# Novovoronezh NPP II Unit 1: the first-of-a-kind

# **VVER-1200** Generation III+ reactor



#### **REFERENCED**

In 2016 Rosatom became the first nuclear vendor in the world to launch a Generation III+ power reactor.

The first VVER-1200 is installed at Novovoronezh NPP II Unit 1. It is successfully connected to the grid and currently is in commercial operation supplying power to Russian South.

#### **SAFE**

VVER-1200 features enhanced performance parameters.

It operates safely in full compliance with the IAEA post-Fukushima requirements.

Operation reliability is quaranteed by a smart combination of active and passive safety systems. Active systems are designed for quick response to potential emergencies. Passive systems can retain any accident without human intervention.



VVER-1200 is recognized globally as one of the most innovative, reliable, and feasible power reactor technologies.

> New VVERs will be put into operation at Novovoronezh NPP II, Leningrad NPP II (Russia) and Ostravets NPP (Belarus). Hungary, Finland, Turkey, Egypt, and Bangladesh are also expected to host VVER-1200 projects.

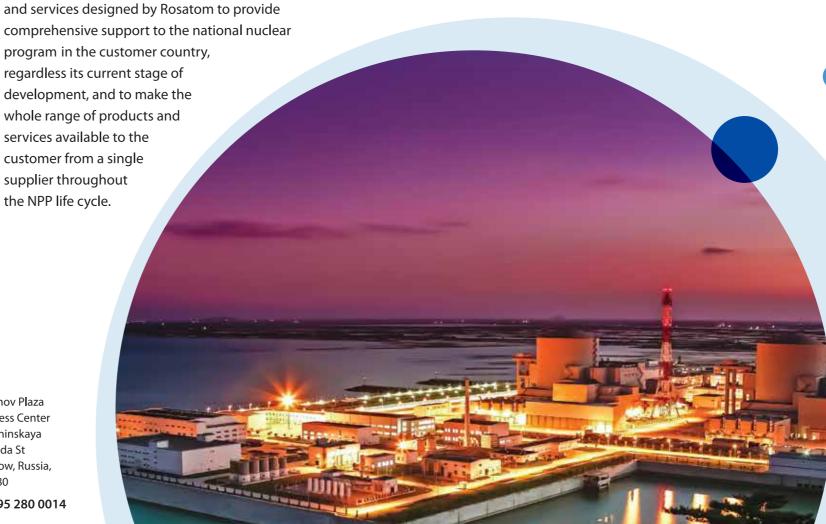
# **Rusatom** Overseas BRIEFLY

O The front-rank player of the Russian nuclear industry, **RUSATOM OVERSEAS** brings the exclusive **ROSATOM NPP INTEGRATED OFFER** to the global market. Apart from construction of LARGE-SCALE NPPS featuring the state-of-the-art VVER-1200 technology, the offer also includes creating and developing nuclear infrastructure in the customer country, local workforce training and professional development, involving local suppliers into the project, as well as guaranteed fuel supplies, NPP maintenance and operation support, SNF (spent nuclear fuel) reprocessing and RAW





Rosatom NPP **Integrated Offer** 



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supplier throughout

the NPP life cycle.



# Why choose

# the Rosatom NPP INTEGRATED OFFER?

- O Rosatom's Integrated Offer is based on the state-of-the-art

  GENERATION III+ VVER-1200 REACTOR TECHNOLOGY

  representing a fusion of the Russian atomic heritage, modern
  international reliability requirements and the latest
  post-Fukushima safety standards
- Rosatom's unique expertise in large-scale nuclear projects is backed up by its 70 YEARS' HANDS-ON EXPERIENCE IN ESTABLISHING AND MANAGING THE RUSSIAN NUCLEAR INDUSTRY
- Rosatom's global outreach makes it possible to efficiently negotiate and implement Russian-designed NPP projects in circa 50 COUNTRIES WORLDWIDE. Rosatom boasts an international backlog of as many as 36 POWER UNITS OVERSEAS
- NUCLEAR PROGRAMME: from the very introduction of a nuclear option into the energy strategy to decommissioning of the last nuclear facility

#### NUCLEAR INFRASTRUCTURE DEVELOPMENT

preparing the customer country to host a nuclear facility in accordance with the world's best practices, as well as IAEA requirements



## PUBLIC ACCEPTANCE

raising public awareness of the benefits, that nuclear energy provides and disseminating positive information about its effects among the population



## **∼8000 ∼8000**

**NEW JOBS ON SITE** 

~ ~1500

NEW JOBS IN THE NUCLEAR INFRASTRUCTURE

## ENERGY SOLUTION

design, construction, and commissioning of large-scale NPPs and Small Modular Reactors, both technologies designed to be a reliable source of power

#### HUMAN RESOURCES DEVELOPMENT

**FUEL SUPPLY** 

uninterrupted fuel supply

throughout the NPP operation cycle to ensure continuous

power flow

in the national grid

training the professionals qualified to manage a national nuclear programme and to operate nuclear facilities safely and efficiently

## INDUSTRIAL SOLUTION

enabling local suppliers to contribute to the national nuclear programme and giving a boost to the local economy



#### OPERATION & MAINTENANCE

managing safe operation and cost-effective power generation at NPPs



#### BACK END

providing eco-friendly solutions for SNF/RW treatment and decommissioning nuclear facilities

60 YEARS'
LIFE CYCLE
TWO VVER-1200
UNITS BOOST GDP BY

**THROUGHOUT** 

\$40-60

\* Subject to localization rate, tax legislation and electricity prices



INVESTED INTO A 2-UNIT RUSSIAN-DESIGNED NPP RESULTS IN:

\$1.9

IN LOCAL
INDUSTRY INCOME,

\$4.3

IN GDP GROWTH,

\$1.4

IN EXTRA TAXES

THROUGHOUT NPP LIFECYCLE

