 watts (W)

### Volume

1 cubic metre (m<sup>3</sup>) = 1,000 litres (l)

1 normal cubic metre (Nm<sup>3</sup>) = 1 m<sup>3</sup> of gas in normal atmospheric pressure (1.0 bar) and temperature 0 °C

### Mass

1 tonne (t) = 1,000 kilograms (kg)

1 megatonne (Mt) = 1,000,000 tonnes (t) = 1,000,000,000 kilograms (kg)

### Activity

1 becquerel (Bq) = 1 nuclear transformation per second

1 terabecquerel (TBq) = 1 000 gigabecquerels (GBq) = 1 000 000 000 000 becquerels

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