

#mission2030

The new Austrian Climate and Energy Strategy

International multidisciplinary conference
„Energy Efficiency policies toward 2030 –
opportunities and challenges for Central Europe“
Prague, 26 November 2018

Austrian Energy Agency

Guenter Pauritsch | 26 November, 2018



#mission2030

- prepared by the
 - Ministry for Sustainability*) and Tourism, and
 - Ministry for Transport, Innovation and Technology
- adopted in June 2018



*) change in organisation of Ministries: includes **energy** & mining, agriculture, forestry, **environment & climate**, water management, tourism

Document is available in English and German:

Link: <https://www.bmnt.gv.at/service/publikationen.html>

#mission2030

- National Climate and Energy Strategy
 - Timeframe until 2030
 - Longterm perspectives until 2050
- Main sectors of activity until 2030:
 - **Buildings** (- 3 Mt CO₂: from 8 to 5 Mt)
 - **Transport** (- 7,3 Mt CO₂: from 22.0 to 15.7 Mt))
 - **Electricity supply**
- Additional main sector from 2030 to 250:
 - **Industry**



0%

Phase-out of fossil fuels

Full decarbonisation until 2050

- **national heating strategy**
 - phase-out of oil for heating
 - starting 2020 for new boilers
 - from 2025 on for replacements
 - greening the gas supply
 - production of 2 billion m³ green gas from residues
 - usage of existing gas infrastructure

Phase-out of fossil fuels

Full decarbonisation until 2050

Ladeplatz

nur für Elektrofahrzeuge



- massive uptake of e-mobility

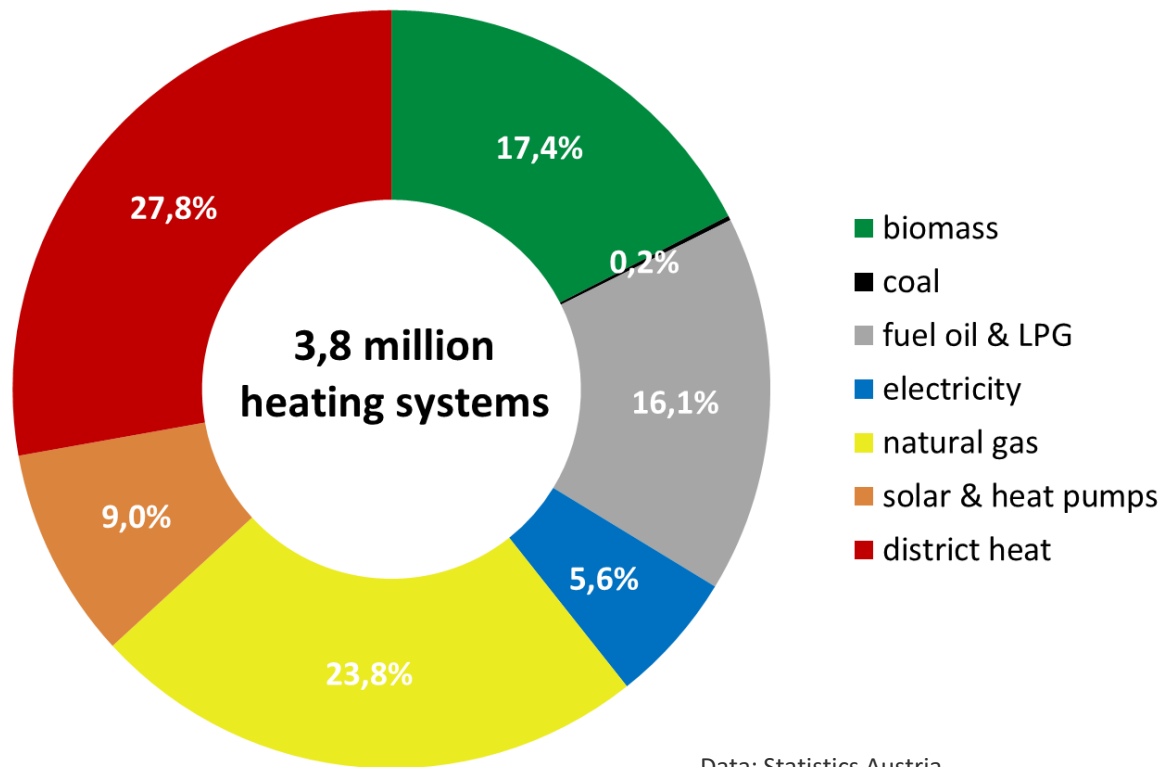
Phase-out of fossil fuels

Full decarbonisation until 2050

- shift to green hydrogen, electricity and renewables in industry after 2030

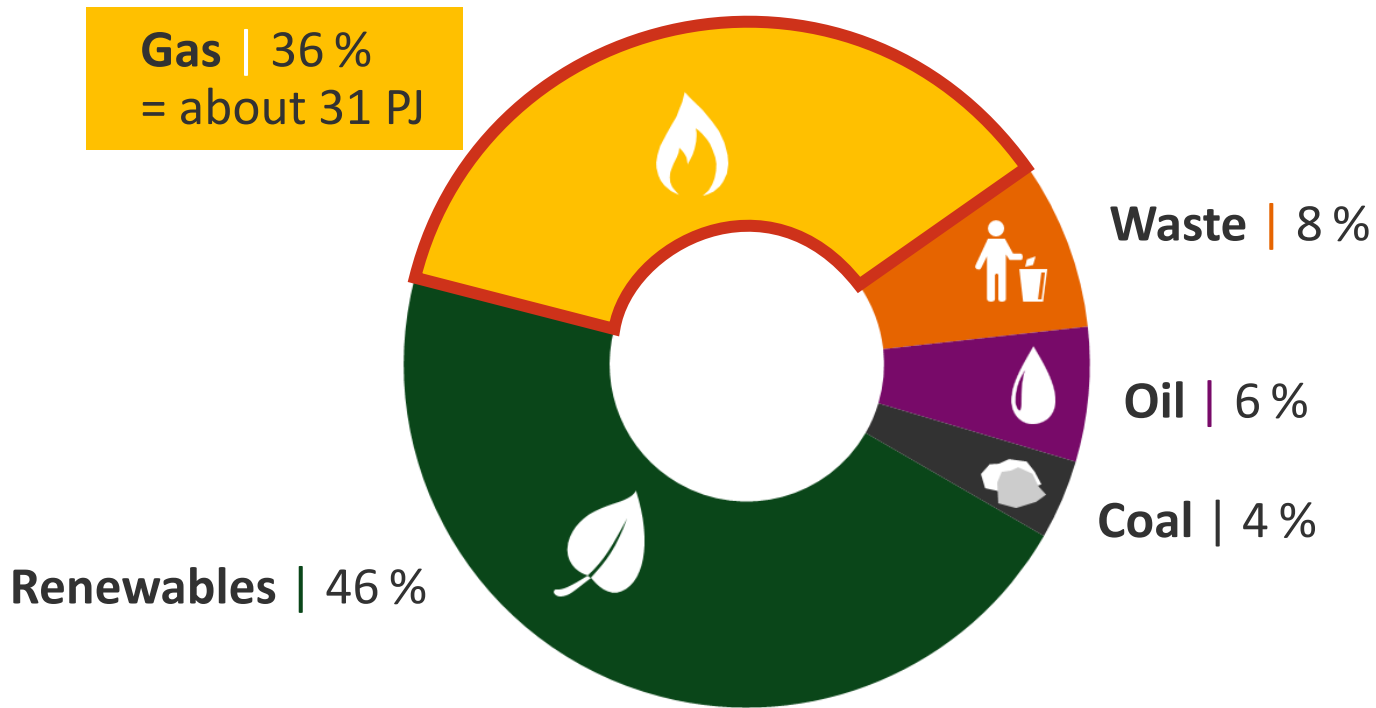
Market share of oil boilers 16%

District heat + natural gas >50%



Data: Statistics Austria

Gas is also crucial for the generation of **district heat**

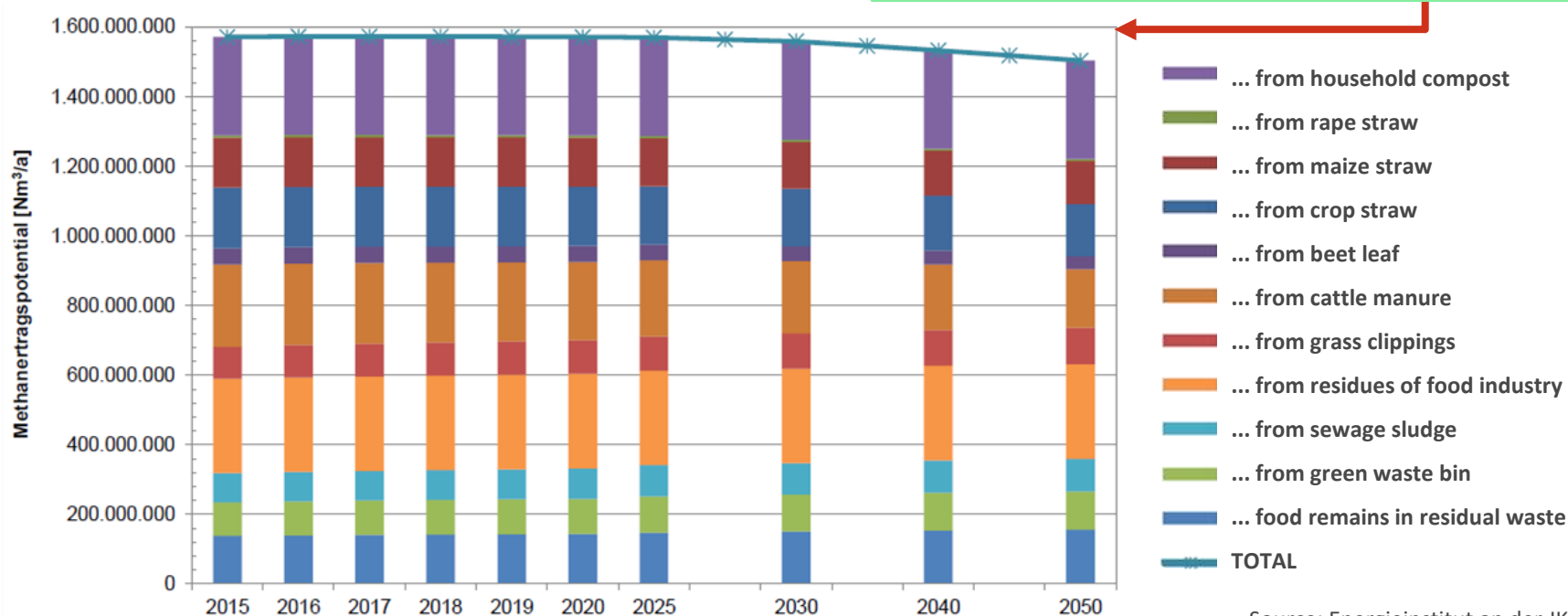


Data: Statistics Austria

Roadmap Greening the Gas ressources & potential

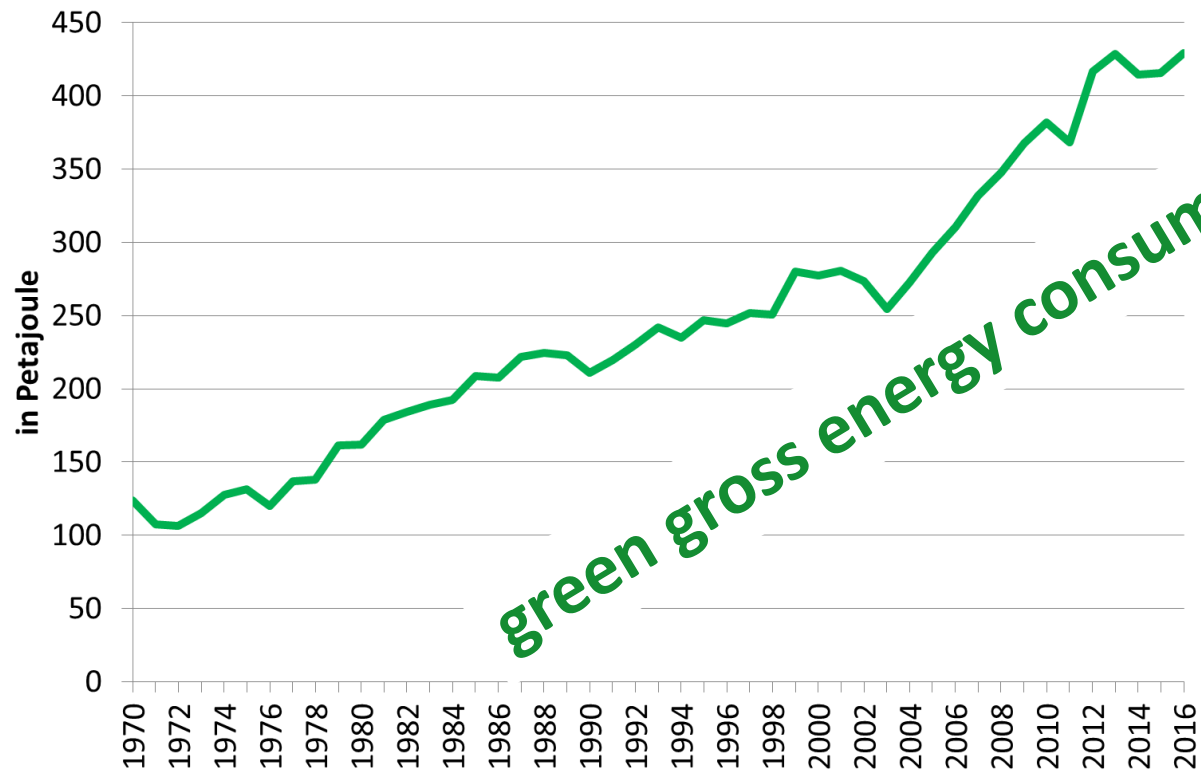
only organic waste and residuals

Renewable Gas
(Potential 2050 lt. JKU) **1.5 bill. m³**



Source: Energieinstitut an der JKU Linz

All together: continuing the **growth of green energy**

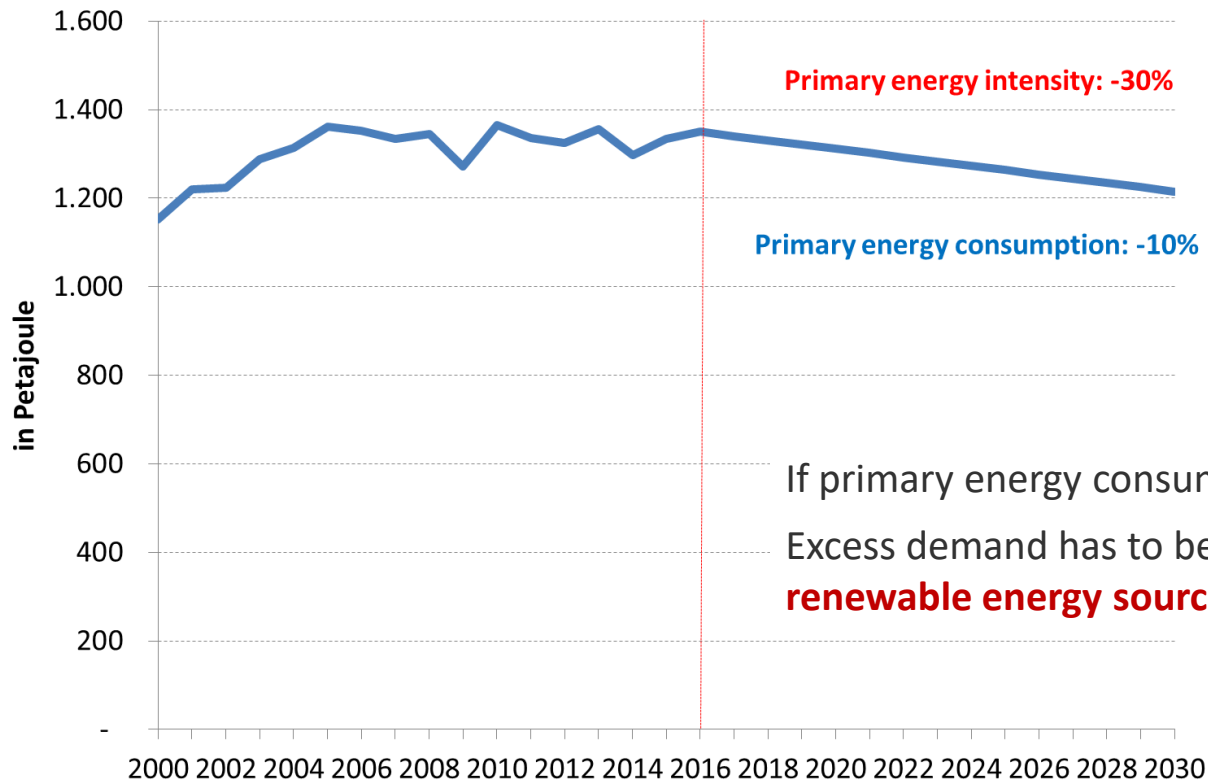


green gross energy consumption

Data: Statistics Austria

30%

Reduction of primary energy intensity by 25% to 30% (compared to 2015)

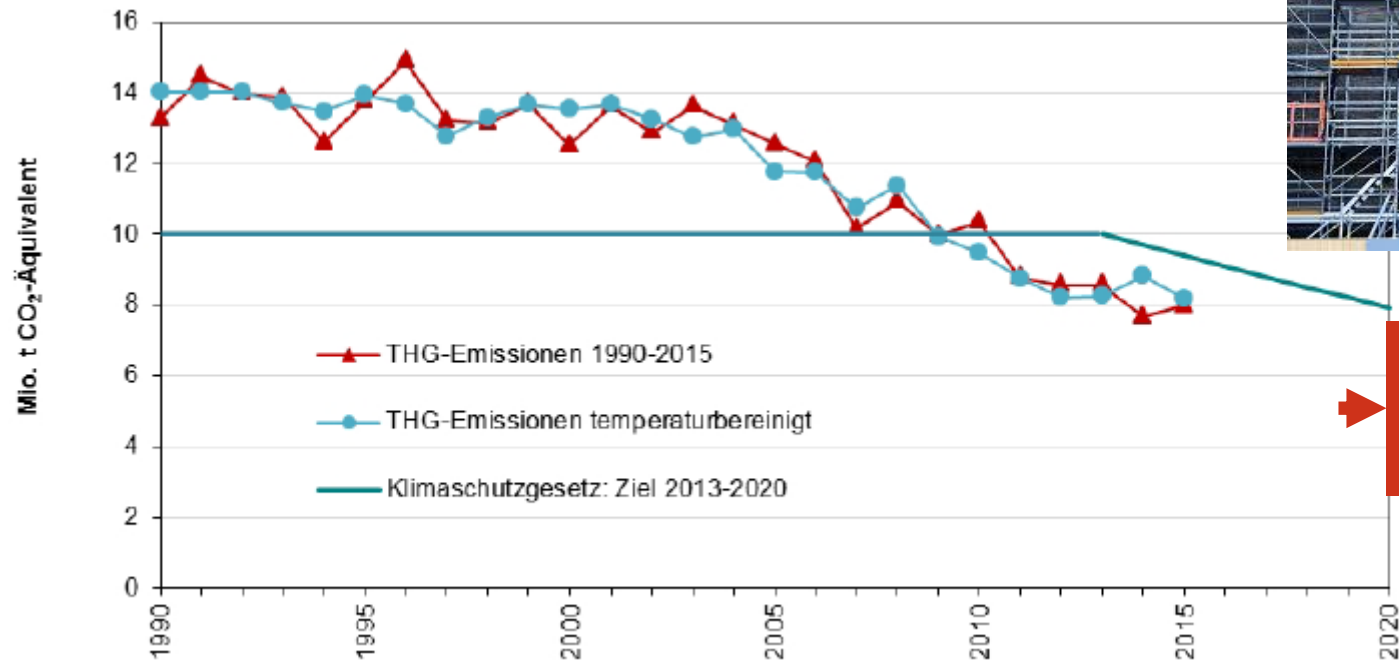


If primary energy consumption in 2030 exceeds 1200 PJ:
Excess demand has to be covered with
renewable energy sources

Data: Statistics Austria

2%

Reduction of greenhouse gas emissions of buildings and increase of renovation rate to 2% p.a.

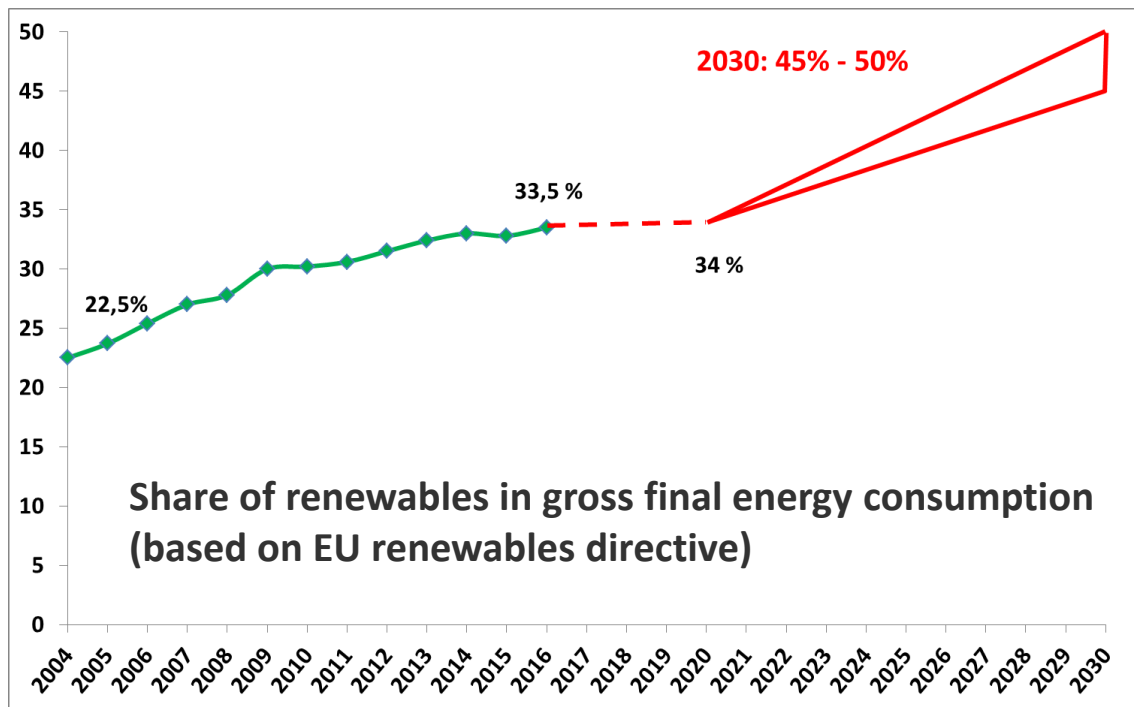


TARGET 2030
5 mill. t CO₂ equ

Source: Environment Agency Austria

50%

Increasing the share of **renewables to 45% – 50%**



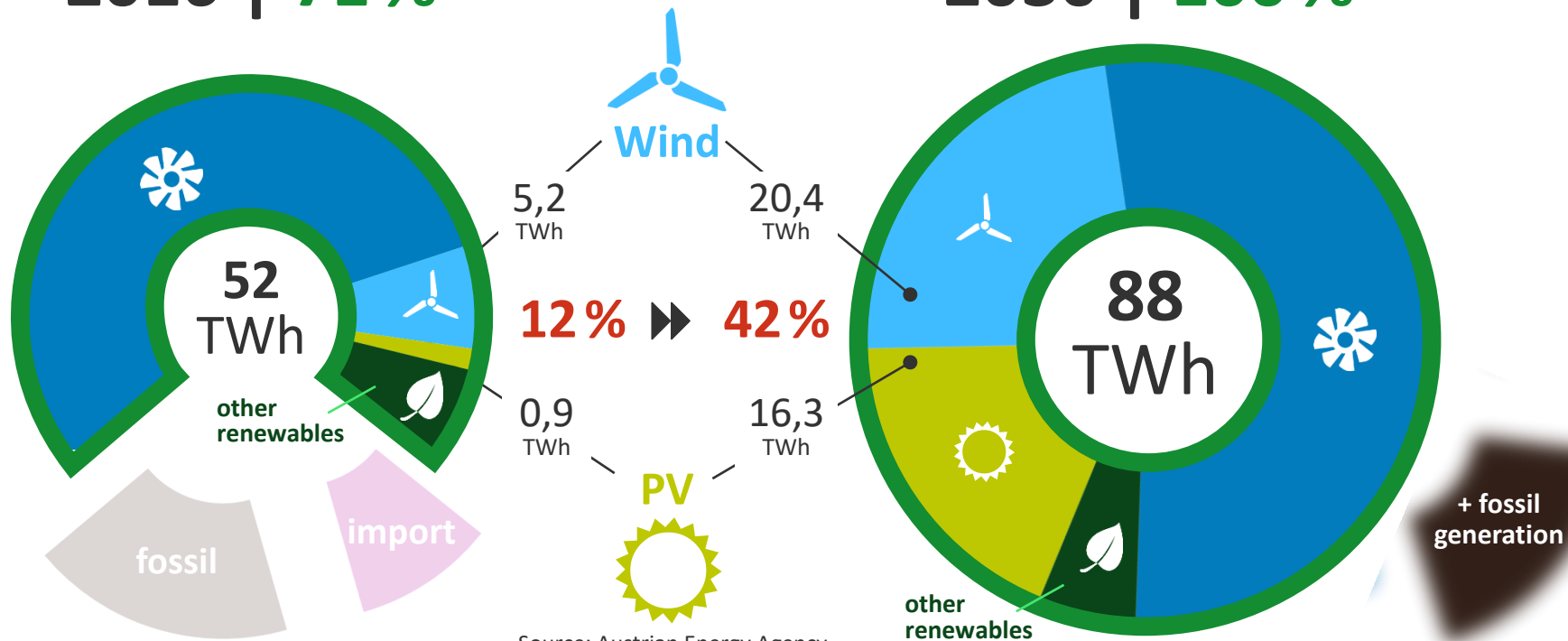
Data: Eurostat

100%

100% green electricity requires up to plus 35 TWh

2016 | 71 %

2030 | 100 %



Source: Austrian Energy Agency

Additional generation will come **mainly from PV and wind**



Lightweight and flexible solutions
Picture: DAS Energy / Vöslauer



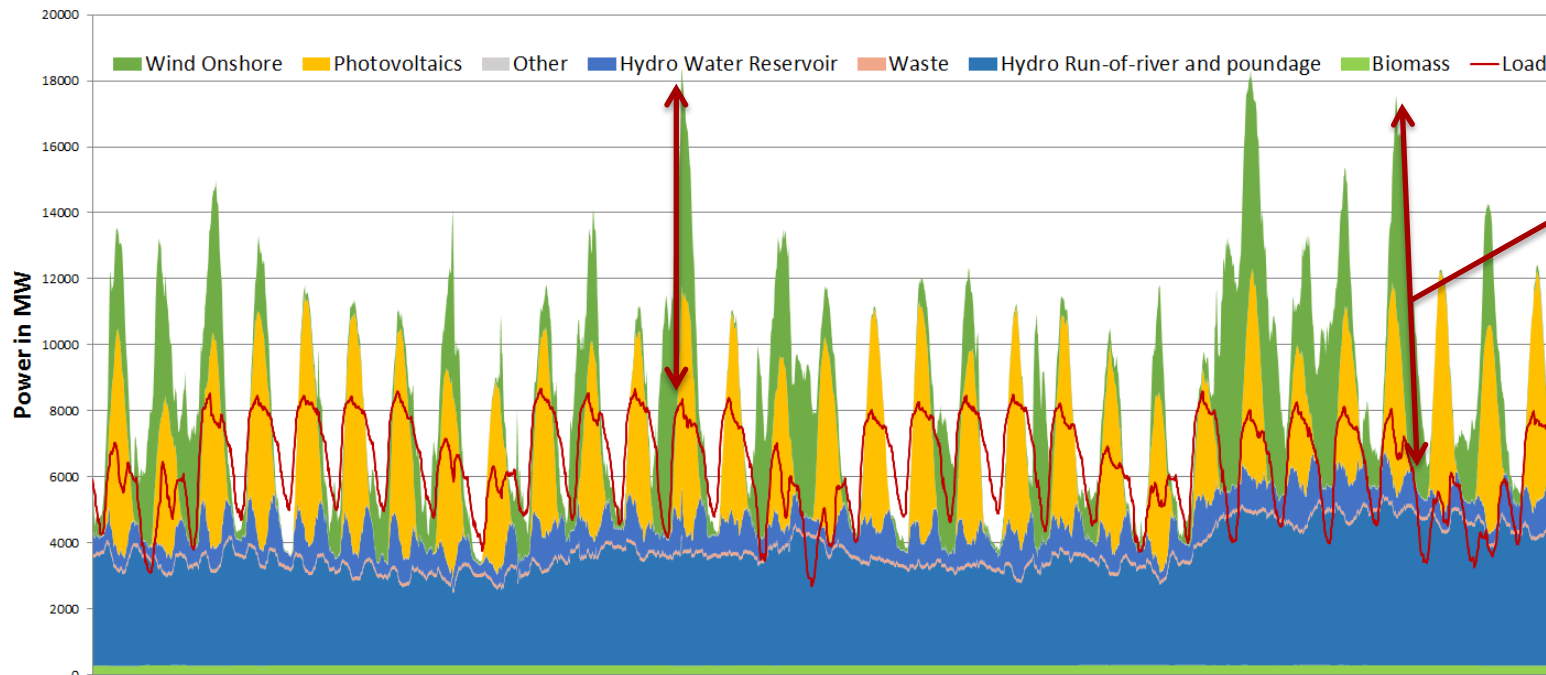
Picture: Energie AG

**“100.000 solar roofs
and batteries” program**

**Wind potential
until 2030: 5.000 MW**

2030 | Future is becoming more complex

Massive surplus of generation during summer



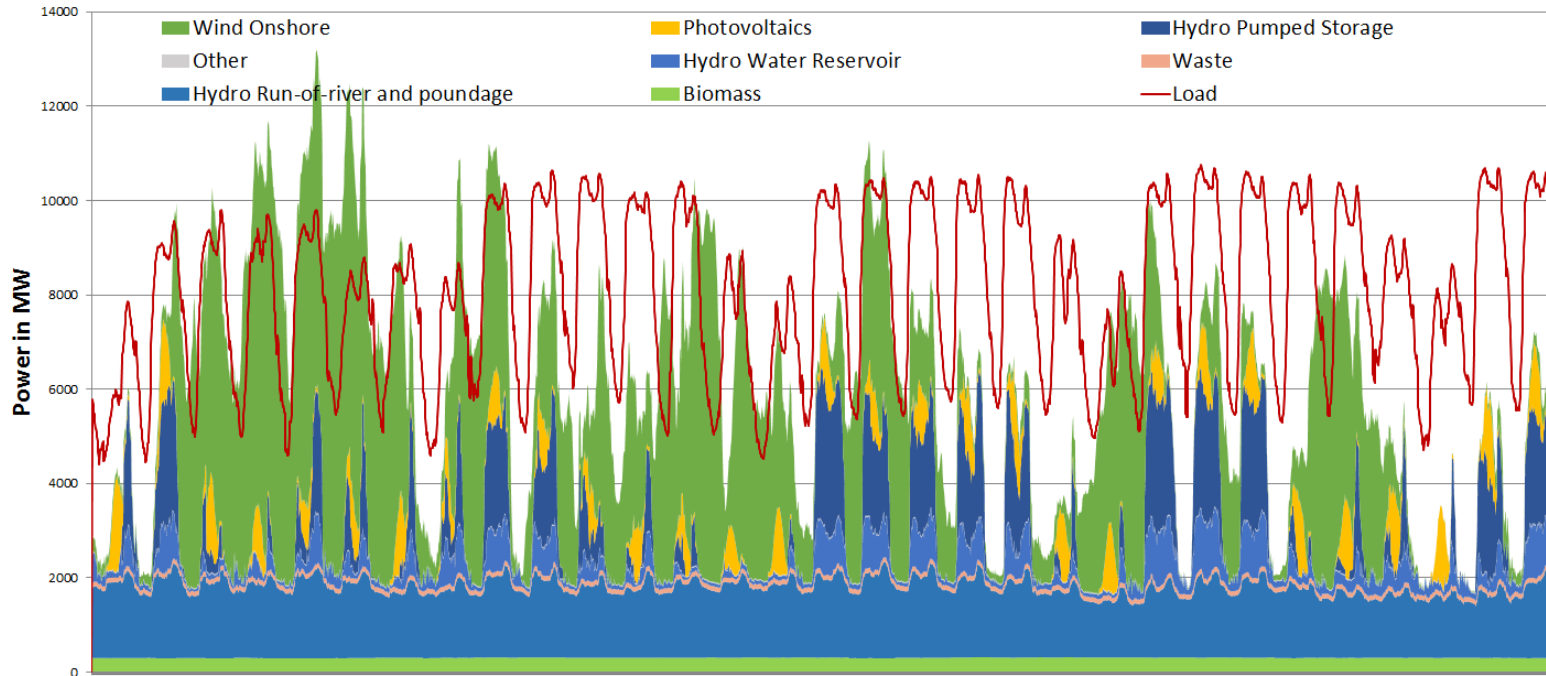
Fast changes in generation up to 2GW/15min

2017 plus 10.000 MW Solar and 6.500 MW Wind
July 2030

Data source: ENTSO-E

Winter 2030 | Future is becoming more complex

Energy needed to cover demand during winter



January 2030

2017 plus 10.000 MW Solar and 6.500 MW Wind

Data source: ENTSO-E

Flexibility is key for the 100% RES-based Austrian power system

More flexibility
in load
and generation



Short Term
Day/Night
Peak/
Off-peak

Mid Term
Weekly
Wind/
Off-wind

Long Term
Seasonal
Summer/
Winter

STORAGE Solutions

Intelligent / digital system /sector coupling

Summary

key targets of #mission2030



- Full **decarbonisation** of the energy system until 2050
- **45% - 50%** of energy demand from **renewables** until 2030
- **100%** electricity from renewables
- **Phase-out** of **oil** for heating (2020 new boilers / 2025 replacements)
- **Greening the gas** supply
- Massive uptake of **e-mobility**
- Reduction of **energy intensity** by **25% - 30%**, **renovation rate 2% p.a.**
- Green **hydrogen** & electricity in industry after 2030
- **Systemic solutions / Sector coupling** / Transnational market design / Infrastructure

Contact

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