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Argentina Hydrogen National Strategy





Hydrogen Strategic Policies





Low-Emissions Hydrogen Law

Energy Secretary

Ministry of Economy

Focused on investment promotion. Fiscal and financial incentives.

Hydrogen National Strategy

Secretariat of Strategic Affairs

Roadmap for a local hydrogen industries development





Strategic Environmental Assessment

Secretariat of Strategic Affairs & Ministry of Environment and Sustainable Development

Socio-environmental predictability framework



Technological and Productive Development



Low-Emissions Hydrogen





Local Demand & International Markets



Collaborative Methodology

3 plenary meetings of the Hydrogen Intersectoral Roundtable





Why Argentina?



CHURCHELIT.

Argentina

Competitive advantages



Cuyo and Northwest areas with the greatest solar power potential globally.



Vaca Muerta is the **2nd biggest** reservoir of non convencional natural gas globally



Patagoniacountsoneoliccapacityfactorover60%,one of the highest in the world







Dry and wet **Biomass** availability in the central and Northeast region.



Accesstocoastalareasnearbytheproductivezonesandpotentialforhydropower generation.

Argentina's Competitiveness







CAREM Project 1st Small Modular Reactor (SMR) designed and built in **Latin America**

Scientific and technological

system with experience in **H2** + **17.000** graduates in applied sciences

> + 3.500 in engineering.

+ 50 years of trajectory in petrochemical industry and petroleum refining.





Network of suppliers and labor **skills** related to the hydrogen chain and capital goods.

Current production of Hydrogen in Argentina





400 Tons of green H2 in **Hychico Pilot Plant**



Goals 2030 -2050

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Hydrogen Costs

Argentine cost projection







Blue

Hydrogen production goals in Argentina by 2050







H2 Exports from Argentina 2030-2050



Mt: Millon tons



Supply 5% of the global market by 2050

Potential main destinations



Europe



South Korea



Japan

Domestic Market in Argentina 2030-2050





Sectors



Synthetic Fuels



Steel industry



Gas Blending

Sustained growth since 2030

Strengthen and generate supplier development



Equipment for renewable energies

- Gondolas and panels
- Construction of towers or blades.
- Equipment for conversion, transformation and control

Containers and compressors

 Adaptation of equipment for storage and transport of H2



Technological services

- Plant Operation
- Predictive and preventive maintenance
- Logistics
- Traceability



Electrolysers

- Parts and pieces and for processes in electrolysis plant
- Power electronics equipment

Employment and Training







Research and Development





2030 - 2050

multiply the local technological offer in electrolyzers and CCUS technology

Certification

National certification of origin scheme by 2030







Based on emissions criteria

Infrastructure 2030 - 2050



Production zones

at least **5 zones** of H2 Buenos Aires, Patagonia, NOA and Cuyo



Port infrastructure

Adapt and/or build **2 to 5 ports** to export H2





Pipelines

Transportation of fluids, supplies and products. Connection between poles. CO₂ Storage

Confinement of captured emissions.



Corridors

Reinforce at least **3 corridors** between zones of production and consumption.



H2 refueling

Synthetic fuel storage and refueling stations

Strategic corridors

Exports Hub

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Domestic Hub



Energy Network ____H2 pipeline

Buenos Aires-Rosario Hub: Industry (refining, DRI-EAF and other petrochemicals) and transport (heavy trucks, buses and railways).

> Export to the world of hydrogen derivatives

Bahía Blanca Hub:

Green hydrogen (solar/wind mix) and blue hydrogen; production of derivatives for export and localized demand taking advantage of demand / petrochemical experience

Export to the world of hydrogen derivatives

Patagonia Hub:

Green by-products produced with worldclass onshore wind power through existing port infrastructure

Environmental policy

Socio-environmental approach





Investments and Cooperation Agreements

- Investment agreements of at least **US\$ 90,000** million for production
- Financing agreements for **technological**

development and pilot plants

• Participation in tenders and contests for **future supply contracts**, as a safe and reliable supplier of hydrogen

- - components
 - equipment



• Cooperation to **maximize the potential** of the various sources of renewable energy in the MERCOSUR region • Complementation in **regional value** chains for the manufacture of parts, assembly of or

Expected outcomes 2050



Certification of origin to access markets

5 productive zones 2 to 5 Ports for H₂ exports

USD 90,000 millon Investment for H₂ production



Argentina

Thank you!



