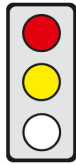


## KEY ISSUES

**Objective of the Communication:** Heating and cooling will become more efficient in the EU.

**Affected parties:** Whole economy particularly companies in the energy sector.



**Pro:** The Commission rightly points out that the more restrictive tenant protection rules are, the less incentive landlords have to invest in energy efficiency.

**Contra:** (1) Using subsidies to influence the decision on whether to invest in energy efficiency may give rise to investments which produce only minor savings in energy.

(2) The rules on energy efficiency and the use of renewables for heating and cooling are unsuitable for reducing CO<sub>2</sub> emissions in a targeted and cost efficient way.

(3) All forms of heating and cooling should be included in the EU Emissions Trading System.

## CONTENT

### Title

**Communication COM(2016) 51** of 16 February 2016 on an EU Strategy on **Heating and Cooling**

### Brief Summary

#### ► Context and objectives

- The Commission wants to cut energy consumption for heating and cooling. This will reduce (p. 2)
  - dependency on energy imports,
  - energy costs for households and businesses and
  - greenhouse gas emissions in the EU.
- Heating and cooling covers
  - the heating and cooling of buildings,
  - heating in industrial processes,
  - the cooling of equipment and foodstuffs.
- Heating and cooling is responsible for over 50% of energy consumption in the EU (p. 2). It is based (p. 3)
  - 18% on renewables, particularly biomass
  - 75% on fossil fuels, particularly natural gas which has to be largely imported into the EU,
  - 7% on nuclear energy.
- The Commission calls on the Member States to take energy efficiency measures in order
  - to improve building insulation,
  - to make heating and cooling systems in residential buildings more energy efficient,
  - to make heating and cooling in industry more energy efficient and
  - to use synergies between the electricity market and the market for heating and cooling.

#### ► Building insulation

- Many old buildings are not energy efficient but due to their longevity will still be used in 2050.
- According to the Commission, "big savings" can be made through simple renovations (p. 4). These include
  - insulating attics, walls and foundations, and
  - installing double or triple glazing.
- The current proportion of buildings renovated each year in the Member States is between 0.4% and 1.2% of the overall number of buildings. The Commission blames this low "rate of building renovation" on the fact that
  - state rules limit the ability of landlords to pass renovation costs on to tenants via the rent ("split incentives") and
  - owners are not aware of the benefits of building renovation or are unable to finance it.

- The Commission calls on Member States to assess how "to share" the benefits and costs of building renovations among residents of multi-apartment buildings (p. 10).
- The EU will allocate some €19 billion for energy efficiency in buildings between 2014 and 2020 (p. 5).
- 11% of consumers in the EU cannot afford to keep their homes warm enough in winter (p. 5). The Commission wants to ensure that part of the funding allocated to energy efficiency will be dedicated to increasing the energy efficiency of buildings for "energy-poor" households (S. 10).
- ▶ **Heating and cooling appliances in residential buildings**
  - Over 50% of heating systems in the EU were installed before 1992 and have exceeded their technical lifetime (p. 6).
  - According to the Commission, most consumers do not obtain sufficient information about the advantages of the most energy efficient appliances when buying new heating systems which is why they often buy older, less efficient models.
  - The Energy Labelling Directive (2010/30/EU) (see [cepPolicyBrief](#)) requires Member States to provide sufficient incentives for buying the most energy efficient heating and cooling systems.
  - The Commission wants to submit a comprehensive approach to speed up the replacement of fossil fuel boilers with heating systems based on renewables. It calls on Member States to focus subsidies on renewables-based heating and cooling technologies (p. 7).
- ▶ **Heating and cooling in industry**
  - 73% of the energy consumed by European industry is used for heating and cooling.
  - According to the Commission, by pricing greenhouse gas emissions, the EU Emissions Trading System (EU ETS; see [cepCompass EU Climate and Energy Policy](#), p. 10 et seq.) has resulted in large European industrial companies significantly reducing their energy intensity since 2000. On the other hand, small emitters that are not subject to the EU ETS, (see Art. 27 Emissions Trading Directive 2003/87/EC), often have too little incentive to invest in energy efficiency.
  - Cogeneration of heat and power (CHP), i.e. the simultaneous generation of electricity and heat, may significantly reduce CO<sub>2</sub> emissions by industrial companies.
  - The Commission criticises the fact that the potential of CHP for reducing CO<sub>2</sub> emissions is not being fully exploited because "complex regulations" relating to both electricity and heat production obstruct CHP deployment and put off investors.
- ▶ **Synergies between the electricity market and the market for heating and cooling**
  - The increasing use of renewable energy sources, which are dependent on the weather and time of day, means that electricity generation is subject to large fluctuations which may jeopardise the stability of the electricity network and the security of the electricity supply.
  - In future, the Commission wants surplus electricity to be used to a greater extent for generating and storing heat by e.g. heating water in isolation tanks ("thermal storage").
  - The Commission wants to increase incentives for the use of information technology in buildings to control electricity consumption automatically ("smart homes") so that, in the case of heating and cooling systems as well as water heating, consumption can be adapted to a fluctuating electricity supply.

## Policy Context

The EU wants to increase the proportion of renewables used in EU energy consumption, as well as energy efficiency, by 20% by 2020 and by 27% by 2030. In addition, the emission of harmful greenhouse gases will be cut by 20% by 2020 and by 40% by 2030 (European Council, Conclusions of 24 October 2014, see [cepInput No. 2/2015](#)). According to the Renewable Energy Directive (2009/28/EC, see [cepPolicyBrief](#)) Member States must establish, by way of national action plans, how they are going to increase the proportion of renewables used in heating and cooling. In addition, they must guarantee that 20% of forecast primary energy consumption will be saved (Energy Efficiency Directive 2012/27/EU, see [cepPolicyBrief](#)) and that as from 2020 only nearly-zero-energy buildings - i.e. buildings with an energy consumption of almost zero - will be built (Directive 2010/31/EU on the Energy Performance of Buildings, see [cepPolicyBrief](#)).

The EU Strategy on Heating and Cooling forms part of the energy security package which also includes a proposed Regulation on measures to guarantee a secure gas supply [COM(2016) 52, see [cepPolicyBrief](#)], a proposal for a Decision on intergovernmental agreements between Member States and third countries in the energy sector [COM(2016) 53, see [cepPolicyBrief](#)] and a Communication on an EU Strategy on liquefied natural gas and gas storage [COM(2016) 49, see [cepPolicyBrief](#)].

## Options for Influencing the Political Process

Directorates General: DG Energy (leading)

## ASSESSMENT

### Economic Impact Assessment

#### Ordoliberal Assessment

The Commission makes the generalised claim that many worthwhile energy efficiency measures in buildings are not carried out because the property owners do not have sufficient financial means or are not sufficiently informed of the advantages of building renovations. It is not apparent, however, why e.g. banks should not grant loans to worthwhile investment projects or why construction companies and skilled trades should not inform property owners about the benefits of renovations to increase energy efficiency.

The decision as to whether a building renovation or an investment in new heating and cooling appliances is worthwhile, is made by the property owner by weighing up the investment costs and the energy savings. **Using subsidies to influence the decision for or against energy-efficiency investment may also in fact give rise to investments which produce only minor energy savings** by comparison with the costs involved.

#### Impact on Efficiency and Individual Freedom of Choice

**Government subsidies to promote energy efficiency and the use of renewable energy sources for heating and cooling** – e.g. to replace fossil fuel boilers with heating systems based on renewables – **are not suitable for reducing CO<sub>2</sub> emissions in a targeted and cost-efficient way** because they do not guarantee that a target amount of CO<sub>2</sub> will actually be saved or that there is no cheaper method of saving CO<sub>2</sub>. **Instead, all forms of heating and cooling should be included in the EU ETS**

because the EU ETS guarantees that, for all included sectors, the stipulated overall upper limit on CO<sub>2</sub> emissions will be met in the cheapest way possible. Thus - as the Commission rightly points out - in recent years, as a result of the EU ETS, large industrial companies have implemented a significantly higher number of energy efficiency measures to reduce CO<sub>2</sub> than have small emitters that are not subject to the EU ETS. By including heating and cooling in the EU ETS, EU climate targets could be achieved much more cheaply because the more sectors of the economy that are incorporated into the EU ETS the greater the potential to make savings of CO<sub>2</sub> in the EU. Fuels - such as gas and oil -, which only cause emissions as a result of the heating process by the end user, should be included in emissions trading on production or on import ("upstream emissions trading", see [ceInput No. 5/2015](#), p. 8).

**The Commission rightly points out that the more restrictive tenant protection rules are, the less incentive there is for landlords to invest in energy efficiency.** The problem exists in particular where a large number of tenants with varying preferences all live in one building. It is the task of the Member States to rectify this incentive problem. This can be done, as is the case in Germany, by e.g. allowing landlords to pass a certain proportion of the renovation costs on to tenants in the form of rent increases.

#### Impact on Growth and Employment

Negligible.

#### Impact on Europe as a Business Location

Negligible.

### Legal Assessment

#### Legislative Competency

Unproblematic. The EU is entitled to adopt energy policy measures to promote energy efficiency and energy savings (Art. 194 TFEU).

#### Subsidiarity

Energy efficiency measures for buildings as well as heating and cooling systems are of a local rather than a cross-border nature. Mandatory EU measures to improve energy efficiency would thus, due to the lack of a transnational aspect, be in breach of the principle of subsidiarity (Art. 5 (3) TEU). In its Communication, the Commission therefore rightly only calls upon the Member States to adopt national measures. It remains to be seen to what extent the Commission will continue to hold back on regulation in this area in the future.

### **Possible future follow-up measures by the EU**

In the second half of 2016, the Commission wants to submit proposals to modify the Renewable Energy Directive (2009/28/EC), the Energy Efficiency Directive (2012/27/EU) and the Directive on the energy efficiency of buildings (2010/31/EU).

### **Conclusion**

Using subsidies to influence the decision on whether to invest in energy efficiency may give rise to investments which produce only minor savings in energy. Government subsidies to promote energy efficiency and the use of renewable energy sources for heating and cooling are not suitable for reducing CO<sub>2</sub> emissions in a targeted and cost efficient way; instead, all forms of heating and cooling should be included in the EU ETS. The Commission rightly points out that the more restrictive tenant protection rules are, the less incentive landlords have to invest in energy efficiency.