ROSATOM

SUSTAINABILITY REPORT 2023

SUSTAINABILITY REPORT

2023

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STATEMENT OF THE DIRECTOR GENERAL

Over the past five years, ROSATOM has made significant progress in the development of sustainability competences.

We first started to incorporate the requirements of the sustainability agenda by implementing individual pilot projects in various areas of our business. A number of regulations and sustainable practices were developed literally from scratch. But now sustainable development is an integral part of operations of the Russian nuclear industry. ROSATOM's high level of sustainability maturity is regularly reflected in the fact that it tops ESG rankings and that the Corporation's sustainable practices generate interest on various public platforms both in Russia and abroad.

Sustainability initiatives are closely intertwined with the core business of a modern company. This means that literally every employee should be involved in the agenda, understand and subscribe to the principles of responsible business conduct.

Today, we are working to enhance the green quality of ROSATOM's product line. This priority is reflected in ROSATOM's updated strategy until 2030: we aim to confirm the green quality of our products and projects at all levels and explicitly ensure compliance with the requirements of green regulation. At least 80% of revenue in the industry must qualify as green and 'sustainable'.

The confirmation of the green quality of our business not only enhances the confidence of our customers and partners. In addition to the business rationale, we see the importance of our focus on the green and sustainable agenda to our young employees and today's school and university students who will join the Corporation in the coming years.

In the nuclear industry, we think in decades, and our commitment to sustainability principles, environmental and social responsibility is an integral part of ROSATOM's long-term development.

Alexey Likhachev

Director General of ROSATOM

ROSATOM'S SUSTAINABILITY IN FIGURES, 2023

51%
of total low-carbon power generation in Russia

5.8
g of CO_2e/kWh — ROSATOM's carbon footprint over the life cycle of a nuclear power plant

76
million tonnes of CO_2e — net reduction in greenhouse gas emissions

9
wind farms in Russia with a total capacity of 1 GW

31
nuclear towns and cities with a total population of about 2.5 million people

6.7x
the volume of recycled and reused water exceeds the volume of water withdrawal

32%
share of women among ROSATOM's employees

31%
share of employees under 35

0.06
LTIFR

In the course of its operations, State Atomic Energy Corporation Rosatom (hereinafter referred to as ROSATOM or the Corporation) is committed to global sustainable development priorities and adheres to the 10 principles of the UN Global Compact. ROSATOM contributes to the achievement of the UN Sustainable Development Goals (SDGs) through its product line, its financial and economic performance and its efforts to ensure the sustainability of internal environmental, social and governance processes.

Organisations in the industry adhere to the Unified Industry Policy on Sustainable Development; the Policy is available on the website at https://rosatom.ru/en in the Sustainability section.

Sustainable Development Policy

Overall, ROSATOM's operations contribute to the achievement of all 17 of the UN SDGs. Given the scale of its business and individual NPP construction projects, the following Goals are of key importance to the Corporation:

Given the nature of its operations, the nuclear industry also directly contributes to the achievement of the following SDGs:

ROSATOM attaches special importance to preventing the risk of any aspect of its operations having a negative impact on the following SDGs:

ROSATOM has identified the following five sustainability priorities until 2030:

1. Leadership in the climate agenda in Russia;
2. At least 80% of revenue to be derived from green products;
3. Access to green finance;
4. High positions in Russian and foreign ESG rankings;
5. Systematic work to improve ESG performance.

ROSATOM's progress in the sphere of sustainable development in accordance with the 10 principles of the UN Global Compact is presented in the following sections:

Environment	**Environment and Safety** — Environmental policy — Air pollutant and greenhouse gas emissions — Radiation safety — Energy efficiency — Water use and wastewater discharge — Industrial and consumer waste management — Biodiversity and land rehabilitation
Human Rights **Labour**	**Social Aspect** — Labour relations — Talent development — Occupational health and safety — Human rights — Employee health — Developing the regions of operation — Corporate volunteering
Anti-Corruption	**Corporate Governance** — Public reporting — Supply chain and procurement procedures — Code of Ethics — Anti-corruption policy — Audit and internal control — Data protection

1 KEY RESULTS IN 2023

>RUB 300 BILLION

BY YEAR END 2023, ROSATOM HAD RAISED GREEN LOANS

KEY RESULTS IN 2023

ROSATOM regularly undergoes external independent assessment of its ESG performance. In 2023, the Russian Analytical Credit Rating Agency (ACRA) upgraded ROSATOM's rating from ESG-3 to ESG-2 and assigned it to the ESG-AA category[1], which corresponds to a very high environmental, social and governance score (the assessment was solicited, and the Corporation participated in the rating process). The assessment took into account information on the performance of six key Divisions of the Corporation: the Mining, Sales and Trading, Fuel, Engineering, Power Engineering and Mechanical Engineering Divisions.

ESG rating

vigeo eiris *

2021
Score 56 out of 100

АКРА

2023
ESG-2

2022
ESG-3

Expert РЕЙТИНГОВОЕ АГЕНТСТВО

2023
ESG-II (b)

RAEX

2023
Ranked No. 46 out of 160

2022
Ranked No. 52 out of 160

НКР

2023
Level I

2022
Level II

Forbes

2023
Best employer

'Platinum'

ЭКГ рейтинг ответственного бизнеса *

2023
AAA
145

** For JSC Atomenergoprom*

1. According to ACRA's updated ESG rating scale.

In 2023, the Corporation did a pilot calculation of greenhouse gas emissions (Scope 1 and Scope 2) for the entire corporate scope in accordance with international methodologies, as well as a calculation of the carbon footprint for a number of product lines, including NPPs and WPPs.

Special emphasis is placed on increasing the share of green products in the Corporation's product line. Accordingly, ROSATOM regularly conducts an internal ESG certification procedure. In 2023, 28 product areas underwent certification, including small NPPs, wind power, energy storage systems, etc.

In 2023, the Corporation continued to apply green finance instruments. By year end 2023, ROSATOM had raised green loans totalling more than RUB 300 billion (ESG loans and green bonds). Green finance raised by the Corporation was used to refinance wind farm construction projects in Russia and the Akkuyu NPP project in Türkiye.

ROSATOM continues to take steps to strengthen the role of nuclear power in enabling an efficient energy transition; it works with green regulation and develops the relevant instruments with a focus on nuclear power. Examples of such instruments introduced in 2023 include the mechanism of 'nuclear' certificates launched on the Russian market; along with traditional green or renewable energy certificates, they help Russian manufacturers to reduce the carbon footprint of their products.

For details, see section 1.2 'Sustainable Development Management' (Chapter 1 'Strategic Report') of ROSATOM's public report for 2023.

2 CONTRIBUTION TO THE ACHIEVEMENT OF THE UN SUSTAINABLE DEVELOPMENT GOALS

5.8 G OF CO_2E/KWH

CARBON FOOTPRINT OVER THE LIFE CYCLE OF A NUCLEAR POWER PLANT

CONTRIBUTION TO THE ACHIEVEMENT OF THE UN SUSTAINABLE DEVELOPMENT GOALS

ROSATOM's products and projects are aimed at improving the quality of people's lives and contribute to the achievement of the UN Sustainable Development Goals. When developing new businesses, ROSATOM focuses particularly on environmental impacts, value creation for end users and assessment of product solutions in terms of their alignment with the UN SDG priorities.

One of the priorities of ROSATOM's business is to develop low-carbon energy solutions that contribute to climate action, including nuclear and wind power, energy storage systems, etc.

Examples of ROSATOM's products and their contribution to the achievement of the UN SDGs

Nuclear power

Nuclear power is the largest source of green low-carbon energy in Russia. In 2023, ROSATOM's NPPs generated 217.398 billion kWh of electricity, accounting for 19.1% of the total electricity output in the Unified Power System of Russia. In 2023, 35 power units of 10 NPPs and the floating thermal nuclear power plant were in operation in Russia, with their installed capacity totalling 29.6 GW.

ROSATOM is a global leader in NPP construction abroad. At year end 2023, ROSATOM's portfolio of overseas projects comprised 33 power units in 10 countries worldwide, with 22 power units in seven countries at the active construction stage.

SMALL NPP IN YAKUTIA

To provide power supply in remote regions, ROSATOM is developing solutions for small-scale nuclear power generation (small nuclear power plants, or SNPPs). The Corporation continues to implement the project to build a pilot SNPP with a RITM-200N reactor unit in the Sakha Republic (Yakutia), which will provide uninterrupted supply of clean electricity to more than 1,500 residents in the village of Ust-Kuyga (taking into account projected population growth driven by the development of the region) and will support the development of the Kyuchus deposit. In the future, as existing diesel- and coal-fired power generation capacities will be replaced with small-scale nuclear power generation, this will enable a reduction in emissions by up to 20,000 tonnes of CO_2 per year. The construction of the SNPP in Yakutia will create more than 1,000 new jobs, including those for local residents.

In 2023, a siting licence was obtained for the SNPP and the construction of offsite infrastructure was started. In addition, a temporary construction camp was opened in 2023; it will accommodate at least 250 people who will be involved in the construction of the SNPP. Preparatory construction and installation work was started at the main SNPP construction site, and the production of equipment was launched.

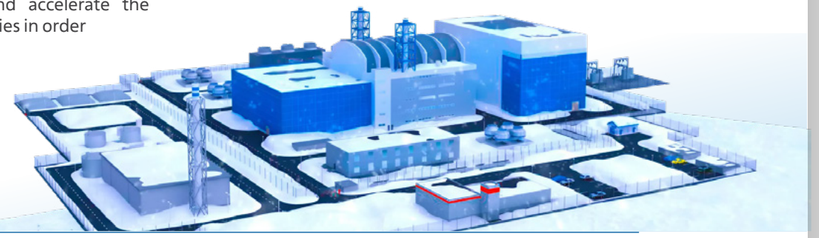
In 2023, a positive opinion was obtained from the Ethnological Expert Review Panel for the findings of ethnological impact assessment (EIA) carried out in areas traditionally inhabited by indigenous minorities of the North and areas where they engage in traditional industries and natural resource activities.

In 2023, the project to build a small nuclear power plant (SNPP) in the Sakha Republic (Yakutia) was declared winner in the Clean Energy and Energy Efficiency category of the Green Eurasia International Climate Competition. The award ceremony was held on 24 May 2023 in Moscow on the sidelines of the 2nd Eurasian Economic Forum.

The Corporation has singled out the climate agenda as a priority both because it is an essential aspect of sustainable development and given the important contribution of the nuclear power industry to reducing the carbon footprint in Russia and globally.

ROSATOM regularly participates in the Conference of the Parties to the United Nations Framework Convention on Climate Change. At COP28, ROSATOM joined the Net Zero Nuclear Industry Pledge, an international initiative launched by the World Nuclear Association, whose participants include more than 120 companies operating in 140 countries globally. The participants of the initiative agreed to make every effort to increase the contribution of existing nuclear power plants and accelerate the development of new nuclear technologies in order to at least triple nuclear power capacity by 2050. In addition, as part of its work at COP28, ROSATOM on behalf of the Russian Federation endorsed the IAEA statement on the role of nuclear power in the climate agenda.

At the conclusion of COP28, the need to develop nuclear power was explicitly mentioned in the final declaration of the Conference of the Parties; this is a major landmark for the entire global nuclear industry.



Green regulation of the nuclear power industry

Major milestones in the development of national green regulation in Russia include the adoption in August 2023 of Federal Law No. 489-FZ on Amending the Federal Law on the Electric Power Industry, which establishes the procedure for using certificates of origin of electricity to label low-carbon sources of electricity, with nuclear power explicitly included in the list of such sources. A national system for trading in such green and nuclear certificates became operational in February 2024.

Since 2021, ROSATOM's organisations have been offering consumers the green quality of low-carbon nuclear and wind power in the form of free bilateral contracts or certificates of origin of electricity. Deals of this kind are concluded with major Russian companies in the metals, oil and gas, retail and other sectors. Overall, over a three-year period, total low-carbon energy supplies covered by free bilateral contracts and certificates exceeded 20 billion kWh, including about 9 billion kWh in 2023.

In the context of sustainable development, it is important that the sustainability of nuclear power should be recognised in official documents at the national level. Green taxonomies are the main instrument for recognising nuclear power as a low-carbon (green) source of energy; they also define requirements for nuclear power projects. By year end 2023, nuclear power projects had been included in green project taxonomies and similar documents in Russia, China, Japan, South Korea and the EU, as well as EAEU and ASEAN documents. Nuclear power is labelled as green and 'sustainable' in the documents of a total of more than 30 countries.

Compliance of nuclear technologies and projects with the requirements of the taxonomies has been confirmed, among other things, through the following groups of criteria: the minimum level of greenhouse gas emissions, safety guarantees for the NPP operation stage, commitment to closing the nuclear fuel cycle, and safe radioactive waste management and NPP decommissioning.

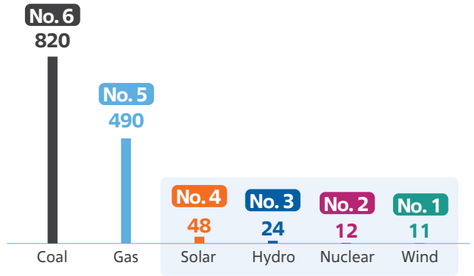
Minimum greenhouse gas emissions

The nuclear power industry plays a vital role in the achievement of global climate targets as it has ensured steady 24/7 power generation for 60 years, with a potential for service life extension.

Nuclear power generation is a source of low-carbon energy that meets base load power demand. Nuclear power generation does not produce direct CO_2 emissions, which puts it on a par with renewable energy sources, such as wind power.

To confirm this, in 2023, ROSATOM calculated the carbon footprint in accordance with the current international and national standards of the Russian Federation[1] for a number of its product lines, including large NPPs[2].

GREENHOUSE GAS EMISSIONS*

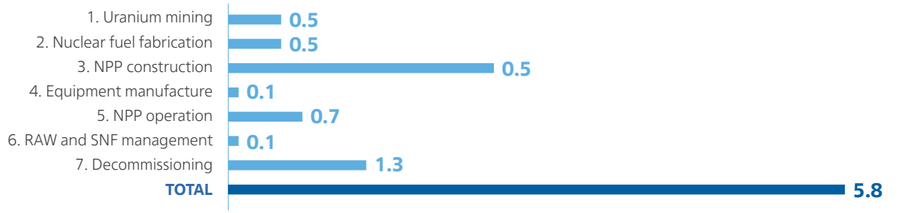


** Over the life cycle (g of CO2e/kWh)*

Source: IPCC

For the purposes of the calculation, the NPP life cycle is divided into seven stages.

Carbon footprint over the NPP life cycle[3], g of CO_2e/kWh



1. International standard: ISO 14067:2017 Greenhouse gases. Carbon footprint of products. Requirements and guidelines for quantification; national standard: GOST R ISO 14067-2021. National Standard of the Russian Federation GOST R ISO 14067-2021 Greenhouse gases. Carbon footprint of products. Requirements and guidelines for quantification.
2. Based on actual data for Novovoronezh NPP-2, except for the Decommissioning stage, for which a simulation approach was used.

The calculations done by ROSATOM show that greenhouse gas emissions over the NPP life cycle total 5.8 g of CO_2e/kWh.

Furthermore, given that different process stages can be used in the calculation at individual stages of the NPP life cycle, including nuclear fuel production and RAW and SNF management, greenhouse gas emissions over the life cycle of ROSATOM's NPPs range between 5.8 and 6.4 g of CO_2e/kWh. It is worth noting that this figure is lower than greenhouse gas emissions over the life cycle of ROSATOM's WPPs[1], which have been calculated at 8.7 g of CO_2e/kWh.

ADAPTATION TO CLIMATE CHANGE (ROSTOV NPP, POWER ENGINEERING DIVISION)

Rostov NPP is the southernmost nuclear power plant in Russia. It comprises four power units with VVER-1000 reactors with installed capacity totalling 4,071 MW. The NPP is situated in the Rostov Region, where the air temperature rises above 40°C in summer, which poses weather and climate risks for the NPP.

A mechanical draft cooling tower has been built and put into operation at the NPP. It operates in tandem with the main evaporative cooling tower of power unit No. 3. The cooling tower is started up when air and soil temperatures rise above 40°C and 60°C respectively. During hot weather, it additionally cools used process water in the water recycling system with air flows generated by air handling units. The cooling tower has a service life of 30 years.

When the outdoor air temperature is high, the evaporative and mechanical draft cooling towers operating simultaneously help to eliminate the need to reduce the load on power unit No. 3 to maintain the operation of the condenser within the prescribed parameters during hot weather between May and October, with additional electricity generation during the operation of the mechanical draft cooling tower totalling about 325 million kWh per year.

The launch of the mechanical draft cooling tower has helped to avoid reducing the capacity of power unit No. 3 and to minimise the load on the main NPP equipment and improve the safety and reliability of the NPP as a whole. A project is currently underway to build a similar cooling tower for power unit No. 4 of Rostov NPP. It is scheduled to be completed in 2026.

1. Based on actual data for the Bondarevskaya WPP.

Safety of nuclear power

The safety of people and the environment is ROSATOM's top priority. Both national and international regulations on the use of nuclear energy set some of the strictest and most comprehensive safety requirements.

ROSATOM continuously improves its technological solutions and the safety of nuclear power plants at all stages of their life cycle. Russian-design reactors feature a combination of active and passive safety systems that minimise the likelihood of accidents and prevent the risk of damage from a hurricane, a flood, an earthquake and other disasters. The Corporation's technological solution based on the VVER-1200 technology (in commercial operation since 2017) is the world's most advanced reactor technology currently in commercial operation; it complies with all post-Fukushima safety requirements.

ROSATOM is working to improve materials and technologies used in the nuclear fuel cycle. The development of accident tolerant fuel is high on the agenda of the global nuclear community. The term 'accident tolerant fuel' refers to nuclear fuel that is resilient to accidents. This fuel is expected to maintain its performance not only under normal conditions but also in the event of loss-of-coolant accidents. The Corporation is developing accident tolerant fuel for light-water reactors; this includes new approaches to both fuel cladding materials and fuel matrices.

ROSATOM's operations are underpinned by the principles of responsible use of natural resources in order to preserve them for future generations. The key principles underlying the management of radioactive materials include safe and responsible RAW management and waste minimisation. ROSATOM's organisations perform the full range of RAW management tasks, from processing to disposal, including removal, transportation and characterisation, RAW stabilisation for disposal (conditioning) and burial, as well as construction of RAW storage and disposal facilities.

The nuclear industry is also developing closed nuclear fuel cycle (CNFC) technologies. ROSATOM is implementing the Proryv ('Breakthrough') Project, which is focused on developing a new technological platform for the nuclear power industry. It involves the widespread adoption of technologies for the recycling of nuclear materials. This will considerably increase the availability of feedstock for the nuclear power industry and will help to address the issue of spent nuclear fuel and radioactive waste accumulation by reusing SNF reprocessing products instead of storing them and by drastically reducing the volume and radioactivity of waste.

PILOT AND DEMONSTRATION ENERGY FACILITY IN SEVERSK (TOMSK REGION)

ROSATOM is building the BREST-OD-300 reactor, which does not use natural uranium and enables the disposal of long-lived radioactive waste. The BREST-OD-300 reactor will form part of the Pilot and Demonstration Energy Facility (PDEF), which will be of crucial importance for the entire global nuclear industry. This nuclear technology hub of the future comprises three interconnected facilities that are unique in the world: a fuel fabrication/refabrication module that will produce uranium/plutonium fuel; the BREST-OD-300 power unit and an irradiated fuel reprocessing module.

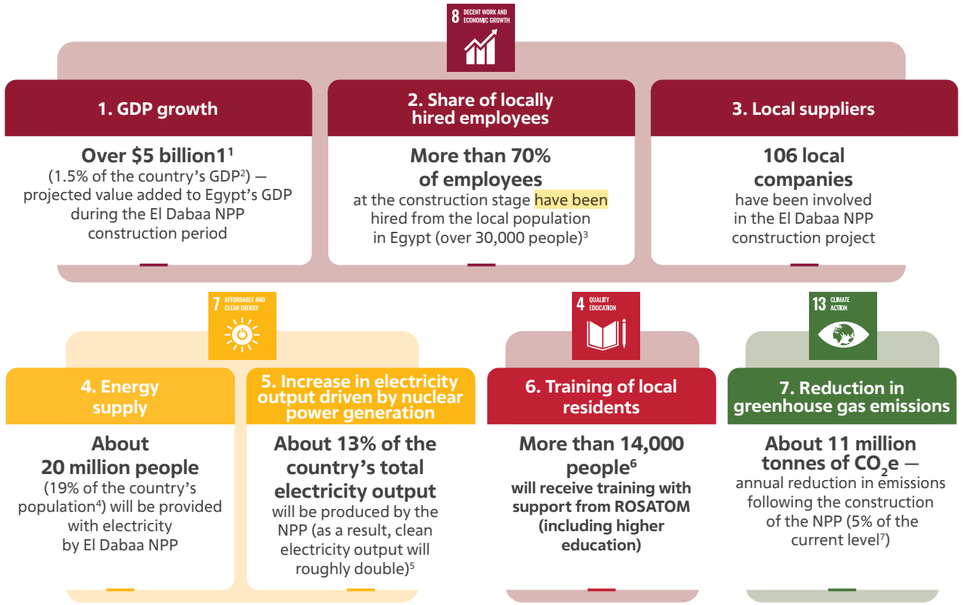
EXAMPLES OF CONTRIBUTION OF NPP CONSTRUCTION PROJECTS TO SUSTAINABLE DEVELOPMENT

Contribution of El Dabaa NPP to the achievement of the UN SDGs, Egypt

El Dabaa NPP is the first nuclear power plant in Egypt. It is being built near the town of El Dabaa (3.5 km from the Mediterranean Sea and 300 km from Cairo).

The power plant will comprise four Generation III+ VVER-1200 power units with a capacity of 1,200 MW each.

Installed capacity: 4.8 GW Power generation: **31.2 TWh per year**



1. Contribution to GDP calculated based on a study by Oxford Economics, 'The economic benefit of improving the UK's nuclear supply chain capabilities' (not including induced impacts).
2. GDP for 2023 according to the International Monetary Fund.
3. At the peak of construction in 2025/2026.
4. Population according to data for 2023.
5. After the NPP reaches its design capacity, with the contribution of other energy sources to the country's energy balance remaining unchanged compared to 2022.
6. In March 2024.
7. Share in total greenhouse gas emissions from fuel combustion in Egypt.

ESG projects being implemented at the El Dabaa NPP site, Egypt

ENVIRONMENTAL AND BIODIVERSITY CONSERVATION PROGRAMMES

Environmental monitoring

- JSC Atomenergoproekt conducts environmental monitoring as part of engineering surveys

Environmental infrastructure

- Water intake facilities are equipped with fish screens
- Wastewater and storm water is treated

Safe NPP design

- A closed-loop two-circuit cooling system prevents the contamination of water bodies with pollutants
- Technologies for effective treatment of radioactive media are applied

PROJECTS TO DEVELOP SOCIAL INFRASTRUCTURE

Educational infrastructure

- A school, a nursery school and a library
- Territory of Childhood day care centre

Healthcare infrastructure

- Two first-aid posts

Sports infrastructure

- A sports area comprising a swimming pool, a football ground and table tennis facilities
- Two gyms
- A children's playground
- A workout area (planned)

Shopping facilities

- A cafe and a takeout
- Two grocery stores and a hairdressing salon

PROJECTS TO DEVELOP TRANSPORT INFRASTRUCTURE

Road infrastructure

- An access road to the NPP site (connecting the Alexandria – Mersa Matruh highway and El Dabaa NPP) has been built

Marine infrastructure

- A seaport in the vicinity of the El Dabaa site (commissioned in March 2023)

Contribution of Rooppur NPP to the achievement of the UN SDGs, Bangladesh

Rooppur NPP is the first nuclear power plant in Bangladesh. It is being built on the eastern bank of the Padma River near the city of Ishwardi (160 km from the capital city, Dhaka).

The power plant will comprise two Generation III+ VVER-1200 power units with a capacity of 1,200 MW each.

Installed capacity: 2.4 GW

Power generation: **17.4 TWh per year**

1. GDP growth

About $3 billion1[1]
(0.7% of the country's GDP[2]) — projected value added to GDP of Bangladesh during the Rooppur NPP construction period

2. Share of locally hired employees

81% of employees
at the construction stage will be hired from the local population in Bangladesh (over 24,000 people)[3]

3. Local suppliers

71 local companies
have been involved in the Rooppur NPP construction project

4. Energy supply

About 37 million people
(22% of the country's population[4]) will be provided with electricity by Rooppur NPP

5. Increase in electricity output driven by nuclear power generation

About 18% of the country's total electricity output
will be produced by the NPP (as a result, clean energy output will increase by a factor of ~15)[5]

6. Training of local residents

More than 18,000 people[6]
have received training with support from ROSATOM (including higher education)

7. Reduction in greenhouse gas emissions

About 9 million tonnes of CO_2e
annual reduction in emissions following the construction of the NPP (9% of the current level[7])

1. Contribution to GDP calculated based on a study by Oxford Economics, 'The economic benefit of improving the UK's nuclear supply chain capabilities' (not including induced impacts.
2. GDP for 2023 according to the International Monetary Fund.
3. At the peak of construction in 2021; 4 – population according to data for 2023.
4. Population according to data for 2023.
5. After the NPP reaches its design capacity, with the contribution of other energy sources to the country's energy balance remaining unchanged compared to 2023.
6. Between 2019 and 2023.
7. Share in total greenhouse gas emissions from fuel combustion in Bangladesh.

ESG projects being implemented at the Rooppur NPP site, Bangladesh

ENVIRONMENTAL AND BIODIVERSITY CONSERVATION PROGRAMMES

Environmental monitoring

- JSC Atomenergoproekt conducts environmental monitoring as part of engineering surveys
- A list of environmental aspects and associated risks and opportunities has been compiled

Environmental infrastructure

- Water intake facilities are equipped with fish screens
- Wastewater and storm water is treated

Ensuring compliance with water chemistry specifications

- Environmentally friendly and safe chemicals are used in order to ensure compliance with water chemistry specifications for the system during its operation

PROJECTS TO DEVELOP SOCIAL INFRASTRUCTURE

Sports infrastructure

- A multipurpose sports facility
- Three gyms in the Green City residential area
- A football pitch, a gym, a swimming pool and a sauna in the village of Bangla Kutir

Healthcare infrastructure

- Two first-aid posts
- A vaccination centre

Educational infrastructure

- A practical training facility for construction and installation workers
- Territory of Childhood day care centre

Shopping facilities

- Five shops and a cafe

An Orthodox chapel

PROJECTS TO DEVELOP TRANSPORT INFRASTRUCTURE

Road infrastructure (Rooppur NPP – Dhaka)

- The road surface quality has been improved
- The section of the road has been widened to four lanes
- Travel time has been reduced from nine to six hours
- Safety has been improved

River infrastructure

- A cargo terminal (port) on the Padma River
- A reinforced concrete dam to protect the riverbank against erosion

Contribution of Akkuyu NPP to the achievement of the UN SDGs, Türkiye

Akkuyu NPP is the first nuclear power plant in Türkiye and the world's first NPP project based on the BOO model.

The power plant is being built in Mersin Province on the southern coast of Türkiye.

The power plant will comprise four Generation III+ VVER power units with a capacity of 1,200 MW each.

Installed capacity: 4.8 GW Power generation: **35 TWh per year**

1. GDP growth

About $7 billion
(~1% of the country's GDP) — estimated contribution of the project to Türkiye's GDP during the NPP construction period

2. Tax revenue

More than $2 billion
in additional tax payments to the national budget during the construction period

3. Share of locally hired employees

~80% of employees
at the construction stage will be hired from the local population in Türkiye[1]

4. Local suppliers

More than 400 local companies
have been included in the list of suppliers for the project (with ~40% of construction and installation work and supplies to be carried out by Turkish suppliers)

5. Energy supply

The NPP will provide electricity to more than **15 million people** (~18% of the country's population, or roughly the population of Istanbul)

6. Increase in low-carbon energy production

Following its launch, Akkuyu NPP will account for **~10%** of the country's total electricity output, adding **~27%** to the current clean electricity output[2]

7. Training of local residents

About 600 Turkish nuclear specialists will undergo training at Russian universities as part of a targeted personnel training programme for Akkuyu NPP[3]

8. Reduction in greenhouse gas emissions

About 18 million tonnes of CO_2e — annual reduction in emissions (~3.2% of the current level) **due to the replacement of power generation from other sources as a result of NPP operation**

1. With a total of more than 25,000 people employed at the construction site at the peak of construction.
2. Türkiye's electricity generation structure in 2022 (the International Energy Agency).
3. In addition, support is provided for the development of the national educational system by enhancing vocational education programmes to train graduates of Turkish technical colleges and involve them in the project.

ESG projects being implemented at the Akkuyu NPP site, Türkiye

ENVIRONMENTAL AND BIODIVERSITY CONSERVATION PROGRAMMES

Environmental monitoring

- The status of terrestrial and aquatic flora and fauna and marine life is monitored
- Annual environmental monitoring reports are prepared and submitted to the industry regulator, the Nuclear Regulatory Authority of the Republic of Türkiye (NDK)

Environmental infrastructure

- Industrial and household waste is sorted and transferred for processing
- Water intake facilities are equipped with fish screens that prevent fish from swimming or getting drawn into them

Other

- AKKUYU NUCLEAR JSC is a partner in a project to monitor, protect and save sea turtles living in the vicinity of the NPP construction site

PROJECTS TO SUPPORT AND DEVELOP SOCIAL INFRASTRUCTURE

Education

- A school has been opened for 390 students, including both children of employees of AKKUYU NUCLEAR JSC and other school students in the region
- The company supports schools and preschools and holds career guidance events for school students in the region where the NPP is located

Housing and related infrastructure

- The company plans to build a residential area for the personnel (at least 6,290 people), including apartment buildings, a school, a nursery school, catering facilities, a clinic with a pharmacy, shopping facilities, a sports facility, children's playgrounds and sports grounds, a laundry, a hairdressing salon and a community centre

Healthcare

- The company supports healthcare institutions in its region of operation
- A first-aid post functions at the site
- Voluntary health insurance is arranged for employees

PROJECTS TO DEVELOP TRANSPORT INFRASTRUCTURE

Road infrastructure

- The Akkuyu NPP project is driving the development of road infrastructure in Mersin Province, including the renovation of a road connecting the Gülnar district centre and the NPP construction site: narrow sections have been widened; road markings have been repainted; fences have been installed on steep slopes and at dangerous turns; the enforcement of speed limits has been enhanced. Collectively, these measures have helped to make the road considerably safer

Marine infrastructure

- To support the implementation of the project, a pier has been built at the NPP construction site, making it possible to deliver heavy equipment directly to the site without increasing the burden on the region's transport infrastructure

Each of ROSATOM's NPP construction projects contributes to the achievement of sustainable development goals. NPPs are a stable and safe low-carbon energy source. Economic benefits from NPP construction projects include GDP contribution totalling billions of US dollars, tax payments to the national budget of the customer country and orders placed with local suppliers. For the country's population, benefits from a construction project include primarily jobs, social programmes and training provided to local specialists.

DESIGN AND CONSTRUCTION OF GREEN BUILDINGS (ENGINEERING DIVISION)

As part of the Paks II NPP construction project in Hungary, design engineers in the Engineering Division have designed an office building compliant with the requirements of the BREEAM international environmental assessment and certification framework.

The design of the office building enables the use of alternative modes of transport (bicycles and electric vehicles); charging stations have been installed. To optimise performance and conserve energy, energy-saving equipment and devices enabling sustainable water use and the collection of rainwater have been installed. The design incorporates a Smart Home system enabling automated sensor-based control of building systems.

The design has been assigned an 'Excellent' BREEAM rating at the engineering documentation assessment stage. The design of the building incorporates high-end environmental technologies and is aligned with the best practices in terms of energy efficiency, heat recovery, employee comfort and workplace lighting in accordance with Hungarian and EU standards.

Estimated electricity consumption for the building and associated CO_2 emissions are 8% and 9% respectively lower than those of a similar standard building.

NPP construction projects involve the implementation of multiple infrastructure programmes, such as building educational and healthcare facilities and upgrading transport infrastructure. The projects involve numerous industries and make an overall contribution to improving the standard of living in the customer country.

Wind power

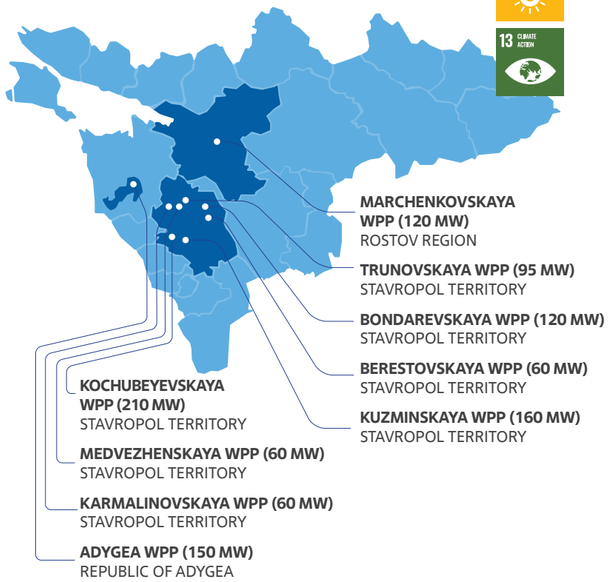
In order to diversify its product solutions in the sphere of low-carbon power, ROSATOM has been developing the wind power business since 2017.

At year end 2023, nine wind farms with a total capacity of 1 GW were in operation in Russia. In 2023, wind power generation totalled 2.27 billion kWh. By 2027, ROSATOM plans to commission wind power plants with a total capacity of about 1.7 GW.

ROSATOM produces 2.5 MW wind turbines in-house. At year end 2023, local content in equipment produced by the Corporation stood at 68%.

In accordance with ROSATOM's international business strategy, the target for the total installed capacity of overseas renewable energy assets (wind and solar power plants) has been set at 5 GW by 2030.

Location of ROSATOM's wind farms



Energy storage systems and electric mobility

A separate business area controlled by ROSATOM, Energy Storage Systems, was established in 2020. It is focused on lithium-ion batteries for electric vehicles, as well as stationary energy storage systems for uninterruptible and emergency power supply and energy storage systems for renewable energy.

The Corporation is involved in comprehensive development of solutions to promote electric mobility in the country. To achieve this, a factory that will produce lithium-ion cells for electricity storage systems is being built in the town of Neman in the Kaliningrad Region. Its capacity will total 4 GWh per year. This will make it possible to supply batteries for nearly 50,000 electric vehicles. In September 2023, the construction of a similar factory was started in the village of Krasnaya Pakhra (New Moscow). Like the factory in Kaliningrad, it will have a capacity of 4 GWh per year. The factory will be built in partnership with the Government of Moscow. The factory in the Kaliningrad Region is expected to be launched as early as September 2025, while the factory in New Moscow is scheduled to be commissioned in 2026.

In July 2023, the Corporation acquired a shareholding in a company producing Russian electric vehicles, Atom; in turn, this has generated demand for the development and supply of traction batteries and electric drives, which are key components of electric vehicles.

In addition to the contract for the supply of traction batteries for ATOM electric vehicles, a contract has been signed for the supply of batteries for Moskvich electric vehicles (155,000 units) and electric buses (more than 5,000 units).

Environmental solutions. Waste management

The Ecology National Project is a national project of the Russian Federation aimed at creating a safe and comfortable living environment, dismantling the most hazardous legacy facilities that cause environmental damage and developing a system for hazardous waste management. As part of the Ecology National Project, ROSATOM is responsible for the implementation of the Infrastructure for the Management of Hazard Class 1 and 2 Waste Federal Project and has participated in the implementation of the Clean Country / General Cleanup, Preservation of Lake Baikal, and Clean Air Federal Projects.

The development of an integrated system for hazard class 1 and 2 waste management in Russia involves building a secure system for managing the entire process chain, from waste generation to waste processing into recycled products, as well as building the relevant infrastructure for hazard class 1 and 2 waste processing.

As part of the Clean Country / General Cleanup Federal Project, the Corporation is working in the Leningrad and Irkutsk Regions to reduce environmental risks posed by legacy facilities. This involves repairing environmental damage at the site of the Krasny Bor toxic industrial waste landfill and in the Usolye-Sibirskoye municipality.

The Corporation is building seven environmental technology parks. They will have a total throughput of up to 350,000 tonnes of waste, which will help to address the national shortage of capacities for the processing of hazardous waste. The seven environmental technology parks are scheduled to be commissioned by the end of 2026.

The Preservation of Lake Baikal Project is focused on environmental improvement of Lake Baikal, which involves rehabilitating sites with a high and extremely high level of pollution caused by the operations of Open Joint-Stock Company Baikalsk Pulp and Paper Mill.

As part of the Clean Air Project, in 2023, the Corporation started work on the left-bank landfill in Magnitogorsk (Chelyabinsk Region). Earlier, in 2021, the Corporation successfully completed the reclamation of the municipal landfill in Chelyabinsk, which was the largest municipal solid waste landfill in Europe at the time. The landfill was rendered safe and restored to greenfield status, and a greenhouse was built at the site. The Corporation will now be able to replicate this experience at a similar site in the region.

The left-bank municipal solid waste landfill in Magnitogorsk, the second largest industrial hub in the Chelyabinsk Region, was in operation between 1957 and 1 June 2022. It is located practically within the city boundaries, with the nearest residential buildings situated just 900 metres away from the landfill.

The volume of accumulated waste totals 5 million m^3. The landfill body has an area of 37.5 hectares. Pollutant emissions into the atmosphere from the landfill total 16,800 tonnes per year.

The site will be rendered safe in 2024.

Development of the Northern Sea Route. International logistics

In 2018, ROSATOM was assigned the functions of the infrastructure operator of the Northern Sea Route (NSR). Its responsibilities include managing navigation along the NSR, building infrastructure facilities, providing navigational and hydrographic support and ensuring the safety of navigation in the challenging Arctic environment.

ROSATOM operates the world's only nuclear-powered icebreaker fleet, which is a low-carbon type of marine transport, as it uses nuclear energy.

ENVIRONMENTAL MONITORING ALONG THE NSR

As part of the project to conduct environmental monitoring along the Northern Sea Route, field research was carried out between late July and October 2023 in port areas along the NSR.

Specialists from the Marine Research Centre of Lomonosov Moscow State University collected samples of sea and surface water, air, bottom sediments and aquatic organisms at 47 monitoring stations, performed hydrological measurements and counted sea mammals, sea and semiaquatic birds.

In 2023, cargo traffic along the Northern Sea Route (NSR) exceeded the target set for the Northern Sea Route Development Federal Project by more than 256,000 tonnes. In 2023, cargo traffic along the NSR totalled 36.256 million tonnes, up by 6.4% year on year.

ROSATOM is developing the Eurasian Container Transit project, which will supplement existing transport routes and will make global supply chains more resilient. As the Eurasian Container Transit route is shorter, it will help to reduce the environmental footprint of marine transport. In addition, the new transport corridor will help to attract investment in the Arctic, which will support job creation and improve macroeconomic and social performance indicators in the Russian Arctic.

Nuclear medicine and isotope products

Business areas prioritised by ROSATOM include the development of nuclear medicine. Solutions for nuclear medicine offered by the Corporation include the manufacture of equipment for diagnostics and therapy, raw radioisotopes for medical applications, the production of radiopharmaceuticals from the radioisotopes, as well as design and construction of nuclear medicine centres.

At year end 2023, ongoing projects included batch production of 16 types of medical equipment and products for medical applications, including the first Russian linear accelerator, Onyx, and the Brachium gamma radiation therapy facility. In addition, by 2030, the Corporation plans to launch the production of new types of high-technology medical equipment, including MRI, CT and PET/CT scanners, endoscopic equipment, linear particle accelerators, cyclotrons and ultrasound machines, as well as the relevant consumables.

Projects are underway to develop medical infrastructure. In 2024, a radionuclide therapy centre in the Lipetsk Region is scheduled to become operational. In 2025, a radionuclide therapy centre in the Republic of Bashkortostan is scheduled to become operational. In 2026, the radiology department of the East Siberian Cancer Centre in Irkutsk comprising a positron emission tomography centre will start to provide medical services to patients. The construction of a cyclotron unit that will supply radionuclides for A.N. Bakulev National Medical Research Center for Cardiovascular Surgery is underway; the unit will be commissioned in 2025.

ROSATOM is a global leader in the production of medical isotopes for the manufacture of radiopharmaceuticals. The sales geography includes 600 organisations across Russia, 100 companies in neighbouring countries, and more than 50 countries globally. The sales of raw isotopes and finished isotope products for healthcare, science and industry make it possible to provide high-technology medical care to at least 2.5 million people per year.

NUCLEAR MEDICINE BUILDING AT THE DMITRY ROGACHEV CENTRE

In 2023, the Nuclear Medicine Building of Dmitry Rogachev National Research Centre was commissioned.

Innovative high-technology medical equipment has been installed in the building; the groundwork has been provided for the development of medical scientific research on childhood cancer and its effective treatment; capabilities have been provided for PET/CT diagnostics and subsequent development of customised radiopharmaceuticals. This is the first building forming part of a paediatric clinic that accommodates all stages, from the production of radionuclides and radiopharmaceuticals to high-precision diagnostics and therapy.

Multipurpose irradiation centres

ROSATOM builds multipurpose centres in Russia and abroad which specialise in the processing of products using ionising radiation. This technology is in demand in agriculture, where it is used for the treatment of seeds and food products in order to extend their shelf life, prevent spoilage and protect them against insect pests. In healthcare, the technology is widely used for the sterilisation of medical products.

On 21 September 2023, a new multipurpose processing centre (MPC) specialising in the irradiation treatment of products was opened in Obninsk. ROSATOM's MPC network currently includes five operating centres in Saint Petersburg, Dubna, Obninsk, Rodniki and Lytkarino, and a centre in Kazan that is currently at the commissioning stage.

Irradiation treatment destroys pathogenic microorganisms and helps to extend product shelf life and increase the germination capacity of seeds without the use of chemicals (pesticides). The safety of this method for food product sterilisation has been confirmed by the Food and Agriculture Organisation (FAO) and the IAEA. Irradiation has been approved for use in more than 60 countries.

Smart City

ROSATOM develops solutions for the digitisation of the urban environment, municipal and regional administration. The Smart City platform is an integrated information system for a variety of user groups. The platform helps to streamline workflows in the sphere of municipal administration, urban infrastructure, housing and utilities, transport, public safety, and business development.

Smart City solutions are used in 129 non-nuclear and 19 nuclear towns and cities across Russia, as well as in neighbouring countries. Projects at the regional level have been implemented in 12 constituent entities of Russia.

SMART REGION (NIZHNY NOVGOROD REGION)

The Smart Region project was implemented in the Nizhny Novgorod Region in 2023; it involved rolling out the Smart City platform in all municipalities of the Nizhny Novgorod Region and establishing a single regional situation room.

The platform will help to improve the productivity of municipal employees and improve services by at least 30% by integrating disparate data from regional systems and incorporating them into standardised business processes.

3 ENVIRONMENT, CLIMATE AND RADIATION SAFETY

76 MILLION TONNES OF CO_2E

NET REDUCTION IN GREENHOUSE GAS EMISSIONS

ENVIRONMENT, CLIMATE AND RADIATION SAFETY[1]

ENVIRONMENT

Principle 7. Businesses should support a precautionary approach to environmental challenges.

Principle 8. Businesses should undertake initiatives to promote greater environmental responsibility.

Principle 9. Businesses should encourage the development and diffusion of environmentally friendly technologies.

Environmental policy

ROSATOM seeks to align its operations with the 'Do No Significant Harm' principle, which involves minimising environmental pollution, the negative impact on ecosystems and risks to human health.

The **Uniform Industry-Wide Environmental Policy of ROSATOM and Its Organisations (2008[1])** (hereinafter referred to as the Environmental Policy) is the main regulatory document in the sphere of environmental safety and environmental protection in the nuclear industry; it is regularly updated. The Environmental Policy sets out the goals and key focus areas in the sphere of environmental safety and environmental protection in the regions where nuclear facilities are located. ROSATOM regularly develops environmental policy implementation plans. A Comprehensive Environmental Policy Implementation Plan has been approved for the period from 2022 through 2024. It includes organisational, operational and technical measures to be implemented by the Corporation and its organisations in order to improve the environment and the standard of living.

ROSATOM pursues a responsible environmental policy underpinned by the precautionary principle. The policy prioritises the preservation of natural ecosystems and stipulates that the latest scientific achievements must be used to ensure environmental safety and that environmental aspects of operations of organisations in the industry must be transparent and the relevant information must be made publicly available. ROSATOM's organisations, including the holding companies of its key Divisions, have obtained certification confirming compliance of their environmental management systems with the ISO 14001 international standard and regularly undergo recertification audits to confirm their compliance with this standard.

Environmentally relevant organisations of ROSATOM publish environmental safety reports on an annual basis. These reports provide information on their environmental performance, including emissions and discharges, industrial and consumer waste and radioactive waste,

Environmental safety reports:

1. The numbering of the principles referred to in the sections 'Environment, Climate and Radiation Safety', 'Social Aspect' and 'Corporate Governance' matches the order in which the ten principles of the UN Global Compact are listed.
2. The years of approval of the first versions of the documents are indicated.

progress in the implementation of the environmental policy, the development and implementation of management systems and industrial environmental control systems, as well as engagement with government agencies (including local governments), environmental non-governmental organisations, research and social institutions and local communities. The reports are publicly available.

Pollutant and greenhouse gas emissions

In 2023, pollutant emissions into the atmosphere totalled 50,600 tonnes; the pollutant capture rate reached 85.7%.

Pollutant emissions into the atmosphere[1], '000 tonnes

	2020	2021	2022	2023
Total, including:	38.0	37.0	39.1	50.6
Particulate emissions	**14.2**	**13.5**	**11.7**	**11.4**
NO_x emissions	**6.1**	**7.4**	**10.0**	**20.2**
SO_2 emissions	**11.6**	**9.8**	**10.7**	**10.6**
CO emissions	**3.3**	**3.8**	**4.3**	**6.4**
Hydrocarbon emissions, including:	**2.2**	**2.1**	**2.0**	**1.6**
Methane emissions	0.8	0.7	0.7	0.4
Volatile organic compounds	1.2	1.3	1.0	1.0
Other gases and liquids	**0.6**	**0.4**	**0.4**	**0.4**

Pollutant emissions into the atmosphere increased by 11,500 tonnes compared to 2022 due to the inclusion of data on emissions in branches of JSC Quadra – Power Generation starting from 2023.

ROSATOM is taking steps to reduce pollutant emissions into the atmosphere from its organisations as part of an Action Plan to Minimise the Negative Impact of ROSATOM's Organisations on the Environment until 2025. Measures implemented by ROSATOM's organisations as part of the plan included the following:

- An enterprise in the Mining Division carried out a technical upgrade of an ash collector in boiler house No. 6 of the CHPP, which helped increase the ash removal rate to 99%;
- An enterprise in the Mechanical Engineering Division installed a gas scrubbing chamber in a packaging production area, which will ensure a pollutant capture rate of at least 80%.

For details, see section 5.4 'Environmental Safety' (Chapter 5 'Safety Report') of ROSATOM's public report for 2023.

1. Pollutant emissions are reported by ROSATOM's organisations using chemical analysis methods or automatic gas analysers.

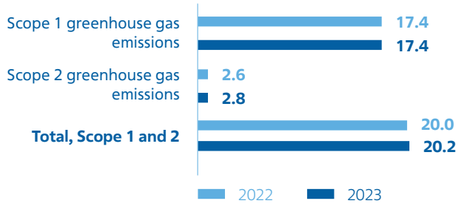
Greenhouse gas emissions

In 2023, the Uniform Methodological Guidelines for the Calculation of Greenhouse Gas Emissions of ROSATOM and Its Organisations (Scope 1 and Scope 2) were approved in the industry; they are informed by international standards.

The Guidelines use global warming potential values from the IPCC Fifth Assessment Report (AR5).

The level of greenhouse gas emissions in 2022 has been selected as a baseline for the assessment of ROSATOM's greenhouse gas emissions[1].

Greenhouse gas emissions in ROSATOM (million tonnes of CO_2e)



114 nuclear organisations were included in the calculation in 2023.

In 2023, greenhouse gas emissions totalled 20.2 million tonnes of CO_2e, including direct emissions (Scope 1) totalling 17.4 million tonnes of CO_2e (their volume remained unchanged compared to 2022 as the baseline year).

Given the low-carbon nature of nuclear and wind power generation, the total contribution of ROSATOM's operating NPPs and WPPs to the prevention of greenhouse gas emissions in Russia is estimated at 100 million tonnes of CO_2e per year. Thus, in 2023, the net positive impact of ROSATOM's operations on climate (taking into account Scope 1 and 2 greenhouse gas emissions) totalled about 80 million tonnes of CO_2e.

Breakdown of Scope 1 emissions by type of greenhouse gas

Name	Share, %
Carbon dioxide (CO_2)	**98.5**
Refrigerants (several substances)	**0.7**
Methane (CH_4)	**0.4**
Tetrafluoromethane (CF_4)	**0.2**
Nitrous oxide (N_2O)	**0.1**
Sulphur hexafluoride (SF_6)	**0.1**

Breakdown of Scope 1 greenhouse gas emissions by source category

Name	Share, %
Stationary fuel combustion	**97.17**
Mobile fuel combustion	**0.98**
Air conditioning	**0.85**
Wastewater management	**0.28**
Lime production	**0.22**
Zirconium production	**0.17**
Natural gas distribution	**0.10**
Other	**≤ 0.23**

Furthermore, there have been changes in specific direct greenhouse gas emissions amid a significant increase in revenue.

1. The data presented in the 2022 public annual report have been revised in accordance with the approved Methodological Guidelines.

Specific direct greenhouse gas emissions in ROSATOM and its organisations ('000 tonnes of CO_2e per RUB 1 billion)

The major share of ROSATOM's greenhouse gas emissions (about 69%) is produced by JSC RIR, including JSC Quadra – Power Generation, which manages heating networks in 20 towns and cities in Russia (mainly gas- and coal-fired CHPPs) to ensure steady energy supply to consumers.

Breakdown of ROSATOM's Scope 1 and 2 emissions (million tonnes of CO_2e, %)

Division	Scope 1 and 2 emissions, million tonnes of CO_2e	Share, %
Infrastructure Solutions	**14.0**	**69.1**
Mining	**2.5**	**12.3**
Fuel	**1.4**	**7.1**
Mechanical Engineering	**0.6**	**3.0**
Power Engineering	**0.2**	**1.1**
Engineering	**0.06**	**0.3**
Sales and Trading	**0.001**	**0.0**
Other	**1.4**	**7.1**

The next stage of development of the industry-wide system for managing greenhouse gas emissions in ROSATOM and its organisations will involve developing and implementing specific measures, with priority given to preventing an increase in specific greenhouse gas emissions in the key Divisions and the industry as a whole.

Radiation safety

ROSATOM seeks to ensure that its operations are completely safe for people and the environment as a matter of priority; the Corporation is responsible for process safety across the production chain, from uranium mining to decommissioning and RAW and SNF management.

Radiation safety management systems have been implemented at all facilities posing nuclear and radiation hazards; the use of these systems is a mandatory requirement.

The safety status of nuclear facilities is assessed based on the number and scale of recorded deviations in their operation, which are benchmarked against the IAEA International Nuclear and Radiological Event Scale (INES). Events on the scale are rated at seven levels: the upper levels (4–7) are termed 'accidents', while the lower levels are 'incidents' (2–3) and 'anomalies' (1). Events that have no safety significance are classified as below scale, at level 0. Events that have no safety relevance are classified as 'out of scale'.

In 2023, there were 42 deviations rated at level 0 and out of scale and two deviations rated at level 1. All deviations were investigated in accordance with the established procedure. There were no events rated above level 1 on the international INES scale in 2023.

Changes in the number of deviations in NPP operation according to the INES scale

	2020	2021	2022	2023
Total, including:	24	34	37	44
Level 0 and out of scale	**24**	**34**	**37**	**42**
Level 1	**0**	**0**	**0**	**2**

In 2023, all events rated at level 1 on the INES scale were recorded in the Power Engineering Division. Most of the deviations were caused by failures of thermal and electrical equipment due to manufacturing defects which had not been detected during the installation and adjustment of the equipment. The remaining deviations were caused by the actions of the personnel. Corrective measures have been developed to prevent similar failures in the future.

In order to ensure the safe operation of the nuclear industry and protect employees, the local population and regions against the possible impacts of accidents (emergencies), ROSATOM operates and improves a functional subsystem for emergency prevention and response that covers the organisations (facilities) managed by ROSATOM and forms part of the integrated state system for emergency prevention and response.

At year end 2023, 19 professional and 61 volunteer emergency response teams had undergone certification and were in a state of readiness in ROSATOM. They comprise a total of 2,305 emergency response workers.

For details, see section 5.2 ‘Nuclear and Radiation Safety’ and section 5.3 ‘RAW and SNF Management and Decommissioning of Facilities Posing Nuclear and Radiation Hazards’ (Chapter 5 ‘Safety Report’) of ROSATOM’s public report for 2023.

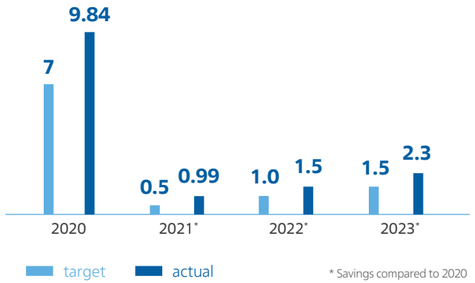
Energy efficiency

Energy conservation is a necessary prerequisite for the efficient use of ROSATOM’s energy resources, making it more competitive and reducing the negative impact on the environment.

An energy conservation and energy efficiency improvement programme for the period from 2023 to 2027 is being implemented in the nuclear industry.

To monitor progress on energy efficiency improvement measures, assess their outcomes and report on energy conservation, an Automated Energy Efficiency Management System (AEEMS) has been introduced in the industry.

Savings compared to 2015 and 2020, %



In accordance with the government programme of the Russian Federation titled ‘Development of the Nuclear Power and Industry Complex’, between 2020 and 2023, ROSATOM set and achieved targets for the reduction in energy consumption as a percentage of the actual consumption volume in 2015 and 2020.

In 2023, the actual reduction in energy consumption compared to 2020 totalled 2.30%. Actual savings totalled RUB 0.86 billion (excluding VAT) in monetary terms and 2,876,030 GJ in physical terms.

EXAMPLES OF ENERGY EFFICIENCY MEASURES

In 2023, an enterprise in the Fuel Division implemented the following measures:

- Replacing lighting fixtures with LED lighting;
- Installing frequency converters on process equipment;
- Optimising process water consumption by process units;
- Optimising heat supply modes at the industrial site of the enterprise.

In 2023, an energy audit was conducted in the Infrastructure Solutions Division, and a consolidated energy conservation and energy efficiency programme for the period from 2024 through 2028 was developed and approved for organisations in the Division, including JSC Quadra – Power Generation.

Activities included in the programme are focused on:

- Upgrading main power generation equipment;
- Upgrading and replacing heating networks and central heat supply stations and using high-performance heat insulation materials;
- Upgrading lighting systems and replacing existing non-energy-efficient lamps with LED lamps;
- Optimising the modes of operation of main and auxiliary equipment;
- Upgrading pumping stations, including installing frequency converters.

For details, see section 2.3 ‘Energy Efficiency’ (Chapter 2 ‘Business Development Report’) of ROSATOM’s public report for 2023.

Water use and wastewater discharge

The basic principle behind NPP operation is that a nuclear reaction produces a large amount of heat, which is used to heat water and transform it into steam. Modern NPPs use a system comprising two circuits: there is no contact whatsoever between water in the primary circuit and water in the secondary circuit. This helps to improve NPP safety and prevents radioactive contamination of water discharged to the eventual destination.

Volume of recycled and reused water, million m³

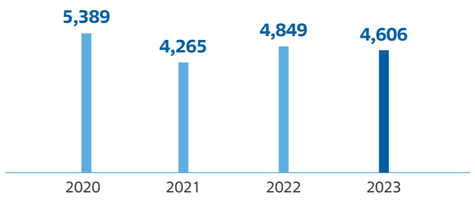
Indicator	2020	2021	2022	2023
Total volume of recycled and reused water, million m³	**36,308**	**37,975**	**37,624**	**37,764**
Water withdrawal, million m³ (% of the volume of recycled and reused water)	**6,059 (16.7%)**	**4,979 (13.1%)**	**5,536 (14.7%)**	**5,639 (14.9%)**
Total, million m³	42,367	42,954	43,160	43,403
Volume of recycled and reused water as a percentage of water withdrawal volume, %	**599**	**763**	**680**	**670**

In 2023, the volume of water recycled and reused by ROSATOM's organisations totalled 43,403 million m³. In the reporting year, water withdrawal by nuclear organisations totalled 5,639 million³, which is 103 million m³ more than in 2022.

The volume of water used by ROSATOM's organisations for their own needs in 2023 totalled 5,488 million m³, which is 54 million m³ more than in 2022; this was due mainly to the inclusion of water withdrawal by the branches of JSC Quadra – Power Generation in the calculation starting from the 2023 reporting year.

In 2023, wastewater discharge by ROSATOM's organisations totalled 4,606 million m³, with clean water compliant with regulatory requirements accounting for 95.2% of the total volume, while the share of treated wastewater compliant with regulatory requirements and contaminated wastewater stood at 0.8% and 4.0% respectively. Wastewater discharge decreased by 244 million m³ year on year due to a decrease in discharges from a branch of JSC RIR in Ozersk.

Wastewater discharge, million m³



Clean water compliant with regulatory requirements accounts for more than 95% of the total wastewater discharge; therefore, wastewater discharge by ROSATOM's organisations does not have any significant impact on water bodies and related habitats of local flora and fauna.

An Action Plan to Minimise the Negative Impact of ROSATOM on the Environment until 2025 is being implemented in the industry. Measures implemented in 2023 as part of the plan to reduce the discharge of pollutants into water bodies included the following:

- An enterprise in the Power Engineering Division (Kola NPP) upgraded domestic wastewater treatment facilities at the rehabilitation facility of the UTP-2 training centre, which enabled a 5% increase in the removal of suspended solids from wastewater;
- An enterprise in the Mechanical Engineering Division (Saint Petersburg) equipped the storm water drainage system with local treatment facilities, which enabled a fourfold reduction in the content of suspended solids in wastewater discharges;
- An enterprise in the Mechanical Engineering Division (Volgodonsk) flushed and overhauled sections of sewerage and storm water drainage systems, which enabled a 4% reduction in pollutant discharges;
- An enterprise in the Fuel Division (Tomsk Region) upgraded the wastewater discharge system of a heat exchanger and converted it into a water recycling system of the radiochemical plant, which will reduce the consumption of process water from the Tom River by 260,000 m³ per year.

For details, see section 5.4.6 'Water Use' (Chapter 5 'Safety Report') of ROSATOM's public report for 2023.

Industrial and consumer waste management and disposal

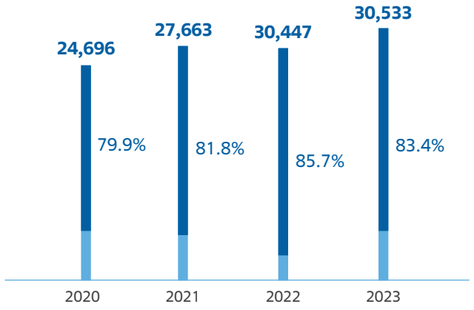
In the course of its operations, ROSATOM seeks to reduce industrial and consumer waste generation (including radioactive waste) and expand the application of closed-cycle production technology.

In 2023, nuclear organisations produced 36.6 million tonnes of industrial and consumer waste, which is 1.1 million tonnes (3.4%) more than in 2022.

99.98% of the generated waste is hazard class 4 and 5 waste (low-hazard and virtually non-hazardous waste). An increase in the volume of waste generated in 2023 was due to an increase in the amount of loose overburden produced in an enterprise of the Mining Division. Most of the waste is class 5, which is the least hazardous waste.

83.4% of the total amount of waste generated and received by ROSATOM's organisations was recycled; 0.003% was treated.

Waste generated and received by ROSATOM,'000 tonnes



DISMANTLING OF THE LEPSE FLOATING MAINTENANCE BASE

In 2023, the dismantling of the Lepse floating maintenance base was completed in the Murmansk Region.

The Lepse floating maintenance base is a former nuclear refuelling vessel; its spent nuclear fuel (SNF) storage area was the main source of radiation hazard.

The successful completion of the project to dismantle one of the facilities posing the biggest nuclear hazard in north-western Russia has been made possible due to the high level of professionalism of employees of ROSATOM and about 20 other organisations (both Russian and foreign ones).

For details, see section 5.4.7 ‘Industrial and Consumer Waste Management’ (Chapter 5 ‘Safety Report’) of ROSATOM’s public report for 2023.

Biodiversity and land rehabilitation

All of ROSATOM’s organisations take steps to prevent the degradation of natural ecosystems in their vicinity as a result of their operation.

Measures aimed at preserving the diversity of flora and fauna include the following:

- Equipping water intake facilities with fish screens in order to prevent young fish from swimming or getting drawn into them;
- Equipping transformer substations with special devices to prevent animals from entering the premises;
- Installing bird guards on power lines;
- Ensuring that motor vehicles and special machinery travel on paved roads and providing special parking lots for them;
- Arranging waste accumulation sites compliant with technical and sanitary standards; removing waste and transporting it to designated locations in a timely manner;
- Taking measures to reduce noise impact, etc.

PRESERVING THE BIODIVERSITY OF AQUATIC ECOSYSTEMS

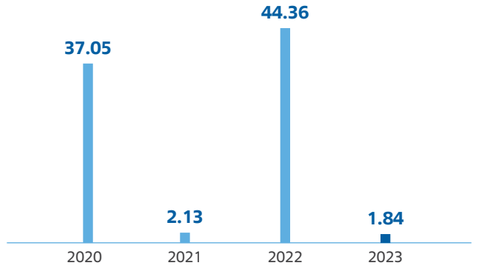
In 2023, ROSATOM’s organisations took the following steps to replenish aquatic wildlife:

- At Beloyarsk NPP, the Beloyarsk Reservoir was stocked with fish (269,000 juvenile bighead carp, 90,000 juvenile grass carp and 123,000 juvenile black carp);
- At Rostov NPP, the Tsimlyansk Reservoir was stocked with fish (294,000 juvenile grass carp and 693,500 juvenile common carp);
- At Smolensk NPP, the Desnogorsk Reservoir was stocked with fish (41,200 juvenile grass carp and 238,000 juvenile black carp);
- At Kalinin NPP, the Udomlya Reservoir was stocked with fish (70,000 juvenile black carp);
- At Kursk NPP, the cooling pond of stages 1 and 2 was stocked with fish (juvenile silver carp weighing a total of 8 tonnes and juvenile grass carp weighing a total of 1 tonne);
- At Novovoronezh NPP, 8 tonnes of juvenile silver carp were released into the cooling pond;
- An enterprise in the Fuel Division released 21,860 juvenile nelma into the Tom River.

At the end of the reporting year, the area of disturbed land[1] totalled 8,000 hectares; this included land disturbed during mining, construction and other operations. In the reporting period, organisations in the industry implemented a set of measures to restore the productivity and economic value of disturbed land. The area of rehabilitated (restored) land totalled 1.84 hectares. Land rehabilitation measures are implemented as planned as part of decommissioning programmes in ROSATOM’s organisations.

In 2023, ROSATOM’s organisations carried out reforestation activities, with the area of restored forests totalling 112 hectares.

Area of restored land, ha



1. Land whose degradation has made it impossible to use it for its intended purpose, as permitted.

COMPENSATORY REFORESTATION IN THE REPUBLIC OF BURYATIA (MINING DIVISION)

As part of compensatory reforestation efforts, in 2023, an enterprise of the Mining Division planted 119,000 pine seedlings on an area of 32.1 hectares in the Khandagatay forestry unit in the Republic of Buryatia.

CONSERVATION OF BIODIVERSITY OF PROTECTED BIRD SPECIES DURING THE CONSTRUCTION OF PAKS II NPP (ENGINEERING DIVISION)

The Paks II NPP construction site is located near the Danube-Drava National Park in Hungary. The ecosystem of the park comprises numerous bird populations, including two protected species whose migration routes traverse the NPP construction site: the European bee-eater and the sand martin.

Bird conservation measures are implemented at all stages of the construction of Paks II NPP, from preparatory work to the rehabilitation of affected sites.

Measures implemented in 2023 at the Paks II NPP construction site included the following:

- Installing acoustic bird deterrents;
- Covering slopes for birds to nest on;
- Mapping and closing off bird nesting sites;
- Bird monitoring.

For details, see section 5.4.8 ‘Impact on Local Flora and Fauna’ and section 5.4.9 ‘Rehabilitation of Disturbed Areas’ (Chapter 5 ‘Safety Report’) of ROSATOM’s public report for 2023.

BIRD MONITORING IN THE REPUBLIC OF DAGESTAN (JSC NOVAWIND)

JSC NovaWind plans to build the Novolakskaya WPP in the Republic of Dagestan between 2024 and 2026. The site of the future WPP is situated near a migration route of Asian migratory birds from the Caspian region, which fly from the north to the south and back along the western coast of the Middle Caspian Sea. In addition, there are colonies of bats living in the vicinity of the site.

As part of the Novolakskaya WPP project, JSC NovaWind decided to conduct bird monitoring within the boundaries of the Sulak site with an area of 52.7 km^2, which is situated on the Pre-Caucasian Plain. An expert organisation, the Caspian Institute of Biological Resources of the Dagestan Federal Research Centre of the Russian Academy of Sciences, was engaged to carry out the study.

The study revealed a rich diversity of wildlife species:

- Eight species of bats;
- 86 species of birds belonging to 14 orders, with 14 species of birds and one species of bats listed in the Red Data Book of Russia and Dagestan.

The proposed wind farm location is situated away from the main flight paths of migratory birds; the rotation height of wind turbine blades ranging between 46 and 150 metres is outside the main bird migration zone.

The impact of proposed project activities on the environment (birds and bats) can be assessed as insignificant; the project is not expected to have a negative environmental impact, and the condition of various components of the environment will remain within permissible limits.

4 SOCIAL ASPECT

343,200 PEOPLE

AVERAGE HEADCOUNT

SOCIAL ASPECT

HUMAN RIGHTS

Principle 1. Businesses should support and respect the protection of internationally proclaimed human rights.

Principle 2. Businesses should make sure that they are not complicit in human rights abuses.

LABOUR

Principle 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4. Businesses should uphold the elimination of all forms of forced and compulsory labour.

Principle 5. Businesses should uphold the effective abolition of child labour.

Principle 6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.

The Social aspect (S) includes ensuring occupational and process safety, protecting the life and health of employees in the industry and developing human potential. ROSATOM implements social projects aimed at supporting employees in the industry and the residents of nuclear towns and cities and driving systematic improvements in the standard of living and health improvement for employees and their families, local communities and consumers of the Corporation's products in its regions of operation.

The top priority for ROSATOM is to ensure occupational and process safety and to protect the life and health of employees in the industry; this is one of the key principles that ROSATOM is guided by in the course of its operations. ROSATOM has adopted and regularly updates the **Uniform Industry-Wide Social Policy (2013), the Uniform Industry-Wide Policy on Occupational Safety and Health (2013), the Uniform Industry-Wide Human Rights Policy (2022) and the Occupational Health and Safety Management System (2009)**, which is an important element of mutual obligations undertaken by ROSATOM, the Russian Union of Employers in the Nuclear Industry, Power and Science and the Russian Trade Union of Nuclear Power and Industry Workers.

ROSATOM provides optimal working conditions for its employees, with occupational hazards totally eliminated or exposure to such hazards not exceeding regulatory limits deemed safe for people. Organisations in the industry work systematically to improve safety performance; this includes reducing the occupational injury rate (which is more than five times lower than the national average), minimising employees' exposure to occupational hazards and ensuring contractor safety. Individual organisations

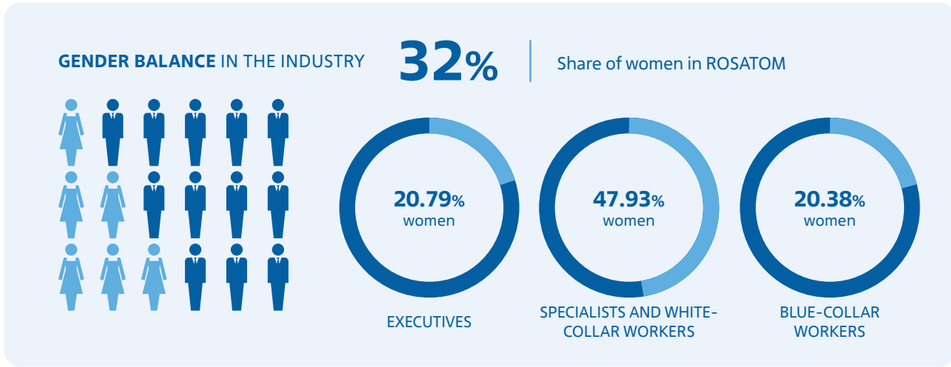
in the industry, including the holding companies of ROSATOM's key Divisions, have undergone certification to confirm compliance of their occupational health and safety management systems with the ISO 45001 international standard.

Social and HR policy focused on recruiting and retaining young professionals and highly skilled specialists, providing social assistance to employees, their families and veterans of the nuclear industry is an important part of ROSATOM's human capital management policy.

Labour relations

In 2023, the average headcount in ROSATOM and its organisations totalled 343,200 people (including 48,000 people in overseas organisations, branches and representative offices), with men and women accounting for 68% and 32% of the total headcount respectively (according to the OECD Nuclear Energy Agency, the average share of women in the global nuclear industry totals 25%).

ROSATOM's organisations operate in 71 regions of Russia and have a footprint in 36 foreign countries.



30.8% of employees were aged under 35. 26.9% of employees were aged over 50.

In 2023, personnel costs totalled RUB 675.9 billion, up by 2% year on year.

In 2023, the average monthly salary in ROSATOM increased by 14.9% compared to 2022 and totalled RUB 123,210 per month.

In 2023, a new Industry-Wide Agreement on Nuclear Power, Industry and Science for 2023–2025 came into force in

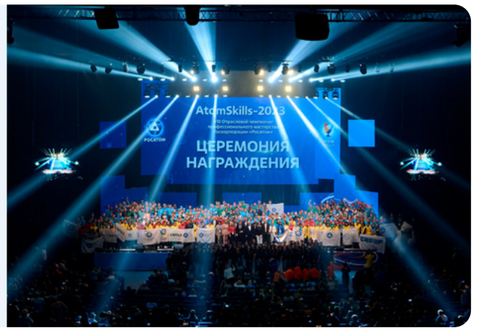
ROSATOM. It has been drafted and is being implemented jointly with the Russian Trade Union of Nuclear Power and Industry Workers (RTUNPIW). Trade union members in ROSATOM and its organisations covered by the activities of the RTUNPIW make up 41.7% of the total workforce in nuclear organisations. The Agreement stipulates the employer's obligations related to salary indexation, social benefits and safe working conditions; it also reflects the role of the industry-wide trade union, local trade union cells and trade union committees in maintaining social stability among the workforce of ROSATOM's organisations. The Agreement provides a basis for collective agreements concluded in nuclear organisations, which cover 77.9% of ROSATOM's employees.

In order to encourage promising young specialists to work in the industry and to generate interest in STEM disciplines and engineering professions among school and university students, ROSATOM actively participated in federal events and projects. ROSATOM is a partner and co-organiser of the following projects: a nationwide student competition, Your Move; an academic competition, I'm a Professional; the Career Time nationwide campaign, as well as the Russian Znanie Society.

Recruitment of young professionals is supported by ROSATOM's systematic youth talent development efforts at all levels, from kindergartens, schools and universities to enterprises.

As part of its engagement with students, ROSATOM actively cooperates with specialised educational institutions, colleges and universities, 20 of which form part of the consortium of core universities.

ROSATOM held the 8th Atomskills Industry Competition of Professional Skills 2023. In 2023, this event featured about 2,000 participants from Russia, as well as the Republic of Belarus, Türkiye, Bangladesh, Uzbekistan, Kazakhstan, Cuba, Bolivia and India.



NETWORK ENGINEERING SCHOOL PROJECT

The project includes an online platform, rosatomtalents.team, which is designed to provide training in engineering disciplines, including physics, for students of general schools. The project also involves establishing a network of engineering classes in ROSATOM's regions of operation.

25 engineering classes were opened in 2023 in Obninsk, Elektrostal, Usolye-Sibirskoye, Ekaterinburg, Chelyabinsk, as well as in the Primorsky Territory and the Sakha Republic (Yakutia).

FACTORY PROJECT (POWER ENGINEERING DIVISION)

The Factory project is a training programme for students of Russian universities starting from the third year of studies and for university graduates. The programme is aimed at developing skills and competences for subsequent employment in the nuclear industry.

As part of the project, four schools affiliated with Russia's leading technical universities were opened in 2023.

For details, see section 3.1 'HR Policy' and section 3.4 'Social Policy' (Chapter 3 'Social Report') of ROSATOM's public report for 2023.

Talent development

Training for specialists and executives in the industry is provided primarily by the Corporate and Technical Academies of ROSATOM.

74% of employees across the industry underwent training in 2023. The number of training hours per employee averaged 55.18 hours.

In 2023, ROSATOM continued to develop distance learning and e-learning formats. The share of distance learning in the industry stood at 31%.

A leadership development programme for ROSATOM's female employees titled '[in]Visible Power' is run in the industry. In 2023, 1,500 female employees of ROSATOM from 53 towns and cities took part in the programme; about 200 of them reached the finals and formed a community of female leaders.

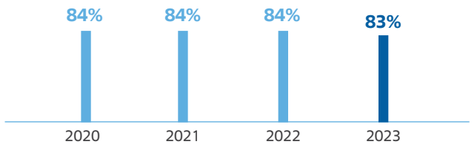
Systematic steps are taken in the industry to inform employees about sustainability priorities and objectives; workshops and other events are held, and surveys are conducted. A face-to-face training course on sustainable development is run on an annual basis. It consists of three modules. Speakers involved in delivering the course include both ROSATOM's representatives and guest experts. Topics covered as part of the course include, among other things, the ESG agenda, non-financial reporting, ESG ratings and ESG strategies. In 2023, more than 40 webinars focused on various aspects of sustainable development were held for employees in the industry.

The corporate intranet portal has a section titled 'Sustainable Development'; among other things, it includes a Library of Industry Sustainability Practices designed to systematise existing approaches and enable organisations in the industry to share their experience.

In order to develop sustainability competences of ROSATOM's employees, the Rosatom Corporate Academy provides face-to-face training on an annual basis. In addition, the sustainability section of ROSATOM's online training platform, RECORD Mobile, is regularly updated; in 2023, the amount of sustainability training completed in the system by employees in the industry (measured as the number of participants multiplied by the number of completed courses) totalled 155,000 person-courses.

In 2023, the employee engagement rate in the industry remained at 83%, on a par with the world's best employers.

Employee engagement rate



For details, see section 3.1 'HR Policy' (Chapter 3 'Social Report') of ROSATOM's public report for 2023.

Human rights

ROSATOM supports and complies with employment standards pursuant to the legislation of the Russian Federation, industry-wide and internal regulations, and the Industry-Wide Agreement on Nuclear Power, Industry and Science.

None of ROSATOM's internal regulations contain any provisions barring people from being employed in the industry on the grounds of gender, ethnicity, background, the level of personal wealth, marital or social status, position, age, place of residence, attitude towards religion, opinions or membership of public associations.

In 2022, ROSATOM developed and adopted a separate Uniform Industry-Wide Human Rights Policy, and in 2023, the Corporation updated the Uniform Industry-Wide Code of Ethics and Professional Conduct of ROSATOM and Its Organisations. The principles set out in these documents are aligned with the Constitution of the Russian Federation, the Universal Declaration of Human Rights, the Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, and the Voluntary Principles on Security and Human Rights.

ROSATOM and its organisations have adopted a responsible approach to respecting the rights and promoting the well-being of local communities in their regions of operation, cooperate with government bodies and treat local residents in their regions of operation with respect.

PROVIDING EMPLOYMENT FOR PEOPLE WITH DISABILITIES (JSC GREENATOM)

JSC Greenatom has adopted a comprehensive approach to providing employment for people with disabilities.

The company has identified areas of work that would suit people with disabilities. These include reporting, recording transactions in accounting systems, the routing of enquiries, IT development and user support, etc.

Specific conditions for people with disabilities who can work in these areas (limited mobility, hearing impairment, special physiological characteristics, etc.) were then identified. At the same time, the company does not impose any restrictions to screen out candidates with disabilities when hiring for any positions.

When hiring people with disabilities, the company provides social security for them, as required by law. Specific working conditions for each individual employee are reflected in their employment contract.

If required, a specially equipped workplace is provided.

For the duration of the onboarding period each new employee with disabilities is assigned a mentor who has a degree in psychology and, where possible, experience of communicating with people with disabilities. Mentors are tasked with helping new employees with disabilities to successfully adapt and become part of the team, and helping other employees in the division to establish communication with the new team member taking into account the specific circumstances.

The number of people with disabilities employed by the company increased from 35 in 2020 to 78 at year end 2023.

Employees are informed about a hotline operated by ROSATOM which can be used for submitting reports, including complaints and enquiries from individuals and organisations, to safeguard their right to apply in person and to submit individual and group enquiries to protect the rights and legitimate interests of the company, its organisations and their employees.

Complaints and enquiries can be sent by mail or email to executives of ROSATOM's organisations, including the Director General. Complaints and enquiries are recorded on the day of receipt and are reviewed within the time frame prescribed by Russian laws; investigations are conducted if necessary. A system is being developed to monitor the handling of enquiries/complaints and replies to them.

Complaints/enquiries related to social and labour relations, including complaints/enquiries related to human rights, are reviewed jointly with a representative body acting on behalf of employees. At the highest level (that of the industry), complaints/enquiries are reviewed by the Industry-Wide Commission for Social and Labour Relations; at the Division level, they are handled by commissions for social and labour relations established in the Divisions; at the level of organisations, this function is performed by commissions for social and labour relations and collective bargaining agreements in the organisations.

For details, see section 3.2 'Human Rights' (Chapter 3 'Social Report') of ROSATOM's public report for 2023.

Occupational health and safety

ROSATOM is a participant of the Vision Zero international campaign and seeks to achieve a zero injury rate in its organisations.

One of the fundamental priorities for ROSATOM is to protect the life and health of employees in the industry. Internal regulations adopted in ROSATOM and its organisations (primarily the Uniform Industry-Wide Policy on Occupational Safety and Health) are aimed at preventing workplace accidents and occupational diseases, systematically monitoring working conditions and occupational safety performance, ensuring the safety and protecting the health not only of employees of ROSATOM and its organisations, but also of employees of contractors and subcontractors involved in the operation of nuclear facilities. The requirements of the occupational health and safety management system (OHSMS) are binding on all employees and all persons who are on the premises of the Corporation and its organisations, in their buildings and structures.

In 2023, ROSATOM's organisations implemented preventive measures on an ongoing basis to enhance the workplace safety culture.

ROSATOM works continuously to ensure compliance with instructions from the Director General on the implementation of safety measures to prevent any injuries, regardless of their severity. In addition, based on statistics on injury rates, ROSATOM has developed and implements the following on an ongoing basis:

- A comprehensive programme of measures to prevent workplace injuries in the industry;

PROTECTIVE SUITS FOR WIND TURBINE MAINTENANCE PERSONNEL (JSC NOVAWIND)

In 2023, JSC NovaWind worked with JSC Energo-contract Group of Companies, a manufacturer of high-technology personal protective equipment, to design special protective suits for wind turbine maintenance technicians. The suits are designed to provide protection against thermal hazards (high temperature, exposure to open flame, etc.).

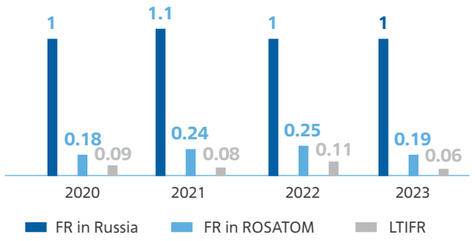
Testing and certification of the model is scheduled for 2024.

- Prioritised measures to prevent accidents during the operation of metal working machines in ROSATOM's organisations;
- Measures to prevent road accidents that are not related to operations but have negative consequences for employees.

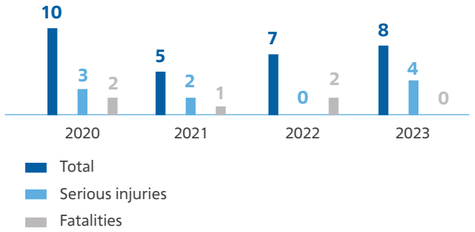
In addition to the injury frequency rate (FR), ROSATOM also uses the lost time injury frequency rate (LTIFR). The LTIFR has been included in the KPI maps of all Division executives.

In 2023, the total number of injured persons in contractor organisations increased slightly; at the same time, there were no fatalities.

For details, see section 5.1 'Occupational Health and Safety' (Chapter 5 'Safety Report') of ROSATOM's public report for 2023.



Number of injured persons in contractor organisations



Employee health

As part of the Uniform Industry-Wide Social Policy, ROSATOM implements corporate social programmes focused on voluntary health insurance, voluntary insurance against accidents and illness, and health resort treatment for employees. Their main goal is to maintain and protect employees' occupational health, including rehabilitation and health improvement after occupational diseases and accidents.

In 2023, about 85% of employees in the industry (290,000 people) had quick access to medical care covered by voluntary health insurance. In 2023, 100% of employees who needed health resort treatment based on the findings of a regular health check-up were given vouchers for health resort and rehabilitation treatment.

The Corporation attaches great importance to encouraging its employees, their family members and residents of its regions of operation to regularly exercise and do sports. In 2023, more than 85,000 employees took part in large-scale sports and wellness events in the industry. The biggest events included the Nuclear Games, the Running Race of Nuclear Towns and Cities and an online Running Race of the Divisions.

For details, see section 3.3.2 'Social Programmes' (Chapter 3 'Social Report') of ROSATOM's public report for 2023

Developing the regions where nuclear facilities are located

ROSATOM contributes to the social and economic development of the towns and cities where nuclear facilities are located in a number of ways. The Corporation makes a significant contribution to the energy security of a number of regions and is also a major taxpayer making tax payments to budgets of all levels. The Corporation makes a substantial economic impact and contributes to the development of its host towns and cities by creating a significant number of skilled jobs in the nuclear and related industries, providing not only employment, but also decent working conditions and remuneration.

In 2023, 11 nuclear towns and cities won the 8th National Competition for the Best Projects to Create a Comfortable Urban Environment, and two towns won the 2nd Competition for the Best Projects to Create a Comfortable Urban Environment in the Regions of the Far Eastern Federal District.

24 of the 27 nuclear towns and cities have been assigned an urban environment quality rating above the benchmark (180 points) and are characterised by a high standard of living. This means that more than 80% of nuclear towns and cities have a favourable urban environment. In 2023, the average urban environment quality rating of nuclear towns and cities increased by 7 points compared to 2022 and stood at 212 points[1].

The highest urban environment quality rating among nuclear towns and cities was assigned to the CATF of Sarov, which was given a score of 244 points. The CATF of Lesnoy ranked second (243 points), while Balakovo (Saratov Region) and the CATF of Zarechny (Penza Region) tied for third place with a score of 235 points.

For details, see Chapter 4 'Report on the Development of Nuclear Towns and Cities' of ROSATOM's public report for 2023.

Corporate volunteering

ROSATOM runs a corporate volunteering programme and is developing an integrated system for planning and implementing volunteer initiatives.

ROSATOM's volunteers are actively involved in the implementation of traditional industry-wide projects (blood donations, career guidance and mentoring, environmental volunteering, support for veterans, the elderly, socially disadvantaged groups and animals, support for creative industries); they also search for and support new practices and initiatives, such as the upgrade of public youth spaces, the implementation of cultural projects, support for creative industries, urban improvement, and the development of infrastructure for waste sorting and recycling.

In 2023, the Corporation conducted about 500 volunteer campaigns, including 12 industry-wide ones. There are a total of about 50,000 volunteers in ROSATOM. The total number of beneficiaries has exceeded 1 million people.

In 2023, social projects of ROSATOM and its organisations received key federal awards: the WeAreTogether International Award, Best Social Projects in Russia, Corporate Charity Leaders, etc.

For details, see section 3.6 'Corporate Volunteering' (Chapter 3 'Social Report') of ROSATOM's public report for 2023.

1. The average urban environment quality rating for 1,117 towns and cities of the Russian Federation in 2023 stood at 212 points.

5 CORPORATE GOVERNANCE

92,040 CONTRACTS

WITH SMALL AND MEDIUM-SIZED ENTERPRISES

CORPORATE GOVERNANCE

As part of the **Governance aspect (G),** ROSATOM is building an integrated system of industry regulation and sustainable development standards and ensures the transparency of its business by disclosing as much information as possible.

Sustainable development management system in ROSATOM

In its production processes, ROSATOM focuses on making the procurement system transparent for suppliers and building a 'sustainable' supply chain, including a requirement for compliance with environmental and social standards. ROSATOM implements anti-corruption measures and introduces the principles of ethical business conduct on an ongoing basis.

ROSATOM has adopted and regularly updates **the Uniform Industry-Wide Public Reporting Policy (2009), the Uniform Industrial Procurement Standard (2009), the Uniform Industry-Wide Anti-Corruption Policy (2015) and the Code of Ethics and Professional Conduct (2016)**[1]. The ROSATOM Production System has been developed and adopted in the industry; it is designed to promote a lean manufacturing culture. A quality management system has been introduced, and international standards such as ISO 14001, ISO 9001 and other standards are applied.

Public sustainability reports are an integral part of ROSATOM's practices to ensure the transparency of its business; they also serve as a stakeholder engagement tool. Starting from 2010, ROSATOM and its organisations annually publish non-financial reports in accordance with the international GRI Standards.

ROSATOM has adopted a Code of Ethics and Professional Conduct for Employees. The Code communicates the key values of the nuclear industry and defines the relevant ethical principles of employee conduct when interacting with a wide range of external and internal stakeholders. The rules of conduct set out in the Code concern combatting corruption, protecting the Corporation's resources, property and information, occupational health and safety, industrial and environmental safety, conflict prevention and resolving conflicts of interest, as well as maintaining the corporate image.

1. The years of approval of the first versions of the documents are indicated.

ANTI-CORRUPTION

Principle 10. | Businesses should work against corruption in all its forms, including extortion and bribery.

Anti-corruption policy

ROSATOM's anti-corruption efforts are governed by the Anti-Corruption Plan of State Atomic Energy Corporation Rosatom and Its Organisations for the period from 2021 through 2024 developed pursuant to the Decree of the President of the Russian Federation on the National Anti-Corruption Plan for the Period from 2021 through 2024. Enterprises in the industry also adhere to the Uniform Industry-Wide Anti-Corruption Policy.

In the reporting year, ROSATOM continued to support the professional development of executives responsible for preventing corruption and other offences, as well as managers and employees in the industry. More than 10,000 employees in the nuclear industry took part in professional development events focused on combatting corruption. This included:

- Persons newly hired by the Corporation and its organisations and appointed to positions involving responsibility for compliance with anti-corruption standards (more than 1,100 people);
- Employees in charge of procurement (more than 3,300 people);
- Employees responsible for preventing corruption and other offences (more than 6,000 people).

More than 1,700 employees of ROSATOM and its organisations received face-to-face training; the Corporation also runs online training courses.

An anti-corruption hotline is run successfully in the industry. All reports are investigated under the established procedure, and appropriate corrective measures are implemented.

For details, see section 1.12.4 'Prevention of Corruption and Other Offences' (Chapter 1 'Strategic Report') of ROSATOM's public report for 2023.

Supply chain and procurement procedures

The Uniform Industrial Procurement Standard (UIPS) has been adopted in the industry. It is the main document that regulates the procurement activities of all nuclear organisations across all business areas and geographical regions. In addition, ROSATOM has approved a voluntary Supplier Code of Conduct, which sets out priorities in the sphere of sustainable development that suppliers are required to adhere to.

The UIPS stipulates that suppliers of goods, work and services must be selected impartially and efficiently through competitive tendering. ROSATOM and its organisations made 33,367 competitive purchases using their own funds (2022: 33,520); as part of the annual procurement programme, contracts were concluded with 25,752 counterparties. The share of electronic procurement (excluding procurement for foreign projects) totalled 99%.

In 2023, nuclear organisations concluded 92,040 contracts with small and medium-sized enterprises (2022: 40,707).

In 2023, ROSATOM continued to improve the procedure for conducting data reliability audits, which is a tool for confirming that a supplier is able to carry out a contract in good faith. To do so, manufacturers are audited by a commission set up by the customer and having the required competences and expertise regarding the contract being tendered. In 2023, 328 audits were conducted among manufacturers, contractors and service companies participating in procurement procedures.

The audit also included an assessment of sustainability maturity of 50 suppliers/contractors.

PROMOTING SUPPLY CHAIN SUSTAINABILITY (SALES AND TRADING DIVISION)

Supply chain sustainability is one of the most frequent requirements for fuel products. Foreign customers conduct the relevant audits.

In 2023, the holding company of the Sales and Trading Division updated the Supplier Code of Conduct issued in 2019.

The Code governs the activities of suppliers across three main aspects: environmental and social impacts and business ethics.

For details, see section 1.12.7 ‘Procurement Management’ (Chapter 1 ‘Strategic Report’) of ROSATOM’s public report for 2023.

Internal control and audit

In 2023, ROSATOM’s specialised internal control bodies (SICBs) conducted 760 inspections in Russian nuclear organisations. Following the inspections conducted in 2023, the Internal Control and Audit Function developed 775 corrective measures and approved them for implementation.

In 2023, internal audit was conducted in 28 organisations of ROSATOM; it was focused specifically on sustainability management initiatives of ROSATOM’s organisations and on the greenhouse gas emissions management system.

More than 170 SICB employees in ROSATOM and its organisations received centralised training to ensure compliance with the professional standard for internal audit specialists (internal auditors).

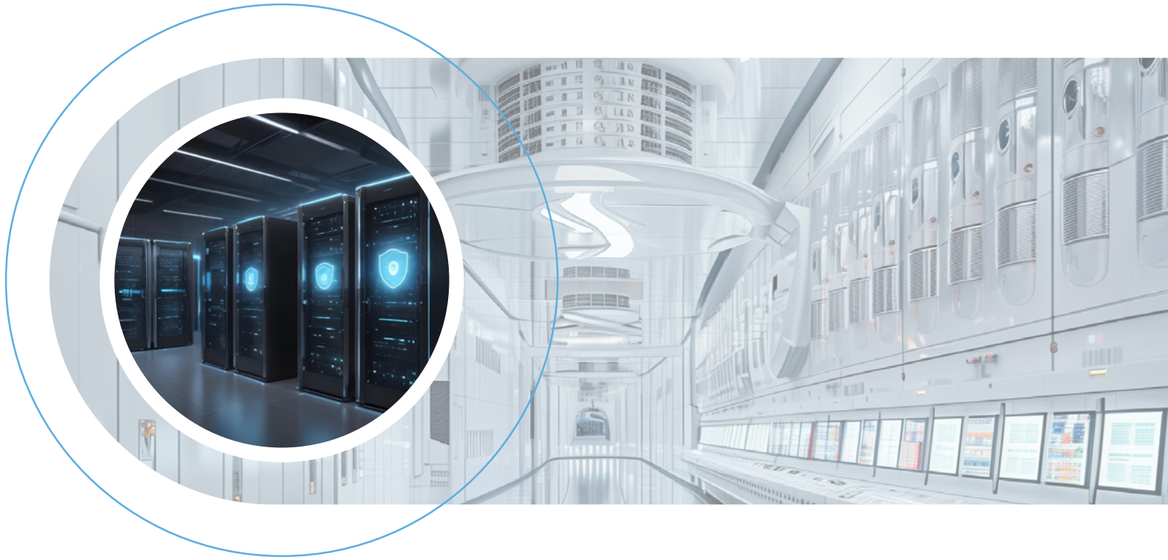
In addition, in 2023, 24 modules of an online training course titled ‘School of Internal Controllers’ were updated; a new module on the verification of compliance with laws on the contract system in the sphere of procurement was developed.

For details, see section 1.12.3 ‘Internal Control System’ (Chapter 1 ‘Strategic Report’) of ROSATOM’s public report for 2023.

Data protection

ROSATOM is a data processor and is on the register of data processors compiled by the relevant department of the Federal Service for Supervision of Communications, Information Technology and Mass Media; it complies with the provisions of Russian legislation. The Personal Data Processing Policy has been approved by order of ROSATOM.

To raise awareness among ROSATOM’s employees with regard to matters related to personal data handling, the Corporation issues local regulations and has developed an introductory training course on personal data handling, as well as guidance handouts. ROSATOM also regularly sends out newsletters on matters related to personal data use and protection.



CONTACT INFORMATION AND USEFUL LINKS

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SUSTAINABLE DEVELOPMENT DEPARTMENT

Email: esg@rosatom.ru

Official corporate website

http://www.rosatom.ru/en

Official portal for public reporting

https://www.report.rosatom.ru/en