

Webinar: Phasing out from lignite – what does that mean for the Czech power sector?

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Lignite and coal phase-out: condition for climate protection

- Special IPCC report regarding Paris Agreement target to limit the temperature increase to 1.5 degrees Celsius – carbon budget 420 Gt CO₂.
- The Climate Analytics study projected the results of the IPCC into the coal sector – global phase-out is needed till 2037, in OECD countries till 2031.



Czech Republic – lignite and coal addiction

- 45 % of electricity generation and 60 % of heat supply into heating systems is based on lignite and coal.
- Official energy policy counts with coal decline but not phase-out.
- In reality: operators are shutting down the least efficient power plants.



Aurora Energy Research report: Lignite phase-out is possible

- Common model for the Czech Republic, Germany and Poland.
- Model based on market and economy drivers.
- Reference scenario - 2 GW of lignite power plants capacity in 2040, two scenarios with coal phase-out in 2035 resp. 2032.



Aurora Energy Research report: Interesting points

- Model doesn't count with new nuclear reactor because of economic reasons.
- Model counts with faster development of renewables than official NECP even in reference scenario.
- Steep development of renewables in reference scenario after 2030 is driven by market.



Aurora Energy Research report: Interesting points

- Higher imports of cheap renewable electricity from Germany and Poland in the reference scenario – the Czech Republic can prevent it by building its own RES.
- Higher investment costs in phase-out scenarios are outweighed by lower electricity prices and system costs.

Aurora Energy Research report: Important message

- Combination of natural gas and renewables can replace coal and lignite.
- Renewable energy development is necessary both for reduction of CO₂ emissions and import dependence.
- Actual renewable energy stagnation is the most important barrier for coal phase-out in the Czech Republic.

Open questions

- NPP Dukovany will reach 50 years of operation in 2035. How will possible end of operation change economic results of the model?
- How sensitive is the model on price of EU ETS allowance?



Thanks for your attention.

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