International Partnership for Hydrogen and Fuel Cells in the Economy

Chile Update

36th IPHE Steering Committee Meeting

16 – 17 November 2021

Virtual Meeting

Announcements / New Initiatives *Chile*

- The Ministry of Energy, in coordination with the Budget Office, proposed the creation of the a new public program for 2022, the "Program to Promote Green Hydrogen in Chile" with $2,044 million CLP, in order to promote the development of the nascent industry in the country.
- The Ministry of Energy released our National Electromobility Strategy, which includes goals on green hydrogen and fuel cells applications such as:
  i. Chile will sell only electric vehicles in 2035, and
  ii. 100% of the sales of public transport (buses and taxis) will be zero emissions.
- The Ministry of Energy will submit a project for an “Energy Transition Bill”, including hydrogen blending in gas networks.
- The Ministry of Energy have released the preliminary document for the overarching “National Energy Policy”, including goals such as
  i. increase the carbon price from 5 to 35 USD/tonCO2 by 2030,
  ii. increase the participation of zero emission fuels (such as green hydrogen) to 15% by 2035, and
  iii. 80% of electricity generation will come from renewable sources by 2030.
- Signed MoUs with:
  - Korea
  - Port of Antwerp
  - Port of Brugges

Announcements / New Initiatives *Chile*

- Two green hydrogen production projects entered the environmental evaluation process, representing more than $75 million dollars in investment
- We closed the call for a funding round of 50 M USD with CORFO for large scale (>=10 MW) green hydrogen production projects.
- We have awarded 300 k EUR for co-funding prefeasibility studies and accelerate the implementation of green hydrogen production, storage, transport and use projects.
- We have recently closed the calls for a Green Hydrogen Accelerator with the Chilean Agency for Energy Sustainability, to deliver 300 M CLP for aiding in the implementation of demand side projects.
- We have recently submitted two applications to channel funds (~400 M CLP) from the Chilean R&D specialized agency (ANID) to the development of technological solutions for the retrofitting of fossil-fuel-based railway and maritime transport towards green hydrogen, and the DC-DC coupling of renewable generation and electrolysis facilities.
- We have received approval from DIPRES to implement a public programme to provide public funds to demand-side projects for 1.000 M CLP

Examples of Lessons Learned and Impact

Chile

Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
Energy Transition Bill to include hydrogen blending in gas networks	Since early conversations, we included stakeholders from the gas networks industry, which gave us feedback in order to promote and support quota mechanism
Direct assignation process of public lands to fasten green H2 projects' deployment	Validation conversations with developers took more time than expected which delayed the process.
Submitting applications to secure funding in two R&D lines to the "Public Challenges" platform	It is key to embrace the potential that other public institutions or ministries could bring to Green H2 industry acceleration.

Chile – Profile November 2021

Status of Deployments

The **Haru Oni** project started its construction and **Anglo American** generated the first Green H2 molecule for zero carbon vehicles in Chile.

5 large-scale (1+GW) export projects are under development and have land secured, feasibility completed, and/or offtakers secured. 11 more are less developed.

Funding round of 50 M USD received 11 applications out of which 6 were considered admissible for funding.

Leading Government Initiatives

Under development:

Law Bill to (i) mandate quotas of green H2 in gas grids, (ii) allow ENAP to do hydrogen investments.

Direct assignation process for public lands is to be announced for green H2 deployment

A public-private agreement for green H2 use in the mining sector is being discussed.

A "Tributary instrument Strategy for the energy transition" will be agreed and published this year to set the road forward on carbon and fuel taxes.

Deployment Goals

5 GW of electrolyzer capacity with committed investment by 2025. **2.5 BUSD** exports (H2&derivates) by 2030.

Goals or Focus Areas

6 prioritized domestic areas:

- Oil refineries (green for grey H2)
- Local green ammonia production
- Blending into residential gas grids
- Mining haul trucks
- Heavy-duty on-road trucks
- Long autonomy buses

Also, **export** to East Asia, North America, and Europe through **large-scale consortiums**.

Funding

50 MUSD in grants for 2021

New public program for 2022 **with $2.6 million dollars**.

Thank you

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