Position Paper
Heating & Cooling Strategy

October 9th, 2025

Heating and cooling are among the most visible aspects of energy use for citizens, accounting for over 60% of household consumption and directly influencing comfort and health. In industry, process heat makes up around 60% of total energy demand, meaning that the price of heat and cold has a strong impact on competitiveness - especially as fossil-fuel heating costs are expected to rise.
For these reasons, EdEn welcomes the forthcoming publication of a European strategy on heating and cooling. In order for this strategy to yield maximum results in terms of decarbonisation and competitiveness for the EU's heating and cooling sector, EdEn recommends the following:

1) Establishing the "Emission Reduction First" principle

- In the previous mandate, the Commission pushed the "Energy Efficiency First" principle as a key element of the Fit for 55 package. However**, despite energy efficiency and energy savings clearly contributing to reducing GHG emissions, it will not be sufficient to achieve carbon neutrality** as energy consumption is necessary to the EU's economic activity and to the well-being of its citizens. Furthermore, new low-carbon processes, such as hydrogen-based steel industry or synthetic aviation fuels, require more energy than conventional processes. It is even expected that the energy transition will require an increase in energy consumption.
- In the context of the upcoming Heating & Cooling strategy, and in view of the EU's climate targets for 2030 and 2050, **the main goal should be to ensure that energy consumption is based on decarbonised energy that does not generate any GHG emissions** throughout their life cycle (production distribution and use).
- **For these reasons, EdEn believes that the Heating & Cooling Strategy should be based on the "Emission Reduction First" principle.** Practically this means that the performance of buildings, as currently defined by the directive 2024/1275 should no longer be only based on primary energy consumption but also on GHG emissions. This would allow reconciliating the main target of this directive (as stipulated in article 1: achieving a zero-emission building stock by 2050) with the provisions of the other articles, today mainly based on primary energy consumption reduction.

2) Fostering electrification as a key lever for Heating and cooling decarbonisation

Electricity is now recognised by the International Energy Agency and the European institutions as the energy that can make the fastest and most significant contribution to achieving carbon neutrality.

In order to accelerate the uptake of electricity in the context of the Heating & Cooling Strategy, EdEn recommends:

- **Updating or deleting the Primary Energy Factor in the EPBD.** In the EPBD, the energy performance of buildings is expressed through a primary energy consumption indicator. Member States should be able to express the energy performance of buildings in final energy as was the case until the 2018 revision of the EPBD. Primary energy is a conventional concept that does not reflect the amount of energy that is used and paid for by the consumer. The conversion into primary energy weighs on electricity consumption in a way that creates a notorious disincentive against certain decarbonised energy forms such as low-carbon hydrogen and nuclear power.
- **Strengthening the EPBD provisions encouraging Member States to phase out fossil fuel boilers in the EPBD by 2040 and providing support for their implementation.** In the recast of the EPBD adopted as part of the Fit for 55 package, Member States are required to outline policies and measures to decarbonising the heating and cooling sector, "including through the phasing out of fossil fuels, with a view to a complete phasing out of fossil fuel boilers by 2040". This provision needs to be strengthened so as to provide a mandatory deadline as regards commercialising new boilers, at the latest on 31December 2035. Certain heat pump models are already prohibited under the EU F-gas Regulation, whereas fossil-fuel boilers - despite higher emissions - face no comparable restrictions.
- **Member States should be encouraged to review their taxation of electricity and fossil fuels**, ensuring that decarbonised electricity is subject to a lower tax burden than the fossil fuels it competes with.
- **Excise duties, currently calculated on the basis of kWh consumed, should be calculated, in the case of electricity, on the basis of the subscribed power**, expressed in kW, so that consumers are encouraged to make the most of this power.
- **Facilitating the implementation of dynamic tariff prices across all Member States** as they make it possible for consumers to lower their energy bills when consuming during low demand and high renewable generation periods.

3) Supporting the electrical equipment and appliances industry

The transition from fossil gas heating equipment to energy efficient electric appliances and heat pumps require significant investments from households, which is a major factor in slowing down the uptake of low-carbon equipment.

- In order to alleviate the cost of this transition for EU citizens and to support the demand for low-carbon equipment, EdEn recommends adopting **mechanisms aimed at bridging the price gap between low-carbon equipment and fossil fuel solutions** through the use of ETS 2 revenues. These mechanisms could take the shape of tax rebates, low interest loans where interests and guarantees can be supported by the ETS revenues or purchase aid for consumers.
- In addition, Member States could be encouraged to **establish services of general economic interest that pool consumer demand for electric appliances and negotiate with banks** to secure more favourable loan conditions and interest rates for their purchase. These loans would be guaranteed by Member States but would not involve any public subsidies.

- As part of the more global EU strategy for industrial deployment, EdEn recommends **prioritising the deployment of industrial projects for electrical equipment and appliances** (heat pumps, electrode boilers, efficient electric radiators, batteries, etc.) as these solutions both contribute to the decarbonisation objective and the strategic autonomy objective.

4) Fostering the deployment of residential heat pumps

- In regards to heat pumps specifically, it is now widely acknowledged that they play a key role in decarbonising the building sector. For this reason, EdEn believes they should benefit from targeted support and that the upcoming Ecodesign legislation should be made coherent with the F Gas Regulation.

  In this regulation, the performance of heat pumps can be assessed not only on the basis of their energy efficiency but also on their **total lifecycle greenhouse gas emissions**. Article 11.2 of Regulation (EU) 2024/573 provides a framework for this approach, ensuring that refrigerant restrictions do not inadvertently result in higher overall CO_2 emissions by favouring less efficient technologies.

  Accordingly, the new MEPS that will be introduced under the Ecodesign implementing acts should reflect both (i) the new constraints faced by manufacturers under the F-Gas Regulation and (ii) **the need for a lifecycle-based assessment of emissions.** This would guarantee that heat pumps with higher efficiency, even when using refrigerants subject to restrictions, are not disadvantaged when their overall climate impact is lower.
- In addition, the quota system for fluorinated gases as defined in the F Gas regulation should adopt a broader perspective. **Specific quotas could be allocated to heat pumps,** recognising their central role in reducing emissions across the building sector. Overly restrictive quotas risk preventing the use of refrigerants which, despite their higher GWP, enable significantly lower lifecycle CO_2 emissions thanks to superior efficiency.
- **Heat pump rental services and innovative financing solutions such as subsidised/guaranteed low- or zero-interest rates should be encouraged,** similarly to what is done for electric vehicles.

5) Expand efficient district energy leveraging heat recovery and large heat pumps

- Creating obligations and incentives when opportunities for efficient district heating and cooling systems, based on industrial heat recovery (including data centers) or renewable or low-carbon sources, arise from heat mapping and cost-benefit analysis.
- Developing EU-wide guidelines for the implementation of waste heat recovery and reuse to ensure consistency and facilitate the sharing of best practices across the Union.
- Standardising contracts and technical requirements for supplying heat and cold to networks.
- Making waste heat recovery from industrial processes and data centers eligible for free allocation credits within the ETS to encourage adoption.

6) Supporting flexibility services with thermal storage

To support the electrification of heating and cooling systems, flexibility is key to balancing supply and demand in a grid increasingly powered by intermittent renewables energies.

Thermal Energy Storage (TES) allows excess renewable energy to be stored as heat and used later, which is especially valuable for electrified heating systems.
Unlike other energy storage solutions, TES is also a fully European-manufactured solution.

To **enable large-scale deployment of flexibility services with TES - critical for integrating renewables and electrifying heating** - several regulatory gaps still need to be addressed at both EU and national levels, including in France.

To unlock the full potential of TES, regulators should:

- Remove the current double grid fees, which are detrimental to the deployment of TES.
- Implement subsidies models and derisking tools for early-stage projects.
- Integrate TES capacities into grid planning and publish operational data at an adequate level of granularity.
- Set clear targets in National Energy and Climate Plan (NECP) for thermal storage.