

# Sheet N° 67- 1/2- Electrolyser assembly

## Description



Assembly and installation of electrolysers for the production of green hydrogen, with an assembly unit with a production capacity of 1GW

**Main customers:** energy companies, industry, urban mobility

**Sector and sub-sector:** Green hydrogen and its derivatives / power to x



HS Code: 85433

## Key facts

- Willingness to create a green hydrogen ecosystem with potential for local integration in electrolyser assembly to support this ecosystem
- Strong export potential with an electrolyser manufacturing/assembly market (essential technology for the production of green hydrogen) estimated at ~US\$400 million in 2021

## Prerequisites <sup>(2)</sup>

- Strategic location close to green H2 production platforms and inputs

## Market indicators

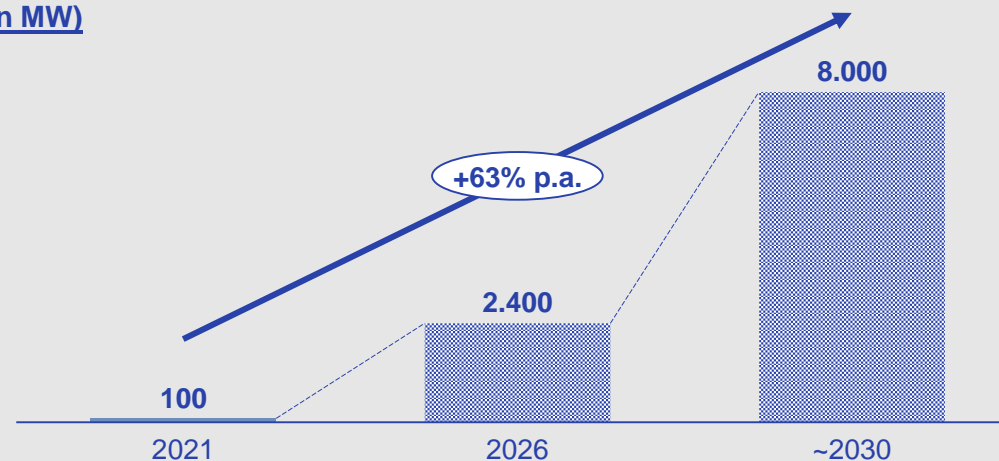
**Target market(s) :**

**Target market(s), (from highest to lowest priority) to be addressed :**

- + **Local and national:** To support the ambition of developing the green H2 ecosystem
- **Export:** Mainly to local markets with high H2 green potential such as Africa (e.g. Southern Africa and Mauritania)

**Market size and development <sup>(3)</sup>**

**Projected electrolyser capacity requirements\* (in MW)**



(1) Product Complexity Index: Diversity and sophistication of the know-how required to produce a product. The PCI is calculated according to the number of countries that produce the product and the economic complexity of these countries. The most complex products, those that only a few countries can produce, have the highest PCI (e.g. electronics, chemicals) vs. the least complex products (e.g. raw materials, agricultural products) - Source: TradeMap, Harvard economic complexity

(2) Sources: Office des Changes, Press articles, ITC

\* Excluding OCP's 2GW integrated project



# Sheet N°67- 2/2- Electrolyser assembly

## Financial indicators (indicative) :

<b>Potential investment</b>	500 - 700 Mn MAD
<b>Turnover</b>	8 - 12 billion MAD
<b>Estimated selling price</b>	8 - 12 Mn MAD / MW
<b>ROI</b>	1 year
<b>EBITDA (as % of sales)</b>	20 - 30 %
<b>Jobs</b>	300 - 350

## Human resources

### HR skills needed

- Electrical, mechanical and materials engineering, quality control specialists, logistics, electrical and mechanical technicians

### Training offers

- OFPPT (Laâyoune): Specialised Institute of Applied Technology (ISTA)
- ENSA (Agadir) : Mechanical Engineering
- ENSA (Agadir) : Industrial Engineering
- EST (Laâyoune branch): renewable energies and water desalination

## Raw materials and suppliers

### Main inputs

- Power supplies, compressors, mounting plates, electrolyte cells, polymers and composites, pipes, valves, pumps

### Main suppliers

- Morocco: Metal oxides, pipes, valves, pumps
- Germany, China: Nickel alloys and rare materials, electrolyte cells, polymers and composites

## Investment elements

### Potential land

#### Priority provinces

✓ Tarfaya

#### Type of land

Private domain of the State (e.g. National Road EL marsa -Lamssid)

#### Area

2 ha

#### Average land price

Unified Regional Investment Commission (CRUI)

#### Mode of mobilisation

Unified Regional Investment Commission (CRUI)

### Main investment benefits

#### Grant

Investment Charter

#### Support for training

greenh2 cluster, "TATWIR green growth" programme, UM6P Green H2A TAMWILCOM "Green INVEST" programme

#### Other

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