The lights will stay on with 50 million heat pumps

Online Policy Seminar

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The European Heat Pump Association aisbl / founded 2000

146 Members
Heat pump manufacturers
Component manufacturers
National associations
Consultants
Research & test institutes

22 countries represented

International cooperation
CECA, IEA, IEA HPC, IRENA, HPCJ

Vision
In a fully decarbonised Europe, heat-pump technologies are the number one heating and cooling solution, being a core enabler for a renewable, sustainable and smart energy system.
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The development curve of heat pump recognition rejection

- HP use too much electricity
- ... Maybe for new builds, but not suitable for renovation
- Seriously?
- ok, also industrial
- district heating?
- HP renewable and efficient .......... but only residential
- energy efficient vs.
- renewable
- OK, maybe geothermal?
- Well, ok, HP work, but too expensive ...

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Industrial HP?
Numbers not integrated with the rest of statistics

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Heat pump benefits 2020
Based on 14.8 million heat pumps installed

Thermal capacity

120 GW

Useful energy

250 TWh

Renewable energy

159 TWh

Fossil final energy savings

203 TWh

CO₂ savings

40.6 Mt

Clean air

No PM at point of operation

Demand response potential

Up to 3.4 TWh

Auxiliary energy

If auxiliary energy is green, heat pumps provide 100% green heat

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Heat pump manufacturing happens across Europe

- 165+ manufacturing sites
- SME based
- Often located in rural/remote areas
- Turnover of 8.2 billion €
Employment impact of heat pumps (89 784 FTE)

- Heat pump manufacturing: 37% (33k jobs)
- Installing of HP: 29.5% (26k jobs)
- Component manufacturing: 18.5% (17k jobs)
- Service and Maintenance: 15% (14k jobs)
RES in heating and cooling (Eurostat Shares)

RED: 1.3pp growth per year

Reality < 1pp annual increase of renewable share

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EU Energy systems integration strategy

10 – 15 mio office & commercial buildings

90 mio residential single family units

15 mio residential multi family units

65%

7-10 mio heat pumps

42 mio heat pumps

40%

todays HP stock

x 4

+ industry approx. 200 TWh = 0,1 mio
IEA report: net zero by 2050 (2021)

By 2050, over 85% of buildings are zero-carbon-ready, reducing average useful heating intensity by 75%, with heat pumps meeting over half of heating needs.

For industrial heat pumps: +500 MW per months until ‘50
The large-scale roll-out of electric heat pumps will not jeopardize the security of supply of electricity, not now and not in the future.
The large-scale deployment of heat pumps as forecast in the energy system integration strategy

- Will not jeopardize grid stability nor security of supply,
- Will significantly increase energy efficiency in buildings,
- Is needed to achieve ALL EU energy and climate objectives and improve air quality,
- Helps integrate much higher shares of renewable electricity in the grid,
- Will lead to a more stable grid, thanks to smart capabilities enabling demand side flexibility.
We encourage the European Commission, the European Parliament and the council

- Keep **ambition levels high** for the electrification of Europe
- **Promote** efficient electrification of heating and cooling
- Set forth a coherent **implementation agenda** including early and dedicated announcements as well as regulatory and financial support