



INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

IPHE Country Update April 2023: Austria

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1. New Initiatives, Programs, and Policies on Hydrogen and Fuel Cells

Austrian Transformation Offensive (general program, among other topics also dedicated to hydrogen)

- Support for the transformation of the Austrian economy
- Total budget: EUR 5.7 bn 2023-2030

Goals Transformation Offensive:

- Safeguarding and strengthening the Austrian research and production location and jobs
- Building and expanding resilience and technology leadership
- Strengthening existing fields of competence (focus on key industries: automotive, semiconductors, life sciences; nevertheless, open to all sectors)

No other initiatives since November 2022, former programs etc. are:

[Hydrogen Strategy Austria \(German\)](#)

[Hydrogen Strategy Austria \(English, Executive Summary\)](#)

[Mobility Master Plan \(English\)](#)

[Renewable Expansion Act \(Erneuerbaren Ausbau Gesetz, EAG, German\)](#)

European Agenda Process on Green Hydrogen (GHA): A pilot initiative of the European Research Area which was decided as part of the realignment of the European Research Area (ERA) during the German EU Council Presidency in 2020. Outcome: A Strategic Research and Innovation Agenda (SRIA) including 5 Actions points presented in May 2022 in Berlin. 2 concrete follow-up activities are planned.

2. Hydrogen and Fuel Cell R&D Update

Clean Energy Transition Partnership: The Clean Energy Transition Partnership is a multilateral and strategic partnership of national and regional research, development and innovation (RDI) programs in European Member States and Associated Countries (in total 30 countries, 50 program owners, total international budget of 210 Mill EUR for two joint calls in 2022 and 2023). Austria participates in TRI (Transition Initiatives) 3, 5 and 6.

3. Demonstration, Deployments, and Workforce Developments Update

No new projects since November 11 2022, former programs etc. are:

- **Project HOTFLEX (2020-2023)**: 150 KW reversible high temperature electrolysis-/fuel cell system for flexibilization of the energy supply
- **H2FUTURE** (Electrolyser, Voest, 6 MW) successfully completed



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- **MPREIS 3.2 MW** (Demo4Grid) pressurized alkaline electrolyzer is in operation since March 2022 (grid stabilization)
- **Project “Renewable Gasfield”** (production of green hydrogen and green natural gas from green surplus electricity)
- **“Wien Energie” and “Wiener Netze”** are starting construction of the first municipal hydrogen generation plant in Vienna-Simmering. With a capacity of 3 megawatts, the electrolysis plant will produce up to 1,300 kilograms of green hydrogen (H₂) per day from green electricity starting in summer 2023
- **Verbund/ Energie Burgenland**, in Burgenland, Austria's largest electrolyzer to date will be built (300 MW at full stage). From 2026 on 9,000 tons of green hydrogen from wind and solar energy will be produced, in the full expansion stage by 2030, this will be 40,000 tons of hydrogen per year.

4. Events and Solicitations

- **"H₂, Energy of the Future"** 25 May 2023 at 6pm at the French Embassy
- **GSV Forum Perspective Hydrogen** on 4 May 2023 from 15:30 - 18:30
- **Hydrogen and fuel cells for transportation** - status, examples and recommendations for action, HS i9, Technische Universität Graz, Inffeldgasse 13, 8010 Graz and online

5. Investments: Government and Collaborative Hydrogen and Fuel Cell Funding

Funding:

- 125 M€, Important Projects of Common European Interest (IPCEI). IPCEI are strategic instruments for the implementation of the European Union (EU) Industrial Strategy
- 40 M€ p.a. investment subsidies for the construction of plants for the conversion of electricity into hydrogen or synthetic gas, Renewable Expansion Act (EAG)
- 4 M€ p.a. funding for the development of hydrogen technologies for mobility applications

6. Regulations, Codes & Standards, and Safety Update

N/A



Summary Country Update November 2022: Austria

Transportation	Target Number	Current Status	Partnerships, Strategic Approach	Support Mechanism
Fuel Cell Vehicles ¹	No target	62	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy	<ul style="list-style-type: none"> Subsidy for purchase (Promotion campaign “e-mobility”)
FC Bus	8	8	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy	<ul style="list-style-type: none"> Subsidy for purchase (“EBIN” funding programme)
Fuel Cell Trucks ²	No target	1	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy	<ul style="list-style-type: none"> Subsidy for purchase (“ENIN” funding programme)
Forklifts	No target	unknown	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy	No support policy
H ₂ Refueling Stations	Target Number	Current Status	Partnerships, Strategic Approach	Support Mechanism
70 MPa On-Site Production	No target	-	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy, Alternative Fuels Infrastructure Regulation (AFIR)	<ul style="list-style-type: none"> EBIN and ENIN funding programme (CAPEX)
70 MPa Delivered	No target	6	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy, Alternative Fuels Infrastructure Regulation (AFIR)	<ul style="list-style-type: none"> EBIN and ENIN funding programme (CAPEX)

¹ Includes Fuel Cell Electric Vehicles with Range Extenders

² As above



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35 MPa On-Site Production	No target	-	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy, Alternative Fuels Infrastructure Regulation (AFIR)	• EBIN and ENIN funding programme (CAPEX)
35 MPa Delivered	No target	2	Austria's 2030 Mobility Master Plan, Austria's Hydrogen Strategy, Alternative Fuels Infrastructure Regulation (AFIR)	• EBIN and ENIN funding programme (CAPEX)
Stationary	Target Number³	Current Status	Partnerships, Strategic Approach	Support Mechanism
Small ⁴			Austria's Hydrogen Strategy	
Medium ⁵			Austria's Hydrogen Strategy	
Large ⁶		6 MW	Austria's Hydrogen Strategy	
District Grid ⁷		3 MW	Austria's Hydrogen Strategy	
Regional Grid ⁸			Austria's Hydrogen Strategy	
Telecom backup			Austria's Hydrogen Strategy	
H₂ Production	Target⁹	Current Status	Partnerships, Strategic Approach	Support Mechanism

³ Targets can be units installed and/or total installed capacity in the size range indicated

⁴ <5 kW (e.g., Residential Use)

⁵ 5kW – 400 kW (e.g., Distributed Residential Use)

⁶ 0.3MW – 10 MW (e.g., Industrial Use)

⁷ 1MW – 30 MW (e.g., Grid Stability, Ancillary Services)

⁸ 30MW plus (e.g., Grid Storage and Systems Management)

⁹ Target can be by quantity (Nm³, kg, t) and by percentage of total production; also, reference to efficiency capabilities can be a target



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Fossil Fuels ¹⁰		144.000 t p.a.		
Water Electrolysis ¹¹ (PEM, Alkaline, SOEC)	4 TWh		Austria's Hydrogen Strategy	
By-product H ₂				
Energy Storage from Renewables	Target¹²	Current Status	Partnership, Strategic Approach	Support Mechanism
Installed Electrolyser Capacity	1 GW (2030)	10 MW	Austria's Hydrogen Strategy	Renewable Expansion Act (EAG)
Power to Power ¹³ Capacity				
Power to Gas ¹⁴ Capacity				

¹⁰ Hydrogen produced by reforming processes

¹¹ Please indicate if targets relate to a specific technology (PEM, Alkaline, SOEC)

¹² Can be expressed in MW of Installed Capacity to use the electricity from renewable energy generation, and Annual MWh of stored energy capacity

¹³ Operator has an obligation to return the electricity stored through the use of hydrogen back to electricity

¹⁴ Operator has the opportunity to provide the stored energy in the form of hydrogen back to the energy system through multiple channels (e.g., merchant product, enriched natural gas, synthetic methane for transportation, heating, electricity)