



## BUSINESS AND MARKETING STRATEGIST

Mexican roots and German know-how

16 years of experience in the solar thermal industry



SPEAKER  
CREATOR  
PODCASTER  
NETWORKER



FOUNDER



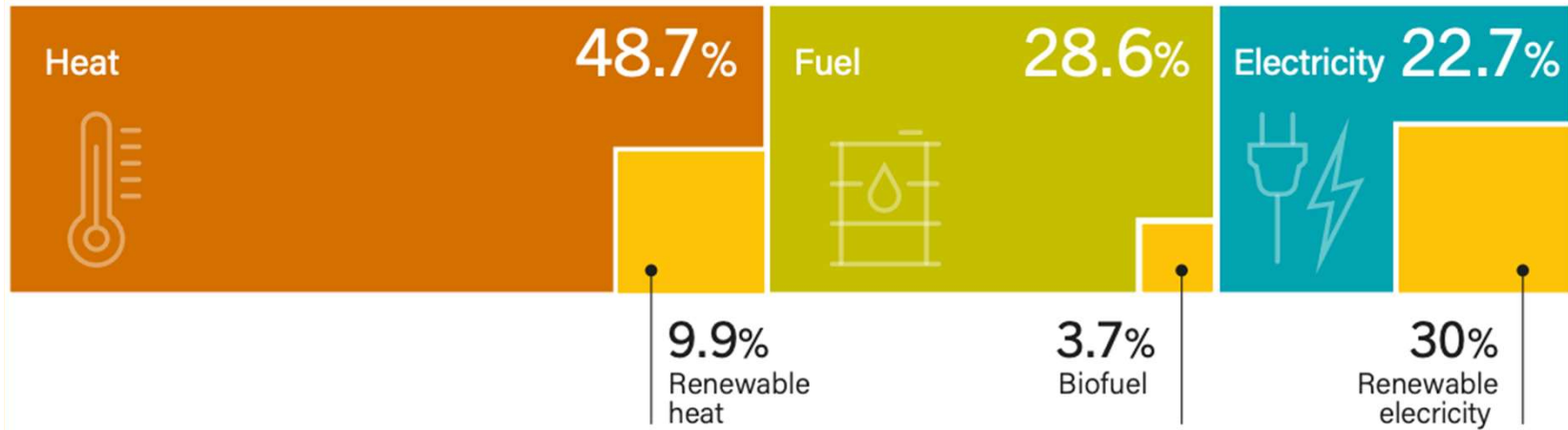
SECRETARY FOR INTERNATIONAL AFFAIRS



MARKETING AND PUBLIC RELATIONS



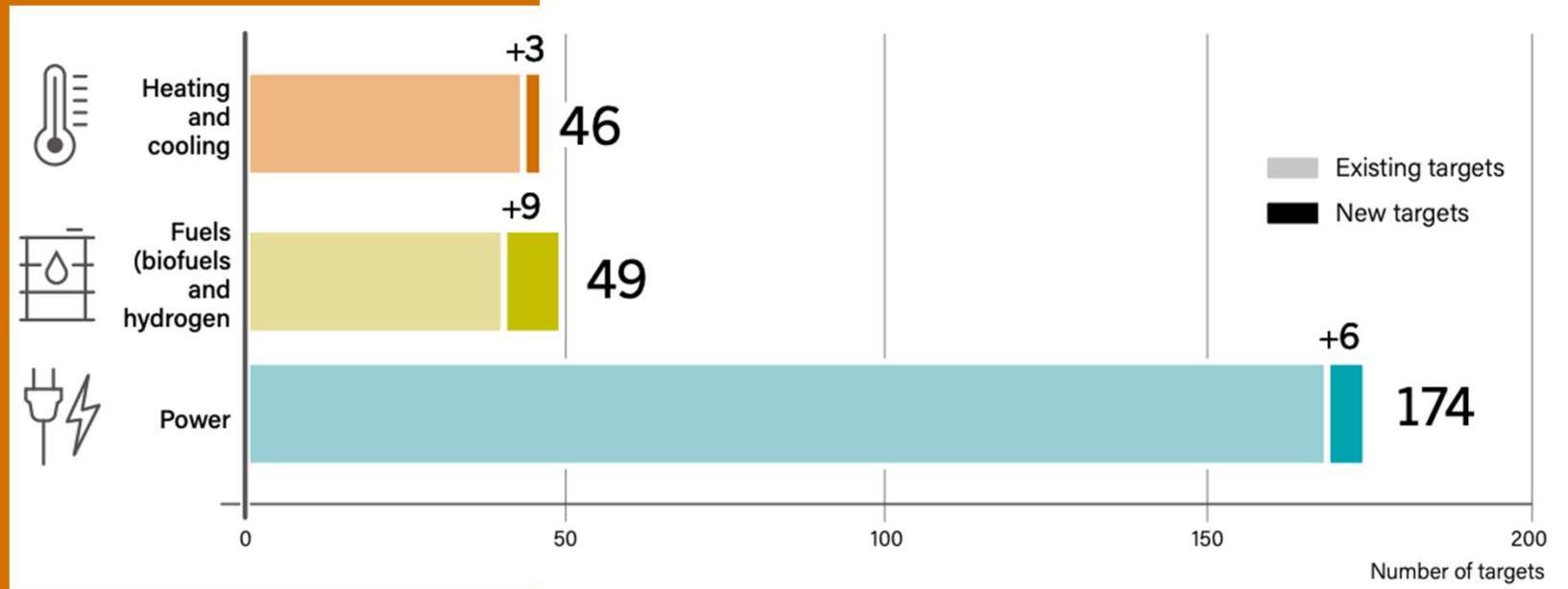
# #HeatIsHalf



Total final energy and total modern renewable energy share, by energy carrier, 2020

Source: REN 21, Renewables 2023 Global Status Report – Renewables Energy Supply, p12.

# #HeatsHalf



## Renewable targets, 2022

Source: REN 21, Renewables 2023 Global Status Report – Renewables Energy Supply, p12.

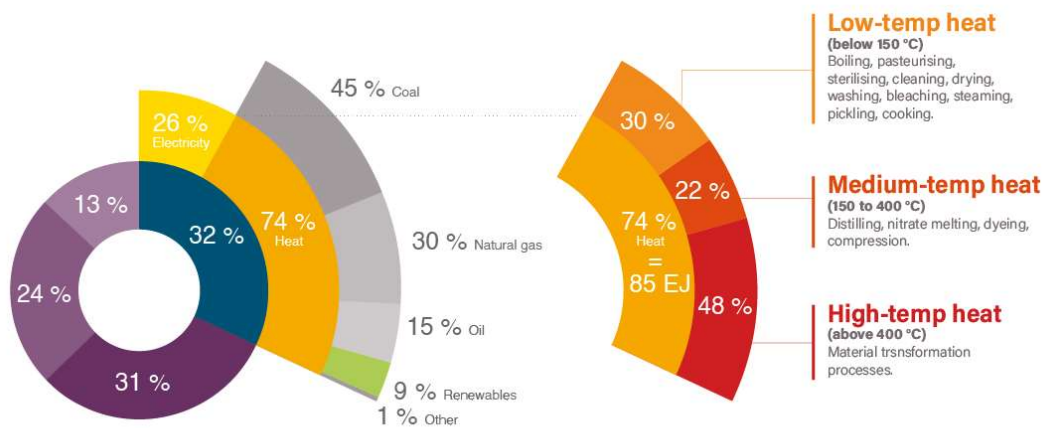
# #HeatsHalf

**Industrial processes** are responsible for 53% of the final energy consumed for heat

44% is used in **buildings** for space and water heating and, to a lesser extent, cooking. The remainder is used in **agriculture**.



# FINAL ENERGY CONSUMPTION FOR HEAT IN THE INDUSTRIAL SECTOR



● INDUSTRY ● TRANSPORT ● RESIDENTIAL ● OTHER

TOTAL FINAL ENERGY CONSUMPTION 2014: 306 EJ (EXAJOULE): IEA IRENA

“Using more electricity for process heat expands renewable heat consumption, but not enough to curb fossil fuel use.”

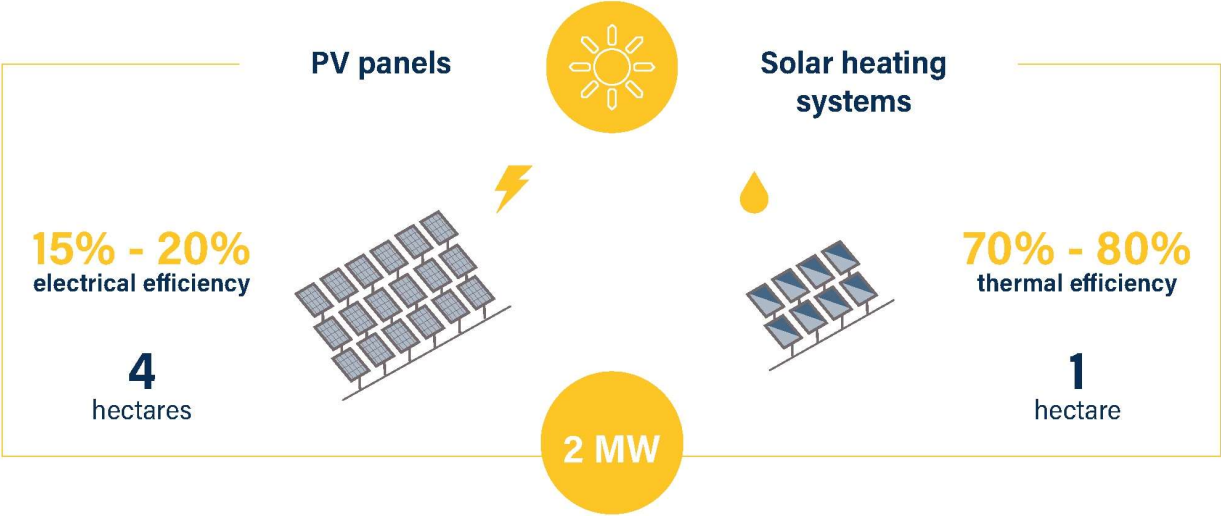
<https://www.iea.org/reports/renewables-2023/heat>



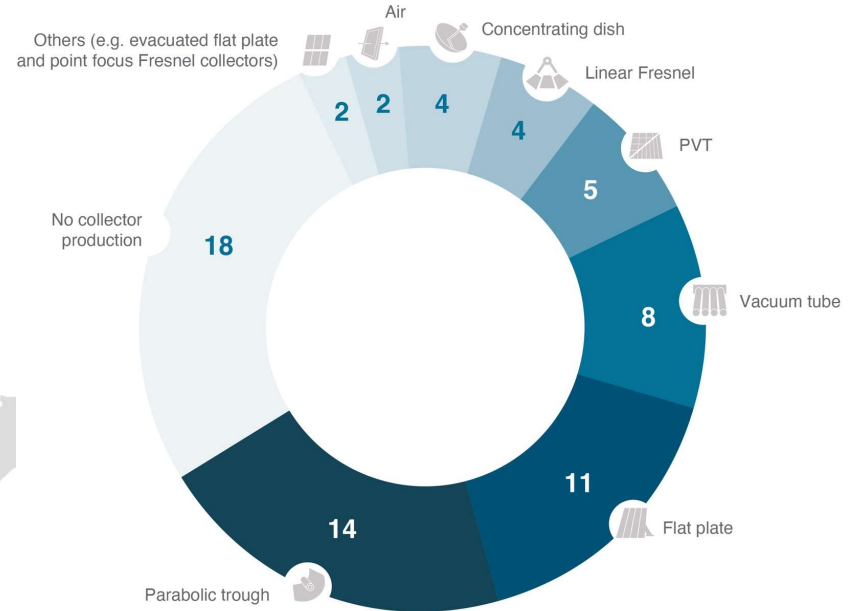
# Solar Heat for Industrial Processes (SHIP)

- **Technology:** multiple solar thermal collectors for different temperature levels and heat transfer mediums (water, air or steam)
- **Installation** on roof, façade, ground
- **Compatibility** with heat pumps and other technologies
- **Incentive programs** in Germany, Netherlands, Spain, Austria, Italy...
- **Heat as a service:** HPA, TPA

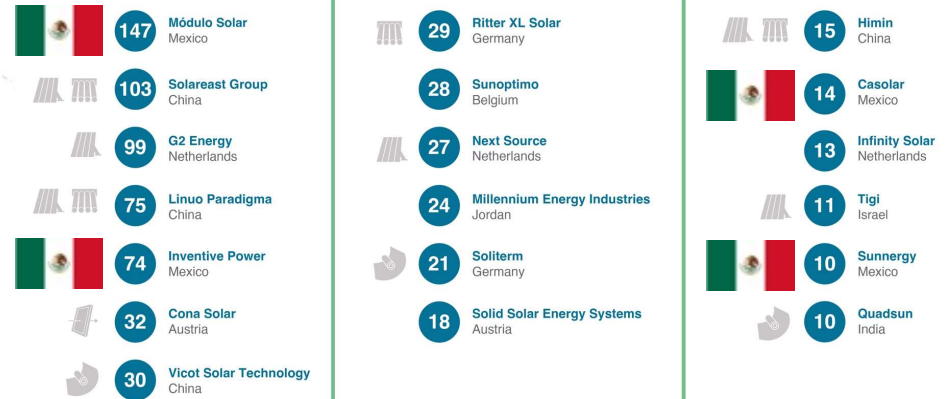




# 68 Manufacturers and System Integrators from 25 countries



## Installed projects



Source: Solar Payback

Source: Natural Resources Canada/Solrico, April 2024



Photo: IMAGESinAIR Productions



At least **1,209** industrial and agricultural businesses use solar heat globally



IEA Solar Heating & Cooling Programme | [www.iea-shc.org/solar-heat-worldwide](http://www.iea-shc.org/solar-heat-worldwide)



## MEXICO

Country with the highest number of SHIP plants installed

- **119** plants (21 MW<sub>th</sub>) by the end of 2023
- Average size: 184 m<sup>2</sup>







Photo: TVP

## PANAMA

Poultry

- 85 collectors, 215 m<sup>2</sup>
- Water storage: 20,000 l
- 193,589 kWh year
- Emissions reduction: 50.59 tons of CO<sub>2</sub>



Photo: Neo Energy

## BRAZIL

Beverage industry: PepsiCo

2,000 m<sup>2</sup> SHIP plant to heat the TODDYNHO® preparation liquid to 90°C saving more than 230,000 m<sup>3</sup> of natural gas per year, operating from April 2023.

Emissions reduction: 460 tons of CO<sub>2</sub> per year, equivalent to planting around 80 thousand trees.

Goal: reducing emissions greenhouse gases (GHGs) and achieving Net-zero by 2040.

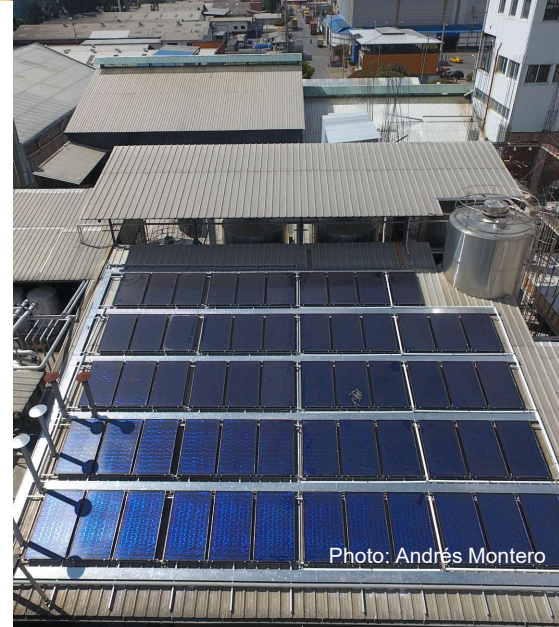


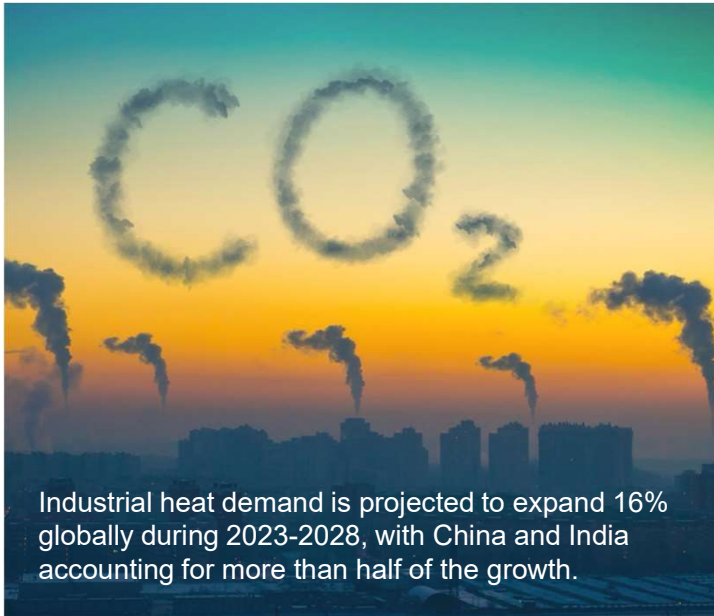
Photo: Andrés Montero

## ECUADOR

Pilot project: Dairy industry

- 58 collectors, 160 m<sup>2</sup>, 110.6 kW<sub>th</sub> installed capacity
- 45°C for cleaning and washing processes
- Swiss partner SPF Institut für Solartechnik
- Supplier: Soltec-Ecuador

# OUTLOOK



The share of **renewable energy** sources in global **industrial heat** consumption will raise only slowly, from 12% in 2022 to **15% in 2028**.

IEA Renewables Report 2023

## Upcoming large SHIP projects:

**1.5 GW<sub>th</sub>** for an aluminium refinery in Saudi Arabia (Glaspoint), reduction of 600,000 tons of CO<sub>2</sub> annually, 2026

**154 MW<sub>th</sub>** for Chilean copper mines (Gasco), 2025

**16.4 MW<sub>th</sub>** malting plant in Croatia

Solar Heat Worldwide 2024



Miraah in Oman- the largest SHIP plant worldwide. Photo: Glaspoint

## 2.1 million companies in the manufacturing sector in the EU

66% big (+250 employees)  
33% small and medium sized

Eurostat







**DECARBONIZE**

**HEAT**   
**CHANGERS**

# **SUSTAINABILITY IS THE NEW BUSINESS ESSENTIAL**

## **INVESTORS EXPECTATIONS**

Environmental, Social and Corporate Governance (ESG) criteria.

## **REGULATORY COMPLIANCE AND LEGAL OBLIGATIONS**

Emission reduction goals, NDCs, local regulations.

## **RESILIENCE AND RISK MITIGATION**

Resource scarcity, geopolitical tensions, volatile energy prices and restricted supply.

## **INNOVATION AND MARKET OPPORTUNITIES**

Competitive advantage, access to new markets (nearshoring in Mexico), grants and tax credits (IRA in the USA).

## **CONSUMER PREFERENCES**



## Join us and help is to

- show that Solar Heat can compete with other energy sources.
- provide evidence that solar heating is worth it, financially and ecologically.
- reduce uncertainty and awaken interest by providing useful and easy-to-understand technical facts.



## Some of the things we do:

- ✓ Podcasting
- ✓ Blogging
- ✓ Videos
- ✓ Infographics
- ✓ Testimonials
- ✓ Alliances
- ✓ Networking



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