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

## Country Report: Belgium



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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:** Climate change does not seem to be among Belgium's priorities at the moment. Per capita GHG emissions and energy consumption are high when compared to other EU Member States. The country is highly dependent on energy imports and fossil fuels make up a considerable share of the primary energy consumption. The competence for climate policies is divided between the federal level and the three regions. Internal burden sharing struggles and recent changes in the division of competence caused significant delays in the design of post-2012 climate policies but a number of instruments have been implemented at the different government levels.

**Non-ETS emission reduction target:** The Belgian 2020 target is -15% (compared to 2005) and between 2005 and 2011 emissions were already reduced by -11 %. According to the latest national projections submitted to the Commission and taking into account existing measures, it is expected, however, that the 2020 target will be missed by a significant margin of 11 percentage points: -4 % in 2020 as compared with 2005.

### Key indicators 2011:

GHG emissions	BE	EU
ESD EU 2020 GHG target (comp. 2005)	-15%	
ESD GHG emissions in 2011 (comp.2005)	-11%	-9%
Total GHG emissions 2012 (comp.2005)	-16%	-12%
GHG emissions/capita (tCO <sub>2</sub> eq)	10.9	9.0

→ **21% higher** per capita emissions than EU average

GHG emissions per sector	BE	EU
Energy/power industry sector	19%	33%
<b>Transport</b>	23%	20%
Industry (incl. industrial processes)	29%	20%
Agriculture (incl. forestry & fishery)	10%	12%
Residential & Commercial	19%	12%
Waste & others	2%	3%

→ **Industry**, followed by Transport, Energy/power industry sector and Residential&Commercial

Energy	BE	EU
EU 2020 RES target	+13%	
Primary energy consumption/capita (toe)	5.4	3.4
Energy intensity (kgoe/1000 €)	182	144
Energy to trade balance (% of GDP)	-4.8%	-3.2%

→ **61% higher** per capita consumption, **26% higher** energy intensity, energy imports **above** EU average

Taxes	BE	EU
Share of environmental taxes (% of GDP)	2.1%	2.4%
Implicit tax rate on energy (€/toe)	102	184

→ **Lower** share of environmental taxes and **45% lower** implicit tax rate than EU average.

**Key policy development in 2013:** In summer and autumn 2013 all three regions finally adopted new climate plans or acts, but an overarching national strategy is still missing and the burden sharing of national climate targets is still open. The different regional strategies encompass different sectors to varying degrees.

**Key challenges:** One of the major barriers for climate policies in Belgium is the difficult coordination between different levels of government and the recent renegotiation of competences among them. Furthermore, the regions are yet to agree on the internal burden sharing for the Belgian national emission reduction target as well as the renewable energy target for the period 2013-2020 and it is not clear whether the individual regional targets (will) add up to fulfil the national targets.

Belgium specifically needs to tackle emissions from transport. While the vehicle fleet is relatively efficient, the number of passenger-kilometres travelled is very high and road congestion especially around Brussels is a major problem. Furthermore, the company car taxation system encourages the private use of company cars.

Another challenge is the high energy intensity of the economy and high per capita energy consumption in Belgium. As one of few EU MS, Belgium did not achieve to reduce energy consumption over the last years. Especially in the industrial sector, energy efficiency improvements are urgently needed.

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## I Background on climate and energy policies

In Belgium, energy and climate change policy is foremost a regional competence which leads to an unclear division of competences within the regions and between the federal and the regional authorities (e.g., lack of coherence between the different relevant administrative bodies responsible for the implementation of renewable energy policies). Accordingly, the regions of Flanders and Wallonia and the Brussels-Capital region pursue different adaptation and mitigation policies.

The National Climate Commission was created in order to coordinate the policies implemented at a regional level. This commission established Belgium's national climate plan for 2009–2012 (Service Fédéral 2011), which included an internal burden-sharing agreement. Due to a lack of consensus between the regions, an internal burden-sharing of non-ETS targets for 2013–2020 as well as the share of renewable energies per region is not decided yet and a follow-up plan is still missing. As a result, each region adopts own policy strategies and policy instruments with only little coordination with the other regions. In the field of transport, joint initiatives such as the ReTiBo project on the integration of public transport systems and the test project on road pricing (Proefproject personenvoertuigen) can be highlighted in this respect. Moreover, in the framework of the sixth state reform package regions that overperform with regards to their CO<sub>2</sub> emission reduction targets shall be financially rewarded and thus receive further incentives to strengthen their efforts (Vlaamse Overheid 2013).

With the new Climate Policy Plan 2013-2020 published in June 2013 Flanders aims to reduce its non-ETS emissions by 15% until 2020 given that no internal burden sharing in Belgium has been decided yet. The new document sets the general policy framework for mitigation as well as adaptation actions in Flanders covering the sectors mobility, buildings, agriculture, non-ETS industries, non-ETS energy sectors as well as waste management. Particularly, the adaptation plan needs further elaboration and formulation of concrete actions. Funding for the implementation of the plan shall partly be covered by the newly established Flemish Climate Fund (Vlaamse Regering 2013).

In Wallonia, a "climate decree" was passed at second reading during summer 2013. This decree establishes an "Air-Climate-Energy Plan" listing the specific measures which will allow the government to follow its budgetary emission pathway. Moreover, it sets targets for reducing GHG emissions by 30% until 2020 and by 80% to 95% until 2050. The decree also establishes a framework in order to reach these objectives, mainly through the implementation of "emission budgets", to be defined for a period of five years. Moreover, the decree provides for an annual parliamentary control of the budget (Henry 2013b).

On 26 September 2013, the government of Brussels-Capital presented a Regional Sustainable Development Plan which details the priorities and action plans until 2020. The priorities set in the Sustainable Development Plan aim at improving the quality of life and the living conditions of Brussels's inhabitants, enabling the economic revival of the city through the development of new industries but also meeting stronger environmental requirements. The Plan also contains sector-specific action plans, including for sustainable mobility and urban renovation (Vervoort 2013). Moreover, the Brussels Code

for air, climate and energy (COBRACE)<sup>1</sup> was adopted on 2 May 2013. It introduces several new measures in order to meet the objectives of the Brussels-Capital region, namely the reduction of GHG emissions by 30% by 2025 compared to 1990. The Code strengthens the regulation on energy performance of buildings. It also provides for the creation of an Energy House (Maison de l'énergie), a support service for households which aims at promoting the rational use of energy as well as the eco-construction. In addition, the Code provides for the improvement of air quality through measures promoting a higher environmental performance of vehicles. Finally, the Code sets specific standards in terms of air quality and greenhouse gas emissions.

The energy intensity of industry is especially high in Belgium. Studies suggest that the low price for energy has encouraged a substitution from labour to energy. Effective taxes on energy are among the lowest in the EU-15 and seven out of 14 fuels are taxed at minimum EU levels (Kozluk 2011). Nevertheless, the concept of green growth is gaining recognition in Belgium. In 2009, the Federal Planning Bureau published a study on the environmental industry (Federal Planning Bureau 2009) which concluded that across all regions, environmental technologies are promoted through competence centres providing support to industries (Business Belgium 2013). Regarding green jobs, the share of employment in water collection, sewage, waste collection, and remediation activities in Belgium in 2011 was above 0.5%. The share of employment in the RE sector as a percentage of total employment in 2010 was also above 0.5% (Green Jobs 2012). Wallonia is home to several "green clusters". Flanders' energy concept for 2011–2012 explicitly supports green jobs (Vlaams Parlement 2011). In the field of environmental taxation no concrete policy actions have been taken or announced in 2013.

## 2 GHG projections

### Background information

In 2011, Belgium emitted 120.2 Mt CO<sub>2</sub>eq (UNFCCC 2011); 16% less than in 1990. Energy use accounts for around 40% of emissions, but the amount attributable to energy declined slightly between 1990 and 2011 despite an increase in energy use in the commercial sector since 1990 - the latter was outweighed by decreasing emissions in the residential sector and a switch from fuel oil to natural gas. Emission reductions also occurred in energy supply, as natural gas and renewable energy increasingly replace coal and efficiency measures are implemented. In contrast, emissions from transport increased by 30% between 1990 and 2011 due to increased road transport. Emissions from industrial processes decreased owing to reduced production of iron and steel and improved processes in the chemical industry. The reduction of agricultural emissions reflects the decreased number of livestock and fertiliser use (UNFCCC inventory 2011, EEA 2012, UNFCCC 2012). However, from 2011 to 2012 it is expected that the GHG emissions will slightly increase again due to increased emissions from energy supply and use (including transport) while emissions from industrial processes are expected to be reduced (EEA 2013c).

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<sup>1</sup> Ordonnance du 2 mai 2013 portant le Code bruxellois de l'Air, du Climat et de la Maîtrise de l'Energie

## 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 Belgium for the period 2008-2012 has been set to minus 7.5 % based on 1990 for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O and on 1995 for F-gases. An evaluation of the latest complete set of greenhouse gas data (for the year 2011; there is only preliminary data for 2012) shows that Belgium's emissions have decreased on average by 17.5% between the Kyoto base year and 2011 (EEA 2013a). Therefore, Belgium is expected to meet its Kyoto target through domestic emissions reductions directly.

By 2020, Belgium needs to reduce its emissions not covered by the EU ETS by 15% compared to 2005 in accordance with the Effort Sharing Decision (ESD) <sup>(2)</sup>. The latest data for 2012 suggests that Belgium is on track at present to meet the Annual Emissions Allocation <sup>(3)</sup> for the year 2013. However, national projections (EEA 2013b) show that the country could fail to meet its 2020 target by about 11 percentage points (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	143.1	143.3	131.8	120.2	121.0				
Non-ETS (% from 2005)		82.6	81.7	74.0	77.9 -6%	81.2 -2%	66.7 -15%	75.0 -4%	75.0 -4%
Energy supply (% share of total)	30.0 21%	29.4 21%	26.4 20%	22.0 18%					
Energy use (w/o transport) (% share of total)	60.5 42%	59.8 42%	54.0 41%	48.1 40%					
Transport (% share of total)	20.8 15%	26.4 18%	27.1 21%	27.0 23%					
Industrial processes (% share of total)	15.8 11%	15.3 11%	12.2 9%	11.3 9%					
Agriculture (% share of total)	11.3 8%	9.4 7%	9.4 7%	9.4 8%					

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

\* 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>2</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>3</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: <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 78 Mt 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 need to be prepared by the Member States in accordance with the EU Monitoring Mechanism <sup>(4)</sup> every two years, and the latest submission was due in 2013. The projections need to be prepared reflecting a scenario that estimates total GHG 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 have been summarised with a focus on national measures and those EU instruments expected to reduce emissions the most. Please note that the table includes also measures that address GHG emissions covered under the ETS such as measures reducing emissions from electricity generation (e.g. feed-in tariffs). 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	Fed	Green certificates	In force, covering RES and CHP in Wallonia and Brussels, only RES in Flanders but with separate CHP certificates market
	Fed	Promotion of offshore windmills (Action plan for renewables and CHP)	A green certificate system for offshore wind is in place. However, problems with grid enforcement exist.
	Fed	End of tax exemption of fossil fuels for power plants	Implemented
Energy Efficiency	Wal	Energy performance of buildings	Implemented. The provisions of the energy performance of buildings (EPB) directive were implemented in April 2007 and came into force in September 2008 <sup>(5)</sup> . Certification schemes are in force since June 2010 for existing residential buildings (Build up 2013a). The requirements for new buildings were tightened in September 2009 <sup>6</sup> , September 2011 <sup>(7)</sup> (consumption requirements

<sup>4</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>5</sup> Décret cadre du 19 avril 2007 et arrêtés d'application du 17 avril 2008

<sup>6</sup> Arrêté du Gouvernement wallon du 17 avril 2008 déterminant la méthode de calcul et les exigences, les agréments et les sanctions applicables en matière de performance énergétique et de climat intérieur des bâtiments

<sup>7</sup> Ibid.

		for new buildings) and June 2012 <sup>8</sup> ) (insulation requirements for new and existing buildings).
Fla	Energy performance of buildings	Energy performance requirements (EPB - eisen) are defined for new buildings covering insulation as well as energy performance requirements. Performance requirements for new buildings are tightened each year.
Bru	Energy performance of buildings	The requirements for the energy performance of buildings (Règlementations PEB) regarding renovations not subject to permit were not modified since 2011. As far as major renovation works subject to permits are concerned, a decree was published in February 2013 strengthening the requirements for thermal insulation. These requirements apply to projects whose application for planning permission is submitted from 1 January 2014. <sup>9</sup>
Fla	Benchmarking Covenant for large energy intensive industries from all sectors	Ongoing. The last monitoring report released in November 2013 is based on performance data of 2012. According to the evaluation, primary energy consumption of participating companies accounting for 80% of Flemish industrial energy consumers decreased from 511.4 PJ to 507.6 PJ, a saving of 4.36 Mt CO <sub>2</sub> eq (Commissie Benchmarking Vlaanderen 2013).
Wal	Energy/CO <sub>2</sub> efficiency long-term agreements	Ongoing. The first generation of sector-specific agreements between Wallonia and the industrial sectors in order to reduce their CO <sub>2</sub> emissions by 2020 (accords de branche energie/CO <sub>2</sub> ) were renewed for 2013. While the first generation of agreements concentrated on energy efficiency measures, the second generation will focus on the development of renewable energies. The signature of the sector-specific agreements of the second generation is expected by the end of 2013 (Wallonie 2013b).
Fla	Regional premiums roof insulation and rational use of energy investments by social rental agencies	In place (see Energy renovation programme 2020)

<sup>8</sup> Arrêté du Gouvernement wallon du 10 mai 2012 modifiant, en ce qui concerne la performance énergétique des bâtiments, le Code wallon de l'Aménagement du Territoire, de l'Urbanisme, du Patrimoine et de l'Energie

<sup>9</sup> Arrêté du 21 février 2013 du Gouvernement de la Région de Bruxelles-Capitale modifiant l'arrêté du 21 décembre 2007 déterminant des exigences en matière de performance énergétique et de climat intérieur des bâtiments.

Transport	Bru	Improve and promote public transport	Ongoing. In September 2010, the Brussels government adopted the final version of the Plan Iris 2. This strategic plan sets out the main guidelines for mobility in the Brussels region by 2015-2020. Its overall goal is to reduce car traffic by 20% by 2018 compared to 2001. Measures implemented to reach this goal include the increase of pedestrian areas, the improvement of cycling infrastructures and the expansion of the metro network (Bruxelles Mobilité 2012a).
	Fed	Increasing share of biofuels (from 4% to 10% between 2009 and 2020)	Quota system in place.

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	Fla, Bru	Long Term Energy/CO <sub>2</sub> efficiency Agreements in the industrial sector	Planned
Energy Efficiency	Wal	Specific support for RUE initiatives for people with low incomes	Implemented. The energy bonus (Primes energies) includes the allocation of subsidies for the production of heat from RES. The granting conditions were renewed for 2013. According to a Belgian newspaper, the spokesperson of the Walloon Energy Ministry announced that the energy bonus would be extended for 2014 (Sudinfo2013).
	Fla,Wal, Bru	Guidance on rational use of energy to low income communities	Planned
	Wal, Fla, Bru	Strengthening the energy performance requirements of buildings (residential)	No further action since February 2013.

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

### 3 Evaluation of National Reform Programme 2012 (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.

The Belgium NRP of 2013 contains a small number of federal policies as well as detailed regional policy initiatives as set out in separate reform programmes. A couple of new instruments have been passed mainly in the field of transport and energy efficiency. Their state of implementation varies. In the following table, the main policies and measures as outlined in the NRP of April 2013 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>Test project on passenger vehicles (Proefproject personenvoertuigen)</b>	
Status as stated in the NRP	announced
Status as per Nov 2013	To be implemented
Description of policy or measure	Until 2014, the three regions aim to start a test project on analysing the behaviour of vehicle use. Based on the test results, the three regions will evaluate the appropriate way of introducing differentiated road-pricing or tolls or alternative systems by effectively allocating operation costs and costs for car users.

<b>ReTiBo Project (Project Retibo (Registratie, Ticketing en Boordcomputer))</b>	
Status as stated in the NRP	Under implementation
Status as per Nov 2013	Implementation of phase 1 ongoing
Description of policy or measure	As a means to stimulate a more efficient and sustainable public transportation system, the four Belgian transport operators (De Lijn, STIB, TEC, SNCB) agreed to integrate their registration, ticketing and board computer systems. The project implementation is divided into 2 phases. By the end of 2013, the first phase shall be completed and the new system shall be installed. In a second phase, the old system shall be completely removed.

### **Brussels**

<b>Brussels Code for air, climate and energy (COBRACE)</b>	
Status as stated in the NRP	Due to be adopted in April 2013
Status as per Nov 2013	In force
Description of policy or measure	Whereas the Brussels Code for air, climate and energy (COBRACE) <sup>(10)</sup> was originally planned for April 2013, it was finally adopted on 2 May 2013 and published in the Belgian Official Gazette on 21 May 21 2013. It introduces several new measures in order to meet the objectives of the Brussels -Capital region, namely the reduction of GHG emissions by 30% by 2025 compared to 1990. The Code strengthens the regulation on energy performance of buildings. It also provides for the creation of an Energy House (Maison de l'énergie), a support service for households which aims at promoting the rational use of energy as well as the eco-construction. In addition, the Code provides for the improvement of air quality through measures promoting a higher environmental performance of vehicles. Finally, the Code sets specific standards in terms of air quality and greenhouse gas emissions.

<sup>10</sup> Ordonnance du 2 mai 2013 portant le Code bruxellois de l'Air, du Climat et de la Maîtrise de l'Energie

**Exemplary role of the public sector through the passive standard for new buildings and the low-energy standard for renovation of public buildings**

Status as stated in the NRP	Implemented
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Status as per Nov 2013	Ongoing
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Description of policy or measure	Through the publication of a decree in March 2013, the Brussels Government has committed to build from 2015 all new public projects according to the requirements of passive house standards <sup>11</sup> .
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**"Employment - Environnement Alliance" – sustainable construction axis implemented in 2011 through 44 identified actions**

Status as stated in the NRP	Implemented
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Status as per Nov 2013	Implemented
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Description of policy or measure	<p>The "Employment-Environment Alliance" was launched in March 2011 and is still in place. It involves social partners and actors in the field of public, voluntary, and private bodies. The Alliance-Jobs-Environment includes different areas:</p> <ul style="list-style-type: none"> <li>- Axis 1: for sustainable construction and renovation</li> <li>- Axis 2: water</li> <li>- Axis 3: resources and waste.</li> <li>- Axis 4: sustainable nutrition</li> </ul> <p>Various actions are planned facilitating a synergy of skilled manpower, technical expertise, and business experience. The charter for 2013 regarding sustainable construction and renovation was published in February 2013 (AEE 2013).</p>
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**Flanders****Flemish Climate Policy Plan 2013-2020 (Vlaams Klimaatbeleidsplan 2013 -2020)**

Status as stated in the NRP	Draft version approved on 1 February 2013
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Status as per Nov 2013	Final plan approval on 28 June 2013
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Description of policy or measure	<p>The Flemish Climate policy plan contains a mitigation and an adaptation policy plan covering the sectors mobility, buildings, agriculture, non-ETS industries, non-ETS energy sectors as well as waste. By bringing mitigation and adaptation strategies together in one plan the Flemish government accounts for the joint relevance and interaction of both topics. However, two different sub-plans are elaborated. Funding for the implementation of the plan shall partly be covered by the Flemish Climate Fund. The overall goal is to reduce greenhouse gas emissions by 15% between 2013 and 2020 (Vlaamse Regering 2013).</p>
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<sup>11</sup> Arrêté du 21 février 2013 du Gouvernement de la Région de Bruxelles-Capitale modifiant l'arrêté du Gouvernement de la Région de Bruxelles-Capitale du 21 décembre 2007 déterminant des exigences en matière de performance énergétique et de climat intérieur des bâtiments

**Flemish Climate Fund (Vlaams Klimaatfonds)**

Status as stated in the NRP	Passed by Flemish government on 27 April 2012
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Status as per Nov 2013	Implemented
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Description of policy or measure	The Fund is financed through the auctioning of EU emission permits. The generated revenues are used to finance the effective and cost efficient implementation of Flemish climate policy with a focus on mitigation. For 2013 and 2014 the budget is € 36.5 million.
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**Second Flemish Action Plan on Energy Efficiency (Energierenovatieprogramma 2020)**

Status as stated in the NRP	Implemented
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Status as per Nov 2013	Ongoing
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Description of policy or measure	Since 2006 the Energy Renovation Programme 2020 combines existing and new actions in the field of energy efficiency, such as premiums and tax deductions for investments in energy efficiency, energy consultancy and audits, and the dissemination of technical and financial information on energy efficiency measures. Moreover, cooperation agreements and covenants are signed. One main goal is that all roofs should be insulated by 2020.
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**Ecological Premium (Ecologiepremie)**

Status as stated in the NRP	Implemented
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Status as per Nov 2013	Implemented
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Description of policy or measure	The Ecological premium (ecologie premie) is designed to stimulate companies operating in the Flemish region to invest in environmentally friendly and energy efficient technologies. The maximum premium is €1 million per company over a period of 3 years. Furthermore, companies can receive a bonus if they conduct for example energy, environmental or ecological efficiency scans. In the end of 2012, a strategic ecologic premium, covering up to 70% of investment costs, was introduced for technologies and companies that do not qualify for support under the regular premium system. In 2013, the allocated budget for both premiums is €63 million.
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**Experimental Garden Electric Vehicles (Proeftuin Elektrisch Voertuig)**

Status as stated in the NRP	Passed on 15 July 2011 by Flemish government
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Status as per Nov 2013	Implemented. The programme runs until 2014
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Description of policy or measure	In order to reduce the environmental impact of vehicles, the Flemish government supports the market introduction of electro mobility in form of 5 pilot platforms with a total budget of €16.25 million (ViA n.d.). The programme brings together more than 70 partners (companies, organisations, research institutions), aims to stimulate investments in more than 600 electric vehicles and 600 charging points, opens a real life testing infrastructure, and supports research and development. Doing so, the government wants to test the feasibility and affordability of electric mobility development. Until now, 862 new charging points for bikes scooters, vans and cars have been installed as well as 300 electric vehicles are currently in use (status of March 2013)
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**Wallonia****"Air-Climate-Energy Plan"**

Status as stated in the NRP	Under preparation
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Status as per Nov 2013	Under implementation
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Description of policy or measure	A "climate decree" of the Walloon Government passed at second reading during Summer 2013 and is still in the legislative process. The publication in the official journal is pending. This decree establishes an "Air-Climate-Energy Plan" listing the specific measures which will allow the government to follow its budgetary emission pathway. Moreover, the "climate decree" sets targets for reducing GHG emissions for two specific horizons: -30% by 2020 and -80 to -95% by 2050. The decree also establishes the framework in order to reach these objectives, mainly through the implementation of "emission budgets". The government will namely be responsible for setting the emission budgets for a period of five years. The decree also establishes an annual parliamentary control of the budget (Henry 2013b). By the time of writing, the decree was not published yet.
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**Global investment plan for sustainable urban mobility**

Status as stated in the NRP	Decided
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Status as per Nov 2013	Implemented
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Description of policy or measure	In 2009, the Walloon region launched a regional mobility programme covering the period from 2009 to 2014. The measures of the programme focus on two key aspects: environmental protection (reduction of energy consumption and of polluting emissions) and the development of alternatives to the car, including public transport and cycle transport (Wallonie 2013d).
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**Preparation of Biomass Strategy**

Status as stated in the NRP	To be prepared by the Walloon Government
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Status as per Nov 2013	To be implemented
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Description of policy or measure	According to a statement of the Minister of Energy and Sustainable Development of June 2013, the elements necessary to complete the report on the Walloon biomass strategy were successfully gathered. The report will be based on studies carried out by Valbiom on the biomass potential in Wallonia, as well as on studies conducted by Cap Gemini on the realization scenarios of the Walloon target for renewable energy by 2020. According to the Minister, a biomass strategy should be submitted before the end of the legislature in June 2014 (Parlement Wallon 2013).
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### Updating the wind energy park

Status as stated in the NRP To be implemented

Status as per Nov 2013 Implemented

Description of policy or measure

In February 2013, the Walloon Government adopted a new frame of reference for wind energy along with a geographical mapping of the best suitable areas for wind turbines. The new frame of reference aims at enabling the achievement of Wallonia's renewable energy targets, which, as far as wind energy is concerned, were originally set at 4,500 GWh electricity production by 2020. In August 2013, the terms of references were modified, following the observations of municipalities and the results of an impact study. As a result, the initial target of 4,500 GWh by 2020 was reduced to 3,800 GWh (Henry 2013).

### Launch of the 1st Alliance for Employment-Environment

Status as stated in the NRP Implemented

Status as per Nov 2013 Implemented

Description of policy or measure

The first Alliance was concluded in February 2012. Main goals are to stimulate demand for sustainable renovation and construction of private and public buildings; to increase the availability and capacity of the construction sector; to develop skills through an extensive green training programme. The Alliance brings together more than 41 partners (Gouvernement Wallon 2012).

## 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.

### Environmental Taxation

In 2011, the share of Belgium's environmental tax revenues in its overall tax revenues was at 4.74% and thus the second lowest of all MS. The total environmental taxes compared to the GDP were 2.09% and also below the EU average. Belgium has no explicit carbon tax in place. In 2011, the implicit tax rate on energy amounted to 101.6 € per tonne of oil equivalent (toe) and was below the EU average. Belgium had also an economy with rather high energy intensity in 2010. The share of energy taxes in total tax revenues is the lowest in the EU (Eurostat 2013c).

In September 2013, the ministers of the Walloon government and of the Wallonia-Brussels Federation agreed on achieving budgetary balance in 2014. The aim is to meet European commitments to avoid Belgium being placed in Excessive Deficit Procedure. The budget measures for 2014 provide for the introduction of new revenues amounting to about €80 million. These measures include a fee of € 8,000 on new wind masts, which should yield €10 million in 2014. Other planned initiatives include a more thorough collection of the road tax, the registration tax and the axle tax for heavy goods vehicles, which is expected to generate € 43 million in 2014 (Gouvernement Wallon 2013).

Institutional complexity in Belgium hinders the implementation of a comprehensive environmental fiscal policy (FGTB Wallonne 2011). Until now, environment and related matters such as energy and transport were essentially a regional competence, whereas the federal level was responsible among others for energy pricing policy, federal transport policy as well as the setting of fiscal policies. However, Belgium is currently in the process of a new state reform aiming at transferring competences from the federal to the regional level (<sup>12</sup>). In July 2013, the Committee for the implementation of institutional reforms has reached an agreement on the legal texts implementing the state reform, namely the finance act and the transfer of competences. As far as the latter is concerned, regions and collectivities will receive new competences from the federal government corresponding to a total amount of €20 billion. The regions' and collectivities' own resources will thereby increase from €45 to €65 billion, representing an increase of over 40%. Regarding the finance act, it will provide fiscal autonomy to regions to the amount of €12 billion. The legal texts of the state reform shall be voted in Parliament in autumn 2013 and enter into force from July 2014. As of November 2013, competence in environmental taxation remains split between the two levels of power. Taxes and levies on energy are still subject to federal competencies. Therefore, tax exemptions and reduced rates are regulated accordingly, without regional specificities.

Currently, the competence for environmental taxation is distributed as follows:

Federal level:

- Excise duties on energy products and electricity (<sup>13</sup>).
- Tax on the entry into traffic service (Taxe de mise en circulation), road tax (Taxe de circulation) and "Eurovignette", only for cars registered in the Walloon region or Brussels-Capital region.

Walloon region:

- From 1 January 2014, the circulation tax, road tax and "Eurovignette" will be under the competence of the Walloon region (Wallonie 2012)

Brussels-Capital region:

- According to the Federal Public Service of finance, the Brussels-Capital region should also take over the responsibility of the circulation tax, road tax and "Eurovignette" from 1 January 2014.

Flanders:

- Tax on the entry into traffic service (Belasting op de inverkeerstelling)
- road tax (Verkeersbelasting)
- "Eurovignette"
- Additional road tax for LPG
- charges for wastewater, groundwater, manure and waste

Several tax benefits apply regarding energy consumption in Belgium. High energy-consuming companies as well as companies having an environmental permit benefit from

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<sup>12</sup> A political agreement was found in September-October 2011 and approved by the Council of Ministers in April 2012 for the implementation of a Belgian Stability Programme setting the guidelines and objectives of fiscal policy for the period 2012-2015. It should be read in conjunction with the National Reform Programme and can be retrieved on the website of the EC under: [http://ec.europa.eu/europe2020/pdf/nd/sp2012\\_belgium\\_fr.pdf](http://ec.europa.eu/europe2020/pdf/nd/sp2012_belgium_fr.pdf)

<sup>13</sup> Loi du 22 Décembre 2009 relative au régime général d'accise and Loi-Programme du 27 Décembre 2004

reduced excise rates when selling certain oil products (diesel fuel, heavy fuel oil, LPG, natural gas and kerosene). Reduced excise rates also apply to energy products used in farming, forestry, horticulture and fish farming (OECD 2013a). In Belgium, tax exemptions or reductions on excise products constitute tax expenditures. The largest tax expenditure lies in the granting of reduced excise duty rates for heating oil (diesel with high sulfur content used as fuel). The expenditure amounted to € 1.431 million in 2012, which accounted for nearly 67% of the overall tax expenditures of the Belgian government. The reduced excise rate for diesel with high sulfur content used as fuel represents the second largest tax expenditure of the Belgian State with a total of € 271 million in 2012. Reduced rates in favor of diesel and kerosene for industrial and commercial purposes represented an expenditure of € 208 million in 2012. Finally, the reimbursement of diesel taxes to road transport corresponded to a tax expenditure of € 119 million in 2012 (CRB 2013).

As far as green taxation is concerned, a report on the social cost of green taxation in Belgium published by the Itinera Institute on 23 May 2013 revealed that environmental taxes could yield between € 3 and €5 billion per year and would allow for a reduction of personal income tax by 7 to 11%. However, this tax reform could widen the income gap since only people active on the labour market would benefit from lower taxes. Moreover, this tax reform could affect the international competitiveness of energy-intensive sectors and increase the general price gap between Belgium and its neighbouring countries. The report concludes that a decline in labour taxes is necessary, yet it should not be funded solely by the use of environmental taxation. Structural savings in public spending are also needed to reduce the tax burden on labour (Itinera Institute 2013). So far, no concrete political actions have been taken to implement a comprehensive green tax reform.

### **Energy Efficiency**

The energy intensity of the Belgian economy decreased between 2005 and 2011 by 6%. However, Belgium was not able to make progress in reducing its energy consumption, which rose by 6% during these years. Although Belgium's energy consumption increased only by 5% between 2010 and 2011 it is still in the bottom of the EU table on the issue and is among the only four MS that were not able decrease its consumption at all (Eurostat 2013a).

Belgium's industrial sector showed strong progress with respect to energy efficiency over the last two decades, but improvements slowed down and even slightly reversed after 2007. The energy intensive industries such as the steel and chemicals industry are responsible for this development. The household sector has developed positively. Between 2000 and 2010 energy efficiency improved by 17%, with most of that progress achieved after 2005 (Odyssee 2012).

At the regional level multiple policies regarding the support of energy efficiency are in place. In the following the main regulatory as well as financial instruments will be analysed for each region.

In Flanders, the focus is put on energy savings in buildings and industry by offering investment support and setting energy performance obligations. The Flemish government pursues an Energy renovation programme 2020 (Energierenovatieprogramma 2020) aiming to ensure that by 2020 all existing homes have insulated roofs and that all single glazing and outdated boilers have been replaced with high efficiency ones. In the coming years, the Flemish government aims to introduce additional policies to improve energy efficiency performance of heat boilers and the replacement of old heating infrastructure

(Vlaamse Regering 2013). Currently, existing measures are financially supported by grid operators and federal, municipal, or provincial authorities in the form of subsidies and tax reductions. Flemish grid operators are obliged to stimulate energy saving measures for their customers. Moreover, municipalities also provide particular financial support. The amount of support depends on the energy efficiency performance level of the particular measure, e.g. €1700 for new a heat pump or 6 euro/m<sup>2</sup> (Rd-value  $\geq 3.5$  m<sup>2</sup>K/W) and a maximum of €720 for roof insulation (VEA 2012). Moreover, rational energy use shall be addressed by more targeted communication and information dissemination (Vlaamse Regering 2013).

In Flanders, the Flemish Energy Agency (VEA) and Ministry of Environment, Nature and Energy are responsible for the implementation of the Energy Performance of Buildings Directive (EPBD). The energy performance obligations already decided in 2006 (energieprestatieregelgeving) were included into the Energy Decree (het Energiedecreet) on 8 May 2009. The Energy regulation of 19 November 2010 (Energiebesluit <sup>(14)</sup>) contains the methodology of energy performance calculation, the energy performance obligations and stipulates exemptions. In general, energy performance obligations differ depending on the nature and use of the building, the construction measures (existing and new buildings), and the date of issuing a building permit. From January 2014 the E60 standard applies for residential, office and school buildings as decided by the Flemish parliament on 28 September 2012. From 2016 onwards, new buildings will have to adhere to an energy performance value of E50 as agreed by the Flemish government in July 2013. Flemish Minister for Energy Van Den Bossche concluded that the agreed stricter energy efficiency performance standards for new buildings are an important step for attaining an energy neutral stock of new buildings by 2021 (VEA 2013a). In October 2013 the Concerted Action EPDB published a report about the implementation progress of the EPDB in Flanders providing a look at the status of implementation at the end of 2012 (Build up 2013c). This report is the most current update available for the Flemish region. The impact of the EPBD and its recast are addressed in specific details in the report. As an example, the Nearly Zero- Energy Buildings (NZEB) 2020 target is introduced for new and existing residential and non-residential buildings. However its start is expected by begin of 2015. In order to fulfil this goal new legislation is needed (Build up 2013d).

As far as the Walloon region is concerned, the Energy Performance of Buildings Directive (EPBD) was implemented in April 2007 <sup>(15)</sup>. Regarding existing buildings, the regulation foresees that building permits for refurbishment works shall consider requirements for the building envelope and the ventilation. Certification schemes are in force since June 2010 for existing residential buildings and since October 2011 for existing non-residential buildings (Build up 2013a). “For new buildings, the requirements depend on the building type, and may cover the building envelope (U-values, global insulation level), the global Energy Performance rating ( $E_w$ ,  $E_{spec}$ ), ventilation and overheating rating” (Build up

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<sup>14</sup> Flemish Energy Decree of 2009 (Last amended on 28 June 2013)

<sup>14</sup> Walloon Electricity Decree

<sup>15</sup> Décret-cadre du 19 avril 2007 modifiant le Code wallon de l'Aménagement du Territoire, de l'Urbanisme et du Patrimoine en vue de promouvoir la performance énergétique des bâtiments

2013a). Since April 2007, the requirements were tightened in September 2009 <sup>(16)</sup>, September 2011 <sup>(17)</sup> (consumption requirements for new buildings) and June 2012 (insulation requirements for new and existing buildings).<sup>(18)</sup> The Scientific and Technical Centre for Construction published an updated summary of the current requirements in force for new and existing buildings in the Walloon region (CSTB 2014).

The EPBD has been implemented in the Brussels Capital region since June 2007. <sup>(19)</sup> In December 2007, an implementation order was published determining the energy performance requirements for new and existing buildings. <sup>(20)</sup> According to this regulation, the energy performance requirements apply for buildings for which a building permit was requested from July 2008. The requirements depend on the building type and regard among others the primary energy consumption, insulation level as well as the ventilation rate (Build up 2013b). In May 2011, new requirements were enforced regarding individual houses, offices and educational buildings. <sup>(21)</sup> In February 2013, the requirements of the order of December 2007 were tightened effective from January 2014. <sup>(22)</sup> The Scientific and Technical Centre for Construction published an updated summary of the current requirements in force for new and existing buildings in the Walloon region (CSTB 2014).

As far as support policies are concerned, Flanders introduced an Ecological premium (ecologie premie) that is designed to stimulate companies operating in the Flemish region to invest in environmentally friendly and energy efficient technologies. The maximum premium is €1 million per company over a period of 3 years. The amount of subsidy is calculated as a percentage of additional cost of investment laid out in a limited technology list. Since December 2012 the absolute amount of ecological premium is determined by the performance of the technology (eco number) as well as its “eco class” and the volume of the investment. Furthermore, a bonus is granted if the company conducts energy, environmental or ecological efficiency scan, provides a valid environment certificate, or shows a certified environment management system on the date of submission. At the end of 2012, a strategic ecologic premium, covering up to 70% of investment costs, was introduced for technologies and companies that do not qualify for support under the regular premium system. The foreseen budget for 2013 is €63 million.

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<sup>16</sup> Arrêté du Gouvernement wallon du 17 avril 2008 déterminant la méthode de calcul et les exigences, les agréments et les sanctions applicables en matière de performance énergétique et de climat intérieur des bâtiments

<sup>17</sup> Ibid.

<sup>18</sup> Arrêté du Gouvernement wallon du 10 mai 2012 modifiant, en ce qui concerne la performance énergétique des bâtiments, le Code wallon de l'Aménagement du Territoire, de l'Urbanisme, du Patrimoine et de l'Energie

<sup>19</sup> Ordonnance du 7 juin 2007 relative à la performance énergétique et au climat intérieur des bâtiments

<sup>20</sup> Arrêté du Gouvernement de la Région de Bruxelles-Capitale du 21 décembre 2007 déterminant des exigences en matière de performance énergétique et de climat intérieur des bâtiments

<sup>21</sup> Arrêté du Gouvernement de la Région de Bruxelles-Capitale du 5 mai 2011 portant modification de divers arrêtés d'exécution de l'ordonnance du 7 juin 2007 relative à la performance énergétique et au climat intérieur des bâtiments

<sup>22</sup> Arrêté du Gouvernement de la Région de Bruxelles-Capitale du 21 février 2013 modifiant l'arrêté du Gouvernement de la Région de Bruxelles-Capitale du 21 décembre 2007 déterminant des exigences en matière de performance énergétique et de climat intérieur des bâtiments

Moreover, the Flemish support programme for energy consultants was introduced in 2011 to stimulate energy efficiency and the rational use of energy via information campaigns and consultancy. As announced on 2 October 2013, the programme will enter into a second project phase from 2014 until 2016. In total €1.2 million are foreseen for project phase 2 (2014-2016) with a maximum of €175,000 per project. The programme is directed towards households with special attention on low-income households, construction and agricultural companies (VEA 2013d).

Recent developments in the energy efficiency policy of the Walloon government mostly concentrate on the residential sector, through the granting of loans and energy subsidies to encourage energy efficiency upgrades in housing. Within the framework of the second Marshall Plan for Green Development (Plan Marshall 2.vert), which covers the period 2010-2014, the Walloon region has been granting subsidies to the local public centers for social welfare (Centre Public d'Action Sociale - CPAS) in order to support the development of action plans providing social guidance for energy efficiency. The purpose of these action plans is to help households in need to better control their energy consumption and reduce their energy bills. The budget allocated to each CPAS for the implementation of an action plan amounts to € 250 per household being beneficiary of the guaranteed minimum income (revenu d'intégration sociale) with a maximum amount of € 50,000 by CPAS. The action plans of the CPAS shall cover the period from 1 June 2013 to 31 May 2015 (Wallonie 2013).

Moreover in May 2012, the Walloon region launched a support instrument called "Ecopack" aiming at stimulating energy efficiency upgrades in housing. The Ecopack was introduced in order to compensate the suspension of income tax reduction at the federal level. The programme grants interest-free loans and energy subsidies, provided the household in question carries out at least two energy efficiency improvements. The actual costs of the improvements shall range between €2,500 and €30,000 including VAT. The overall budget available for the Ecopack amounts to €200 million until May 2014 (Cluster Cap 2020 2012). During the first year of the programme, 3,967 loans were granted amounting in total to nearly €60 million. Considering the success of the first year, the Minister of Sustainable Development, Housing and Energy therefore announced that the Ecopack would be extended at least to June 2014 (Nollet 2013a).

As far as the Brussels-Capital region is concerned, an Air and Climate Energy Plan (plan Air Climat Energie - PACE) has been defined in September 2013 along with promoting measures for energy efficiency, which address all types of buildings and mainly consist of subsidies as well as call for proposals. *Inter alia*, the plan aims at establishing a series of energy efficiency standards for buildings and promoting the energy refurbishment of public buildings. Among others, it foresees the introduction of a labelling system for passive buildings, as well as a fund for the renovation of public buildings. The Air and Climate Energy Plan was expected to be ratified by the regional government during the Council of Ministers on 26 September 2013. As of November 2013, no further information was available.

The main existing support instrument of the Brussels-Capital region regarding energy efficiency is the Energy Bonus (Primes Energies) 2013 for residential, industrial, as well as service sector buildings located in the region. These subsidies apply for several categories of refurbishment works in buildings, such as insulation, efficient heating, or energy performance investments. The bonus is granted to natural or legal persons. The amount is calculated according to the income level of the applicant and according to the

technical characteristics of the equipment used. As a consequence of the success of the Energy Bonus, the budget of € 19 million for the year 2013 was already almost exhausted in June. As a result, applications submitted after 1 July 2013 were not considered. The technical and financial conditions of the Energy Bonus 2014 will be published in autumn 2013 (Bruxelles Environnement 2013).

Furthermore, Bussels-Capital region supports the design of energy-efficient buildings. In February 2013, the government published its sixth annual call for proposals to promote the construction or renovation of exemplary buildings i.e. buildings that achieve a high level of environmental and energy performance with a subsidy amounting to € 100 / m<sup>2</sup>. In 2012, the Brussels-Capital region allocated a budget of € 5 million to the development of 37 selected projects representing a total area of 148,000 m<sup>2</sup>. As of 2013, the Brussels-Capital region counts 193 exemplary buildings, covering a total area of over 500,000 m<sup>2</sup> (Huytebroeck 2013).

### **Renewable Energy**

The share of renewable energy in gross final energy consumption in Belgium continually increased from 2.3% to 4.9% between 2005 and 2010. However, in 2011 the amount decreased to 4.1%. Thus, further effort is needed to achieve the country's 2020 target of 13%. Belgium is among the five EU member states with the lowest target realisation level (Eurostat 2013a). The share of renewable in gross electricity consumption increased from 2.3% in 2005 to 8.8% in 2011 but remains at a low level (Eurostat 2013b).

Regulation and promotion of renewable energies is mainly a regional competency. The federal government is only responsible for the regulation of activities in the North Sea, i.e., offshore wind energy. The main mechanisms for the promotion of renewable energies are systems of green and CHP certificates requesting energy suppliers to cover a share of their supply with renewable energy. These systems exist at federal and regional level but are poorly coordinated. However, each region sets its own priorities and certificates are not tradable among regions, which fails to encourage technologies where they are most economical (Kozluk 2011). The geographic location of the grid connection determines from which region the electricity producer receives green certificates.

The main support schemes for the promotion of renewable energy in Flanders are the so-called green certificates (Groenstroomcertificaten) <sup>(23)</sup> quota system as well as the certificate trading scheme. These instruments are in place since 2009. According to the research institute VITO, the overall share of renewable energy reached 5.5% in 2012. Regarding electricity consumption the share is 10.1%, whereas for heat and transport the share amounts to 4.5% (Vlaams Energieagentschap 2013). Since January 2013, the amount of electricity to be produced for 1 certificate worth €93 varies across technologies and is based on a technology-specific banding factor. The banding factor is determined by the Flemish Energy Agency VEA and shall reflect the specific technology costs and efficiencies for amortisation so as to better prevent over-subsidisation. Moreover, the Flemish government introduced a new support scheme for heat produced from renewable energy sources as well as the district heating grid in general. With a budget of € 6.7 million the Flemish government aims to stimulate increased industrial generation of

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<sup>23</sup> Flemish Energy Decree of 2009 (Last amended on 28 June 2013)

renewable heat, the construction of heat networks, the recovery of waste heat, and heat production from renewable energy sources. As calculated by the research center VITO, this policy may account for the fulfilment of one third to one half of the Flemish renewable energy target of 13 % by 2020 (VEA 2013c).

As far as the Walloon region is concerned, several important policy developments occurred in the last months. In July 2013, the Walloon government agreed on a roadmap to achieve the Walloon target of 8,000 GWh of renewable energy by 2020. The roadmap foresees the production by 2020 of 3,800 GWh electricity from wind energy installations over 1 MW but lowered the support for wind energy. The number of allocated green certificates shall namely decrease from 1 certificate per MWh to 0.9 certificate per MWh. Regarding solar energy, the roadmap announces a target of 1,250 GWh of photovoltaic power generation by 2020. In this respect, the new support mechanism Quali watt is planned to support 15,000 new facilities annually with a capacity of less than 10 kW. The Walloon government submitted the roadmap proposal to the Walloon regulatory authority CWaPE for comments (Nollet 2013c). In September 2013, the CWaPE published its notice on the proposed trajectories and grant rates for large wind energy and photovoltaic installations over 10 kW. The CWaPE believes there is a real risk that the wind energy objective cannot be achieved. As far as the solar sector is concerned, the CWaPE suggests limiting the granting of green certificates in order to ensure a return to the balance in the market for green certificates as quickly as possible. The CWaPE therefore recommends to grant two green certificates per MWh for installations with a capacity up to 250 kWp and one green certificate per MWh for installations with a capacity over 250 kWp (CWaPE 2013). By the time of writing, the final roadmap adopted by the Walloon government was not published yet.

As in Flanders, the main instrument for the promotion of RES in Wallonia's electricity production is since 2001 a green certificate system (Système de certificats verts) <sup>(24)</sup>. Each electricity supplier is obliged to purchase a quota of green certificates per quarter, depending on their overall volume of electricity sold, which increases annually. The minimum price per certificate for each technology in the Walloon region is set at €65. The original design of the support scheme for photovoltaic installations resulted into the devaluation of the price of green certificates, due to their excessive amount available on the market. Consequently, the Walloon Government announced in November 2011 its decision to stop the allocation of green certificates for photovoltaic installations of less than or equal to 10 kW from April 2013 onwards. Following an agreement between the Walloon Government and the renewable business facilitator (RBF), the renewable energies association Edora, the Walloon construction confederation (CCW) and the Walloon technology cluster for energy, environment and sustainable development (TWEED), the government adopted in September 2013 a new support scheme for photovoltaic installations up of to 10 kWp (Wallonie 2013a). The Quali watt scheme is based on the amount of power produced and displayed on the backwards running meter. The support system shall allow the producers a timely repayment of their installation as well as attractive but not speculative rates of return. The period of return on investment was set at 8 years for all producers, with the eligibility to premiums set to five years. The

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<sup>24</sup> Walloon Electricity Decree of 2001 and Walloon Decree of 30 November 2006 on Support for Renewable Energy and Combined Heat and Power Generation

eligibility of installers to the Quali watt support scheme is subject to the obtaining of a quality label recognised by the region to provide their customers with adequate skills. The date of the entry into force of the Quali watt system is however not known yet (Nollet 2013b).

The Walloon Government also adopted a new frame of reference for wind energy along with a geographical mapping of the best suitable areas for wind turbines in February 2013, which was modified again in August 2013. The adoption of a new frame of reference for wind energy in Wallonia shows the will of the government to enhance the development of the wind sector and thus puts an end to the period of uncertainty which undermined the wind sector so far. Recent studies estimate that this could generate 16,000 “wind energy jobs” by 2030 and contribute to up to € 3 billion to the Belgian GDP (Henry 2013a). However, the terms of reference set strict rules for the installation of wind turbines and clarifies the necessary installation requirements, including those for the environmental impact studies. New minimum requirements for the distance between turbines and houses reduce the authorised areas for wind turbines to only 37,000 ha (2.2% of Wallonia) instead of 52,000 ha (3.1% of the territory) as planned in the first version of the terms of reference. Finally, the initial target of 4,500 GWh by 2020 was reduced to 3,800 GWh (Henry 2013).

In October 2013, the Walloon region launched a call for interest for organizations wanting to be recognized by the Walloon region as labelling organizations for companies installing renewable energy devices or energy refurbishment works. The call for interest addresses particularly photovoltaic systems as well as solar thermal and combined solar thermal systems. The creation of an official label for Walloon companies will ensure a better quality of installations and provide better visibility to the public (Wallonie 2013e).

No important developments were observed in Brussels-Capital region.

### **Energy Networks**

The Flemish Minister for Energy Van Den Bossche is currently dealing with a boycott of energy suppliers to charge the grid use fee for solar panels as well as with a lack of harmonisation concerning distribution grid tariffs. Since January 2013, owners of solar panels with a maximum installed capacity of 10 kW are obliged to pay a yearly grid use fee of about €53 (excluding VAT). So far, a number of energy suppliers boycott this fee due to pending hearings in court. The Minister accused those energy suppliers who refuse to implement the charge to support discriminatory practices in the electricity market, and called for the Flemish regulator VREG to mediate and settle the dispute (Van Den Bossche 2013a). Furthermore, the Minister advocated the introduction of harmonised distribution grid tariff across Flanders criticizing that the distribution grid operators Eandis and Infrac charged different tariffs across municipalities with the result that the costs for the support of PV installations are not distributed equally among households. Whereas households in Antwerp pay €17 per year, the costs in West-Vlaanderen amount to € 85. Van Den Bossche handed in a note for discussion to the Flemish government (Van Den Bossche 2013b). So far, both issues have not been settled.

## Transport

Emissions from transport have increased between 1990 and 2011 and only decreased marginally since 2010. Also, their proportion among Belgium's total emissions has steadily increased to 23%. Thus, these emissions need further attention (Table 1).

Average emissions for newly registered cars are low in Belgium with a level of 127.9 CO<sub>2</sub>/km. The level is the 9<sup>th</sup> lowest in the EU but has decreased at a lower rate than EU average between 2005 and 2012, and even showed a small increase of 0.6% between 2011 and 2012 (Eurostat 2013a). Belgium has a registration tax, which is close to the EU average. However, significant differences prevail between regions, because taxation of vehicles is a regional competence. Currently the Eurovignette is in place for HDVs but a distance-based toll system for vehicles above 3.5 tonnes will be implemented by 2016 (CE Delft 2012).

The high use of passenger vehicles resulting partly from prioritised tax treatment of company cars and the inflexible public transport system is one factor why emissions in the transport sector have increased until 2010. Especially striking is the dominant use of diesel which has since the 1980s increasingly replaced petrol. This was favoured by relatively low excise duties on diesel compared to petrol (Schmitz 2012). While excise duties on petrol are average compared to neighbouring countries, taxes levied on diesel are significantly lower at around €170/1000 litres less than petrol /European Commission 2013). In addition, the geographic situation as a transit country (harbours, freight, road transport) need to be taken into consideration.

The transport sector was formerly mainly under federal competency but most responsibilities were transferred to the regional level in 2011, e.g., taxation on registration and ownership of cars, environmental incentives, and speed limits.

The regions agreed in 2011 to implement a distance-based toll system for vehicles above 3.5 tonnes on motorways and some other roads by 2016 (European Commission 2013a).

Flanders and the Walloon region have taken measures targeting CO<sub>2</sub> emissions of cars with the registration tax (regional competence). The Flemish government reformed the green car registration tax which is based on the CO<sub>2</sub> emissions, Euronorm, fuel type, and age from March 2012 on. Since 2008 and modified in 2011, the Walloon region has applied a CO<sub>2</sub>-based Ecobonus/-malus scheme for registering a car. Accordingly, since January 2012, cars emitting less than 81 gCO<sub>2</sub>/km receive a premium of €500 to €3,500. An Ecomalus of up to €2,500 is applied to cars emitting more than 146 gCO<sub>2</sub>/km. In the Brussels-Capital region, however, the registration tax is not accounting for CO<sub>2</sub> emissions but is only based on power and age of the vehicle.

Also, the responsibility for car ownership taxes has been transferred to the regional level. In all three regions the tax is still only based on the cylinder capacity (for passenger cars) or on weight and number of axles (commercial vehicles), but reforms are being discussed to account for CO<sub>2</sub> emissions (Ecoscore 2013).

Since 2009, a federal quota for biofuels has been in place which obliges providers of petrol or diesel fuels to ensure that 4% of the annual fuel sale is biofuel. In 2010, a national fuel tax reduction was introduced that applies to petrol containing at least 7% v/v of bioethanol and diesel containing at least 5% v/v of FAME. However, these measures have not been updated (Bond Beter Leefmilieu 2012).

In the field of public transport, all four Belgian transport operators De Lijn, STIB, TEC and SNCB decided to work together in the so-called ReTiBo project aiming at the integration of registration, ticketing and steering software systems. By the end of 2013, the new system shall be installed and fully operative (Fleetsupport BVBA 2012).

### **Agriculture**

The Flemish Agriculture Investment Fund (Vlaams Landbouwinvesteringsfonds (VLIF)) (Vlaamse Overheid (2012) offers investment subsidies to companies in order to invest in environmentally friendly and energy efficient technologies, such as renewable energy, CHP, etc. Besides financial support, the Flemish Climate Policy Plan of 2013 announces more detailed plans and strategies targeting consumer behaviour and sustainable production via awareness raising, strategic support for organic agriculture and the efficient use of production chains and circular flows (Vlaamse Regering 2013).

In June 2013, Carlo Di Antonio, Minister of Agriculture of the Walloon government, launched a strategic plan for the development of organic farming and the consumption of organic products. This plan foresees the allocation of €2 million for research and development of the organic industry (twice as much as the previous year). Moreover, support to farmers will be provided by a single new structure called “Biowallonie”. Within this framework, specific training in organic farming will be offered by high schools or other training structures. The aim of the strategic plan for the development of organic farming is to increase the number of Walloon organic farms from 1,100 to 1,750 by 2020 and to double the share of organic agricultural areas from 7.5% to 15% of the total utilised agricultural land by 2020. According to the Minister, this plan shall better meet the constantly increasing local demand for organic products and secure the economic future of Walloon organic farmers. Last but not least, it will also contribute to climate protection, since organic farming is less energy intensive (Di Antonio 2013).

### **Adaptation**

The federal adaptation strategy has been in place since 2010 (National Climate Commission 2010). The Working Group Adaptation under the Coordination Committee for International Environmental Policy (CCIEP) monitors international developments and decisions that are of national relevance. Under the framework of the National Climate Commission, an adaptation working group was set up in order to develop national policy responses and strategies.

Also on the regional level, working groups discuss adaptation strategies. In the cadre of the Flemish Climate Policy, the Flemish government developed an adaptation plan identifying possible consequences of climate change with respective needs for adaptation measures. The plan so far stipulates main challenges in the fields of water management, nature and environment, industry and services, energy, mobility, tourism, agriculture, fishing, buildings and public health. Besides discussing negative consequences of global warming to Flanders through floods, lower precipitation, erosion of soil etc., the government also underlines possible positive effects in the area of tourism as well as stresses new economic potentials for Flemish companies. The various facets of adaptation shall be integrated in the strategies and actions of the public hand without creating extra bureaucratic costs and burdens. So far, the plan does not set out concrete policy measures (Vlaamse Regering 2013).

In the Walloon region, a regional adaptation plan is currently under preparation. To this end, the Walloon Agency for Air and Climate launched a preparatory study assessing the vulnerability of the region regarding the consequences of climate change and formulating adaptation options. The preparatory study was published in May 2011 and has not led to concrete policy measures yet.

As far as the Brussels Capital region is concerned studies were conducted in 2012 on regional adaptation measures in preparation of the elaboration of the regional adaptation plan, but no concrete adaptation strategy is in place so far.

## 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.

Existing Country Specific Recommendations	Progress
Establish concrete and time-specific proposals for shifting taxes from labour to less growth-distortive tax bases, notably by exploring the potential of environmental taxes, for example on diesel, heating fuels and the taxation of the private use of company cars	No concrete policy actions regarding a greening of the taxation system have been taken or announced in 2013. It remains to be seen whether the partial transfer of competences for environmental taxation to the regional level will stimulate action in this policy field.
Take concrete measures and agree a clear division of tasks between the federal and regional authorities to ensure progress towards reaching the targets for reducing greenhouse gas emissions from non-ETS activities, in particular from transport and buildings	Only minor improvements achieved. Despite the formulation of regional mitigation and adaptation policy goals, still no agreement was found on the internal burden sharing of emission reduction targets. Support mechanisms for low-emission cars were abolished and a motorway toll has been postponed. Distance-based toll for vehicles above 3.5 tonnes will be introduced in 2016. The road-pricing of passenger cars will be decided after a testing project. In the framework of the ReTiBo project, harmonisation in public transport is currently under implementation.
Continue to improve the functioning of the energy sector by reducing distribution costs and monitoring retail costs, strengthen the independence of the regulators in the energy, [...] and the transport sectors (railway, airport, ports, road transport)	In Flanders, a harmonisation of distribution grid tariffs is under consideration. No developments could be observed regarding energy networks in Wallonia and in Brussels-Capital since February 2013.

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