JNPP Report - BPTC
Al-Adhileh Ahmad
Jordan - JAEC
Project status

• Russia was selected in October 2013 as the preferred bidder to supply Jordan with its first nuclear power plant.

• Russia and Jordan have signed an intergovernmental agreement on cooperation in the construction and operation of the first nuclear power plant in Jordan.

• The construction agreement is to be concluded in 2016.

• the initial reactor of the two-unit plant is expected to start operating in 2020.
Project status

• The site suitability evaluation process has already started.

• Once the feasibility report has been completed, a plan for water supply will be decided.

• Rosatom will supply nuclear fuel for the reactors and take back their used fuel.

• Russia will contribute 49% of the project's cost, with the Jordanian government providing the remaining 51%.
Contractual Structure

- Other Investors (Local & Foreign)
- Gov. of Jordan

- NEPCO
- JNPC 50+%
- ROSATOM 50-%

- Project Company
  - EPC Contract
  - EPC Contractor/ASE

- SHA

- PPA

- ROSATOM/Operator
  - O&M Agreement
  - Fuel Supply Agreement
JNPP Project Stakeholder Structure
Project Phases

Phase I: Pre-Investment Phase (Development Phase)
• Conducting the required Site Characterization, Environmental Impact Assessment, Grid Study, Electricity Market Study, Offsite Infrastructure and Water & Cooling Study for the Site/Project.
• Preparing and finalizing the Bankable Feasibility Study with the Investor/Operator and Investors for the project along with other all required studies.
• Securing the Financing for the project and Finalizing all Phase II related Project Agreements.

Phase II: Investment Phase (Implementation & Construction Phase).
Agreements/Contracts to be concluded to move to Phase

- EPC Contract.
- Power Purchase Agreement.
- Water Supply Agreement.
- Fuel Supply Agreement.
- Shareholder’s Agreement.
- Share Purchase Agreement.
- Spent Fuel Terms Sheet and Operation and Maintenance Terms sheet.
Safety systems
The core catcher

- The core catcher design provides corium confinement and exclude corium discharge outside the containment in any scenario.
- Protects the reactor cavity against thermal and mechanical impact of corium.
- Takes in and accommodates solid and liquid corium constituents.
- Ensures formation of optimal structure and properties of the melt pool and subsequent solidification of corium.
- Provides heat sink from corium to cooling water passively supplied min 24 h without any coolant makeup.
Water supply

- Water from As Samra Wastewater Treatment Plant will be used for cooling in JNPP.
- As Samra WWTP is the only sustainable water source capable to meet cooling water needs for a twin unit Nuclear Power Plant.
- As Samra WWTP is located northwest 30 km from Amman and is designed to treat the wastewater of 2.2 million inhabitants of Amman and surrounding areas.
Thank you