

Sheet N°72- 1/2- Solar panel recycling unit

Description



Recycling unit for photovoltaic panels with the following main components: collection system, dismantling, sorting and recovery of panel components

Main customers : Aluminium foundries, glazing industry, PV producers, others

Sector and sub-sector: Renewable energy industries

Complexity of the product¹

NA

Key facts

- To date, ~300k solar panels installed in the Region today, with an ambition of additional PV capacity of ~4.1 GW by 2025
- Recycling potential of several materials from solar panels: glass, aluminium, silicon ... that can be used for circular economy objectives for domestic industry
- Ambition to recycle photovoltaic panels used in solar parks expressed by national private operators (eg. MASEN)

Prerequisites (2)

- Control of the collection circuit for solar panels,
- Setting up a distribution channel for recycled components to previously identified customers

Market indicators

Target market(s) :

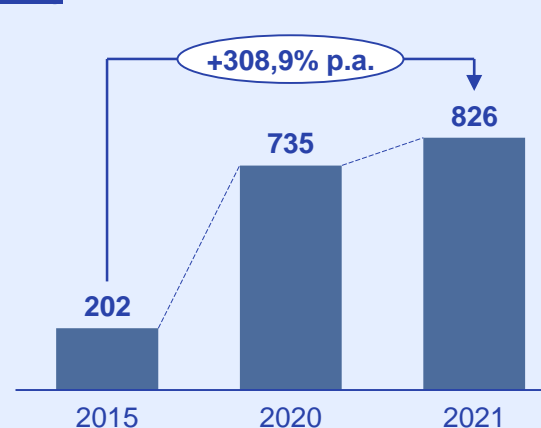
Target market(s), (from highest to lowest priority) to be addressed :



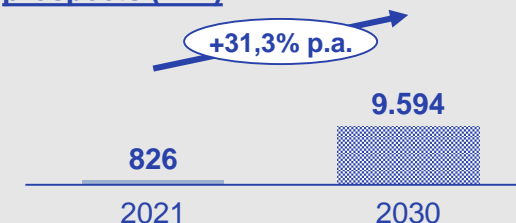
National and local: To become part of the circular economy that is essential for the energy sector

Market size and development (3)

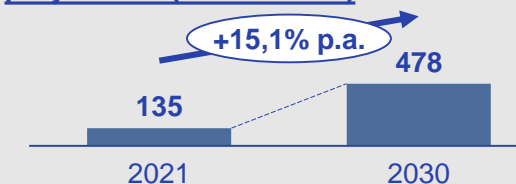
National installed solar energy capacity (MW)



National solar energy growth prospects (MW)



Global PV panel recycling market projections (USD million)



(1) Not applicable - may result in several types of end products (e.g. float glass, aluminium)

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



Sheet N°72- 2/2- Solar panel recycling unit

Financial indicators (indicative) :

Potential investment	10 - 15 Mn MAD
Turnover	25 - 30 Mn MAD
Estimated selling price	50-70 MAD/kg
ROI	2 - 4 years
EBITDA (as % of sales)	12 - 25 %
Jobs	50 - 70

Human resources

HR skills needed

- Mechanical engineering, chemical engineering, hazardous waste treatment, process engineering, collection logistics

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

- Photovoltaic panels
- Recycled product packaging bags
- Solvents, acids

Main suppliers

- Morocco: Photovoltaic panels, packaging, solvents and acids

Investment elements

Potential land

Target provinces

- ✓ Laayoune
- ✓ Tarfaya

Type of land

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

Area

8000 m²

Average land price

Unified Regional Investment Commission (CRUI)

Mode of mobilisation

Unified Regional Investment Commission (CRUI)

Main investment benefits

Grant

Support for training

Other

TATWIR GROWTH Programme GREEN", ISTITMAR SME programme IDMAJ" programme, "TAEHIL" programme TAMWILCOM "Green INVEST" programme

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