From a country “where the wind doesn’t blow and the sun doesn’t shine” to a renewable champion (?)

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Why we fight

Special Political Situation in Austria in 2019

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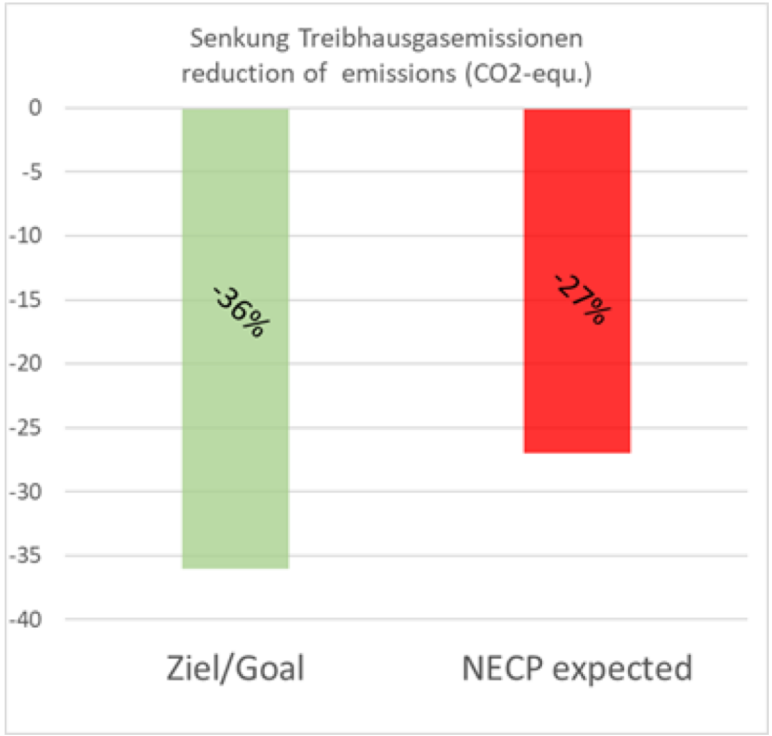
- Between June 2019 and January 2020, Austria was governed by a purely "administrative" transition-government which had no automatic support from the parliament.
- This government did not want to fell far-reaching decisions but to purely administer the country. Political decisions were postponed to the next government.
- Accordingly, the finalisation and submission of the Austrian NECP was "administrated" by the transition-government, and it lacks the necessary ambitions
- The new government, a coalition between conservative and green parties, assumed office in January 2020, just days after submission of the NECP
- The program of the new government is in parts even more determined than the NECP. The government is committed to achieve carbon neutrality at the latest by 2040.
- The need to improve the Austrian NECP has in the meantime been expressed by many sides, among them by the responsible minister herself, and it has been emphasized by EEÖ.

Austrian NECP is insufficient

- Potentials for renewables in Austria are high, their deployment, however, would need targeted support by frame-conditions and market-development strategies. The Austrian NECP lacks the respective necessary details for their development.
  - *Austrian Renewable Energy Association (EEÖ) has presented a summary of technical potential of renewables. All technical potentials together would not be sufficient to provide the current demand, so collateral efforts in energy efficiency are necessary to reduce absolute demand.*
- The Austrian NECP lacks details of measures, instruments, and financing-schemes for technically all sectorial targets (from support-schemes to carbon-taxes) to reach the necessary goals.
  - *There is a list with measures and instruments in the NECP, however, they are not part of the presented WAM-scenario. So a new scenario (WAMplus) is needed to provide a sufficient NECP*

NECP fails to reduce greenhouse-gas emissions as needed



- The Austrian NECP follows a WAM („With Additional Measures“)-Scenario, which is not sufficient.
  - Emissions outside of ETS will not be reduced as needed.
  - From the aspired reduction of 36%, only 27% will be reached until 2030, leaving a gap of 5.2 mio. tons of CO_{2equ}.
- Climate-scientists claim a reduction of 50% being necessary to be compatible with the Paris-goal

Championship ?

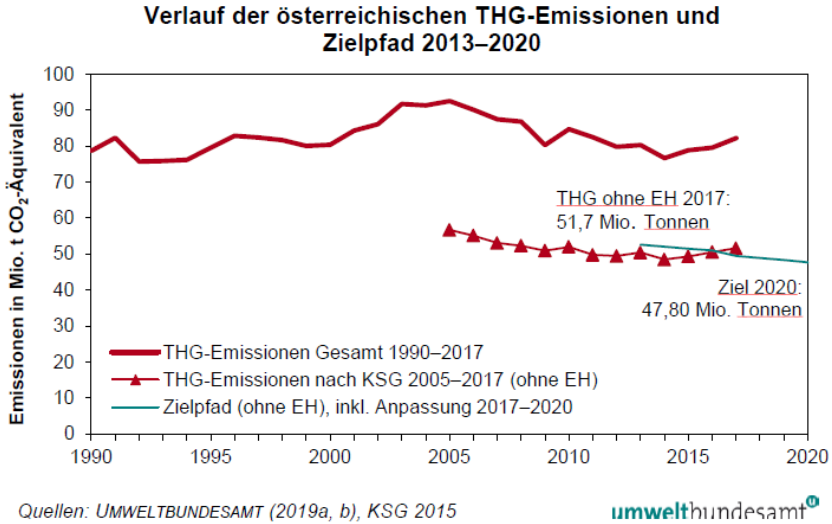
Share of Renewables (2017):

Total energy:	32.6 %
Electricity:	72.2 %
Transport:	9.7 %
Heating, cooling:	32.1 %

Emissions of CO_{2equ}:

1990	78.7 Mt
2005	92.6 Mt
2017	82.3 Mt

Transport remains the problem with + 10 Mt CO2 since 1990



CO2: Success or no success?

- Hardly any gain since 1991
- minus 10 Mt (-11%) since 2005

Primary Energy Demand of Austria

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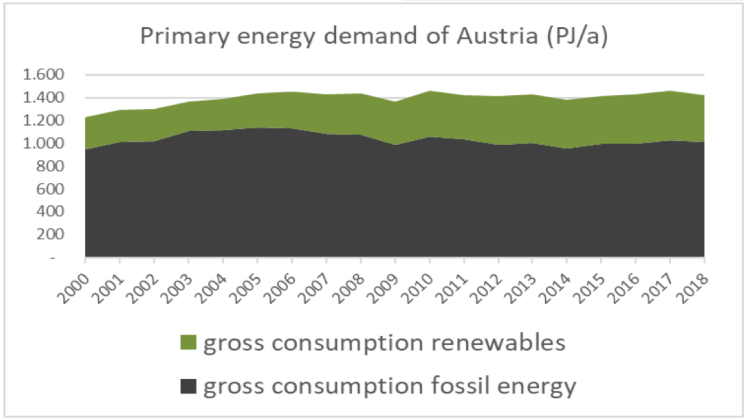
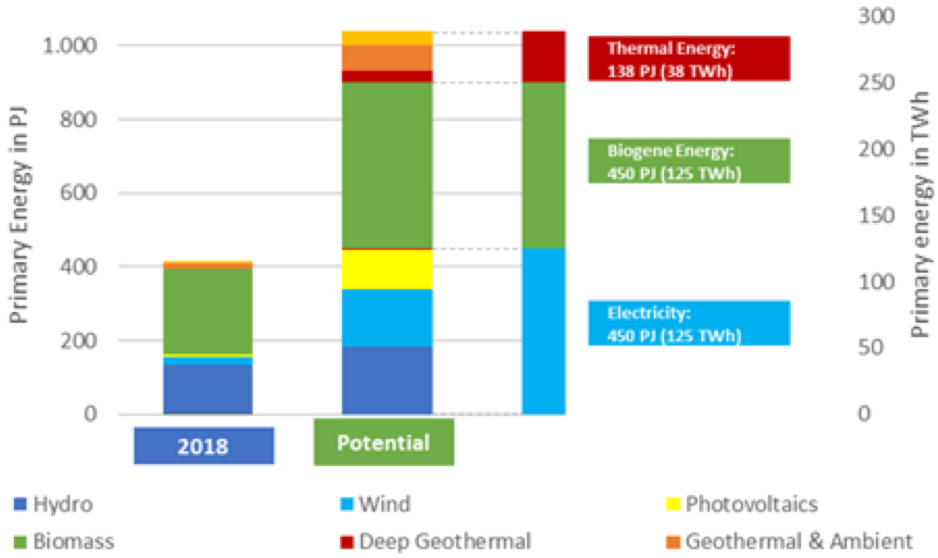
Path to renewables in Austria

- Long tradition in (small) hydropower: private ownership
- 1978: referendum for nuclear phaseout before step-in
- Solar-thermal self building starts in early 1980ies: (7.6 PJ in 2018)
- Bioenergy: individual- and district heating
- Wind energy: esp. in the windy east, much private (co-operative) ownership (3.2 GW, 7 TWh in 2019)



Potential of renewables in Austria



- The technical potential of indigenous renewable resources (EEÖ-proposal) amounts to some 1,037 PJ in the mid of the century.
- To supply the country completely with renewables, efforts in energy-efficiency are deeply needed.
- The NECP, however, mirrors low aspiration-levels in both, extension of renewables and energy efficiency.

HEAT

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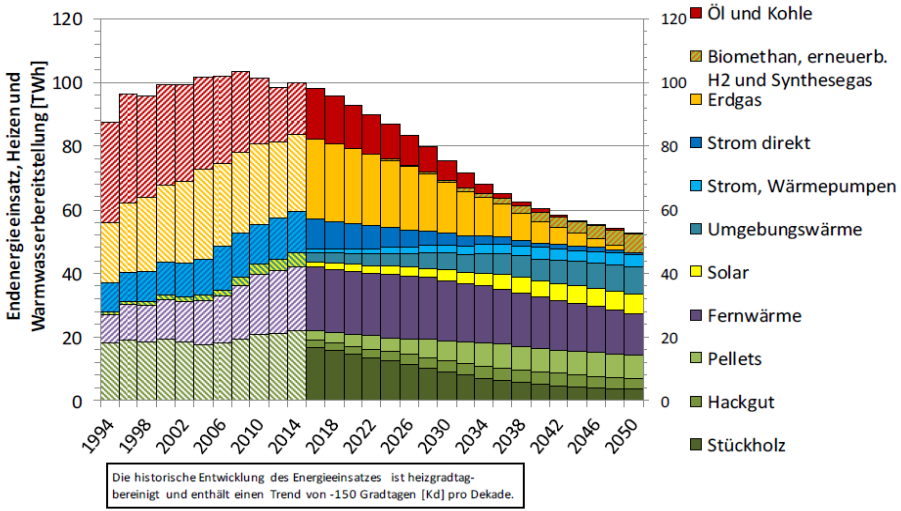
Measures needed for decarbonisation of heating market:

- Urgent action needed because investments in technologies (heating-systems, buildings,…) prevail for decades
- Improve basic data-base
- expertise, trainings
- efficiency-measures to reduce heat-demand
- subsidies, financial support,
- improve regulative law, adjust tax system, innovative financing-tools
- communication

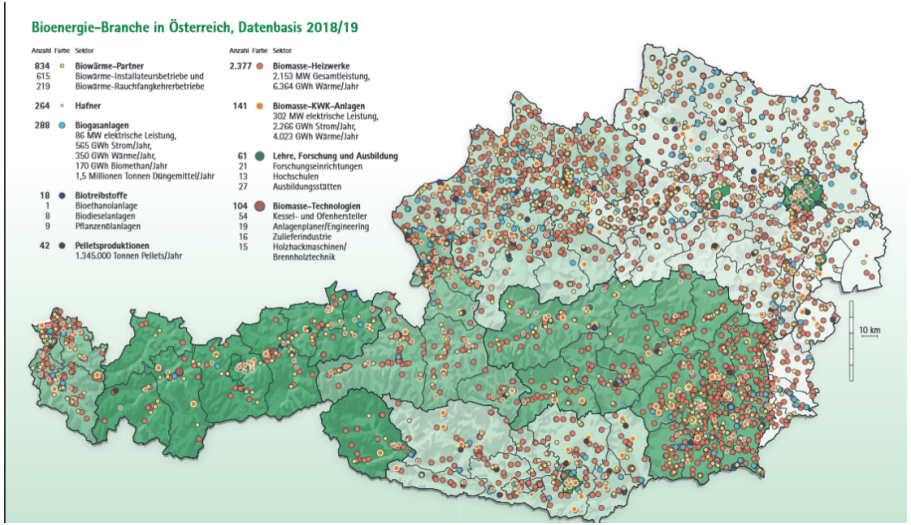
EEÖ-proposal for development of heating-market



For example: Bioenergy

Biomass:

- Ca. 2,400 district heating plants in operation, 140 CHP-plants
- 46% of district-heat is renewable
- Many owned by co-operatives
- Bulk of biomass use is small-scale heating: logwood boilers & -stoves, pellets-systems, woodchip-systems
- Biogas
- Biofuels for transport
- Support from side of agriculture- and forestry-politics



ELECTRICITY

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NECP

- Renewables in general would supply 46% in 2030 (up from 32.6% in 2017)
- Still 11 TWh of fossil electricity production in 2030 (despite „100% renewables nationally balanced" as declared goal)
- Potential for renewable electricity (as of EEÖ) reaches at least 125 TWh/a

EEÖ-proposal: Additional renewable electricity needed until 2030:

- 1.250 MW hydropower (5 TWh),
- 5.500 MW Windkraft (10 TWh),
- 11.000 MW PV (11 TWh),
- 200 MW solid biomass (1 TWh),
- 170 MW renewable gases (1.2 TWh)

Support-system for renewable electricity: EEÖ proposes a direct marketing plan (market-based premium model), which is oriented on the German model.

For example: wind-energy

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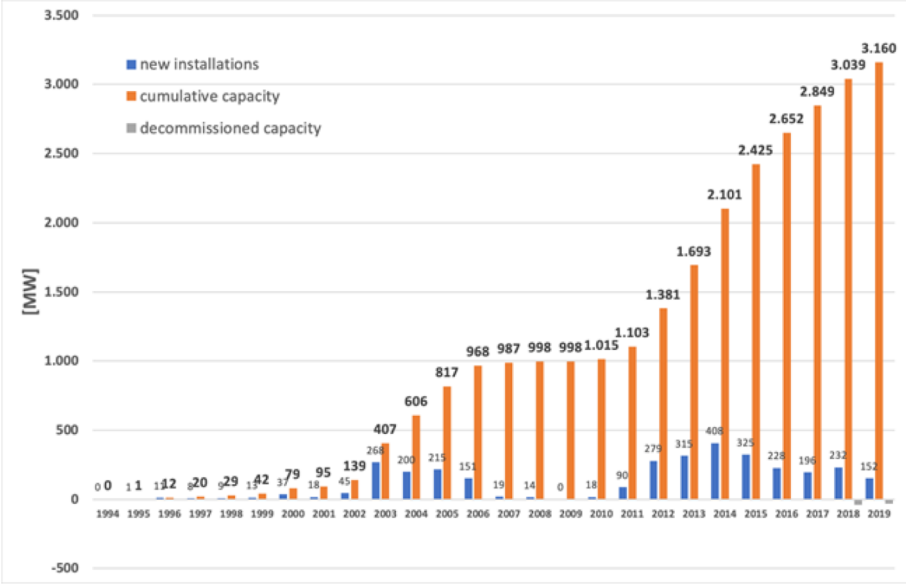
- Utilities, interest-organisations in 1990ies: „Austria is no country for wind-energy“
- However, persistent pioneers build first plants
- Acceptance gained by cooperatives who operate plants with broad individual participation
- key for fast expansion: support-scheme based on German feed-in tariff model
- availability of sufficient zones for windpower
- 2019 meeting 11% of electricity demand,
- 60% of wind-power operated by private owners
- 1 billion turnover, 3.500 employees (2019)



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Thank you for your attention!

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Ceterum Censeo ad ktoe:

The outdated „oil-units" must not be used any longer. This is not only to avoid framing for fossil fuels-lobbies, moreover it is illegal – compare directive 80/181/EEC of 20th Dec. 1979 on the approximation of the laws of the Member States relating to units of measurement. This directive states that the "International System of Units" (SI) is to be used obligatorily. Units to be used to express energy-units are Joule or TWh; oil units (ktoe, f.e.) must not be used!