Basic elements of future of radioactive materials in the Czech Republic

Ladislav Pazdera
Ministry of Industry and Trade

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Czech Republic key data

Ministerstvo průmyslu a obchodu

Nuclear technologies utilized from 1950s

Uranium mining since 1947s up to now, Dolni Rožínka mine production 340 t/year

3 research nuclear reactors (UJV REZ and CVUT university)

Two nuclear power plants 3 800 MW in operation

Production of radioactive materials

Institutional waste 200 units / year (mainly from research activities)

Operational waste from power generation 1600 units / year

Spent nuclear fuel 65 t/year

Waste repositories

3 repositories in operation – 2 institutional waste, 1 materials from power generation

Preparation of deep geological repository until 2060

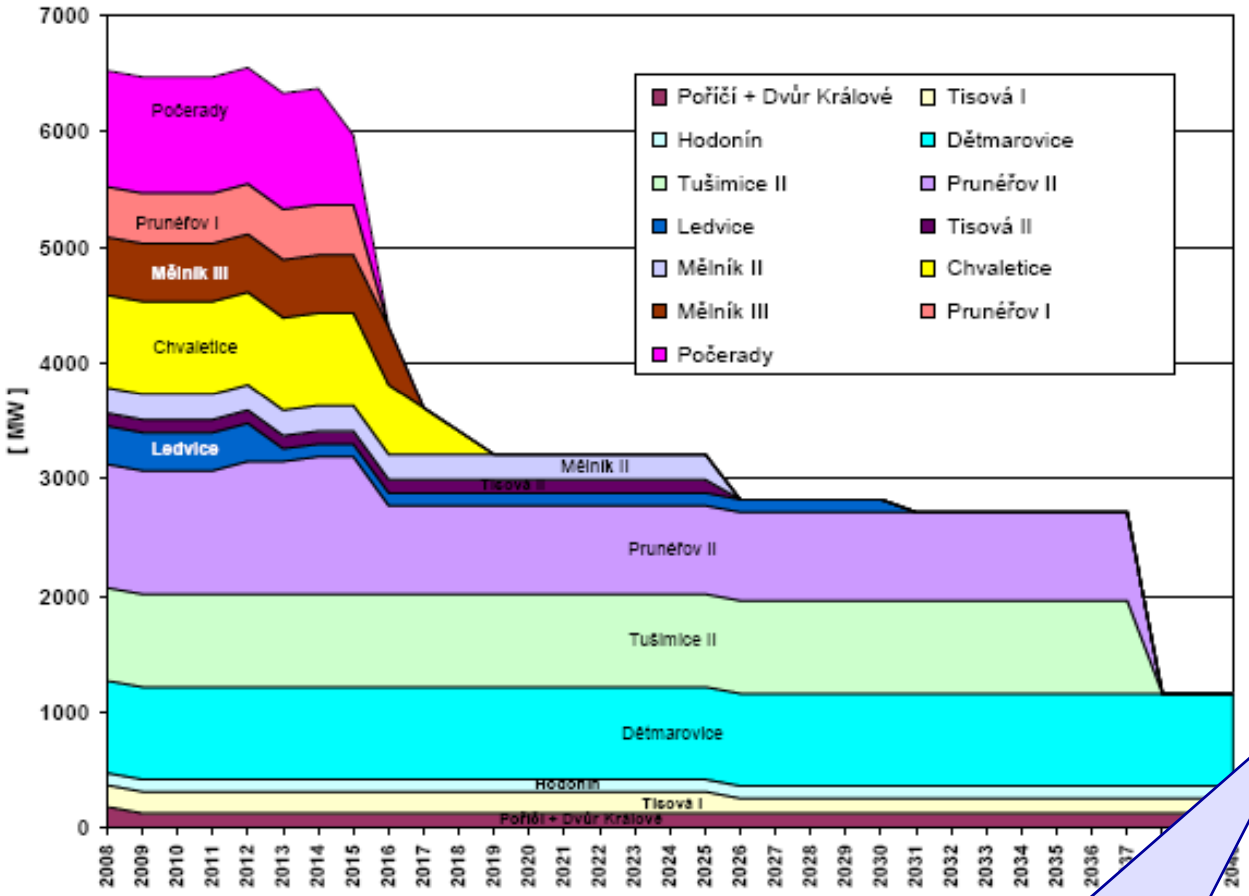
Financing and organisation

„Atomic act“ introduced in 1997 – establishment of so called nuclear account financed by producers of radioactive waste

Establishment of organisation SURAO responsible for radioactive waste treatment and preparation of deep geologiacl repository, financed from nuclear account

Electricity balance
Coal „phase out“

Ministerstvo průmyslu a obchodu



TPP Replacement:

Phase out 3 400 MW

New TPPs 2 000 MW

Actual development:

Pos. balance until 2017

Alternatives for positive balance after 2017:

1. Without nuclear
   1200MW ČU + 500 MW ZP
2. Nuclear +1200 MW 2020
   +800MW ZP
2. Nuclear +1200 MW 2025
   +1200 MW ZP

Possible export 4TWh until 2026 (now up to 16TWh)

Future repositories

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Repositories operation

Jachymov and Richard sufficient for future production of instituional waste

Dukovany – planned for lifetime production from power generation (2 power plants)

Spent Nuclear Fuel - Dukovany storage – lifetime of power plant

- Temelin – preparing construction – planned operation since 2014

Deep geological repository

After preliminary survey 6 potential sites selected

Preliminary off site geological survey ongoing

Planned to choose 2 sites until 2015