



Background

Energy efficiency: measures required by the proposed directive

A provisional deal on the proposed new EU energy efficiency directive was struck by MEPs and Council negotiators on Thursday 14 June. This directive would require EU Member States to save energy in specific ways, e.g. by renovating buildings and stipulating the size of energy savings to be delivered by utilities. The EU aims to improve energy efficiency by 20% by 2020 (from 1990 levels), but European Commission figures suggest that without these measures, it would achieve only half that.

This background note offers a more detailed description of the measures that would be required by the directive.

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Background

Why do we need a directive on energy efficiency?

The EU has set itself the target of improving energy efficiency by 20% by 2020 (from 1990 levels), but the European Commission estimates that the EU will achieve only half that improvement unless it takes specific measures. The proposed directive establishes a common framework for these measures. EU Member States would have to set themselves national energy efficiency targets, and by June 2014, the Commission would have to assess the progress achieved to date.

The proposed directive would replace two existing pieces of legislation - the Energy Savings Directive (ESD), and the Cogeneration Directive. It aims to fill gaps where measures are lacking, improve the effectiveness of existing ones, and in doing so, to provide a boost to the economy.

MEPs believe that energy efficiency can help drive the EU by reducing dependence on imports, creating jobs, freeing up financial resources, enhancing industrial competitiveness, and reducing greenhouse gas emissions.

Oil and gas imports account for the single biggest transfer of wealth from EU27 countries to the rest of the world. In 1999, the EU27 spent over €84 billion on energy imports - 1% of EU GDP. In 2011, the EU 27 spent over €488 billion on energy imports - six times more than in 1999 and 3.9% of EU GDP.

Background

Renovating public buildings

The directive would require EU Member States to renovate 3% of the total floor area of "heated and/or cooled buildings owned and occupied by their central government" (administrative departments whose competence extends over the whole territory of a Member state).

This would apply to buildings with a "total useful floor area" (floor area of a building or part of a building, where energy is used to condition the indoor climate) of more than 500 m², and as from July 2015, of more than 250 m². However, Member States would also be able to use alternative means to achieve equivalent energy savings, such as thorough renovations.

Background

Long-term strategy for national building stocks

In order to capture growth and job opportunities in the skilled trades and construction sectors, as well as in the production of construction products and professional activities such as architecture, consultancy and engineering, each Member State would need to establish a long-term national strategy (by January 2015), to "mobilise investment" in the national stock of residential and commercial buildings, both public and private.

This strategy would have to include:

- (i) an overview of the national building stock based, as appropriate, on statistical sampling,
- (ii) an identification of cost-effective approaches to renovation, relevant to the building type and climatic zone,
- (iii) policies to stimulate cost-effective "deep" renovations of buildings, including those done in stages,
- (iv) forward-looking guidance for investment decisions by individuals, the construction industry and financial institutions, and
- (v) an indicative estimate of expected energy savings.

The strategy would have to be submitted to the Commission, published by 1 January 2015 and updated as appropriate thereafter.

Background

Energy savings for utilities and possible exemptions

Energy companies covered by the directive would have to achieve a "cumulative end-use energy savings target" by 2020. This target would have to be at least equivalent to achieving new savings, each year, from 2014 to 2020, of 1.5% of annual energy sales to final customers, by volume, and averaged over the most recent three-year period before the directive takes effect. Sales of energy used in transport could be excluded and alternative ways to achieve equivalent energy savings would be permitted, provided that equivalence is maintained.

Exemptions

Member States could choose to exclude from the target calculation energy used in industrial activities that are covered by the ETS emission trading scheme (e.g. mineral, steel iron industry), or count towards this target savings resulting from "early" energy-saving actions (those implemented since December 2008 which still have an impact in 2020). The sum of these "flexibility" measures could account for no more than 25% of the total national energy savings target.

The provision on energy efficiency exemption schemes would be reviewed by the Commission in 2016.

Background

Public procurement

Member States would be required to ensure that "central governments" purchase only goods, services and buildings with high energy-efficiency performance, insofar this is consistent with cost-effectiveness, economic feasibility, wider sustainability, technical suitability, and sufficient competition.

This requirement would apply to contracts with a value equal to, or greater than, the thresholds laid down in Article 7 of Directive 2004/18/EC.

Background

Energy audits

All large enterprises would be required to undergo energy audits. These would need to start within three years of the directive's entry into force and be carried out every four years by qualified and accredited experts.

Households and small and medium-sized enterprises would be excluded from this requirement.

Exemptions

Large companies which are already implementing an energy or environmental management system that is certified by an independent body according to the relevant European or international standards would be exempted from this requirement, provided the management system includes an energy audit.

Background

Smart metering and new buildings

EU countries would need to ensure that, in so far as it is technically possible and financially reasonable, final customers for electricity, natural gas, district heating, district cooling and domestic hot water are provided with competitively-priced individual meters that accurately reflect the final customer's actual energy consumption and that provide information on actual time of use.

New buildings

When a new connection is made in a new building or a building undergoes major renovations, as set out in Directive 2010/31/EU, such competitively-priced individual meters would always have to be provided.

Background

Individual consumption meters in multi-apartment buildings

In multi-apartment and multi-purpose buildings with a central heating/cooling source or supplied from a district heating network or from a central source serving multiple buildings, individual consumption meters would have to be installed by 1 January 2017 to measure the consumption of heat or cooling or hot water for each unit where technically feasible and cost efficient.

Where the use of individual meters is not technically feasible or not cost-efficient, to measure heating, individual heat cost allocators would have to be used to measure heat consumption at each radiator, unless it is shown by the Member State in question that the installation of such heat cost allocators would not be cost efficient. In such cases, alternative cost-efficient methods of heat consumption measurement could be considered.

Background

Billing and consumer information

Member States would be required to ensure, by 1 January 2015, that billing information is accurate and based on actual consumption, in order to enable final customers to regulate their own energy consumption. Billing would take place on the basis of actual consumption at least twice a year, or quarterly, upon request. Where billing is done electronically and without request, it would be quarterly.

When sending customers contracts, contract changes or bills, including through those sent through websites addressing customers individually, energy distributors, distribution system operators and retail energy sales companies would have to inform them, in a clear and understandable manner, of the contact details of independent consumer advice centres, energy agencies or similar institutions, including their internet addresses, where they can obtain advice on available energy efficiency measures, benchmark profiles for their energy consumption and technical specifications of energy-using appliances that could help to reduce energy consumption.

Background

Assessing scope for high-efficiency district heating and cooling

Member States would need to carry out and notify to the Commission by December 2015 a "comprehensive assessment" of the scope for applying high-efficiency cogeneration and efficient district heating and cooling.

For the purposes of this assessment, Member States would need to carry out a cost-benefit analysis- a proposal introduced by MEPs- covering their territory based on climate conditions, economic feasibility and technical suitability.

Cost-benefit analysis

The cost-benefit analysis would have to be capable of facilitating the identification of the most resource and cost-efficient ways to meet heating and cooling requirements.

Where the assessments identify potential for applying high-efficiency cogeneration and/or efficient district heating and cooling whose benefits exceed the costs, Member States would have to take appropriate measures for efficient district heating and cooling infrastructure to be developed and/or to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources.

Exemptions

Member States could exempt from these requirements:

- a) those peak load and back-up electricity generating installations which are planned to operate under 1,500 operating hours per year as a rolling average over five years, based on a verification procedure established by the Member States ensuring that this exemption criterion is met,
- b) nuclear power installations, or
- c) installations that need to be located close to a geological storage site approved under Directive 2009/31/EC on the geological storage of carbon dioxide.

Background

Risk of carbon leakage and Emissions Trading System

The European Commission would monitor the directive's impact on industry sectors, and particularly those exposed to a significant risk of carbon leakage, so as to ensure that the directive's provisions promote, rather than impede, the development of these sectors.

The draft directive includes a written statement by the Commission referring to Phase 3 (2013-2020) of the EU Emissions Trading System (ETS - which is to deliver two-thirds of the 20% emissions reduction target), that "in the light of the need to maintain the incentives in the EU's Emissions Trading System the Commission undertakes:

- to urgently present the first report pursuant to Article 10(5) of Directive 2003/87/EC on the carbon market accompanied by a review of the auction time profile of phase 3,
- to examine in this report options, including among others permanent withholding of the necessary amount of allowances, for action with a view to adopting as soon as possible further appropriate structural measures to strengthen the ETS during phase 3, and make it more effective".

Background

Next steps

The provisionally agreed text will be put to an Energy Committee vote, probably in July, and then a plenary one in September (provisional timetable).