Comparing CZ and AT NECP & New challenges resulting from Green Deal

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National Energy Climate Plans

Paris Agreement 2015

EU: Clean Energy for all package 2016

- Focus on 8 legislative processes → “Governance of EU” one of them
- National Energy Climate Plans (NECP) of each member state

NECP for 2030:

5 dimensions:

- *Decarbonisation* → **-40%** GHG emissions & **32%** energy from renewables
- *Energy Efficiency* → **32.5%** energy efficiency savings
- *Internal Energy Markets* and *Energy Security* → More flexibility
- *Research & Innovation*

European Green Deal

- Introduction 2019 → Make EU's economy sustainable
- Core theme: *Net-zero* GHG emissions 2050 & milestone **50-55%** reduction by 2030
- ETS re-evaluation
- Policy Areas: Biodiversity, Farm2Fork, Sustainable Agriculture, Clean Energy, Sustainable Industry, Building & Renovation, Sustainable Mobility, Pollution Elimination, Climate Action

Methodology

Analysis of the Austrian NECP

Analysis of the Czech NECP

Comparison of bottlenecks

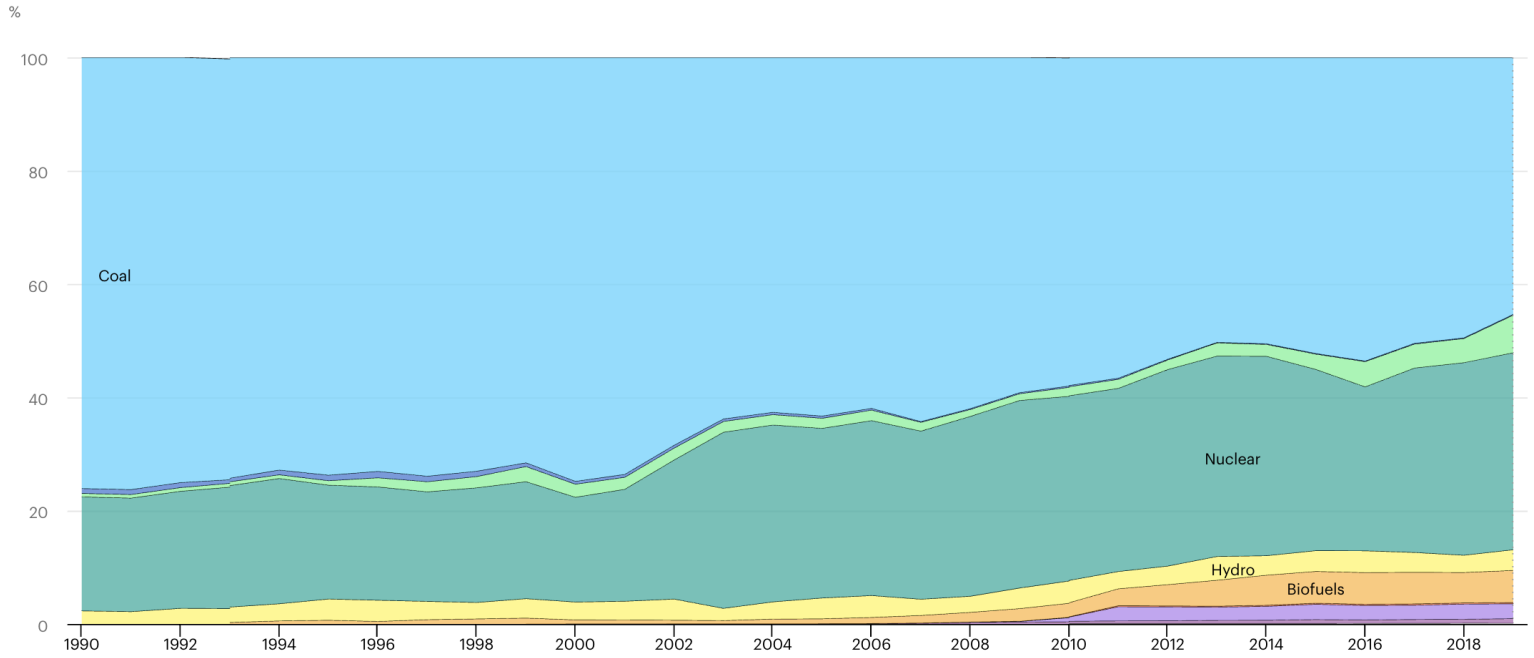
Similarities? → Common approach?

Different bottlenecks? → Complement?

Green Deal Influence

CZ – Actual situation

- Czech Republic still have high fossil – share in electricity in 2021
- Many households burning coal in small boilers
- Changes in shares of electricity sources in next 20 years

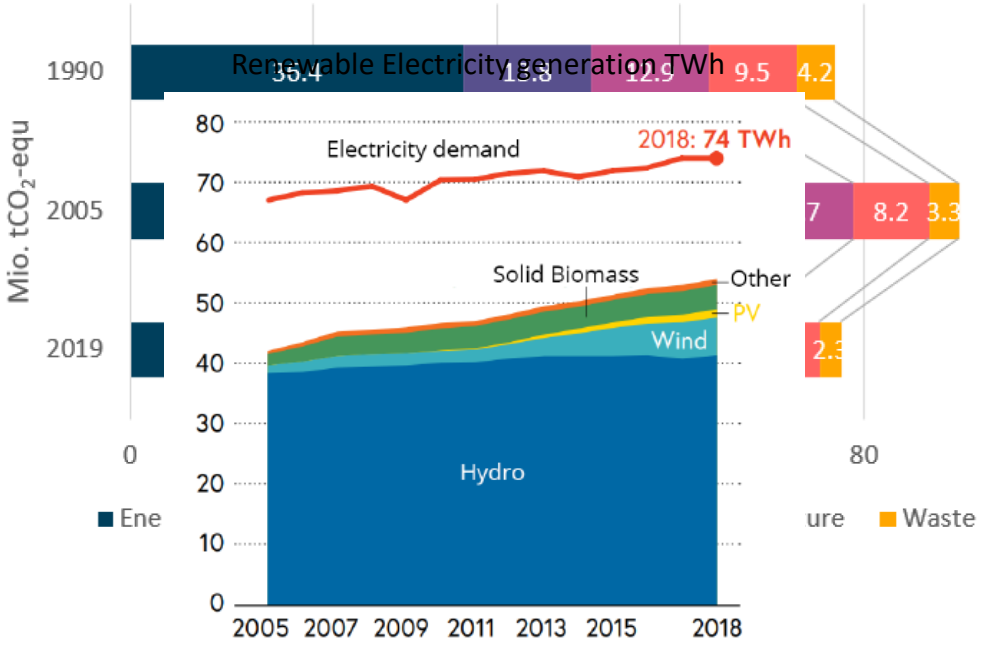


CZ – targets & tasks 2030

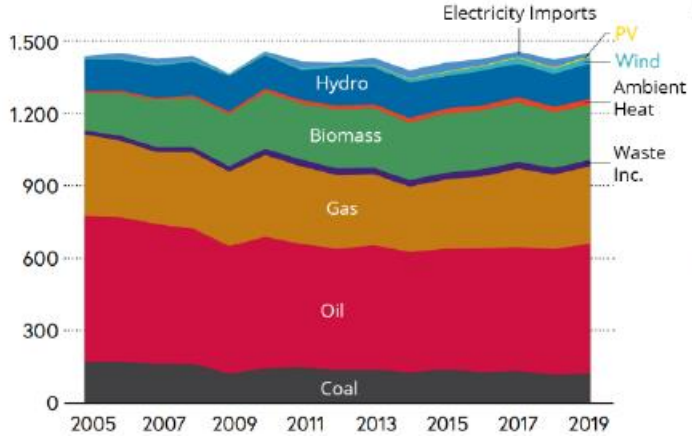
- Czech Republic should have 22 % energy from RES in 2030
- Reduced emissions at least by 44 Mtoe CO2 compared to year 2005
- In energy efficiency, the final energy consumption not exceed 956 Mtoe
- Not exceed 65 % of import dependence

	2016 level	2040 target level
Coal and other solid non-renewable fuels	50 %	11–21 %
Nuclear energy	29 %	46–58 %
Natural gas	8 %	5–15 %
Renewable and secondary energy sources	13 %	18–25 %

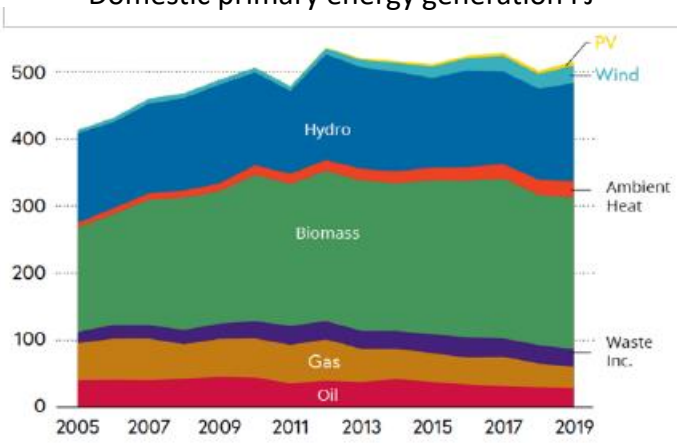
Austria – Actual Situation



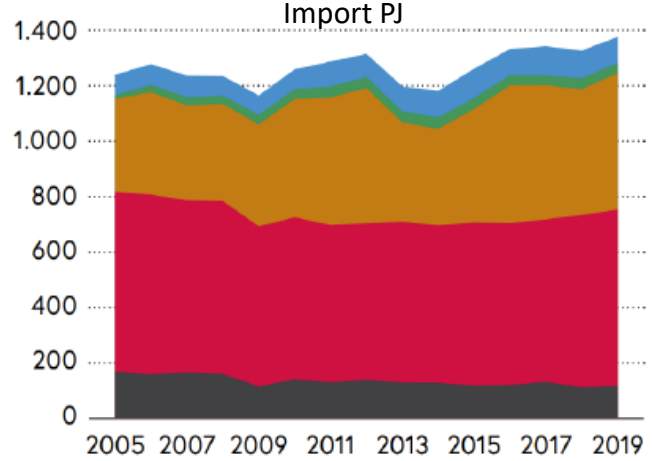
Gross energy consumption PJ



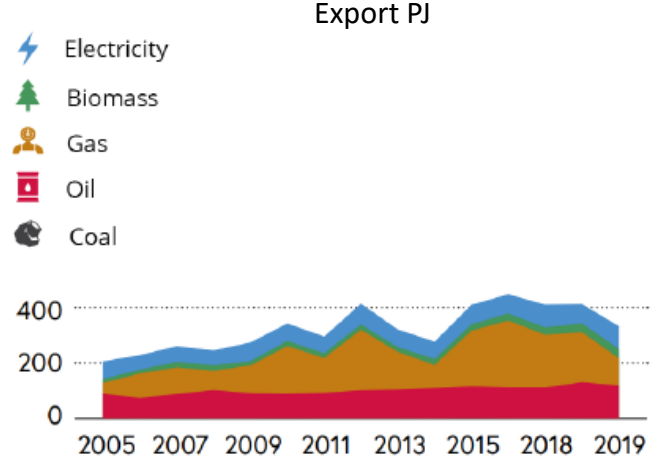
Domestic primary energy generation PJ



Import PJ



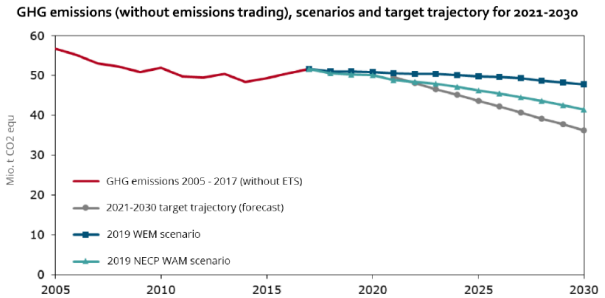
Export PJ



Austria – NECP Targets

Decarbonisation:

- -36% non ETS GHG emissions compared to 2005 → 9% “missing”
- 46-50% renewables in gross final energy & 100% renewable electricity



Energy Efficiency:

- Enhancement primary energy intensity 25-30% compared to 2015
- 28.7-30.8 Mtoe and 24.0-25.6 Mtoe for primary and final energy consumption

Energy Security of Supply:

- Austria specifies high security of supply
- No specification of diversification

Internal Energy Market:

- Aim of 15% interconnectivity already reached today

Research, Innovation and Competitiveness:

- Excellent connection of R&D to SET plan
- Market diffusing plan

Comparison

Decarbonisation

- Effort sharing regulation → More ambitious targets for Austria
- 36% vs. 14% reduction AT vs. CZ → in line with EU target
- Renewable energy share 46-50% vs 22% gross final consumption AT vs. CZ
- 100% vs 17% renewable AT vs. CZ electricity

Energy Efficiency

- Today Austrian economy more than twice as energy efficient
- AT contribution to 2030 EU emission: 29 Mtoe PE & 25 Mtoe FE
- CZ contribution to 2030 EU emission: 41 Mtoe PE & 24 Mtoe FE

Comparison – Energy security of supply, Internal market

- Czech Republic is now clear exporter against Austria

  There is a very difficult situation to keep it in 2030 and later

- Both countries declare the achievement of the 15% target by 2030

  The Czech Republic NECP presents the current state of 30% of transmission capacity for cross-border trade

- Austria’s strategy very connected to SET Plan; Czech plan still includes fossil fuels

Discussion and conclusion

Green deal adds further challenges

- Higher GHG emission reduction
- Further emission and agricultural goals

Comparison between NECPs difficult

- Different geographical conditions → determine resources
- Different economical conditions
- Different historical fuel mix

Potentially interesting topics for deep-dive comparison:

- Transport sector
- Biomass to substitute fossil fuels
- Nuclear energy
- Behaviour changes

Thank you!