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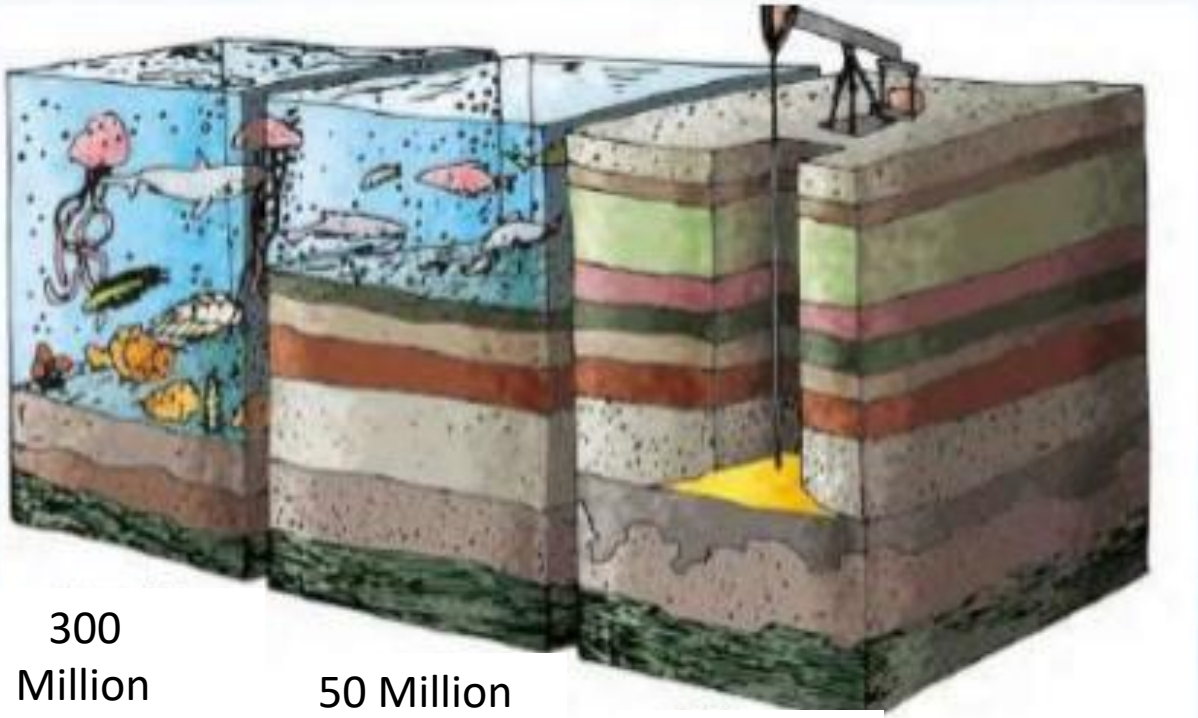
Fossil fuels



300 Million years ago

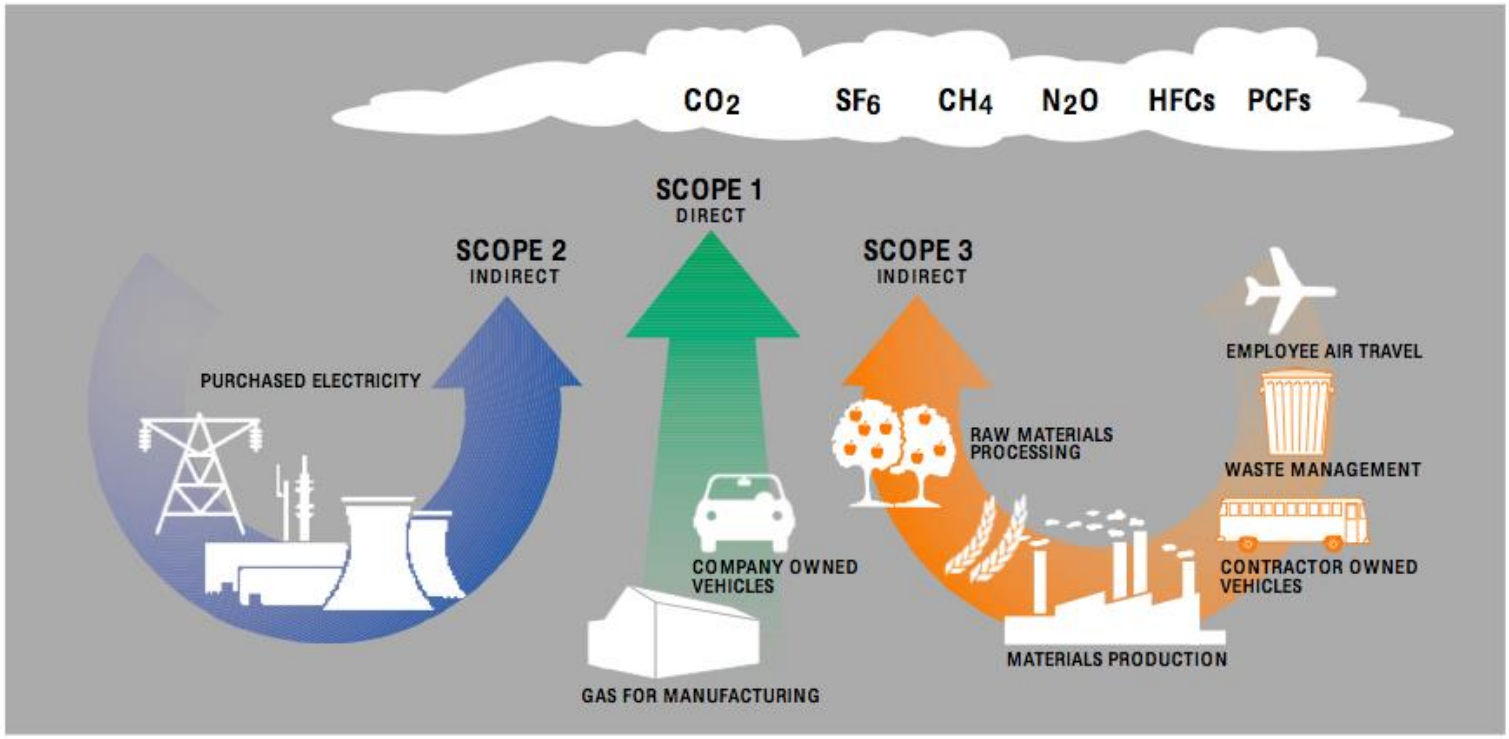
50 Million years ago

Today

The problem: Emissions

All that Carbon, captured during more than 3.000.000 centuries is being suddenly released during last 2 centuries:

How can we reduce the emissions that cause climate change?



Thermosolar Energy: key technology for achieving the decarbonization of the industry as it is able to produce Electricity or Heat around the clock.

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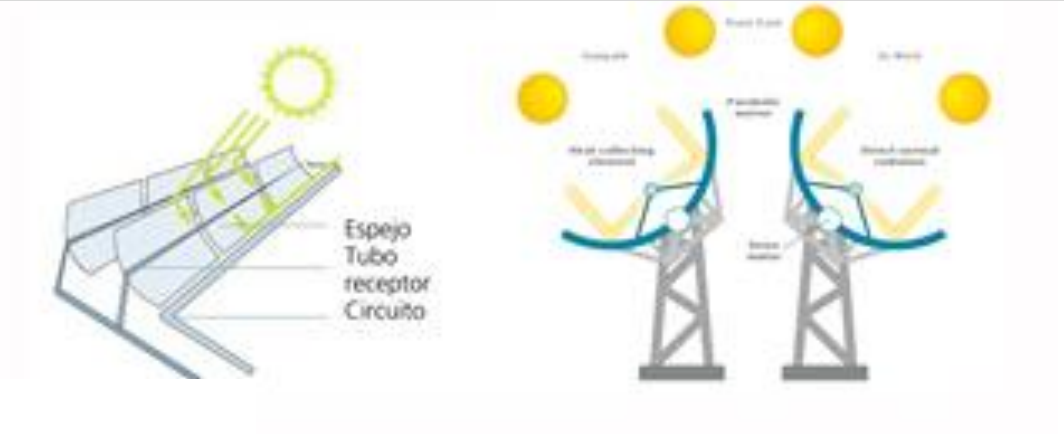
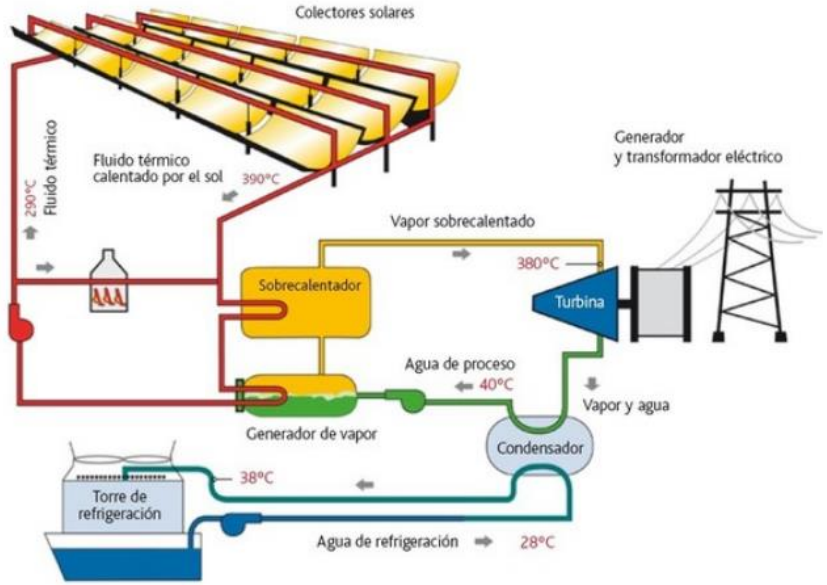
Sun and Glass: Strategic Alliance against climate change

Mirrors, facets and receivers are the glass components of the Solar Field, to contribute to reduce the **Scope 2 carbon emissions.** Our products are installed in the most important solar power plants worldwide.

Thermosolar Energy: Electricity production





* Storage: Already resolved !!

* Production of electricity 24 h/day.

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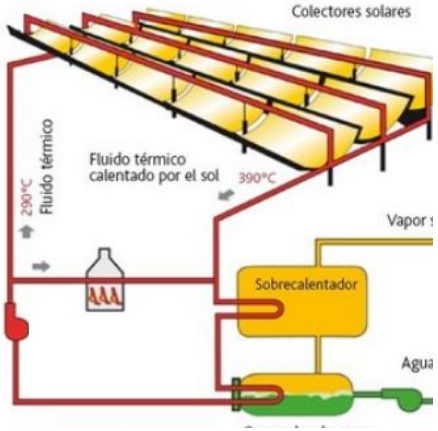
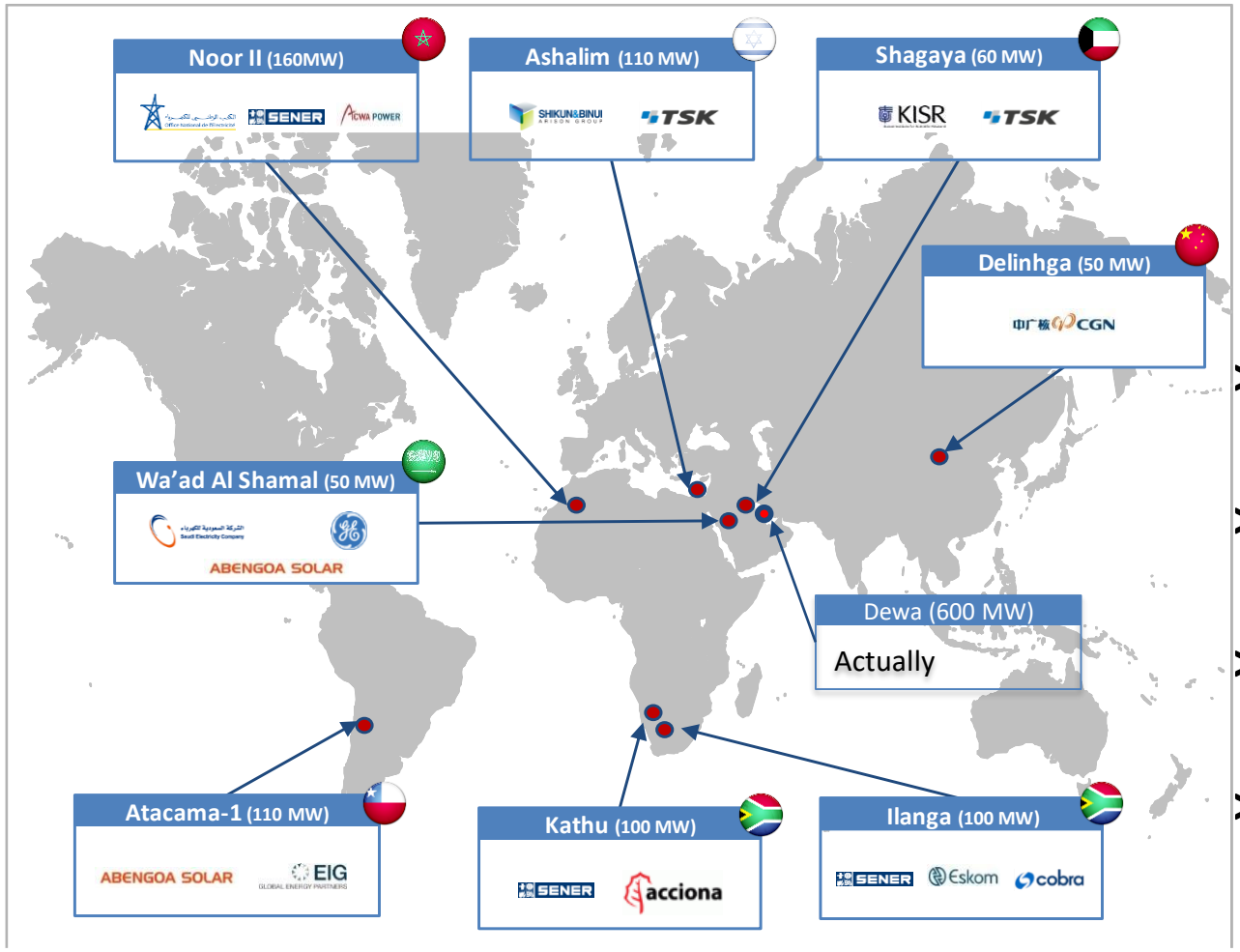
Thermosolar Energy: Heat production for the industry

Mid temperature collector is an innovative, optical and thermally optimized Fresnel system designed for reducing **Scope 1 and even Scope 3 Carbon Emissions** in the core processes of industrial and mining companies, displacing fossil fuels by Solar Heat



NO EMISSIONS !!
NO OPEX !!

Thermosolar projects (electricity production) in the last 3 years



Total figures:

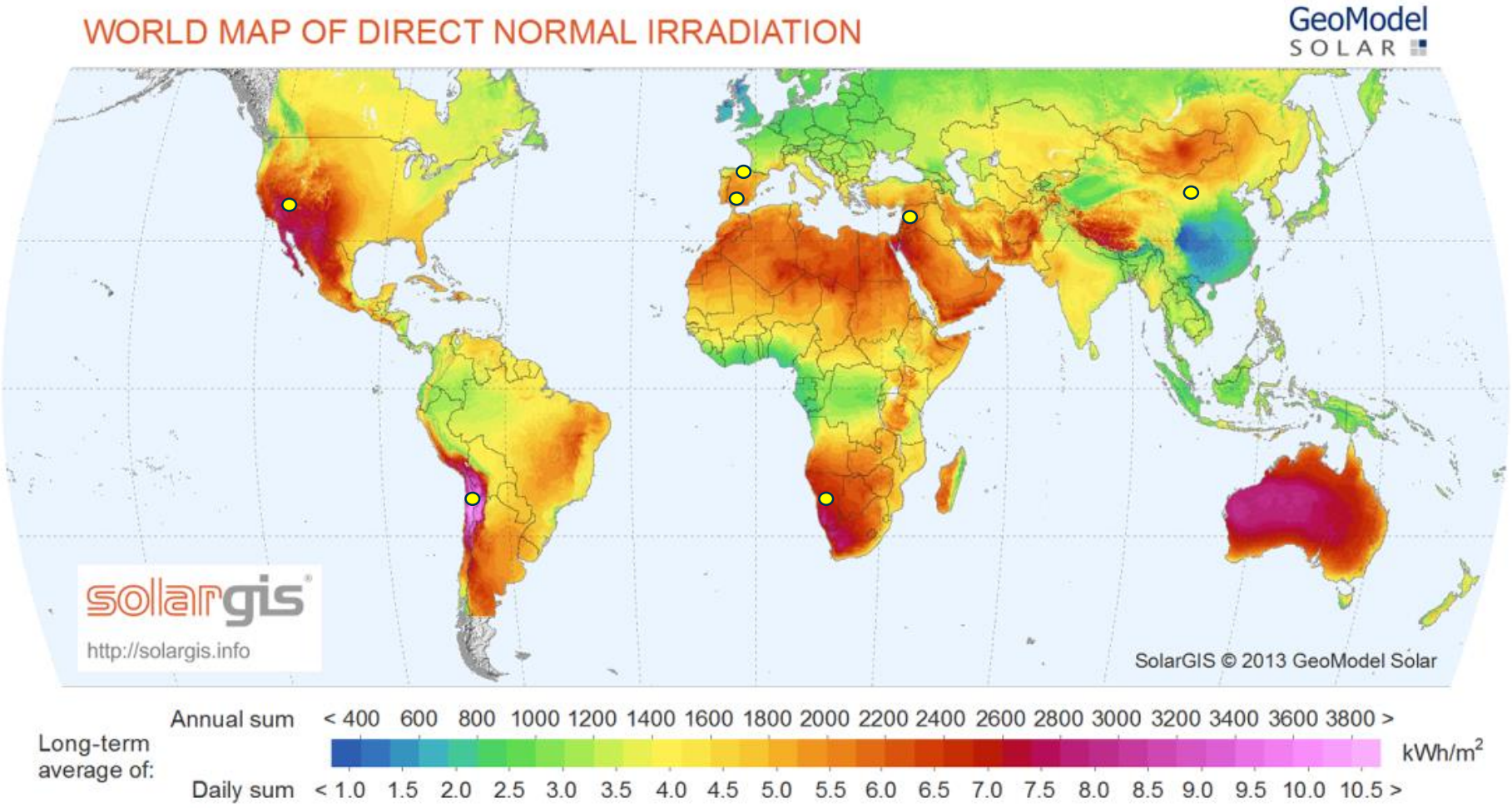
> 2,5 million receivers

> 12 million mirrors

> 80 CSP projects

> 5 GW

Rioglass factory



There are several countries strongly pushing for thermosolar.
Announced programs to be installed before 2030 in

Spain	5 GW
Saudi Arabia	2,7 GW
China	3 GW
Chile	
Morocco	
Egypt	

Supporting CSP, all these countries are helping to reduce the CO2 emissions.

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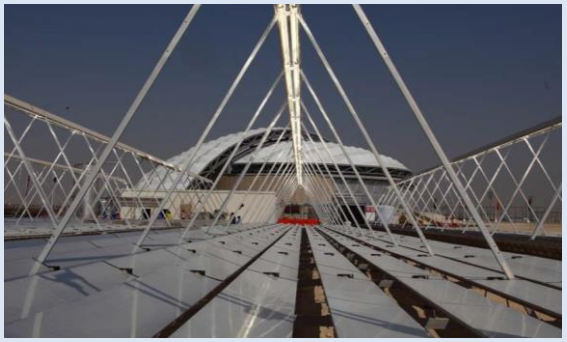
Key Components of Solar Thermal Plants: Receivers & Mirrors

Parabolic Trough

Central Tower

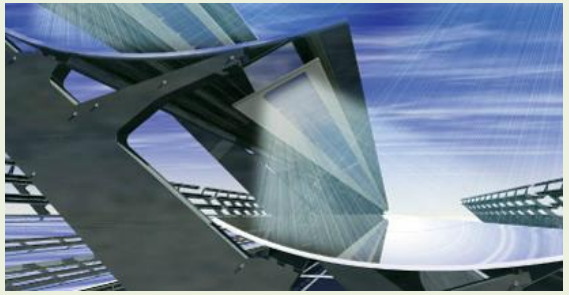
Linear Fresnel



Parabolic dish

Industrial Applications

CPV



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Parabollic mirrors and receiver tubes

Quality and long-term performance stability have a decisive influence on the overall plant performance

The Receivers and Mirrors:

- Are the most important but also one of the most sensitive components in a CSP Plant.
- Need to be resistant to mechanical and thermal stress.
- Need to show long-term performance stability and keep maintenance costs low during operation.

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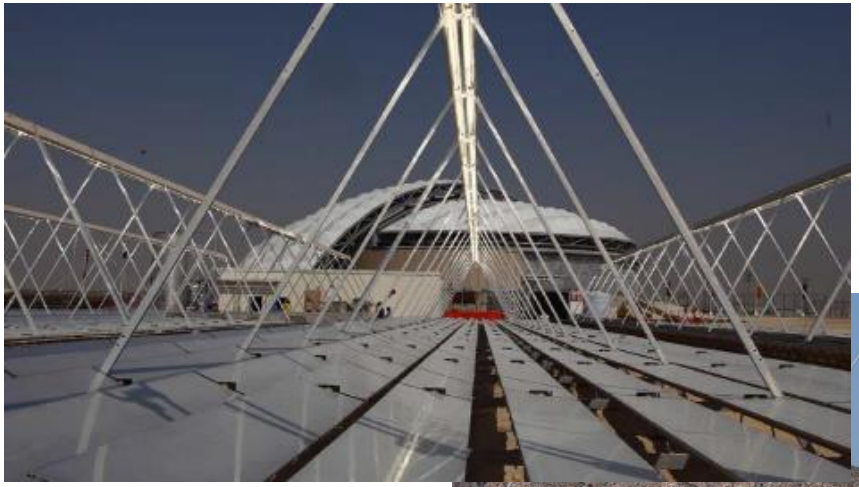
Tower: facets

- Higher reflectivity trought 2mm low iron glass
- High accurate spherical bending radius
- Mirror uniformly bent to a spherical radius, full backside supported (non partial attachments or unsupported areas producing local surface deviations)
- Rigid mechanical continuous back support, including tailored inserted attachment nuts
- Standard size: 3.210 x 1.350 mm (4.3sqm),

2% more energy input on the tower means 2% less solar field to get the same power and thus 2% net cost reduction for the project, improving the IRR.

LINEAR FRESNEL

Linear Fresnel



Qatar

Spain

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Solar Heat

- Highest optical accuracy.
- No secondary reflector required.
- Fully tempered safety mirrors.
- Breakthrough V-shape design.
- Only company that designs and produces its own mirrors and receivers.
- Highest power density per surface of land occupied in the industry.
- Proven end-user solutions provided.

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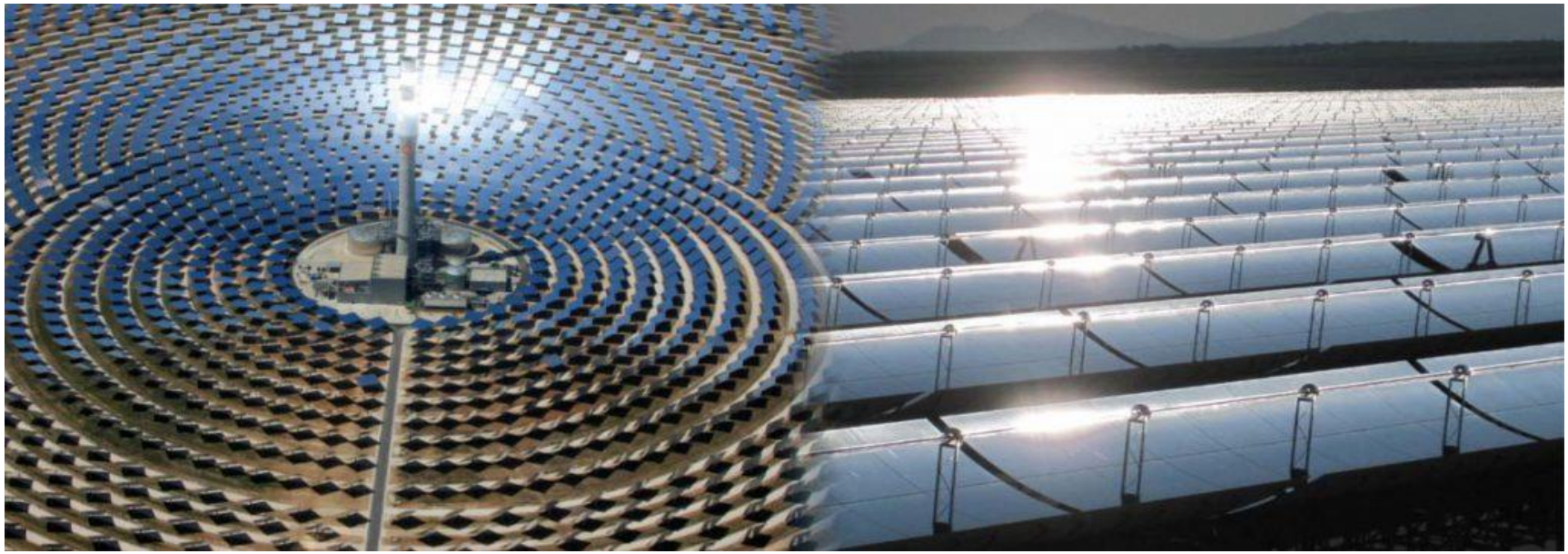
Summary

- The problem: Emissions.
- Thermosolar Energy offers different solutions to the problem, and all are completely developed.
- Sun and Glass: Strategic Alliance against climate change.



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