

Seventh enerCEE report

Status on renewable energy uptake in the Czech Republic and Slovakia



The seventh enerCEE comparison report looks at the progress of renewable energy uptake in the Czech Republic and Slovakia.

As both countries became the Member States of the European Union in 2004, they established policies and supporting mechanisms by incorporating the EU obligation to scale up renewable energy production.

The National Climate and Energy Plans reflect on the countries' individual challenges, while aligning the national policy frameworks with the European ones.

Czech Republic

The Czech Republic was set to reach 13.5% of renewables (10.8% in transport), in final energy consumption in 2020 National Renewable Energy Action Plan, which has been effectively met as the gross final energy consumption reached 15.6 % by the end of 2020. The National Energy and Climate Plan (NECP) was published in 2019, setting energy and greenhouse gas targets for the period 2021–2030 with a view to 2050. The NECP aims to raise this share to 22% in 2030, including 14% in transport.¹

The main instrument to achieve these targets, is the Act no. 165/2012 Coll., on the Subsidy of Renewable Sources of Energy, as amended (the draft RES Amendment), which sets out a new support scheme for renewable or supported energy sources after 2020. The draft version was approved by the Government in April 2020, and sent to the Parliament for further discussion. The modifications include the current form of support for small sources up to 1 MW, where the financial support will be allocated only in the form of an hourly green bonus. The introduction of support through competitive tenders (auctions) for sources above 1 MW is also foreseen.²

In 2015, the Government approved its energy strategy (ASEK), which includes six base scenarios for the development of the energy sector by 2040. The share of coal and lignite in primary energy consumption should decrease to 11-17% in 2040 and oil should account for 14-17%. The share of

¹ CMS: Renewable Energy Law and Regulation in Czech Republic, <https://cms.law/en/int/expert-guides/cms-expert-guide-to-renewable-energy/czech-republic>, last accessed on 02.4.2021

² European Commission: National Energy and Climate Plan of the Czech Republic 2019, https://ec.europa.eu/energy/sites/ener/files/documents/cs_final_necp_main_en.pdf#page=34&zoom=100,90,522, last accessed on 02.4.2021

nuclear should reach 25-33% and renewables 22%, while the share of gas should continue to progress reaching 18-25%.³

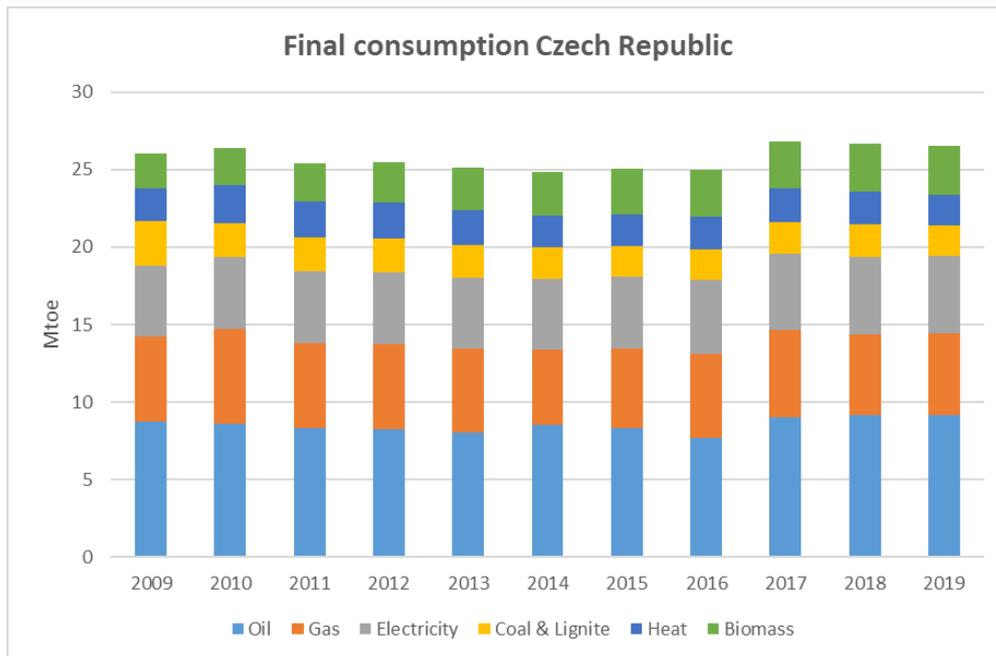


Figure 1 - AEA, Source Enerdata

Power generation

Power generation, which had been declining between 2011 and 2016 (1% yearly), increased slightly in 2017 and 2018 (+2.8%/year) before decreasing again to 87 TWh in 2019 (-1.2%). In 2019, the power mix was dominated by coal and lignite (43%), followed by nuclear (35%), natural gas (9%), biomass (6%), and hydropower (4%), wind (1%) and solar (3 %).

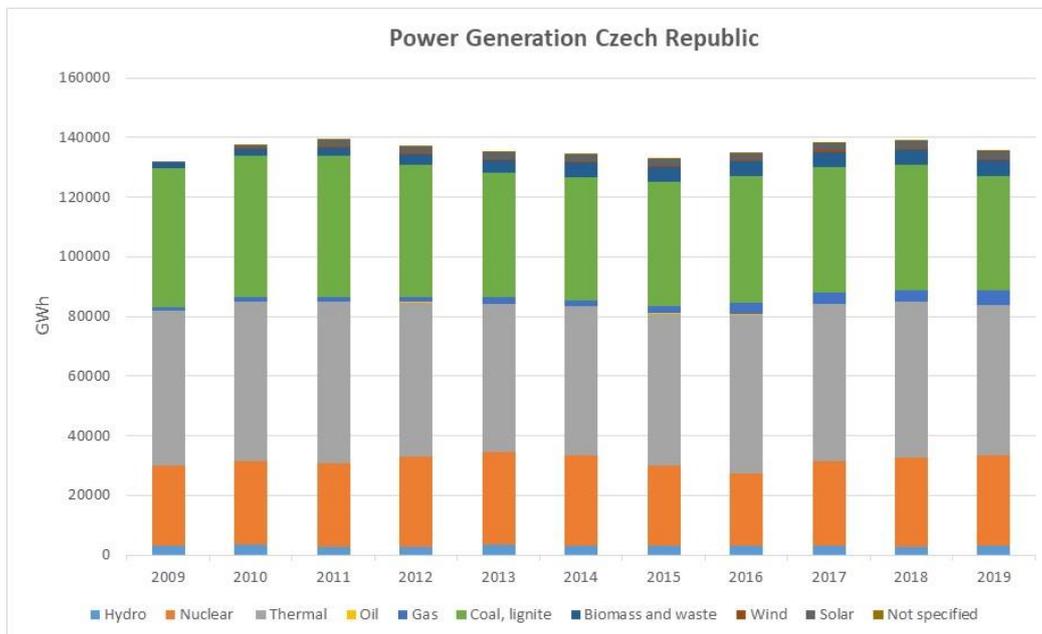


Figure 2 - AEA, Source Enerdata

³ Enerdata: Energy Report 2020, Czech Republic

Slovakia

In accordance with the Renewable Energy Directive, the national target was to increase the share of renewables in the country's final consumption to 14% in 2020 (12% achieved in 2018), of which 24% for electricity (21% in 2018), nearly 15% for heating (11% in 2018) and 10% in transport (7% in 2018).

Slovakia published its Integrated National Energy and Climate Plan (NECP) for the period of 2021-2030, which aims to raise this share to 19.2% in 2030, including 27% for electricity, 19% for heating and 14% in transport. The total investment costs for reaching this target is estimated at around EUR 4.3 billion.⁴

The Slovakia's Energy Strategy until 2035, adopted in 2014, aims to strengthen country's Slovakia's energy independence, optimize the energy mix, increase the use of low-carbon energy sources (both renewables and nuclear), and promote energy savings. The strategy also emphasizes the closer regional cooperation with the Visegrád Four countries (Czech Republic, Poland and Hungary).⁵

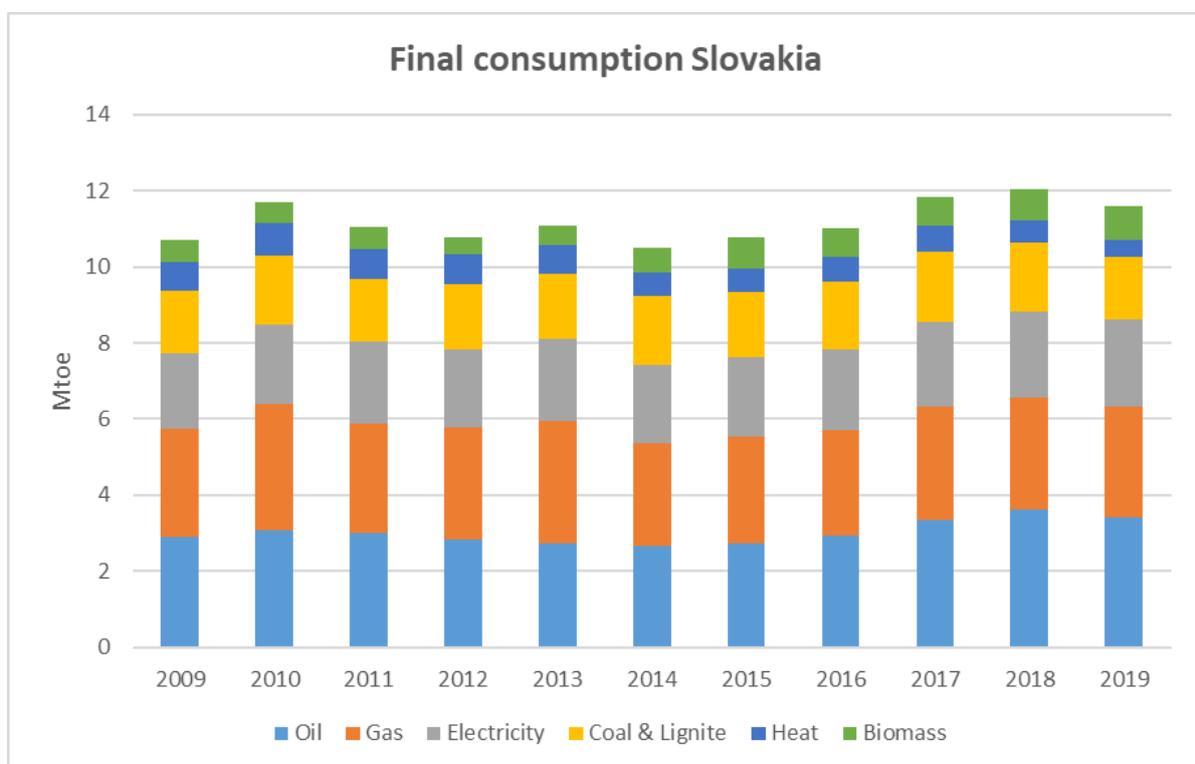


Figure 3 - AEA, Source Enerdata

Power generation

After five years of decline (-1.3%/year), power generation rose by nearly 10% in 2019 to 29.5 TWh, as hydropower and nuclear conditions improved, and as gas-fired power generation doubled. Electricity production was dominated by nuclear (52%) in 2019, followed by hydropower (15%), gas (13%), coal and lignite, 11%), biomass (5%) and solar (2%).

In 2018, the feed-in tariff system was replaced by auctions for solar PV projects from 100 kW to 2 MW and for other new installations between 500 kW and 10 MW by amending the Act on Support for

⁴ European Commission (2021): Integrated National Energy and Climate Plan for 2021 to 2030, https://ec.europa.eu/energy/sites/ener/files/documents/cs_final_necp_main_en.pdf, accessed on 02.04.2021

⁵ Enerdata: Energy Report 2020, Slovakia

Renewable Energy Sources and Highly Efficient Cogeneration. Winners receive premium payments on top of the wholesale electricity price over a 15-year period. In addition, the 2018 law includes exemptions from the “tariff for system operation” for “local sources” up to 500 kW (auto consumption) and provides options for reducing the cost of electricity for energy-intensive industries.

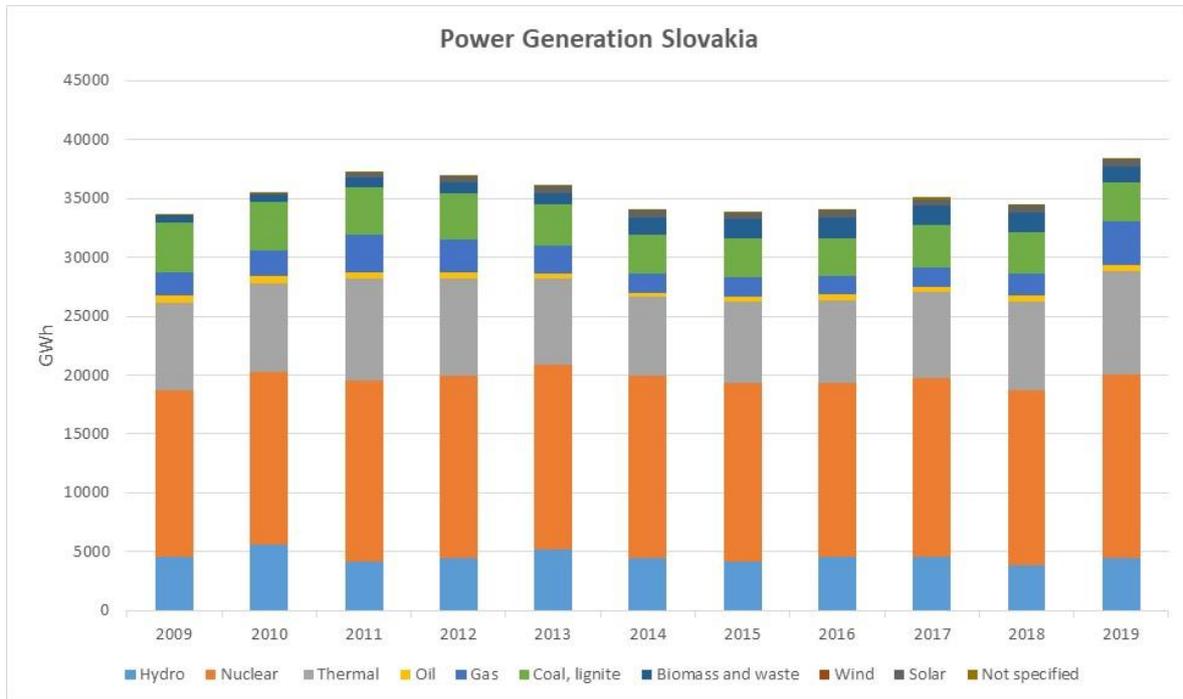


Figure 4 - AEA, Source Enerdata

Final consumption

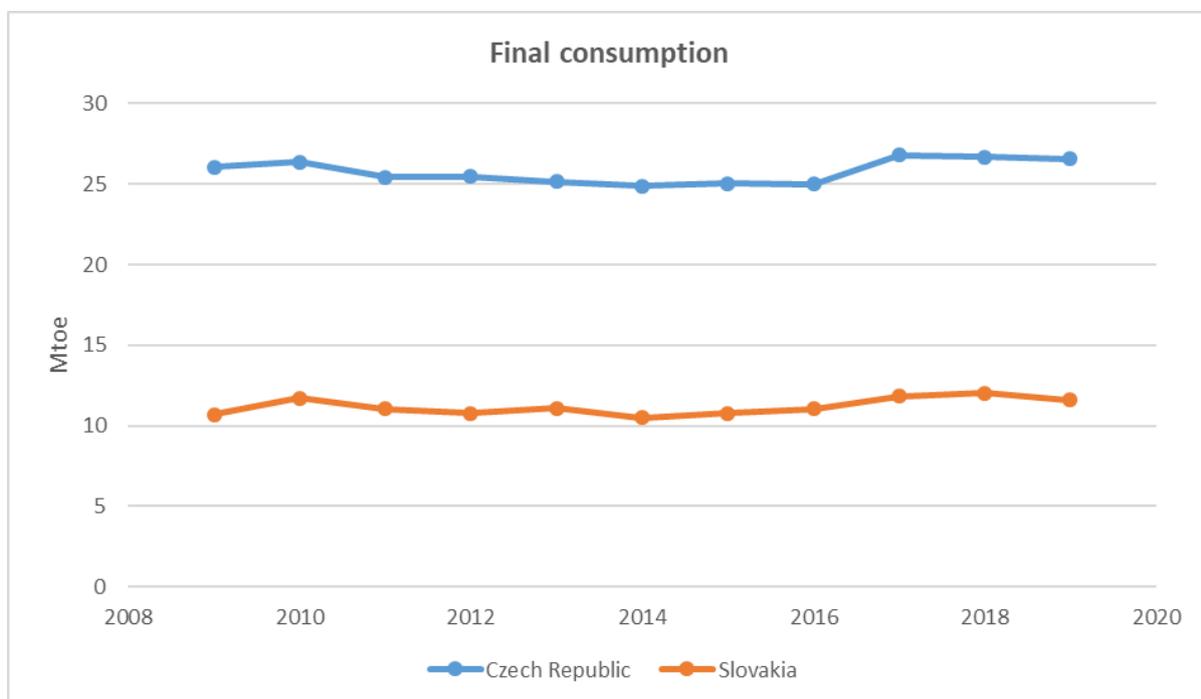


Figure 5 - AEA, Source Enerdata

The final consumption in the Czech Republic accounted for 43 Mtoe in 2019. Lignite and coal covered 34% of the country’s mix in 2019, followed by oil (22%), gas (17%), primary electricity (mainly nuclear,

but also hydro, solar and wind, with 17%), and biomass (10%). Slovakia's final consumption reached 11.7 Mtoe in 2019. Oil products were the main source of energy for final consumers (29%), followed by gas (25%), electricity (19%), coal and lignite (15%), biomass (7%) and heat (4%).

Summary

The long-term plans of the Czech Republic and Slovakia underline the need for further decarbonisation and optimization of the national energy mix to reach the targets set in the strategic documents. Both countries are committed to carbon neutrality by 2050, therefore improving the security of supplies, the affordability of energy sources, reducing greenhouse gas emissions and mitigating the impacts of climate change. The countries aim to strengthen the cooperation among the V4 countries and encourage other EU Member States to address common regional interests in the area.