

Communication

of 30 April 2014

from the Government of the Federal Republic of Germany
to the European Commission

Annual report for 2015 in accordance with Article 24(1) of the Directive of the European Parliament and of the Council of 25 October 2012 on energy efficiency (2012/27/EU)

For the 2015 annual report on progress in meeting the national energy efficiency targets pursuant to Article 24(1) of in conjunction with Annex XIV, Part 1, to the Energy Efficiency Directive 2012/27/EU, the German Government is pleased to provide the following information:

a) Estimate of the following indicators in the year before last (year X- 2)						
			2011	2012	2013	Source
i	Primary energy consumption	PJ	13 599.3	13 447.1	13 828.1	AGEB
ii	Total final energy consumption	PJ	8 881.4	8 918.5	9 268.5	AGEB
iii.	Final energy consumption by sector					
—	Industry	PJ	2 634.0	2 587.1	2 640.3	AGEB
—	Transport	PJ	2 567.8	2 558.6	2 612.3	AGEB
—	Households	PJ	2 333.4	2 427.5	2 603.0	AGEB
—	Services	PJ	1 346.1	1 345.4	1 412.9	AGEB
iv	Gross value added by sector (real 2010)					
—	Industry	EUR billion	628.8	637.8	639.1	Destatis
—	Services	EUR billion	1 771.0	1 772.4	1 773.5	Destatis
v	Disposable income of households	EUR billion	1 620.1	1 651.9	1 681.3	Destatis
vii	Gross domestic product (real 2010)	EUR billion	2 668.7	2 678.8	2 681.6	Destatis
viii	Electricity generation from thermal power generation	TWh	521.1	521.1	521.7	AGEB
ix	Electricity generation from combined heat and power	TWh	101.4	106.5	107.7	AGEB
x	Heat generation from thermal power generation	PJ	736.1	768.0	776.8	AGEB
—	Industrial waste heat *					
xi	Heat generation from combined heat and power plants, including industrial waste heat *					

—	Heat recovery from industrial waste heat *					
xii	Fuel input for thermal power generation	PJ	4 848.5	4 848.5	4 665.3	AGEB
xiii	Passenger kilometres (pkm)	Billion	1 131.0	1 135.6	1 141.1	BMVI
xiv	Tonne-kilometres (tkm) * *	Billion	643.1	632.6	645.0	BMVI
xv	Population	Million	81.8	81.9	82.1	Destatis

* where applicable reportable after amendment of the Energy Statistics Act (EnStatG)

* * domestic transport

Sources:

Working Group on Energy Balances (Arbeitsgemeinschaft Energiebilanzen – AGEB)

Federal Ministry of Transport and Digital Infrastructure (BMVI)

Federal Statistical Office (Destatis)

The slight increase in overall final energy consumption and the indicators for the household and services sectors is mainly attributable to weather-related factors. The increase in the indicator for transport is due in particular to developments in fuel prices and transport services. For example, the heating day-degree figure of 3 993 for 2013 was slightly higher than in 2012, when it was just 3 743 (source: Deutscher Wetterdienst – German National Meteorological Service).

However, provisional data for 2014 already show that, compared to 2013, energy consumption in Germany in 2014 again fell significantly.

The figures for some of the indicators for 2011 and 2012 reported by the Federal Government in the previous annual report for 2014 have changed slightly as a result of statistical adjustments made after last year's report. The figures for 2011 and 2012 in the table above are the updated indicators for those years.

b) Updates on major legislative and non-legislative energy efficiency measures adopted in the previous year

The Federal Government adopted its 'National Energy Efficiency Action Plan' (NEEAP) on 3 December 2014. This is a comprehensive energy efficiency strategy grouping together the objectives, a large number of new measures for immediate action and working procedures, details of financing and the responsibilities of each stakeholder. Energy efficiency has thus become the second pillar of the German energy turnaround.

The NEEAP is designed to implement the ambitious national energy efficiency targets in the energy blueprint and includes a wide range of measures for immediate action to reinforce the existing instrument mix and thus meet the savings target under Article 7 EED.

The new measures for immediate action in the NEEAP and the strategic measures already notified in the communication of 5 June 2014 will ensure that Germany will meet the savings target under Article 7 EED.

The full text of the NEEAP, together with detailed information on the individual measures for immediate action and longer-term working procedures, can be found at <http://bmwi.de/DE/Mediathek/publikationen,did=672756.html>

c) Total area of buildings to be renovated under Article 5 EED

In accordance with Part 1(c) of Annex XIV to the EED, the 2015 annual report contains details of the total area of buildings with a total useful floor area over 500 m² owned and occupied by the Member State's central government that, on 1 January 2015, did not meet the energy performance requirements referred to in Article 5(1).

Based on the terms 'owned by central government' and 'owned by administrative departments at a level below central government' used in Article 5(1) EED, the buildings belonging to the following organisations are used to define the balance area for the application of Article 5 EED:

- All Federal Government buildings except for social security institutions (Federal Employment Agency, statutory pension scheme, etc.) administering public services.
- All administrative entities in the material sense (government buildings and other buildings used for administrative purposes, i.e. executive authorities in the material sense which are empowered to adopt nationally binding rules and regulations, generally under public law, including single living quarters and office buildings for the armed forces (see Article 5(2)(b)).

The initial basis for implementation will be the 'Energy refurbishment roadmap for Federal Government properties' (ESB) developed in recent years. The extent to which other properties will have to be included in order to meet the requirements of Article 5 will be reviewed at the appropriate time.

From this balance area belonging to the relevant organisations, we can estimate a net floor area of heated and/or cooled buildings of around 4.8 million m². To determine the renovation rate of 3 % per year, the following sub-areas can be subtracted from this total floor area:

- Article 5(2)(a) of the Directive leaves Member States free not to set or apply the requirements for the energy renovation of some building types. These also include buildings listed for conservation, which account for around 10 % of the building area.
- Some 23 % of the buildings under consideration that are not listed for conservation were built after 1995 in accordance with the provisions of the 1995 Heat Conservation Regulation [Wärmeschutzverordnung] and the associated Heating Systems Regulation [Heizungsanlagenverordnung] and thus meet the minimum energy performance requirement laid down in the EU Buildings Directive.
- Of the remaining buildings, around 8.5 % have a useful floor area of less than 500 m².

The total area of buildings with a total useful floor area of over 500 m² in the above balance area that, on 1 January 2015, did not meet the energy performance requirements referred to in Article 5(1) EED is therefore around 3 million.

The table below shows how the total area used to determine the renovation rate of 3 % per year is arrived at:

Total area (NFA) of the relevant organisations		approx. 4.8 million m²
	Share Reference area	Sub-area
minus listed buildings	approx. 10.0 % of 4.8 million m ²	- 0.5 million m ²
minus built since 1995	approx. 23.0 % of 4.3 million m ²	- 1.0 million m ²
minus buildings < 500 m ² NFA	approx. 8.5 % of 3.3 million m ²	- 0.2 million m ²
Total area (NFA) used to calculate the 3 % renovation rate		approx. 3.0 million m²

This area of around 3.0 million m² thus relates to:

- heated and/or cooled buildings occupied by the central government with a net floor area of over 500 m²,
- which were built before 1995,
- are not listed for conservation and
- do not meet the minimum energy performance requirements laid down in the EU Buildings Directive.

This does not necessarily mean that these buildings do not meet the national minimum energy performance requirements. If energy renovation measures have already been carried out since they were built, this could reduce the area quoted. The necessary information on this is currently being collected (see comments in section (d) below).

(d) Total savings achieved in the previous year pursuant to Article 5 EED

According to Part 1(d) of Annex XIV to the EED, the annual report should contain details of the total floor area of heated and/or cooled buildings owned and occupied by the Member State's central government that was renovated in the previous year pursuant to Article 5(1) or the amount of energy savings in eligible buildings owned by its central government as referred to in Article 5(6).

In its communications to the Commission of 20 December 2013 and 5 June 2014 the Federal Government reported that, in implementing Article 5 EED, Germany was making use of the option to proceed according to Article 5(6) rather than Article 5(1) to (5) EED and to take other cost-effective measures, including deep renovations and measures to change the behaviour of occupants in order to achieve energy savings by 2020 in accordance with Article 3 EED.

Work began as early as 2011 on developing a national 'Energy refurbishment roadmap for Federal Government properties' (ESB), carrying forward the Federal Government's energy objectives to develop a climate-neutral building stock (Energy Efficiency Framework, 3.6.2011, Federal Ministry of the Environment, Nature Conservation, Building and Nuclear Safety, BMUB – formerly the Federal Ministry of Transport Building and Urban Development, BMVBS). To achieve these objectives, we need measures that go well beyond the national minimum requirements for the energy renovation of existing buildings, but which are cost-effective at the same time. The ESB lists the properties in terms of their potential for energy efficiency improvements. Properties with great potential for renovation take precedence over those with a lower potential for energy renovation and should accordingly be assessed earlier. In the next few years the energy efficiency of the building stock will thus be systematically improved on the basis of the order of priority indicated. In order to achieve this goal, as a first step the energy efficiency of the individual buildings on a property is assessed in a standardised Property Energy Blueprint (*Liegenschaftsenergiekonzept* – LEK) and a report drawn up with recommendations for the renovation measures to be taken. The LEKs are based on a standard template ('Standard Energy Blueprint') so that the methodology for collecting and processing the necessary data and the calculation method are laid down uniformly. As a result of the standard format, the results of the LEKs can be processed and displayed more effectively in the database, allowing them to be compared uniformly at national level.

The call for tenders for drawing up these LEKs was launched in 2013 as part of a two-phase Europe-wide tendering process. This procedure has now been completed and the contracts with the successful bidders have been signed. The relevant engineering consultants are now available to assist the federal construction planning offices in the individual states and the Federal Office for Building and Regional Planning (BBR). The LEKs for the pre-selected properties are now being drawn up. The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear

Safety (BMUB) has already received the first LEKs for assessment and determining the measures to be taken.

As a result of the timing and organisational process of implementing the ESB, including compliance with the time limits for the procurement process, no building projects pursuant to Article 5(1) EED based on the LEKs were carried out last year in heated and/or cooled buildings owned and occupied by the central government of the Member State concerned. In 2014 only small-scale measures and measures for immediate action were implemented without LEKs.

Nevertheless, a number of measures to increase energy efficiency on the properties were already implemented in 2013 and 2014 under the 'Energy savings programme for government buildings', which was set up prior to the introduction of the ESB. Following evaluation of the reports received to date on the measures completed in 2013, we may expect to see energy savings of at least 6 170 MWh/a (based on final electrical and heat energy). The measures completed in 2014 will lead to energy savings of at least 2 150 MWh/a. As not all the measures planned under the 'Energy savings programme for government buildings' have been implemented yet, or reports of completion are still outstanding in many cases, we may assume that this amount could rise. According to the plan, when implemented all the measures planned for 2013 should ultimately lead to energy savings of the order of 7 750 MWh/a. Implementation of all the measures planned for 2014 was forecast to produce total energy savings of approximately 6 500 MWh/a.

e) Energy savings achieved through the alternative measures adopted under Article 7(9) EED

Statistical data on the development of final energy consumption in 2014 and on the effects of individual measures will not be available until the second half of 2015 at the earliest. Therefore the Federal Government will have information on final energy consumption for 2014 in time for the next annual report under Article 24 EED.

However, provisional data on primary energy consumption in 2014 show that energy consumption in Germany fell considerably on the previous year. In absolute terms, primary energy consumption in 2014 was 13 077 PJ, i.e. about 5 % down on the previous year. The temperature-corrected reduction in primary energy consumption was about 2 % on the previous year.