Green product line

Green nuclear energy

ROSATOM product line contribution to sustainable development

ROSATOM

- NPPs, SMRs
- WIND ENERGY
- HYDROGEN
- NUCLEAR MEDICINE, ISOTOPES
- MULTIFUNCTIONAL IRRADIATION CENTERS
- WASTE MANAGEMENT
- SMART CITIES
- CLEAN WATER
- INTERNATIONAL LOGISTICS
- COMPOSITE MATERIALS

ROSATOM products to support energy transition

LARGE NPPs

ON-LAND SMRs*

FLOATING NPPs

WIND POWER

HYDROGEN*

ENERGY STORAGE SOLUTIONS

DIGITAL SOLUTIONS

** Perspective solutions*

NPP contribution to sustainable development

ROSATOM

- Provides low-carbon energy with stable supply for 60+ years
- NPP (2x1200 MW) is enough to power homes of > 5 mln people
- Brings USD 3-4 Bn orders to local industries during construction period
- Creates about 3,000 new working places during the operation period
- Has minor influence of fuel component on electricity prices
- Enhances demand for skilled labor stimulating the development of science and education

NPP construction contributes to at least 6 UN SDGs

Large NPP construction is a big infrastructure project that makes significant contribution to improving the quality of life in the region

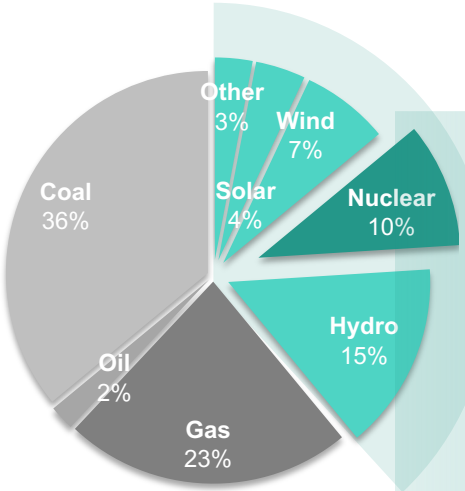
Green product line

Green nuclear energy

Nuclear energy is vital to achieving net-zero

ROSATOM

GLOBAL ELECTRICITY GENERATION



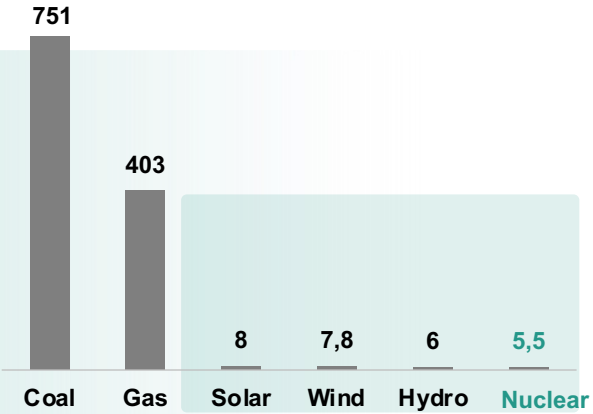
Source: WEO 2022

NUCLEAR CONTRIBUTES TO

MORE THAN 25%

OF GLOBAL LOW-CARBON ELICTRICITY GENERATION

LIFE CYCLE GHG EMISSIONS OF ELECTRICITY SUPPLY TECHNOLOGIES *



* lowest value (gCO2eq / kWh), for nuclear – average value. Source: UNECE

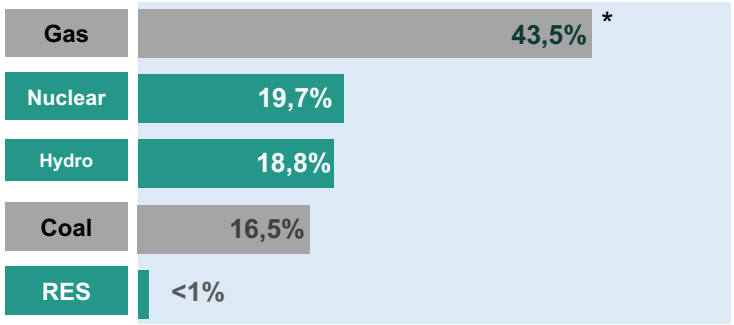
Following the results of COP27, its resolution reinforces the priority of low-carbon energy instead of just renewable energy

COP27 SHARM EL-SHEIKH EGYPT 2022

Nuclear energy is an important part of climate agenda in Russia

Russia ranks 4th in the world in terms of nuclear installed capacity.

The goal is to increase the share of nuclear in electricity generation to 25% by 2045.



Kalinin NPP

"Akademik Lomonosov" FNPP

77% – overall nuclear energy public acceptance rate in Russia with the rate in "nuclear" cities higher than 90%

37 nuclear units save ~7% of all GHG emissions in Russia annually

> **Russia has become the world leader in the export of nuclear reactors.**
>
> *Rafael Grossi, IAEA Director General, October 2022*

* 2021 data

The EU Green Taxonomy requirements for nuclear energy

ROSATOM

The EU Taxonomy CDA was published July 15, 2022 and came into force on January 1, 2023

CO2 emissions (<100 gCO2-eq / kWh)

Do No Significant Harm principle (DNSH)

SAFETY FIRST

Absolute priority for the safe operation

CNFC technologies

1

Minimum level of GHG emissions

- CO_2 emissions ≤ 100 g CO_2e/Kwh
- calculation and verification GHG for NPP project

2

Safety criteria at NPP operation stage

- resistance to extreme impacts
- environmental impact

3

Nuclear fuel cycle

- accident tolerant fuel, ATF
- closed nuclear fuel cycle and minimizing radioactive waste

4

Back-end and decommissioning

- radioactive waste management and decommissioning
- infrastructure and financial support guarantee

Nuclear energy is labelled as green in the Taxonomy of Russia, China, the EU and the EAEU.

The Eu Taxonomy Requirements For Nuclear Energy: VVER Technologies And Nuclear Industry Innovations
Rosatom website, Sustainable development: https://www.rosatom.ru/upload/iblock/cc0/cc076d06fd84868afd7a8d60ad85ab9d.pdf