



TEMELÍN 3&4 DUKOVANY 5&6

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ČEZ OPERATES 6 NUCLEAR UNITS AT 2 SITES, THE CZECH GOVERNMENT ADOPTED ITS ACTION PLAN



2015 National Action Plan for the Development of the Nuclear Energy Sector in the Czech Republic follows the 2015 State Energy Policy which defines needed actions as follows:

- Support the development of nuclear energy as one of the pillars of electricity generation, with the **target of nuclear energy representing approximately 50 % of the amount of electricity generated and maximising heat supplies from nuclear power plants.**
- **Support and accelerate the process** of negotiating, preparing and implementing new nuclear units at existing nuclear power plant sites with a total output of up to 2 500 MW, or annual production of approx. 20 TWh by the years 2030 – 2035, including the steps necessary for international discussion of the issue.

Steps:

- Government commissioner for nuclear energy appointed (Ján Štuller) ✓
- Standing committee for the nuclear energy sector established ✓
- Information exchange with potential EPC contractors started ✓
- Legal analysis for compliance of the individual investor and business organisation models with the rules for public support ✗
- Decision on the investment and business model for the construction of NNF ✗

Not later than before issuing a building permit, to assess whether the need for construction of a new nuclear facility is still present and whether the market situation has been stabilized, which would allow construction on a commercial basis, i.e. without the need of state guarantees. The timeframe up to obtaining a building permit is roughly around 2025.

DUE TO THE SITUATION ON ENERGY MARKETS THE EPC TENDER HAD TO BE CANCELED IN 2014



TEMELÍN NPP (1 x 1078 MWe + 1 x 1055 MWe)

- First connection to the grid 2000
- Type of reactor: VVER 1000 type V320
- The largest energy source in CZ

August 2009 – Initiation of EPC tender

April 2014 – Cancellation of the EPC tender

no guarantees or stabilisation mechanism by the government

- Tender procedure compliant with European Union and Czech public tendering
- Balanced technical and commercial criteria for offer evaluation
- Specifications selected to favour the standard design option with minimum modification
- Technical requirements adapted from European Utility Requirements (EUR) as a starting point, modified mainly for:
 - Site conditions
 - Legislation requirements and licensing process in the Czech Republic
 - CEZ operational experience from Dukovany and Temelin (6 units altogether)
 - Technical advisor recommendation
 - Emphasis on safety and security following Fukushima incident
- Selection of EPC contractor independent from partnership process/financing

2015 Action Plan of the Czech government: +1 unit

Required permits being prepared for +2 units

- Immediate continuation of the project preparation.
- Fulfilment of conditions of issued permits ongoing (EIA, authorisation for siting, etc.)
- Preparation and implementation of related and induced investments ongoing.
- Establishing of subsidiary (special purpose vehicle, SPV) approved by General Assembly of ČEZ, a. s. on 3 June 2016 - separation of nuclear assets conducted according to the National Action Plan for the Development of the Nuclear Energy Sector (NAP NE) by 1 October 2016.

DUKOVANY 5 HAS PRIORITY OVER TEMELÍN



DUKOVANY NPP (4 x 510 MWe)

- In operation since 1985 (expected to remain in operation until at least 2035/2037)
- Type of reactor: VVER 440 type V 213

2015 Action Plan of the Czech government: +1 unit (2035)

Required permits being prepared for +2 units

- First new unit to start operating in 2035, the second one not before the 4 operating units will be shut-down.
- Establishing of subsidiary (special purpose vehicle, SPV) approved by General Assembly of ČEZ, a. s. on 3 June 2016 - separation of nuclear assets conducted according to the National Action Plan for the Development of the Nuclear Energy Sector (NAP NE) by 1 October 2016.
- July 2016: ČEZ requested EIA for potential 2 units, facts-finding procedure launched

„The construction of new nuclear units will start at Dukovany.“

Czech Prime Minister, Finance Minister and Minister of Industry and Trade, 2015

„ČEZ should use its own resources to finance the construction of a new nuclear unit at Dukovany.“

Andrej Babiš, Finance Minister, May 2015

CHALLENGES FOR NEW BUILD WHICH HAS TO BEGIN IN 2025 OR 2027 IF 2035 IS THE GOAL



Czech Republic requested information 2016

- Areva NP/Electricité de France (France)
- Rosatom State Atomic Energy Corporation (Russia)
- Westinghouse Electric Company (USA/ Japan)
- Mitsubishi Heavy Industries (Japan)
- Atmea (Areva and Mitsubishi Heavy Industries)
- Korea Electric Power Corporation (ROK)
- China General Nuclear Power Corporation (China)
- State Nuclear Power Technology Company (China)
- China National Nuclear Corporation (China)

Financing 2016/2017

- Contract for Difference
- Intergovernmental agreement

Public Procurement

- Possibly exempt from public procurement rules
- Intergovernmental agreement

Possible Investors

- CEZ or by CEZ-owned subsidiary company
- Private Investment Consortium
- State-owned enterprise („last hypothetical possibility“)

CEZ

- Maintaining and expanding competencies of New Build Team (according to NAP NE)
- Subsidiary companies established to prepare construction plans for both locations

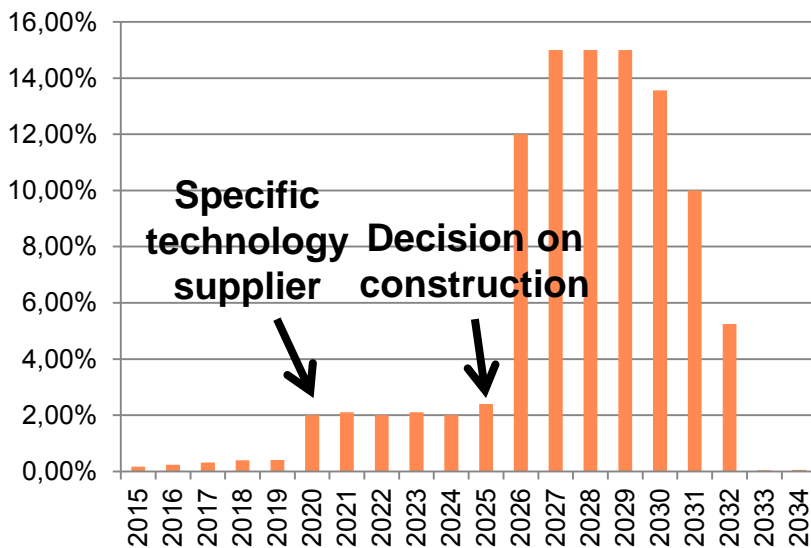
„Preparation of a new unit at Dukovany NPP is up to four years overdue.“

Ján Štuller, government commissioner for nuclear energy, September 2016

ANNUAL BUDGET IMPACT



Investment costs (%)



Today, the decision on the preparation of nuclear projects is a decision on building opportunities, not on construction.

Type of budget impact	Annual budget impact [billion CZK/year] and [total expenses for the entire period]:			
	1. Private investor, CfD 66-86 EUR/MWh	2. State, CfD 52-66 EUR/MWh	3. Investor, CfD with the state 66-86 EUR/MWh	4. State without CfD
Expenditure on construction preparation (until the signature of the EPC contract)	0	-x0.1 [-3]	0	-x0.1 [-3]
Expenditure on construction (until the decision on construction)	0	-x1 [-20]	0	-x1 [-20]
Expenditure on construction (following the decision)	0	-25 [-120]	0	-25 [-120]
Revenue/Expenditure from NPP operation	0	6 to 11	9 to -13	3 to 19
Revenue from the payment for potential debt guarantee	[0.7]	0	[0.7]	0
Tax revenue during operation	2 to 3 [127 to 187]	1.4 to 2 [86 to 127]	2 to 3 [127 to 187]	0.5 to 3.5 [35 to 225]
Tax revenue during construction	1 [10]	1 [10]	1 [10]	1 [10]

Source: 2015 National Action Plan for the Development of the Nuclear Energy Sector. All values are in 2015 prices.

- The assumption is the construction of one new unit at CZK 143 billion (EUR 5.2 billion).
- Construction expenditures are shown without financing costs.
- A minus sign means an expenditure and plus sign means revenue into the state budget.