
Notification of the indicative national energy efficiency target 2020 for Belgium

According to the requirements of the Energy Efficiency Directive 2012/27/EU

1. Introduction : the requirements of the Energy Efficiency Directive 2012/27/EU (EED), articles 3 and 24

In implementation of the Energy Efficiency Directive 2012/27/EU (EED), each member state has to communicate to the European Commission its national indicative energy efficiency target for 2020.

Article 3 “Energy efficiency targets” requests that :

“1. Each Member State shall set an indicative national energy efficiency target, based on either primary or final energy consumption, primary or final energy savings, or energy intensity. Member States shall notify those targets to the Commission in accordance with Article 24(1) and Annex XIV Part 1. When doing so, they shall also express those targets in terms of an absolute level of primary energy consumption and final energy consumption in 2020 and shall explain how, and on the basis of which data, this has been calculated.

When setting those targets, Member States shall take into account:

- (a) that the Union’s 2020 energy consumption has to be no more than 1 483 Mtoe of primary energy (*the original value of 1 474 Mtoe has been reviewed in directive 2013/12/EU after the accession of Croatia*) or no more than 1 078 Mtoe of final energy;
- (b) the measures provided for in this Directive;
- (c) the measures adopted to reach the national energy saving targets adopted pursuant to Article 4(1) of Directive 2006/32/EC; and
- (d) other measures to promote energy efficiency within Member States and at Union level.

When setting those targets, Member States may also take into account national circumstances affecting primary energy consumption, such as:

- (a) remaining cost-effective energy-saving potential;
- (b) GDP evolution and forecast;
- (c) changes of energy imports and exports;
- (d) development of all sources of renewable energies, nuclear energy, carbon capture and storage; and
- (e) early action.”

Article 24 “Review and monitoring of implementation” requests that :

“1. By 30 April each year as from 2013, Member States shall report on the progress achieved towards national energy efficiency targets, in accordance with Part 1 of Annex XIV. The report may form part of the National Reform Programmes referred to in Council Recommendation 2010/410/EU of 13 July 2010 on broad guidelines for the economic policies of the Member States and of the Union (1).”

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2. Indicative energy efficiency target for Belgium

In its 2013 National Reform Program, Belgium communicated a provisional indicative energy efficiency target for 2020 : 18% reduction of primary energy compared to the projected gross inland energy consumption (excluding non energy uses) according to Primes 2007 baseline modelling.

It was mentioned in the Reform Program (see its footnote 24) that the target was being discussed and could be revised. Moreover, it was only expressed as a reduction in percentage of the projected gross inland energy consumption and not in terms of an absolute level of primary and final energy consumption, as required by the EED. This notification was thus to be confirmed and completed.

With this notification, Belgium confirms its indicative energy efficiency target of an **18% reduction in primary energy consumption** by 2020 relative to the Primes 2007 baseline (53.3 Mtoe). This produces an energy saving equal to 9.6 Mtoe and results in **43.7 Mtoe energetic gross inland consumption** in 2020¹.

Belgium's indicative energy efficiency target is thus expressed in primary savings, resulting in a primary consumption level in 2020. As requested by the EED, this primary target is converted into a **final consumption level of 32.5 Mtoe** in 2020.

¹ It is worthwhile to mention that the historical set of data used by PRIMES 2007 for the gross inland consumption between 1990 and 2005 is currently 1.1 Mtoe lower than the official EUROSTAT data. This could have an impact on primary consumption in 2020.

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3. Energy efficiency target setting methodology and data sources

The national savings target is the sum of individual estimations of primary energy savings induced by existing and planned policies and measures taken by the federal authorities and federated entities.

Since Primes 2007 projections were made before the economic crisis, the impact of the crisis on primary energy consumption until 2020 was also estimated.

The following table shows the detail of this calculation.

	Primary energy [Mtoe]	Final energy [Mtoe]
Reference inland energy consumption (non energy uses excluded) in 2020	53.30	39.6
Estimation of energy savings per policy and measure :		
a) Energy savings from ESD 2006/32 (from 2008 to 2016, non ETS)	1.91	1.66
b) Prolongation of savings from ESD 2006/32 until 2020 (from 2017 to 2020, non ETS)	0.85	0.74
c) Impact of the energy-climate package on the electricity production sector	0.30	0.12
d) Energy savings from ecodesign and ecolabelling Directives 2009/25 and 2010/30	2.73	1.34
e) Energy savings from voluntary agreements with ETS industry	1.63	1.48
f) Additional energy savings from EED 2012/27, article 7 (from 2014 to 2020)	0.19	0.15
g) Impact economic crisis	2.00	1.59
Total energy savings in 2020	9.6	7.1
% of reference of inland energy consumption in 2020 (excl. non energy uses)	18.0%	17.8%
Level for inland energy consumption in 2020 (excl. non energy uses)	43.7	32.5

- a) The impact of the ESD 2006/32 was estimated in the second National Energy Efficiency Action plan of 2011. To avoid overlap with the Primes 2007 baseline, the savings of the early actions in the NEAAP until 2007 were not taken into account. This results in primary energy savings of 1.91 Mtoe.
- b) As in the 2011 National Reform Program, the ESD 2006/32 effort is assumed to be continued until 2020. The savings are prolonged in a linear way (+0.85 Mtoe primary).

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- c) The Federal Planning Bureau estimated, on the basis of Primes-modelling, that the Energy-Climate package will reduce the energy consumption of the electricity production sector with 0.30 Mtoe primary savings (emission trading Directive, renewables Directive).
- d) The impact of the ecodesign Directive 2009/25 and of the ecolabelling Directive 2010/30 has been estimated proportionally to the most recent European impact assessment (on the basis of number of inhabitants), taking into account the introduction of new products. This results in 2.73 Mtoe of additional primary savings.
- e) The savings since 2008 from the voluntary agreements with the ETS-industry, in place in Flanders and Wallonia, are based on monitoring data. The additional impact of the 2nd generation agreements which are planned from 2014 to 2020 in both Flanders and Wallonia, was estimated, based on the expectancy that the agreements will result in average annual primary energy savings that equal the annual savings of the current agreements. The agreements with ETS-industry count for 1.63 Mtoe of primary energy savings.
- f) It was not possible to fully assess the impact of the EED in this early stage of implementation. Moreover, several requirements of the EED overlap with policy and measures already mentioned above, e.g. the ESD 2006/32 and its prolongation beyond 2016, and voluntary agreements, too. An estimation was made of the additional impact of article 7 of the EED beyond what has already been taken into account as a result of the prolongation of the ESD 2006/32 until 2020: 0.19 Mtoe primary energy savings.
- g) The Federal Planning Bureau estimated, on the basis of Primes-modelling, that 2 Mtoe of “savings” can probably be attributed to the economic crisis, a conservative “best guess” as it is not easy to separately evaluate its impact.

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4. Follow-up of indicators according to article 24 and Annex XIV part 1

Table 1 Indicators required according to annex XIV of the EE Directive 2012/27/EU, year 2011

	Value	Unit
(i) Primary energy consumption	52.01	Mtoe
(ii) Total final energy consumption	38.86	Mtoe
(iii) Final energy consumption by sector		
- Industry	13.27	Mtoe
- Transport (incl. aviation)	10.70	Mtoe
- Households	7.40	Mtoe
- Services	7.50	Mtoe
(iv) Gross value added by sector		
- industry	54.8	billion euro (*)
- services	248.3	billion euro (*)
(v) Disposable income of households	205.1	billion euro
(vi) Gross domestic product (GDP)	362.5	billion euro (*)
(vii) Electricity generation from thermal power generation	22.85	TWh
(viii) Electricity generation from combined heat and power	14.18	TWh
(ix) Heat generation from thermal power plants	0.02	Mtoe
(x) Heat generation from combined heat and power plants	0.89	Mtoe
(xi) Fuel input for thermal power generation	7.23	Mtoe
(xii) Passenger kilometres (road and rail) (**)	144.3	billion pkm
- Number of passengers (public transport)	1.17	billion passengers
(xiii) Tonnes kilometres (**)	66.3	billion tkm
(xiv) Combined transport kilometres	-	
(xv) population	11036	thousand

Sources: Eurostat, BNB/NBB, FPB transport data base, DGSIE/ADSEI.

(*): chained euros, reference year 2010.

(**): figures for the year 2010 (2011 not available).