



ROSATOM

XI International Forum ATOMEXPO 2019
Round Table “Responsible Approach to the Environment and Natural Resources”

State atomic energy corporation ROSATOM

Ensuring environmental safety as a key task of the ROSATOM State Corporation’s Agenda for sustainable development

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ROSATOM's Agenda for Sustainable Development



Transforming our world: the 2030 Agenda for Sustainable Development: 17 goals



ROSATOM's Agenda for Sustainable Development



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ROSATOM's Agenda for Sustainable Development

ROSATOM's Agenda for Sustainable Development Due to the high social significance of the nuclear industry, ROSATOM gives high priority to the sustainable development (SD) of the nuclear industry and the Corporation, and seeks to contribute to the SD of the country and the world's population. Given the wide range of activities performed by ROSATOM in various areas, SD is managed and regulated individually for each activity.

The Corporation aims to ensure sustainable business development through the following:

Ensuring environmental safety;

- ✓ Ensuring environmental safety;
- ✓ Creating state-of-art technologies for radioactive waste management and tackling the 'nuclear legacy' challenges;
- ✓ Applying nuclear technologies in the industries that determine the quality of people's life and their life expectancy;
- ✓ Positive economic and social impact on the regional, national and international scale;
- ✓ Providing opportunities for professional and career growth of employees, ensuring safe working conditions and implementing social programmes;
- ✓ Minimizing the environmental impact, including on the planet's climate;
- ✓ More efficient use of capitals;
- ✓ Efficient stakeholder engagement;
- ✓ Improving transparency and accountability;
- ✓ Ensuring public acceptance of the nuclear energy development.

Environmental Priorities of the Russian Federation's National Policy

Policy papers of the Russian Federation:

- Basic Principles of the National Environmental Development Policy of the Russian Federation 2030.
- The National Security Strategy of the Russian Federation 2020.
- State Programme of the Russian Federation "Environmental Protection" 2012-2020
- Ecological Safety Strategy of the Russian Federation 2025
- Basics of the national policy on ensuring nuclear and radiation safety of the Russian Federation 2025
- National Project "Environment"

«People make increasingly higher demands on environmental safety... Solving environmental problems is a challenge to our industry and science; we all are responsible for it»

From the message of President of the Russian Federation Vladimir Putin to the Federal Assembly of the Russian Federation



National Project "Environment"

Allocation of 61.5 billion dollars financing for the following directions of the 2021-2024 project:

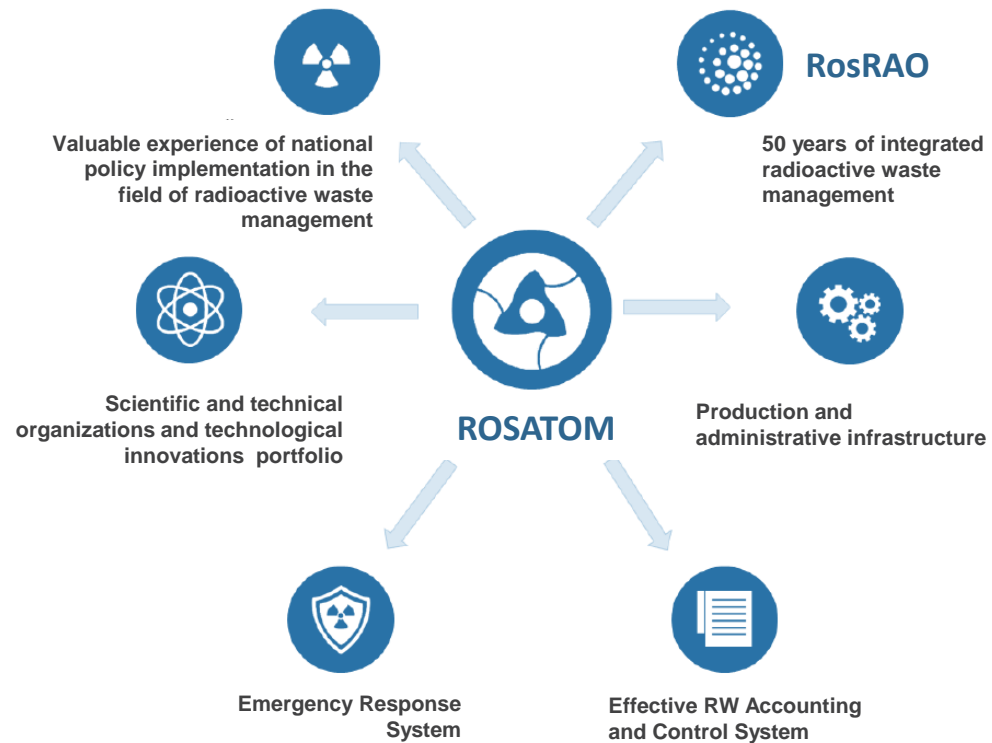
- Water
- Air
- Technology
- Waste
- Biodiversity

ROSATOM's responsibility within the framework of the "Environment" National Project:



Infrastructure for I and II hazard class waste management

ROSATOM's background in safe radioactive waste management:



Primary goals for creating a federal I and II hazard class waste management system :

- Building a unified state system and federal operator of I and II hazard class waste management;
- Building a unified state information system for tracking of and oversight over hazardous waste management;
- Building a unified federal structure for I and II hazard class waste management;
- Building infrastructure for I and II hazard class waste management.



“Complementing and strengthening each other, the sun, the wind, the water, and the atom should form the green square that is to become the foundation of future global carbon-free balance”

Alexey Likhachev, Director General of ROSATOM


ENVIRONMENTAL EFFECT FROM NPP OPERATION


	per operation year	within life cycle
Prevention of CO ₂ emissions	9 million tonnes	559 million tonnes
Equivalent annual vehicle emissions	2 million	122 million vehicles

559
million tonnes

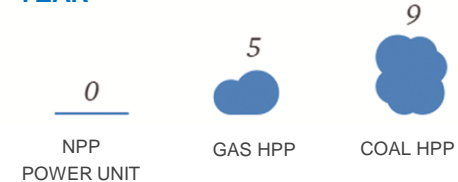
Nuclear generation occupies a special place among technologies of power generation that have minimal impact on the environment

Calculated on the data of WNA

 **~1 billion tonnes**
CO₂ ABSORB ALL BOREAL SCAFFOLDING PLANET PER YEAR

 **on 2 billion tonnes**
CO₂ WOULD HAVE INCREASED EMISSIONS IF COAL AND GAS FIRED HPPs WERE OPERATED INSTEAD OF NPPs

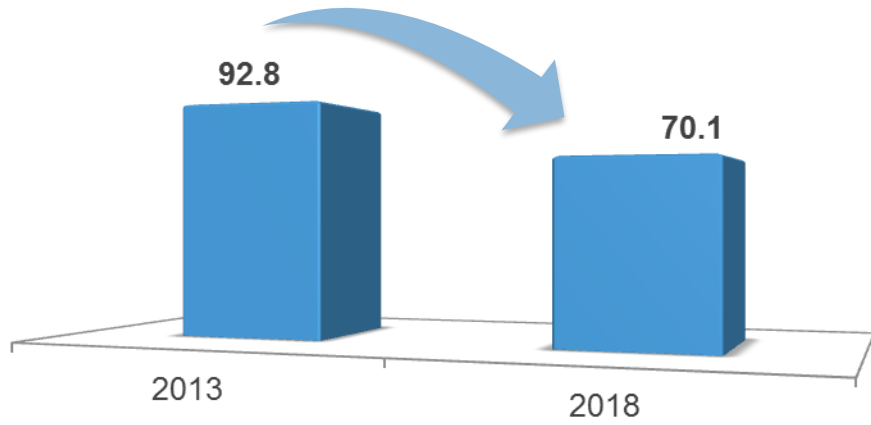
CO₂ EMISSION ON 1–1,2 GWt , MILLION TONNES PER YEAR



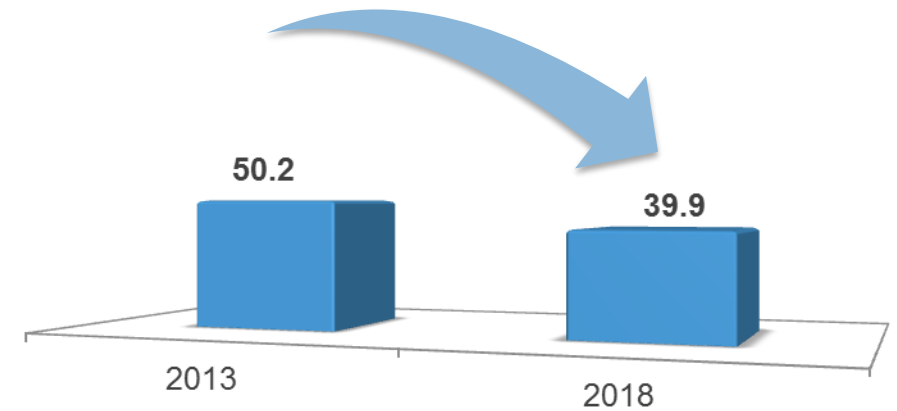
Key Results of Environmental Policy Implementation by ROSATOM State Corporation in 2018



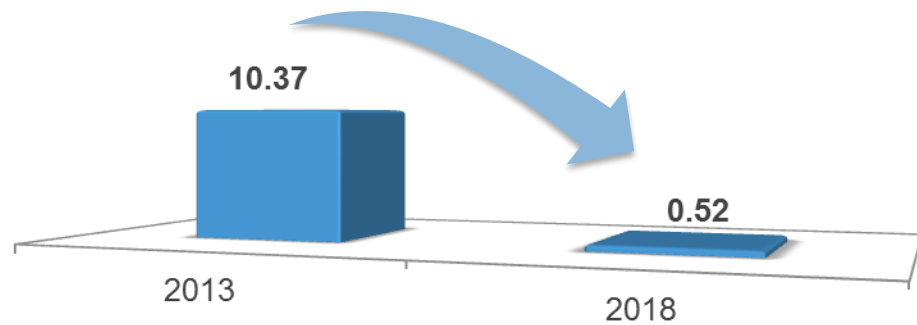
Wastewater discharge, mn m³
1.3-fold reduction



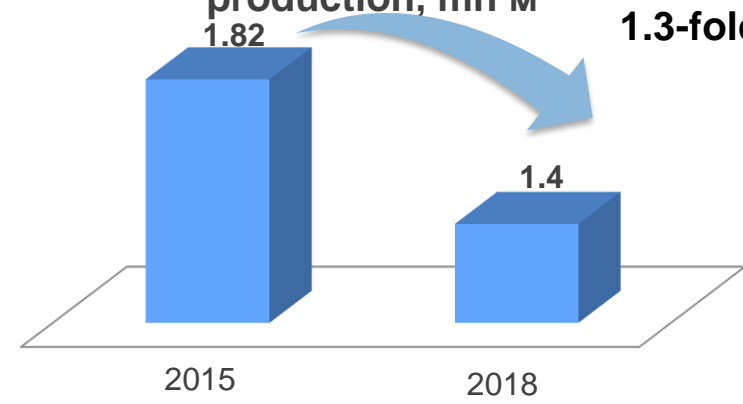
Emission of air pollutants, thous. tonnes
1.3-fold reduction



Hazardous waste production, thous. tonnes
20-fold reduction

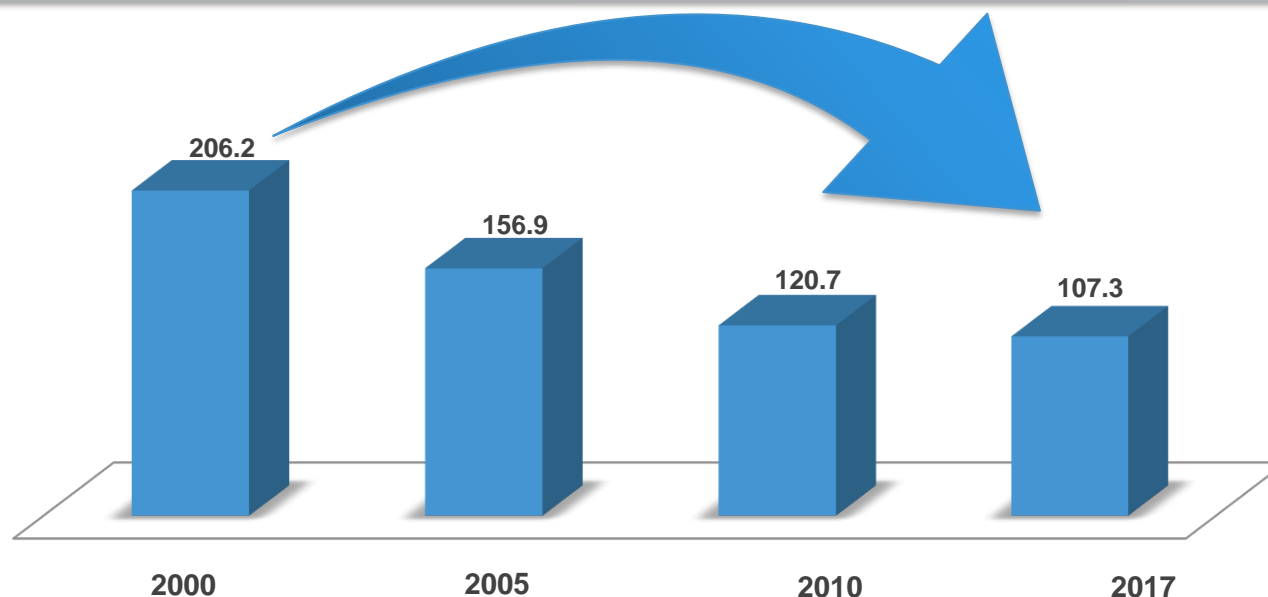


Volume of radioactive waste production, mn m³
1.3-fold reduction



Key Results of Environmental Policy Implementation by ROSATOM State Corporation in 2018

- Environmental, nuclear, and radiation safety of nuclear power plants and other nuclear facilities was ensured in accordance with international and Russian requirements.
- Indicators of environmental impact were kept within the established standards
- There were no events of level 2 or higher as per the INES international scale recorded
- There were no radiation accidents recorded that could have had any aftermath

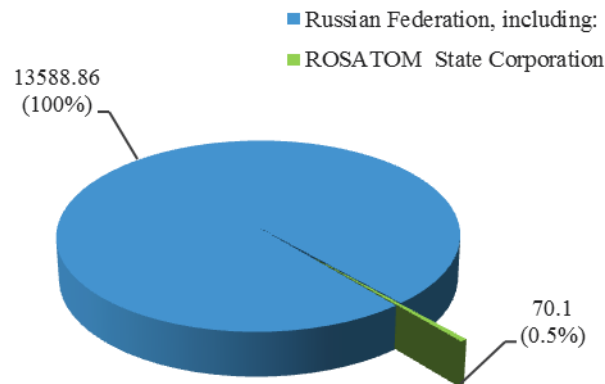


Collective personnel exposure dose, person*Sv. Dynamics over 17 years

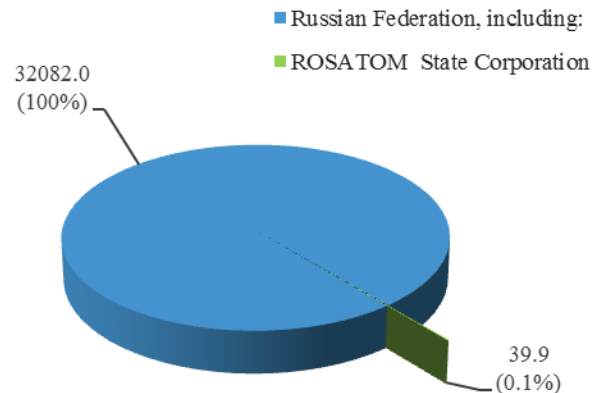
Environmental Impact in 2018



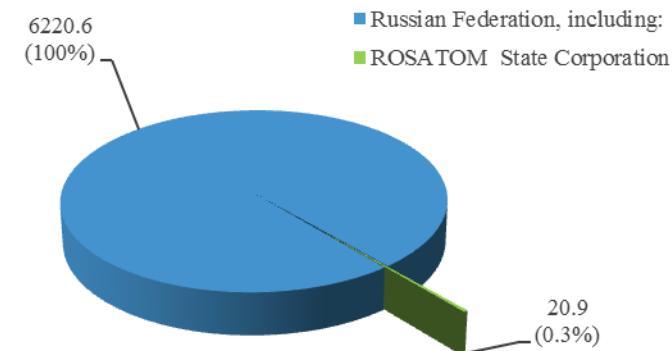
Share of ROSATOM State Corporation in the total volume of wastewater discharge in the Russian Federation for 2018, ml m³ (%)



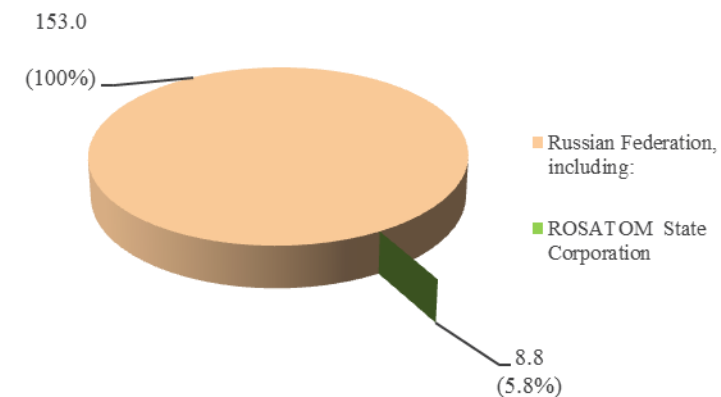
Share of ROSATOM State Corporation in the total volume of air pollutant emission in the Russian Federation for 2018, thous. tonnes (%)



Share of ROSATOM State Corporation in the total volume of industrial and consumer waste discharge in the Russian Federation for 2018, ml tonnes



Share of ROSATOM State Corporation's environmental protection fixed investment in the total investment volume in the Russian Federation, bl roubles (%)



Environmental Performance Indicators



ROSATOM

National Level

- State Programme of the Russian Federation "Environmental Protection" 2012-2020
- Strategy for Ecological Safety of the Russian Federation 2025
- ISO 14031, etc.

Corporate Level

- State Programme of the Russian Federation "Environmental Protection" 2012-2020
- Strategy for Ecological Safety of the Russian Federation 2025
- ISO 14031, etc.

International Level

- UN Sustainable Development Indicators
- OECD Green Indicator System
- Indicators Used in Sustainability Reporting Guidelines (Global Reporting Initiative –GRI)

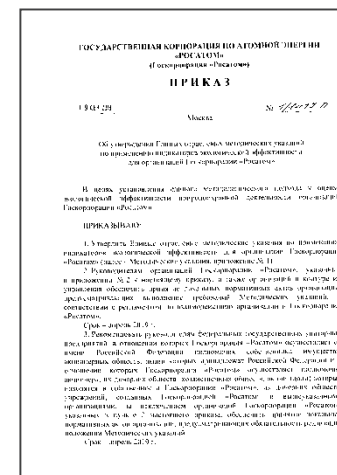
ROSATOM State Corporation's indicators

Integrated evaluation of the organization's environmental efficiency

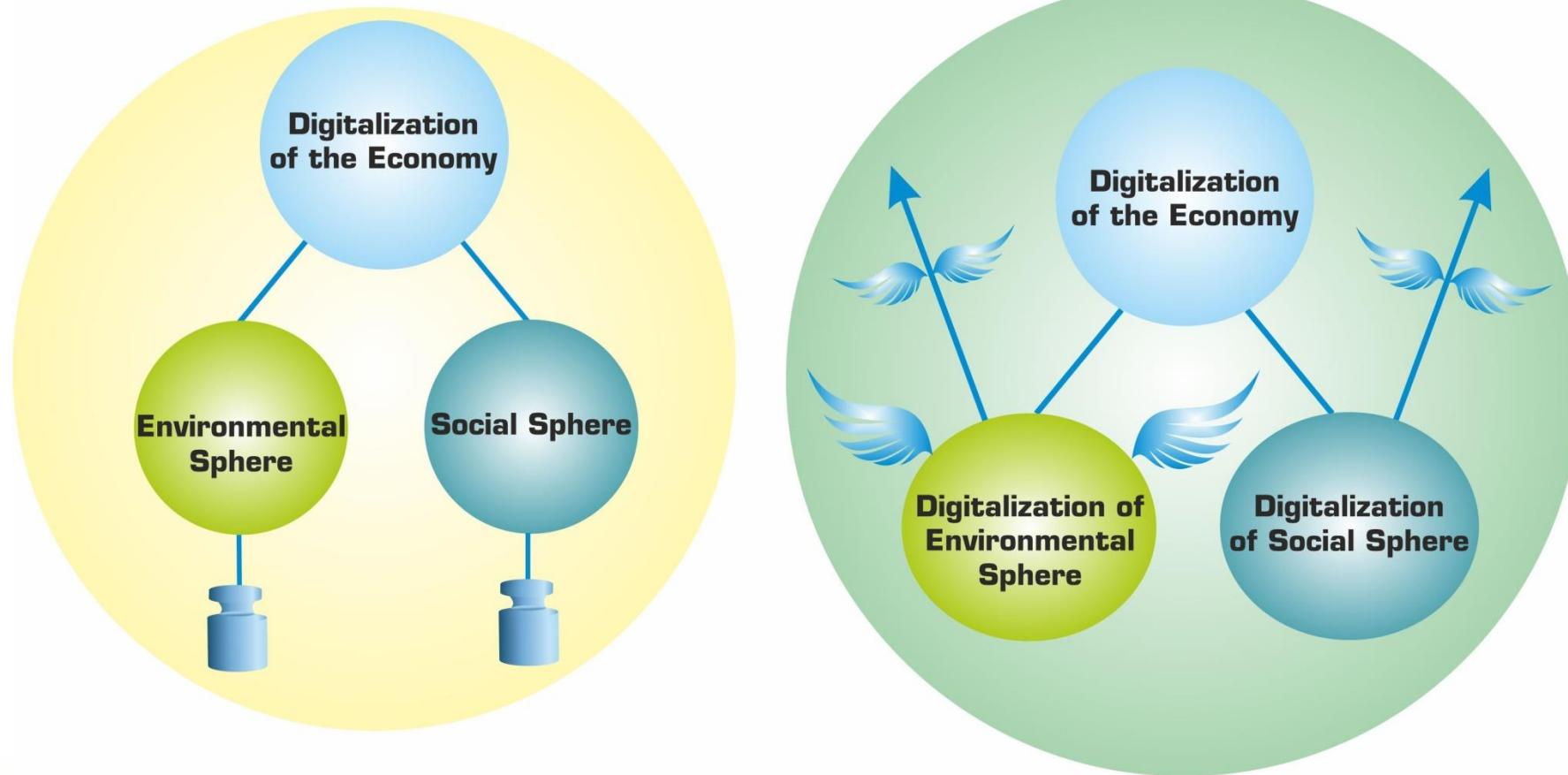
Evaluation of negative impact on the environment

Evaluation of current economic efficiency of environmental activities

Evaluation of organization's management and environmental activities efficiency



Digitalization and Sustainable Development



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