



Department for
International Trade

Hydrogen Projects in Latin America and the Caribbean (LATAC)

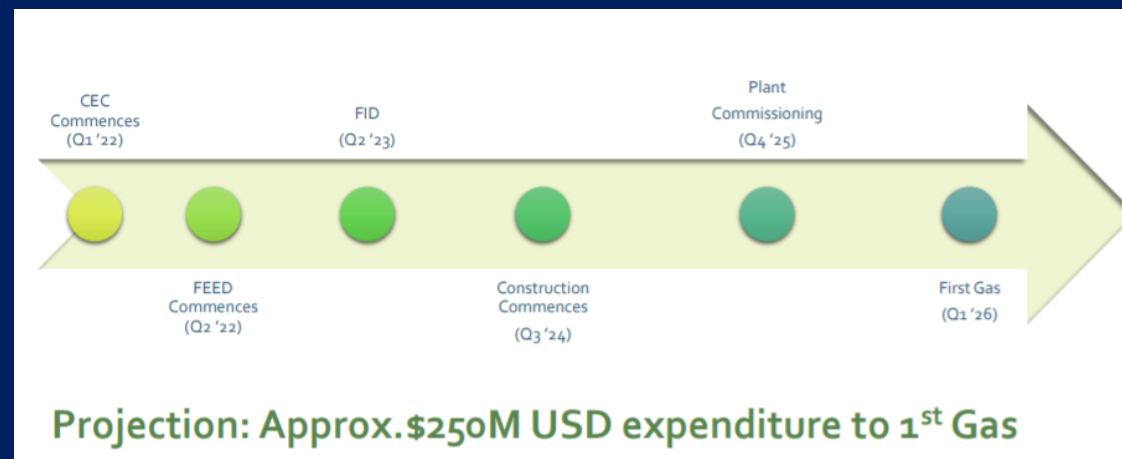
Virtual Meet the LATAC Hydrogen Project Developers – March 9th-10th 2022

Project 1 - The NewGen Project (Trinidad & Tobago/Caribbean)

STATUS

- Outline Planning Approval received from T&T's regulatory planning authority (Town & Country Planning Division of Ministry of Planning and Development)
- Preliminary FEED activities commenced
 - io Consulting undertaking Electrolyser Supplier Evaluation
 - Basis of Design being finalized
- Environmental Permitting process commencing
- Commercial negotiations finalising

PROJECTIONS



NICHE AREAS

- Early Project Development Capital
- Large scale Electrolyser Supply
- Oxygen Off-taker(s)
- Balance of Plant Equipment Supply (e.g. Compressors)
- Long distance undersea electricity cable
- Green Hydrogen Storage and Shipment
- Additional Project Development Support & RE Equipment Supply e.g.
 - Geothermal
 - Hydro
 - Solar
 - Wind
 - Other

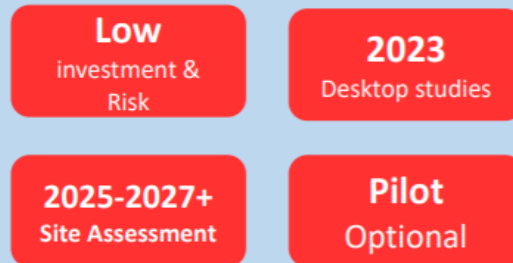
Project 2 - H2 Uruguay Offshore Program (Uruguay)

STATUS

- Exchanging with Energy companies
- Virtual Datarooms
- Reviewing draft bidding round terms and contract model

PROJECTIONS

Evaluation Phases



Development and Production Phase



NICHE AREAS

- Site assessment
- Feasibility Studies
- Offshore Wind
- Electrolysers
- Storage
- Multi-client contracts



Project 3 – MIEM Green Hydrogen Pilot Project (Uruguay)

STATUS

The government will bring incentive with 10 years grant, the execution of the first Green H2 demonstration projects through a competitive process with the national research and innovation agency (ANII). The call will start in March/April 2022

PROJECTIONS

+ 1,5 MW

2025 initiating operations

Different uses of hydrogen

Renewable Energy off grid or on grid

NICHE AREAS

- Wind and solar energy
- Electrolysers
- Storage
- FCEV
- Multi-client contracts



Project 4 – Pacha k'anchay Green Hydrogen Ammonia Project (Bolivia)

STATUS

- Strong support of local government. Agreement in place for the development of Green hydrogen and Green Ammonia
- Feasibility study completed
- Initiating feed phase
- Fast path to development
- ESG attributes due to huge social impact and economic lever for a developing country
- Encouragement from markets, investors and Government
- Clear path for participation: off taker – equity

PROJECTIONS



Base case consist of a **2.070 MW of solar power** generation, **400 MW** battery with possibility to add **200 MW PPA hydropower**.



7.000 acres land secured allow for **project scalability up to 2,5 Mtpa** of NH3.

Base Case Main Parameters

| | |
|--------------------------------------|---------------|
| Solar Power Farm | 2070 MWp |
| Battery Pack | 400 MW |
| Hydro Power (PPA) | 200 MW |
| PEM Electrolizer | 400 MW |
| Haber Bosch Green Ammonia Production | 1.000 tpd NH3 |

Note 1: Battery and solar farm capacity depending on hydro PPA final agreement

Note 2: Specific PPA quantity being currently under discussion

NICHE AREAS

- **Investments on development phase:** H2 Bolivia S.A. is currently looking for complementary partners
- Open to alternatives on **Business Model Structure** along the whole value chain
- Agreements and Manifestations of Interests with **OFFTAKERS** under discussion in both schemes FOB and DES terms.
- Open to evaluate alternatives on **Energy Storage Systems**
- **Technological and vendors analysis** under discussions to evaluate alternatives on technologies:
 - Large Scale Electrolyzers
 - HB process
 - Solar PV Panels
 - H2 Storage

Project 5 - Gente Grande Project (Chile)

STATUS

- Land secured on Tierra del Fuego for full-scale development
- Meteorological mast installed for wind data acquisition
- Environmental scoping and techno-economic studies nearing completion
- Permitting phase commencing Q2 2022 to focus on EIA approvals and technical definition

PROJECTIONS*

PHASE 1 – FORECAST COD 2027:



Wind Energy
Installed Capacity



Electrolyser Installed
Capacity



Tonnes of Green
Hydrogen Per year

FULL-SCALE – FORECAST COD 2030:



Wind Energy
Installed Capacity



Electrolyser Installed
Capacity



Tonnes of Green
Hydrogen Per year

*based on current estimates

NICHE AREAS

- Wind turbines
- Electrolysers
- Energy storage systems
- Process plant equipment
- Logistics
- Construction services
- Operation and maintenance

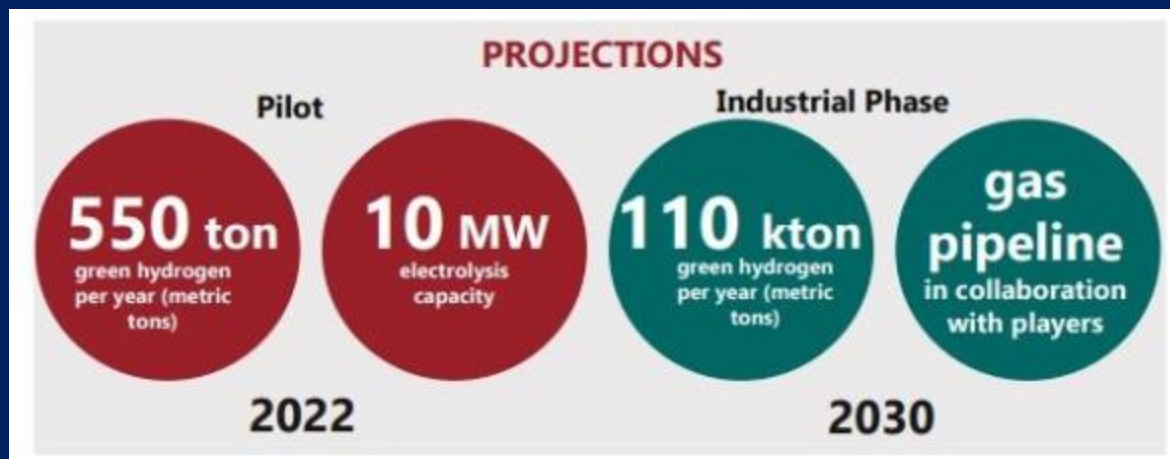


Project 6 – Paracelsus Project (Chile)

STATUS

- The first phase is in pre-feasibility and conceptual engineering stage. It will request approval from the Environmental Assessment Service during 2021.
- 18 Million USD – total investment during the first phase.

PROJECTIONS



NICHE AREAS

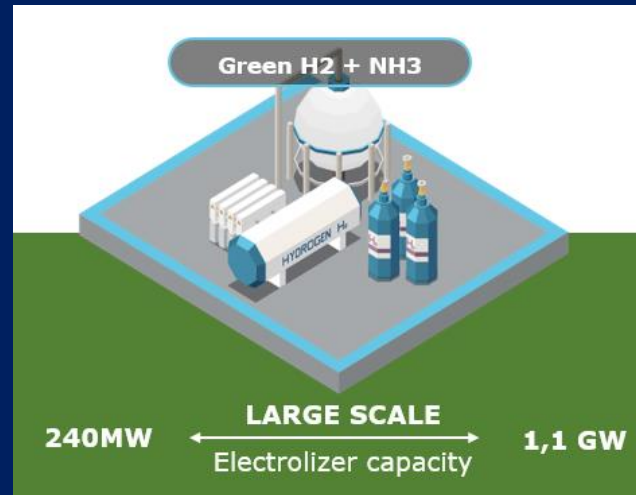
- Electrolyser
- Piping gas/water
- Desalinization
- Storage and compression

Project 7 – Porto do Açu Project (Brazil)

STATUS

- Ongoing conversations + feasibility study for both small and large scale projects.

PROJECTIONS



NICHE AREAS

- Solar energy
- Onshore wind
- Offshore wind
- Electrolizer
- Energy storage



Project 8 – Porto do Pecém Project (Brazil)

STATUS

- Strong support of Ceara state government, which has 70% of ownership in partnership with Port of Rotterdam, which has 30%
- Some international and national companies have demonstrated interest to produce green hydrogen in Pecem, including Engie, EDP and AES Brazil

PROJECTIONS

Solar Generation Potential

643 GW (Total)



Wind Power Potential

ONSHORE 94 GW
OFFSHORE 117 GW



Hybrid Potential

137 GW



NICHE AREAS

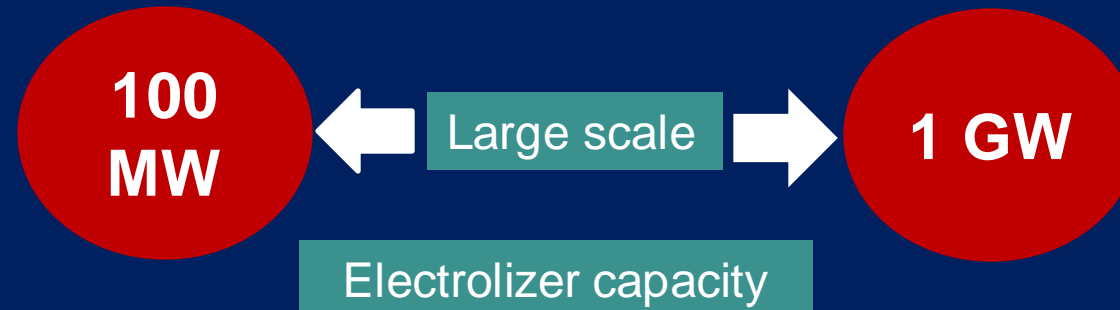
- Offshore Wind
- Electrolyzer plant
- Desalination plant
- Storage
- Logistics
- Ammonia

Project 9 – DH2 Energy Dhamma Energy Project (Mexico)

STATUS

- Green Hydrogen projects under development, several locations in Mexico.
- Mid term development cycle 3 – 5 years

PROJECTIONS



NICHE AREAS

- Local Hydrogen market supply & exportation
- Pipeline & Truck logistics
- Large solar PV energy demand