

# A FAST AND JUST ENERGY TRANSITION IN THE HEATING AND COOLING SECTOR

## 01 THE ENERGY TRANSITION IN THE HEATING SECTOR



We have until 2030 to make our energy systems **sustainable** and **renewable**!



The heating sector represents **49%** of European final energy demand.

Heating systems have an average lifetime of 20 years or more, so fossil fuel systems installed in 2030 could still be there beyond 2050. It's time to act, now!



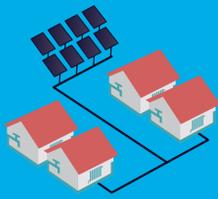
## 02 SOLAR THERMAL ENERGY: A COMPETITIVE AND MATURE TECHNOLOGY



Solar thermal technologies absorb sunlight through a collector and convert it directly into heat - it's different from solar photovoltaic panels, which produce electricity.

### Competitive

Renewable heating is increasingly competitive ...



Solar district heating costs

**20-30 EUR/MWh**



Gas boilers heating costs

**28-35 EUR/MWh**

... and could save Europe €100 to €200 billion a year of imported fuel costs.

### Scalable



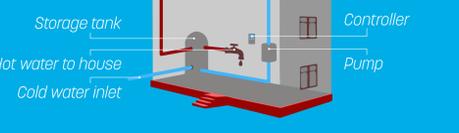
Solar thermal energy can be used for different applications, from swimming pool heating (20 °C) to industrial processes (above 250 °C).

It's a technology that can be used by households, by cities for district heating or by industries like breweries, mining and textiles.



### Storage

Thermal energy storage is already a built-in feature of solar heating systems. Currently, there are **over 10 million solar domestic hot water storage systems** installed in European households.



District heating systems also use solar thermal systems with seasonal storages to cope with summer-winter fluctuations, taking energy management beyond short-term daily storage.

## 03 SOLAR THERMAL ENERGY FOR EUROPEAN CITIZENS

### A no-regrets option for a cleaner environment



A single domestic solar thermal system in Greece can save up to 1.5 tons of CO<sub>2</sub> per year. This is the equivalent of the emissions produced by an average European car in a year! Solar thermal can be added to other technologies to reduce CO<sub>2</sub> with no regret.

### A driver for sustainable local jobs



Renewable heating provides clear benefits for local economies. With 90% of the products installed in Europe being of European origin, solar thermal can replace energy imports with clean energy produced locally, creating new business and new jobs.

### Reliable and sustainable energy systems



Combining decentralised and centralised renewable energy generation increases the resilience of energy systems, reduces risks from external factors and increases security of supply - all while investing in solutions that address climate change.

## 04 POLICY ASKS



### A Renewable Heating & Cooling Package

Renewable heat needs to play a core role in the energy transition. The EU needs to design a Renewable Heating & Cooling legislative package that focuses on bringing sustainable heating systems to all Europeans.

### Invest in renewable heating



The EU has a moral obligation to ensure tax payers' money will not subsidise fossil fuel lock-in.

How? European funds, like the European Regional Development Fund (ERDF) and the Cohesion Fund must support local investment schemes in a sustainable heating and cooling.

Research & innovation funds should invest in pilot projects aimed at adapting solar heat technology to large-scale industry installations.

Also, the EU must ensure that an ambitious renewable heating & cooling strategy is included in all EU countries' National Energy and Climate Plans (NECPs).



### Prioritise planned replacement of heating and cooling systems

Currently, most consumers change their heating system only when it breaks down, so they prioritize a quick replacement rather than a sustainable version.

If political authorities promote planned replacement, renewable heating clearly becomes the best choice for consumers and the environment.



### Encourage the creation of highly-skilled workforce

Renewable technologies, including solar thermal, support Europe's industry and sustain thousands of local jobs. However, there is a real lack of skilled workers in the commercialisation, installation and maintenance of renewable heating systems. European countries must make sure society promotes and values these career options.