

10 PRINCIPLES FOR A NEW STRATEGIC EU ACTION PLAN ON HEATING AND COOLING

1 Time horizon: The action plan must address both 2030 and 2040

To achieve the necessary decarbonised heating and cooling (H&C) sector by 2040, H&C-related aspects of the Green Deal need to be overachieved (see [Fahrenheit 2040](#)). The strategic H&C action plan (SHCAP) therefore needs implementation and additional measures for 2030 as well as preparing the actions needed for the 2040 horizon. Good planning will enhance energy security and resilience by combining energy efficiency and renewables in a smart energy system while maximising the social benefits of the transition. The planning for heating and cooling should be consistent with that of building retrofits and the National Building Renovation Plans (NBRPs) to come, the Social Climate Plans under the Social Climate Fund and the heating and cooling plans for municipalities required under the Energy Efficiency Directive (EED). A long-term vision, developed collaboratively with stakeholders at the EU level, Member States, and local actors, is essential to drive effective change.

2 Ensure all clean, affordable, renewable and decarbonised solutions are promoted and benefit everyone, coupled with energy demand reduction through better buildings

The SHCAP needs to focus on all decarbonised and renewable solutions that have proved effective. It should prioritise the connection of buildings with locally available heat sources as geothermal and solar thermal, the deployment of renewable-based heat pumps and decarbonised district heating. There should therefore be specific roadmaps to scale-up renewable heat supply chains and renewable heat uptake, including targets for heat pumps (releasing the long-delayed Heat Pump Action Plan), geothermal (the European Parliament has called for a strategy), and solar technologies. The SHCAP should integrate H&C solutions with a push for renovations, boosting Europe's industrial competitiveness and innovation through sustainable construction. This ensures long-term policy signals, and clarity about the shift from fossil fuels to sustainable and renewable heating and cooling solutions.

To structurally reduce EU heating and cooling energy demand, we need to expand and consolidate the integration of renewable H&C solutions in the context of holistic building renovation.

3 Create a specific trajectory for the roll-out of district heating

In dense urban areas, district heating is often the smartest and most efficient solution, and can be powered with geothermal, solar thermal and heat pump solutions. The market is however still not democratised, which translates to a lack of transparency and higher bills for citizens. The district heating and cooling market should be open, renewable, democratic and be built on a foundation of cost-transparency towards the end-consumer, akin to e.g. the Danish model.

4 Empower citizens through energy communities

It is a positive step that municipal H&C plans must include public consultations. These however must not become box-ticking exercises, but rather levers for citizen empowerment and local energy democratisation. A good practice is specifically supporting citizen-led initiatives by energy communities, such as Community-led Heating and Cooling (CH&C). Ensure that citizens can own, decide over, and benefit from H&C systems. This will enhance social acceptance and attract financing for the H&C transition, while lowering energy bills, reducing energy poverty and creating local and lasting job opportunities in the H&C sector.

5 Create a support structure for the transition and make it accessible

The transition must be accelerated through specific support for households, particularly social safeguards for vulnerable and lower-income groups, especially considering the introduction of ETS2 in 2027 which, while necessary, will disproportionately impact lower-income groups. The creation of the Social Climate Fund is a welcome step to combating energy poverty but does not go far enough. Additional measures and ring-fencing of funds are needed, e.g. temporary direct financial support coupled with direct investment into long-term solutions, lower VAT for efficient solutions, a better electricity-gas price ratio, promotion of zero upfront cost business models..., workers (skilling up), social housing, as well as the needed infrastructure for grids and storage, and digitalisation. Financing can come from redirecting the current €3.2 billion/year of fossil heating subsidies as well as from the ETS1 and ETS2 revenue (beyond the Social Climate Fund) and a specifically targeted fund, e.g. as part of the MFF, that could focus and funnel the currently scattered financing schemes. This includes accelerated financial flows towards future-proof buildings – efficient and zero-emissions buildings need very little energy for H&C.

6 Don't forget about cooling: Ensure heat resilience planning for cooling needs and an accelerated F-gas phaseout

Ensure the heat resilience planning for the design and renovation of buildings and city-areas includes the element of cooling, particularly in central and southern Europe. Additionally, information campaigns need to ensure adequate application of low-tech solutions (e.g. shutters, cooling through more trees etc.). To limit climate and environmental impact, the phaseout of F-gases as well as HFCs needs to be accelerated through banning under REACH, and increasing the efficiency of space cooling systems by 50% by 2030 is needed.

7 Municipal H&C plans

Support municipal H&C plans by providing technical guidelines and creating a common template. Promote existing EU-funded online tools, call for national support mechanisms, monitor municipalities' development of plans and ensure implementation that ensures 2030 and 2040 targets are met. Set up a Heat&Cool Facility to provide technical and financial support to municipalities.

1. https://energy.ec.europa.eu/topics/markets-and-consumers/energy-communities_en

2. From Cool LIFE project: the efficiency of space cooling systems needs to increase by 50% in the next 8 years.

8 Create a specific pathway to decarbonise industrial H&C needs

Already available technology (e.g. heat pumps, electric arc furnaces) could deliver more than 60% of energy demand.³ The SHCAP needs to propose ways to overcome economic and organisational barriers to the implementation of electrified, renewable process heat in industry, e.g. through deployment targets, funding schemes, and the integration of electrification in grid planning.

9 Develop a communications plan to ensure that citizens understand the importance of the H&C transition

Disinformation on the H&C transition abounds. The SHCAP needs to contain proposals on how to address this across the EU. Beyond disinformation, people also need trustworthy information and transparency about the costs and benefits of sustainable heating and cooling as well as the benefits of the ETS2 through highlighting when ETS2 revenue has been used to fund investment. A communications plan must foresee adequate funding of reliable information and sources of advice.⁴

10 Do not support false solutions and do not allow a time-out on additional action

Ensure that harmful and false solutions, such as hydrogen - heating a home with green hydrogen requires five times more electricity than simply using a heat pump directly - or damaging biomass are not taken up and don't receive public support. The residential use of woody biomass results in annual CO2 emissions of around 200 Mt according to the EEA,⁵ contributing to air pollution, particularly among lower-income groups.⁶ Additionally, installation of new fossil fuel technologies need to have a defined and clear pathway out within this decade.

A strategy that only compiles what's already in the Green Deal does not advance the agenda of a modern, innovative H&C system - the new SHCAP needs to come on top of the Green Deal achievements and point towards the future.

3. Agora: <https://www.agora-industry.org/publications/direct-electrification-of-industrial-process-heat>

4. Reliable information for consumers seeking to change their H&C systems is also essential, e.g. through one-stop-shops.

5. <https://www.eea.europa.eu/publications/the-european-biomass-puzzle>, p. 122

6. Even ecodesign-compliant wood-burning stoves can produce up to 450 times more toxic air pollution than even gas central heating.

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