

2016 annual report on energy efficiency in the Netherlands

Reporting under Article 24(1) of and Annex XIV to the EU Energy Efficiency Directive (Directive 2012/27/EU)

Annual report	2016
Reporting year	2014
Member State	Netherlands

**a) Data based on national indicators**

(see annex for table in full)

Number	Data field	AR Indicator	Unit
B1	3 045	(i) primary energy consumption	PJ
B2	1 754	(ii) total final energy consumption	PJ
B3	534	(iii) final energy consumption – industry	PJ
B4	436	(iii) final energy consumption – transport	PJ
B5		final energy consumption in pipeline transport	ktoe
B6	373	(iii) final energy consumption – households	PJ
B7	411	(iii) final energy consumption – services	PJ
B8		final energy consumption – agriculture	ktoe
B9		final energy consumption – other sectors	ktoe
B10	69 215	iv) gross value added – industry	Million euro, chain-linked volumes, reference year 2010 (at 2010 exchange rates)
B11	446 559	(iv) gross value added – services	Million euro, chain-linked volumes, reference year 2010 (at 2010 exchange rates)
B12	323 777	(v) disposable income for households	Million euro
B13	579 174	(vi) gross domestic product (GDP)	Million euro, chain-linked volumes, reference year 2010 (at 2010 exchange rates)
B14	96 788 631	(vii) electricity generation from thermal power generation	MWh
B15	47 469 255	(viii) electricity generation from CHP	MWh
B16	198 092	(ix) heat generation from	TJ

		thermal power generation	
B17		Waste heat produced in industrial installations	ktoe
B18	198 092	(x) heat generation from CHP	TJ
B19		Waste heat recovered from industrial installations	ktoe
B20	929 256	(xi) fuel input for thermal power generation	TJ
B21	201	(xii) passenger kilometres	billion pkm
B22	47 917	(xiii) tonne-kilometres	million tonne-km
B23	16 829 289	(xv) population	Persons
B24		Total number of households	Households
B25		Energy transmission and distribution losses (all fuels)	ktoe
B26		Heat generation from district heating plants	ktoe
B27		Fuel input in district heating plants	ktoe

### Comments on decrease in energy consumption:

34	Industry	decreased compared to 2013
35	Transport	decreased compared to 2013
36	Households	decreased compared to 2013
37	Services	decreased compared to 2013

### Reporting on CHP

For reporting relating to CHP, see the enclosed Excel spreadsheet.

### b) Policy changes

#### 1. Changes under Article 6 (purchasing by public bodies)

- In September 2015 the Cabinet adopted a new action plan for socially responsible procurement<sup>1</sup>. The plan sets out a transition from exclusion to encouraging suppliers to maximise sustainability of supply. It includes actions to develop and agree new common goals with other authorities, including in the areas of energy efficiency and renewable energy. It also has a strong focus on implementation through knowledge-sharing, training and the setting of good examples. A new monitoring system is also being developed as part of the plan.

#### 2. Changes under Article 7 – Alternative measures

##### 2.1 Fiscal measures

##### 2.1.1 Changes to energy tax

<sup>1</sup> <https://www.rijksoverheid.nl/documenten/kamerstukken/2015/09/11/plan-van-aanpak-maatschappelijk-verantwoord-inkopen-2015-2020>.

Energy tax rates were amended as of 2016<sup>2</sup>. The following tables set out the rates for 2015 and 2016 in euro cents per unit:

	<b>2015 level</b>
	Energy tax (euro cents per unit excluding VAT)
<i>Natural gas</i>	
0 – 170 000 m <sup>3</sup>	19.11
170 000 – 1 000 000 m <sup>3</sup>	6.77
1 000 000 – 10 000 000 m <sup>3</sup>	2.47
> 10 000 000 m <sup>3</sup>	1.18
<i>Reduced natural gas rate for greenhouse horticulture</i>	
0 – 170 000 m <sup>3</sup>	3.07
170 000 – 1 000 000 m <sup>3</sup>	2.28
1 000 000 – 10 000 000 m <sup>3</sup>	2.47
> 10 000 000 m <sup>3</sup>	1.18
<i>Electricity</i>	
0 – 10 000 kWh	11.96
10 000 – 50 000 kWh	4.69
50 000 – 10 000 000 kWh	1.25
>= 10 000 000 kWh	0.05

	<b>2016 level</b>
	Energy tax (euro cents per unit excluding VAT)
<i>Natural gas</i>	
0 – 170 000 m <sup>3</sup>	25.17
170 000 – 1 000 000 m <sup>3</sup>	6.95
1 000 000 – 10 000 000 m <sup>3</sup>	2.54
> 10 000 000 m <sup>3</sup>	1.21
<i>Reduced natural gas rate for greenhouse horticulture</i>	
0 – 170 000 m <sup>3</sup>	4.04
170 000 – 1 000 000 m <sup>3</sup>	2.34
1 000 000 – 10 000 000 m <sup>3</sup>	2.54
> 10 000 000 m <sup>3</sup>	1.21
<i>Electricity</i>	
0 – 10 000 kWh	10.07
10 000 – 50 000 kWh	4.996

50 000 – 10 000 000 kWh	1.331
>= 10 000 000 kWh	0.053

### 2.1.2 Changes to the sustainable energy surcharge

The table below shows the changes in the rate of the sustainable energy surcharge (*opslag duurzame energie*, ODE) under the sustainable energy+ subsidy scheme (*Subsidierегeling Duurzame Energie+*, SDE+) from 2013 (year of introduction).

	2013	2014	2015	2016
<b>Natural gas in cubic metres</b>	In cents per cubic metre of natural gas			
0 – 170 000	0.23	0.46	0.74	1.13
170 000 – 1 million	0.09	0.17	0.28	0.42
1 million – 10 million	0.03	0.05	0.08	0.13
>=10 million	0.02	0.04	0.06	0.09
<b>Natural gas in cubic metres, reduced rate for greenhouse horticulture</b>	In cents per cubic metre of natural gas			
0 – 170 000	0.04	0.07	0.12	0.18
170 000 – 1 million	0.04	0.09	0.14	0.21
1 million – 10 million	0.03	0.05	0.08	0.13
>=10 million	0.02	0.04	0.06	0.09
<b>Electricity in kilowatt-hours</b>	In cents per kilowatt-hour of electricity			
0 – 10 000	0.11	0.23	0.36	0.56
10 000 – 50 000	0.14	0.27	0.46	0.70
50 000 – 10 million	0.04	0.07	0.12	0.19
>=10 million (commercial)	0.0017	0.0034	0.0055	0.0084
ODE revenue in EUR million	100	200	320	490

### 2.1.3 Changes to the energy investment allowance (EIA)

The energy investment allowance has been in place since 1998. It allows operators to deduct targeted investments in energy saving and sustainable energy from the taxable profit of their business. A number of changes were made to the EIA between 2013 and 2014, primarily in order to gear the EIA as effectively as possible towards energy saving. That is one of the targets of the National Energy Agreement. Changes that this entails include the long-term exclusion of support for sustainable technology (where use may be made of SDE+) and the raising of the EIA threshold from EUR 450 to EUR 2 500. The purpose of the latter change was to minimise the administrative burden placed on businesses. The budget available for the EIA was adjusted as a result of those substantive amendments.

From 2013 to 2015 the EIA deduction rate was 41.5 %, meaning that the tax advantage – based on a corporate tax rate of 25 % – was roughly 10 %. As of 1 January 2016 the rate of deduction was increased to 58 %, raising the tax advantage to approx. 14.5 %. This is expected to cause more operators to use the EIA, thus further promoting energy saving.

Changes in the EIA scheme between 2013 and 2016:

	2013	2014	2015	2016

Budget available (in EUR million)	151	111	101	161
Rate deducted from taxable profit	41.5 %	41.5 %	41.5 %	58 %

#### 2.1.4 Changes to tax on passenger cars and motorcycles (*belasting voor personenauto's en motorrijwielen*, BPM)

**Table of 2015 BPM rates (as at 1 January 2015)**

Rates			
In the case of CO <sub>2</sub> emissions of more than	but not more than	the tax on a passenger car is the amount indicated in Column III plus the amount calculated by multiplying the amount indicated in Column IV by the number of g/km of CO <sub>2</sub> emissions that exceeds the CO <sub>2</sub> emissions indicated in Column I.	
I	II	III	IV
	82	€ 175	€ 6
82 g/km	110	€ 667	€ 69
110 g/km	160	€ 2 599	€ 112
160 g/km	180	€ 8 199	€ 217
180 g/km	–	€ 12 539	€ 434

The BPM fixed base rate, which requires a minimum of EUR 175 to be paid in respect of each car, irrespective of how much CO<sub>2</sub> it emits, was introduced in 2015. (In 2014 there was no fixed base rate.) Another new feature is that, as of 2015, the BPM has started to increase from a CO<sub>2</sub> emissions level of 1 g/km. (In 2014 the BPM started to increase from a CO<sub>2</sub> emissions level of 88 g/in the case of petrol cars and 85 g/km in the case of diesel cars.) Since 2015 there have not been any separate rates or CO<sub>2</sub> limits for diesel and petrol cars either.

**Table of 2016 BPM rates (as at 1 January 2016)**

As of 2016 the CO<sub>2</sub> limits have been reduced in the BPM on petrol and diesel cars. The rates for the three highest categories of CO<sub>2</sub> emissions have been increased. Lastly, the BPM rates have been adjusted to take account of inflation. The rate of adjustment for inflation in 2016 is 0.5 %.

Rates			
In the case of CO <sub>2</sub> emissions of more than	but not more than	the tax on a passenger car is the amount indicated in Column III plus the amount calculated by multiplying the amount indicated in Column IV by the number of g/km of CO <sub>2</sub> emissions that exceeds the CO <sub>2</sub> emissions indicated in Column I.	
I	II	III	IV
	79	€ 175	€ 6
79 g/km	106	€ 649	€ 69
106 g/km	155	€ 2 512	€ 124
155 g/km	174	€ 8 588	€ 239
174 g/km	–	€ 13 129	€ 478

The surcharge for cars with a diesel engine is EUR 86.43 (EUR 86.00) per gram of CO<sub>2</sub> emissions in excess of 67 g (70 g) of CO<sub>2</sub> emissions per kilometre.

### 2.1.5 Changes in excise duties on fuel

As of 1 January 2015 the excise duties on LPG and LNG were increased by 0.7 cents per litre. As of the same date the rates of excise duty on other mineral oils were increased as a result of annual indexation. In 2015 the indexation factor was 0.9 %. As of 1 January 2016 the rates of excise duty on all mineral oils were increased as a result of annual indexation. Unlike in the previous four years, the increase also applies to LPG and LNG. In 2016 the indexation factor is 1.005.

In 2016, 2015 and 2014 the rates of excise duty on the most commonly used fuels were as follows, the rate indicated being that per litre (or per kilogram in the case of LPG only):

	2016	2015	2014
Petrol	€ 0.77	€ 0.77	€ 0.76
Kerosene	0.48	0.48	0.48
Diesel	0.48	0.48	0.48
LPG/LNG	0.34	0.33	0.32

### 2.2 Other adjustments of alternative measures

- On 18 September 2015 the Environmental Management Activities Decree was amended<sup>3</sup>. Recognised energy-saving measures were included in the Activities Order of the Environmental Management Act as a result. The articles relating to energy saving entered into force on 1 December 2015.
- Decree of 8 September 2014: On 1 January 2015 the minimum requirements for new buildings were tightened (energy performance coefficient reduced from 0.6 to 0.4)<sup>4</sup>.
- Decree of 8 September 2014: On 1 January 2015 the safety net requirements for new buildings and major renovations were tightened (Rc values increased from 3.5 to 3.5/4.5/6 m<sup>2</sup> K/W floor/façade/roof; the U value was reduced from 2.2 to 1.65)<sup>5</sup>.
- On 12 November 2015 minimum requirements were laid down for the replacement of windows and insulation (Rc = 2.5 floor, 1.3 façade and 2 roof; U value = 2.2)<sup>6</sup>.

### 3. Article 8 Energy audits:

On 10 July 2015 Article 8(4), (5) and (6) was implemented in the provisional Order on the implementation of Articles 8 and 14 of the Energy Efficiency Directive<sup>7</sup>, in which the conditions of the energy audit are set out and the relevant authority is established.

### 4. Articles 9-12 (Metering, billing and empowering of consumers)

- On 16 October 2014 the Decree on remotely read meters was amended in preparation for the large-scale rollout of smart meters, which took place on 1 January 2015<sup>8</sup>. The amendment requires network operators to supply a smart meter to all small consumers in the period up to

<sup>3</sup> <https://zoek.officielebekendmakingen.nl/stb-2015-337.html>.

<sup>4</sup> <https://zoek.officielebekendmakingen.nl/stb-2014-342.html>.

<sup>5</sup> <https://zoek.officielebekendmakingen.nl/stb-2014-342.html>.

<sup>6</sup> <https://zoek.officielebekendmakingen.nl/stb-2015-425.html>.

<sup>7</sup> <https://zoek.officielebekendmakingen.nl/stcrt-2015-20036.html>.

<sup>8</sup> <https://zoek.officielebekendmakingen.nl/stb-2014-392.html>.

2020. In Article 1(b) and (c) of that Decree the switching function is removed as a mandatory function as a result of the expiry of Articles 4(1)(f) and (g) and 5(1)(d) of the Decree.

- Decree on invoicing and statements setting out consumption and indicative costs for energy<sup>9</sup>: This concerns the implementation of Articles 10 and 11 of the Energy Efficiency Directive. The Decree on energy statements has expired as a result. That Decree states what information an energy supplier or a supplier of fuel must include in the bill sent to a final customer, as set out in the Energy Efficiency Directive.
- Amendment of the 1998 Electricity Act, the Gas Act and the Heat Supply Act in order to implement Articles 9-11 of the Energy Efficiency Directive<sup>10</sup>: The amendments made included the incorporation of rules on the information on meters to be provided to customers.

### **5. Article 14 (Heating and cooling)**

On 10 July 2015 Article 14(5) and (6) was implemented in the provisional Order on the implementation of Articles 8 and 14 of the Energy Efficiency Directive<sup>11</sup>, in which the conditions of the cost-benefit analysis for heating and cooling are set out and the relevant authority is established.

### **6. Article 15: Transformation, transmission and distribution**

- Amendment of the 1998 Electricity Act, the Gas Act and the Heat Supply Act in order to implement part of Article 15(1) of the Energy Efficiency Directive<sup>12</sup>.

### **7. Article 19: Split of incentives and public purchasing**

- Since 1 January 2016 the Central Government Real Estate Agency has been responsible for the energy bills of all central government offices, and it applies energy management. As of 2016 the Agency has paid all such bills. As a result, an additional budget has been set aside for the strategic part of the portfolio in order to significantly improve the energy performance of those buildings when they are renovated or converted. The Agency is also gradually adapting its portfolio to permanent, online energy metering in order to further improve energy management throughout the portfolio.
- In April 2015 the updated sustainable procurement criteria documents were published on the website of PIANOo (the Dutch Expertise Centre for Public Procurement and Tendering (*Nederlandse Expertisecentrum Inkopen en Aanbesteden*), part of the Ministry of Economic Affairs)<sup>13</sup>. Since 2015 those documents have been updated on a yearly basis, with increasing use being made of the GPP criteria set out in the EU programme.

### **8. Article 20: National Energy Savings Fund**

The energy saving loan is granted from the National Energy Savings Fund. The Dutch Municipalities' Housing Incentive Fund (*Stimuleringsfonds Volkshuisvesting Nederlandse gemeenten, SVn*) was designated as the implementing organisation and mediator of the

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<sup>9</sup> <https://zoek.officielebekendmakingen.nl/stb-2015-190.html>.

<sup>10</sup> <https://zoek.officielebekendmakingen.nl/stb-2015-102.html>.

<sup>11</sup> <https://zoek.officielebekendmakingen.nl/stcrt-2015-20036.html>.

<sup>12</sup> <https://zoek.officielebekendmakingen.nl/stb-2015-102.html>.

<sup>13</sup> <https://www.pianoo.nl/themas/maatschappelijk-verantwoord-inkopen-mvi-duurzaam-inkopen/productgroepen>.

National Energy Savings Fund<sup>14</sup>. At the beginning of 2015 SVn simplified the procedures for applying for a loan.

**c) Floor area of buildings**

41-1	Total building floor area [m <sup>2</sup> ] of the buildings with a total useful floor area over 250 m <sup>2</sup> owned and occupied by the Member States' central government	6 730 000 m <sup>2</sup>
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**d) Energy savings achieved in renovated buildings, Article 5(6)**

42-2	Amount of energy savings [ktoe] <u>achieved</u> in the previous year in eligible buildings owned and occupied by their central government as referred to in Article 5(6)	114
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**e) Energy savings achieved under Article 7(9)**

Energy savings achieved as a result of alternative measures under Article 7(9)

	Policy measure (notified)	Savings <u>achieved</u> [PJ] in 2014 ( <u>n-2</u> )	Total <u>expected</u> savings [ktoe] by 2020 (voluntary)
43	Energy Investment Allowance (EIA)	7.1*	
44	Long Term Agreement industry	4.3	
45	Long Term Agreement big industry (MEE), excl. refineries	5.5	
46	Long Term Agreement service sector	0.7	
47	Policies targeted at households	10.0	
48	Policies targeted at the service sector	2.8	
49	Corrections for double counting and corrections	-2.5	
50	Alternative measure 7		
51	Alternative measure 8		
52	Alternative measure 9		
53	Alternative measure 10		
54	Total savings	27.9	

\* based on statistics for 2013