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EU Strategy for Energy System Integration

EU to unlock the potential of the heat pump sector in decarbonising the energy system

On 8 July 2020, the European Commission published its EU Strategy for Energy System Integration. The Strategy identifies heat pumps as one of the key technologies for achieving its aims. In 2021, the European Commission will review the Energy Efficiency Directive, the Renewable Energy Directive, the Energy Taxation Directive, and consider the extension of the EU emissions trading system (EU ETS) to new sectors in order to boost the deployment of heat pumps and district heating and cooling systems.

Energy system integration is the coordinated planning and operation of the energy system across multiple energy carriers, infrastructures, and consumption sectors, for a more efficient, circular, and reliable energy system.

The EU Strategy for Energy System Integration sets out a vision on how to accelerate the transition towards a more integrated energy system, including concrete policy and legislative measures at EU level.

Core concepts of the EU Strategy for Energy System Integration

The Strategy identifies direct electrification and renewable heat as being among the most cost-effective and energy efficient decarbonisation options. In its Strategy, the Commission notably spells out its aims to:

- increase the reuse of waste heat from industrial processes, data centres and other sources
- enable the exchange of heat between energy customers in smart district heating and cooling systems
- increase the deployment of heat pumps for space heating and cooling, and for low-temperature industrial processes
- boost thermal storage technologies for energy flexibility and arbitrage between the power and heat sector

Policy and legislative measures to accelerate the transition

To achieve its aims, the Commission will thoroughly review existing energy legislation in 2021. Eurovent will contribute to the public consultations and impact assessments that will inform the preparation of the follow-up proposals.

Energy efficiency and renewables

The Energy Efficiency Directive and Renewable Energy Directive will be reviewed in June 2021, with a view to introducing strengthened requirements for connection to district heating and cooling networks, energy performance accounting and contractual frameworks.

It also includes a review of the Primary Energy Factor in the Energy Efficiency Directive, in order to fully recognise energy efficiency savings via renewable electricity and heat, and a review of the sectoral targets set out in the Renewable Energy Directive.

Energy markets, taxation, and state aid

In order to level the playing field in the energy sector, the Commission will review the State aid framework and the Energy Taxation Directive in 2021 with the aim to avoid double taxation of energy storage and phase out direct fossil fuel subsidies.

The Commission will also consider extending the EU ETS to new sectors to provide more consistent carbon price signals across energy sectors.

Building renovation

As part of the Renovation Wave initiative, the Commission aims to promote further electrification of buildings' heating, in particular through heat pumps. In the residential sector, the share of electricity in heating demand should grow to 40% by 2030 and to 50-70% by 2050. In the services sector, these shares are expected to be around 65% by 2030 and 80% by 2050.

Digitalisation

The Commission recognises the importance of digitalisation in supporting energy system integration and plans to develop a related package of measures. In 2021, it would develop a Digitalisation of Energy Action plan in order to foment a competitive market for digital energy services that ensures data privacy and sovereignty and supports investment in digital energy infrastructure.

Recommended Actions

The full text of the EU Strategy on Energy System Integration can be found in the right sidebar. Members are encouraged to provide feedback on the initiatives to the Eurovent Secretariat in preparation of the follow-up proposals.

Related documents and links

All related documents and articles can be found in the respective sections in the right sidebar.

- GEN – 1138.01 – Powering a climate-neutral economy - An EU Strategy for Energy System Integration