

The Implementation of the European Energy Efficiency Directive (2012/27/EU) in Austria: Will Austria achieve its Efficiency Targets in 2020?

DI Dr. Günter Simader, Austrian Energy Agency, +43-5861524-0, guenter.simader@energyagency.at
 Mag. Gregor Thenius, Austrian Energy Agency, +43-1-5861524-0, gregor.thenius@energyagency.at
 Christoph Ploiner, MSc., Austrian Energy Agency, +43-5861524-0, christoph-ploiner@energyagency.at

Overview

The 2012 Energy Efficiency Directive (EED - 2012/27/EU) establishes a set of binding measures to help the EU to reach its 20% energy efficiency target by 2020. Implementing this directive, all EU countries are required to use energy more efficiently at all stages of the energy chain, from production to final consumption.

In Austria, the EED is implemented by the Austrian Energy Efficiency Act. Within this act, Austria is increasing its energy efficiency efforts aiming to a final energy consumption of 1050 PJ by 2020. Furthermore, till 2020 cumulative energy savings of 310 PJ have to be achieved.

These targets have to be reached by an obligation scheme for energy distributors (with a sales volume > 25 GWh to final energy consumers) contributing with energy efficiency measures up to (cumulative) 159 PJ and by so-called strategic measures by public authorities with up to (cumulative) 151 PJ till 2020. Strategic measures include energy taxes, corporate environmental protection subsidy schemes, refurbishment activities/vouchers, housing and energy subsidies ...

Methods

Key elements of the Energy Efficiency Act are:

- Inclusion of all energy sources and involvement of all energy utilities (with a sales volume > 25 GWh to final energy consumers) 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 was 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.

Results

In 2015, the final energy consumption accounted to 1.087 PJ¹ - obviously still over the target of 1050 PJ that was set by the Energy Efficiency Act. Within the reporting procedures of the European Union in the frame of the energy efficiency directive, Austria reported to the European Union for the years 2014 and 2015 in total cumulated energy efficiency measures of 167 PJ (in connex to article 7 of EED (2012/27/EU)). Till 2020, Austria notified in its reports that energy efficiency measures up to 218 PJ will be achieved till 2020. At this stage, these savings seem to be achievable.

¹ Preliminary numbers for 2016 came to a final energy consumption of 1.121 PJ published by the Austrian statistical office.

Table 1: Overview of the Austrian energy efficiency path following article 7 of EED

EE measures	Yearly energy savings [TJ/a] (straight forward approach)							Cumulated energy savings [TJ]	
	2014	2015	2016	2017	2018	2019	2020	Achieved	EED Goal
2014	9.743	9.743	9.743	9.743	9.743	9.743	9.743	68.198	27.216
2015		16.416	16.416	16.416	16.416	16.416	16.416	98.497	54.432
2016			-	-	-	-	-	-	45.360
2017				-	-	-	-	-	36.288
2018					-	-	-	-	27.216
2019						-	-	-	18.144
2020							-	-	9.072
Total								166.695	217.728

Differences between the national goals for energy efficiency measures (310 PJ in connex with § 4 (1) 3 of the Energy Efficiency Act) and the notified value of 218 PJ (in connex with the implementation of Article 7 of EED) are due to:

- Conformity gaps to EU specifications for the calculation of energy efficiency savings (especially measures in years 2014/2015) that lead to stricter calculations of energy efficiency savings
- Multiplication factors for energy savings for energy poor consumers and for energy efficiency measures that are based on biomass/district heating in the Austrian legislation
- Strict exclusions of double counting of energy efficiency measures in the reporting to the EU

The target for the energy service directive (energy efficiency predecessor directive 2006/32/EG (ESD)) amounted to 80,4 PJ for the year 2016. Within the NEEAP 2017, Austria reported for this target cumulative energy savings (for the years 1991 till 2015) of 88,6 PJ. Comparing target and implemented measures, Austria could already achieve this 2016 ESD target in 2015.

Large companies had to implement either a mandatory energy management system (including an energy audit by a qualified internal expert) or executing an energy audit by a qualified external expert. In total, 1.890 companies were obliged to audit their energy efficiency. In total, 1.276 audit reports were reported to the Austrian monitoring body (due to corporation group affiliation). 59 % of these reports were based on external audits, 41 % introduced or already implemented a management system.

Conclusions

Energy efficiency has been a key instrument within the Austrian energy policy for many years. By implementing the ESD, Austria strengthened its efforts and could account energy efficiency measures of up to 89 PJ for the years 1991 till 2015. The ESD target for 2016 could already be achieved by 2015 in Austria.

By implementing the EED, Austria reported in 2017 energy efficiency measures in total of 167 PJ. The target within EED for Austria amounts to 218 PJ. Presently, it looks quite reasonable that Austria will achieve this target before 2020.

Taking into account the final energy consumption of 1.087 PJ in the year 2015, the path to 2020 for 1.050 PJ seems to be achievable. Other requirements by EED like the monitoring of the energy efficiency in large companies could be also successfully implemented by 2015 in Austria. The next audit reporting period to the monitoring body is in 2019.

In case that the preliminary numbers – reported by the Austrian statistical – of 1.121 PJ for 2016 will be confirmed by office, further steps will be required in order to fulfil the EED targets set by the Austrian government.

References

Second national energy efficiency plan of Austria 2017 following the energy efficiency directive 2012/27/EU (NEEAP 2017), BMFWF, Vienna, April 2017 (www.monitoringstelle.at)

First national energy efficiency action plan of Austria 2014 following the energy efficiency directive 2012/27/EU (NEEAP 2014), Vienna, April 2014 (www.monitoringstelle.at)

„Fortschrittsbericht 2016“ following the reporting procedure of article 24 (1) of the energy efficiency directive 2012/27/EU, Vienna, April 2016 (www.monitoringstelle.at)

„Stand der Umsetzung des Energieeffizienzgesetzes (EEffG) in Österreich – Bericht gemäß § 30 Abs. 3 EEffG“, Vienna, November 2016 (www.monitoringstelle.at)