



Austria

Energy Policy Baseline

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1. INTRODUCTION

This report is part of the baseline analysis of the E-FIX project. The E-FIX project aims at triggering private finance for sustainable energy projects using innovative financing mechanisms. In the target countries of Central and South Eastern Europe as well as the countries of the Caucasus region there is considerable idle potential for sustainable energy products and services. Both potential energy project developers and financiers face diverse financing barriers. An innovative energy financing mix is needed in order to activate new source of finance and facilitate an increased implementation of sustainable energy projects. Accordingly, the objective of the E-FIX project is to facilitate the take up and intensified usage of innovative energy financing mechanisms in the energy sector.

This report provides the first analysis of the regulatory environment in which energy projects are implemented in each of the focus countries. With this part of the baseline study the E-FIX experts conduct an assessment of the energy-related policy framework in order to identify opportunities and challenges for introducing innovative financing instruments for sustainable energy projects. The material will be part of the subsequent Gap Analysis combining financing and energy baseline data.

The present report describes the energy policy framework for Austria.

2. POLICY FRAMEWORK

2.1. OVERVIEW OF LEGAL FRAMEWORK AND POLICY DEVELOPMENT OF THE ENERGY SECTOR IN AUSTRIA

Energy policies in Austria are strongly influenced by the implementation of EU Directives and regulations. In the building sector, this would be the Energy Performance of Buildings Directive (EPBD) and in terms of energy efficiency the EU Energy Efficiency Directive (EED).

A main consequence of the implementation of the EPBD in Austria was the broader definition of requirements when assessing the energy performance of buildings. Not only considering space heating demand but overall efficiency as well. According to EPBD from 2021, all newly constructed buildings will be nearly-zero energy (from 2019 for public buildings) – see chapter 2.2.1.

The most significant law in the energy sector was the National Energy Efficiency Act (according to the EU EED). It gave concrete targets for national energy savings as well as assigned responsibilities to large businesses to at least audit energy consumption and potential on a regular basis and on energy supplier to implement and support energy saving measures – see chapter 2.2.2.

The development of renewable energy facilities is supported by a feed-in tariff and subsidy scheme, see chapter 2.2.3. The scheme contributes to reaching the national target set out by EU and further for 2030 in the Climate and Energy Strategy.

The Integrated Climate and Energy Strategy was presented in May 2018 and is the latest policy document published for the energy sector. The strategy includes targets for renewable energy production until 2030 and a vision for the development until 2050. It provides a more detailed target for the development of renewable energy and picks up the issue of reaching Austrian climate goals – see chapter 2.3.

2.2. EXISTING NATIONAL LAWS AND STANDARDS

2.2.1. Standards for Buildings - Implementation of Energy Performance for Buildings Directive

The Directive 2010/31/EU on the energy performance of buildings (EPBD) aims at improving the energy performance of buildings across the member states of the European Union. The EPBD focuses on local specifics, such as microclimate aspects and indoor climate requirements of the addressed building as well as on the balance between costs and outcomes (effects) of the planned measurements.¹

Following requirements are foreseen by the EPBD²:

- Framework for a methodology for calculating the integrated energy performance of buildings and building units;

¹ cf. Schuch et al., 2017: 20

² cf. Schuch et al., 2017: 20

- The application of minimum requirements to the energy performance of new and existing buildings and building units;
- National plans for increasing the number of nearly zero-energy buildings;
- Energy certification of buildings;
- Regular inspection of heating and AC systems in buildings; and
- Independent control systems for energy performance certificates and inspection reports.

Moreover, the EPBD requires all new buildings to be nearly zero-energy by the end of 2020. All new public buildings must be nearly zero-energy by 2018.

Implementation in AT: OIB RL 6

Austria has shared responsibilities between the nation state and the constituting provinces, the so called “Länder”. Due to the fact that the building regulations in Austria are under Provincial jurisdiction, some of the Länder have been active in the field of energy performance of buildings long before the EPBD has been adopted, issuing “Energy Performance Certificates” (EPCs) since 1998 while using the space heating demand as a reference point. However, for the certification, only the building envelope was taken into consideration in order to define its performance. But the fact that each of the provinces has its own building regulation leads to nine different regulatory bodies, thus generating widely variations across the country. Therefore, the implementation of the EPBD in Austria represented a starting point for the much-needed harmonisation process. Assigned with this task was the Austrian Institute of Construction Engineering (OIB), which had to lay the groundwork for developing a common calculation methodology among all Länder as well as implementing further systems (such as heating, ventilation and air-conditioning).³

The established working group gathered representatives of the nine provinces and agreed upon using a set of indicators in order to describe the overall energy performance of buildings. The four agreed indicators are the space heating demand (HWB), the energy performance factor (fGEE), the primary energy demand (PEB) and the amount of CO₂ emissions. This set was compiled under the OIB Directive 6 (OIB RL 6) with regard to energy saving and heat retention of both residential and non-residential buildings and is mandatory for all nine provinces.⁴

Starting from the four indicators within the OIB RL 6, a further step towards achieving a larger number of nearly zero-energy buildings was undertaken in Austria by designing a national plan. A nearly zero-energy building (NZEB) is defined by taking into consideration a well-insulated building envelope (expressed by HWB), the energy efficiency level (expressed by fGEE), the environmental friendly technical systems (expressed by PEB) and the amount of climate protection (expressed by the level of CO₂ emissions).

A main consequence of the implementation of the EPBD in Austria was the broader definition of requirements when assessing the energy performance of buildings. Whilst before the directive the space heating demand was the main aspect considered, after its implementation, the efficiency of the heating systems became more relevant. Thus, ever since the EPBD, the instalment of high efficient heating systems, even CHP systems, has been highly encouraged. The main requirement is the reaching of a cost-optimal level of the energy performance of buildings stated in the EPBD (see Article 4 concerning the

³ cf. Schuch et al., 2017: 23

⁴ cf. Schuch et al., 2017: 24

achievement of minimum energy performance requirements for building or building units in relation to ensuring cost-optimal levels).⁵

Austrian Energy Certificate Law

The Austrian Energy Certificate Law stated that the aforementioned Energy Performance Certificate (EPC) is mandatory for all new buildings already before the official construction process has been finished. This certificate is also required in case of comprehensive renovation and revitalisation, additions or conversions. Furthermore, when selling, leasing or renting houses, apartments, offices or operational facilities the respective EPC of the building is to be presented.⁶

2.2.2. Energy Efficiency Laws and Standards

2.2.2.1. NEEAP National Energy Efficiency Action Plan 2017

According to the Energy Efficiency Directive 2012/27/EU, each EU member state has to develop National Energy Efficiency Action Plans (NEEAPs) where the estimated energy consumption, energy efficiency measures to be implemented as well as expected energy-related improvements on national level within a defined period of time have to be set out. These defined targets represent the basis for the annual report that each country must present to the Commission. After the end of the defined period of three years, the EU Member States have to update their plans according to their already achieved progress.⁷

The Austrian NEEAP from 2014 foresaw a target of 1,100 PJ of final energy consumption in 2020. This set target was revised during the preparation of the NEEAP 2017 and reduced to 1,050 PJ in the Federal Energy Efficiency Act. Apart from that, the target for primary energy consumption for 2020 (after excluding non-energy use) was defined at 1,320 PJ. Both targets have been reported to the European Commission.⁸

Table 1: Energy consumption targets for Austria in 2020

Estimate of energy consumption in 2020	PJ
Total primary energy consumption 2020 (excluding non-energy consumption)	1,320
Total final energy consumption	1,050

⁵ cf. Schuch et al., 2017: 24

⁶ cf. Energieausweis, n.d.: online

⁷ cf. Federal Ministry of Science, Research and Economy, 2017: 3f.

⁸ cf. Federal Ministry of Science, Research and Economy, 2017: 5

The Austrian NEEAP 2017 encompasses a set of measures in order to achieve the national energy efficiency target. These measures address⁹:

- “Energy efficiency obligation schemes and alternative policy measures
- Energy audits and energy management systems
- Availability of qualification, accreditation and certification schemes
- Energy services
- Metering and billing
- Consumer information programmes and training
- Other horizontal measures to promote energy efficiency
- Energy efficiency measures in buildings
- Energy efficiency measures in public bodies
- Energy efficiency measures in industry
- Energy efficiency measures in the transport sector
- Promotion of efficient heating and cooling
- Energy transformation, transmission, distribution, and demand response”

2.2.2.2. Energy Efficiency Act (Bundes-Energieeffizienzgesetz EEffG) based on EED

The EU Energy Efficiency Directive (2012/27/EU) is implemented by the Austrian Energy Efficiency Act (EEffG – “Energieeffizienzgesetz”) which was adopted in 2014 and at present time is still in force. The implementation is directly related to the NEEAP and the set target of not exceeding the final energy consumption of 1,050 PJ in 2020. Moreover, the Federal Act aims at promoting energy efficiency measures, improving security of supply by lowering energy imports, increasing the proportion of renewables in the energy mix as well as bring a reduction in emissions.¹⁰

Reaching the set target is to be done in two complementary ways: 1) through a bundle of measures concerning a broad spectrum of action fields and 2) through an obligation system. In the first case, the defined measures address industrial buildings, production and services, trade, small-scale consumption, mobility, energy provision and security of energy supply.¹¹

According to EEffG, starting from 2015, all energy suppliers in Austria have to demonstrate the implementation of measures in order to increase energy efficiency equivalent to 0.6 % of the total energy supplied the previous year at their own or others’ end (customers). As this action is part of the obligation system, the National Energy Efficiency Monitoring Body (“Monitoringstelle”) is in charge to verify its

⁹ Federal Ministry of Science, Research and Economy, 2017: 7

¹⁰ cf. Schuch et al., 2017: 25

¹¹ cf. International Energy Agency, 2017: online

fulfilment. Excluded from this obligation are only small energy retailers, which do not supply more than 25 GWh to end consumers. One of the requirements is, however, that an amount of 40 % of the measures is to be implemented in the household sector.

A further obligation concerns large-scale consumers (businesses) that have the new obligation to conduct an energy audit of their business at least every four years, implemented by a qualified auditor. Alternatively, the business can choose to implement an accredited energy management system and internally audit the business according to the requirements of the management system. Differently from an accredited management system, the external energy audits do not bring any obligation with them to implement identified energy efficiency measures. Small and medium-scale businesses can, however, apply energy saving measures on a voluntarily basis.¹²

Apart from the energy suppliers and large energy consuming businesses, also the Austrian Federal Government has the obligation to implement energy efficiency measures, making thus exemplary contributions in regard with public buildings. The Government has committed to reach savings of 48.2 GWh during the period 2014-2020 in all heated or cooled buildings owned and used. As far as buildings only used by the Government, but owned by the Federal Real Estate Company, the two public bodies will join forces and implement measures amounting up to 125 GWh in the same period of time 2014-2020. The actions to be carried out do not solely refer to thermal renovation measures, but can also include savings through energy saving contracting, improvements in facility management or soft measures such as positive behavioural changes of building users.¹³

The aforementioned obligation requirements are to be understood as a combination of deemed, scaled and metered savings. Furthermore, surveyed savings can also be taken into consideration. Concerning the measurement and verification (M&V), a Monitoring Body has been formed. The monitoring process includes plausibility checks for all implemented and reported measures, desktop check as well as on-site checks for measures' samples.¹⁴

Status of target achievement

As far as the Austrian energy consumption target for 2020 according to Article 3 EED is concerned, in 2015 the final energy consumption amounted 1,087 PJ, which lies above the target of 1,050 PJ set for 2020. Starting from the premise that the trend of decoupling between economic growth and energy consumption is ongoing, experts are expecting that the defined target for 2020 will be achieved.¹⁵

¹² cf. International Energy Agency, 2017: online

¹³ cf. Schuch et al., 2017: 25

¹⁴ International Energy Agency, 2017: online

¹⁵ cf. Federal Ministry of Science, Research and Economy, 2017: 5f.

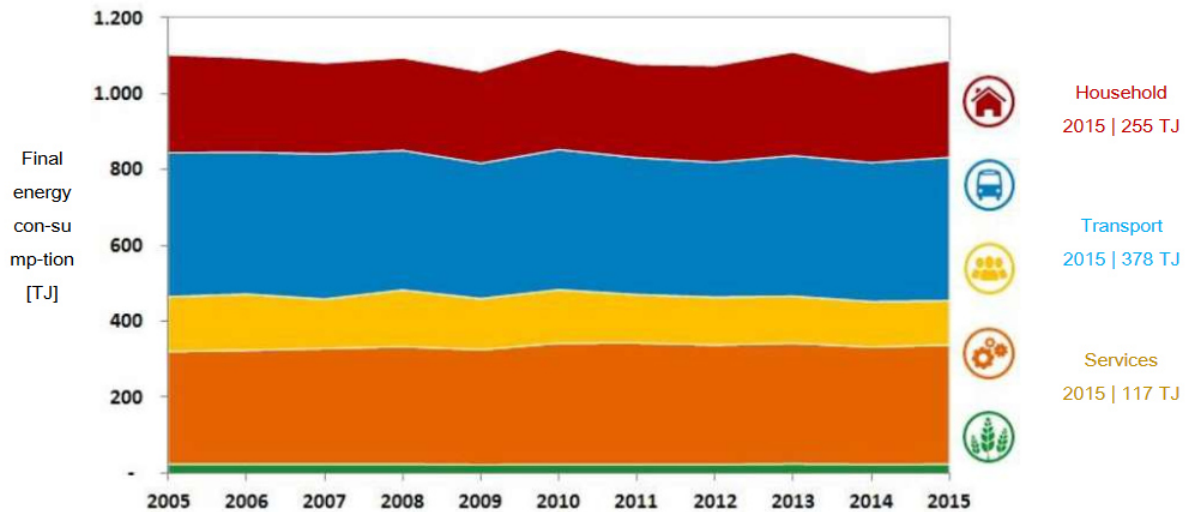


Figure 1: Final energy consumption in Austria by sector (Source: Federal Ministry of Science, Research and Economy, 2017: 6)

Article 7 EED keeps track of the cumulative savings throughout the period until 2020. Until the moment of writing the present report, Austria has reported the measures from 2014 and 2015, making so far a cumulative contribution of 167 PJ to the target of 218 PJ.¹⁶

Measures	Annual energy savings effects [TJ/a]							Cumulative savings [TJ]	
	2014	2015	2016	2017	2018	2019	2020	Current	Target
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

[full stops should be read as commas in this table]

Figure 2: Overview of the achievement of targets for Article 7 EED (Source: Federal Ministry of Science, Research and Economy, 2017: 11)

Market for energy savings certificates

Energy suppliers who supply more than 25 GWh (based on the balance of each previous year) are obliged under the National Energy Efficiency Act to save 0.6 % of the energy sold to end consumers. Energy savings measures can be implemented in the suppliers own processes or at end-consumer level. At least 40 % of the required energy savings have to be implemented in Austrian households or public transport system.¹⁷

¹⁶ cf. Federal Ministry of Science, Research and Economy, 2017: 11

¹⁷ cf. Federal Ministry of Science, Research and Economy, 2017: 10

Energy suppliers have the possibility to purchase energy saving certificates from a third party or contract a party to provide part or full share of the needed energy savings. This mechanism allowed to open up a national market for energy saving certificates. The implemented energy measures have to be evaluated by a registered energy auditor according to the National Energy Efficiency Act and the procedure set-out in the Energy Efficiency Guideline (“Energieeffizienz Richtlinienverordnung”). The resulting certificates can be transferred to the energy suppliers if needed, who will then need to report each year to the National Monitoring Body. The implementer of energy savings measures can also register the certificate with the Monitoring Body to begin with and sell the certificate at a later point. Banking of certificates is possible but savings are only valid for energy supplier obligation for the year in which they were implemented.

Using this mechanism allows to set a price for implemented energy saving measures. Selling energy savings certificates to energy suppliers represents an additional incentive for the private sector to implement measures by increasing the measure’s feasibility and decreasing payback time.¹⁸

In order to communicate between demand and supply side, several trading platforms emerged.

The price for certificates started off at 6.5 to 8 ct/kWh certified energy saving in fall 2015. After the end of the first reporting for the years 2014 and 2015 prices went down significantly with about 1 to 1.5 ct/kWh for the years 2016 and 2017. Such low prices show that there is a high supply of energy certificates available on the market. The intended incentive for the implementation of more energy efficiency measures is at the current price level low.¹⁹

Mandatory Registration Database for Energy Efficiency Experts

As mentioned above, the Federal Energy Efficiency Act EEffG stipulates that large energy consuming enterprises must implement a recognised management system which has to include an external or internal energy audit at least every four years or, alternatively, be subject of an external energy audit carried out once in four years.

The EEffG (section 17) requires also that persons who provide energy services and advice for enterprises have to be registered in the official database for experts. For this registration, minimum requirements must be met, such as existing authorisation, training and appropriate professional experience – all according to the nature and level of requirements of the energy service in question. The register is publicly available and accessible under the following link at the Monitoring Body²⁰:
<https://www.monitoringstelle.at/index.php?id=708>.

¹⁸ Monitoringstelle Energieeffizienz, 2018

¹⁹ cf. Energieinstitute der Wirtschaft GmbH, 2018

²⁰ cf. Federal Ministry of Science, Research and Economy, 2017: 26

2.2.3. Renewable Energy Laws

2.2.3.1. EU 2020 target

The member states agreed 2010 and adopted the Europe 2020 Strategy with the aim amongst others to generate a total of 20% of final energy consumption from renewable sources by the year 2020. As the 20% goal refers to the EU as a whole, each country has set an individual target on national level. Therefore, Austria has committed to increase its share to 34%.

Besides the target concerning renewable energy sources, the EU agreed also to reduce its greenhouse gas emissions by 20% in comparison to 1990 levels as well as to reduce its overall primary energy consumption by 20% compared to the business as usual scenario. All set targets are to be achieved until 2020.²¹

The most recent reports show that in Austria renewable energy sources are on an upwards trend. The share of renewables in gross final energy consumption has reached 32,6% in 2013 in comparison to only 25% in 2005.²²

Moreover, the Integrated Climate and Energy strategy (see chapter) picks up the

2.2.3.2. Austrian Green Electricity Act

The Austrian Green Electricity Act adopted in 2012 stipulates the targets for each green power technology for the period up to 2020²³:

- Hydropower: 1.000 MW – which corresponds to an annual green electricity production equivalent to approx. 4 TWh
- Wind power: 2.000 MW – which corresponds to an annual green electricity production equivalent to approx. 4 TWh
- Biomass and biogas: 200 MW – which corresponds to an annual green electricity production equivalent to approx. 1.3 TWh
- Photovoltaics: 1,200 MW – which corresponds to an annual green electricity production equivalent to approx. 1.2 TWh

The Green Electricity Act was also accompanied by Feed-in Tariff Ordinance for electricity generated from renewable sources.²⁴

An updated version of the Green Electricity Act is in discussion, aiming to be developed in accordance with the new Integrated Climate and Energy Strategy (see also Chapter 2.3). It is expected that the recast will bring changes to the tariff system and provide solutions for existing power plants that face discontinuation with the end of the tariff scheme.

²¹ cf. Bundeskanzleramt, n.d.: online

²² cf. Eurostat, 2015: 2

²³ cf. E-Control, 2013: 16

²⁴ cf. Federal Ministry of Sustainability and Tourism, 2018a: online

2.2.4. Related Laws and Initiatives Impacting Energy Sector Development

2.2.4.1. Austrian Climate and Energy Fund

Established 2007 by the according law, the aim of the Climate and Energy Fund is to support the Austrian Federal Government in implementing its climate and energy-related strategies. Being owned by the Republic of Austria – represented by the Ministry of Sustainability and Tourism as well as Ministry of Transport, Innovation and Technology, the Fund supports through its programmes the commitments set in the Europe 2020 Strategy of reducing greenhouse gas emissions, increasing the share of renewable energy from the complete energy usage, improving energy efficiency as well as increasing the alternative fuel proportion in the transport sector. The ultimate goal is to achieve a climate friendly and energy independent Austria by 2050 – in short “Zero Emission Austria 2050”.

The programmes developed by the Climate and Energy Fund cover following three areas:

- R&D in the field of sustainable energy technologies as well as climate research
- Promotion of projects in the field of public local and regional transport, environmentally friendly goods transport and mobility management projects
- Foster the development of projects which enable the market penetration of sustainable and climate-relevant energy technologies

Another important engagement of the Climate and Energy Fund is to raise awareness for energy and climate topics among broad target groups.²⁵

2.2.4.2. Domestic environmental support subsidies (UFI)

An important initiative is represented by the operational Domestic Environmental Support Scheme (UFI – “Umweltförderung”) which comes in support of companies wanting to invest in energy and environmental measures. The subsidies offered within this scheme can make up to 30% of the investment costs.²⁶

As far as the area coverage of the funding is concerned, it includes the efficient use of energy in commercial and industrial production processes (for renewable heat production as well as PV applications), thermal renovation of existing buildings and mobility (for electric cars, cooperate mobility management, bike use).²⁷

Covering this kind of investment costs can also be partly financed by the European Regional Development Fund (ERDF) through its programme for Investment in Growth and Employment (IWB – “Investitionen in Wachstum und Beschäftigung”) established for Austria. Beside the aforementioned national initiatives, all Austrian provinces offer energy advice and support programmes, most of them as part of the regional programmes co-financed by the EU.²⁸

²⁵ cf. Climate and Energy Fund, 2018: online

²⁶ cf. Federal Ministry of Science, Research and Economy, 2017: 12

²⁷ cf. Kommunalkredit Public Consulting GmbH, n.d.: online

²⁸ cf. Federal Ministry of Science, Research and Economy, 2017: 12

2.2.4.3. Klima:aktiv

Founded in 2004, klima:aktiv is the climate protection initiative launched by the Federal Ministry of Sustainability and Tourism. As a key instrument in the process of energy transition, the programme is oriented on actions in the fields of building & renovation, energy saving, renewable energies and mobility.²⁹

The programme aims at supporting municipalities, households and companies in reducing heating costs and CO₂ emissions through renovation of relevant public buildings and modernisation of large residential buildings. Furthermore, it promotes ecological new constructions with passive-house technology, encourages energy-saving through widespread campaigns, assists enterprises in optimising their energy use and provides energy performance contracting in order to optimise the energy consumption in buildings owned by the Federal State. Besides that, klima:aktiv also supports large-scale buyers in the process of purchasing energy-efficient appliances and provides comprehensive information on energy-efficient products. As far as the mobility area is concerned, the main focus lies on eco-driving activities and initiatives which promote a fuel-efficient driving style. Noteworthy is also the fact that this programme trains klima:aktiv experts such as fuel saving advisors or modernising managers.³⁰

Entrusted with the implementation of klima:aktiv is the Austrian Energy Agency.

2.2.4.4. Residential building subsidies (Wohnbauförderung)

Beside the different national initiatives supporting various energy-related aspects, the Austrian provinces are also active in regard with the enhancement of thermal quality of and expansion of efficient heating systems in residential buildings. Specially tailored for this purpose are the residential building subsidies (“Wohnbauförderung”), which differ across the provinces and can be provided in form of loans, grants and/or subsidies. Depending on the thermal quality envisaged or the level of efficiency of the heating system, the amount of subsidy granted can vary from case to case. When it comes to new constructions, certain requirements relating to primary energy demand and CO₂ emissions are also taken into consideration when receiving the funding.³¹

2.2.4.5. Tax breaks and subsidies for electric cars (efficiency)

In Austria, electric vehicles are exempted both from the standard fuel consumption tax (NOVA – “Normverbrauchsabgabe”) and from motor-related insurance tax. In case of a so-called plug-in hybrid – vehicle with electric motor and internal combustion engine – only the corresponding share of motor-related insurance tax is to be covered. Moreover, there are also subsidies for households and businesses considering purchasing an electric vehicle. Businesses buying electric cars also enjoy certain tax advantages.³²

²⁹ cf. Federal Ministry of Sustainability and Tourism, 2018b: online

³⁰ cf. International Energy Agency, 2012: online

³¹ cf. Federal Ministry of Science, Research and Economy, 2017: 12

³² cf. Bundesministerium für Digitalisierung und Wirtschaftsstandort, n.d.: online

2.2.4.6. EU Ecodesign Directive

An effective initiative for improving the energy efficiency of different products such as household appliances, information and communication technologies or engineering is represented by the EU legislation on Ecodesign and energy labelling.

The Ecodesign Directive aims at providing a set of EU-wide regulations (a minimum mandatory requirements) for improving the environmental performance of products, especially their level of energy efficiency. Therefore, this directive contributes to the improvement of product quality, brings positive effects for the environment and helps prevent the creation of barriers to trade. Complementary to the Ecodesign legislation is the Energy Labelling Regulation, which sets the standard for labelling within the EU.³³

2.2.4.7. Introduction of digital energy meters in Austria

Through the Ordinance on the Introduction of Intelligent Meters (IME-VO – “Intelligente Messgeräte-Einführungsverordnung”), which became effective in 2012, the signal for the implementation of smart meters in Austria was given. The target set is that at least 95% of all electricity customers will be provided with a smart meter by the end of 2019.

For achieving the aforementioned target, considerable efforts are needed. By the end of 2015, the coverage degree was about 7.4%, whereas in 2014 only 4.9% of the total existing metering points were equipped with a smart meter. Due to the ambitious timeframe, large roll-outs can be currently identified – especially in Upper Austria, with large network operators or public utilities such as Energie AG Netz GmbH and Linz Strom Netz GmbH being the frontrunners.

As far as the main barriers regarding the smooth and rapid implementation of the IME-VO are concerned, the inconsistent legal framework has been related to as the biggest impediment. In particular, areas of data protection as well as measurement and calibration are considered to be insufficiently clear.³⁴

The regulatory authority, E-Control Austria releases periodically monitoring reports on the implementation status – these can be found at <https://www.e-control.at/marktteilnehmer/strom/smart-metering/monitoring>.

2.3. LATEST NATIONAL ACTIVITIES AND EFFORTS FOR THE REFORM OF STRATEGIES

The latest and most notable initiatives for reforming national strategies are related to the Integrated Climate and Energy Strategy (“Integrierte Klima- und Energiestrategie”), which brings together the former Climate Protection Law and Energy Strategy in a comprehensive, new and updated form.

Climate Protection Law (Klimaschutzgesetz)

Adopted in 2011 and last amended in 2017, the Austrian Climate Protection Law stipulates emission limits for relevant sectors and builds the framework for the development and implementation of effective climate protection measures complementary to the already existing EU emissions trading. The six concerned

³³ cf. European Commission, 2018: online

³⁴ cf. Federal Ministry of Science, Research and Economy, 2017: 29

sectors are: energy and industry, transport and mobility, built environment, agriculture, waste management and fluorinated gases.³⁵

With the initial intention of representing a cornerstone of the Austrian climate policy until 2020, the law took into consideration the EU 2020 targets as well as the resolutions of the Paris Agreement from December 2015, aiming at limiting global warming to below 2°C. However, a new assessment of the measures planned within the Climate Protection Law has been undertaken in the process of developing the Integrated Climate and Energy Strategy.

Energy Strategy (Energierstrategie)

Initiated in 2009 by the Federal Ministry of Economy and Federal Ministry of Environment in order to meet the targets for reduction of greenhouse gas emissions by 16% and for increasing the share of renewable energy sources up to 34%, the Austrian Energy Strategy came into force in 2010. Further stated objectives of the document are the stabilisation of the final energy consumption at the level of 2005, the acceleration of the rate of building refurbishment from 1.2% to 3% by 2020 and the launch of an energy efficiency programme for the industrial and commercial sectors. In the long run, the intention of the Energy Strategy was to lay the foundation and create the appropriate strategic framework for the development of a future-oriented, efficient and renewable energy system.³⁶

Integrated Climate and Energy Strategy – Mission 2030

The process of developing the Integrated Climate and Energy Strategy started with the elaboration and publication in June 2016 of the “Green book for an integrated energy and climate strategy”. The green book analyses the current situation in Austria and compares possible development scenarios, representing a starting point for the subsequent public debate. The finalisation of the consultation process included target setting for 2030 and defining a vision until 2050.³⁷

In the next phase, a draft of the Integrated Climate and Energy Strategy was presented at the beginning of 2018, accompanied by a participation process where experts, NGOs and citizens had the chance to contribute with their own proposals. The final version of the Strategy was presented on May 2018 by the Austrian Federal Government.³⁸

The main tasks defined in the Integrated Climate and Energy Strategy are:

- Further development of sustainable infrastructure
- Creating the necessary economic framework and mobilising investment
- Adaptation of the funding and taxation system in order to achieve climate and energy targets
- Creating a suitable legal framework for a climate-friendly development
- Research and innovation as the key to a successful location
- Responsibility for all – creating suitable education and awareness for a sustainable future
- Using technologies for decarbonisation

³⁵ cf. Bundesministerium für Nachhaltigkeit und Tourismus, 2018: online

³⁶ cf. International Energy Agency, 2013: online

³⁷ cf. International Energy Agency, 2016: online

³⁸ cf. Mission 2030, 2018: online

- Making urban and rural areas climate-friendly

Regarding the task “Creating a suitable legal framework for climate-friendly development”, following energy-related laws are to be updated, respectively newly developed:

- Energy Law starting from 2020, whereas relevant areas from the current Green Electricity Act are to be integrated
- National Energy Efficiency Act after 2020, based on EED

2.4. AUTHORITIES RESPONSIBLE FOR ENERGY POLICY DEVELOPMENT AND RELATED STAKEHOLDERS

Federal Ministry of Transport, Innovation and Technology

(Bundesministerium für Verkehr, Innovation und Technologie, BMVIT)

Website: <https://www.bmvit.gv.at/en/index.html>

Federal Ministry of Sustainability and Tourism

(Bundesministerium für Nachhaltigkeit und Tourismus, BMNT)

Website: <https://www.bmnt.gv.at/english/>

Monitoring Body

(Monitoringstelle Energieeffizienz)

Website: <https://www.monitoringstelle.at/>

Austrian Economic Chamber

(Wirtschaftskammer Österreich)

Website: <https://www.wko.at/service/Austrian-Economic-Chambers.html>

Representation of interests

- **Interest Group Wind Energy** (IG Windkraft)
Website: <https://www.igwindkraft.at/>
- **Interest Group Wood Power** (IG Holzkraft)
Website: <http://ig-holzkraft.at/>
- **Association Renewable Energy** (Dachverband Erneuerbare Energie)
Website: <http://www.erneuerbare-energie.at/>

Trading platform for energy efficiency certificates:

- e-Effizienz
- Energiebonus
- One Two Energy
- SYNECO
- effizienzmeister.at
- ACT B.V.
- ETHUS

3. CONCLUSIONS

In summary, the following table gives the main policies shaping the energy sector in Austria at the moment.

Table 2: Summary of energy related laws and strategies

Sector	Law	Year	Comment
public, residential & non-residential buildings	EPBD	2010	Based on EU regulation – EPBD – building standards and energy certificate requirements were adapted in Austrian regional law. Building codes vary between the provinces, although all follow the minimum energy standard.
	⇒ OIB RL 6	Last update 2015	
public and private sector, energy suppliers, indirectly	EED	2012	National target: reduce final energy consumption to 1,050 PJ. NEEAP gives measures in order to achieve the national energy efficiency target. EE Act presents legal framework for obligations for businesses and energy suppliers
	⇒ NEEAP	Latest version 2017	
	⇒ EE Act	2015	
public and private sector, households	Austrian Green Electricity Act	Last update 2017	Feed-in tariffs and subsidy scheme for REN production
public and private sector, households	Integrative Energy and Climate Strategy	2018	Strategy until 2030 with vision for 2050. Concentrating also on the significance of energy sector for reaching climate targets.

Although the Climate and Energy Strategy gives the target for renewable energy production, concrete measures are still vague for the horizon until 2030. Energy efficiency legislation follows closely EU directives. 2016 the Commission proposed an update to the Energy Efficiency Directive, including a new 30% energy efficiency target for 2030. Austria will accordingly need to update its legislation.

There was major movement in terms of energy efficiency in the last year due to the EED and the National Energy Efficiency Act. At the moment the energy savings certificate market does not present the hoped incentive to implement additional project and measures. As there is an oversupply of certificates, prices are rather low. Due to the EE Act large enterprises are now obliged to regularly audit their energy consumption, but there is a gap between audit results and taking action. Only few energy savings measures are implemented as a result of an audit. The number of certified energy management which would ensure a continuous improvement process kept lower than expected. Perceived unfeasibility of energy efficiency measures in the short-term is still a barrier in the private sector.

Renewable energy development goes hand in hand with feed-in tariffs and subsidy schemes. Although, the budget was recently increased, competition, e.g. in the PV sector is still high and not all planned projects

receive subsidies. Moreover, long existing production facilities (biogas) with ending feed-in tariffs are in danger of closing down due to missing feasibility or other long-term perspective once the feed-in tariffs runs out. An update of the Austrian Green Electricity Act offer a long-term solution is required. At the same time innovative technology development has to be supported more strongly.

In particular, the market for energy savings certificates is a promising mechanisms to support the implementation of energy efficiency projects. The framework and savings obligations from energy providers have to be refined in near further though, in order to present a stronger incentive for project developers to make use of the system.

ANNEX A: BIBLIOGRAPHY

Bundeskanzleramt (n.d.): Kernziele der „Europa 2020“-Strategie für Europa und für Österreich. URL: <https://www.bundeskanzleramt.gv.at/kernziele-europa-2020> (20.06.2018)

Bundesministerium für Digitalisierung und Wirtschaftsstandort (n.d.): Allgemeines zu Elektroautos und E-Mobilität. URL: <https://www.help.gv.at/Portal.Node/hlpd/public/content/6/Seite.060022.html> (21.06.2018)

Bundesministerium für Nachhaltigkeit und Tourismus (2018): Das Klimaschutzgesetz. URL: https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik_national/klimaschutzgesetz/ksg.html (21.06.2018)

Climate and Energy Fund (2018): About us. URL: <https://www.klimafonds.gv.at/about-us/> (20.06.2018)

E-Control (2013): Der Energiemarkt in Bewegung. Tätigkeitsbericht 2013. URL: <https://www.e-control.at/documents/20903/-/-/6e768f59-48ce-404f-b57e-7788eba80400> (20.06.2018)

Energieausweis (n.d.): Energieausweiserstellung in Österreich. URL: <https://www.energieausweis.at/energieausweis-informationen.htm> (19.06.2018)

Energieinstitute der Wirtschaft GmbH (2018): Energie Effizienz Radar. April 2018. URL: http://www.energieinstitut.net/sites/default/files/radar_april2018_fin.pdf (27.06.2018)

European Commission (2018): Ecodesign. Growth – Internal Market, Industry, Entrepreneurship and SMEs. URL: http://ec.europa.eu/growth/industry/sustainability/ecodesign_en (21.06.2018)

Eurostat (2015): Erneuerbare Energien in der EU. Anteil erneuerbarer Energien am Energieverbrauch in der EU 2013 auf 15% gestiegen. Pressemitteilung 43/2015 vom 10. März 2015. URL: <http://ec.europa.eu/eurostat/documents/2995521/6734517/8-10032015-AP-DE.pdf/18a48a8b-84cd-4960-9d25-e97c94b4a4b5> (20.06.2018)

Federal Ministry of Science, Research and Economy (2017): NEEAP 2017. Second National Energy Efficiency Action Plan of the Republic of Austria 2017 in accordance with the Energy Efficiency Directive 2012/27/EU. Created by: Austrian Energy Agency – AEA / Monitoring Body on behalf of the Federal Ministry of Science, Research and Economy, Vienna. URL: https://ec.europa.eu/energy/sites/ener/files/documents/at_neeap_2017_en.pdf (19.06.2018)

Federal Ministry of Sustainability and Tourism (2018a): Legal basis for green electricity. URL: <https://www.bmnt.gv.at/english/environment/energytransition/Legalbasgreenelectr.html> (20.06.2018)

Federal Ministry of Sustainability and Tourism (2018b): The climate protection initiative “klimaaktiv”. URL: <https://www.bmnt.gv.at/english/environment/Climateprotect/The-climate-protection-initiative--klimaaktiv-.html> (21.06.2018)

International Energy Agency (2017): Policies and Measures Databases. Austrian Energy Efficiency Law. URL: <https://www.iea.org/policiesandmeasures/pams/austria/name-149671-en.php?s=dHlwZT1lZSZZdGF0dXM9T2s,&return=PG5hdiBpZD0iYnJlYWRjcnVtYil-PGEgaHJlZj0iLyl-SG9tZTwwYT4gJnJhcXVvOyA8YSBocmVmPSlvcG9saWNpZXNhbmRtZWZzdXJlcy8iPiBvbGljaWVvZlIGFuZCBNZWFzdXJlcwvYT4gJnJhcXVvOyA8YSBocmVmPSlvcG9saWNpZXNhbmRtZWZzdXJlcy9lbnVvZ3IIZmZpY2llbmN5Ll-RW5lcmd5IEVmZmljaWVuY3k8L2E-PC9uYXY-> (19.06.2018)

International Energy Agency (2016): Policies and Measures Databases. Green book for an integrated energy and climate strategy. URL: <https://www.iea.org/policiesandmeasures/pams/austria/name-157022-en.php> (21.06.2018)

International Energy Agency (2013): Policies and Measures Databases. Energy Strategy of Austria. URL: <https://www.iea.org/policiesandmeasures/pams/austria/name-24879-en.php> (21.06.2018)

International Energy Agency (2012): Policies and Measures Databases. Klima:aktiv Programme. URL: <https://www.iea.org/policiesandmeasures/pams/austria/name-24191-en.php?s=dHlwZT1lZSZzdGF0dXM9T2s,&return=PG5hdiBpZD0iYnJlYWRjcnVtYil-PGEgaHJlZj0iLyl-SG9tZTwwYT4gJnJhcXVvOyA8YSBocmVmPSlvcG9saWNpZXNhbmRtZWZzdXJlcy8iPIBvbGljaWVzIGFuZCBNZWFzdXJlcwvYT4gJnJhcXVvOyA8YSBocmVmPSlvcG9saWNpZXNhbmRtZWZzdXJlcy9lbnVvZ3llZmZpY2llbmN5Lyl-RW5lcmd5IEVmZmljaWVvY3k8L2E-PC9uYXY-> (21.06.2018)

Kommunalkredit Public Consulting GmbH (n.d.): Umweltförderungen für Betriebe. URL: <https://www.umweltfoerderung.at/betriebe.html> (20.06.2018)

Mission 2030 (2018): Die österreichische Klima- und Energiestrategie. URL: <https://mission2030.info/wp-content/uploads/2018/06/Klima-Energiestrategie.pdf> (21.06.2018)

Monitoringstelle Energieeffizienz (2018): Energielieferanten. URL: <https://www.monitoringstelle.at/index.php?id=727> (27.06.2018)

Schuch, A., Presch, D., Simader, G. (2017): The implementation of European Directives and Regulations: Opportunities or threats for fuel cell systems? IEA AFC Annex 33, Subtask 3 – Report 2016. Austrian Energy Agency, Vienna. URL: https://www.energyagency.at/fileadmin/dam/pdf/projekte/gebaeude/Fuelcells/fuelcells_update_2017/Subtask_3_Annex_33_Report_2016.pdf (19.06.2018)

ABBREVIATIONS

BMNT	Bundesministerium für Nachhaltigkeit und Tourismus BMNT / Federal Ministry of Sustainability and Tourism
BMVIT	Bundesministerium für Verkehr, Innovation und Technologie / Federal Ministry of Transport, Innovation and Technology
CHP	Combined Heat and Power
EED	Energy Efficiency Directive
EEffG	Energy Efficiency Act / Bundes-Energieeffizienzgesetz
EPBD	Energy Performance for Buildings Directive
EPC	Energy Performance Certificates
ERDF	European Regional Development Fund
EU	European Union
EU 2020	Europe 2020 Strategy of the European Union
f_{GEE}	Energy Performance Factor
GWh	Gigawatt hours
HWB	Heizwärmebedarf / space heating demand
IME-VO	Intelligente Messgeräte-Einführungsverordnung / Ordinance on the Introduction of Intelligent Meters
IWB	Investitionen in Wachstum und Beschäftigung / Investment in Growth and Employment
M&V	Measurement & Verification
NEEAP	National Energy Efficiency Action Plans
NOVA	Normverbrauchsabgabe / standard fuel consumption tax
OIB RL	Österreichisches Institut für Bautechnik Richtlinie / Austrian Institute of Construction Engineering Directive
PEB	Primary Energy Demand
PJ	Petajoule
TWh	Terawatt hours