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# Assessment of climate change policies in the context of the European Semester

## Country Report: Austria



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The report provides an overview of current emission trends and progress towards targets as well as policy developments that took place over the period from February 2013 to November 2013.

Please feel free to provide any comments or suggestions to the authors through the contacts listed above.

## Short Summary

**Background:** Austria has implemented policy instruments in all climate change-related areas, with a focus on renewable energies and energy efficiency. In addition, Austria adopted legally binding GHG emission targets as well as funding opportunities addressing waste, industry, F-gases, buildings, agriculture, and transport.

**Non-ETS emission reduction target:** The 2020 target is -16% (compared to 2005 emissions). A change in non-ETS emissions between 2005 and 2011 of -12% has been reported, which shows the country to be on track at present. According to the latest national projections submitted to the Commission and when existing measures are taken into account, the 2020 target is expected to be missed: -9% in 2020 compared to 2005 (with a margin of 7 percentage points).

### Key indicators 2011:

GHG emissions	AT	EU
ESD EU 2020 GHG target (comp. 2005)	-16%	
ESD GHG emissions in 2011 (comp.2005)	-12%	-9%
Total GHG emissions 2012 (comp.2005)	-14%	-12%
GHG emissions/capita (tCO <sub>2</sub> eq)	9.9	9.0

→ **10% higher** per capita emissions than EU average

GHG emissions per sector	AT	EU
Energy/power industry sector	17%	33%
Transport	26%	20%
Industry (incl. industrial processes)	32%	20%
Agriculture (incl. forestry & fishery)	10%	12%
Residential & Commercial	12%	12%
Waste & others	2%	3%

→ **Industry**, followed by Transport and Energy sector

Energy	AT	EU
EU 2020 RES target	+34%	
Primary energy consumption/capita (toe)	4.0	3.4
Energy intensity (kgoe/1000 €)	126	144
Energy to trade balance (% of GDP)	-3.8%	-3.2%

→ **20% higher** per capita consumption, **6% lower** energy intensity, contribution of energy to trade balance above EU average.

Taxes	AT	EU
Share of environmental taxes (% of GDP)	2.4%	2.4%
Implicit tax rate on energy (€/toe)	149	184

→ **Same** share of environmental taxes and **19% lower** implicit tax rate than EU average.

**Key policy development in 2013:** An important step was taken with the amendments of the Climate Protection Act and the Environmental Law Adjustment Act for the period from 2013 to 2020, including legally binding measures like GHG emission targets per sector, as well as funding opportunities for waste, energy, industry, F-gases, buildings, agriculture, and transport. A new subsidy scheme for photovoltaic installations is expected to speed up the installation of PV devices. The draft bill of the planned Energy Efficiency Act has not passed parliament in 2013 but there will be a second approach early 2014.

**Key challenges:** GHG emissions from transport account for 26% while taxes on energy and in particular on transport fuels are rather low compared to other Member. Although positive developments can be reported, further effort is needed to achieve the 2020 target: the increase of the fuel tax as well as the tightened CO<sub>2</sub>-based bonus/malus system for the purchase of cars and the abolishment of exemptions from fuel and energy taxes are steps forward. However, the planned adjustment to the commuters allowance system will set incentives that favour private cars over the use of public transport.

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## I Background on climate and energy policies

In the beginning of 2013, Austria has continued its efforts regarding the achievement of its 2020 greenhouse gas (GHG) emission target by adopting a € 790 million budgeted package consisting of the Amendments to the Climate Change Bill (*Klimaschutzgesetz-Novelle*) <sup>(1)</sup> and the Environmental Law Adjustment Act (*Umweltrechtsanpassungsgesetz*) <sup>(2)</sup>. Furthermore, a new support scheme promoting the use of renewable energies has been introduced and other measures like the thermal modernization scheme have been relaunched. More detailed information on the different climate change related actions and instruments can be found in sections 3 and 4.

Although Austria is projected to not be reaching its 2020 emission reduction target with existing measures, climate change is an important topic in the political debate in Austria. Policies and measures related to environmental issues are in place, and the topic is discussed widely in the national media. There is a focus on the use of renewable energy sources (RES), as the Austrian government offers multiple instruments to support the build-up of RES. Austria exhibits a large share of RES in total electricity generation: The share in 2010 was about 69%, predominantly generated by hydro-power (51.6%). With no nuclear and only 7% coal, Austria has an extremely flexible generation mix.

The Austrian government has been implementing various policies concerning the achievement of the 2020 GHG emission target. A Climate Change Bill was introduced in 2011 and is the key tool of the Austrian government for dealing with climate change. The bill sets maximum amounts of emissions for different sectors (transport, heating, waste, industry, agriculture, F-gases, and other emissions) and covered originally the period from 2008 to 2012 (Lebensministerium 2011). During this period, proceedings were made in the fields of waste and space heating, while emissions in the transport and industry sector stayed above the sectoral target amounts (Lebensministerium 2012f). In April 2013, Amendments to the Climate Change Bill were adopted defining the maximum amount of GHG emissions for the years 2013 – 2020. For 2013, the GHG maximum is set at 51.57 million tons of CO<sub>2</sub> equivalent, while by 2020, the GHG emissions from sectors not covered by the European Emission Trading Scheme (EU ETS) should be reduced to 47.87 tons of CO<sub>2</sub>eq (Lebensministerium 2013c).

To achieve the targets set by the bill, the National Climate Committee gathers regularly to develop measures on energy efficiency, renewable energy, spatial planning, mobility, waste management, natural carbon sinks, and economic incentives (Lebensministerium 2012b). Furthermore, the climate protection initiative "klima:aktiv", designed by the Federal Ministry of Agriculture, Forestry, Environment and Water Management and implemented by the Austrian Energy Agency, offers counselling, training facilities, and quality assurance in four priority areas (energy efficiency, construction and renovation, renewable energies, mobility) (Klima:aktiv 2013).

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<sup>1</sup> The main aim of the Climate Change Bill is the achievement of the climate target of Austria for the emissions not covered under the EU emissions trading scheme within the timeframe of 2013 to 2020.

<sup>2</sup> The Act includes i.a. changes to the Environmental Aid Act (*Umweltförderungsgesetz*) to maintaining and continuing an efficient incentive scheme for investments in order to achieve the EU 20-20-20 targets.

The Climate and Energy Fund (Klima- und Energiefonds KLIEN) promotes R&D in the field of sustainable energy technologies and climate research (Lebensministerium 2011). The fund covers the fields of large solar power plants, thermal refurbishment, climate and model regions, E-mobility and climate research. Since 2007, 57,370 energy and mobility projects have been realized with an overall fund budget of € 724.5 million (Klimafonds 2013b). According to an evaluation of the fund by the Austrian Environmental Agency, the optimistically estimated impact of the fund for annual greenhouse gas emissions reductions in 2030 is approximately 4,700 kt CO<sub>2</sub>/yr, in the case of an optimal mixture of research, demonstration, and market introduction. The potential for a reduction of final energy consumption is 6,800 GWh/yr for the same period. The potential for producing energy from renewable sources is approximately 5,200 GWh/yr for the year 2030 (Umweltbundesamt 2012).

Green growth plays an important role in Austria's public policy. Austria is pursuing a Sustainability Strategy which aims to decouple economic growth and emissions growth. For example, the Austrian government supports regional green clusters and maintains a catalogue of Austrian environmental and energy technologies <sup>(3)</sup>. According to the Federal Ministry of Agriculture, Forestry, Environment and Water Management, there are currently 190,000 green jobs in Austria generating approximately 11% of the GDP and representing around 5% of total employment (Lebensministerium 2012c). This number has been constantly growing mainly as a consequence of the booming renewable energy sector.

## 2 GHG projections

### Background information

In 2011, Austria emitted 82.8 Mt CO<sub>2</sub>eq (UNFCCC inventory 2011), 6% more than in 1990. The biggest share stems from energy use and transport. Between 1990 and 2010, emissions from transport increased by 60%. This can be attributed to an increase of almost 100% in tonne kilometres travelled in freight transport and a 25% increase in the number of person kilometres travelled in passenger transport. However, from 2005 to 2011, emissions from transport slightly decreased. Since Austria is a transit country and fuel prices have been low compared to adjacent countries until recently, a considerable part of emissions from transport is the result of fuel export. Emissions from energy use, however, remained relatively constant between 1990 and 2011. Emissions from industrial processes increased slightly, reflecting the use of halocarbons and sulphur hexafluoride, as well as the growing production of stainless steel and cement (UNFCCC inventory 2011, EEA 2012c, UNFCCC 2012). EEA estimates (EEA 2013c) show a decline of emissions from 2011 to 2012 with the largest reductions coming from energy consumption (energy supply and use including transport).

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<sup>3</sup> For more information see the website of BMWFJ:  
[www.bmwfj.gv.at/WIRTSCHAFTSPOLITIK/NACHHALTIGKEIT/Seiten/Nachhaltigkeitsstrategien.aspx](http://www.bmwfj.gv.at/WIRTSCHAFTSPOLITIK/NACHHALTIGKEIT/Seiten/Nachhaltigkeitsstrategien.aspx)

## Progress on GHG target

There are two sets of targets to evaluate: 1) the Kyoto Protocol targets for the period 2008-12 (which has just ended) and 2) the 2020 targets for emissions not covered by the EU ETS.

Under the Kyoto-Protocol the emission reduction target for Austria for the period 2008-2012 has been set to minus 13 % based on 1990 levels. An evaluation of the latest complete set of greenhouse gas data (for the year 2011; there is only preliminary data for 2012) shows that Austria's emissions have increased on average by 4.8% since 1990 (EEA 2013a). Therefore, Austria is not likely to meet its Kyoto target through domestic emissions reductions directly.

By 2020, Austria needs to reduce its emissions not covered by the EU ETS by 16% compared to 2005 in accordance with the Effort Sharing Decision (ESD) <sup>(4)</sup>. The latest data for 2012 suggests that Austria is on track at present to meet the Annual Emissions Allocation <sup>(5)</sup> for the year 2013. However, national projections (EEA 2013b) show that Austria will fail to meet its 2020 target with existing measures; with additional measures Austria is just about to meet its target (see Table 1).

**Table 1: GHG emission developments, ESD-targets and projections (in Mt CO<sub>2</sub>eq)**

	1990	2005	2010	2011	2012*	ESD target**		2020 Projections***	
						2013	2020	WEM	WAM
Total	78.2	92.9	85.0	82.8	80.0				
Non-ETS (% from 2005)		59.1	54.1	52.2	51.6 -13%	53.6 -9%	47.9 -16%	52 -9%	48 -16%
Energy supply (% share of total)	13.8 18%	18.4 20%	16.7 20%	16.0 19%					
Energy use (w/o transport) (% share of total)	27.2 35%	30.2 33%	27.4 32%	25.7 31%					
Transport (% share of total)	14.0 18%	25.0 27%	22.5 26%	21.8 26%					
Industrial processes (% share of total)	10.1 13%	10.6 11%	10.8 13%	11.2 14%					
Agriculture (% share of total)	8.6 11%	7.4 8%	7.5 9%	7.6 9%					

Source: UNFCCC inventories; EEA (2013b); Calculations provided by the EEA and own calculations.

\* national proxies for 2012 emissions summarised by EEA (2013b)

\*\* The ESD target for 2013 and for 2020 refer to different scopes of the ETS: the 2013 target is compared with 2012 data and is therefore consistent with the scope of the ETS from 2008-2012; the 2020 target is compared to 2020 projections and is therefore consistent with the

<sup>4</sup> Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020.

<sup>5</sup> Commission decision of 26 March 2013 on determining Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/EC of the European Parliament and of the Council. Online available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:090:0106:0110:EN:PDF>



adjusted scope of the ETS from 2013-2020. 2005 non-ETS emissions for the scope of the ETS from 2013-2020 amounted to 57Mt CO<sub>2</sub>eq.

\*\*\*Projections with existing measures (WEM) or with additional measures (WAM).

Legend for colour coding: green = target is being (over)achieved; orange = not on track to meet the target

Total greenhouse gas emissions (GHG) and shares of GHG do not include emissions and removals from LULUCF (carbon sinks) and emissions from international aviation and international maritime transport.

National projections of GHG emissions up to 2020, summarised by the EEA, need to be prepared by the Member States in accordance with the EU Monitoring Mechanism <sup>(6)</sup> every two years, and the latest submission was in 2013. The projections need to be prepared reflecting a scenario that estimates emissions reductions in line with policies and measures that have already been implemented (with existing measures, WEM), and an additional scenario that reflects developments with measures and policies that are in the planning phase (with additional measures, WAM) may also be submitted.

In the following two tables, these measures - as outlined by Austria as basis for the projections as of May 2013 - have been summarised with a focus on national measures and those EU instruments expected to reduce emissions the most <sup>(7)</sup>. An update on the status of the policies and measures is included in order to assess the validity of the scenarios.

**Table 2: Existing and additional measures as stated in the 2013 GHG projections**

Existing Measures (only important national measures)		Status of policy in November 2013
Energy	Green Electricity Act (Ökostromgesetz)	Amended in July 2012 (Ökostromgesetz 2012, see: Policy Development)
	Domestic Environmental Support Scheme (UFI)	Implemented (Lebensministerium 2013g)
	Implementation of the National Energy Efficiency Action Plan 2011	Implemented (BMWFJ 2011)
Energy Efficiency	Recast Directive of energy performance of buildings (Energieausweis-vorlagegesetz)	Implemented in December 2012: EAVG 2012 (Bundeskanzleramt 2012b)
	Thermal insulation of existing buildings	Support scheme relaunched in January and active until the end of 2013 (see: Policy Development)
	Change of heating systems (Heizsystem-erneuerung)	Implemented (Umweltbundesamt 2013)
Transport	Trend electromobility - Implementation Plan for electric mobility	Published in June 2012. The plan has partly been implemented, e.g. with the klima:aktiv programme (BMLFUW/BMVIT/BMWfJ 2012)
	Promotion of biofuels - Implementation of Directive 2003/30/EC on biofuels fuel Regulation	Fuel Ordinance was amended in January 2013

<sup>6</sup> Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol.

<sup>7</sup> The implementation of the EU-ETS has not been included. Other EU Directives have only been considered if they have been outlined in the projections as one of the main instruments to reduce GHG emissions.

	Promotion of corporate rail connections	Promoted through Climate and Energy Fund since June 2013
	Mobility management and awareness: Klima:aktiv mobility programme	Extended until 2020 in March 2013.
	Economic incentive: fuel tax increase in 2011 ('Klimabeitrag')	Implemented
	Solvent Ordinance to reduce VOC emissions from paints and varnishes	Implemented in 2005
	Programme for rural development	Implemented in 2007 and active until the end of 2013 (Lebensministerium 2013h)
Other non-ETS sectors	Ecodesign requirements for energy using products	Implemented in 2007 (Ökodesign-Verordnung 2007), amended in 2011 (BMWFJ 2013)
	Landfill Ordinance	Implemented in 2008 (DVO 2008), amended in 2011 (DVO-Novelle 2011)(Lebensministerium 2013i)
	Limitation of VOC emissions by organic solvents in industrial installations	Implemented (Lösungsmittelverordnung 2005)

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013.

Additional Measures(only important national measures)		Status of policy in November 2013
Energy Efficiency	Energy efficiency Act draft 2012	The Council of Ministers agreed on a proposal for a bill. However, the proposal did not pass parliament. The government announced to make a new attempt after the parliamentary elections in September 2013. The act was supposed to enter into force on 30 June 2014 at the latest (Der Standard 2013)
Transport	Economic incentive: fuel tax increase in 2015 and 2019	As the transport sector is considered one of the biggest emitters of GHG gases, the VCÖ proposes a slight increase of the fuel tax (VCÖ 2013). However, no information is available on possible policy measures.
	Trend electromobility - Promoting electric vehicles according to the Austrian Energy Strategy	A call for a demonstration project for E-mobility was announced in September 2013.
Other non-ETS sectors	Sustainable N-management	No information available on recent developments
	Adapted feeding (in phases) for pigs in order to reduce N <sub>2</sub> O/NH <sub>3</sub> -emissions	No information available on recent developments.

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013.

According to the current state of implementation, most of the WEM policies as specified in the national GHG emission projections of May 2013 are actually being implemented. Many of them, such as the Climate and Energy Fund have been implemented for some

time while others have been relaunched, for example the thermal insulation scheme. However, under the WEM scenario, Austria is expected to fail to achieve its ESD target.

Austria would only just meet its target under the WAM scenario. According to the information available, it is not certain though that the respective WAM measures will be implemented in the near future

### 3 Evaluation of National Reform Programme 2013 (NRP)

In April of each year, Member States are required to prepare their National Reform Programmes (NRPs), which outline the country's progress regarding the targets of the EU 2020 Strategy. The NRPs describe the country's national targets under the Strategy and contain a description of how the country intends to meet these targets. For climate change and energy, three headline targets exist: 1) the reduction of GHG emissions, 2) the increase of renewable energy generation, and 3) an increase in energy efficiency <sup>(8)</sup>.

The NRP mainly focuses on generic measures included in the Climate Change Bill and the Austrian Energy Strategy. Besides the named instruments, no specific measures aiming at a decrease of GHG emissions are mentioned.

In the following table, the main policies and measures as outlined in the NRP of April 2013 <sup>(9)</sup> have been summarised, and their current status (implemented, amended, abolished, or expired) is given, with specifics on latest developments.

**Table 3: Main policies and measures as outlined in the NRP, April 2013**

<b>Austrian Climate Protection Act (2008-2012) (KSG; Federal Law Gazette No. 106/2011)</b>	
Status as stated in the NRP	Shall be amended to define targets for 2013-2020 period
Status as per November 2013	Amended on 13 April 2013 (KSG-Novelle 2013)
Description of policy or measure	The feed-in tariff promotes increased generation of electricity from renewable energy sources.
<b>Increasing energy efficiency</b>	
Status as stated in the NRP	Envisaged in the Austrian Climate Protection Act
Status as per November 2013	No further development
Description of policy or measure	One major point of the Climate Protection Act is to increase energy efficiency

<sup>8</sup> There are specific targets for all MS by 2020 for non-ETS GHG emission reductions (see section 2) as well as for the renewable energy share in the energy mix by 2020 (see section 4, renewable energies). Specific energy efficiency targets will be defined (or revised) by the MS until the end of April 2013 in line with the methodology laid out in Article 3 (3) of the Energy Efficiency Directive (Directive 2012/27/EU).

<sup>9</sup> All NRPs are available at: [http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index\\_en.htm](http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index_en.htm)

### Increasing the share of renewable energies in final energy consumption

Status as stated in the NRP	Envisaged in the Austrian Climate Protection Act
Status as per November 2013	New subsidy scheme for PV launched in April 2013 (Photovoltaik-Anlagen 2013)
Description of policy or measure	One major point of the Climate Protection Act is to increase the share of RES in final energy consumption

## 4 Policy development

This section covers significant developments made in key policy areas between February 2013 and November 2013. It does not attempt to describe every instrument in the given thematic area.

### Horizontal Measures

On 23 April 2013, the Federal Ministry of Agriculture, Forestry, Environment and Water management (*Bundesministerium für Land- und Forstwirtschaft, Umwelt und Abteilung Wasserwirtschaft*) adopted a package covering climate-, environment- and hydro- related measures. The package with an overall budget of € 790 million consists of the Amendments to the Climate Change Bill (*Klimaschutzgesetz-Novelle*) as well as the Environmental Law Adjustment Act (*Umweltrechtsanpassungsgesetz*). It includes legally binding measures like GHG emission targets per sector, as well as funding opportunities for the following sectors: waste, energy and industry, F-gases, buildings, agriculture, and transport. It addresses the period from 2013 to 2020. The sector targets have been introduced as a control mechanism to reach the 2020 target of 47.87 million tons of CO<sub>2</sub>eq for non-ETS sectors (Lebensministerium 2013c).

The political framework for the period 2013-18 announces further efforts aiming at a reduction of GHG emissions. Relevant measures will be undertaken in the transport sector (promotion of e-mobility and public transport) as well as in the energy efficiency sector (thermal modernization, district heating) (Bundeskanzleramt 2013).

### Environmental Taxation

In Austria, the share of environmental tax revenues in total tax revenues amounted to 5.82% in 2011 and was the fifth lowest compared to other MS. In comparison with the country's GDP, these taxes amounted to 2.45% and ranked slightly above the EU-average. Austria has no explicit carbon tax in place. The implicit tax rate on energy in 2011 came to 149 € per tonne of oil equivalent (toe), and was thus lower than the EU-average. Austria is in good position in the field of energy intensity: its economy is the one with the 5th lowest energy intensity in the EU in 2010. The share of energy taxes in total tax revenues is the third-lowest in the EU (Eurostat 2013).

The Austrian Statistical Agency publishes annually a list of eco-taxes based on the EU/OECD definition. Eco-taxes include the fuel tax, car taxes (circulation and registration), the energy levy (on electricity and gas), and several resource use taxes raised at the communal level. The sum of revenues from these taxes increased constantly from €4.2 billion in 1995 to €8.1 billion in 2011. 61% of these revenues were raised by energy taxes and 30% by transport taxes (Statistik Austria 2013).

The Austrian WKO (2012) states that a further increase of environmental taxes in a budgetary neutral way is not advisable, as prices would rise and threaten real wages. A reduction of labour taxes is possible in order to increase the share of environmental taxes in the total tax income. Regarding the parliamentary elections of September 2013, the issue of environmental taxation did not attract much attention. Only the Green Party envisaged an increase of environmental taxes in its election programme in order to unburden the factor labour (Die Grünen 2013).

While some tax exemptions were phased out in 2012, according to the Umweltdachverband, Austria granted €4.3 to €5.4 billion in subsidies in 2011 that may be causing environmental harm. These subsidies mainly concern the transport sector, as for example the tax shelter for Diesel and the commuter tax allowance cause an increase of the traffic volume (Umweltdachverband 2012).

### **Energy Efficiency**

The energy intensity of the Austrian Economy dropped between 2005 and 2011 by over 10% and is now among the five lowest in the EU. In the same time span Austria was also able to make progress in reducing its energy consumption by 3%. Furthermore, from 2010 to 2011, Austria achieved an even bigger reduction of its energy consumption by 4%, which is equal to the EU average for this period (Eurostat 2013).

Austria's industrial sector made some progress in the last decade but still lacks behind the improvements made in some other MS and after reaching its peak in 2007, the energy efficiency in the industrial sector has since been dropping. In contrast, the household sector has developed more positively. Over the last 20 years energy efficiency improved by 34% and exceeds the EU-average, which increased by 25% in the same time span. Most of the progress has been achieved in space heating. It made up to 80% of the improvements (Odyssee 2012).

The Ministry for Economy, Family and Youth published a proposal for a new Energy Efficiency Act in December 2012. The proposal would transpose several EU Directives into Austrian law and sets an energy savings target of 80,400 Terajoule by 2016. Accordingly, energy-intensive companies would be required to take up a variety of efficiency measures, such as regular energy auditing, depending on the size of the company. As of January 2014, energy providers would need to prove that they have undertaken efforts to encourage energy efficiency improvements among their consumers. Furthermore, the federal government would need to ensure a 3% refurbishment among public buildings. A monitoring body for energy efficiency would be created to evaluate measures taken by the federal government and companies. Additionally, the act would ensure that funding of €14 million for CHP installations is provided annually. The implementation of the Energy Efficiency Act is expected to create 6,400 additional jobs and increase GDP by €544 million (Bundesregierung 2013). However, in May 2013 parties in parliament were not able to find an agreement on the first draft bill. A second attempt has been undertaken in autumn 2013, but was not successful (EEÖ 2013). However, the new political framework of the Austrian Government for the period 2013 – 2018 identifies the transparent implementation of the EU energy efficiency directive as a main objective regarding energy efficiency (Bundeskanzleramt 2013).

Regarding the building sector, the 2009 Austrian Energy Strategy envisages a 3% rate of refurbishment for existing buildings by 2020. The Federal Ministry of Economy, Family and Youth thus launched a support programme for thermal modernization for private

houses and companies in 2012. Approximately 16,000 buildings were modernized in 2012 with the support of this mechanism; however, only 77% of the originally assigned budget was used. The thermal modernization support programme ended on 31 December 2012 and was directly relaunched on 1 January 2013. For 2013, €123 million are available under the programme; € 70 million are designated for the private sector, and a maximum of € 30 million may be granted to companies. The spill-over of € 23 million is reserved for business revival and may be granted as bonus payment. Currently, a high demand can be observed as about 600 applications are submitted per week. If this trend continues, the budget for private households will be exhausted before the end of 2013. The Ministry of Economy and Energy estimates that investments in 2012 have led to a reduction of CO<sub>2</sub> emissions of about 3.3 million tonnes. According to Ökonews (2012), the support triggered a total investment of €650 million and resulted in the creation or preservation of 9,800 jobs. However, as a 2012 study by the IHS Wien indicates, the programme still falls short of achieving the envisaged 3% refurbishment rate. This would require investments of €3.33 billion in 2012, increasing annually to €5.49 billion in 2020 (IHS Wien 2012).

In the context of the klima:aktiv programme, a support initiative promoting energy efficiency in the industrial sector was launched already in 2006. The initiative supports enterprises in the implementation of measures aiming at an increase of energy efficiency. Different trainings and instructions are offered addressing for example energy saving measures. In order to provide optimal support, the technological focus of this initiative changes on an annual basis (Lebensministerium 2013f).

### **Renewable Energy**

The share of renewable energy in gross final energy consumption increased from 23.8% to almost 31% between 2005 and 2011. Thus, Austria is on track to achieve its 2020 target of 34%. Over the past several years, the share of renewables in gross electricity consumption remained at constant high levels of about 65%. In 2009 it peaked at 67.8% and then dropped to 66.1% in 2011 (Eurostat 2013b).

Since the 1990s, Austria has been a front-runner in the EU concerning the share of renewables in electricity production. The 2010 Energy Strategy formulates comprehensive targets for Austria's future energy supply in order to stabilize energy consumption by 2020 at 2010 levels (1,100 PJ). Next to energy efficiency and security of supply, renewable energy represents the third pillar of the strategy. The aim is to increase electricity production from renewable sources by 17 PJ between 2008 and 2020. Wind energy and hydropower are seen as a priority, while the expansion of PV is made conditional on favourable cost development.

The production of electricity generated from renewable energy sources is mainly promoted by the 2012 amendment to the Green Electricity Act ("Ökostromgesetz") that was first introduced in 2002. The act sets targets for the expansion of renewable energy - Austria is to have an additional 1,000 MW of hydro, 2,000 MW of wind, 200 MW of biomass and biogas, and 1,200 MW of PV by 2020 – and provides for investment grants and guaranteed feed-in tariffs for 13 or 15 years for electricity from wind energy, PV, biomass and biogas, geothermal plants, small hydro plants, and CHP installations. The annual budget for the support of new green electricity installations of €50 million in 2013 will decrease annually by €1 million to account for technological development. Technologies are subdivided into subcategories to avoid the exhaustion of the quota by

booming subcategories. According to the settlement agent for green electricity, the quota for PV was already exhausted in early January 2013 due to the enormous number of proposals that were handed in (OEMAG 2013).

In the context of the parliamentary elections, the Austrian Minister of Economy, Reinhold Mitterlehner started a debate about possible changes in the subsidization of green electricity. According to his plans, the promotion should be decelerated with the introduction of sinking tariffs and transformed into investment support as the potentials of the development of the photovoltaics and wind sector are already exhausted. In contrast to the Ministers statement, the Green Party countered that a change in the promotion of green electricity might hinder the development (APA 2013).

The funds for renewable electricity are raised by a levy paid by end users. This system was also adjusted by the Green Electricity Act 2012. Consumers now pay a €11 lump sum ("Ökostrompauschale") plus a contribution that is based on the consumption ("Ökostromförderbeitrag"). On average, this sums up to an annual contribution of €53 per household (instead of the previous €35). The sum is restricted to €20 Euros for low-income households (BMWFJ 2012).

In addition to the Green Electricity Act, a new subsidy scheme for photovoltaic installations ("Photovoltaik-Anlagen 2013") was launched by the Federal Ministry of Agriculture, Forestry, Environment and Water Management in April 2013. An overall amount of € 36 million is available for installations in private households with a maximum capacity of 5 kW. About 24,000 installations all over Austria can be promoted through this scheme in 2013. The funds for the scheme come from the budget of Climate and Energy Fund (Klimafonds 2013a). According to the Ministry for the Environment, this support scheme has already had a significant impact on the development of renewable energies in the country, as more than 5,000 installations have been put into operation since the launch of the programme in April. However, applicants can benefit from only one support scheme at a time (Lebensministerium 2013d).

The political framework for the period 2013-2018 includes several measures to achieve a sustainable and secure energy supply, among these the development of the energy strategy 2030, the expansion of the renewable energy sector and the evaluation and improvement of the support schemes (Bundeskanzleramt 2013).

## **Transport**

Emissions from transport have increased between 1990 and 2011 but showed a downward trend since 2005. As emissions in the other sectors were also reduced, the proportion of the transport emissions among Austria's total emissions remained constant at around 26% since 2005. Further efforts are needed to maintain the downward trend of emissions which started in 2005 (Table 1).

Average emissions for newly registered cars are moderate in Austria with a level of 135.6 CO<sub>2</sub>/km. The level is the 14<sup>th</sup> highest in the EU and has decreased at a lower rate than EU average between 2005 and 2012 (Eurostat 2013). In Austria, the Car Registration Tax (Normalverbrauchsabgabe NoVA) is regulating the charges for new cars based on fuel consumption and purchase price, in combination with a gradual CO<sub>2</sub> bonus/malus system. However, Austria does not apply a specific ownership tax. Instead an engine-related insurance tax has been introduced, which is based on kW (passenger cars) and weight (commercial) (ACEA 2012). Also, all vehicles circulating on Austrian highways and

expressway have to pay a toll, the so-called 'vignette' (CE Delft 2012). Tax rates for petrol and diesel are rather lower than in neighbouring EU MS, and diesel is charged around €90/1000 litres less than petrol (European Commission 2013).

Around 55% of transport emissions can be ascribed to passenger transport and 45% to freight transport. The main factors influencing energy consumption and GHG emissions from the transport sector are the low fuel prices compared to adjacent countries as well as the high export orientation of the country. Therefore, a considerable share of fuel in Austria is exported in vehicle tanks – so called “fuel export”: between 1990 and 2011, the volume of freight transport carried out abroad using fuels from Austria increased 6-fold. The domestic transportation volume, on the other hand, remained constant since 2008. GHG emissions from transportation abroad (passenger and freight traffic) are in the range of 6 million t CO<sub>2</sub>eq in 2011 or 27% of total transport emissions; 2/3 of these emissions are attributable to international commercial vehicle traffic due to the large export orientation of the economy. This is the same value as in 2008 (6 million t CO<sub>2</sub>eq or 25% of total transport emissions) and less than in 2005 (8 million t CO<sub>2</sub>eq or 32%). Instead, GHG emissions from domestic use increased slightly from 2005 to 2008 but could then be reduced to about 15.9 million t CO<sub>2</sub>eq (Umweltbundesamt 2013b, 2010, 2007).

A Transport Master Plan, which was introduced at the end of 2012, sets forth a catalogue of measures concerning the reduction of GHG emissions in the transport sector. The Plan aims at decreasing GHG emissions by 6% by 2020 and by 19 % by 2025. The measures are mainly concentrated on the improvement of public transport, cycling, and electro mobility. Furthermore, the plan suggests moving 40% of freight transport from road to railway by 2025. According to a study published by VCÖ (Verkehrsclub Österreich), the implementation of the Transport Master Plan has already had positive impacts on the sector as the number of passengers in public transport has increased (BMVIT 2013). The high share of renewable energy in electricity generation provides a very good basis for electromobility in Austria. In June 2012, different ministries cooperated in developing an Action Plan on Electromobility in and from Austria. The plan lays out a catalogue of specific measures to integrate electro mobility in the transport system, to establish intelligent incentive systems and to create the necessary infrastructure. For example, the government plans to review the taxation framework for electric vehicles in 2013 (BMLFUW/BMVIT/BMWFJ 2012); nonetheless, no developments have been observed yet. In order to further promote E-mobility, the Climate and Energy Fund announced a call for the programme “E-Mobilität für alle: Urbane Elektromobilität” in September 2013. The programme aims to implement demonstration projects in agglomerations with a population of at least 50,000. In detail, inhabitants will be allowed to use different e-taxi and e-car sharing offers in order to generate an understanding of preferences and best practices, which will later be used for the improvement of these technologies.

In March 2013, the Federal Ministry of Agriculture, Forestry, Environment and Water Management announced the extension of the klima:aktiv mobil programme, which provides funding of transport projects to reduce CO<sub>2</sub> emissions as well as consulting for climate-friendly mobility until 2020. For the year 2013, the budget amounts to € 10 million, consisting of € 8 million for the funding of transport projects and € 2 million for consulting (Lebensministerium 2013e).



## **Agriculture**

Emissions from agriculture have decreased consistently since 1990. This can be ascribed to reduced animal stock and usage of fertilizer as well as to active participation in the national environmentally responsible agriculture promotion programme. Furthermore, the Climate and Energy Fund provides financial support to Austrian farmers and foresters e.g. in form of energy efficiency checks on farms as well as for consultations. However, no relevant changes related to Agriculture were identified in the past six months.

## **Adaptation**

In October 2012, the Federal Ministry of Agriculture, Forestry, Environment and Water Management published a National Adaptation Strategy. It includes an action plan and stipulates specific measures in 14 different sectors (i.a., agriculture, tourism, hazard management, forestry, health). The implementation of the strategy is to be monitored according to a criteria catalogue, which does not exist yet but will be developed by the end of 2013. Furthermore, a scientific-economic evaluation of the consequences of climate change, including a list of potential costs, is expected to be published in the middle of 2015 (Lebensministerium 2013a).

In addition to the national strategy, the first regional adaptation strategy was presented in Upper Austria in June 2013 on the basis of the FAMOUS project (Factory for Adaptation Measures Operated by Users at different Scales). The project is financed by the Climate and Energy Fund and is operated by the Environment Agency Austria. The strategy focuses on multiple sectors including tourism, agriculture, forestry, conservation, health, transport, buildings, disaster management and insurance industry, as well as energy and water management (Umweltbundesamt 2013a).

## **5 Policy progress on past CSRs**

As part of the European Semester, Country Specific Recommendations (CSRs) for each MS are provided by the EU Commission in June of each year for consideration and endorsement by the European Council). The recommendations are designed to address the major challenges facing each country in relation to the targets outlined in the EU 2020 Strategy. In the following table, those CSRs that are relevant for climate change and energy that were adopted in 2013 are listed, and their progress towards their implementation is assessed.

No CSRs related to climate change and energy were issued for Austria in 2013.

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