

THE STATE ATOMIC ENERGY CORPORATION "ROSATOM"

### **Financing New Nuclear Power Generation**

Prague, Czech Republic

**April 2018** 



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#### **300** enterprises

**250,000** employees

**37** NPP units (30.1 **GWe**) in operation in Russia

**\$133 bn.** orders backlog for the next 10 years

#### in new NPP construction #1

- in uranium enrichment
- in fast neutron reactors
- in nuclear icebreakers
- in floating NPP
- biggest research reactors fleet
- # 2 biggest NPP fleet owned and operatedin uranium deposits

#### Key competitive advantages:

**Guaranteed supply** of complete life-cycle products and services in nuclear power

#### **Flexible capabilities**

of NPP supply from components and services to turn-key and BOO projects

#### **Innovative technologies**

proven by years of reliable operation and constant development

#### **Diversified product range** stretching far beyond nuclear power

# **ROSATOM** is the only vendor implementing serial construction approach globally





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### **ROSATOM VVER NPPs are highly welcomed worldwide**





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### **Rosatom's Recent Experience in New NPPs construction**

Different financing models

### **ROSATOM** implements NPP construction projects using flexible models meeting various customer needs



OSATON





### Hungary – Paks II Case Study



#### **Project background**

- Intergovernmental cooperation between Hungary & Russia in nuclear power plants construction since 1963
- 4 Units, constructed in 1970-1990, provide [61]% of Hungary's electricity power needs
- Hungary familiar and comfortable with Russia design and technology

#### **Project overview**

- Two VVER-1200 power units with installed capacity of 1,200 MW each, total output 18,5 TWh per annum
- January 2014 signed Intergovernmental Agreement (IGA) and Financial IGA
- Integrated Solution: EPC, NFSC (Nuclear Fuel Supply, O&M (Operation and Maintains) contracts; potential SNFT (Spent Nuclear Fuel) contract

#### Krems ar der Donau Slovakia Nitra Sankt Pölten Vienna Bratislava Mödling Baden Nové Zámky Nyíregyháza bei Wier Satu Mare Baia Mare Austria Debrece Budapest Tatabányao Jászberé Haidúsz Marghita Berettyóúifalu Székesfehérvár Zală Szolnok Graz Veszprém Hungary Zalaegerszeg Clui-Napoca gyházao Szentes Békéscsaba Romania Slovenia Nagykanizsa Hodmezővásárhely Kaposvár Szekszárd Dombóvá reaed Alba Iulia Kikinda Кикинда OMPOI Croatia

#### NPP location

#### **Financing overview**

- EPC contract + IGA financing
  - Financing provided by Hungary
  - Debt financing provided via Financial IGA
- VEB &Government Debt Management Agency effect payments and account for State debt
- Fixed interest rate
- Repayment starts once units completed

### **Financing Structure**





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### **Content Requirement**





## **Rosatom Information Package 2017: The Impact Of Localization**



### **Rosatom Information Package 2017: Rosatom's Advantages For Localization In The Czech Republic**





- Extensive track record of cooperation with the Czech companies on construction, operation and maintenance of the currently operating VVER NPP units at Temelin and Dukovany
- Czech manufacturers' experience with the Russian nuclear norms and standards
- A large number of the Czech manufacturers are referent suppliers to the Russian designed NPPs worldwide
- Extensive production cooperation opportunities between Russian suppliers and their Czech manufacturing subsidiaries (including Rosatom-owned)
- Significant knowledge, experience and due diligence work executed in preparation for Temelin-3,4 project

USUAL SCOPE OF LOCALIZATION BY A FOREIGN VENDOR FOR THE FIRST TWO NPP UNITS VARY UP TO 25-35%, WHILE ROSATOM CAN OFFER OVER 50% OF THE LOCAL CONTENT



## THANK YOU FOR YOUR ATTENTION!

