



Case Study // Round Table SDG 7: Transforming energy in support of the 2030 Agenda

Cleaner Electricity in the Czech Republic, Emission Drop, Increased Flexibility and the Co-existence of the Thermal Power Generation with the Nuclear and the Renewable Resources in Czech Energy

Mix

Czech Republic

Level: national

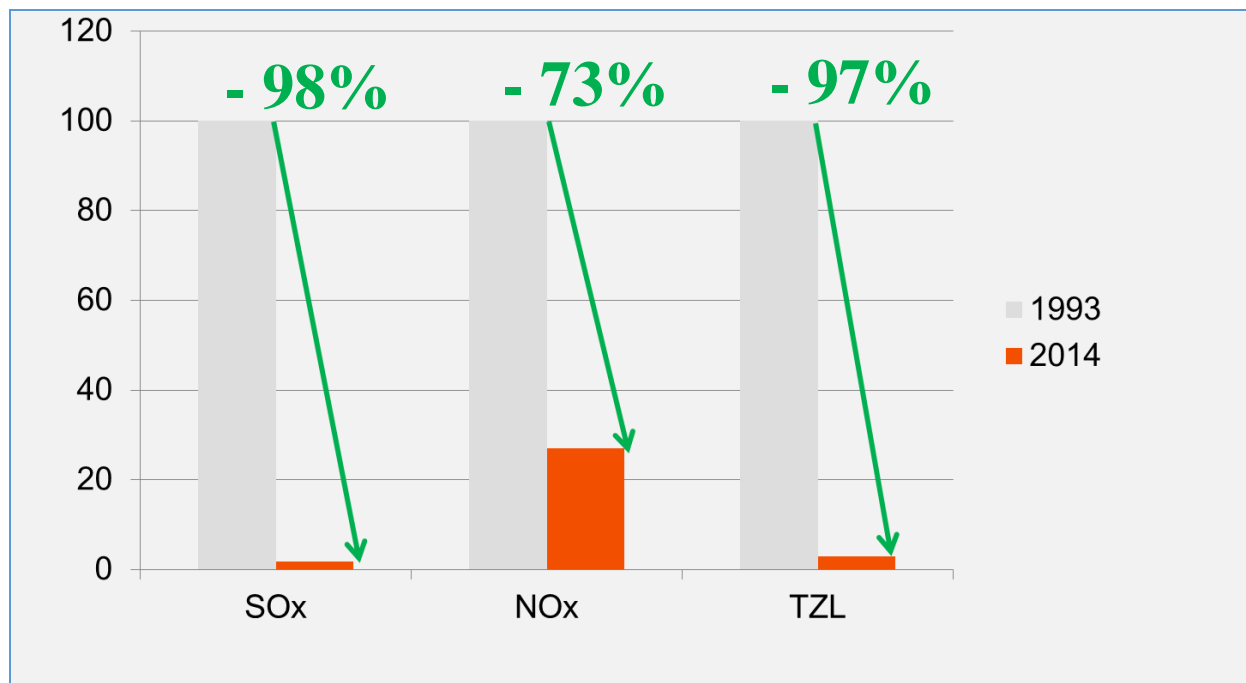
Summary

- 1. New Flexible Gas Power Plant in Pocerady – Quick Flexibility**
- 2. Complex Reconstruction of the Power Plant Prunerov – Flexibility in Medium Term**
- 3. New HELE Flexible Power Plant in Ledvice – the test operation started at the end of 2017**
- 4. Energy Mix – Renewables 10%, Gas 8,5%, Nuclear 30%, HELE Domestic Brown Coal 44%**

Situation

The Decrease of the Most Important Emissions from Refurbished Power Plants Prunerov and Ledvice

CAPEX invested over CZK 150 Billion = EURO 6 billion



Strategy

The Government of the Czech Republic adopted the State Energy Policy in 2002. Increased production from the renewables in neighboured Germany as well as in the Czech Republic and the stable use of the nuclear energy is supported by the flexible Clean Coal High Efficient and Low Emission Technology. To secure a diversification of the energy resources, the first highly flexible gas-fired power plant has been build.

This approved State Energy Policy has been updated in 2015. CO2 emissions in the Czech Republic have dropped since 1990 to 2017 by 60%. Country currently evaluates the construction of new nuclear units with zero CO2 emissions. Coal use in the electricity production will decrease from around 50% to 15% in 2040, but use of HELE coal-fired power generation is inevitable for the stability and reliability of electric power supply.

Results and impact

Results are the rapid decrease of emissions by more than 90% (SO2, PM) and by ¾ NOx – above. CO2 emissions are at 40% of 1990 levels.

Country is net electricity exporter

Electricity system adapted to increased electricity production of Germany from renewables.



Challenges and lessons learned

Electricity production is the long term technical, political and strategic challenge. Energy mix remains the responsibility of the Member State in EU. However, the State Energy Policy has the European dimension, because the electricity market, the emissions and the commodities of energy have no boundaries.

Potential for replication

Each Country can replicate the positive experience.

Contact

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