

Policies and plans to promote long duration energy storage and flow batteries

Spotlight on the Austrian policy landscape

Agenda

- Renewable Energy Deployment in Austria
- Energy Storage Landscape
- Obstacles to Storage Expansion
- Legal Framework (Status quo and future legislation)
- Outlook into the Future

Austria is a Leader in Renewable Electricity

- Austria is the **MS with the highest share of energy from RES in gross electricity consumption** with almost 88%
- **Renewable Deployment Act (EAG) as reform of the Renewable Electricity Support Scheme**, entered into force in 2021

approx. 88%
electricity from RES¹

2023

**100% electricity
from RES**
by 2030 (net national)



2030

Climate Neutrality



by 2040

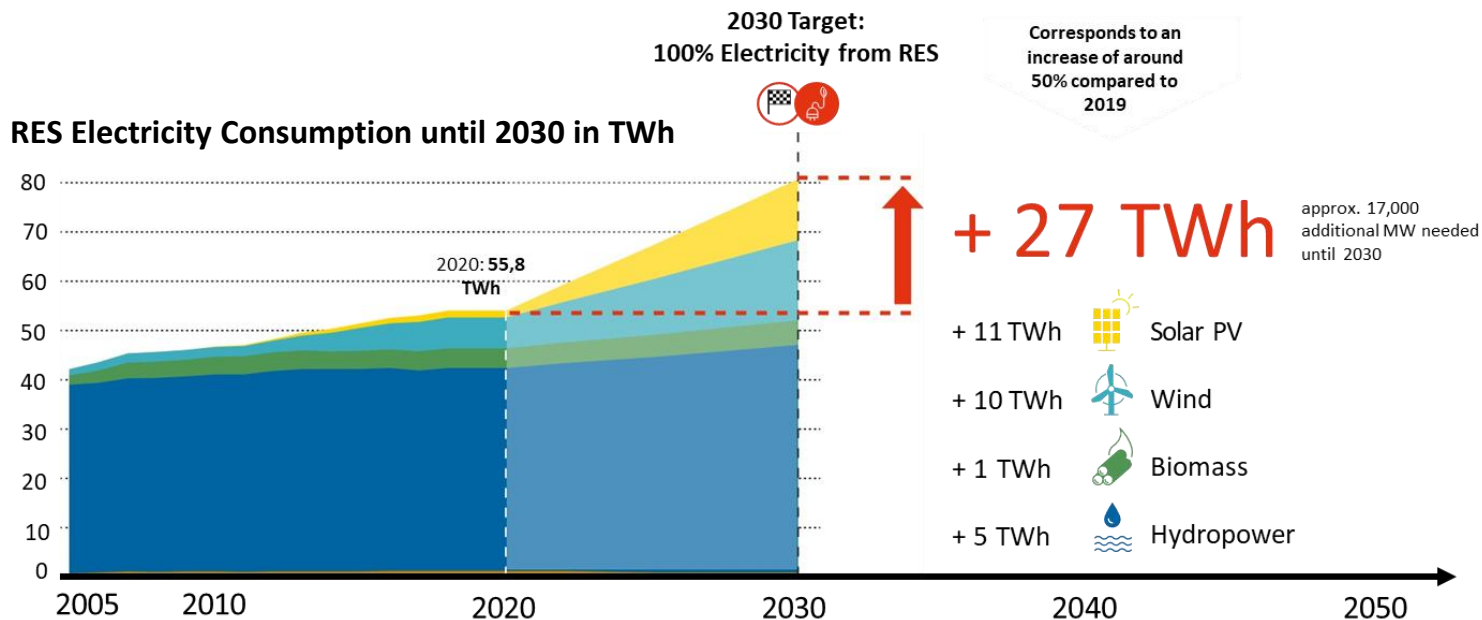


by 2050

2040

2050

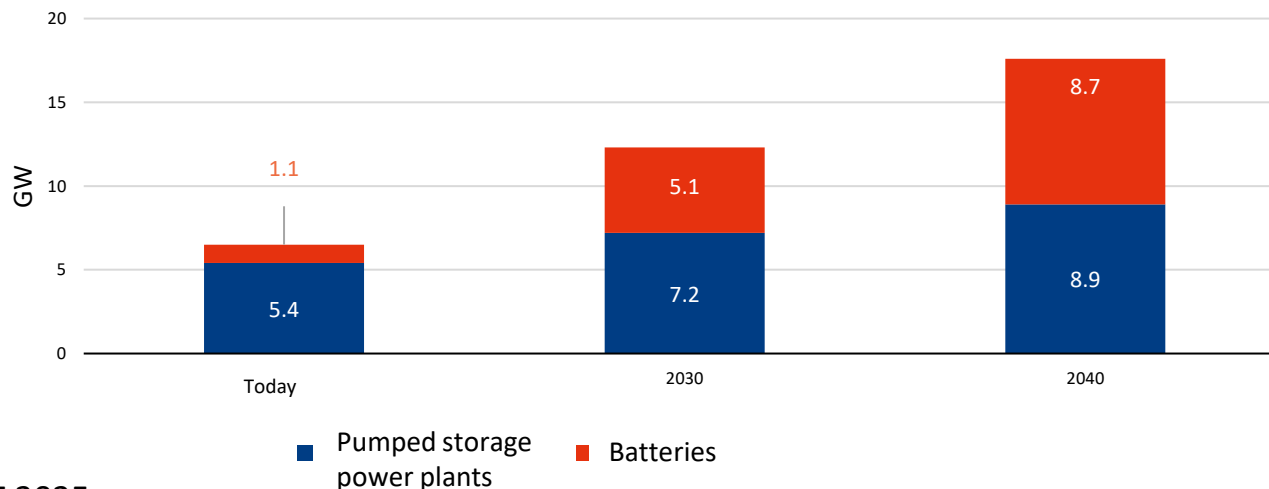
Renewable Energy Development in Austria



Source: STATA Werte 2005-2018; Zielvorgaben 2020-2030

Installed Electricity Storage Capacity in Austria

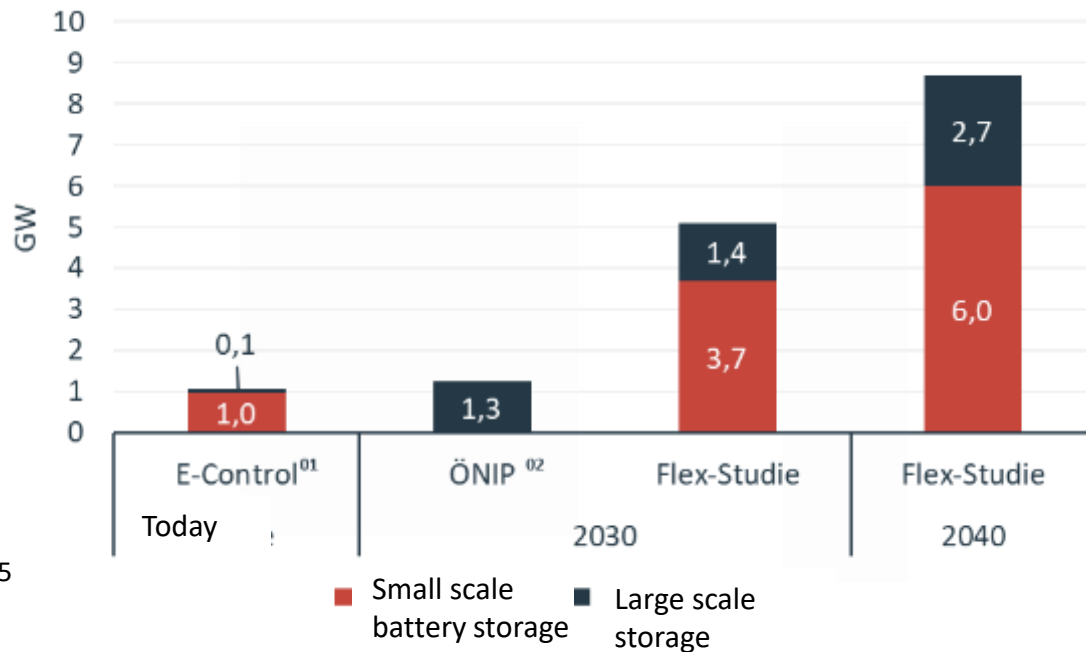
- Electricity storage technologies are playing an increasingly important role in the **synchronisation of fluctuating generation with energy demand**



Source: Austrian Power Grid (APG), Study: Zusammen2040, available at: <https://www.apg.at/projekte/zusammen-2040/>.

Spotlight on Battery storage

- Installed small scale battery storage capacity: 1 GW
- Installed large scale battery storage capacity: 0,1 GW
- Gaps in data collection for battery storage



Source: APG Study: Zusammen2040, based on:
01 E-Control Quartalsbericht Erhebung Netzanschluss 2025
02 Integrated Austrian Grid Infrastructure Plan (ÖNIP).

Obstacles to Storage Expansion

- Overall lag in **grid connection capacities especially** for large scale storage systems
- Large scale battery storage ramp-up challenged by **long duration times until grid connection**
- Pumped storage plant expansion faces **long approval times and procedures**
- **High upfront and operational costs**
- **Integration difficulties with legislative system**

Legal Framework

- **Electricity Act 2010** (in force)
 - Renewed version drafted
- **Renewable Deployment Act 2021** (in force)
- **Renewable Energy Acceleration Act** (in drafting)

Existing Electricity Act (EIWOG) – currently in force

- Pumped storage power plants and gas conversion plants from 1 MW are currently exempt from purchase-side system utilisation fees for 15 years from commissioning
- Exemption does not apply to battery storage systems, currently treated as off-takers and feeders
 - High costs and low economic efficiency for grid-connected or stand-alone storage operation

New Electricity Act (EIWG) – draft (I)

The draft bill will bring positive changes for energy storage systems, among other things:

- Emphasis on promoting **system-friendly behaviour**
 - Obligation for regulatory authority to take **system-friendly operation of storage facilities** into account when determining the fees on a cost-oriented basis as well as **location suitability**
 - Legal certainty **by ruling out a double fee obligation for storage facilities behind the metering point**
- **Introduction of modern metering and billing concepts** to enable greater flexibility in terms of consumption, generation and storage

New Electricity Act (EIWG) – draft (II)

- **Flexibility platform** enables trading of flexibilities possible between renewable energy producers and storage facility operators in future
- **Joint internet platform** for suitable locations for the system-friendly operation of storage facilities
- Comprehensive **notification obligation** for grid users regarding new operating facilities including storage plants

Renewable Energy Acceleration Act (EABG) – in drafting

The current draft provides among other things for further improvements for energy storage systems:

- **Significant acceleration of approval procedures in the grid sector** also applies to storage facilities
- Implementation of the Renewable Energy Directive III (RED III):
 - Art. 15e: **“Overriding public interest”**
 - Art. 16f: **Designation of areas for grid and storage infrastructure** required for the integration of renewable energy into the electricity system

Public Funding Opportunities for Flow Batteries

Currently, two open funding calls by the Austrian Research Promotion Agency FFG:

- **“Energieforschung 2025”**: <https://www.ffg.at/2025-1-Ausschreibung-Energieforschung>
- **“Clean Energy Transition Partnership”**: <https://www.ffg.at/CETPartnership>, co-financed partnership in HORIZON Europe

Outlook into the Future

- **Energy storage solutions and flexibilisation are increasingly important**
- **Improvement of the framework conditions for energy storage plants** in the ElWG, EABG and planned amendment of the EAG
- **Demand for storage targets and overall strategy to be determined**
 - Obligation for regulatory authority to conduct **flexibility needs assessment** according to Electricity Market Design Reform by 2026
- **More targeted use of public funds** with focus on the effectiveness of measures especially system usefulness, efficiency and grid-supporting technologies
 - **Planned review of subsidy scheme for EAG amendment** with regard to storage and overall system usefulness

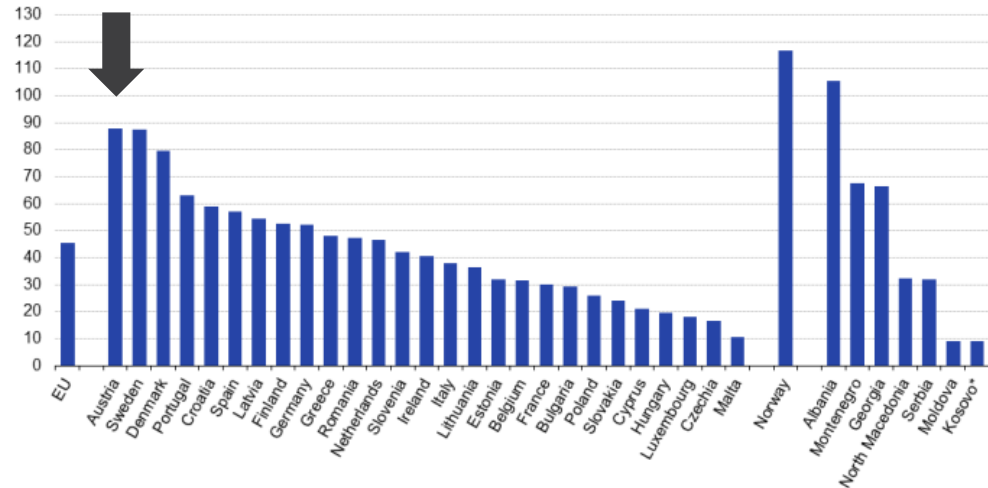
Thank you for your Attention!
Any Questions?

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Austria is a Leader in Renewable Electricity

- Austria is the MS with the highest share of energy from RES in gross electricity consumption
- Almost 88% of renewable electricity in AT, mainly hydro power

Share of energy from renewable sources in gross electricity consumption, 2023 (%)



* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Source: Eurostat (online data code: nrg_ind_ren)

Manufacturing Made-in-Europe

- **Net-Zero Industry Act** Implementation in Austria regarding renewable energy auctions currently in preparation
 - Non-price criterion for Energy System Integration
- **Made-in-Europe Bonus:** Austria as one of the first EU countries to introduce a Europe-bonus for the installation of solar power systems as part of a subsidy program
 - **Subsidy of up to 20 percent for modules, inverters and storage systems** manufactured in the EEA and Switzerland

Jährlich in Österreich installierte Nutzkapazität von PV-Speichersystemen von 2014 bis 2024

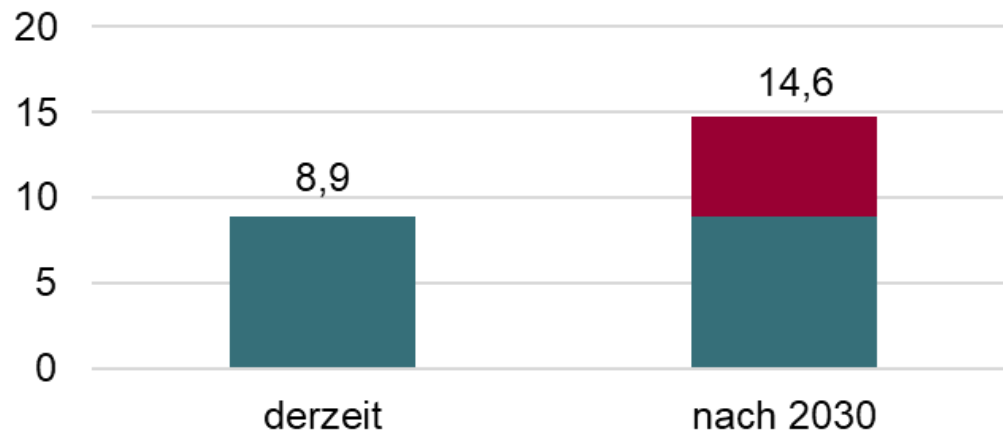


Quelle: Technikum Wien (2025)

Pumped storage in Austria

- Around 116 existing plants
 - **Bottleneck power:** 8.9 GW of which 4.8 GW pumped storage power
 - **Generation:** 6.5 TWh balancing capacity (natural inflow) and around 3.6 TWh from pumped storage operation

Current installed capacity and growth in storage and pumped storage power plants through planned projects



Grundtypen von Wasserkraftwerken

