

# Achieving Net Zero by 2050 in Europe - contribution of Nuclear Power



Warsaw, 13<sup>th</sup> May 2025

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# National strategy for nuclear

- ➔ **State Energy Policy** – priorities and strategic intentions of the state within the energy sector, provides a stable and predictable business environment, effective state administration and availability of sufficient and secure energy infrastructure
- ➔ In CR - current SEP from 2015 being updated – long-term operation of existing Nuclear Units + construction of up to 4 large nuclear units + several SMRs
- ➔ Low carbon nuclear = the only option to fulfil climatic goals + to ensure energy security, stability of the electricity system, cost-effective decarbonization (lower power prices, lower system costs); the largest national economic benefit (2% of GDP, largest investment multiplier, high-tech/R&D&I)
- ➔ **Action plan for nuclear energy development** - activities and principles to implement SEP



# Regulatory and policy instruments

## Preconditions for development of nuclear:

- ➔ Broad political and public support (70+% in the CR)
- ➔ Legislation  
(Low-carbon Act, amendment to the Atomic Act, Act on Strategic Investments, DGR Act)
- ➔ State institutions (“effective state”) – Regulator SÚJB, DESÚ, MIT, RAWRA, Ministry of environment
- ➔ Experienced and prepared industry
- ➔ R&D&I – financing and focus on applied research and increasing competitiveness (TAČR)
- ➔ External conditions / EU – partial changes, but more is needed

## State aid support for the investor to nuclear is necessary

- ➔ Defined by the Low Carbon Act, 367/2021 Coll.
- ➔ State provides financing via state loan, Power purchase agreement, Guarantee for stability of project environment
- ➔ Subject to notification to the EC, for Dukovany Unit 5 approved 4/2024
- ➔ Change of investors model + Unit5/Unit 6 construction = new notification process

# SMR planning and EU coordination

- 3 potential investors into SMR in the CR (ČEZ, Orlen Synthos Green Energy (OSGE)/BWRX CZ, SUAS)
- MIT involved in the Financing WG of the **European Industrial Alliance on SMRs**.
- **Memorandum of the Czech and British Prime Ministers** on nuclear energy and SMRs, Assessment of the need for an **intergovernmental agreement for the selection of SMR technology** as a follow-up to the CZ-UK Memorandum.
- MIT involved in the **Accelerating SMRs for Net Zero Initiative** – a NEA/OECD solutions-oriented platform with a defined plan of work for collaboration and knowledge exchange to support decision makers in maximizing the full potential of SMRs.
- Important Projects of Common European Interest (IPCEI) on Innovative nuclear technologies - Innovative Nuclear Power Generation (SMR/AMR) and Enabling Activities
- Key activities include SMRs/AMRs but also enabling activities such as innovative fuels, uranium processing, waste management and decommissioning, and supply chain development.

# Thank You for Attention!

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