



EUROPEAN FEDERATION
OF INTELLIGENT ENERGY EFFICIENCY SERVICES

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Some key ideas for the upcoming EU Strategy for Heating and Cooling

EFIEES welcomes the announcement by the European Commission of the proposal of an EU Strategy for Heating and Cooling (H&C): such a Strategy is needed because the heat/heating sector, which represents more than 45% of final energy consumption in Europe, needs appropriate frame and measures for contributing to EU energy and climate objectives. EFIEES would like to emphasise main aspects that should be taken into account by the European Commission while planning a Strategy for Heating and Cooling.

The Strategy should address all sectors producing/using heat and/or cold: housing, commerce, industry, agriculture. The conditions for a "no regret options" H&C policy are:

- Overall targets (EU, MS) for saving primary energy,
- Flexibility as a key principle for switching from current technological choices to future ones,
- While having a holistic view on the whole energy chain, specifically address demand side management.

Deriving from these basic principles, "no regret options" should address **buildings, District Heating, energy efficiency services**, based on following instruments:

1. **Energy efficiency** as a prerequisite for a transition to renewable energy

Decarbonisation of the heat sector being the main goal of the Strategy for Heating and Cooling is to be achieved by the means of: (1) energy savings goals at national/EU level on the basis of primary energy and (2) increased share of renewable energy sources.

- ⇒ At project level, energy efficiency actions in heating and cooling sectors must be prioritised and measured, in case of fuel switch, in **primary energy**, as the latter reflects the overall energy consumption of the entire energy chain and allows a transparent comparison between different solutions for producing/using heat. At national/EU level, energy efficiency objectives should also be expressed in primary energy, which is the relevant driver for establishing the policy and action priorities in terms of energy really consumed or saved.
- ⇒ **Improving energy efficiency makes the transition to renewable energy more affordable.** It should be noted that District Heating and Cooling (DHC) is already the first vector of a transition to renewable energy in several Member States and it represents a considerable potential for further increase in renewable energies as well as an efficient use of excess heat from industry¹.

2. **How to strengthen energy efficiency in public buildings**

Article 5 EED is too narrow. Making it more ambitious is possible with a wider view on its goals and actions to be taken: it should rather be a **yearly % of energy savings/energy efficiency in all publicly owned or occupied buildings**, to cover any action contributing to energy efficiency: deep renovation, staged deep renovation, actions on

¹ "Heat Roadmap Europe 2050", Aalborg University, Halmstad University, Ecofys, on the initiative of Euro Heat&Power: market shares for District Heating (DH) for buildings can be increased to 30% in 2030 and 50% in 2050. DH will significantly contribute to decarbonisation, increased share of renewables and more affordable EU energy system. <http://www.heatroadmap.eu/>

the energy systems, from new heating/cooling systems to day-to-day operation, monitoring, maintenance, action on behavior. MS should have flexibility for choosing their own "mix" of actions, on the basis of cost-effectiveness, return on investment, up-front investment ability, etc. To ensure real energy savings in public buildings, tools implying a commitment on **results**, with **guaranteed** energy savings, such as Energy Performance Contracting (EPC), should be promoted. EPC providers deliver energy savings on the **long term**, monitored and verified in a fair and transparent way.

3. **Energy performance of buildings: no offset between buildings' energy consumption and (on-site) energy production**

"Energy Efficiency First", as a key principle, implies that energy efficiency performance requirements for buildings should be set, based on the expected **primary energy consumption**. Off-setting with on-site energy production should not be allowed, otherwise the planning for the most efficient and cost-effective solutions will not be based on the 'real' heating/cooling needs of the buildings. This would not encourage making the most effective choices.

4. **Encouraging energy saving actions in buildings based on cost-effectiveness**

Choosing tools for improving energy savings in buildings, such as energy-efficiency services and buildings' renovation should be compared on the basis of cost-effectiveness, security of supply, environmental impacts. More generally, the future Strategy has to take into consideration that the energy efficiency in the building stock throughout EU will need many years to reach a drastic level of improvement. For ensuring significant results, the Strategy must encompass all kinds of actions, to be combined according to national, local, case-by-case situations.

Energy-efficiency actions in buildings' energy systems may lead to significant cost-effective energy savings up to 30% of reduction in primary energy consumption in a shorter return time (less than 5 years) than "pure" buildings' renovation.²

Energy efficiency in buildings should not be considered separately, but optimised by taking into account efficiency in energy supply, notably by expanding District Heating and Cooling. Targeting reduction of fossil primary energy rather than final energy is essential for avoiding phony energy savings. This will allow making decarbonisation more affordable³.

5. **EU tools for building a Heat Policy at national level: mapping**

There is no efficient H&C policy without **national planning**, and there is no national and local planning without a prior and progressive **mapping**, showing heat/cold production capacities and sources and needs, as required by Art. 14, EED. It is necessary that the European Commission seriously monitors the quality of heat mapping and planning by Member States. The Stratego project should be further developed.⁴ There again, buildings and DHC are in the heart of mapping/planning.

6. **EU measures needed for combating EU and national regulatory failures detrimental to Heat Policies: action against barriers to (more) efficient H&C**

Existing **legislative and non-legislative barriers** to efficient heat production and consumption should be evaluated and tackled by Member States as required by Article 19, EED. The European Commission should closely monitor this process. At EU level, any obstacles including **discriminations resulting from the EU ETS**, which does not cover installations below 20 MW (as a result, efficient cogenerations above 20 MW are subject to EU ETS, whereas less

² The study by Cardonnel Ingénierie "Energy renovation: pragmatic roadmaps for housing units equipped with collective heating" (2014) shows that a combination of actions on thermal equipment may bring up to 40% energy savings (e.g. condensation boilers, up to 40%, proper maintenance of thermal installations that bring energy-efficiency gains from 10 to 20%, etc).

³ "Heat Roadmap Europe 2050"

⁴ http://www.heatandthecity.org.uk/about/workshops/stratego_project

efficient boiler houses are not, which discriminates the most efficient solutions) should be examined by the European Commission and addressed.