

STATE ATOMIC ENERGY CORPORATION "ROSATOM"

Rosatom power equipment supply capabilities

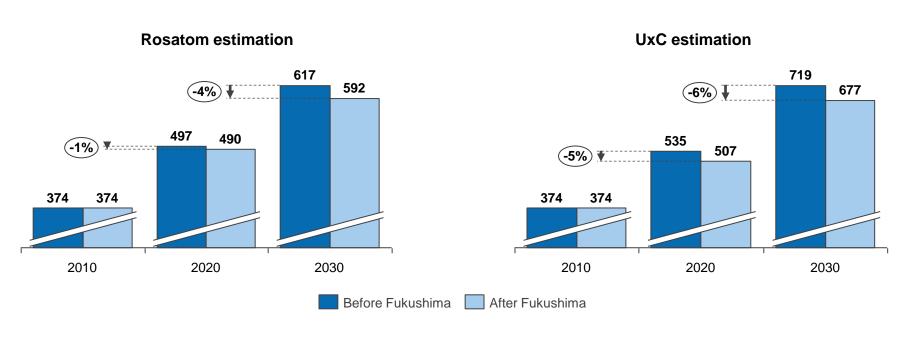
Round table «Power machine engineering. International cooperation development» ATOMEXPO-2011

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Despite the NPP Fukushima incident significant growth of NPPs construction is expected in the world

NPPs new build, GW



Comments

- Today the only countries which decline nuclear energy are those, who were initially oriented on reduction of its share in national energy balances (i.e. Germany) or those, which only declared its development (i.e. Venezuela).
- Most of the countries still recognize the role of nuclear power in energy balance along with alternative and conventional energy sources.

Rosatom is the leading global nuclear technology company...

2009 Key Figures

#1

in uranium enrichment

#1

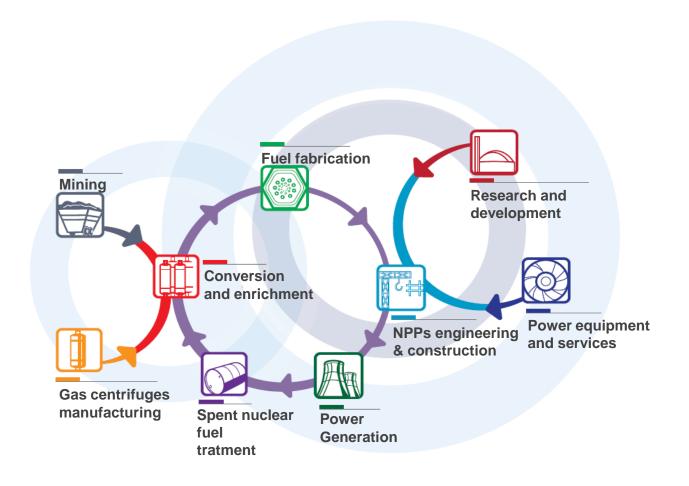
in new NPPs construction - 25 nuclear simultaneously

#1

Russian electricity generation company, 24,2 GWe installed capacity

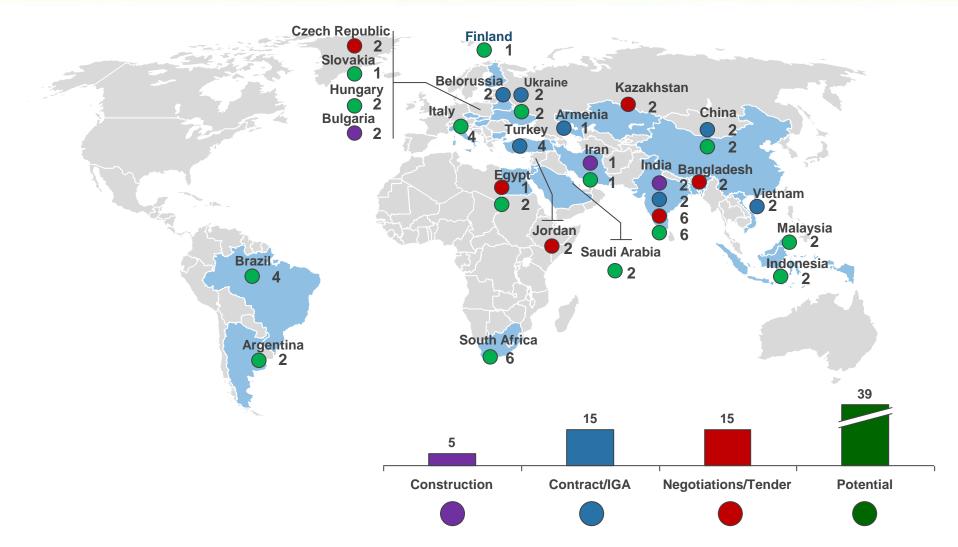
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revenue



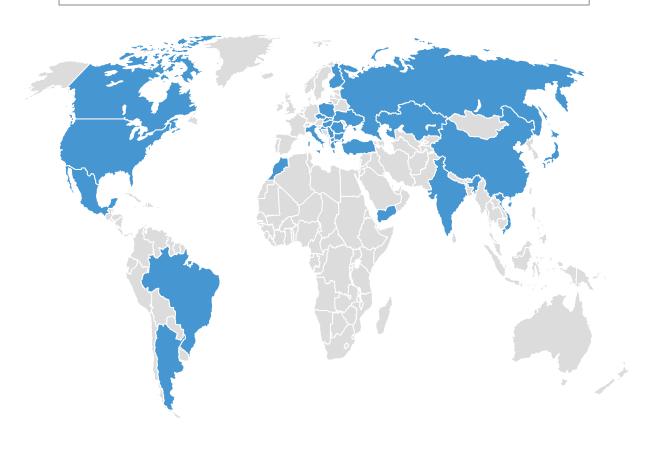
ROSATOM Operations

...with a significant NPPs construction projects pipeline and...



... fully capable to meet specific customers' requirements

The most growth of NPPs demand is expected in new and developing countries bringing new types of customers requirements



New Markets

- ✓ EPC/BOO contracts
- ✓ Construction works rendered by local Co.,
- ✓ Need financing,
- ✓ Require nuclear infrastructure development (legislation, staff training, etc.)

Developing Markets

- √ Islands-based procurement model
- ✓ Require technology transfer
- ✓ Equipment is supplied by local Co-s
- ✓ Less/no financial needs,
- √ Cooperation in 3rd countries is preferred

Mature Markets

- ✓ Separate equipment and services purchases
- ✓ Nuclear technology development cooperation
- ✓ Strategic alliances
- ✓ International nuclear legislation development

Rosatom's overseas strategy provides for various forms of cooperation in power equipment supply

Power equipment supply sources

Rosatom nuclear power complex



atomenergomash AEM-Group

Integrates Rosatom's Nuclear and Power Generation Equipment and Services Companies

AEM-Group's equipment is installed at:

- more than 13% of nuclear power plants worldwide;
- about 2% of thermal power plants worldwide, including 40% of power plants in Russia, CIS and Baltic states.

Power equipment production localization*

Possible sources of local production

Local companies

Supply of equipment and services by local companies

JVs

Rosatom – local companies JVs for certain NPP construction projects

Alliances

Rosatom - local companies alliances at local and 3rd countries markets

Rosatom's owned Co.

Rosatom's purchase of local companies or new production companies establishment

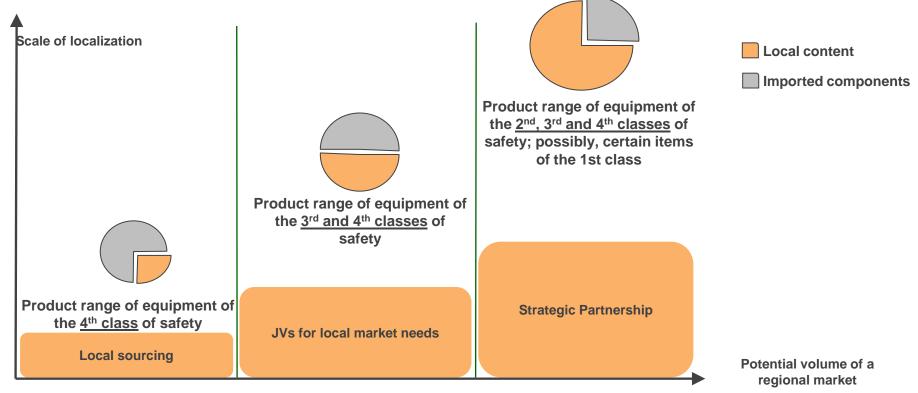
^{*} Requires the organization of special activities, including: engineering and technological part (technology transfer), commercial part (volumes and backlog of orders), legal and institutional parts (forms of organization, certification, patenting, standardization, etc.).

Generic approach to localization

Localization – is the <u>generally accepted trend</u> in the nuclear and power engineering for the <u>last 20</u> <u>years</u>

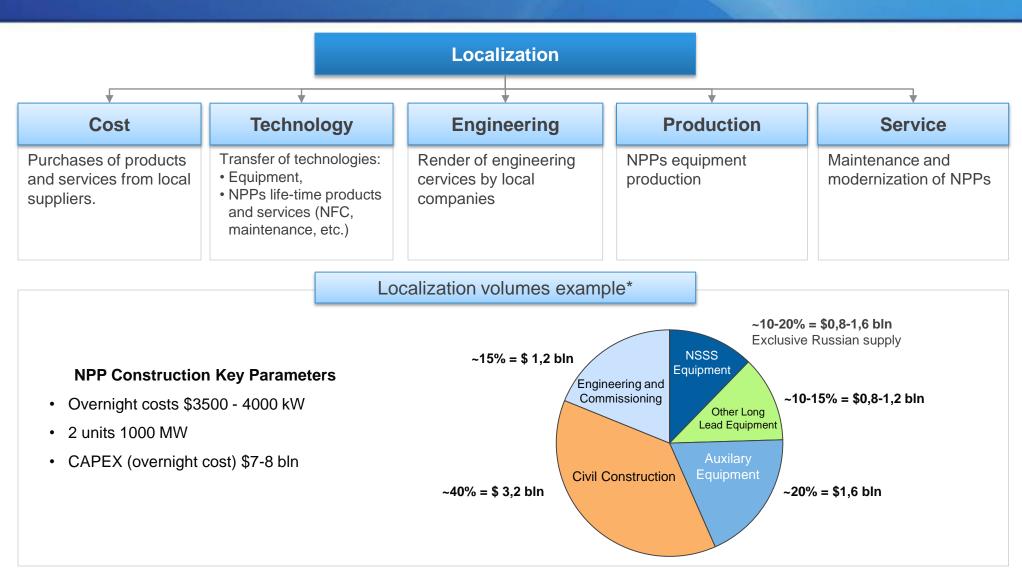


- National regulation (demand of local content)
- Search for efficient supply chains





Rosatom is ready to localize up to 90% of NPP project's value



www.rosatom.ru

* - NPP construction phase

Localization brings benefits to both customers and suppliers

Localization Drivers

Local Requirements / Regulation

Most of the current tenders provide for a localization on the following conditions:

- Maximum locally capable level of localization (requires local companies assessment),
- Maximum projects cost's share allocated to local companies.

Customers' benefits

- Transparent set of familiar suppliers
- Development of national manufacturing capabilities,
- Local companies possible participation in suppliers 3rd countries' projects,
- Country's economic benefits through increase of tax levies



Supply Chain Optimization

Optimization of the supply chain is among key instruments of bringing the projects cost down thus making supplier's offer more commercially effective.

Suppliers' benefits

- Rise of project's attractiveness due to better economics,
- Rise of supplier's share of the target market due to better customer's satisfaction,
- Supply-chain development,
- Wider technology expansion.

Rosatom's localization model in India

POTENTIAL CONTRACTS FOR NPP CONSTRUCTION IN THE ASIAN REGION

Potential volume of Russian-design NPP construction in the region

India

China

Vietnam

Turkey

Egypt

Bangladesh

TOTAL

Number of units





















33

* 2 -VVER, 2 - FB Reactor

PROJECT DESCRIPTION



AIM: The expansion into global markets: ensuring the presence in priority Southeast Asian region to implement the project: «Creation of competitive equipment manufacturing base with regional cooperation and localization»

OBJECTIVE: Creation of production and technological base in India for the manufacturing of long-term manufacturing cycle equipment for Russian designed NPPs (incl. other segments (TPP)).

DATES: 2010 ≈ 2019.

Asia

- The center of the world economy growth;
- Demand for infrastructure to ensure the growth: new adding capacities;
- Region of origin and spread of localization as the requirement of customer

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