

Notification in accordance with Article 7 of the Energy Efficiency Directive

(EED, Directive 2012/27/EU)
to the European Commission



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1 Introduction

Article 7 of Directive 2012/27/EU (Energy Efficiency Directive - EED) provides that the following measures may be taken in order to achieve the 1.5 % annual energy savings target:

1. Introduction of an **energy efficiency obligation scheme** (in accordance with paragraphs 1 to 8), by means of:
 - a. an obligation on energy distributors, or
 - b. an obligation on retail energy sales companies, or
 - c. an obligation on energy distributors and retail energy sales companies

OR

2. Introduction of an alternative system to an energy efficiency obligation scheme (in accordance with paragraphs 9 to 12) by **taking other policy measures** to achieve energy savings among final customers. These policy measures can include an Energy Efficiency Fund, in accordance with Article 20, or a combination of an energy efficiency obligation scheme and policy measures.

Irrespective of the system implemented in Austria, final annual energy savings of 1.5 % per year must be achieved.

2 Notification under Article 7(9)

For the purposes of implementing Article 7, Austria has opted for a system in accordance with Article 7(9), implementing both policy measures and obligation schemes.

3 Presentation of target in accordance with Article 7(1) to (3)

The target is based on the average final energy sales of all energy distributors or retail energy sales companies to customers, as an average for the last three years prior to 1 January 2013. The energy volume attributable to transport is subtracted from the sales volume.

On this basis, the cumulative savings target for Austria in accordance with Article 7(1) for the period 2014 to 2020 is **279 440 TJ**¹.

According to Article 7(2) and (3), the energy savings target resulting from this calculation can be reduced by up to 25 %, e.g. by counting final energy savings from measures taken between 1 January 2009 and 31 December 2013 which will continue to have an impact in 2020 (in accordance with Article 7(2)(d)).

Subtracting 25 % – corresponding to savings from early actions – from the 279 440 TJ savings amount, reduces the cumulative target to **209 580 TJ**. Evidence for the possible 25 % deduction for Austria on account of early actions is included in the background note 'Evidence of early actions'.

¹ The savings target was calculated on the basis of the final energy balance for Austria in 2010 and 2011 and the preliminary energy balance for 2012 from the Austrian Office of Statistics (Statistik Austria). A detailed explanation of how the target was calculated will be included in the first national energy efficiency action plan.

4 Notification of chosen policy measures in accordance with Article 7(9)

According to Article 7(9), Member States must notify the Commission, by 5 December 2013, of the policy measures that they plan to adopt for the purposes of implementing Article 7(1) and Article 20(6). Furthermore, Member States must also explain how the necessary savings will be achieved.

4.1 Obligation period and intermediate periods

According to Article 7(10)(a), the individual policy measures must allow for at least two intermediate periods by 31 December 2020, in order to establish the corresponding course for meeting the target.

The obligation period itself begins at the end of 2013 and ends on 31 December 2020. Intermediate periods of 2014-2017 and 2018-2020 have been established for Austria. The cumulative target for 2014-2017 (subject to any changes made to the baseline data for 2012) is 107 285 TJ (67 365 TJ attributable to early actions) and the cumulative target for 2018-2020 is the remaining 172 155 TJ (142 215 TJ attributable to early actions).

The planned course for meeting the target is explained in the background note 'Target course'.

4.2 Detailed description of chosen policy instruments

In Austria, detailed talks began in 2012 on how to transpose Directive 2012/27/EU (Energy Efficiency Directive - EED). The government presented a proposal, however it was not adopted. As talks are still on-going on the formation of a new government in the wake of the *Nationalrat* elections in September 2013, a new government programme is

not currently available. Provisionally, it is therefore only possible to report on plans for energy efficiency policy measures for implementing Article 7 EED. On the one hand, successful **measures which were implemented in the past will be extended**. On the other hand, **new measures**, in particular further energy efficiency programmes and legal provisions will be proposed. It will only be possible to meet the overall target under Article 7 EED if existing measures are continued and new measures introduced.

Examples of policy measures and instruments for meeting the targets under Article 7 EED are explained in more detail below. The assumed/indicated savings are based partly on assumptions, estimates and forward projections of savings measured in the past, without taking into account the possibility of future changes in conditions. Many of the measures listed would lead to overlaps in savings so the savings indicated therefore cannot be added together. When measuring the progress achieved each year, in line with Article 24 EED, duplications – as previously observed in the report on the Energy Services Directive – will be avoided or corrected in the accounting. The required ‘additionality’ will be guaranteed through minimum criteria for the legal incentive.

Measures under the Energy Efficiency Act

Implementing public authority: Federal Government/Federal Ministry of Economy, Family and Youth

In late 2012, the government drew up a proposal for an Austrian Energy Efficiency Act, which was adopted by the outgoing Federal Government in spring 2013. However, due to a lack of time under the previous legislature, parliamentary discussions could not be held. The measures earmarked under this government proposal for implementing Article 7 would have led to annual savings of 10 PJ up to 2020 through new measures. By 2020, annual savings of a minimum of 70 PJ would have been achieved, which cumulated over the period 2014-2020 would have met the target of a

minimum of 280 PJ. Once the newly sworn-in government takes up its duties, work will resume on the transposition of the EED.

Key elements of the Energy Efficiency Act:

- Inclusion of all energy sources and involvement of all energy utilities in jointly meeting the specified energy efficiency targets.
- Submission of documents and reports to the national monitoring body for the measures implemented.
- Mandatory energy management systems or regular energy audits for large companies.
- Introduction or continuation of support programmes for further strengthening efforts towards greater energy efficiency.
- Alongside the energy efficiency obligation scheme, a national monitoring body is to be created for carrying out coordination and monitoring activities and providing assistance to companies with obligations incumbent upon them. It would also coordinate the energy efficiency action plans and annual progress reports.
- Standardisation of the 'role model' status of federal bodies: alongside general requirements which must be carried out by the State regarding the dissemination of information to citizens and companies, there are also separate requirements on public purchasing and the construction and use of Federal buildings, including in particular measures on the renovation of public buildings.
- Setting of quality standards for energy service providers: energy service providers and energy advisory services must comply with certain minimum requirements pertaining to their technical capabilities.

Operational domestic environmental support (UFI)

Implementing public authority: Federal Government/Federal Ministry of Agriculture, Forestry, Environment and Water Management

Businesses, municipalities and individuals may claim UFI, which itself covers the energy supply, energy savings, transport and mobility sectors.

Actions eligible for support include, for example, improving the energy efficiency of buildings, connection to district heating, installation of heat pumps or (large-scale) solar thermal systems, operational co-generation plants, energy-efficient lighting systems, alternative fuel vehicles and various mobility management measures. As an incentive for implementing energy efficiency or renewable energy measures, non-repayable grants towards the cost of investments of up to 35 % of eligible costs ('supplementary costs of environmental relevance') are awarded as part of UFI.

On the basis of data which has been reported thus far to the monitoring body, it is possible to estimate future savings effects. Assuming that efforts invested in operational domestic environmental support remain constant until 2020, this would mean annual savings of 409.6 TJ. Broken down this corresponds annually to 44.4 TJ from district heating measures, 275.9 TJ from building envelope measures, 1.9 TJ from co-generation measures and 87.4 TJ from heat supply measures.

For the entire period in question, this would correspond to a cumulative final energy saving of 11 470 TJ.

Renovation initiative – renovation vouchers

Implementing public authority: Federal Government/Federal Ministry of Economy, Family and Youth and Federal Ministry of Agriculture, Forestry, Environment and Water Management

The renovation initiative was set up by the Federal Ministry of Economy, Family and Youth and the Federal Ministry of Agriculture, Forestry, Environment and Water Management and is aimed at providing financial support for improving the energy efficiency of buildings and converting

households and industrial premises to environmentally-friendly heating systems. EUR 123 million was the budget available in 2013.

Private claimants can be awarded support of up to EUR 9 300, in the form of a single, non-repayable grant. Support is granted for comprehensive building renovation for improving the energy efficiency of buildings over 20 years old, conversion to environmentally-friendly heating systems and obtaining energy certification. Renovation vouchers are also awarded for part-renovation, up to a maximum grant of EUR 4 300. Claimants from industry can be awarded support of up to 35 % of eligible costs for the renovation of buildings over 20 years old. The support consists of a non-repayable grant towards the cost of the investment. Furthermore, a bonus can also be awarded for heating conversions or energy-saving projects.

It is possible to combine the 2013 renovation voucher with provincial support. Moreover, duplication of savings from the two measures must be excluded when providing evidence of the savings made.

For such measures, annual savings are estimated at 1 100 TJ. Assuming this measure is continued, cumulative savings of 30 800 TJ could be made during the obligation period 2014-2020. Depending on economic policy decisions, the scale of the renovation initiative could fluctuate considerably.

Support under the Climate and Energy Fund

Implementing public authority: Federal Government/Federal Ministry of Agriculture, Forestry, Environment and Water Management and Federal Ministry for Transport, Innovation and Technology

The Climate and Energy Fund was set up by the Austrian Federal Government in 2007 with the aim of helping to implement the Austrian climate strategy. The support strategy of the Climate and Energy Fund is focused on three target areas:

- Research and development in the field of sustainable energy technology and climate research;
- Encouragement for projects in the fields of local and regional public passenger transport, the environmentally-friendly carriage of goods and mobility management;
- Encouragement for projects supporting the market penetration of climate-related and sustainable energy technologies.

Under the Climate and Energy Fund, support is granted to research projects and conceptual and investment-based energy efficiency and renewable energy measures. In the case of the latter, individuals, municipalities and businesses are eligible for support to improve their energy efficiency in areas including initial advisory services and advice on implementation for increasing operational energy efficiency, renovation for improving the energy efficiency of buildings used by businesses and the public sector, photovoltaic installations, conceptual development of climate and energy model regions together with investment projects, and projects for promoting renewable energy-based e-mobility for climate and energy model regions. Non-repayable grants (towards the cost of investment) are offered as an incentive for implementing energy efficiency measures.

The Federal Ministry of Economy, Family and Youth has reported an annual saving of 328 TJ from investment-based energy efficiency measures under the Climate and Energy Fund. Assuming that this measure is continued, a cumulative saving of 9 184 TJ between 2014 and 2020 will therefore be possible.

Measures under the General Transport Plan

Implementing public authority: Federal Government/Federal Ministry for Transport, Innovation and Technology

Through corresponding measures, in particular through use of smart technology and processes, annual savings of 3 750 TJ should be achieved.

This would therefore produce a cumulative saving of 26 250 TJ between 2014 and 2020.

Tax measures

Implementing public authority: Federal Government/Federal Ministry of Finance

In accordance with the EED, energy and CO₂ taxes may count towards the savings target according to Article 7.

The following environment and energy-related taxes are taken into account in Austria:

- Tax on electricity
- Tax on natural gas
- Mineral Oil Tax Act
- Green Electricity Act
- Federal Road Toll Act

The table below provides an overview of all the tax rates in Austria.

Table: Environment and energy-related tax rates in Austria

Tax	Cent/kWh		EUR/unit		Unit
	from	to	from	to	
Tax on electricity	1.5		0.015		EUR/kWh
Tax on natural gas	0.8		0.066		EUR/m ³
Mineral oil tax					
Petrol	6.0	7.3	0.482	0.587	EUR/l
Diesel	4.1	4.4	0.397	0.425	EUR/l
Heating oil (extra light/light)	1.0	1.3	0.098	0.128	EUR/l
Heating oil (heavy)	3.8	4.0	0.397	0.425	EUR/l
Green electricity					
Flat-rate			11	35 000	EUR/a
Generation capacity			3.41	9.36	EUR/kW
Working capacity	0.1	1.1	0.001	0.011	EUR/kWh
Motorway toll ^[1]	0.4	1.2	0.149	0.405	EUR/km

^[1] For the conversion to an energy-based rate, a conversion factor of 2.9 kWh/km has been used

Source: AEA report; measures for meeting the target under Article 7 EED

As shown in the table, the electricity and natural gas tax is based only on the final volume of energy consumed. The amounts applicable to the other taxes and levies are also differentiated according to the following criteria:

- the mineral oil tax is determined by the respective composition.
- the motorway toll is determined by the number of axles and the (motor) engine emissions class.

The savings from energy consumption not subject to tax minus energy consumption subject to tax are calculated. Energy consumption subject to tax is the figure for energy consumption included in the national energy statistics. Energy consumption not subject to tax is calculated using the following formula:

$$EV_B = EV_{Tax} \frac{1}{1 + \Delta p \cdot \varepsilon}$$

EV_B	...	Theoretical energy consumption minus tax (gross or basic)
EV_{Tax}	...	Tax-related energy consumption
Δp	...	Percentage energy tax of gross price minus minimum European tax rates
ε	...	Price elasticity of energy consumption

On the one hand, short-term price elasticities (as specified in a study by PROGNOSE, 'End-use energy savings target according to Article 7 EED and estimate of possible energy savings through policy measures', Berlin, February 2013) were used which indicate the effects of price levels on behaviour. On the other hand, savings from long-term price effects (long-term price elasticities published by the Austrian Institute of Economic Research) were calculated, which indicate effects on behaviour and investment.

Energy taxation

In Austria, electrical energy, natural gas and various petroleum products are taxed on the basis of the following three legal acts:

- Electricity Tax Act (BGBl. No 201/1996)
- Natural Gas Tax Act (BGBl. No 201/1996)

- Mineral Oil Tax Act (BGBl. No 630/1994)

All three acts lay down higher tax rates than the EU Energy Taxation Directive (Directive 2003/96/EC).

Initial estimates (see table below) indicate potential annual savings of between 10 909 TJ (based on short-term price elasticities) and 60 832 TJ (based on long-term price elasticities).

Table: Initial estimate of potential energy savings through energy taxation

Tax	Tax-related effect on energy TJ/a	Energy saving subject to price elasticity	
		WIFO TJ/a	PROGNOS TJ/a
Tax on electricity & green electricity tax	214 897	15 765	1 269
Tax on natural gas	187 839	11 072	2.395
Mineral oil tax	414 821	33 995	7 244
Austria (total)	817 557	60 832	10 909
2014-2020 cumulative saving [TJ]		425 824	76 361

Source: AEA report; measures for meeting the target under Article 7 EED

In addition to the taxation of energy sources, the following additional energy-related taxes and levies are also collected.

Green Electricity Act (BGBl. No 75/2011)

The Green Electricity Act contains provisions on support and also on the funding of support. An additional levy is applied to energy prices for funding the support. This levy, which increases energy prices further, has the same effect as an energy tax on energy consumption.

The green electricity tax is composed of a flat-rate amount and a green energy support tariff based on consumption. The green energy support tariff is levied in relation to charges for the use and losses of each grid.

Cumulative energy savings through this tax for the period 2014-2020 could amount to 10 430 TJ.

Federal Road Toll Act (BGBl. No 109/2002)

Use of stretches of toll road by multi-track motor vehicles with a maximum permissible total weight not exceeding 3.5 tonnes is subject to a distance-related toll. Vehicles which fulfil these conditions are therefore required to pay a fee for the journey effected on the toll road. The toll amount is set by the Federal Minister for Transport, Innovation and Technology, in consultation with the Federal Minister for Finance. The Autobahn- und Schnellstraßen-Finanzierungs-Aktiengesellschaft (ASFiNAG) draws up the Toll Ordinance. The toll amount is determined by the distance covered, emissions class, axle-number and partly by the journey duration. In order to keep the toll as low as possible, the companies concerned can take the following measures:

- Reducing the distance covered
- Increasing the transport performance
- Using energy-efficient vehicles
- Reducing the number of unladen journeys

All the above measures lead to more efficient use of energy in the transport sector and therefore result in energy savings.

Initial estimates (see table below) indicate potential annual savings of between 1 025 TJ and 2 562 TJ, and potential cumulative savings of between 7 175 TJ and 17 935 TJ.

Table: Initial estimates of potential end-use energy savings due to the motorway toll

Source	Annual	2014-2020
PROGNOS	1 025 TJ/a	7 175 TJ
UBA Deutschland	2 562 TJ/a	17 935 TJ

Source: AEA report; measures for meeting the target under Article 7 EED

Housing and energy support

Implementing public authority: Provincial governments

At provincial level, measures in particular for increasing energy efficiency in the construction of housing and industrial premises and in electricity and heat generation are eligible for financial support, granted in the form of housing support and energy support and issued partly from housing funds and from other sources. More specifically, the construction of new energy-efficient homes and improvements to the energy efficiency of homes, and the use of alternative energy systems for fulfilling defined eligibility criteria, may benefit from support. Subsidised loans and non-repayable grants towards the cost of investments are offered as an incentive. In the non-housing sector, financial incentives are also available for implementing energy efficiency measures.

Based on data which was entered into the energy efficiency monitoring database (by the Provinces) in accordance with the Energy Services Directive, it is possible to estimate future savings. Assuming that efforts invested by the Provinces in housing and energy support remain constant until 2020, this would mean possible annual savings of 2 638 TJ, of which 1 120 TJ through building envelope measures and 1 518 TJ through heat generation measures. For the entire period in question, this would correspond to a cumulative final energy saving of 73 864 TJ.

If, pending a decision by the new Federal Government, the aforementioned measures are extended and the additional planned legal measures are implemented, it will be possible to achieve the savings set out in Article 7 in Austria.

4.3 Methods for calculating energy savings

Details of the calculation methods already developed and applied under the ESD for demonstrating and checking savings from energy efficiency measures (monitoring and evaluation process for energy efficiency measures) and the corresponding lifetimes of the respective measures can

be found on the homepage for the current monitoring body (<http://www.monitoringstelle.at/> – document: *Methoden zur richtlinienkonformen Bewertung der Zielerreichung gemäß Energieeffizienz- und Energiedienstleistungsrichtlinie 2006/32/EG; Bottom-Up Methoden*). A decision has not yet been made in Austria on the method for taking into account the lifetime of savings (Annex V(2)(e) EED), however the European Commission will be duly informed of the approach that is chosen by 30 April 2014 at the latest.

For the purposes of and in order to implement these methods for proving the energy savings made, and therefore as proof of the targets achieved under the EED, these methods are adapted as appropriate since minor changes, e.g. to the default values, mean that existing calculations can generally be used as proof of progress made under the EED (see report by the Austrian Energy Agency, *Maßnahmen zur Zielerreichung gemäß Art. 7 der EED*, page 5). Any such changes will be agreed by 30 April 2014 and published at www.monitoringstelle.at.

4.4 Annual report and publication

The corresponding publications will be produced by Austria as part of its annual report in line with Article 24.

4.5 Monitoring and controls in accordance with Article 7(10)(h) and (i)

A corresponding control and evaluation system for monitoring all essential targets under the EED will be set up by Austria.

5 Background note: Evidence of early actions

The following refers to the description of early actions based on data notified (without taking account of tax measures and voluntary agreements) for the purposes of energy efficiency monitoring under Directive 2006/32/EC (Energy Services Directive – ESD). As laid down in the EED, detailed proof of early actions in accordance with the criteria under the EED will be produced by 5 June 2014 at the latest.

Calculation methods and measures – status quo

Data on energy efficiency measures was collected and quantified using a monitoring database by the Austrian monitoring body, as proof of the targets met under the ESD. The Federal Government, Federal Provinces and companies enter their energy efficiency improvement programmes into this monitoring database. The resulting savings from the measures entered are calculated or estimated continuously and directly accounted for in the database. Details of the calculation methods used can be found on the homepage of the current monitoring body (<http://www.monitoringstelle.at/>).

Below is an analysis for Austria of the relevant savings under Article 7 EED from energy efficiency measures which have been reported to date and which will continue to produce savings until 2020.

In order to determine the annual average for the energy efficiency measures implemented and reported, the average of all savings entered was generated from the representative years 2008-2011. The savings determined using the monitoring database – taking into account eligibility under Article 7 EED – are presented in the table below.

On average, a total of 7 231 TJ in new savings resulting from energy efficiency measures was reported each year.

Table: Savings and forward projection of savings from the energy efficiency measures reported, by area

Measures	Energy savings to date (new entries per year)		Cumulative saving 2009-2013 (early actions)
	TJ/a	%	TJ
Lighting	245	3 %	323
Energy advice (households)	82	1 %	-
District heating	660	9 %	2 508
Building envelopes (incl. Building Code)	3 702	51 %	11 974
Equipment	31	0 %	83
Cogeneration	3	0 %	5
Cooling and air conditioning	2	0 %	0
Mobility	10	0 %	5
Photovoltaics	24	0 %	166
Processes	0	0 %	1
Zero sulphur heating oil	469	6 %	432
Smart meters (households)	8	0 %	-
Stand-by	3	0 %	13
Heat supply	1 954	27 %	7 137
Heat distribution	38	3 %	144
Total	7 231	100 %	22 793

Source: AEA report; measures for meeting the target under Article 7 EED

Building envelope measures account for the majority of the savings achieved, corresponding to just over 51 %. 27 % of savings are produced by installing more efficient heat generation systems, e.g. condensing boilers, heat pumps and solar energy systems. District heating corresponds to 9 % of savings. Energy savings from the sale of zero-sulphur heating oil accounts for 6.5 % of declared savings. The remainder corresponds to equipment running on electricity, consumption patterns and processing technology.

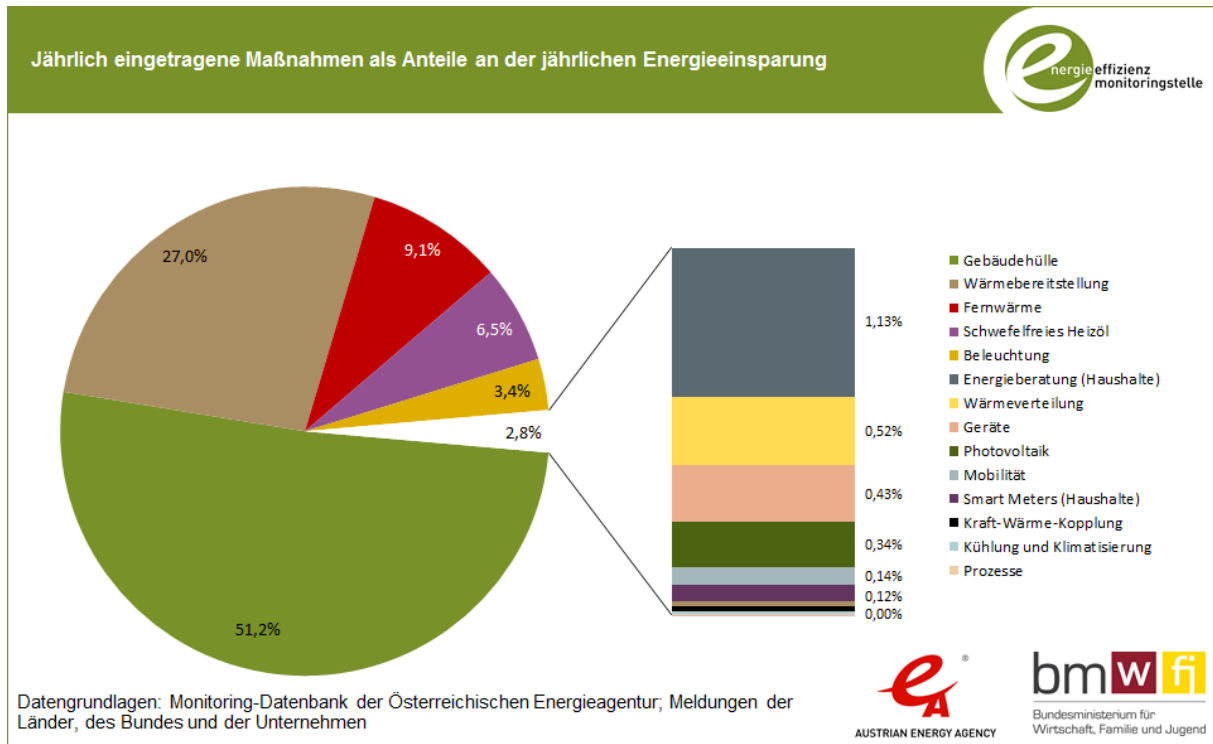


Chart: Distribution of new measures entered annually by category

Early actions – Identification

In order to determine early actions, entries from the energy efficiency monitoring database are used directly, whereby entries which are not deductible as savings under the EED are not taken into account. Under the EED, 22 793 TJ/a of the savings could be identified as early actions. This figure is well in excess of the value established for early actions under Article 7. Austria is therefore able to cover the 25 % reduction laid down in Article 7(3) exclusively through early actions.

Table: Contribution of early actions to the targets under Article 7(1) EED

	Early actions					Obligation period							Total
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Σ
Measures adopted	7 045	7 823	5 082	2 843									
Savings	7 045	14 868	19 949	22 793	22 793	22 793	22 793	22 793	22 793	22 793	22 793	22 793	159 549

Source: AEA report; measures for meeting the target under Article 7 EED

The above table presents the savings achieved through measures introduced in 2009 and which will still be producing savings in 2020. As the data was collected in early 2013, data is still unavailable for 2013 and only partially available for 2012.

An exact presentation of the amount of savings achieved through early actions will therefore only be possible once all the data has been collected for 2012 and 2013. However, this will not lead to a decrease but an increase in the figure.

6 Background note: Target course

	2014	2015	2016	2017	2018	2019	2020 Kumuliert	Early Actions 2009 - 2013
Nachweis der Verfügbarkeit von Early Actions	7.045 7.823 5.082 2.843 22.793	7.045 7.823 5.082 2.843 22.793	7.045 7.823 5.082 2.843 22.793	7.045 7.823 5.082 2.843 22.793	7.045 7.823 5.082 2.843 22.793	7.045 7.823 5.082 2.843 22.793	7.045 7.823 5.082 2.843 22.793	
Early Actions im Ausmaß von max. 25% des Zieles	9.980	9.980	9.980	9.980	9.980	9.980	9.980	anrechenbare Early Actions max. 25 % des Gesamtzieles
jährliche neue Einsparungen durch gesetzliche/strategische Maßnahmen 2014 bis 2020	3.743	3.743	3.743	3.743	3.743	3.743	3.743	Einsparungen 2014 - 2020
Summe Einsparungen 2014-2020							209.580	
Zwischenziele ohne EA		2014-2017:	2018-2020:					
Summe Einsparungen EA und Maßnahmen ab 2014	13.723	22.455	31.188	39.920	48.653	57.385	66.118	279.440 Gesamtziel Art. 7 FEED