



# FERMI ENERGIA 3RD ANNUAL CONFERENCE

## SMR IN CZECH REPUBLIC

**ČEZ GROUP**

**PETR NEJEDLÝ / MANAGER DESIGN AUTHORITY**

**ELEKTRÁRNA DUKOVANY II, A. S. / ELEKTRÁRNA TEMELÍN II, A. S.**

**[PETR.NEJEDLY@CEZ.CZ](mailto:PETR.NEJEDLY@CEZ.CZ) / [WWW.CEZ.CZ/NJZ](http://WWW.CEZ.CZ/NJZ)**

**ČISTÁ  
ENERGIE  
ZÍŤŘKA...**



# WHAT WE HAVE DONE IN RECENT YEARS



- ❑ ČEZ Group has been involved in SMR technology for a long time
- ❑ Nuclear Research Institute (ÚJV Řež) active in research => „Energy Well“ (Molten Salt Reactor) and „HeFASTo“ (Gas-cooled Fast Reactor)
- ❑ **MoU signed:**
  - ČEZ × NuScale (SMR)
  - ČEZ × GE Hitachi (SMR)
  - ČEZ × Rolls Royce (SMR)
  - ÚJV Řež × Holtec (SMR)
  - General MoU for cooperation in nuclear: EdF, KHNP, ...
- ❑ **ČEZ is active at international cooperation:**
  - European Utility Requirements Association
  - Foratom - SMR Task Force

# WHAT WE HAVE DONE IN 2021



- ❑ Temelin II launched **Initial study for SMR technologies in 2021**
  - Information study including initial marketing survey
  - Focused on **Light Water Reactors** in the short term => electricity and heat production
- ❑ **Within Initial study Request for Information sent / Information Packages obtained:**
  - BWRX-300 (BWR; GE-Hitachi, USA/Japan)
  - Nuward (IPWR; CEA, EdF a Naval Group; France),
  - NuScale (IPWR; NuScale Power; USA),
  - SMART100 (IPWR; KAERI, KEPCO; Republic of Korea),
  - SMR-160 (PWR; Holtec International; USA),
  - UK SMR (PWR; Rolls-Royce; UK)
- ❑ **Within Initial study preliminary list of suitable localities has been defined** (includes standard nuclear sites as well as non-nuclear sites)

# WHAT WE WILL DO (2022-2023)



## ❑ **Feasibility study for the nuclear Temelin site:**

- Standard assessment of siting the SMR technologies selected in the Initial study at established nuclear site (legislative, technical, economic and environmental aspects of the project)

## ❑ **Preliminary feasibility study for non-nuclear sites:**

- Specification of further activities required for the future establishment of nuclear sites for SMR technologies from previously non-nuclear sites, including specification of legislative, technical, economic, environmental constraints and determination of further actions in each area

# THANK YOU FOR YOUR ATTENTION

