

Sheet N° 70- 1/2- Flat steel mast assembly for wind turbines

Description



Production of flat steel masts for the assembly of wind turbines with a production capacity of around **300 masts per year**

Main customers : Wind farms, energy companies

Sector and sub-sector: Renewable energy industries

Complexity of the product¹

NA

Key facts

- Strategic sector for the Region to develop and deepen the local integration of the industry around renewable energies with an estimated additional capacity of ~ 13.6 GW of wind power installations in the medium term
- International market characterised by strong competition and driven mainly by lower mast manufacturing costs (e.g. Portugal, Spain and Germany)
- Project to support national and local ambitions for an energy mix and green hydrogen

Prerequisites ⁽²⁾

- Proximity to wind farms

Market indicators

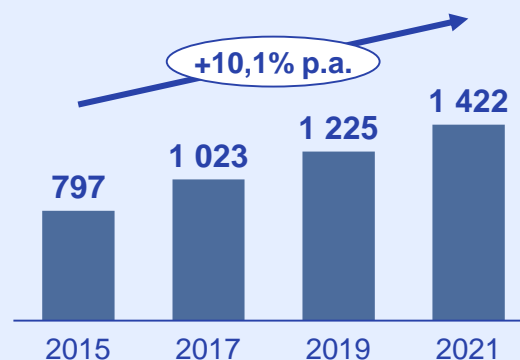
Target market(s) :

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

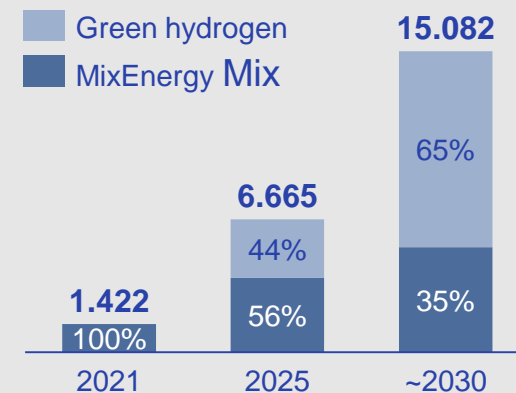
- +** Local: To serve the region's energy mix and green hydrogen ambitions
- National: In order to meet the Kingdom's energy mix and green hydrogen objectives for 2025 and 2030

Market size and development ⁽³⁾

National installed wind power capacity (MW)



National Wind Power Generation Projections by Need (MW)



(1) Not applicable as based on foundry and welding work not specific to this product

(2) Sources: Office des Changes: Press articles, IEA, MASEN, MEN, Objectives Morocco NDC



Sheet N° 70- 2/2- Assembly of flat steel masts for wind turbines

Financial indicators * (indicative) :

| | |
|--------------------------------|-----------------------|
| Potential investment | 110 Mn MAD |
| Turnover | 900 - 1200 Mn MAD |
| Estimated selling price | 3.5 - 4 Mn MAD / mast |
| ROI | 1 year |
| EBITDA (as % of sales) | ~20 - 30 % |
| Jobs | 20 - 30 |

Human resources

HR skills needed

- Mechanical, metallurgical and structural engineering, quality control, logistics and transport, project management, welding

Training offers

- OFPPT (Laâyoune, Boujdour and Es-Smara branches) : Electrical engineering
- EST (Laâyoune branch) : Professional degree in renewable energies and water desalination

Raw materials and suppliers

Main inputs

- Galvanised flat steel

Main suppliers

- Morocco: Galvanised flat steel rolls (eg. MaghrebSteel, Riva Industries)

Investment elements

Potential land

Target provinces

- ✓ Laayoune ✓ Es Smara ✓ Boujdour ✓ Tarfaya

Type of land

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

Area

10 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

Solar Cluster, AMEE (Moroccan Agency for Energy Efficiency)

Other

TAEHIL" programme, "IDMAJ" programme

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* Figures based on an average height of 100 m / mast and 1200 EUR / m - Source: Press articles and expert interviews

* Average weight of a wind turbine mast of around 550 T of galvanised steel - Source: Commission Nationale du Débat Public (CNDP France)