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

## Country Report: France



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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 May 2012 to January 2013.

The content of the report represents the state of knowledge in February 2013, specific updates were made adding the latest official greenhouse gas emission data by the European Environment Agency (EEA).

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

## Short summary

- **Background:** France has had national climate programmes in place for over 15 years and is currently engaged in the development of a new climate strategy.
- **GHG target:** Non-ETS emissions in 2011 were below of the 2013 target and according to the latest national projections France is expected to meet its 2020 target with existing measures.
- **Policy development:** France has actively implemented climate and energy policy measures. The change in government in 2012 led to increased support for renewable energy in particular.

## I Background on climate and energy policies

Historically, France's climate policy has been influenced by the underlying structure of its energy system. French energy policy is based largely on its use of nuclear power for electricity. Power production was strongly regulated by the state, which controlled the company operating nuclear plants (Electricité de France - EdF). Even after liberalisation of the energy markets, the French government continued to protect its national energy provider from outside competition. The reliance on nuclear power, which is essentially free of direct carbon emissions, has also led to a French GHG emissions profile that is much lower than the EU average – per capita and per unit of GDP. France's emission targets have thus been lower than those of similarly industrialised economies. Recently, the potential to obtain natural gas via hydraulic fracturing has spurred debate in France, as the practice is prohibited there since July 2011 due to its negative impact on the environment. Shale gas potential continues to divide political parties – current president Francois Hollande rejected several applications for oil shale exploration licences in 2012 (Challenges 2012).

France has implemented climate strategies in various forms since 1995. Initial action plans were followed by the National Programme for Combating Climate Change in 2000, which was in turn followed by the national strategy for sustainable development published in 2004 and updated in 2006. The policy for combating climate change was finally strengthened at the end of October 2007 within the framework of the conclusions from round tables on “the Grenelle Environment Forum” (MEDDE 2009) and eventually named the Climate Plan 2004-2012. The latter is France's action plan for meeting its commitments in relation to the Kyoto Protocol. It is now required that the climate policy be updated every two years according to the 2005 Energy Policy Framework Law <sup>(1)</sup>.

The “Grenelle Environment Round Table” initiated under the presidency of Nicolas Sarkozy <sup>(2)</sup>, and the Environmental Conference introduced in September 2012 by the

<sup>1</sup> Globe International & Grantham Research Institute on Climate Change and the Environment (3<sup>rd</sup> Edition)

<sup>2</sup> The “Grenelle Environment” characterises a series of round tables aiming at developing long term policies regarding sustainable development and climate change in France. It was initiated in September 2007 by the government of Nicolas Sarkozy.

government of Francois Hollande, reflect France's engagement in green growth measures and climate mitigation. The goal of these processes is to develop a governmental work programme through the formulation of a national roadmap identifying the path forward on sustainable development and particularly on energy transition in close consultation with industry, government, and non-governmental organisations. The French government finances this process through e.g. its "Investment for the Future" Programme (Programme d'investissements d'avenir). Within this framework, France has set itself the target of reducing its greenhouse gas emissions by 2050 by at least 75% (Legifrance 2012).

President Hollande pledged to cut the share of nuclear energy in the country's electricity mix to 50% from 75% by 2025. In September 2012 he reinforced this plan and initiated an "energy transition" debate that is to culminate in a new energy bill in June 2013. The debate will include a wide range of stakeholders and is expected to have important impacts on the development of renewable energy (UPI 2012).

Overall French energy policy is regulated by the Planning Act of 13 July 2005, which aims to reduce national energy dependency, ensure competitive power prices and tackle climate change. The French government implemented several policies to reach these objectives, including renewable energy subsidies, a feed-in tariff for renewables, and tax incentives for renewables (MEDDE 2011a).

According to France's Ministry of Ecology and Sustainable Development, 1.6% of total employment in 2010 was in "green jobs" (OECD 2012, p. 117-121). A sectoral breakdown of the numbers shows that around a third of this employment (above 0.5% of the total) was in water collection, sewage, waste collection, and remediation activities in 2011. The renewable energy sector accounted for a similar number of jobs (also above 0.5% of total employment) in 2010 (Green Jobs 2012, p. 3-4).

## 2 GHG projections

### Background information

France is the fourth biggest emitter of greenhouse gases in the European Union. In 2011, the country emitted 485.5 Mt CO<sub>2</sub>eq (UNFCCC inventory 2011), 13% less than in 1990. Energy use, transport and agriculture were the sectors with highest emissions. Emissions from energy use decreased by 17% between 1990 and 2011, reflecting improvements in energy efficiency in the building sector. There was an especially sharp decrease between 2010 and 2011. Emissions from agriculture fell by almost 10% in the between 1990 and 2010, due to decrease in livestock and declining use of nitrogen fertilizer, but showed a slight increase between 2010 and 2011. Energy supply emissions also fell between 1990 and 2011 by 8%. The most makeable emission reductions occurred in industrial processes, where emissions decreased by 39% in this timeframe, reflecting reduced mineral production and increased energy efficiency. In contrast, emissions from transport increased nearly 9% between 1990 and 2010. This is primarily related to growing emissions from freight vehicles; emissions from passenger cars have been decreasing due to the dieselization of the car fleet (UNFCCC inventory 2011, EEA 2012c, UNFCCC 2012).

### **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.

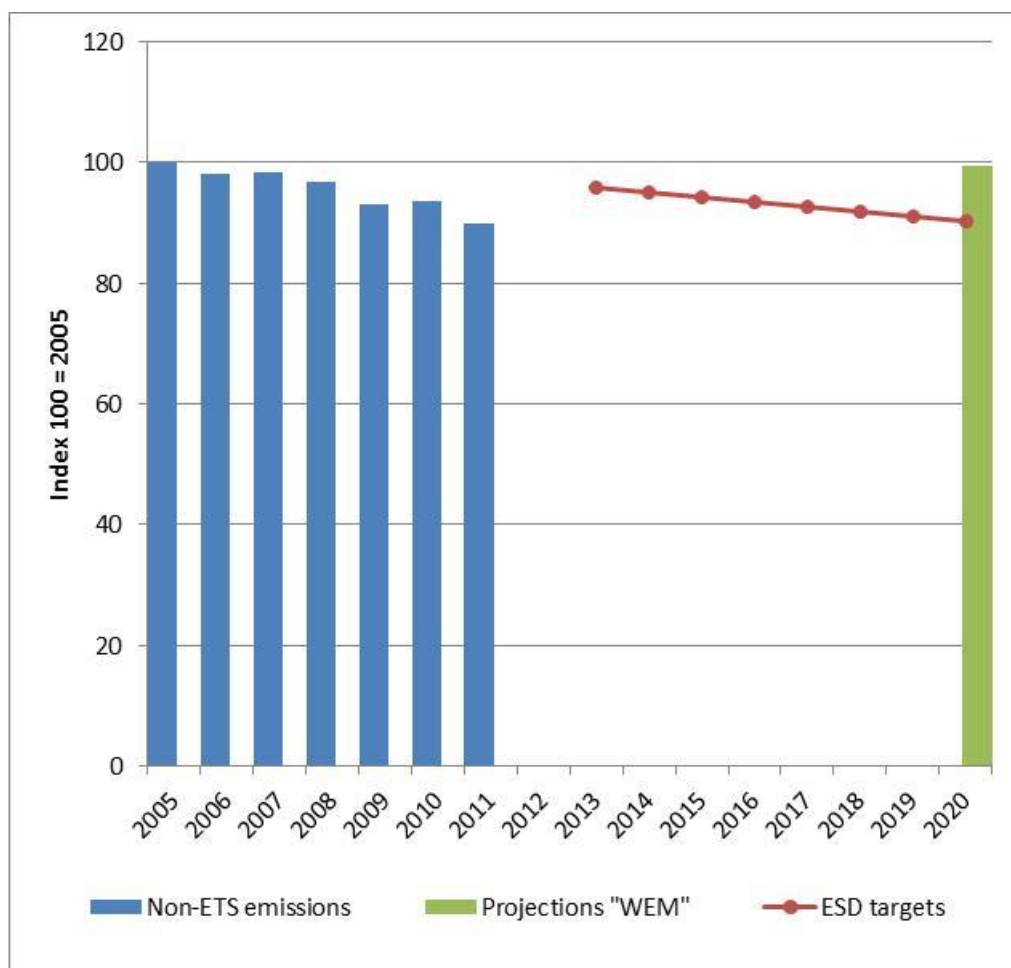
Under the Kyoto-Protocol the emission reduction target for France for the period 2008-2012 has been set to 0 % based on 1990 levels. An evaluation of the latest available greenhouse gas data (for the year 2011) shows that France's emissions have decreased on average by 13.9% compared to the Kyoto base year (EEA 2013a).

By 2020 France needs to decrease its emissions not covered by the EU ETS by 14% compared to 2005 in accordance with the Effort Sharing Decision (ESD) <sup>(3)</sup>. According to the 2011 inventory data, France is on track at present: emissions in 2011 were below the Annual Emissions Allocation (COM 2013) for the year 2013. National projections show that France is expected to reduce its non-ETS emissions by 2020 by 17% in a scenario with existing measures, and by 24% in a scenario with additional measures. France is thus expected to overachieve its target (EEA 2013b).

Figure 1 shows France's non-ETS emissions until 2011, targets under the ESD for the period 2013-2020 and the projections with existing measures for 2020.

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<sup>3</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.

**Figure I: Non-ETS emission trends and projections compared to the ESD targets**

Source: EEA. Projections are based on 15/04/2013 draft GHG inventory submissions under the UNFCCC and MS projections submitted

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

	1990	2005	2010	2011	ESD target*		2020 Projections**	
					2013	2020	WEM	WAM
Total	556.4	558.3	514.2	485.5				
Non-ETS emissions (% from 2005)		417.4	394.1	375.7 -10%	397.9 -5%	350.1 -14%	338.0 -17%	309.0 -24%
Energy supply (% share of total)	64.3 12%	67.6 12%	61.5 12%	53.0 11%				
Energy use (w/o transport) (% share of total)	188.1 34%	193.6 35%	174.4 34%	155.3 32%				
Transport (% share of total)	121.2 22%	141.7 25%	132.2 26%	132.0 27%				
Industrial processes (% share of total)	58.9 11%	42.4 8%	37.5 7%	36.1 7%				
Agriculture (% share of total)	99.6 18%	92.3 17%	89.9 17%	91.2 19%				

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

\* The ESD target for 2013 and for 2020 refer to different scopes of the ETS: The 2013 target is compared with 2011 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 scope of the ETS from 2013-2020. Non-ETS emissions in 2005 for the scope of the ETS from 2013-2020 amounted to 407.0 Mt CO<sub>2</sub>eq.

\*\* 2013 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>(4)</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 France as basis for the projections as of April 2011 <sup>(5)</sup> - have been summarised with a focus on national measures and those EU instruments expected to reduce emissions the most <sup>(6)</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 2011 GHG projections**

Existing Measures (only important national measures; w/o EU legislation)		Status of policy in January 2013
Cross-cutting	Supporting local authorities in implementing their climate and energy policies (part of the contract between the State and the Regions from 2007-2013 through the ADEME)	Ongoing. The overall budget of the contract (Accord-Cadre État -Regions - Ademe) amounts to €122 million for the period 2007-2013 (Ademe 2013).
Energy	Multiannual programming investments for renewable electricity	The current multiannual programming investments for electricity were implemented in 2009 via a decree that also set electricity development targets for the period 2009-2020 and is still in force (Legifrance 2009a). The national debate on energy transition launched in September 2012 shall lead to formulation of an energy planning bill for energy demand by the end of 2013 (MEDDE 2012i).
	Multiannual programming investments for renewable heat production	The current programme was implemented in 2009 via a decree that also set heat production targets for the period 2009-2020 and is still in force (Legifrance 2009b). The national debate on energy transition launched in September 2012 shall lead to the formulation of an energy planning bill for energy needs by the end of 2013 (MEDDE 2012i).

<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> The respective policies and measures were not available at the time of the preparation of this country report. Thus, policies and measures as outlined in April 2011 are given here.

<sup>6</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.

Heat fund	Ongoing: € 1.2 billion are foreseen for the period until the end of 2013. A call for tender was launched in September 2012.
Support for cogeneration	Some support for micro-cogeneration in buildings is included in revised thermal regulation "RT 2012".
Reduced VAT rate for the sale of heat for district heating including more than 50% in renewable energy or recovery	In force
Calls for tender: biomass	Implemented: Fifth call for tender for the promotion of heat production from biomass in industry, tertiary and agricultural sectors was launched in September 2012.
Support for the creation of geothermal industry (French association of professionals geothermal)	Ongoing.
2012 thermal regulation (RT 2012)	Implemented: The RT 2012 applies for all building permits submitted for new buildings from 1 January 2013 onwards.
Property tax exemptions on low-energy buildings	Still in force (Exonération de la taxe foncière sur les propriétés bâties)
Loans (PtZ) adjusted to the energy performance of housing	Ongoing: From 2013 onwards, the eligibility to the zero-interest loan ("Prêt à taux Zéro") requires meeting the thermal regulation standards RT2012 (building permits submitted in 2013) or the standard label BBC 2005.
Thermal regulation (RT) of existing buildings	Ongoing: From 1 January 2013 onwards, repairs to existing buildings that require planning permission also require certification that the building complies with the thermal regulations.
Energy Efficiency Tax credit for sustainable development (icsd) improving the energy performance of existing buildings	Modified: From 1 January 2013, the tax credit for sustainable development is only applicable for existing buildings completed more than 2 years ago.
Eco-interest loan (eco-ptz) in order to improve energy performance of existing buildings	Still available through 31 December 2013.
Property tax exemption on buildings characterised eligible for icsd	In force
Reduced VAT rate for renovations	Ongoing. Only for renovations in residential buildings completed more than 2 years ago. The reduced VAT rate shall increase from 7% to 10% from 1 January 2014.
Energy saving certificates	Ongoing. The current measures cover the period 2011-2013, for which a target of 345 TWh energy saving has been set.
Eco-design of equipment	Ongoing. In January 2013 a website on the eco-design of electric and electronic equipment was launched in order to help improve their recyclability.



	Commitment to increase rail freight through various means	Ongoing. The Hollande government is currently working on a railway reform law, to be published in 2013. In 2009, the government of Nicolas Sarkozy had launched a €7 billion action plan to support rail freight (Le Figaro économie 2009).
	Eco-heavy vehicle fee (art 11 grenelle 1)	Not implemented yet. According to the Customs Administration, the eco-tax on heavy goods vehicles will be collected from April 2013 onwards on the Alsatian road network, In July 2013, the eco-tax shall be collected on the national road network.
	Development of the network of high-speed rail lines (article 12 law grenelle 1)	Ongoing. The government of Hollande is currently working on a railway reform law to be published in 2013.
	Development of public transport in dedicated lanes (art 13 grenelle 1)	Ongoing: Hollande government prioritises transport but no specific legislative acts were taken in 2012.
Transport	Tax on company cars based on emissions	In force: The amount of the tax due per year is calculated according to two different scales, depending on the date of registration of the vehicle. Vehicles put into service since June 2004 and owned or used by the company from 2006 are taxed according to their CO <sub>2</sub> emissions. Vehicles put into service before 1 June 2004 and owned or used by the company until 2006 are taxed according to the horsepower of the engine.
	Bonus-malus system for new cars and superbonus for scrapping of the old car	Implemented. In August 2012, the maximum amount of bonus was raised as well as the price scale of the malus for high-emitting vehicles.
	Plans for electric and hybrid vehicles	Ongoing. The Hollande government's "Plan automobile" was presented in July 2012 and replaces the previous government's "plan véhicules électriques et hybrides".
	French biofuel plan	On hold: In order to support the French agricultural industry, the government announced in September 2012 a pause in the development of first-generation biofuels in order to concentrate on second generation biofuels. Biofuel tax exemptions were nevertheless extended through 31 December 2015. According to the Ministry of Agriculture, the reason for maintaining the tax exemption is to support the producers of first generation biofuels, since they are also those who will invest in second generation biofuels (Ligue des Droits de l'Homme 2012).
	Tax (TGAP) on fuels depending on share of biofuels in the fuel	In force.

Other non-ETS sectors	Voluntary agreements on manufacturers' CO <sub>2</sub> emissions	Ongoing: In July 2011, a national one-year pilot programme was initiated involving manufacturers of mass consumption products that voluntarily provide environmental impact information about their products to consumers. Results from this trial period are expected in 2013 and based on them, the Parliament will decide whether to involve more companies.
	Serre-energy plan: including development of renewable energy and energy conservation in agricultural and horticultural production	The Serre-energy plan was an initiative of the previous government, launched in 2006. As of February 2013, no communication was available on the status of this plan. Support for agricultural and horticultural production comes from the current "plan vegetal environnement" which covers the period 2007-2013.
	Plan for energy performance of farms	Ongoing: The improvement of energy performance in farms is supported within the framework of the Energy Performance Plan (Plan Performance Énergie) through the end of 2013.
	Action "végétal environnement" which encourages energy saving in greenhouses	In force through 2013.
	Development of agricultural biogas	No specific legislative action taken on this measure in 2012.
	Environmental Certification and increase vegetation on land (2020 land plan goals)	The previous government launched a plan called "Objectif terres 2020" in 2009 proposing environmental certification of farms. No update on the status of implementation in 2012 was available.
Objectives of the act grenelle 1 on reducing waste and recycling and 2009-2012 action plan on waste	The action plan on waste was initiated by the previous government and only covered the period through 2012. The government is currently formulating an action plan to halve the volume of food waste by 2025.	

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, April 2011.

**Additional Measures: Still to be implemented (only important national measures; w/o EU legislation)**

**Status of policy in January 2013**

Energy	Inclusion of biogas into natural gas networks	Implemented: The injection of biogas into natural gas networks is allowed by the decree no. 2011-1594 of 21 November 2011.
	Calls for tender: offshore wind	Implemented: In January 2013, the French government published a call for tender for the development of 2 offshore wind plants, with a total installed capacity of 1000 MW.
	Changes in regulations applicable to geothermal facilities	Since 1 January 2012, installation of geothermal heat pumps can earn a 26% income tax credit.

Energy Efficiency	Requirement for completion of work to improve energy efficiency in existing buildings, which are used for tertiary use or an activity of public service by 2020	Implemented. From 1 January, 2013, existing tertiary and public sector buildings required to carry out energy efficiency upgrades within 8 years.
	Promoting the individualisation of heating costs	Planned: Appliances that individualise collective heating costs are to be commissioned by 31 March 2017 at the latest (Décret du 23 avril 2012 et arrêté du 27 août 2012).
	Financial participation of the tenant after the completion of work on energy saving by the owner	Implemented: The decrees 2009-1439 and 2009-1438 allow property owners who paid for energy efficiency measures to claim half of their benefits.
	Renovation of 800 000 houses by 2020	Ongoing: The current government confirmed during the Environmental Conference in September 2012 its will to implement the thermal renovation of 1 million houses per year.
Transport	SNIT (national scheme of transport infrastructure) to encourage modes of transport to emit less	The current government has decided not to implement this project as proposed by the Grenelle Environnement during the previous government. A Parliamentary committee will submit a proposal for a sustainable infrastructure plan to the Parliament in the first half of 2013.
	Act 1 grenelle art 11: modal share of non-road and non-air transport for goods by 25% in 2022	Ongoing. The Hollande government is currently working on a railway reform law to be published in 2013.
	Port reform project	To be implemented within the framework of the Finance Act of 2013 (A budget of €194 million I foreseen for the implementation of maritime fisheries and aquaculture measures)
	Future regulation of emission limits for light commercial vehicles	Planned: A decree in the first half of 2013 will regulate the use of "retrofits", an equipment improving the monitoring the emissions of fine particles for heavy goods vehicles, buses and light commercial vehicles.
Other non-ETS sectors	Regulations relating to refrigeration and air conditioning use	No action, pending EU decisions on regulation of F-gases.
	Further development of agricultural biogas	No legislative actions taken on this measure in 2012.

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, April 2011.

### 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 <sup>(7)</sup>.

In the following table, the main policies and measures as outlined in the NRP of April 2012 <sup>(8)</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 2012**

<b>Changes to several items in the 2012 Budget Act (1): threshold for the annual green tax on cars was lowered to 190g of CO<sub>2</sub> emissions per kilometre (compared to 240g before)</b>	
Status as stated in the NRP	Implemented in 2012
Status as per Jan 2013	Still in place
Description of policy or measure	Owners of vehicles registered for the first time in France in 2012 and onwards are subject to an annual tax amounting to €160 if the CO <sub>2</sub> emission rate of the vehicle exceeds 190 g/km (Art. 1011 ter, General Tax Code).
<b>Changes to several items in the 2012 Budget Act (2): the green tax on purchases of high-emission vehicles has been raised to return the green car tax/rebate scheme to balance (within the bonus malus mechanism)</b>	
Status as stated in the NRP	Implemented in 2012
Status as per Jan 2013	Still in place
Description of policy or measure	The price scale of the green tax on purchases of high-emission cars was modified for 2013 and high-emitting vehicles are now subjected to up to € 6,000 tax (against € 3,600 until December 2012).
<b>Changes to several items in the 2012 Budget Act (3): implementation of the eco-tax on heavy goods vehicles: This tax was introduced in Article 153 of the 2009 Budget Act and will concern lorry traffic on the national road network.</b>	
Status as stated in the NRP	Implementation is slated for the middle of 2013, with a trial in Alsace, followed by nationwide application
Status as per Jan 2013	Implemented as planned
Description of policy or measure	According to the Customs Administration, the eco-tax on heavy goods vehicles will be collected from April 2013 onwards on the Alsatian road network. In July 2013, the eco-tax shall be collected on the national road network.

<sup>7</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>8</sup> All NRPs are available at: [http://ec.europa.eu/europe2020/documents/related-document-type/index\\_en.htm](http://ec.europa.eu/europe2020/documents/related-document-type/index_en.htm)

**Environmental labelling of consumer products**

Status as stated in the NRP	First round through 2013
Status as per Jan 2013	Implemented as planned
Description of policy or measure	<p>Under the terms of the Grenelle II Environmental Act, a national one-year trial was initiated on 1 July 2011 involving more than 160 companies (producers and/or distributors) that voluntarily provide environmental impact information about their products to consumers.</p> <p>According to the Ministry of Ecology, Sustainable Development and Energy, the results of the national one-year trial on environmental labeling of consumer products shall be presented to the Parliament at the beginning of 2013 at the latest. Based on the assessment of the trial, the Parliament shall decide whether to broaden the scope of the companies involved.</p>

**Drafting of a National Transportation Infrastructure Plan (SNIT)**

Status as stated in the NRP	To be submitted to Parliament in 2012
Status as per Jan 2013	<p>The current government of Francois Hollande has decided not to implement the SNIT, largely due the associated cost. A Parliamentary committee has been commissioned to establish a sustainable transportation infrastructure plan. The report shall be submitted to the Parliament by the first half of 2013.</p>
Description of policy or measure	<p>The National Transportation Infrastructure Plan (SNIT – Schema National d’Infrastructure de Transport) was part of the Grenelle engagements. It proposed town and country planning projects aiming at developing the French railway and road network as well as at enhancing river and airport traffic.</p>

**Energy efficiency action programme incl. 27 measures**

Status as stated in the NRP	To be implemented in 2012
Status as per Jan 2013	<p>The energy efficiency action programme is under review by the new government. As far as actions for the promotion of energy efficiency are concerned, a call for tender was published supporting the implementation of information, training and innovation programmes.</p>
Description of policy or measure	<p>In December 2011, the Government of Nicolas Sarkozy presented its roadmap for energy efficiency composed of 27 measures aiming at enhancing competitiveness in the private sector, reducing the energy consumption of households and improving the exemplary role of the public sector in matters of energy performance. Some of the measures implemented are still ongoing, such as the thermal regulation for 2012, the bonus-malus system for vehicles or the implementation of energy saving certificates.</p>

## 4 Policy development

This section covers significant developments made in key policy areas between May 2012 and January 2013. It does not attempt to describe every instrument in the given thematic area. The time-frame was chosen based upon the release of the National

Reform Programmes (in the section above) in April 2012, which contain the status quo for policy on most topics.

### **Environmental Taxation**

The improvement of the green tax system represents a challenge in France, since the existing environmental taxes are mainly based on energy consumption (mostly fossil fuels). Taxes on emissions remain for their part relatively low in comparison with the countries of the European Union: in France, revenues from environmental taxes represented 1.9% of GDP in 2011, while the EU27 average amounted to 2.4%. As a reminder, environmental taxes in France yielded around 40 billion euros in 2011 (MEDDE 2012).

As stipulated in the roadmap for energy transition issued during the Environmental Conference in September 2012, a standing committee for green taxation was established on 18 December 2012. The committee is chaired by economist Christian de Perthuis, and is composed of stakeholders such as representatives of employers, trade unions, environmental NGOs and MPs. The committee is responsible for advising on environmental tax measures planned by the government and for making proposals. On 28 March 2013, the Committee adopted a first opinion regarding the introduction of a carbon tax base in the French taxation system (“introduction d'une assiette carbone dans la fiscalité française”).

In its opinion, the Committee calls on France to consider by June 2013 the gradual introduction of a carbon tax base, which would be complementary to the EU ETS. Drawing from the experience of the unsuccessful carbon tax proposal of 2009, the Committee points also to the need for a compensation scheme. This mechanism should take into account the impact of the tax on the competitiveness of different economic sectors and on households, especially targeting the most vulnerable. Finally, the committee emphasizes that the carbon tax should be understood as an incentive instrument and not as a revenue raising instrument <sup>(9)</sup>.

Furthermore, the Committee will also reflect on the difference between diesel oil and petrol taxation, and on taxation of coolants. It is expected that the committee formulates its final recommendations by mid-June 2013 (Le Monde 2013). According to the engagement letter of the Minister of Economy and the Minister of Ecology, the committee shall formulate a first set of operational proposals by spring 2013, which shall be introduced within the Finance Act of 2014 (Gov 2012).

According to an OECD study, the implicit tax rate on energy per tonne CO<sub>2</sub> in France is at €61, slightly above the EU average of €59 (OECD 2013). The level of energy taxes in France is well below the EU average and often at the minimum rates specified in the EU Energy Taxation Directive. Heating and process use account by far for the biggest share of CO<sub>2</sub> emissions from energy use. Coal and natural gas are dominating these sectors. Currently, natural gas is taxed at rates around the minimum rates. Reduced rates apply when natural gas is used for electricity production, metallurgical processes and chemical reduction, and agriculture. This puts France below the EU average. Excise duties on coal

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<sup>9</sup> The opinion on introducing a carbon tax base in French taxation is available at (only in French): [http://www.developpement-durable.gouv.fr/IMG/pdf/Avis\\_assiette\\_carbone\\_28\\_mars\\_2013.pdf](http://www.developpement-durable.gouv.fr/IMG/pdf/Avis_assiette_carbone_28_mars_2013.pdf)

and coke are slightly above the minimum rate for heating in business use. However, no tax applies to heating in non-business use. A relatively low rate of €56/1000 litres applies to diesel for heating. Electricity is charged at the minimum rate of €0.50/MWh for business use. The tax rate for non-business is only slightly above the minimum rate of 1€/MWh. Given the dominance of nuclear power in France, emissions from electricity are almost negligible. The tax rate for petrol varies between €589 and €639/1000 litres, depending on octane rating and the region. This is near the average of EU-15, higher than Belgium, Luxembourg, and Spain, but lower than Germany. For diesel, the rates for transport use are between €416 and €428/1000 litres, this is at EU average. Navigation is exempted and reduced rates apply to agriculture (European Commission 2013b).

Vehicle taxes are above average compared to other EU MS and largely based on CO<sub>2</sub> emissions. A registration tax is applied by the regions to the registration of vehicles, varying between €27 and €51.20. For second-hand vehicles with CO<sub>2</sub> emissions above 200g/km, an additional tax of €2-4 per gram CO<sub>2</sub> above the 200g threshold is levied by the French energy efficiency agency. Additionally, France applies an ecological bonus/malus system. This mechanism provides a financial incentive for the purchase of new low-emitting cars and charges a fee for new high-emission vehicles via a tax collected upon application for a vehicle registration certificate. For cars with emissions above 135g CO<sub>2</sub>/km, a malus tax between €100 and €6000 is levied. Some reductions apply, e.g., for families with 3 or more children. Cars emitting less than 105g CO<sub>2</sub>/km (LPG or CNG) receive a bonus of €200 to €7,000. Vehicles emitting between 106 and 135g CO<sub>2</sub>/km are untaxed. The rates as well as the emission limits are regularly updated. Regarding ownership taxes, cars registered after January 2009 only pay an annual malus tax of €160 if they emit more than 190kg CO<sub>2</sub>/km (registration in 2012). Company cars are taxed according to their CO<sub>2</sub> levels, between €2 and €27 per g of CO<sub>2</sub>. A heavy vehicle tax (above 12 t) is based on weight, axles, and the suspension system. Overall, ownership taxes are among the highest in the EU. In France, a distance-based road toll is charged for certain parts of the road network. The charge is the highest in the EU. The implicit tax rate per tonne CO<sub>2</sub> from motor vehicle taxes is relatively high compared to other EU-OECD countries, especially in the case of company cars (CE Delft 2012;ACEA 2012) .

### **Energy Efficiency**

The energy intensity of the French economy declined between 2005 and 2010, albeit at a rate slower than the EU average (5.8 versus 7.7%). Meanwhile, final energy consumption was also lower in 2010 than the 2001-2005 average, mainly reflecting decreased energy use in the industrial sector, especially in iron and steel production (Eurostat 2013).

Since 2006, France is promoting energy-efficiency measures with a white certificate scheme. The system imposes energy-saving obligations on suppliers of all types of final energy. The target for the period 2011-2013 is savings of 345 TWh. The system covers all sectors, excluding those covered by the EU ETS, and grants certificates for a catalogue of 170 standardised actions.

In March 2012, the government published a call for tender promoting the implementation of information, training and innovation programmes in the field of energy efficiency. Eight projects have already received a 100% financing commitment from parties eligible for the white certificate scheme. These projects include the carrying out of awareness initiatives for energy efficiency, the development of a thermal simulation tool for buildings, and

regional third-party funding for the refurbishment of private housing. These programmes shall be included into order proposals and submitted for approval to the Superior Council for Energy (MEDDE 2012a).

### **Renewable Energy**

Between 2005 and 2010, the share of renewable sources in total final energy consumption in France rose from 9.5 to 12.9%, but the 2020 goal of 23% is still a long way off. Electricity production from renewable sources as a percentage of total electricity consumption also increased over this time period by 31.6%, clocking in at 14.45% (Eurostat 2013).

France promotes renewables via a feed-in tariff, parts of which were recently modified. The tariff rates for small photovoltaic installations under 100 kWp has been increased, for instance, by up to 10% depending on the production origin of the solar panels.

Calls for tenders are primary renewable energy support mechanism. In January 2013, the French government published a call for tender for the development of two offshore wind parks, with a total installed capacity of 1000 MW. This call for tender aims to generate investments amounting to €3.5 billion and to allow the creation or preservation of 10,000 wind industry jobs. The overall cost for the community is estimated at €500 million per year (MEDDE 2013a).

With regard to solar energy, the government recently announced its intention to double the targeted volume of photovoltaic installations compared to the target set by the previous government's Grenelle de l'Environnement Forum – this makes for 1,000 MW of photovoltaic capacity installed in 2013. Measures to achieve this new target include a call for tender to be published by February/March 2013 aimed at promoting 400 MW of rooftop PV projects, as well as continuation of previous calls targeting installations between 100 and 250 kWp. Tender applications must take into consideration the amount of carbon dioxide emitted during the manufacturing process of the PV modules.

With biomass having been declared one of the main pillars of French national energy production (MEDDE 2012c), the French Environment and Energy Management Agency (Ademe) launched in 2012 the fifth call for tender promoting the production of heat from biomass in the industry, tertiary and agricultural sectors.

### **Energy Networks**

End of September 2012, France hosted the fourth meeting of the executive committee of the "International Smart Grid Action Network" (ISGAN). The ISGAN was created upon the initiative of the Clean Energy Ministerial and the International Energy Agency in order to foster the development of smart grid technologies through international collaboration. The meeting, held in Nice, was co-organised by the French Ministry of Ecology, Sustainable Development and Energy, and represented an opportunity for France to present its know-how in the field of smart grids (MEDDE 2012e).

### **Transport**

Greenhouse gas emissions from the French transport sector declined between 2005 and 2011 while the share in total emission increased slightly from 25% to 27% (see Table 1). Taxation of transport (excluding fuel charges) is very low in France, bringing in revenues equal to only 0.2% of GDP in 2010, the seventh-lowest value among EU MS (Eurostat



2012). However, in 2011 newly registered automobiles in France emitted 16% less CO<sub>2</sub> per kilometer compared to 2005. They emitted on average 127.7 g CO<sub>2</sub>/km driven which is 8% above the EU average; thus France ranks sixth in the EU (EEA 2012e).

One of the French transport sector's main climate policies is the ecological bonus/malus system. This mechanism provides a financial incentive for the purchase of new low-emitting cars and charges a fee for new high-emission vehicles via a tax collected upon application for a vehicle registration certificate. From August 2012 onwards, the maximum amount of bonus was raised to €7,000 (against €5,000 for the period between January and July 2012) and the malus tax now consists of a one-time payment of up to €6,000 (against €3,600 until December 2012) (Portail du Gouvernement 2013). According to the French Senate, the increase of the malus rate for 2013 should yield an additional €177 million compared to 2012, bringing the total revenue of the tax to up to €403.6 million. The bonus expenditures are expected to represent €453.6 million in 2013, meaning the programme as a whole will cost French taxpayers €50 million (Portail du Sénat 2013).

Within the framework of the "Plan automobile" introduced in July 2012, the Ministry of Productive Recovery, together with the Ministry of Ecology, Sustainable Development and Energy, announced in October 2012 the launch of a mission<sup>10</sup> to foster electromobility through the rollout of loading stations for electric and hybrid vehicles at the national level. Financing of the loading stations (€50 million) is to come from the government's "Investment for the Future" Program (Portail du Gouvernement 2012). In addition, the government supports seven projects implementing new loading solutions for electric and hybrid vehicles and in January 2013 published a call for expressions of interest for projects initiated by local authorities developing loading infrastructures for a total budget over €400,000 (MEDDE 2013c).

## **LULUCF**

The French Government commissioned an analysis of its forest sector – including its sink capacity as well as adaptation measures to be undertaken in view of the effects of climate change in forests – aimed at setting a regulatory, institutional and economic framework within the law on agriculture, agribusiness and forests to be presented to the Parliament in the second half of 2013 (MEDDE 2012h).

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<sup>10</sup> The mission was named after Philippe Hirtzman, the chief mining engineer who was given the responsibility of carrying out the mission.

## 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 2012 are listed, and their progress towards their implementation is assessed.

Existing Country Specific Recommendations	Progress
<p>Shifting the tax burden from labour to other forms of taxation that weigh less on growth and external competitiveness, in particular environmental and consumption taxes</p>	<p>Specific progress is small, but developments are underway. Stronger environmental taxation is one of the priorities of the roadmap for energy transition as established in the aftermath of the Environmental Conference launched in September 2012. According to the guidelines given by the Prime Minister to the Ministry of Economy and Finance (lettre de cadrage) in January 2013, the latter shall work on the development of green taxes to be introduced within the Finance Act of 2014.</p>
<p>Take further steps to liberalise network industries, in particular in the electricity wholesale market</p>	<p>Little progress has been made. In July 2012, the energy operators Direct Energy and Poweo merged in order to create the first alternative supplier of gas and electricity in France, better able to compete with the main operators EDF and GDF Suez.</p>
<p>Develop energy interconnection capacity</p>	<p>Some progress is being made. After signing a bilateral agreement in 2008, Spain and France are working on the planned reinforcement of the grid connection between their countries. A new line is currently under construction and will double the current interconnection capacity, bringing it from 1,400 to 2,800 MW in 2014.</p>

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