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Experience site licensing for Yakutsk SMR

21st INPRO Dialogue Forum on the Deployment of Small Modular Reactor Projects
and Technologies to Support the Sustainable Development Goals.
Saint Petersburg, Russian Federation.

Andrei Chernoknizhnikov

Head of the Advanced NPP Department
Branch office for capital projects implementation
Rosenergoatom, JSC

Basis for the project implementation



01

Comprehensive program of the Government of the Russian Federation for development of equipment, technologies and scientific research of nuclear energy use

02

Decision of Rosatom to start the pilot project

03

The need for energy supply to mining facilities

Siting of the Yakutsk SMR

For Yakutsk SMR deployment
has been chosen Republic of Sakha (Yakutia)



Technical characteristics of Yakutsk SMR



Reactor unit — RITM-200M



Electrical power — 55 MW



Thermal power — 190 MW



UCF* — not less than 90%



Refueling cycle — not less than 5-6 years



Design service life — not less than 60 years

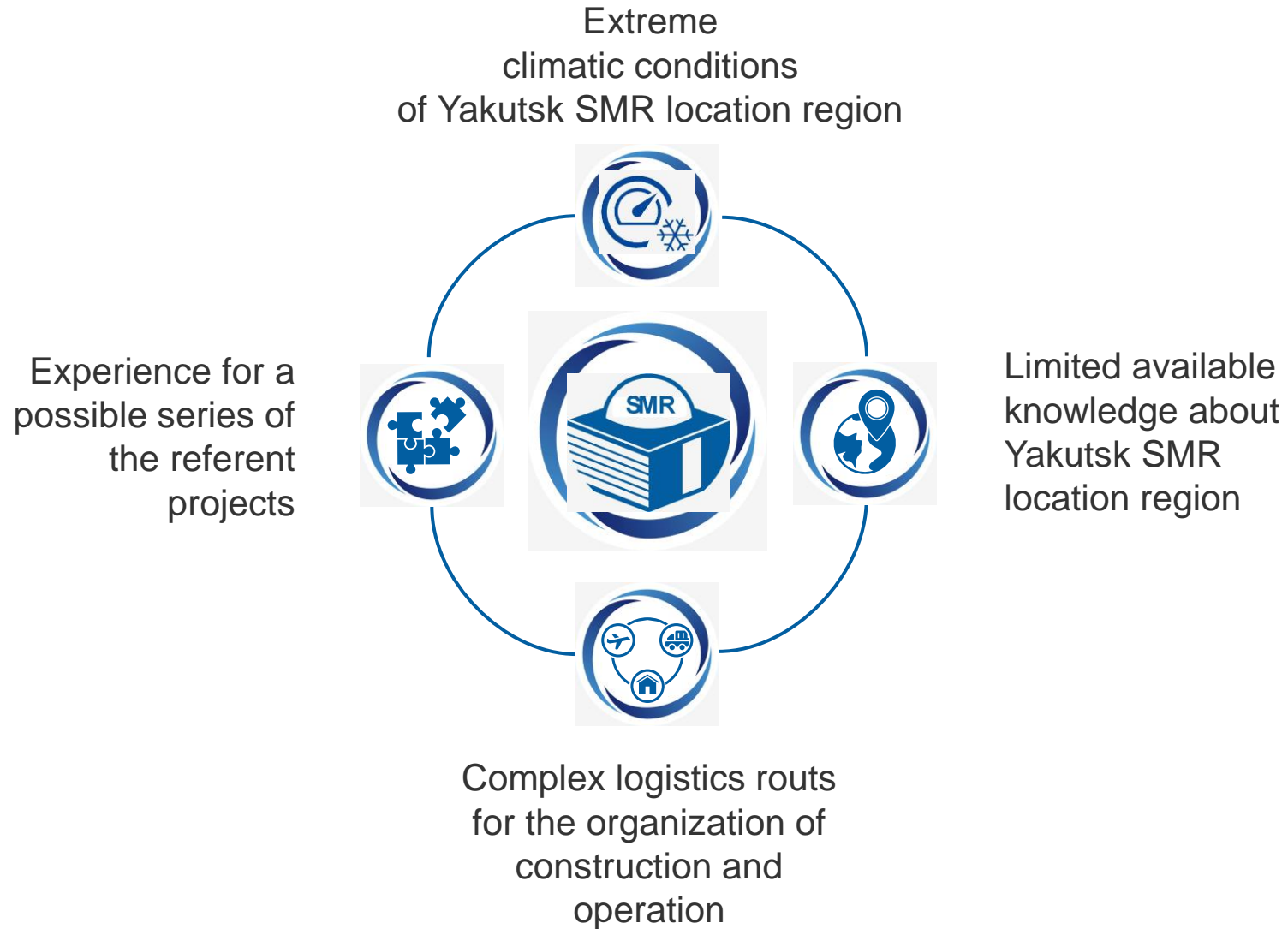
* Unit Capacity Factor



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Project unique conditions



Completed "milestones" of the project



01

The memorandum of understanding between Rosatom and state authorities was approved in 2020

02

Priority research has been carried out to confirm the safety of the possible deployment of the SMR with RITM-200M reactor unit

03

Site preliminary engineering surveys have been carried out

04

Cost assessment, environmental impact assessment and related documentations have been developed

Expertise and approval of the design documentation



The requirements
of the Russian
Federation
legislation
regarding siting
for NPP
have been met



Public acceptance procedure for SMR site have been held



State ecological expertise of the environmental impact assessment and related documentation successfully passed

Site licensing for Yakutsk SMR



In October 2022 the PSAR materials were sent to Rostechнадзор (Regulator)



The main purpose of the review was to prove the possibility of allocation of the SMR at the selected site – to confirm PSAR compliance with the requirements of Russian codes and standards



The process of the site license obtaining, including a number of consultations with Rostechнадзор experts, lasted about 6 months



21.04.2023 site license for Yakutsk SMR has been approved by Rostechнадзор



Yakutsk SMR siting license

Main tasks of the project in 2023

Execution of
engineering surveys
(design stage)



Development of the Safety
analysis Report of the
Yakut SMR



State expertise in order to
codes and standards



Development of the
design documentation
for construction

Development of the
documentation, sufficient to
obtain a license for construction
and a construction permit



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Thank you

Andrei Chernoknizhnikov

Head of the Advanced NPP Department

Branch office for capital projects implementation

Rosenergoatom, JSC

Phone: +7 (495) 783 01 43

E-mail: chernoknizhnikov-as@rosenergoatom.ru