
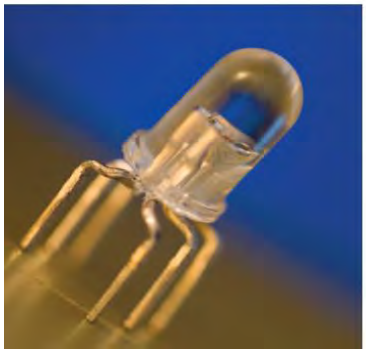


Assessment of climate change policies as part of the European Semester

Country Report Romania

16 January 2015

A report submitted by ICF Consulting Services
in association with

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to DG Climate Action

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Document Control

Document Title	Assessment of climate change policies as part of the European Semester: Country Report Romania
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Date	16 January 2015
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1 Short Summary

The Romanian National Climate Change Strategy encompasses mitigation as well as adaptation strategies and measures. Mitigation measures are foreseen in the sectors of energy, industrial processes, agriculture, land-use, land-use change and forestry, and waste disposal. Furthermore, the strategy defines general adaption measures as well as sector specific measures for adaptation, a dedicated subsidy programme (RO07) was launched in March 2014.

Romania can increase its emissions not covered by the EU ETS by 19% by 2020 compared to 2005 levels, according to the Effort Sharing Decision (ESD). Nonetheless, the country even decreased its non ETS-emissions by 7% by 2013. According to the latest national projections submitted to the European Commission and taking into account existing measures, the 2020 target is expected to be exceeded by 11.6 percentage points with existing measures (WEM) and by even 15.1 points with additional measures (WAM).

The key policy developments in the last year (Jan. 2014 – Dec. 2014) include continuation of the reform of the Green Certificate Scheme, new subsidy programmes for hydropower and geothermal power plants (see Chapter 4.2.3) as well as passing the Romanian Energy Efficiency Law (see Chapter 4.2.2). In addition, in December 2014, a draft for the new Romanian Energy Strategy 2015-2035 was published by the Romanian Government. The draft is under public consultation until 10 January 2015 (see Chapter 2).

2 Climate and energy policy priorities

Romania has a National Climate Change Strategy, which encompasses mitigation as well as adaptation strategies and measures. However, the strategy does not define quantitative GHG emission reduction targets. Instead, qualitative objects are outlined for the future development of different sectors. GHG emissions reductions are foreseen in the sectors of energy, industrial processes, agriculture, land-use, land-use change and forestry, and waste disposal. Regarding adaptation to the effects of climate change, the strategy specifies general actions as well as sector specific measures for adaptation (MMediu, 2012). Accordingly, in March 2014, a subsidy programme on adaptation to the effects of climate change *(RO07 Adaptare la Schimbari Climatice)* was launched. The programme supports three local public authorities in Romania in developing strategies and studies on adaptation to climate change. Furthermore, pilot climate change adaptation solutions for the transport, energy and construction sectors will be financed under the programme. Eligible parties to apply for the programme are regional and local public authorities, the research and education institutions, NGOs and the civil society. Five million EUR have been dedicated to the programme. The Ministry of the Environment and Climate Change is administering the subsidy programme (EEA Grants, 2014).

In Romania, energy generation in the electricity sector witnessed significant changes over the last years. By the end of 2013, the use of renewable energy sources (RES) rose to an installed capacity of 4.225 MW. Wind power has the largest share in the country's RES mix with 2503 MW, followed by photovoltaic (PV) installations with an installed capacity of 1,155 MW. This means an increase of 82% of renewable energy sources in the electricity sources in 2013 compared to the end of 2012 (Agerpress, 2014a). Together with Romania's vast hydro power capacities, 43% of Romania's electricity generation was based on renewable energy sources. Still, coal (27%) and nuclear power (20%) also play an important role in the country's energy mix (Romanian Government, 2014).

In December 2014, the Romanian Government published a draft for the new Romanian Energy Strategy for the period 2015-2035 which was open for public consultation until 10 Jan 2015. The document mainly presents an updated analysis of the current Romanian energy system and Romania's obligations within the European Union. In addition, it outlines necessary investments in the energy sector in the period of 2015 to 2035. As stated in the draft strategy, the government's focus remains on enabling the country's economy to grow and ensure its competitiveness while reducing energy and electricity prices in particular. Another policy priority in the energy sector is increasing

Romania's energy independence (Romanian Government, 2014). In this context, the former Minister Delegate for Energy, Razvan Nicolescu, stressed that Romania might become energy autonomous by 2020. However a precondition for that is having competitive energy prices. The Green Certificates scheme on promoting renewable energy sources, however, was expected to increase the price of electricity. For this reason, on 5 November 2014, the Minister Delegate announced it is not a key political objective anymore to foster the capacity of renewable energy sources for the current government, as Romania has already met its RES target for the electricity sector by January 2014 (RFI, 2014). Romania's energy import dependence for gas and solid fuels decreased over the last years (European Commission, 2014).

In this context, the Romanian Government largely exempted energy intensive companies from paying the levy on renewable energy sources emerging from the Green Certificates Scheme for the coming 10 years. The estimated annual cost of the support scheme amounts to 75 million EUR with approx. 300 companies benefiting from the exemption of the levy. Romania's energy intensive industry sector accounts for approx. 20% of the country's gross energy consumption and provides approx. 760,000 direct jobs (Minind, 2014a), equivalent to 7,7% of Romania's overall working population of approx. 9.87 million persons in 2011 (INS, 2013).

The government's attention and policy preferences have shifted further away from renewables turning towards other potential energy sources giving priority to other energy sources such as nuclear power. In this context, the extension of the Cernavoda nuclear power plant by two new reactors (3 and 4) has advanced in the course of 2014. Negotiations with the Chinese company China General Nuclear proceeded and a binding exclusive cooperation agreement was signed in July 2014 (Nuclear Exchange, 2014). Aside from nuclear power, coal and hydro have a significant share in Romania's electricity mix summing up to 27% each (Romanian Government, 2014).

As regards energy price regulation, Romania postponed the next step of price deregulation of natural gas. The initial deregulation steps for natural gas prices for industrial consumers from 1 Jul 2014 and 1 Oct 2014 have been abolished. For households, natural gas prices remained on the price level of July 2014 instead of being increased in October 2014 (see Chapter 4.2.1).

3 GHG trends and projections

Romania reduced its total GHG emissions by 24% between 2005 and 2013. The share of GHG emissions not covered by the European Emission Trading Scheme (EU ETS) is around 61%, which is just above the EU28 average (see Table 1).[1]

Table 1 Key data on GHG emissions

		National data				*EU28*
		2005	**2011**	**2012**	**2013**	***2013***
Total GHG emissions	Mt CO_2eq	141.3	121.5	118.8	107.7	*4 539*
Non-ETS emissions	Share in total emissions	100%	58%	60%	61%	*58%*

Source: EEA 2014a; EEA 2014c

By 2020, Romania can increase its emissions not covered by the EU ETS by 19% compared to 2005, according to the Effort Sharing Decision (ESD). The latest data for 2013 show that Romania decreased its emissions by 7% rather than increased them as the annual allocation interim target under the ESD for the year 2013 allowed (see figures in Table 2). National projections indicate that the

[1] The European Environment Agency has developed a complex methodology to measure progress on the Non-ETS/ESD targets of all EU Member States. This report uses the figures arrived on this basis. A detailed explanation and the underlying absolute amounts are contained in Annexes 1-3 of the EEA report No 6/2014 "Trends and projections in Europe 2014. Tracking progress towards Europe's climate and energy targets for 2020" available at http://www.eea.europa.eu/publications/trends-and-projections-in-europe-2014/

country will increase its emission by less than the 2020 target allows and, thus, not only meet but exceed its target by 11.6 percentage points with existing measures (WEM) and by 15.1 percentage points with additional measures (WAM) (EEA 2014a).

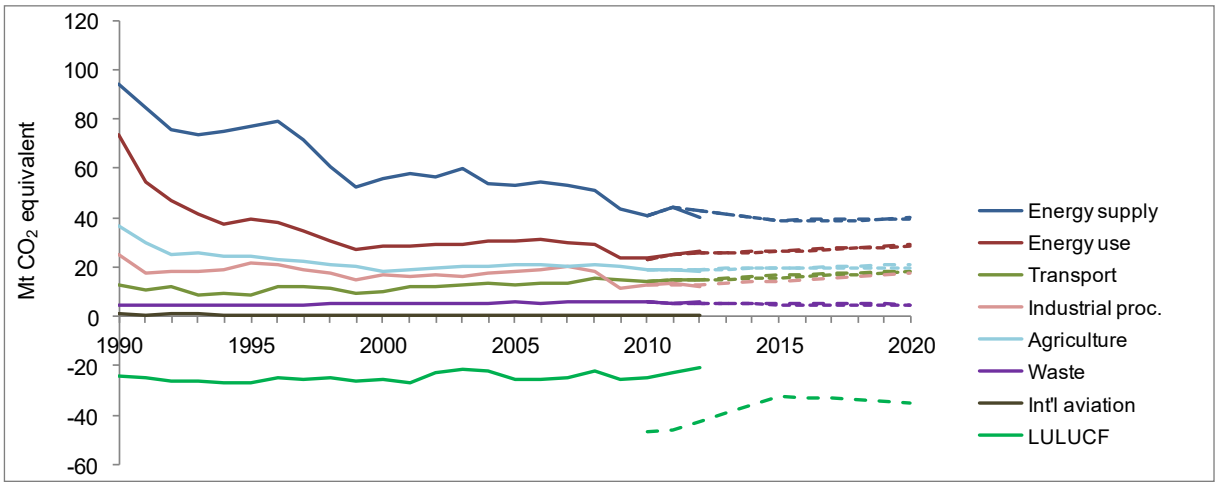
Table 2 Non-ETS emission targets, trend and projections

		Compared to base year
2013	ESD interim target	+ 1.8%
	ESD emissions	– 7.0%
2020	ESD target	+ 19.0%
	ESD projections WEM	+ 7.4%
	ESD projections WAM	+ 3.9%

Source: EEA 2014a. Green indicates target met or exceeded.

GHG emissions are mainly created by the energy industry followed by direct fuel consumption (e.g. households for heat generation) and the agricultural sector (see figure below for historic and estimated emissions by sector). Projections indicate that emissions will stay relatively stable until 2020, with slight reductions in the emissions from the energy industry and slight increases in emissions from direct fuel consumption and agriculture.

Figure 1 GHG trends and projections by sector



Source: EEA 2014a. Actual data until 2012 and projections from 2010 onwards.

4 Policy development

This section covers significant developments made in key policy areas between January and December 2014. It does so through two different perspectives: 1) progress on the policies communicated under the National Reform Programme 2) developments in the identified national priority sectors and policy areas.

4.1 Key policies as outlined in the National Reform Programme

Member States prepare National Reform Programmes (NRPs) each April outlining the country's progress and the key policies and measures to achieve targets under the EU 2020 Strategy. These key policies and measures are summarised in the following table and their current status is provided.

Table 3 Key policies and measures as outlined by the NRP 2014

Green certification system: Law No 220/2008	
Status in the NRP	Implemented. Legislative framework revised through Emergency Ordinance No. 57/2013, Emergency Ordinance No. 79/2013 and Decree No. 994/2013.
Status as per Dec 2014	In force and amended by Law No. 23/2014 approving Emergency Ordinance No. 57/2013
Description of policy	The green certification scheme established by Law No. 220/2008 obliges electricity suppliers and producers to present a certain number of green certificates by the end of each trimester. Failure to meet this obligation carries a penalty. The number of green certificates issued depends on the technology used and varies between 0.5 and 6 certificates per MWh. The issuance of a share of Green Certificates for solar, wind and hydro has been suspended and will be issued retroactively starting from 1 Apr 2017 for hydro power and photovoltaic installations and from 1 Jan 2018 for wind power plants. On 15 March 2014, Law No. 23/2014 entered into force approving Emergency Ordinance No. 57/2013. Against earlier announcements, a cap on the total volume of RES capacity that can be accredited for benefiting from the Green Certification Scheme has not been introduced. (See Chapter 4.2.3).

Green House Programme (Casa Verde) – beneficiaries being natural persons	
Status in the NRP	In force; by 15 March 2014 altogether 19,200 households and 207 legal bodies were supported to install heating systems using renewable sources.
Status as per Dec 2014	Evaluation of remaining applications from last call in 2011 ongoing; no new call for applications in 2014 (MMediu, 2014b).
Description of policy	See Chapter 4.2.3

Programme on Stimulating the Modernization of the National Car Fleet 2013 (Rabla)	
Status in the NRP	In force. 19,846 vehicles replaced between January 2013 and March 2014
Status as per Dec 2014	Vouchers foreseen for 2014 have all been allocated.
Description of policy	See Chapter 4.2.5

State aid scheme to promote high efficiency cogeneration	
Status as stated in the NRP	In force. Altogether 36 operators benefited from the support scheme in 2013.
Status as per Dec 2014	In force. Altogether 49 operators benefited from the support scheme in 2014 (ANRE Decision No. 2795/2014).
Description of policy	The state aid scheme to promote high efficiency cogeneration supports electricity and thermal energy from high efficiency cogeneration plants. Eligible parties are heat and electricity producers owning or operating commercially high efficiency cogeneration plants carrying fuel savings of at least 10% compared to separate production. They are supported by the means of bonus payments for electricity or by regulated prices for selling electricity and thermal energy (Governmental Decision No. 1215/2009).

Programme for refurbishment of multi-storey family buildings	
Status in the NRP	In force.
Status as per Dec 2014	In 2014, altogether 778 projects have been financed (Ordinance No. 2194/2014).
Description of policy	See Chapter 4.2.2

4.2 National policy priorities

The sub-sections below provide updates on key existing and new policies in priority sectors and policy areas of relevance to the energy and climate targets under the Europe 2020 strategy[2]. Each sector or policy area contains information on the most important policy instruments in operation or development.

4.2.1 Environmental Taxation

In Romania, the implicit tax rate on energy is the third lowest in the EU with EUR 68 per ton of oil equivalent in 2012 (compared to the EUR 173 average) (Eurostat, tsdcc360). However, the share of environmental tax revenues in overall tax revenue was at 6.8% in 2012, and therefore above the EU average of 6.1% (Eurostat, ten00064). When comparing environmental tax revenues with GDP, Romania had the fifth lowest revenues in the EU at 1.9% in 2012 (with the average at 2.4%) (Eurostat, ten00065).

Latest developments include a fiscal measure regarding indirect taxation of the construction of energy power plants such as hydro power plants, wind power plants and nuclear power plants. The new tax for special construction projects entered into force on 1 Jan 2014. The tax amounts to 1.5% of the construction's value contributing to the state budget. The government introduced the tax by Emergency Ordinance no. 102/2013 on modifying and complementing the Fiscal Code and regulating fiscal measures (Ordonanta de Urgenta nr. 102/2013 prentru modificarea si completarea Legii nr. 571/2003 privind Codul fiscal si reglementarea unor masuri financiar-fiscale). The tax constitutes a serious investment barrier for the construction of wind power plants by significantly increasing the realisation costs for this technology (Keep on Track, 2014).

In addition, the Romanian government increased excise duties on fuel by seven EURct as of 1 Apr 2014. This means a 6% price increase on petrol and a 5.8% price increase on diesel (ZF, 2014).
A rather negative development was postponing the introduction of a landfill tax of 50 RON (11.15 EUR on 8 Jan 2015) per one tone of landfill garbage to 2017. In 2018, the tax will be raised to 120 RON (26.76 EUR on 8 Jan 2015). Initially, the tax should have been introduced in 2014 and should have been raised in 2015 to 80 RON (17.83 EUR on 8 Jan 201) and to 120 RON (26.76 EUR on 8 Jan 2015) in 2018 (NewsB.Ro, 2014).

Another fiscal measure refers to the next step of price deregulation of natural gas. The initial deregulation steps for natural gas prices for industrial consumers from 1 Jul 2014 and 1 Oct 2014 have been abolished. According to Governmental Decision No. 816/2014, the gas prices amounted to 89.40 RON/MWh (19.92 EUR on 8 Jan 201) by the end of 2014 instead of 119 RON/MWh (26.52 EUR on 8 Jan 2015) as initially foreseen. For households, natural gas prices remained on the price level of July 2014 of 53.30 RON/MWh (11.88 EUR on 8 Jan 2015) instead of being increased to 54.60 RON/MWh (12.17 EUR on 8 Jan 2015). This development was not mentioned in the NRP for 2014.

[2] The Consortium jointly with DG Clima identified these based on identified challenges in Country Profiles (EEA, 2014), share of sectors in total GHG emissions, and Country Specific Recommendations (2014). DG Clima has identified additional relevant issues to be reviewed for some or all Member States, including country specific energy challenges.

4.2.2 Energy Efficiency

Among the EU-28, Romania has the third most-energy-intensive economy. Energy intensity declined by 23% from 2005 to 2012, which is above the EU average reduction of 13% (Eurostat, tsdec360). Final energy consumption dropped by 8% from 2005 to 2012 with the reductions coming mainly from the industrial sector (Eurostat, tsdpc320). Romania is currently on track to meet its indicative EU energy efficiency target (EEA, 2014a).

There has been improvement as regards streamlining Romania's energy efficiency policies. The Romanian Parliament passed Law No. 121/2014 on energy efficiency, which entered into force on 1 August 2014. The law sets a target for improving the country's energy efficiency by 19% by 2020. Policy measures on energy efficiency shall result in an annual reduction of the annual energy consumption of 1.5%. To this end, the law foresees the preparation of energy efficiency strategies and action plans and defines various measures and targets for improving energy efficiency in energy generation, distribution and in energy consumption of final consumers. Measures on improving energy efficiency in buildings are defined, such as undertaking energetic refurbishment for 3% of the overall surface of Romanian public buildings. Another example refers to considering energy efficiency criteria in public procurement and fostering energy efficiency in enterprises by employing energy managers and conducting an energy audit every four years in case that the enterprise's energy consumption exceeds 1,000 toe/year (Law No. 121/2014).

Programmes such as "District Heating, Heat and Comfort 2006-2015" and the Programme for Refurbishment of Multi-Storey Family Buildings are ongoing. The programme for Refurbishment of Multi-Storey Family Buildings supports different refurbishment measures, for example, thermal insulation of exterior walls, replacement of existing windows and exterior doors, thermo-waterproofing of the terrace and insulation of the last floor or thermal insulation of the floor above the basement. In 2014, altogether 778 projects have been financed. The subsidy programme "District Heating, Heat and Comfort 2006-2015" encourages investment in district heat infrastructure on local level. Local authorities may initiate projects aiming at the modernisation, extension and reset of the district heating infrastructure. Projects should e.g. reduce the heat loss in the district heating infrastructure to max. 15%. Up to 70% of the eligible costs can be co-financed from the state budget managed by the Ministry of Administration and Interior (MDRT, 2014).

In March 2014, the subsidy programme on improving energy efficiency measures in small and medium enterprises (SMEs) in the Romanian industry sector (Eficienta Energetica in Industrie pentru IMM-uri) was launched. The programme aims at energy efficiency measures in SMEs in the industrial sector by e.g. upgrading and replacing their installations and equipments and was available until 9 May 2014. The programme is funded by the Financing Mechanism of the European Economic Area 2009-2014 with 8 million EUR and an additional 1,411,765 EUR co-funding from the state budget (Minind, 2014b). However, after the call for projects in March 2014 only four out of five submitted projects have been approved, summing up to only approx. 2 million EUR of the programme's total budget (Minind, 2014c). On 29 Oct 2014, the Ministry of Economic Affairs re-launched the subsidy programme by Ordinance No. 1212/2014. SMEs may apply for the subsidy until 30 Apr 2016. The programme's budget amounts to 6,953,000 EUR. It is expected to finance energy efficiency measures in approximately 30 SMEs (Ordinance No. 1212/2014). The programme was not mentioned by the government in the NRP for 2014.

4.2.3 Renewable Energy

The share of renewables in gross final energy consumption was 22.9% in 2012 which is above the indicative 2012 target of 19% set out by the Renewable Energy Directive (RED). The average annual growth rate was 2.8% between 2005 and 2012. A higher annual growth rate of 3.4% is still needed between 2013 and 2020 to reach the 2020 target of 24% also due to the projected future consumption levels (EEA 2014a). The share of renewable electricity generation in final electricity consumption increased from 28.8% to 33.6% from 2005 to 2012, while the share of renewable heating increased from 17.9% to 25.7% (Eurostat, SHARES 2014).

The Green Certificate System is the main measure to promote renewable energies in Romania regulated by Law No. 220/2008 and its amending laws and decrees. The amendments of this support scheme from 2013 have been consolidated in 2014 thus solving some of the problems arising from the new legislation of 2013.

An important step in the reform process of the Green Certificate Scheme was the confirmation of Law No. 23/2014 on adopting Emergency Ordinance No. 57 regarding the Modification and Completion of Law No. 220/2008 Establishing a System for the Promotion of Electricity Generation from Renewable Energy Sources by the Romanian President in March 2014. Thus, Law No. 23/2014 could finally enter into force on 14 March 2014. In the previous months, the Romanian president, Traian Basescu, had refused to sign the law and requested the Parliament to re-examine the law, stating that the modification of the support scheme was lacking approval by the pre-notification procedure of the European Commission. Due to the delayed approval of the law, renewable energy power plants accredited as of 1 January 2014 for the Green Certificate Scheme were subject to a suspension of Green Certificates as regulated by Emergency Ordinance No. 57/2013, as well as Governmental Decision No. 994/2013 on approving the reduction of Green Certificates as foreseen by Renewable Energy Law No. 220/2013 permanently cutting a share of Green Certificates for PV installations, wind power plants and small hydro power plants. In February 2014, the Romanian Parliament adjusted the draft for Law No. 23/2014 insofar as to restrict the suspension of a share of Green Certificates for PV-installations, wind power plants and small hydro power plants to installations accredited for the Green Certificates Scheme before 31 December 2013. In this way, an accumulation of the impact of the two legal acts, Emergency Ordinance No. 57/2013 and Governmental Decision No. 994/2013, was avoided (Law No. 23/2014).

In addition, in March 2014, the Administration of the Environmental Fund (AFM) launched the subsidy programme “Renewable Energy RO06 – RONDINE” (Programul RO 06 Energie Regenerabila - RONDINE). The subsidy programme addresses the initiation and refurbishment of hydro power plants for electricity generation as well as initial investments and reengineering of geothermal power plants for thermal energy production. Eligible parties under the hydropower component are public entities or private commercial entities. As regards the geothermal component, eligible parties are public entities, private commercial entities as well as local administrative authorities. Project proposals could be handed in between 20 Mar and 20 May 2014. The programme’s budget amounts to 37,501,770 RON (approx. 8.36 million EUR on 12 Jan 2015). The programme is funded by the Financing Mechanism of the European Economic Area 2009-2014 (IPDU, 2014).

Another positive development regards the subsidy programme “CASA VERDE”. The programme provides financial support for the installation of heating systems using renewable energy sources in residential buildings. The last call for applications took place between 1 June and 15 July 2011. During this period nearly 24,000 applications had been handed in. The applications for financial support have been under evaluation ever since. The annual budget of 2012 was used to finance projects on the waiting list from 2011. In the meantime, 14,162 project applications have been evaluated of which 11,509 received a positive result for being funded. Funding contracts for 5,674 projects were signed in 2011 and 2012, while the remaining 5,835 projects were contracted starting as of 19 May 2014. In addition, the evaluation of the 9,776 applications from 2011 still requiring assessment started to be processed in 2014. Furthermore, on 3 Jul 2014, the Minister of the Environment and Climate Change, Attila Korodoi, announced that a new call for projects can be expected for 2015 at the latest and that a final decisions will be taken after the evaluation of all applications from 2011 has been completed (MMediu, 2014b).

4.2.4 Energy Networks

One of the key challenges in Romanian energy policy in the electricity as well as the heating sector is the condition of the infrastructure. The energy infrastructure of Romania is poorly maintained and transmission losses are quite high. Thus, the district heating network is suffering from high energy losses. At the same time, the electricity network lacks connection capacities for renewable energy plants especially at the distribution network level.

A project aiming at enhanced interconnection of natural gas transport networks was the construction of natural gas pipeline between Romania and the Republic of Moldova. The project is part of the European Operational Programme "Romania – Ukraine –Republic of Moldova 2007-2013" financed by the *European Neighbourhood* and *Partnership Instrument* (ENPI). Romanian Prime Minister Victor Ponta and Moldavian Prime Minister Iurie Leanca stressed the importance of the gas pipeline between the Romanian City of Iasi and the Moldavian town Ungheni for realizing a higher degree of energy independence for both countries. The 42 km long gas pipeline will cover up to one third of Moldova's gas consumption. Furthermore, the pipeline enables physical reverse flows. The Iasi-Ungheni gas pipeline was inaugurated at the end of August 2014. The investment costs of the project amounted to 26 million EUR, of which 9 million EUR were financed by the Romanian state and 7 million EUR by the European Union (Agerpres, 2014b).

As regards the Romanian electricity network, the energy regulator ANRE approved the new grid development plan 2014-2023 issued by the Romanian TSO Transelectrica in July 2014. This new ten-year-plan foresees investments in the transmission grid by the TSO of 5.3 billion RON (approx. 1.18 billion EUR on 11 Jan 2014). These investments do not include expenses for connecting new power plants to the grid, since these are covered by the grid connection fees paid by the plant operators. According to the plan, grid development will focus on continuing grid interconnection projects with neighbouring countries such as Hungary, Serbia and Bulgaria, as well as initiating new projects in the case of Moldova. Furthermore, equipment and installations from the 60s and 70s should be completely replaced. Grid development within the next ten years will also focus on constructing new power lines and new transistor stations especially in the Dobrogea region transporting the electricity to the large consumption areas in the northern and western parts of the country. Over the last years, a significant amount of new generation capacity (mostly nuclear power and renewable energy sources) has been built in the Dobrogea region. According to Transelectrica, the investment is supposed to be covered by financial sources offered by the market (e.g. loans), as well as by various subsidy programmes, e.g. through the EU Regional Development Fund (Transelectrica, 2014).

4.2.5 Transport

between 1990 and 2012. Also, their share of total emissions has increased to 13% (Eurostat, tsdcc210 and tsdpc320). Average emissions for newly registered cars are high in Romania with a level of 132.2 CO2/km. The level is the thirteenth highest in the EU and has decreased by 15% which is at a slower rate than the EU average of 20% between 2007 and 2013 (Eurostat, tsdtr450). Fuel taxation in Romania is below EU average. The road fuel excise duties on petrol are the lowest among EU MSs and the excise duties on diesel are the fifth lowest (EEA, 2014b).

Both registration taxes and ownership taxes are amongst the lowest in the EU, and only the registration tax is partly based on CO2 emissions, next to engine capacity, EURO emission standard, and the vehicle's age. Romania has a time-based vignette system in place for roads outside the cities but the tariff is low compared to other EU MS using national vignettes (ACEA, 2012, 2014, CE Delft, 2012).

The subsidy programme on stimulating the modernization of the national car fleet 2014 was launched in March 2014. It is administered by the Administration of the Environmental Fund (Administratia Fondului pentru Mediu). Natural and legal persons owning vehicles older than eight years are eligible for support. Replacing the old vehicles with a new one will be subsidized by a voucher of 6500 RON (1,445.53 EUR on 7 Jan 2015). In addition, eligible parties may benefit from an eco-bonus of 500 RON (111.20 EUR on 7 Jan 2015) in case the purchased vehicle is a hybrid car, a EURO 6 emissions standard vehicle or emits less than 100g/km CO2. The programme's budget for 2014 amounts to 140 million RON (approx. 31.13 million EUR on 7 Jan 2015) distributing altogether 20,000 vouchers, of which 17,000 were foreseen for natural persons and 3,000 for legal persons (AFM, 2014a). By the end of October 2014, the last vouchers had been granted for the subsidy programme for stimulating the modernization of the national car fleet in 2014 (AFM, 2014b, AFM, 2014c).

On 9 July 2014, 16 new metro trains started operating in Bucharest. The public transport operator Metrorex had purchased the new metro trains in order to continue gradually renewing the vehicle fleet. Due to the more efficient metro trains, electricity consumption is expected to decrease by 5% (Mediafax.ro).

Another measure focusing on improving transportation alternatives was initiated in September 2014. The General Council of Bucharest approved a project for implementing 97 km of cycling lanes on 60 streets in the central area of the capital. Furthermore, intermodal connection points will be constructed, enabling users to switch from their bike to other means of public transport. The Ministry of the Environment and Climate Change is financing the project with 10 million EUR. The funds are available from the auctioning of Romanian Emission Certificates. The project is aimed at reducing traffic congestion and improving air quality in Bucharest (MMediu, 2014c).

4.2.6 Waste

GHG emissions as well as energy consumption from transport have steadily increased in Romania between 1990 and 2012. Also, their share of total emissions has increased to 13% (Eurostat, tsdcc210 and tsdpc320). Average emissions for newly registered cars are high in Romania with a level of 132.2 CO2/km. The level is the thirteenth highest in the EU and has decreased by 15% which is at a slower rate than the EU average of 20% between 2007 and 2013 (Eurostat, tsdtr450). Fuel taxation in Romania is below EU average. The road fuel excise duties on petrol are the lowest among EU MSs and the excise duties on diesel are the fifth lowest (EEA, 2014b).

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Another measure focusing on improving transportation alternatives was initiated in September 2014. The General Council of Bucharest approved a project for implementing 97 km of cycling lanes on 60 streets in the central area of the capital. Furthermore, intermodal connection points will be constructed, enabling users to switch from their bike to other means of public transport. The Ministry of the Environment and Climate Change is financing the project with 10 million EUR. The funds are available from the auctioning of Romanian Emission Certificates. The project is aimed at reducing traffic congestion and improving air quality in Bucharest (MMediu, 2014c).

4.2.7 Agriculture

The subsidy programmes “Modernisation of agricultural exploitation – Measure 121” and “Modernisation of agricultural exploitation – Measure 121 Family Farm” are part of the National Rural Development Programme and financed by the European Agricultural Fund for Rural Development (EAFRD). The subsidy programmes aim at supporting modernization measures for agriculture such as more efficient agricultural machinery or more efficient and environmental friendly farming methods. This also includes financial support for shifting to organic farming. The last call for proposals was open from 20 May to 18 July 2014. Within the current call for proposals, the subsidy programme’s total budget is 150 million EUR. Of these, 35 million EUR will be allocated to family farms and 115 million EUR to other farms. The subsidy amounts to 40-70% of the eligible costs. The minimal amount of eligible costs is 5,000 EUR. The maximum amount of eligible costs is 125,000 EUR for family farms and varies between 700,000 – 2,000,000 EUR for other farm types depending on the agricultural sector in which the project will be realised (MADR, 2014).

5 Policy progress against Country Specific Recommendations (CSRs) issued 2013

The EU Commission provides Country Specific Recommendations (CSRs) for each MS for consideration and endorsement by the European Council. The recommendations are designed to address the major challenges in relation to the targets of the EU 2020 Strategy. In the following table, the CSRs relevant for climate change and energy are listed, and their progress towards their implementation is assessed.

Existing CSRs	Progress
Promote competition and efficiency in energy and transport industries.	There has been some progress on promoting efficiency in the transport industry. The public transport operator Metrorex put 16 new metro trains into operation in Bucharest, expected to result in a 5% reduction in electricity consumption (see also Chapter 4.2.5). However, as regards improving competition in the energy sector, little progress has been made. On the contrary, the initial deregulation steps for natural gas prices have been postponed. Due to Governmental Decision No. 816/2014, the deregulation steps for industrial consumers from 1 July 2014 and 1 October 2014 did not take place as initially foreseen by Ordinance No. 46/2013. For households, natural gas prices remained on the price level of July 2014 instead of increasing them on 1 October 2014 (see also Chapter 4.2.1.
Improve and streamline energy efficiency policies	Romania’s energy efficiency policy has been advanced by passing Law No. 121/2014 on energy efficiency making progress toward streamlining this policy sector. The law sets a target for improving the country’s energy efficiency by 19% by 2020. It defines measures for improving energy efficiency in energy generation, distribution and in energy consumption of final consumers. Existing subsidy programmes on energy efficiency, such as “District Heating, Heat and Comfort 2006-2015” and the Programme for Refurbishment of Multi-Storey Family Buildings have been continued. In addition, a subsidy programme on improving energy efficiency measures in small and medium enterprises (SMEs) in the Romanian industry sector has been introduced aiming to support approx. 30 SMEs. (see also Chapter 4.2.2)
Improve the cross-border integration of energy networks and enable physical	As regards gas interconnections, the construction of the planned natural gas pipeline between the Romanian City of Iasi and the Moldavian town Ungheni was finalised and the pipeline was inaugurated in August 2014. The gas pipeline also enables physical reverse flows.

reverse flows in gas interconnections as a matter of priority	As regards the electricity network, in July 2014, the energy regulator ANRE approved the new grid development plan 2014-2023 issued by the Romanian TSO Transelectrica. One of the investment priorities is grid interconnection with neighbouring countries such as Hungary, Serbia, Bulgaria and Moldova. (see also Chapter 4.2.4)

References

ACEA, European Automobile Manufacturer's Association, 2012. [online] Taxation Guide 2012, Available at: http://www.acea.be/publications/article/acea-tax-guide [Accessed 12 January 2015]

ACEA, European Automobile Manufacturer's Association, 2014. Taxation Guide. [online] Available at: http://www.acea.be/uploads/publications/CO_2_Tax_overview_2014.pdf, [Accessed 12 January 2015]

AFM, Administration of the Environmental Fund – Administratia Fondului pentru Mediu,2014a. Start la Programul "Rabla 2014". [online] Available at: http://afm.ro/main/programe/psipan/2014/comunicat_psipan_2014.pdf [Accessed 12 January 2015]

AFM, Administration of the Environmental Fund – Administratia Fondului pentru Mediu, 2014b. Programul de Innoire a Parcului Auto 20014: Tichetele electronice destinate persoanelor fizice, epuizate cu o luna inainte de termenul limita. [online] Available at: http://afm.ro/main/programe/psipan/2014/comunicat_rabla-13_10_2014.pdf [Accessed 12 January 2015]

AFM, Administration of the Environmental Fund – Administratia Fondului pentru Mediu, 2014c. 3.641 de autovehicule aprobate pentru personae juridice si institutii publice in programul "Rabla 2014". [online] Available at: http://afm.ro/main/programe/psipan/2014/comunicat_23octombrie_2014.pdf [Accessed 12 January 2015]

Agerpress, 2014a. Capacitatea proiectelor de energie regenerabila din Romania a crescut cu 82% anul trecut. [online] Available at: http://www.agerpres.ro/media/index.php/economic/item/252497-Capacitatea-proiectelor-de-energie-regenerabila-din-Romania-a-crescut-cu-82-anul-trecut.html [Accessed 12 January 2015]

Agerpres, 2014b. Documentar – Conducta de gaze Iasi-Ungheni. [online] Available at: http://www.agerpres.ro/flux-documentare/2014/08/27/documentar-conducta-de-gaze-iasi-ungheni-11-12-23 [Accessed 12 January 2015]

ANRE Decision No. 2795/2014. Decizia presedintelui ANRE nr. 2795/2014 din 17.12.2014. [online] Available at: http://www.anre.ro/ro/energie-electrica/legislatie/cogenerare-inalta-eficienta/schema-de-sprijin-lista-capacitatilor [Accessed 14 January 2015]

CE Delft, 2012. An inventory of measures for internalizing external costs in transport. Final Report. November 2012. [online] Available at: www.cedelft.eu/publicatie/an_inventory_of_measures_for_internalising_external_costs_in_transport/1334 [Accessed 12 January 2015]

EEA, 2014a. Climate and energy profiles 2014. [online] Available at: http://www.eea.europa.eu/themes/climate/ghg-country-profiles [Accessed 12 January 2015]

EEA, 2014b. Road fuel excise duties. [online] Available at: http://www.eea.europa.eu/data-and-maps/daviz/road-fuel-excise-duties#tab-chart_1 [Accessed 12 January 2015]

EEA (2014c): Approximated EU GHG inventory: Proxy GHG emission estimates for 2013. EEA Technical report No 16/2014. 30 September 2014

EEA Grants, 2014. Adaptation to Climate Change – Romania (RO07). [online] Available at: http://eeagrants.org.ez.07.no/programme/view/RO07/PA07 [Accessed 12 January 2015]

European Commission, 2014. European Economy – Member State's Energy Dependence: An Indicator-Based Assessment [online] Available at:

http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/pdf/ocp196_en.pdf [Accessed 15 January 2015]

Eurostat, SHARES 2014, Short Assessment of Renewable Energy Sources

Eurostat, ten00065: Total environmental tax revenues as a share of GDP

Eurostat, tsdcc360: Implicit tax rate on energy

Eurostat, tsdec360: Energy intensity of the economy

Eurostat, tsdpc320: Final energy consumption by sector

Eurostat, tsdtr450: Average carbon dioxide emissions per km from new passenger cars

Eurostat, tsdcc210: Greenhouse gas emissions by sector

Governmental Decision No. 1215/2009. Hotararea Guvernului nr. 109/2014 privind stabilirea criteriilor si a conditiilor necesare implementarii schemei de sprijin pentru promovarea cogenerarii de inalta eficienta pe baza cererii de energie termica utila MO nr. 748/03.11.2009 [online] Available at: http://www.anre.ro/ro/energie-electrica/legislatie/cogenerare-inalta-eficienta/legislatie-primara-cogen-ief [Accessed 14 January 2015]

Governmental Decision No. 816/2014. HG 816/2014 pentru modificarea anexei la HG 511/2014 privind stabilirea pretului de achizitie a gazelor natural din productia interna pentru piata reglementata de gaze natural. [online] Available at: http://www.dreptonline.ro/legislatie/hg_816_2014_modificare_HG_511_2014_pretul_achizitie_gaze_naturale_productia_interna_piata_reglementata_gaze_naturale.php [Accessed 12 January 2015]

Governmental Decision No. 994/2013. Hotararea Guvernului nr. 994/2013 privind aprobarea masurilor de reducere a numarului de certificate verzi in situatiile prevazute la art. 6 alin (2) lit. a), c) si f) din Legea nr. 220/2008 pentru stabilirea sistemului de promovare a producerii energiei din surse regenerabile de energie [online] Available at: http://lege5.ro/Gratuit/gm4dmobtgy/hotararea-nr-994-2013-privind-aprobarea-masurilor-de-reducere-a-numarului-de-certificate-verzi-in-situatiile-prevazute-la-art-6-alin-2-lit-a-c-si-f-din-legea-nr-220-2008-pentru-stabilirea-sistemului-d [Accessed 12 January 2015]

INS, Institutul National de Statistica, 2013. Repere economice si sociale regionale: Statistica teritoriala. [online] Available at: http://www.insse.ro/cms/files/publicatii/Statistica%20teritoriala/Statistica%20teritoriala%202013.pdf [Accessed 15 January 2015]

IPDU, International Programmes Development Unit, 2014. Press release – EFA launches call for proposals for potential beneficiaries of RONDINE Programme. [online] Available at: http://www.rondine.ro/wp-content/uploads/2014/03/press_release_19martie.pdf [Accessed 12 January 2015]

Keep on Track, 2014. Keep-on-Track! Project – National Report: Romania. [online]. Available at: http://www.keepontrack.eu/contents/keeptrackcountryfactsheet/kot_final-report_ro_final.pdf [Accessed 12 January 2015]

Law No. 220/2008. Legea nr. 220/2008 pentru stabilirea sistemului de promovare a producerii energiei din surse regenerabile de energie. [online] Available at: http://www.dreptonline.ro/legislatie/legea_220_2008_sistemul_promovare_producere_energie_surse_regenerabile_energie_republicata_2010.php [Accessed 12 January 2015]

Law No. 23/2014. Legea 23/2014, legea pentru aprobarea Ordonantei de urgenta a Guvernului nr. 57/2013 privind modificarea si completarea Legii nr. 220/2008 pentru stabilirea sistemului de promovare a producerii energiei din surse regenerabile de energie. [online] Available at:

http://www.dreptonline.ro/legislatie/legea_23_2014_aprobare_oug_57_2013_modificare_sistemul_producere_energie_surse_regenerabile_energie.php [Accessed 12 January 2015]

Law No. 121/2014. Legea Nr. 121/2014 privind eficienta energetica.[online] Available at: http://www.dreptonline.ro/legislatie/legea_121_2014_eficienta_energetica.php [Accessed 15 January 2015]

MADR, Ministry of Agriculture and Rural Development – Ministerul Agriculturii si Dezvoltarii Publice, 2014. Ghidul Solicitantului "Modernizarea exploatatiilor agricole" – Masura 121. [online] Available at: http://portal.apdrp.ro/informatii_generale_investitii_prin_pndr_masura_121_modernizarea_exploatatiilor_agricole [Accessed 12 January 2015]

Mediafax.ro, 2014. Noi trenuri de metrou in Bucuresti incepand de miercuri. Cum arata si ce dotari au garniturile. [online] Available at: http://www.mediafax.ro/social/noi-trenuri-de-metrou-in-bucuresti-incepand-de-miercuri-cum-arata-si-ce-dotari-au-garniturile-galerie-foto-12909199 [Accessed 15 January 2015]

MMediu, Ministry of the Environment and Forestry, Ministerul Mediului si Padurilor, 2012. Strategia Nationala a Romaniei privind Schimbarile Climatice 2013 – 2020. [online] Available at: http://www.mmediu.ro/beta/wp-content/uploads/2012/10/2012-10-05-Strategia_NR-SC.pdf [Accessed 12 January 2015]

MMediu, Ministry of the Environment and Climate Change – Ministerul Mediului si Schimbarilor Climatice, 2014a. Comunicat de Presa – Legea Achizitiilor Publice Ecologice in Romania, in linie dreapta spre Parlament. [online] Available at: http://mmediu.ro/new/wp-content/uploads/2014/07/2014-07-03_CP_AchizitiiPubliceEcologice.pdf [Accessed 12 January 2015]

MMediu, Ministry of the Environment and Climate Change – Ministerul Mediului si Schimbarilor Climatice, 2014b. Informare de Presa din 20.05.2014. [online] Available at: http://mmediu.ro/new/wp-content/uploads/2014/05/2014-05-20_INFORMARE_PRESA_Conferinta_CASA_VERDE.pdf [Accessed 12 January 2015]

MMediu, Ministry of the Environment and Climate Change – Ministerul Mediului si Schimbarilor Climatice, 2014c. Stadiul celor doua mari proiecte ale MMSC pentru Bucuresti: Amenajarea pistelor pentru biciclete, aprobata ieri de Consiliul General. Proiectul pentru Parcul Vacaresti a fost respins. [online] Available at: http://mmediu.ro/new/wp-content/uploads/2014/09/2014-09-05_CP_Proiecte_Bucuresti.pdf [Accessed 12 January 2015]

Minind, Ministry of Economic Affairs – Ministerul Economiei, 2014a. Comunicat de Presa din 15 octombrie 2014. [online] Available at: http://www.minind.ro/presa_2014/octombrie/15_oct_com_schema_de_ajutor_de_stat_industria_electrointensiva.pdf [Accessed 12 January 2015]

Minind, Ministry of Economic Affairs – Ministerul Economiei, 2014b. Comunicat de Presa din 10 martie 2014. [online] Available at: http://www.minind.ro/presa_2014/martie/10_mart_com_lansare_apel_PEE.pdf [Accessed 12 January 2015]

Minind, Ministry of Economic Affairs – Ministerul Economiei, 2014c. Comunicat de Presa din 10 martie 2014. [online] Available at: http://www.minind.ro/presa_2014/iulie/Comunicat_presa_evaluare_proiecte_08072014.pdf [Accessed 12 January 2015]

MDRT, Ministry of Regional Development and Public Administration – Ministerul Dezvoltarii Regionale si Administratiei Publice, 2014. Programul Termoficare 2006-2015 – Caldura si confort, component de reabilitare a sistemelor centralizate de alimentare cu energie termica. [online] Available at: http://www.mdrt.ro/lucrari-publice/-5584 [Accessed 12 January 2015]

NewsB.Ro, 2014. Pretul platit de brasoveni pentru colectarea gunoiului menajer a ajuns la 9.07 lei! Exista insa riscul unei noi scumpiri de 40%, anul acesta. [online] Available at: http://newsbv.ro/2014/02/25/pretul-platit-de-brasoveni-pentru-colectarea-gunoiului-menajer-a-ajuns-la-907-lei-exista-insa-riscul-unei-noi-scumpiri-de-40-anul-acesta/ [Accessed 12 January 2015]

Nuclear Exchange, 2014. CGN selected as final Cernavoda 3 & 4 investor. [online] Available at: http://www.nuclear-exchange.com/news/50045/cgn-selected-as-final-cernavoda-3--4-investor.html [Accessed 12 January 2015]

Ordinance no. 46/2013 on approval of delivery prices for natural gas (Ordinul nr. 46 /2013 privind aprobarea preţurilor pentru furnizarea reglementată a gazelor naturale). [online] Available at: http://lege5.ro/Gratuit/gm3tcnzwga/ordinul-nr-46-2013-pentru-modificarea-ordinelor-presedintelui-autoritatii-nationale-de-reglementare-in-domeniul-energiei-privind-stabilirea-tarifelor-reglementate-pentru-prestarea-serviciului-de-distr/2 [Accessed 12 January 2015]

Ordinance No. 1212/2014. Ordinul nr. 1212/2014 privind aprobarea Schemei de ajutor de minimis pentru "Finanţarea proiectelor din Programul Eficienţă energetică (RO 05) din cadrul Mecanismului financiar al Spaţiului Economic European 2009-2014". [online] Available at: http://lege5.ro/Gratuit/gqydmnzwge/ordinul-nr-1212-2014-privind-aprobarea-schemei-de-ajutor-de-minimis-pentru-finantarea-proiectelor-din-programul-eficienta-energetica-ro-05-din-cadrul-mecanismului-financiar-al-spatiului-economic-europ [Accessed 12 January 2015]

Ordinance No. 2194/2014. Ordinul nr. 2194/2014 privind modificarea anexelor nr. 1 si 2 la Ordinul viceprim-ministerului, ministrul dezvoltarii regionale si administratiei publice, nr. 785/2014 pentru aprobarea Programului national multianual privind cresterea perfomantei energetice a blocurilor de locuinte, cu finantare in anul 2014

RFI, radiofranceinternationale, 2014. Romania poate fi independenta energetic din 2020. [online] Available at: http://www.rfi.ro/stiri-economie-53585-romania-poate-fi-independenta-energetic-2020 [Accessed 12 January 2015]

Romanian Government, 2014. Strategia Energetica a Romaniei – Draft supus dezbaterii publice. [online] Available at: http://www.econet-romania.com/files/document-2014-12-5-18755546-0-strategia-energetica-analiza-stadiului-actual.pdf [Accessed 12 January 2015]

Transelectrica, 2014. Eveniment important de raportat: ANRE a aprobat Planul de dezvoltare a retelei electrice de transport (RET) pe 10 ani (2014-2023). [online] Available at: http://www.bvb.ro/infocont/infocont14/TEL030714.pdf [Accessed 12 January 2015]

ZF Ziarul Financiar, 2014. Dubla lovitura de 1 aprilie: taxa Ponta pe carburanti si gaze mai scumpe. Soferii vor plati mai mult pe benzina in Romania decat in Austria. Ce spun companiile? [online]. Available at: http://www.zf.ro/zf-24/dubla-lovitura-de-1-aprilie-taxa-ponta-pe-carburanti-si-gaze-mai-scumpe-soferii-vor-plati-mai-mult-pe-benzina-in-romania-decat-in-austria-ce-spun-companiile-12274683 [Accessed 12 January 2015]