



The lights will stay on with 50 million heat pumps

In the proposed EU strategy for Energy Systems Integration, the Commission foresees 40% of all residential and 65% of all commercial buildings being heated with electricity by 2030. Electric heat pumps will play a central role in the path towards decarbonizing heating and cooling over the next 10 years and beyond.

Electric heat pumps are the most cost-effective solution to substantially reduce CO₂ emissions and energy demand, while improving air-quality, especially in cities. Switching from fossil fuel boilers to electric heat pumps will reduce final energy consumption in buildings by more than 66%, and will reduce the CO₂ emissions generated by heating end-uses at European level by at least 60%, potentially bringing it close to zero. Even if the remaining heat demand was fully supplied by heat pumps, the need for additional electricity would be limited compared to today's demand and generation capacity. Constant energy efficiency improvements in both buildings and equipment will limit any potential increase. Electric heat pumps are three times more efficient than gas boilers and, will therefore be a major contributor to energy efficiency, while at the same time being an important source of renewable heating and cooling with no exhaust emissions.

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 EU electric network is a robust and meshed system. Operators have been working together for decades to ensure a constant and high level of grid stability and have successfully faced similar challenges in dealing with the millions of electric devices which have been deployed in all households across the EU in recent years. The network is already being continuously updated to meet new demand requirements and the reinforcements needed will be within the usual network investment plans. Electricity networks can rely on an already highly interconnected and regulated market, complying with harmonized European rules (Network Codes), which have been further strengthened by the Clean Energy Package.

In addition, smart control functions are increasingly embedded in this equipment. Electric heat pumps are now connected products, making it possible to offer remote monitoring services. Soon it will also be possible to offer remote maintenance. Connectivity also paves the way for controlling heating and cooling installations, with the aim of coupling electric heat pumps with renewable electricity generation and providing flexibility to the electricity system.

The European market for electric heat pumps has been grown solidly and sustainably for several years. It creates direct jobs (manufacturing) and indirect jobs (distribution, installation, maintenance, and repair) from a strong European market as well as from exports. Heat pump technology is today ready to be deployed in most existing buildings, let alone those build new or undergoing energetic renovation. Shifting the building stock and industrial processes to heat pump technologies will not only help Europe to achieve its energy and climate targets, reduce its reliance on imports and increase its energy independence.

Despite the benefits offered by electric heat pumps, the penetration of this technology in Europe is currently only 10% for the building sector.

It will require a strategic approach and a coherent implementation agenda to increase this share to the expected levels. Consequently, regulatory, and financial support is required to remove barriers. In this context, the Green Deal, through its Renovation Wave, the system integration strategy and the industrialization strategy, offers a unique opportunity to set out a proper regulatory framework that boosts momentum on electrification of the building sector and industry.

We, the undersigning parties, confirm that **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 thus encourage the European Commission and the Member States to further promote the efficient electrification of heating as part of the energy transition, the EU Green Deal, and the fit-for-55% package. Electrification is a reliable solution towards a zero emission Europe.



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