

Report on the application of Article 7(2) of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC and related calculations

As required by Article 7(3) of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (hereinafter – 'Directive 2012/27/EU'), the Latvian authorities hereby report on the application of Article 7(2) of the same Directive, the elements applied and the related calculations.

In accordance with the application of Article 7 of Directive 2012/27/EU, **the cumulative energy savings for Latvia in the period concerned was 9 896 GWh (0.85 Mtoe).**

Calculation of the cumulative energy savings target

The cumulative energy saving target was calculated in accordance with Article 7(1) and (2) of Directive 2012/27/EU and Commission staff working document SWD(2013) 451 final of 6 November 2013 'Guidance on Directive 2012/27/EU on energy efficiency, amending Directives 2009/125/EU and 2010/30/EC, and repealing Directives 2004/8/EC and 2006/32/EC. Article 7: Energy efficiency obligation schemes'

1. Application of Article 7(1) of Directive 2012/27/EC

Article 7(1) of Directive 2012/27/EC provides that each Member State must set up an energy efficiency obligation scheme. That scheme is to ensure that energy distributors and/or retail energy sales companies that are designated as obligated parties under Article 7(4) operating in each Member State's territory achieve a cumulative end-use energy savings target (hereinafter – 'the target') by 31 December 2020, without prejudice to Article 7(2).

That target is to be at least equivalent to achieving new savings each year from 1 January 2014 to 31 December 2020 of 1.5 % of the annual energy sales– to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to 1 January 2013–. The sales of energy, by volume, used in transport may be partially or fully excluded from this calculation.

Article 7(1) of Directive 2012/27/EU allows energy used in transport and energy which consumers have generated themselves and used on-site for their own needs to be excluded from the overall figure for final energy consumption. In the case of Latvia, the quantity of fuel wood prepared and used by households themselves is excluded from household energy end-use figures.

On the basis of Article 7(1) of Directive 2012/27/EU, the Latvian authorities have taken the following steps:

- 1) calculated average energy end-use for 2010, 2011 and 2012 (Data used: energy sales to final customers by all energy distributors or all retail energy sales companies; Eurostat code B_101700);
- 2) excluded final energy consumption in transport from the figure obtained (Data used: Eurostat code B_101900);

- 3) excluded the quantity of fuel wood prepared and used by households themselves from the figure obtained. The quantity of fuel wood for calculating the target defined in Article 7(1) of Directive 2012/27/EU was determined on the basis of data obtained in the 2010 survey 'Consumption of energy resources by households', conducted by the Central Statistical Bureau.¹ The fuel prepared and used by households themselves represents 24.4% of wood and 25.2% of wood waste consumed as fuel by households. The quantity of fuel wood prepared and used by households themselves in 2010–2012 was calculated on the basis of the proportion determined in the 2010 survey, assuming that this did not change in 2011 and 2012. The next regular statistical survey on energy consumption by households is planned for 2015. Raw data and the results of calculations relating to fuel prepared and used by households themselves are given in Tables 2 and 3.

The energy mix used for the calculation of the target provided for in Article 7(1) of Directive 2012/27/EU is given in Annex 1 to this report, while the data used and results obtained are presented in Table 1.

Table 1
Data used for calculation of the target provided for in Article 7(1) of Directive 2012/27/EU, and the results obtained

	2010	2011	2012
Total final energy consumption, TJ	176 544	161 034	161 011
Final energy consumption in transport, TJ	50 267	45 216	43 871
Quantity of fuel wood prepared and used by households themselves, TJ	7 351	6 249	6 386
Final energy consumption for calculation of the target provided for in Article 7(1) of Directive 2012/27/EU, TJ	118 926	109 569	110 754
Average final energy consumption for calculation of the mandatory energy savings target provided for in Article 7(1) of Directive 2012/27/EU, TJ	113 083		
Cumulative (2014-2020) energy savings target calculated in accordance with Article 7(1) of 2012/27/EU, TJ	47 495 (13 194 GWh)		

¹ 2010 survey 'Consumption of energy resources by households' conducted by the Central Statistical Bureau (http://data.csb.gov.lv/Selection.aspx?px_path=vide_Energoresursu%20pat%C4%93ri%C5%86%C5%A1%20m%C4%81jsaimniec%C4%ABb%C4%81s&px_tableid=0312.px&px_language=lv&px_db=vide&rxid=cdbc978c-22b0-416a-aacc-aa650d3e2ce0)

Table 2
Fuel wood consumption by households, TJ

	2010	2011	2012
Total fuel wood	30 682	26 084	27 764
<i>including</i>			
firewood	28 964	24 623	25 360
wood waste	1 126	956	788
wood briquettes	340	289	374
wood pellets	252	216	1 242

Table 3
Calculated fuel wood consumption by households except fuel wood prepared and used by households themselves, TJ

	2010	2011	2012
firewood (-24.4%)	21 897	18 615	19 172
wood waste (-25.2%)	842	715	589
wood briquettes	340	289	374
wood pellets	252	216	1 242
<i>Total fuel wood consumption for calculation of target</i>	23 331	19 835	21 378
<i>Quantity of fuel wood prepared and used by households themselves, not counted for calculation of target</i>	7 351	6 249	6 386

2. Application of Article 7(2) of Directive 2012/27/EU, ensuring fulfilment of the requirements of Article 7(3)

In accordance with Article 7(2), each Member State may:

- a) carry out the calculation required under the second subparagraph of paragraph 1 using values of 1% in 2014 and 2015; 1.25% –in 2016 and 2017; and 1.5% in– 2018, – 2019 and 2020;*
- b) exclude from the calculation all or part of the sales, by volume, of energy used in industrial activities listed in Annex I to Directive 2003/87/EC;*
- c) allow energy savings achieved in the energy transformation, distribution and transmission sectors, including efficient district heating and cooling infrastructure, as a result of the implementation of the requirements set out in Article 14(4), point (b) of Article 14(5) and Article 15(1) to (6) and (9) to be counted towards the amount of energy savings required under paragraph 1; and*

d) count energy savings resulting from individual actions newly implemented since 31 December 2008 that continue to have an impact in 2020 and that can be measured and verified towards the amount of energy savings referred to in paragraph 1.

Article 7(3) of the Directive provides that the application of Article 7(2) must not lead to a reduction of more than 25% of the amount of energy savings referred to in Article 7(1). In the case of Latvia, the energy savings reduction must not be more than 25% of the cumulative target calculated in accordance with Article 7(1) (13 194 GWh, see Table 1), i.e. 3 298.5 GWh.

Latvia has applied the options provided for in Article 7(2)(a) and (b) and has made the following calculations:

1) the calculation provided for in Article 7(2)(a) was made based on the following values: 1% in– 2014 and 2015, 1.25% in– 2016 and 2017; and 1.5% in– 2018, 2019 and 2020. The results of the calculation are presented in Table 4.

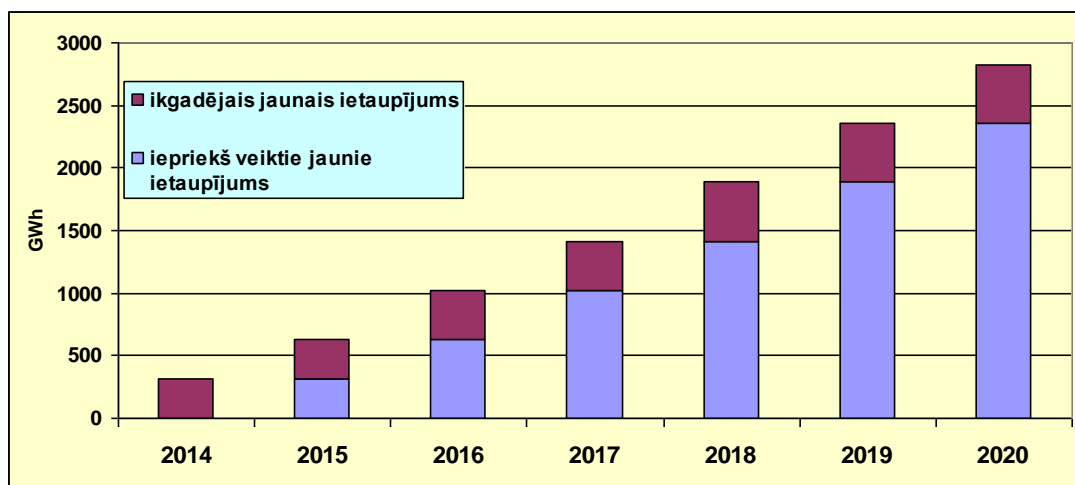
Table 4
Results of the application of Article 7(2)(a) of Directive 2012/27/EC

	2010 - 2012	2014	2015	2016	2017	2018	2019	2020	Total cumulative energy saving
Final energy consumption, TJ	113 083								
Energy savings per year, %		1	1	1.25	1.25	1.5	1.5	1.5	
New energy savings per year, TJ		1 131	1 131	1 414	1 414	1 696	1 696	1 696	
New energy savings per year, GWh		314	314	393	393	471	471	471	
Cumulative energy savings in current year, TJ		1 131	2 262	3 675	5 089	6 785	8 481	10 177	37 600
Cumulative energy savings in current year, GWh		314	628	1 021	1 414	1 885	2 356	2 827	10 445

Following application of Article 7(2)(a), the cumulative energy savings calculated for the period was **10 445 GWh, which is 20.8% lower than the initial figure under Article 7(1).** The trajectory of the cumulative target and a breakdown of the savings are presented in figure1.

Figure 1

Application of Article 7(2)(a) of Directive 2012/27/EU in the calculation of a cumulative energy savings target, and a breakdown of the savings



Key: dark red = new energy saving, purple = previously achieved energy saving

2) the calculation provided for in Article 7(2)(b) was performed. In order to apply Article 7(2)(b):

- Firstly, the quantity of end-use energy delivered to ETS industrial undertakings for industrial activities was determined (6 491 TJ), in accordance with Annex I to Directive 2003/87/EC and the conditions laid down in Directive 2012/27/EU (not including three 'energy activities'). The values used are presented in Table 5. A list of the Latvian undertakings which comply with the requirements set out in Annex I to Directive 2003/87/EC and their energy consumption in industrial production is given in Annex 2 to this report². As can be seen in Annex 2, the energy consumption of the indicated ETS industrial undertakings in their industrial activities was counted towards final energy consumption (NACE code by manufacturing sector, corresponding to the statistical code B_101700); In order to determine final energy consumption for non-ETS industrial undertakings, an alternative method was applied; namely, the relationship was determined between ETS and non-ETS emissions in manufacturing sub-sectors, using information on declared greenhouse gas emissions contained in the Latvian National Inventory Report³ and ETS operator reports. This relationship was then applied to final energy consumption in each manufacturing sub-sector, and the share of final energy consumption for ETS and non-ETS undertakings was calculated for each sub-sector. This alternative approach gave a similar result to the aforementioned one; the average (2010–2012) final energy consumption for ETS industrial undertakings in the metal products, non-metallic mineral products and chemicals sector was 6 220 TJ.
- Secondly, 91% of the previously calculated final energy consumption by ETS industrial undertakings for industrial activities (5 907 TJ) is deducted from the average

² <http://www.meteo.lv/lapas/uznemumi-kuriem-izsniegtas-siltumnicefekta-gazu-emisijas-atlaujas-2-pe?id=1253&nid=575>

³ http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php

final energy consumption figure used to calculate the mandatory energy savings target under Article 7(1).

The cumulative energy savings figure for the period calculated through applying Article 7(2)(a) and (b) of Directive 2012/27/EU is 9 896 GWh, which is 25% lower than the energy savings target calculated in accordance with Article 7(1) of Directive 2012/27/EU. The data used to calculate the target and the results of the calculation are presented in Table 6.

Table 5

Information on the application of Article 7(2)(b) for calculation of the target for delivered fuel consumption in ETS industrial undertakings, TJ

	2010	2011	2012	Average consumption	Quantity of energy excluded from final energy consumption (91% of average)
Fuel consumption in industrial undertakings in accordance with the conditions laid down in Directive 2003/87/EC	8 622	5 047	5 803	6 491	5 907

Table 6

Data used to calculate mandatory cumulative energy savings target, and summary of results

	2010	2011	2012
Total final energy consumption, TJ	176 544	161 034	161 011
Final energy consumption in transport, TJ	50 267	45 216	43 871
Quantity of fuel wood prepared and used by households themselves, TJ (see also Table 3)	7 351	6 249	6 386
Final energy consumption used for calculation of the target provided for in Article	118 926	109 569	110 754

7(1) of Directive 2012/27/EU, TJ			
Average final energy consumption used for calculation of the mandatory energy savings target provided for in Article 7(1) of Directive 2012/27/EU, TJ	113 083		
Cumulative (2014-2020) energy savings target calculated in accordance with Article 7(1) of 2012/27/EU, TJ	47 495 (13 194 GWh)		
Average energy consumption (TJ), from which ETS industrial consumption is partially excluded (see also Table 5) and which is used for calculations when applying Article 7(2)(a) and (b) of Directive 2012/27/EU	113 083 – 5 907 = 107 176		
Cumulative (2014-2020) energy savings target calculated in accordance with Article 7(2)(a) and (b) of 2012/27/EU, TJ	35 623 (9 896 GWh)		

3. Data used and differences with Eurostat data

For calculating the target, data were used which were currently available (October 2013) when the Latvian government discussed the cumulative energy savings target and approved the means for achieving it with Cabinet Order No 587 of 2 December 2013 (Record No 63, section 52) on the conceptual framework for the transposition into national legislation of the requirements of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC. In accordance with this conceptual framework and the requirements of Article 7(9) of Directive 2012/27/EU, the Latvian authorities officially reported the target when Latvia's report on the planned measures for the implementation of Article 7 was notified using the Control System for the Transposition and Implementation of EU Legislation.

In 2013, a correction of Eurostat data was performed which created minor differences between the data currently published by Eurostat and the data that were used to calculate the target.

In November and December 2013 the Central Statistical Bureau made the following corrections to Latvia's statistical records:

- the figure for biodiesel consumption in 2011 was reduced, with a reduction in biodiesel consumption in transport and an increase in biodiesel consumption in services, agriculture, forestry and hunting;
- the figure for diesel fuel consumption in 2011 was significantly reduced, with a significant reduction in diesel fuel consumption in transport and a slight reduction in diesel fuel consumption in services;
- the figure for district heating losses for 2009-2011 was increased, and in connection with this a correction was made to district heating consumption in the services sector for 2009-2011 and in households for 2010-2011, while total district heating consumption remained unchanged for 2009-2011;
- the figure for petroleum coke consumption for 2011 was reduced, with a reduction in petroleum coke consumption in manufacturing;
- the figure for fuel wood consumption for 2012 was significantly increased, with an increase in fuel wood consumption in manufacturing and a slight increase in fuel wood consumption in all other sectors;
- the figure for coal consumption for 2011 was reduced, with a reduction in coal consumption in households and the services sector;
- the figure for coal consumption for 2012 was increased, with an increase in coal consumption in manufacturing and construction and the services sector, and a reduction in coal consumption in households;

As a result of these corrections, the energy consumption of Latvia reflected in statistical records has been reduced for 2011 and increased for 2012.

Annex 1

Final energy consumption (to 31 October 2013), taking into account the net calorific value (NCV) coefficients of the Latvian Central Statistical Bureau

	2010	2011	2012
	TJ		
Transport	50 354	45 146	43 834
Manufacturing and construction	32 430	31 385	28 704
Households	63 281	55 675	57 825
Services and other (agriculture, forestry, hunting and fishing)	32 206	30 258	32 062
Total final energy consumption	178 271	162 464	162 425

Source: Central Statistical Bureau of the Republic of Latvia

Final energy consumption, taking into consideration both the NCV coefficients contained in Annex IV to Directive 2012/27/EU and the NCV coefficients of the Latvian Central Statistical Bureau

	2010	2011	2012
	TJ		
Transport	50 267	45 216	43 871
Manufacturing and construction	32 021	31 089	28 392
Households	63 058	55 494	57 579
Services and other (agriculture, forestry, hunting and fishing)	31 198	29 235	31 169
Total final energy consumption	176 544	161 034	161 011

Latvian ETS undertakings which comply with the conditions laid down in Annex I to Directive 2003/87/EC, and their energy consumption for industrial production

2012				
Undertaking	Code classification under NACE 2	Name classification under NACE 2	Energy balance sector	Fuel consumption, TJ
SIA Brocēnu keramika	2 331	Manufacture of ceramic tiles and flags	Manufacturing: Manufacture of other non-metallic mineral products	33.9
SIA Būvmateriāli AN	2 352	Manufacture of lime and plaster	Manufacturing: Manufacture of other non-metallic mineral products	5.7
'Meiri' plant of SIA Cemex	2 351	Manufacture of cement	Manufacturing: Manufacture of other non-metallic mineral products	3 783.6
A/S Liepājas metalurģs	2 410	Manufacture of basic iron and steel and of ferro-alloys	Manufacturing: Iron and steel	1 510.8
Līvāni plant of SIA LODE	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	0.6
SIA Saulkalne S	2 352	Manufacture of lime and plaster	Manufacturing: Manufacture of other non-metallic mineral products	42.2
A/S Valmieras stikla šķiedra	2 314	Manufacture of glass fibres	Manufacturing: Manufacture of other non-metallic mineral products	426.2
			Total	5 803
2011				
Undertaking	Code classification under NACE 2	Name-classification under NACE 2	Energy balance sector	Fuel consumption, TJ
SIA Brocēnu keramika	2 331	Manufacture of ceramic tiles and flags	Manufacturing: Manufacture of other non-metallic mineral products	18.4
SIA Būvmateriāli AN	2 352	Manufacture of lime and plaster	Manufacturing: Manufacture of other non-metallic mineral products	5.9
'Meiri' plant of SIA Cemex	2 351	Manufacture of cement	Manufacturing: Manufacture of other non-metallic mineral products	3 120.0
SIA Ceplis	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	6.0
A/S Liepājas metalurģs	2 410	Manufacture of basic iron and steel and of ferro-alloys	Manufacturing: Iron and steel production	1 169.8
SIA Līvānu ķieģelis	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	1.4
A/S Lodes ķieģelis	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	294.2
SIA Saulkalne S	2 352	Manufacture of lime and plaster	Manufacturing: Manufacture of other non-metallic mineral products	39.5
A/S Valmieras stikla šķiedra	2 314	Manufacture of glass fibres	Manufacturing: Manufacture of other non-metallic mineral products	391.3
			Total	5 047
2010				

Undertaking	Code classification under NACE 2	Name-classification under NACE 2	Energy mix sector	Fuel consumption, TJ
SIA Brocēnu keramika	2 331	Manufacture of ceramic tiles and flags	Manufacturing: Manufacture of other non-metallic mineral products	33.6
SIA Būvmateriāli AN	2 352	Manufacture of lime and plaster	Manufacturing: Manufacture of other non-metallic mineral products	6.4
'Meiri' plant of SIA Cemex	2 351	Manufacture of cement	Manufacturing: Manufacture of other non-metallic mineral products	3 051.9
SIA Ceplis	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	7.7
A/S Liepājas metalurģs	2 410	Manufacture of basic iron and steel and of ferro-alloys	Manufacturing: Iron and steel production	4 845.2
SIA Līvānu ķieģelis	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	2.5
A/S Lodes ķieģelis	2 332	Manufacture of bricks, tiles and construction products, in baked clay	Manufacturing: Manufacture of other non-metallic mineral products	200.9
SIA Saulkalne S	2 352	Manufacture of lime and plaster	Manufacturing: Manufacture of other non-metallic mineral products	45.3
A/S Valmieras stikla šķiedra	2 314	Manufacture of glass fibres	Manufacturing: Manufacture of other non-metallic mineral products	428.0
			Total	8 622