International Partnership
for Hydrogen and Fuel Cells
in the Economy

Switzerland Update

35th IPHE Steering Committee Meeting

22 – 23 June 2021

Virtual Meeting

Announcements / New Initiatives *Switzerland*

- **Policies/Initiatives**
  - **Energy perspectives 2050+:** Update of detailed scenario, published in March 2021
  - 2050: 56 kT/a Hydrogen production (domestic), 73 kT/a Hydrogen import (ZERO Basis scenario) https://www.bfe.admin.ch/bfe/en/home/policy/energy-perspectives-2050-plus.html
  - Parliamentary initiative "Hydrogen. Assessment and options for action for Switzerland", adopted by the National Council (2021.06.19)
  - **-> Development of a Swiss Hydrogen Roadmap** https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20204709
  - Parliamentary initiative **"Green hydrogen strategy for Switzerland"**, adopted by the National Council (2021.06.17) https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20204406
- **Deployment Activities**
  - **Since June 2020: 2 MW PEM electrolysis** at run-of-river plant (51 MW) in Gösgen (Alpiq), without grid, 300 t/a of H2 supply for 50 fuel cell trucks
  - **2021.02.04**: Construction application for **2.5 MW electrolysis** at run-of-river power plant (Rhine), production starting 2022
  - Infrastructure 7 stations in operation (**+6 HRS since June 2020**), 3+ in planning
  - **Vehicles**: **46 Hyundai XCIENT Fuel Cell trucks** to Switzerland since fall 2020. Cumulative driving range: 750,000 kilometers (May 2021). **+140 units** of the new XCIENT Fuel Cell to Switzerland **by end of 2022**
  - **Power-to-Gas: 2.5 MW PEM electrolysis. Construction start 2020.04.09**. Powered by waste incineration plant (15 GWh/year). CO2 from sewage gas used for biological methanisation. 18,000 MWh of renewable gas per year https://www.powertogas.ch

Examples of Lessons Learned and Impact *Switzerland*

Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
Exemption from the performance-related heavy vehicle tax for trucks with electric power train	Very helpful to close the gap between fuel cell electric trucks and conventional diesel trucks
https://h2mobilitaet.ch/en/ H2 Mobility Switzerland Association	Private collaboration: Generation of sufficient mass, information exchange
Continuous promotion of R&D (programmes) and targeted pilot projects	Solving fundamental issues (regulation, code, standards) with publicly funded projects

Switzerland – Profile June 2021

Status of Deployments

- 46 Trucks
- Couple of MW electrolysis for green Hydrogen production either in production or in the planning/construction phase

Leading Government Initiatives

Goals or Focus Areas

Deployment Goals

2025: 1600 Fuel cell trucks
2050: 56 kT/a Hydrogen production (domestic)

Funding

Overall funding for R&D and pilot: 27.93 million Swiss francs per year (figures 2019).

Thank you

International Partnership
for Hydrogen and Fuel Cells
in the Economy