



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

2014 Management Plan

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1. MISSION STATEMENT

The Directorate-General for Energy is responsible for developing and implementing a **European energy policy** under the political guidance of the Energy Commissioner, Günther H. Oettinger.

The Directorate General develops and implements innovative policies aimed at:

- Contributing to setting up an energy market providing citizens and business with affordable energy, competitive prices and technologically advanced energy services.
- Promoting sustainable energy production, transport and consumption in line with the EU 2020 targets and with a view to the 2050 decarbonisation objective.
- Enhancing the conditions for safe and secure energy supply in a spirit of solidarity between Member States ensuring a high degree of protection for European citizens.

In developing a European energy policy, the Directorate-General aims to support the Europe 2020 economic strategy which, for energy, is captured in the Energy 2020 strategy presented by the Commission in late 2010.

The Directorate-General carries out its tasks in many different ways. For example, it promotes the completion of the internal energy market; carries out energy market monitoring; supports the reinforcement of energy infrastructure, seeks to ensure that indigenous energy sources are exploited in safe and competitive conditions; enables markets to deliver agreed objectives, notably in efficiency and renewable energies; facilitates energy technology innovation; develops the most advanced legal framework for nuclear energy, covering safety, security and non-proliferation safeguards. Across all areas, it develops strategic analyses and short, medium and long term policies for the energy sector; monitors the implementation of existing EU law; encourages the exchange of best practices; provides information to stakeholders; and promotes and conducts an EU external energy policy.

All these activities are aided by expert input from the Innovation and Networks Executive Agency (INEA), the Executive Agency for Competitiveness and Innovation (EACI), the Euratom Supply Agency (ESA) and the Agency for the Cooperation of Energy Regulators (ACER).

2. THIS YEAR'S CHALLENGES

DG Energy's priority initiatives for 2014 reflect the four priorities of the 22nd of May 2013 European Council dedicated to Energy policy:

A. Completing the internal energy market by 2014 and developing interconnections:

The DG will report on the state of implementation of the Internal Energy Market (IEM) to assess progress made against the political target of completing the IEM by 2014. In parallel, we will adopt an initiative aimed at engaging the retail sector more in the IEM by facilitating consumer engagement, fostering competition and strengthening market design to allow

energy consumers to benefit. The DG will also intensify work on electricity and gas network codes and review the current framework for security of electricity supplies. We will continue work to ensure the full implementation of the legal framework by Member States.

B. Investments in new and intelligent energy infrastructure:

The DG will help prepare Commission proposals on a 2030 Energy and Climate policy framework, based on the outcome of the public consultation in 2013. It will submit a report on energy prices and costs with the aim of ensuring that future energy policy is consistent with European competitiveness. Following the adoption of the list of energy infrastructure Projects of Common Interest in October 2013 and the entry into force of the Connecting Europe Facility on 1 January 2014, the DG will be responsible for pursuing their implementation.

C. Further intensify the diversification of Europe's energy supply and develop indigenous energy resources to ensure security of supply, reduce the EU's external energy dependency and stimulate economic growth:

In the field of renewable energy, we will carry out a REFIT evaluation of the renewable energy directive, reviewing progress in its implementation. In follow up to the 2030 energy and climate package, we will pursue work based on Member States and Stakeholder feedback. In order to stimulate EU leadership in energy technology and innovation, the DG will assist in implementing the Horizon 2020 Energy Challenge. In that context, we plan to issue a Communication on the Action Plan for the implementation of the Integrated Roadmap on Energy Technologies and Innovation and a Communication on the Smart Cities and Communities Strategic Implementation plan. We will continue to advance external energy priorities, including deepened cooperation with the EU's partners.

D. Achieving an energy efficient Europe:

The DG will adopt, as scheduled under the Energy Efficiency Directive (EED), the Mid-2014 EED Review. This will include an assessment of Member State progress towards the 2020 EU goal and recommendations for next steps, including in a 2030 perspective. We will also prepare a review of the Energy Labeling Directive and certain parts of the Eco-design Directive.

2014 includes several major changes in the EU policy landscape, with the start of the new Multiannual Financial Framework, the European Parliament elections, the end of the mandate of the current College and the first months of mandate of the next Commission, as well as other new challenges. Nevertheless, I am confident that the DG will make significant progress in the coming twelve months in its priorities. Working closely together as a Directorate General, and also in close collaboration with the Greek and Italian Presidencies and the European Council Presidency, the European Parliament and stakeholders across the energy spectrum, will help us steer the changes our energy system needs.

In line with the Secretariat-General guidance, DG ENER has chosen five Key Performance Indicators for monitoring in the Annual Activity Report 2013 policy performance and the DG's most significant achievements:

1. RES 2020 indicator: 20% Renewable energy share in final EU energy consumption by 2020 (source: Europe 2020 Strategy).

2. EE 2020 indicator: Energy efficiency and savings. Primary energy consumption of 1483 Mtoe achieved in 2020 (source: Europe 2020 Strategy).

3. Competitiveness (to be defined pending finalisation of on-going work on the 2030 energy policy framework).

4. Security of supply (to be defined pending finalisation of on-going work on the 2030 energy policy framework).

5. %¹ of payments made by the contractual deadline.

Dominique Ristori

¹ ratio of delayed and contractually required payments.

3. GENERAL OBJECTIVES BY POLICY AREA

DG Energy's work contributes to the objectives set by the Commission, particularly the priorities and headline targets identified in the EU 2020 Communication. DG Energy breaks down the overall objectives into three different "general objectives" which in turn are broken down into a number of more "specific objectives". The general objectives for Energy policy are:

1. To contribute to setting up an energy market providing citizens and business with affordable energy, competitive prices and technologically advanced energy services.
2. To promote sustainable energy production, transport and consumption in line with the EU 2020 targets and with a view to the 2050 decarbonisation objective.
3. To enhance the conditions for safe and secure energy supply in a spirit of solidarity between Member States ensuring a high degree of protection for European citizens.

Given the relevance of the above three objectives for all energy policy activities, it is considered that each of the specific objectives contributes to all three general objectives.

Additionally, the General Objectives of the Spending Programmes under the MFF 2014-2020 which are integrated this year in the ENER MP and its Annex 5 are considered to be covered by the 3 General Objectives of Energy Policy:

- **CEF:** The General Objectives 1 (*Contributing to smart, sustainable and inclusive growth, in line with the Europe 2020 Strategy, by developing modern and high-performing trans-European networks which take into account expected future traffic flows, thus benefiting the entire Union in terms of improving competitiveness on the global market and economic, social and territorial cohesion in the internal market and creating an environment more conducive to private, public or public-private investment through a combination of financial instruments and Union direct support where projects could benefit from such a combination of instruments and by appropriately exploiting synergies across the sectors*) and 2 (*Enabling the Union to achieve its sustainable development targets, including a minimum 20 % reduction of greenhouse gas emissions compared to 1990 levels and a 20 % increase in energy efficiency, and raising the share of renewable energy to 20 % by 2020, thus contributing to the Union's mid-term and long-term objectives in terms of decarbonisation, while ensuring greater solidarity among Member States*)² are covered by the ENER General Objectives 1 (smartness and growth), 2 (2020 targets and sustainability) and 3 (inclusiveness).
- **Decommissioning:** The General Objective (*To safely completing the decommissioning process of Kozloduy, Ignalina and Bohunice nuclear power plants*)³ is covered by the ENER General Objective 3.
- **Horizon 2020:** the General Objective of this Programme led by DG RTD (*Building an economy based on knowledge and innovation across the whole Union by leveraging sufficient additional research, development and innovation funding*)⁴ serves to support the achievement of the three ENER General Objectives (competitiveness,

² Regulation of the European Parliament and of the Council establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010, Brussels, 22 November 2013, (OR. en) 2011/0302 (COD) PE-CONS 76/13, page 41.

³ Draft General Budget of the European Commission for the financial year 2014, Working Document Part I Programme Statements of operational expenditure COM(2013) 450 – June 2013, page 41.

⁴ Proposal for a Regulation of the European Parliament and the Council establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020), Brussels, 30.11.2011, COM(2011) 809 final 2011/0401 (COD), page 13.

sustainability and security of supply) and relates additionally to specific ENER work in support of the Resource Efficiency flagship initiative of the Europe 2020 Strategy.

The following specific objectives reflect the four priorities of the 22nd of May 2013 European Council dedicated to Energy policy and contribute to the three general objectives:

1. Completing the internal energy market by 2014 and developing interconnections:

- (1) To contribute to the completion of the internal energy market both at retail and wholesale level by removing barriers to competition and cross-border trade while establishing a European framework for effective and efficient operation of networks and markets.
- (2) Support the deployment for Smart Grids as enabler of further retail market evolution for the benefits of final consumers.
- (3) To stimulate investments in the European energy sector, contributing to economic growth and job creation.
- (4) Strengthen the conditions and incentives for a further development of retail energy markets towards more competitive, inclusive and consumer-centred practices.
- (5) To facilitate an increase in the share of renewable energy in overall energy consumption of 20% by 2020 through a common framework based on mandatory targets and to put in place framework measures that will permit the achievement of higher shares of renewable energy after 2020.
- (6) To contribute to solidarity and coordinated actions to prevent and mitigate the consequences of supply disruptions in gas and electricity, crude oil and petroleum products.

2. Investments in new and intelligent energy infrastructure:

- (7) To shape a long-term vision and strategy for the energy system, post 2020.
- (8) Increasing competitiveness by promoting the further integration of the internal energy market and the interoperability of electricity and gas networks across borders.
- (9) Enhancing Union security of energy supply.
- (10) Contributing to sustainable development and protection of the environment, inter alia by the integration of energy from renewable sources into the transmission network, and by the development of smart energy networks and carbon dioxide networks.
- (11) Making the transition to a reliable, affordable, publicly accepted, sustainable and competitive energy system, aiming at reducing fossil fuel dependency in the face of increasingly scarce resources, increasing energy needs and climate change.

3. Further intensify the diversification of Europe's energy supply and develop indigenous energy resources to ensure security of supply, reduce the EU's external energy dependency and stimulate economic growth:

- (12) Further improve the offshore safety.
- (13) To contribute to a consistent EU external action on energy that strengthens partnerships for secure, safe, sustainable and competitive energy, builds up the external dimension of the internal energy market, improves access to sustainable energy for developing countries and better promotes EU policies beyond its borders, notably with neighbouring countries.
- (14) To implement and further develop the framework for nuclear safety, security and non-proliferation, to reinforce nuclear safety in neighbouring countries and globally.
- (15) To strengthen protection of the health of workers and the general public against the dangers arising from ionizing radiations.
- (16) To ensure that declared nuclear materials are used only for their intended purposes through the implementation of nuclear safeguards.
- (17) To strengthen security of nuclear fuel supply.
- (18) Nine specific objectives on financial support to the safe decommissioning of the Kozloduy (Bulgaria), Ignalina (Lithuania) and Bohunice (Slovakia) nuclear power plants.

4. Achieving an energy efficient Europe:

- (19) To support and ensure the achievement of the EU energy efficiency target for 2020 - through policy measures promoting energy efficiency particularly in the energy, residential and services sectors and industry and outline priorities for 2030.

DG Energy measures progress towards these objectives using impact and result indicators. It is important to note that implementation of the Management Plan (and in particular achieving objectives and seeing improvements in the indicators) does not only depend on the Commission. It is for the European Parliament and Council to decide on the Commission's proposals and then primarily for the Member States to implement them. In addition, there are often measures that will contribute to the actions that are outside the scope of EU competence. Finally, external factors, such as energy price fluctuations, can have a significant influence.

Table 1: DG Energy Impact Indicators

General objective:		
<p><i>DG ENER General Objectives 1. To contribute to setting up an energy market providing citizens and business with affordable energy, competitive prices and technologically advanced energy services, 2. To promote sustainable energy production, transport and consumption in line with the EU 2020 targets and with a view to the 2050 decarbonisation objective, and 3. To enhance the conditions for safe and secure energy supply in a spirit of solidarity between Member States ensuring a high degree of protection for European citizens.</i></p> <p><i>CEF General Objective 1: To contribute to smart, sustainable and inclusive growth by developing modern and high performing trans-European network</i></p>		<i>Spending</i>
Impact indicator: Volume of public and private investment in projects of common interest (source: CEF Programme Statement)		
Baseline (2013)	Milestone⁵	Target (2020)
0		Energy: EUR 104 billion ⁶

General objective:		
<p><i>1. To contribute to setting up an energy market providing citizens and business with affordable energy, competitive prices and technologically advanced energy services.</i></p>		<i>Non-spending</i>
Impact indicator: Degree of energy price convergence in the EU⁷ (source: Eurostat)		
Baseline (2013)	Milestone	Target (2014)
<p>30/06/2013 (Prices of the first half of 2013 without taxes)</p> <p>-Electricity: households: 1:2.95; industry: 1:2.95</p> <p>-Gas: households: 1:4.41; industry: 1: 2.44</p>	1:2 (<i>medium term</i>)	1:2 (Commission internal assumption)

⁵ For this indicator the information currently available does not allow for defining the CEF Energy milestone.

⁶ It is important to note that the EUR 104 billion target for 2020 is based on an estimate of costs for those Projects of Common Interest listed in the delegated regulation of 14 October 2013 that will be completed by 2020. This target will be achieved through the combination of measures under the TEN-E guidelines (permitting, regulatory) and not only CEF (grants and financial instruments).

⁷ Measurement unit: price variation ratio between cheapest and most expensive Member State for both household and non-household consumers source: Eurostat and Energy Regulators.

General objective:		
2. To promote sustainable energy production, transport and consumption in line with the EU 2020 targets and with a view to the 2050 decarbonisation objective.		Non-spending
Impact indicator: Energy related GHG/CO2 cuts (source: European Environmental Agency, EU Energy, Transport and GHG emissions trends to 2050 – Reference Scenario 2013)		
Baseline (2010)	Milestone	Target (projection for 2020, EU Energy, Transport and GHG emissions trends to 2050 – Reference Scenario 2013)
3,763 Million ton CO2 or equiv. ⁸		3,249 Million ton. CO2 or equiv.
Impact indicator: Energy efficiency and savings. Primary energy consumption of 1483 Mtoe achieved in 2020 (source: Article 3 of Directive 2012/27/EU)⁹		
Baseline (2011)	Milestone	Target (March 2007 European Council, Europe 2020 Target, Directive 2012/12/EU)
Progress in 2011: 14.6% ¹⁰	Review of the progress towards the 2020 energy efficiency target by June 2014	20% by 2020 (i.e. 1483 Mtoe primary energy and 1086 Mtoe final energy in 2020)
Impact indicator: Renewable energy share in final EU energy consumption (%) (source: Annex 1b of Dir. 2009/28/EC)		
Baseline (2011)	Milestones	Target (2020, Europe 2020 Target)
2011: 13%	Commission's progress report due in 2014	Trajectory with interim targets contained in Annex 1b of Dir. 2009/28/EC (2011/2012: 10.8%; 2013/2014: 11.9%; 2015/2016: 13.7%; 2017/2018: 16%)
		20% by 2020 (Europe 2020 Target)
Impact indicator: Share of renewable energy in EU energy consumption for transport¹¹ (source: EU NREAP Projection)		
Baseline (2013)	Milestone	Target (2020, Europe 2020 Target)
2013: 6.3%	EU NREAP Projection	10% by 2020

⁸ GHGs emission fuel combustion indicated in the *EU energy in figures Statistical pocketbook 2013*, European Commission 2013, page 149.

⁹ Baseline is PRIMES 2007 in 2020, which includes policies to be implemented up to 2006 with an oil price of \$61 per barrel and reference year 2005. Calculated as Gross Inland Consumption minus Final Non-Energy Use Consumption. Source: Eurostat, Commission studies.

¹⁰ When e.g. looking at EU-28 primary energy consumption in 2011, we would save 14.6% of the projected primary energy consumption for 2020, assuming constant consumption until 2020.

¹¹ in %; Source: national reports under the renewable energy directive and Directive 2003/30.

General objective:		
3. To enhance the conditions for secure energy supply in a spirit of solidarity between Member States		Non-spending
Impact indicator: Number of major energy supply disruptions (source: MS data reported to DG ENER)		
Baseline (2013)	Milestone	Target (2014, based on previous analysis undertaken by ENER B2)
No disruptions of gas nor electricity reported in Member States	Maintain each year 0 gas disruptions with cross-border impact	0
Impact indicator: Number of extra-EU countries supplying at least 3% of the EU market for coal (source: Eurostat)		
Baseline (2011)	Milestone	Target (2014, based on previous analysis undertaken by ENER A1)
31/12/2011: 6	6 (medium-term)	Stabilisation
Impact indicator: Number of extra-EU countries supplying at least 3% of the EU market for gas (source: Eurostat)		
Baseline (2011)	Milestone	Target (2014, based on previous analysis undertaken by ENER A1)
31/12/2011: 5	6 (medium-term)	Stabilisation/Increase
Impact indicator: Number of extra-EU countries supplying at least 3% of the EU market for oil (source: Eurostat)		
Baseline (2011)	Milestone	Target (2014, based on previous analysis undertaken by ENER A1)
31/12/2011: 8	9 (medium-term)	Stabilisation/Increase
Impact indicator: Number of extra-EU countries supplying at least 3% of the EU market for uranium. (source Euratom Supply Agency Annual Report)		
Baseline (2012)	Milestone	Target (2014, based on previous analysis undertaken by the ESA)
31/12/2012: 6	Above 5 (medium term)	Above 5
Impact indicator: Percentage of indigenous primary energy production of gross inland consumption of all fuels (source: Eurostat)		
Baseline (2011)	Milestone	Target (2014)
2011: 46.2%	Increase	48.1%

General objective:

3. To enhance the conditions for secure energy supply in a spirit of solidarity between Member States
Decommissioning General Objective: To safely completing the decommissioning process of Kozloduy, Ignalina and Bohunice nuclear power plants *Spending*

Impact indicator: Number of major components and systems dismantled in all the concerned nuclear reactors in accordance with the respective decommissioning plans (source: Decommissioning Programme Statement)

Baseline (1/1/2014)

Milestone

Target (source: Decommissioning Programme Statement)

Kozloduy:

January 2014: Preparatory works have started for Decontamination and dismantling activities in turbine halls and auxiliary buildings of Kozloduy units 1 to 4. Dismantling of large components and equipments in the reactor buildings of Kozloduy units 1 to 4 not yet started. Facilities for the treatment and conditioning of waste are being put in place.

Ignalina:

Unit 1 reactor core defueled, unit 2 reactor core partially defueled into the spent fuel ponds. Spent fuel ponds in units 1 and 2 fully loaded to maximum capacity. Facilities for waste management treatment and storage are being constructed. Safe maintenance performed without incidents. Start of dismantling works in turbine hall of unit 1.

Bohunice:

Dismantling of V1 turbine hall has started; dismantling of external buildings (Phase 1) started in 2014. Preparation of decontamination of V1 primary circuits has started. Stage 1 decommissioning waste management has started.

Progress in components and systems dismantled in all the concerned nuclear reactors and the associated radioactive waste and spent fuel management, measured against the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx)¹². 2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans.

The current completion dates for decommissioning of:

- Kozloduy units 1 to 4: 2030;
- Ignalina units 1 and 2: 2029;
- Bohunice V1 units 1 and 2: 2025;

¹² Commission Implementing Act foreseen for adoption in the 2nd Quarter of 2014.

4. SPECIFIC OBJECTIVES FOR OPERATIONAL ACTIVITIES

The three general objectives of DG Energy are implemented through three "Activity-Based Budgeting" (ABB) activities.

Each of the three ABB activities is set out in more detail in subsequent sections, with the specific objectives that seem most relevant under this ABB activity; and with the result indicators to measure progress.

Along with the ABB activities, objectives and indicators, information on the most significant policy-related and expenditure-related outputs planned for 2014 is also included.

4.1 Conventional and renewable energy

Description of the activity

Energy policy is an area of shared competence. Article 194 in the consolidated TFEU sets the objectives of the Union policy on energy which, in a spirit of solidarity between Member States, should: ensure the functioning of the energy market; ensure security of energy supply in the Union; promote energy efficiency and energy saving and the development of new and renewable forms of energy; and promote the interconnection of energy networks. Member States are increasingly interdependent in achieving the above objectives. The cost of the transition of the energy system will be lower if Member States cooperate in meeting jointly established targets. Questions to be addressed therefore have a European dimension (and beyond), and could not be addressed effectively and efficiently only through Member State measures.

The **Commission's activities in the area of Conventional and renewable energy** encompass the further development and strengthening of the Internal Energy Market (IEM) including the promotion of energy infrastructure, energy efficiency and new and renewable forms of energy. They refer both to policy and legislation development (in particular regarding the IEM, energy efficiency and renewable energies), and the implementation of the Connecting Europe Facility. Under activities related to the **internal energy market, mainly via regulatory tools** the EU aims to fully integrate national energy markets by 2014, to give consumers and businesses more and better products and services, more competition, and more secure supplies. Progress has already been made: consumers can switch suppliers for gas and electricity, and suppliers must provide clear explanations of terms and conditions. Work still to be done includes aligning national market and network operation rules for gas and electricity as well as making cross-border investment in energy infrastructure easier.

A particular focus will be on **energy infrastructure** and efficiency, including the development and roll-out of smart grids, which have immediate environmental, economic and energy security benefits, including high job-creating and investment leverage potential. By supporting the strengthening of European infrastructure, this activity makes an important contribution to enhancing European competitiveness and cohesion and implementing the EU 2020 flagship initiative "Resource-efficient Europe", as well as the actions of the Single Market Act II relating to infrastructure. In March 2009 the European Council called for a review of the TEN-E (Trans-European Network) framework. A new legal framework was adopted on 17 April 2013 and is applicable as of 1 July 2013 to replace the current TEN-E guidelines. It is complemented by the Regulation on the Connecting Europe Facility, which is applicable as of 1 January 2014 (under

MFF 2014-20) and provides the framework for Union's financial assistance to Projects of Common Interest identified through the TEN-E Guidelines.

The new framework established with the TEN-E guidelines and the CEF regulations (with measures for improving infrastructure planning, accelerating permit granting, regulatory incentives, and EU financial assistance) should radically improve the investment framework for trans-European energy infrastructure and therefore contribute to meeting the challenges related to the 2020 and 2050 Energy and Climate Policy goals. The objective of the CEF is to accelerate investment in the field of trans-European networks (transport, energy and telecommunication) and to leverage funding from both the public and the private sectors. In the field of energy, the 5,85 bn EUR budget (for 2014-2020; in current prices) will be made available to Projects of Common Interest¹³ (PCI) (identified in line with the TEN-E guidelines regulation) via grants (managed by the Commission) and financial instruments (provided in cooperation with financial intermediaries such as the EIB).

The Union financial support under the CEF is considered a measure of last resort in ensuring that all Projects of Common Interest can be implemented without delays. It is expected that most of the PCIs will be first and foremost sufficiently assisted by the framework introduced with the TEN-E guidelines (non-spending measures). In particular the provisions on improved infrastructure planning accelerated permit granting, cross border cost allocation and regulatory incentives to investment will be sufficient for project promoters to carry out and complete most of the PCIs. The CEF, in turn, in addition to assisting project promoters in good assessment and preparation of their projects (grants for studies with up to 50% Union co-funding) will only assist PCIs which lack commercial viability (grants for works with up to 50/75% co-funding rate) or struggle with access to long-term financing (financial instruments). There are safeguards incorporated in the CEF in order to ensure that only PCIs for which Union assistance is indispensable can access the CEF financing and in particular the grants for works. This should ensure that the CEF budget is spent efficiently, effectively and with the highest economic impact. The CEF by combining three sectors under the umbrella of one infrastructure fund should enable important economies of scale and synergies (administrative, financial, visibility) which should **further increase the efficiency and effectiveness of the instrument**.

The EU aims to get 20% of its energy from **renewable sources** by 2020. Renewables include wind, solar, hydro-electric and tidal power as well as geothermal energy and biomass. More renewable energy will enable the EU to cut greenhouse emissions and make it less dependent on imported energy. And boosting the renewables industry will encourage technological innovation and employment in Europe. On 27 March 2013, the European Commission published its first Renewable Energy Progress Report under the framework of the 2009 Renewable Energy Directive. Since the adoption of this directive and the introduction of legally binding renewable energy targets, most Member States experienced significant growth in renewable energy consumption. 2010 figures indicate that the EU as a whole is on its trajectory towards the 2020 targets with a renewable energy share of 12.7%. Moreover, in 2010 the majority of Member States already reached their 2011/2012 interim targets set in the Directive. However, as the trajectory grows steeper towards the end, more efforts will still be needed from the Member States in order to reach the 2020 targets. In 2014, the Commission will present a new Progress Report on renewable energy (including review foreseen in Art. 23.8 of the RES Directive).

¹³ Except those in the field of oil transportation

Energy efficiency is another area that offers economic growth and competitiveness whilst alleviating the burden of high energy bills. A number of policy measures are already available at EU level and their timely and proper implementation at national level is essential. At the same time the progress towards the 20% energy efficiency target for 2020 needs to be monitored and further measures taken if necessary. Furthermore, the 2020 time horizon is becoming short in terms of energy efficiency policies. Therefore, DG ENER will also work on the development of a long-term and coherent policy framework to reduce the perceived risk amongst the investors and consumer alike. The elements of this framework need to be laid down as early as possible and that is why the Strategy will have a 2030 outlook.

The **European Energy Programme for Recovery** contributes to achieving the energy policy objectives as well as sustaining the recovery of the European economy. The new TEN-E guidelines complemented with the CEF will drive the completion all the most urgent projects that Europe needs to meet its energy and climate change targets. The Intelligent Energy Europe programme continues to finance the Commission's efforts to promote the use of renewable energy and to increase energy efficiency throughout the economy.

ABB activity: Conventional and renewable energy					
Financial resources (€) in commitment appropriations			Human resources		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
423,113,000	2,728,000	425,841,000	140	40	180

Relevant general objectives: 1, 2, 3.		
1. Specific objective: To shape a long-term vision and strategy for the energy system, post 2020.		<i>Non-spending</i>
Result indicator: Progress made in reaching political consensus on the medium to long term objectives of EU energy policy (source: DG ENER A1).		
<i>Baseline (2011)</i>	<i>Milestone</i>	<i>Target (2014)</i>
Energy Roadmap 2050	-	<i>Political agreement on the framework for EU energy policy for 2030</i>
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Policy-related output</i>		
A 2030 framework for climate and energy policies	<i>Adoption</i>	<i>1st Quarter of 2014</i>

Relevant general objectives: 1, 2, 3.		
2. Specific objective: To contribute to the completion of the internal energy market both at retail and wholesale level by removing barriers to competition and cross-border trade and establishing a European framework for effective and efficient operation of networks and markets.		<i>Non-spending</i>
Result indicator: 1. Number of markets coupled; 2. Number of TSOs certified as unbundled (Commission opinion adopted); 3. Number of Member States with at least 3 significant electricity/gas suppliers (with more than 5% market share each), source: DG ENER B2 analysis.		
<i>Baseline (2013)</i>		<i>Target (2014)</i>
<p>End 2013:</p> <p>(1) 21 MS have introduced market coupling at least on one of their borders (source, market monitoring).</p> <p>(2) 79 TSOs certified (Commission opinions adopted); 2 certifications in process (notified by (RO and ES).</p> <p>(3) In 8 Member States more than 70% of power generation is still controlled by the historic incumbent. There is a particularly high concentration (with a market share above 75%) in EE, LV, FR, LU and SK. The lowest market share of the largest generation company at national level can be observed in PL and ES.</p> <p>On the gas retail side, apart from LV, where only one entity dominates the national sales market, figures above 90 % for the largest retail company can be found in LT, PL and in EE. A relative small market penetration for the largest retail company on national level (below 30%) can be observed in DE, HU and IT.</p>		<p>(1) 26 MS should be coupled by the end of 2015, coupling of MT and CY are dependent on the interconnector cable project.</p> <p>(2) 20 (estimation) TSOs (all – 120 in total) certified by end 2014</p>
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Policy-related output</i>		
Report on state of implementation of the internal energy market	<i>Adoption</i>	<i>2nd Quarter 2014</i>

Relevant general objectives: 1, 2, 3.		
3. Specific objective: Support the deployment for Smart Grids as enabler of further retail market evolution for the benefits of final consumers.		<i>Non-spending</i>
Result indicator: Proportion of households with smart meters installed (source: Directive 2009/72/EC concerning common rules for the internal market in electricity, DG ENER B3).		
<i>Baseline(2012)</i>	<i>Milestone (2014)</i>	<i>Target (2020)</i>
15% in early 2012.	To be provided by planned Commission assessment below.	At least 80% of households assessed positively in cost-benefit analysis by 2020.
Main outputs in 2014		

	<i>Indicator</i>	<i>Target</i>
<i>Policy-related output</i>		
Analysis on the evolution of regulatory and commercial aspects of Smart Grids in electricity and gas energy markets	<i>Analysis performed</i>	<i>2nd Quarter 2014</i>
Assessment of the roll-out of smart metering in Members States	<i>Adoption</i>	<i>1st Quarter 2014</i>
Commission Recommendation on assessment of the impact of smart meters on privacy and security of personal data (DPIA)	<i>Adoption</i>	<i>2nd Quarter 2014</i>
Validation of the 2nd set of Smart Grids Standards to be delivered under mandate M/490	<i>Validation</i>	<i>2014</i>
Electro-mobility provisions under the Alternative Fuels Infrastructure Directive	<i>Completed Negotiations in codecision</i>	<i>2014</i>

Relevant general objectives: 1, 2, 3.		
4. Specific objective: To stimulate investments in the European energy sector, contributing to economic growth and job creation.		<i>Spending programme</i>
Result indicator: Number of completed interconnection projects (source: DG ENER B1).		
<i>Baseline (2013)</i>	<i>Milestone</i>	<i>Target (2015)</i>
End of 2013: 27 projects technically completed. 44 Commission decisions notified covering 43 projects, all started.	Annual reports on the implementation of the EEPR.	By 2015: Completion of the implementation of 37 (out of 39) projects. 4 co-funding decisions to be terminated in 2013/2014. Final target: Implementation of 39 projects.
Result indicator: Number of EEPR carbon capture and storage demonstration projects with positive Final Investment Decision (FID) (source: DG ENER C2).		
<i>Baseline(2013)</i>	<i>Milestone</i>	<i>Target</i>
Of the 6 projects: - 1 terminated in 2012, - 2 terminated in 2013, - 1 completed in 2013 with negative FID, - 2 ongoing, no FID yet.	By June 2014 either positive FID (Final Investment Decision) or the DG should have sufficient evidence that the project can reasonably be expected to achieve positive FID (e.g. availability of clear criteria and timeline for the project's consideration under a Member State support scheme).	By end 2014: 1 positive FID By end 2015: 2 positive FIDs (including the 1 expected in 2014) Positive FID depends on the projects finding solutions to cover in the first case a financial gap due to a changing business environment (low price for CO2 certificates) and in the second case the high investment and operating costs of the CCS project as a whole (of which the EEPR Action funds only a small part). While DG Energy supports the projects in finding solutions, achieving the target largely depends on factors beyond the control of the Commission.
Result indicator: Number of successfully completed off shore wind projects (source: DG ENER C2).		
<i>Baseline (2013)</i>	<i>Milestone</i>	<i>Target (2014)</i>

<p>Of the 9 projects selected: November 2013: 2 EEPR Actions are completed; 1 more to be completed by end of 2013. For one project, the EC and the coordinator agreed to terminate the grant agreement. This termination is to be implemented by the end of 2013. November 2013: FID has been taken for 5 EEPR OWE projects, including one project in the wind-grid part of the programme.</p>	<p>For two projects, FID is expected to be taken by mid-2014. Milestone (cumulative) by end of 2014: for 7 projects FID taken, for 1 project regulatory investment approval (which is a pre-condition to arrive at a FID in 2016).</p>	<p>By end of 2014: 4 projects completed.</p>
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Annual Report on the implementation of the European Energy Programme for Recovery.	<i>Adoption</i>	<i>4th Quarter 2014</i>
Implementing act for proposed Infrastructure Reporting Regulation.	<i>Adoption</i>	<i>2nd Quarter 2014</i>
<i>Main expenditure-related outputs</i>		
Offshore wind energy: € 565 million has been committed for expenditure on 9 projects, selected under the European Energy Programme for Recovery, on the basis of individual grant agreements.	€ 268 million payments executed	<i>By December 2014</i>
CCS: on-going implementation of 2 projects and execution of payments for 3 projects within the framework of a total commitment of € 1 billion for 6 initial grant agreements.	€ 492 million payments executed. (figures take into account recovery of pre-financing of terminated projects)	<i>By December 2014</i>
Interconnections: total of 2,267,574,463€ has been committed for expenditure on 43 infrastructure projects, selected under the European Energy Programme for Recovery. By 29.10.2013:€ 790,821,609 payments executed.	€ 1,920,042,372 payments to be executed (amount excludes the four projects to be terminated and the decommitments already made following final payments)	<i>By 2017</i>
Relevant general objectives: 1, 2, 3.		
5. Specific objective: Strengthen the conditions and incentives for a further development of retail energy markets toward more competitive, inclusive and consumer-centred practices.		<i>Non-spending</i>
Result indicator: Number of suppliers of electricity and gas for consumers (measured at national level; source: regulators, DG ENER B3).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
31/12/2013: At least 3 suppliers for consumers 2012: In 25 Member States at least 3 suppliers in electricity and in 24 Member States at least 3 gas suppliers	Consumers having the choice between at least three suppliers that should be able to compete on price.	
Result indicator: Number of MS with completed transposition of consumer-related provisions in the 3rd package (source: DG ENER B3).		
<i>Baseline (2012)</i>	<i>Target (2014)</i>	
30/10/2012: Full transposition notified by 20 Member States for both electricity and gas.	27 MS compliant by complete transposition of both electricity and gas by 2014.	
Main outputs in 2014		

	<i>Indicator</i>	<i>Target</i>
Enforcement of retail market provisions of the Third Energy Package	<i>MS checks completed (with infringements launched where appropriate, following EU Pilot contacts)</i>	<i>100% Completion (of compliance checks)</i>
Communication on Retail markets initiative	<i>Adoption</i>	<i>2nd Quarter 2014</i>
SWD Guidance document on definition and protection of vulnerable consumers	<i>Adoption</i>	<i>1st Quarter 2014</i>
Consultation of MS on price regulation	<i>MS having agreed to a phase-out of regulated prices by 2017</i>	5

Relevant general objectives: 1, 2, 3.		
6. Specific objective: To facilitate an increase in the share of renewable energy in overall energy consumption of 20% by 2020 through a common framework based on mandatory targets and to put in place framework measures that will permit the achievement of the higher shares of renewable energy after 2020.		<i>Non-spending</i>
Result indicator: % of renewable electricity in total EU electricity consumption (measurement unit % TWh renewable/TWh total EU; source: Eurostat; Member States, DG ENER C1).		
<i>Baseline (2013)</i>	<i>Milestones</i>	<i>Target(2020)</i>
23.4%.	EU RES-E shares according to projection in National Renewable Energy Action Plans (NREAP).	34% ¹⁴
Result indicator: Share of renewables in total EU energy consumption for transport (Measurement unit: %; Source: national reports under the biofuels directive, ENER C1).		
<i>Baseline (2013)</i>	<i>Milestones</i>	<i>Target (2020)</i>
6.3%	EU RES-E shares according to projection in National Renewable Energy Action Plans (NREAP).	10% by 2020.
Main output		
	<i>Indicator</i>	<i>Target</i>
<i>Policy-related output</i>		
REFIT evaluation/Progress report on RES directive (including review foreseen in article 23.8).	<i>Adoption</i>	<i>4th Quarter 2014</i>

Relevant general objectives: 1, 2, 3.		
7. Specific objective: To support and ensure the achievement of the EU energy efficiency target for 2020 - through policy measures promoting energy efficiency particularly in the energy, residential and services sectors and industry and outline priorities for 2030.		<i>Non-spending</i>
Result indicator: National policy objectives and degree to which legislative act and additional 'soft-law' instruments in follow-up to the EU energy efficiency policies is implemented (source: DG ENER C3).		
<i>Baseline (2013)</i>	<i>Milestone</i>	<i>Target (2020)</i>

¹⁴ "expected" as indicated through national renewable energy action plans.

A number of policy tools available to trigger energy efficiency improvements. 2013 – Member States have to submit their indicative energy efficiency targets (all indicative targets submitted).	Ongoing: implementation of EU energy efficiency policies. 2014 and every three years – Member States have to submit National Energy Efficiency Action Plans.	Comprehensive policy framework should be in place at Member States level to realise the remaining cost-effective savings potential in 2020. Implementation of the Energy Efficiency Directive, Energy Performance of Buildings Directive, Market Surveillance mechanisms under the Energy Labelling and Ecodesign Directives, combined with the use of innovative financing mechanisms and Cohesion funds essential for this.
Result indicator: Cumulative reductions of final energy consumption triggered by the regulatory measures on the energy efficiency of products (source: Ecodesign/Energy Labelling measures impact assessments).		
<i>Baseline (2012)</i>	<i>Milestone</i>	<i>Target (2020)</i>
31/12/2012: about 426 TWh ¹⁵ .	Increase (additional implementing measures to be adopted between end of 2012 and end of 2014 should lead to a further 450 TWh annual final energy savings expected in 2020).	About 760 TWh ¹⁶ .
Result indicator : Planned energy saving targets for 2020 based on the Sustainable Energy Action Plans implemented by the Signatory cities and regions of the Covenant of Mayors (source: DG ENER B3).		
<i>Baseline (2013)</i>		<i>Target (2020)</i>
Planned energy saving targets for 2020 based on the Sustainable Energy Action Plans implemented by the Signatory cities and regions of the Covenant of Mayors.		Average reduction: 28.61% by 2020 (300 million tons calculated equivalent).
Result indicator: To support projects promoting renewables and increasing energy efficiency in different sectors of the economy including transport, through addressing the non-technological barriers and involving local actors (Intelligent Energy Europe Programme II - legacy) (source: Intelligent Energy Europe Programme II, DG ENER C3).		
<i>Baseline (2013)</i>		<i>Target (2014)</i>
Cumulative investment made by European stakeholders in sustainable energy triggered by IEE programme (measurement unit EUR). 31/12/2013: EUR 2293 million.		31/12/2014: EUR 2,5 billion.
Additional annual renewable energy production triggered by actions supported by IEE programme (measurement unit toe). 31/12/2013: >50 000 toe/year		Increase
Additional annual energy savings triggered by the actions supported by IEE programme (measurement unit toe). 31/12/2013: > 90 000toe/year		Increase
Additional annual reductions of greenhouse gas emissions triggered by the actions supported by IEE programme (measurement unit CO ₂ e). 31/12/2013: >500 000 tCO ₂ e/y.		Increase
Main outputs in 2014		
	Indicator	Target
<i>Policy-related output</i>		
Communication on an Energy Efficiency Strategy	<i>Preparation/Adoption</i>	<i>2nd Quarter 2014</i>

¹⁵ Annual savings in final energy by 2020, calculated according to the Methodology for the Ecodesign of Energy-related products (MEErP).

¹⁶ Annual savings in final energy by 2020, calculated according to the Methodology for the Ecodesign of Energy-related products (MEErP).

Several Ecodesign & Energy labelling regulations	<i>Adoption</i>	2014
Review of the Energy Labelling Directive and certain parts of the Eco-design Directive	<i>Preparation/adoption</i>	4 th Quarter 2014/ early 2015
<i>Expenditure-related output</i>		
The IEE II programme comes to its end in 2013. Its 2014 - 2020 successor is integrated as a " Market uptake of energy innovation " type of actions under the Energy Efficiency (and 2 topics under the Low Carbon Energy) Focus Area of the Energy Challenge of the Horizon 2020. Therefore, the expenditure-related outputs relevant to the IEE II successor (commitment appropriations) are reported in section 4.3.		

Relevant general objectives: 1, 2, 3.		
8. Specific objective: To contribute to solidarity and coordinated actions to prevent and mitigate the consequences of supply disruptions in gas and electricity, crude oil and petroleum products.		<i>Non-spending</i>
Result indicator: Level of emergency oil stocks (in days of net imports) (Source: weighted average of MS whose obligation is based on net imports).		
<i>Baseline (31/03/2013)</i>	<i>Milestone</i>	<i>Target (2014)</i>
96 days. Date: 31/03/2013. Source: data reported by MS in the MOS questionnaire.	Maintain at least 90 days.	At least 90 days.
Result indicator: State of implementation of Regulation (EU) 994/2010, Source: Regulation (EU) 994/2010		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
Number of Member States having carried out Risk Assessment: 25 (2 exemptions, 1 missing from CRO). N-1 currently fulfilled by Member States (ddl is Dec. 2014, 5 exemptions): 18. Number of Member States having notified their adopted Preventive Action Plan (2 exemptions + 3missing (CRO, RO, SI): 23 (ddl for adoption of Plans was Dec. 2012). Number of Member States having notified their Emergency Plans (2 exemptions 3 missing (CRO, RO, SI): 23 (ddl for adoption of Plans was Dec. 2012). Number of ICs for which reverse flow assessment has been carried out: 100% of all notifications.	Full compliance with Regulation by 31/12/2014.	
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
Repeal of Council Decision 77/706/EEC (reduction in the consumption 2014 of primary sources of energy in the event of difficulties in the supply of crude oil and petroleum products).	<i>Adoption</i>	2 nd Quarter 2014

Relevant general objectives: 1, 2, 3.		
9. Specific objective: Further improve the Offshore Safety.		<i>Non-spending</i>
Result indicator: Number of fatalities/major injuries (potentially also per million hours worked) on oil and gas offshore installations (source: ENER B3).		
<i>Baseline (2013)</i>	<i>Target (2015)</i>	
Comparable EU wide data not yet available, subject to a common reporting format to be introduced as a follow-up of the adoption of the Directive on Offshore Safety (2013/30/EU) of 12 June 2013.	10% reduction for the period 2012-2015.	
Result indicator: Mass/volume of accidental hydrocarbon releases into sea or atmosphere (in BOE/kg) (source: ENER B3).		

<i>Baseline (2013)</i>		<i>Target (2015)</i>	
Comparable EU wide data not yet available, subject to a common reporting format to be introduced as a follow-up of the adoption of the Directive on Offshore Safety (2013/30/EU) of 12 June 2013.		10 % reduction for the period 2012-2015.	
Result indicator: Number of major collisions/fires on installations (source: ENER B3).			
<i>Baseline (2013)</i>		<i>Target (2015)</i>	
Comparable EU wide data not yet available, subject to a common reporting format to be introduced as a follow-up of the adoption of the Directive on Offshore Safety (2013/30/EU) of 12 June 2013.		10 % reduction for the period 2012-2015.	
Main outputs in 2014			
		<i>Indicator</i>	<i>Target</i>
Reports as foreseen in articles 27.4, 39.1, 39.2 & 39.3 of the Offshore Safety Directive.		<i>Adoption</i>	<i>4th Quarter 2014</i>
Implementing Act on Common Formats for Safety Data Reporting in European Offshore		<i>Adoption</i>	<i>2nd Quarter 2014</i>
Relevant general objectives: 1, 2, 3.			
10. Specific objective: To contribute to a consistent EU external action on energy that strengthens partnerships for secure, safe, sustainable and competitive energy, builds up the external dimension of the internal energy market, improves access to sustainable energy for developing countries and better promotes EU policies beyond its borders, notably with neighboring countries.		<i>Non-spending</i>	
Result indicator: % compliance of legislation in Contracting Parties to Energy Community Treaty complying with the EU acquis (source: assessment based on regular reports established by the ECT secretariat, DG ENER B2).			
<i>Baseline (2013)</i>		<i>Target (2014)</i>	
31/12/2013: 85		90	
Result indicator: Progress on the implementation of the 43 actions proposed in the Communication: "Security of Supply and International Cooperation – The EU Energy Policy engaging with partners beyond our borders" (source: the Commission Communication, DG ENER A3).			
<i>Baseline (2013)</i>		<i>Target (2014)</i>	
Further to the adoption of the Communication in September 2011 a number of follow up initiatives have been implemented (see Commission report "Implementation of the Communication on Security of Energy Supply and International Cooperation and of the Energy Council Conclusions of November 2011" (COM(2013) 638 of 13/09/2013).		Launching or concrete step forward for one third of the 43 actions proposed in the Communication by end 2014.	
Result indicator: Notification of all existing IGAs (Inter-Governmental Agreements) as defined in regulation 994/2010 by Member states, and via the Decision 994/2012/EU on information exchange on Intergovernmental Agreements (IGAs), adopted on 7 September " (source: notifications received by Commission, DG ENER B2).			
<i>Baseline (2013)</i>	<i>Milestone</i>	<i>Target (2014)</i>	
Under Art. 13.6 a) of the Regulation 994/2010 all MS have notified their IGAs. Existing IGAs received from Member States during spring 2013; due to Commission doubts on legality letters were sent to 9 MS concerning 15 IGA in August 2013.	Continue follow-up to letters sent in August 2013 to MS. Information exchange with Member States on the lessons learnt in appropriate fora during first half of 2014.	31/12/2012: 100 % notification rate by Member states. Preparation of a report on the application of the Decision 994/2012/EU and the information received by 1 January 2016 and every three years thereafter.	
Main outputs in 2014			

	<i>Indicator</i>	<i>Target</i>
<i>Policy-related output</i>		
Negotiation mandate for Electricity Trade Agreement with Switzerland	<i>Adoption</i>	<i>By 1st Quarter of 2014</i>
Launching or concrete step forward for one third of the 43 actions proposed in the Communication by end 2014.	<i>Adoption</i>	<i>By 4th Quarter of 2014</i>
Preparation of a report on the application of the Decision 994/2012/EU and the information received by 1 January 2016 and every three years thereafter.	<i>Adoption</i>	<i>By 1st Quarter 2016</i>

Relevant general objectives: 1, 2, 3.		
11. Specific objective: Increasing competitiveness by promoting the further integration of the internal energy market and the interoperability of electricity and gas networks across borders. ¹⁷ <i>The achievement of this objective should be enabled by the improved planning, accelerated permit granting, regulatory incentives and the EU financial assistance introduced with the TEN-E guidelines and the CEF regulations.</i>		<i>Spending programme (CEF, completion of the TEN-E funding programme 2007-2013)</i> <i>Non-spending (TEN-E guidelines)</i>
Result indicators (as provided in the CEF regulation Art 3(4)(a)): (i) the number of projects effectively interconnecting Member States' networks and removing internal constraints; (ii) the reduction or elimination of Member States' energy isolation; (iii) the percentage of electricity cross-border transmission power in relation to installed electricity generation capacity in the relevant Member States; (iv) price convergence in the gas and/or electricity markets of the Member States concerned; and (v) the percentage of the highest peak demand of the two Member States concerned covered by reversible flow interconnections for gas. The values (and targets) cannot be determined ex ante (and for this reason Art 3(4) of the CEF explicitly refers to ex-post measurement). The results will gradually become available as the cumulative impact of the PCI projects benefiting from the CEF.		
<i>Baseline</i> ¹⁸	<i>Milestone</i>	<i>Target</i>
-	-	-
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
CEF (energy part): annual work programme	<i>Adoption</i>	<i>1st Quarter 2014</i>
TEN-E implementation report (2010-2013)	<i>Adoption</i>	<i>1st Quarter 2014</i>
<i>Main expenditure-related outputs</i>		
MEUR 116,7 ¹⁹ in commitments to grants.	<i>€ 116,7 million commitments executed.</i>	<i>By end of 2014.</i>

¹⁷ For ENER, in order to distinguish this from the DGs other objectives, it comes out clear from the CEF objectives that this specific objective would be achieved through infrastructure.

¹⁸ The values (baseline and targets) cannot be determined ex-ante (and for this reason Art 3(4) of the CEF explicitly refers to ex-post measurement). The results will gradually become available as the cumulative impact of the PCI projects benefiting from the CEF.

¹⁹ This amount corresponds to the portion of 2014 CEF energy budget allocated to BL 32.02.01.01 (Promoting the further integration of the internal energy market and the interoperability of electricity and gas networks across borders through infrastructure) and represents roughly 30% of the overall 2014 CEF energy budget. It is important to note that the even split between the three operational budget lines (ca. 30% for each line) is indicative only and adjustments will be made following the evaluation of the grants proposals. It is impossible to determine ex-ante to which specific objective (internal energy market, security of supply, sustainability) projects applying for CEF grants in a given year contribute the most – hence the even split in the programming phase.

Call for proposals for CEF grants launched.	<i>Launch</i>	<i>1st Quarter 2014</i>
Delegation Agreement with financial institutions (e.g. EIB) establishing Financial Instruments under CEF (BL 32.02.01.04).	<i>Signature</i>	<i>3rd Quarter 2014</i>
Global award decision (for CEF grants) following call for proposals.	<i>Adoption</i>	<i>4th Quarter 2014</i>

(*) Data will be available following implementation of methodology set out in the guidelines on energy infrastructure.

Relevant general objectives: 1, 2, 3.		
12. Specific objective: Enhancing Union security of energy supply. ²⁰ <i>The achievement of this objective should be enabled by the improved planning, accelerated permit granting, regulatory incentives and the EU financial assistance introduced with the TEN-E guidelines and the CEF regulations.</i>		<i>Spending programme (CEF) Non-spending (TEN-E guidelines)</i>
Result indicators (as provided for in the CEF regulation Art 3(4)(b)): (i) the number of projects allowing diversification of supply sources, supplying counterparts and routes; (ii) the number of projects increasing storage capacity; (iii) system resilience, taking into account the number of supply disruptions and their duration; (iv) the amount of avoided curtailment of renewable energy; (v) the connection of isolated markets to more diversified supply sources; (vi) the optimal use of energy infrastructure assets. The values (and targets) cannot be determined ex ante (and for this reason Art 3(4) of the CEF explicitly refers to ex-post measurement). The results will gradually become available as the cumulative impact of the PCI projects benefiting from the CEF. ²¹		
<i>Baseline</i>	<i>Milestone</i>	<i>Target</i>
-	-	-
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
CEF (energy part): annual work programme	<i>Adoption</i>	<i>1st Quarter 2014</i>
TEN-E implementation report (2010-2013)	<i>Adoption</i>	<i>1st Quarter 2014</i>
<i>Main expenditure-related outputs</i>		
MEUR 116,7 ²² in commitments to grants Other expenditure related outputs same as under objective 11	<i>€ 116,7 million commitments executed.</i>	<i>End of 2014</i>

²⁰ For ENER, in order to distinguish this from the DGs other objectives, it comes out clear from the CEF objectives that this specific objective would be achieved through infrastructure.

²¹ ENER considers that these last indicators from the latest version of the CEF legal base are more appropriate for measuring this programme's effort than the two indicators from the CEF Programme Statement.

²² This amount corresponds to the portion of 2014 CEF energy budget allocated to BL 32.02.01.02 (Enhancing Union security of supply through infrastructure) and represents roughly 30% of the overall 2014 CEF energy budget. It is important to note that the even split between the three operational budget lines (ca 30% for each line) is indicative only and adjustments will be made following the evaluation of the grants proposals. It is impossible to determine ex-ante to which specific objective (internal energy market, security of supply, sustainability) projects applying for CEF grants in a given year contribute the most – hence the even split in the programming phase.

Relevant general objectives: 1, 2, 3:		
<p>13. Specific objective: Contributing to sustainable development and protection of the environment, inter alia by the integration of energy from renewable sources into the transmission network, and by the development of smart energy networks and carbon dioxide networks. <i>The achievement of this objective should be enabled by the improved planning, accelerated permit granting, regulatory incentives and the EU financial assistance introduced with the TEN-E guidelines and the CEF regulations.</i></p>		<p><i>Spending programme (CEF)</i> <i>Non-spending (TEN-E guidelines)</i></p>
<p>Result indicators (as provided for in the CEF regulation Art 3(4)(c): (i) the amount of renewable electricity transmitted from generation to major consumption centres and storage sites; (ii) the amount of avoided curtailment of renewable energy; (iii) the number of deployed smart grid projects which benefited from the CEF and the demand response enabled by them; (iv) the amount of CO2 emissions prevented by the projects which benefited from the CEF. The values (and targets) cannot be determined ex ante (and for this reason Art 3(4) of the CEF explicitly refers to ex-post measurement). The results will gradually become available as the cumulative impact of the PCI projects benefiting from the CEF</p>		
<i>Baseline</i>	<i>Milestone</i>	<i>Target</i>
-	-	-
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
CEF (energy part): annual work programme	<i>Adoption</i>	<i>1st Quarter 2014</i>
TEN-E implementation report (2010-2013)	<i>Adoption</i>	<i>2nd Quarter 2014</i>
<i>Main expenditure-related outputs</i>		
MEUR116,7 ²³ in commitments to grants.	<i>€ 116,7 million commitments executed.</i>	<i>By end of 2014</i>
Creating an environment more conducive to private investment for energy projects corresponding to the fourth operational budget line for CEF energy (BL 32.02.01.04) with MEUR 57,7 earmarked =>this also applies to objectives 11 and 12.	<i>€ 57,7 million commitments executed (following the conclusion of the delegation agreement with financial institutions).</i>	<i>By end of 2014</i>

²³ This amount corresponds to the portion of 2014 CEF energy budget allocated to BL 32.02.01.03 (Contributing to sustainable development and protection of the environment through infrastructure) and represents roughly 30% of the overall 2014 CEF energy budget. It is important to note that the even split between the three operational budget lines (ca 30% for each line) is indicative only and adjustments will be made following the evaluation of the grants proposals. It is impossible to determine ex-ante to which specific objective (internal energy market, security of supply, sustainability) projects applying for CEF grants in a given year contribute the most – hence the even split in the programming phase.

4.2 Nuclear energy

Description of the activity

The Commission has significant responsibilities under the Euratom Treaty on **nuclear safety and security**, notably in the area of safeguards. In particular, the Commission has to monitor nuclear material used for civil purposes so that it is only used for the purpose for which their users have intended them to be used (i.e. nuclear safeguards); and to protect citizens against the dangers from ionising radiation by ensuring the respect of EU legislation on radiation-protection and by having a high level of nuclear safety in all Member States. Nuclear energy can play a role in enhancing competitiveness, promoting sustainable development, fighting climate change and reducing external energy dependence. While it is up to the Member States to choose whether or not to use nuclear energy, the role of the EU is to develop in the interest of all Member States the most advanced EU legal framework for nuclear energy, meeting the highest standards for safety, security and non-proliferation. The "comprehensive and transparent risk and safety assessments (stress tests)" of EU nuclear plants, which were launched by the Commission and the European Nuclear Safety Regulators Group (ENSREG) just after the Fukushima nuclear accident, confirmed that the standards of safety of nuclear power plants in Europe are generally high. Nevertheless, the stress tests have revealed that further improvements of nuclear safety in the EU are needed.

National nuclear safety regulators have set up national action plans for the implementation of the necessary actions and the Commission is closely following the progress made. Following the Fukushima nuclear accident in Japan, the European Council mandated the European Commission to **review the existing legal and regulatory framework for the safety of nuclear installations** and propose by the end of 2011 any improvements that may be necessary. A major breakthrough has been achieved with the adoption of the Commission's proposal for a revised Nuclear Safety Directive on 17 October 2013 whose overall legislative objective is to maintain and promote the continuous improvement of nuclear safety and its regulation at EU level. The proposal is expected to be adopted by the Council in 2014, after the opinion of the European Parliament is delivered.

The Commission advocates improvements in the global legal framework for nuclear safety, especially the Nuclear Safety Convention, with **the aim of increasing its effectiveness, governance and enforceability**. Furthermore, the Commission aims to further enhance its cooperation with the International Atomic Energy Agency (IAEA). To this end, the Commission signed on 17 September 2013 a Memorandum of Understanding on Nuclear Safety (MoU) with the IAEA creating **an enhanced framework for extensive cooperation and further synergies and avoiding duplication of efforts**. The MoU highlights also the need to improve the visibility of the actions financed by the EU or implemented with substantial technical assistance.

The Commission's safeguards verification activities continue to assure citizens that nuclear material is correctly managed and that safeguards obligations stemming from the Euratom Treaty with the IAEA and third States are complied with.

Furthermore, **the Euratom Supply Agency (ESA)**, an Agency established by the Euratom Treaty and operating under the supervision of the Commission, is entrusted with the task to ensure a regular and equitable supply of nuclear fuels for all users in the EU.

Upon Accession, the 3 Member States Bulgaria, Lithuania and Slovakia committed to close down early some of their nuclear power plants before the end of their scheduled lifetime. In

exchange the Union agreed to assist the 3 Member States financially to decommission the concerned power plants Kozloduy units 1-4, Ignalina units 1-2 and Bohunice V1 units 1-2. This **Decommissioning programme** follows on from this commitment, and regulates the financial contributions towards safe decommissioning of the afore-mentioned units. By 01/01/2014 the 3 Member States have to provide the latest version of their decommissioning plans. These will be enshrined in the Implementing Act. These will serve as a basis for the monitoring and reporting. Projects under the different objectives will only be eligible for funding when they stem from this decommissioning plans. The Commission will, on proposal by the Member States and beneficiaries, decide on which projects from the decommissioning plan need funding at a certain moment in time.

The efficiency and effectiveness of implementing the financial EU support programme under the next MFF will be further increase by a complete revision of the implementing procedures (programming, monitoring and reporting) based on lessons learned from the past 10 years of implementation and integrating the audit recommendations from the EU CoA and EP CONT.

ABB activity: Nuclear energy					
Financial resources (€) in commitment appropriations			Human resources		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
154,183,000	98,000	154,281,000	283	10	293

Relevant general objectives: 1, 2, 3.		
1. Specific objective: To implement and further develop the framework for nuclear safety, security and non-proliferation, to reinforce nuclear safety in neighboring countries and globally.	<i>Non-spending</i>	
Result indicator: Establishment and implementation of a common EU framework for nuclear safety and for the management of spent fuel and radioactive waste (source: Euratom Treaty, ENER Directorate D) .		
<i>Baseline (2013)</i>	<i>Milestone</i>	<i>Target (2014, 2015)</i>
<p><i>Nuclear safety:</i> Adoption on 17 October 2013 of the formal Commission proposal for a revised Nuclear Safety Directive after having received the opinion of the Economic and Social Committee (Com(2013)715); adoption on 4 October 2012 by the Commission of the "Communication on the comprehensive risk and safety assessments ("stress tests") of nuclear power plants in the European Union and related activities" COM(2012) 571; Council unanimous adoption on 25 June 2009 of the Nuclear Safety Directive (OJ L 172, 02/07/2009, p. 18–22) .</p> <p><i>Management of spent fuel and radioactive waste:</i> in 2013, transposition by MemberStates of the Directive adopted by the Council on 19 July 2011.</p>	<p><i>Nuclear safety:</i> EP will give its opinion on the proposal for a revised Nuclear Safety Directive during the 1st quarter 2014.</p> <p><i>Management of spent fuel and radioactive waste:</i> Compliance check of transposition by MSs (2014); MSs notifying national programmes (2015); MSs reporting on implementation of Waste Directive (2016); COM report to Council and EP (2017); MSs reporting on implementation of Waste Directive (2018).</p>	<p><i>Nuclear safety: 1st semester 2014:</i> Adoption of the proposal for a new nuclear safety directive by the Council; Publication of Communications covering nuclear off-site emergency preparedness and response (EP&R) and nuclear insurance and liability; Transposition of the Nuclear Safety Directive by those MS which have not yet complied with this obligation. Conformity checks and where necessary EU Pilots on the transposition are under way. <i>2nd semester 2014:</i> Communication on the follow-up of the implementation of the stress tests. <i>2015:</i> Commission report on the implementation of the safety directive (2009/71/Euratom).</p> <p><i>Management of spent fuel and radioactive waste:</i> Full implementation of the Waste Directive by member States.</p>

Result indicator: Reinforcement of the international nuclear safety framework (source: Euratom Treaty).		
<i>Baseline (2013)</i>	<i>Milestone</i>	<i>Target (2015)</i>
17 September 2013: Adoption of a Memorandum of Understanding on Nuclear Safety with IAEA. Council extraordinary meeting in August 2012: mandate to negotiate improvements on the nuclear safety convention (CNS). Nuclear stress tests in neighbouring countries (Switzerland, Ukraine, Armenia, Turkey, Croatia).	Organisation of a Senior Officials Meeting to take place in the 1 st quarter of 2014. Setting-up of the Senior Officials' Liaison Committee foreseen under the MoU. High level Meeting between DG Amano and Commissioner Oettinger in the 1 st quarter of 2014.	Positive perception on enhanced co-operation by IAEA and EU. Further improved co-operation mechanisms working effectively. Support a revision of the CNS in 2014 in line with the revised EU nuclear safety legislation and taking into account the outcomes of the CNS working group. Commission recommendation for a Council decision issuing directives to the Commission for the negotiation of amendments to the Convention on Nuclear Safety in the framework of the 6 th Review meeting of the Contracting Parties to the CNS. Continued cooperation and possibly joint peer reviews of the nuclear stress tests with Armenia and Belarus in 2014 and with Turkey in 2015.
Result indicator : Verification of absence of radioactive contamination of equipment; radiological protection of staff; safety and security of radioactive sources (source: Radiation Protection Regulation of Luxembourg, adopted on 15 December 2000, Memoriale A n°9 22 January 2001).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
No items returned from nuclear installations were found to be significantly contaminated. Some slightly contaminated metal seals were identified and sent to ITU for verification. Radiation exposure monitoring of 240 occupationally exposed Commission staff (DG ENER, AIDCO, HR). No exceeding of any of the annual dose limits was noted. EUFO laboratories management was modified according to EMAS. DG ENER received certification. Management and control of all DG ENER radioactive sources did not give rise to any particular remarks. ISO 17025 certification quality assurance handbook has been created.	Contamination measurement of all equipment and metal seals returned from nuclear facilities. Monitoring of radiation exposure of occupationally exposed Commission staff. Organisation of operational radiological protection and training. Implementation of EMAS requirements, particularly for the nuclear laboratories of the DG ENER Luxembourg EUFO building. Management of radioactive sources, final disposal of sources that are out of use and transfer of surplus calibration standards to ITU. Finalisation of the ISO 17025 certification.	
Result indicator: Number of verifications of radioactive monitoring facilities (source: Article 35 Euratom Treaty).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
In 2013 there were three verification missions (to Italy, Austria and Croatia).	Three verification missions (MS to be determined by beginning of 2014) + ad-hoc verification missions, if requested by EP.	
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Communication on nuclear off-site emergency preparedness and response and nuclear third party insurance and liability	<i>Adoption</i>	<i>4th Quarter 2014</i>
Commission decision on conclusion of 2014 Euratom-Russia Agreement	<i>Adoption</i>	<i>4th Quarter 2014</i>
Recommendation to Council on approval of 2014 agreement Euratom-Russia	<i>Adoption</i>	<i>3rd Quarter 2014</i>
Commission report on implementation of nuclear safety directive (2009/71/Euratom)	<i>Adoption</i>	<i>end 2014</i>
Decision on negotiating directives for a new cooperation agreement between EURATOM and the Republic of Korea	<i>Adoption</i>	<i>1st semester 2014</i>
Relevant general objectives: 1, 2, 3.		
2. Specific objective: To strengthen protection of the health of workers and the general public against the	<i>Non-spending</i>	

dangers arising from ionizing radiations.		
Result indicator: Comprehensive radiation protection legislation across all exposure situations and categories of exposure (Source: Articles 31, 32, 35 and 37 of Euratom Treaty, DG ENER Directorate D).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
Euratom BSS Directive endorsed by WPAQ and adopted by the end of 2013 Euratom Drinking Water Directive adopted on 22.10.2013. CSWD on the application of Article 37 of the Euratom Treaty during 2004-2011 transmitted to the European Parliament and the Council on 12.6.2013 [SWD (2013) 216 final]; CSWD on the application of Article 35 of the Euratom Treaty (Report, 2008-2012) transmitted to European Parliament and the Council on 18.6.2013. [SWD (2013) 226 final]. Draft proposal [COM (2013) 57 final] for a Council Regulation on food and feed adopted on 6.8.2013. EESC opinion (NAT/621) received on 16.10.2013; adoption of final proposal by the Commission possible by December 2013. According to Directive 2003/122/Euratom (HASS Directive), Member States shall report to the Commission by 31 December 2010 on the implementation of this Directive. On that basis the Commission shall submit a report to the European Parliament, the Council and the EESC.	Transposition plan to be prepared. Transposition plan to be prepared. EP opinion expected by 1 st quarter of 2014; adoption of the Regulation by the Council during the 2 nd quarter of 2014. Adoption of the Commission's Report to the EP, Council and EESC on the implementation of Directive 2003/122/Euratom (High-Activity Sealed Sources Directive), 2 nd quarter of 2014.	
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Council Regulation on Food and Feed.	<i>Adoption of EP opinion on proposal</i>	<i>By 1st Quarter</i>
Report on the implementation of Directive 2003/122/Euratom (HASS Directive).	<i>Adoption</i>	<i>By 2nd Quarter</i>
Relevant general objectives: 1, 2, 3.		
3. Specific objective: To ensure that declared nuclear materials are used only for their intended purposes through the implementation of nuclear safeguards.		<i>Non-spending</i>
Result indicator: Level of the Commission's safeguards criteria satisfaction in facilities inspected (source: assessment by DG ENER Directorate E).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
January 2013 – November 2013: 0,98.	1 (equals full satisfaction of the Commission's safeguards criteria in facilities inspected).	
Result indicator: Proportion of reports that have been issued by the Commission within the set deadlines (source: assessment by DG ENER E1).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
January 2013 – November 2013: 90%.	Over 90%.	
Result indicator: Proportion of accountancy reports verified before transmission to the IAEA (source: assessment by DG ENER E5).		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
March 2013 – October 2013: 94,68%. New indicator. Data available only for the last 8 months).	Over 85 – 90%.	

Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
The Euratom Treaty requires the Commission to satisfy itself that in the territories of Member States, nuclear material is not diverted from its intended use as declared by the users and the obligations under agreements with third states and international organisations are complied with.	<i>Treaty implementation</i>	2014
The Commission monitors all civil nuclear material stocks and transactions both within the EU and imports and exports between the EU and third states. For this purpose the system of Nuclear Safeguards is in place.	<i>Monitoring</i>	2014
<i>Main expenditure-related outputs</i>		
2014 BUDGET: Inspection missions – Budget € 2.6 million; Equipment – Budget € 4.68 million; Services (including maintenance, studies, laboratories, informatics) – Budget € 13.24 million.	<i>Implemented</i>	2014

Relevant general objectives: 1, 2, 3.		
4. Specific objective: To strengthen security of nuclear fuel supply.	<i>Non-spending</i>	
Result indicator: Timely conclusion, by the Euratom Supply Agency, of nuclear materials supply contracts submitted by EU nuclear market players (source: ESA)		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
Latest known result: 164(tbc) contracts as of 11 December 2013. Target (i.e. to handle within 10 work days) achieved in mor than 90% of cases, no complaints received.	Target: 100% within 10 working days deadline, starting from the submission of a complete file; except cases when Commission's authorisation is required.	
Result indicator: Timely acknowledgement, by the Euratom Supply Agency, of nuclear fuel transformation services submitted by EU nuclear market players (source: ESA)		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
Latest known result: 124 notifications as of 11 December 2013 and timely acknowledged.	Target: 100% within 14 calendar days, starting from the submission of a complete file.	
Result indicator: Continuous monitoring, by the Euratom Supply Agency, of EU nuclear fuel market developments; coverage of the full year on a regular basis and timely publication of reports (source: ESA)		
<i>Baseline (2013)</i>	<i>Target (2014)</i>	
Regular, timely publications ensured.	Target: 100% Quarterly and annual publications.	
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Review / Revision and development of supply policy: a) as related with the Corfu Statement; and b) on research reactor and isotope production targets' materials.	For b): Report	For a): Ongoing, but ESA cannot commit itself to a schedule, as the issue of the exercise will depend on contributions to be provided by a number of Commission services and on developments in the nuclear fuel market (e.g. the announced sale of an important EU enrichment company). For b): By the end of the 2 nd Quarter 2014, ESA will <u>report</u> to the Council on the results of the activities of the European Observatory for Radioisotopes with the aim to close the action.

Relevant general objectives: 1, 2, 3.		
5. Specific objective: Kozloduy Programme -Performing dismantling in the turbine halls of units 1 to 4 and in auxiliary buildings.		<i>Spending programme</i>
Result indicator: Number and type of systems dismantled in the turbine halls and auxiliary buildings, source: Council Regulation (Euratom) 1368/2013²⁴, Council Regulation (Euratom) 1369/2013²⁵, Corrigendum to Council Regulation (Euratom) 1368/2013²⁶, and Corrigendum to Council Regulation (Euratom) 1369/2013²⁷, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (January 2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Decontamination and dismantling activities in turbine halls and auxiliary buildings of Kozloduy units 1 to 4. Preparatory works have started.	Advancement in decontamination and dismantling activities in turbine halls and auxiliary buildings of Kozloduy units 1 to 4 according to the decommissioning plans as enshrined in the yearly workprogrammes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx) ²⁸ . 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans.	Decontamination and dismantling activities in turbine halls and auxiliary buildings of Kozloduy units 1 to 4 (source Decommissioning plan included in Implementing Act 2014/xxx).
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx.	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020 out of which MEUR 293,3 for Bulgaria.	<i>2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans)</i>	<i>2014-2020</i>
Financial commitment	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
6. Specific objective: Kozloduy Programme - Dismantling of large components and equipments in the reactor buildings of Kozloduy units 1 to 4.		<i>Spending programme</i>
Result indicator: Number and type of systems and large components dismantled in the reactor buildings, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (January 2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>

²⁴ OJ L 346, 20/12/2013, p. 1.

²⁵ OJ L 346, 20/12/2013, p. 7.

²⁶ OJ L 8, 11/01/2014, p. 31.

²⁷ OJ L 8, 11/01/2014, p. 30.

²⁸ Commission Implementing Act foreseen for adoption in the 2nd Quarter of 2014.

Not yet started.	Advancement in decontamination and dismantling of large components and equipments in reactor buildings of Kozloduy units 1 to 4 according to the decommissioning plans as enshrined in the yearly workprogrammes adopted by the Commission (baseline decommissioning plan to be adopted in 2014). 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans).	Sufficient progress in decontamination and dismantling of large components and equipments in reactor buildings of Kozloduy units 1 to 4 according to the decommissioning plans as enshrined in the 2020 workprogramme adopted by the Commission (baseline decommissioning plan in Implementing Act to be adopted in 2014).
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx.	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
7. Specific objective: Kozloduy Programme - Safely managing the decommissioning waste in accordance with a detailed waste management plan.		<i>Spending programme</i>
Result indicator: Quantity and type of safely conditioned waste source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Facilities for the treatment and conditioning of waste are being put in place.	Advancement in safe waste management of decommissioning waste stemming from Kozloduy units 1 to 4 according to the decommissioning plans as enshrined in the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx).	Sufficient progress in safe waste management of decommissioning waste stemming from Kozloduy units 1 to 4 according to the decommissioning plans as enshrined in the 2020 workprogramme adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx)
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
8. Specific objective: Ignalina Programme - Defueling of the reactor core of unit 2 and the unit 1 and 2 reactor fuel ponds into the dry spent fuel storage facility.		<i>Spending programme</i>
Result indicator: Number of unloaded fuel assemblies from unit 2 and the spent fuel ponds, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2022)</i>
Unit 1 reactor core defueled, unit 2 reactor core partially defueled into the spent fuel ponds. Spent fuel ponds in units 1 and 2 fully loaded to maximum capacity. Facilities for waste management treatment and storage are being constructed.	Advancement in infrastructure projects B1 and B2-3-4, and subsequent licensing and operation in order to defuel asap according to the decommissioning plans as enshrined in the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx). 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans).	Complete defueling and transfer of all spent fuel assemblies to the dry spent fuel storage completed by end 2022.
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
COM(2011) 783 final, Proposal for a regulation on Union support for the nuclear	<i>Implementation in accordance with the Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia</i>	<i>2014-2020</i>
Implementing Act 2014/xxx	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment	<i>Adoption</i>	<i>Before 31/12/2014</i>
9. Specific objective: Ignalina Programme - Safely maintaining the reactor units until defueling is completed.		<i>Spending programme</i>
Result indicator: Number of registered incidents, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		

<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Safe maintenance performed without incidents.	Continue with safe maintenance according to Nuclear Regulator VATESI requirements until complete defueling and transfer of all spent fuel assemblies to the dry spent fuel storage - completed by end.	No incidents until complete defueling of units 1 and 2.
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx.	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria.	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment.	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
10. Specific objective: Ignalina Programme - Performing dismantling in the turbine hall and other auxiliary buildings and safely managing the decommissioning waste in accordance with a detailed waste management plan.		<i>Spending programme</i>
Result indicator: Type and number of auxiliary systems dismantled and the quantity and type of conditioned waste, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Start of dismantling works in turbine hall of unit 1.	Advancement in dismantling activities of turbine hall 1 and 2 according to the decommissioning plans as enshrined in the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx). 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans).	Turbine halls main parts dismantled.
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>

which MEUR 293,3 for Bulgaria		
Financial commitment	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
11. Specific objective: Bohunice Programme - Performing dismantling in the turbine hall and auxiliary buildings of reactor V1.		<i>Spending programme</i>
Result indicator: Number and type of systems dismantled in the V1 turbine hall and auxiliary buildings, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Dismantling of V1 turbine hall has started; Dismantling of external buildings (Phase 1) started in 2014.	Completion of V1 turbine hall dismantling; System removal in the auxiliary buildings (phase 2 of decommissioning: start 2015); progress according to the decommissioning plans as enshrined in the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx). 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans).	Dismantling of V1 turbine hall advanced, and building to be used as temporary waste storage. Dismantling of external buildings completed as far as possible and building to be used as temporary waste storage.
Main outputs in 2014		
	Indicator	Target
<i>Main policy outputs</i>		
Implementing Act 2014/xxx	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria.	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment.	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
12. Specific objective: Bohunice Programme - Dismantling of large components and equipments in the V1 reactor buildings.		<i>Spending programme</i>
Result indicator: Number and type of systems and large components dismantled in the V1 reactor buildings, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Preparation of decontamination of V1 primary circuits has started.	Progress according to the decommissioning plans as enshrined in the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx). 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans).	Decontamination and dismantling works advanced according to the decommissioning plan.

Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx.	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria.	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment.	<i>Adoption</i>	<i>Before 31/12/2014</i>

Relevant general objectives: 1, 2, 3.		
13. Specific objective: Bohunice Programme - Safely managing the decommissioning waste in accordance with a detailed waste management plan.		<i>Spending programme</i>
Result indicator: Quantity and type of safely conditioned waste, source: Council Regulation (Euratom) 1368/2013, Council Regulation (Euratom) 1369/2013, Corrigendum to Council Regulation (Euratom) 1368/2013, and Corrigendum to Council Regulation (Euratom) 1369/2013, on Union support for the nuclear decommissioning assistance programme in Bulgaria, Lithuania and Slovakia.		
<i>Baseline (1/1/2014)</i>	<i>Milestone</i>	<i>Target (2020)</i>
Stage 1 decommissioning waste management has started.	Continue to safely manage decommissioning waste from V1 units 1 and 2 according to the decommissioning plans as enshrined in the yearly work programmes adopted by the Commission (baseline decommissioning plan in Implementing Act 2014/xxx). 2014 – 2020 (details will be available in 2014 based on Member States' decommissioning plans).	Stage 2 decommissioning waste management ongoing.
Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Implementing Act 2014/xxx.	<i>Adoption</i>	<i>Before 31/12/2014</i>
<i>Main expenditure-related outputs</i>		
Included in the Nuclear decommissioning assistance programmes in Bulgaria, Lithuania and Slovakia with a total budget of MEUR 969,3 for 2014-2020, out of which MEUR 293,3 for Bulgaria.	<i>2014 – 2020 details will be available in 2014 based on Member States' decommissioning plans</i>	<i>2014-2020</i>
Financial commitment.	<i>Adoption</i>	<i>Before 31/12/2014</i>

4.3 Research and innovation activities related to energy

Description of the activity

The energy sector is knowledge and technology-based. The progressive integration and liberalisation of the national energy markets has led to the need for pan-European systems (e.g. for gas and electricity transmission and distribution). The European energy and climate policy aims towards decarbonisation; a new energy system has to replace the current carbon-dependent one through the deployment of efficient, reliable and affordable low-carbon energy technologies and solutions.

Therefore, the added value of EU intervention is contributing to the development of low-carbon energy technologies for energy generation, transmission, distribution and use, as smart grid, storage, but also the improvements in energy efficiency, developing smart cities and communities, by addressing the whole innovation chain.

EU research and innovation activities will also contribute to developing or fulfilling EU policies, resulting in:

- achievement of the EU internal energy market with all the subsequent benefits;
- energy efficiency in industry and for consumers, as community involvement avoids duplication and rationalises effort; reducing the cost of energy technologies and thus setting one base for lowering the cost of energy;
- research and innovation on issues that transcend national boundaries and where the potential markets are international;
- combining financial resources where research, demonstration and innovation costs are potentially too high for Member States to finance on their own;
- common solutions, such as international standards.

The intervention of the EU will be in the form of:

- Horizon 2020 and the existing Research and Innovation Framework Programmes (implementing the FP6, FP7 and IEE II Programmes), supporting the research, development, demonstration and market uptake of technologies and solutions which, due to their transnational character, cannot be sufficiently supported by existing national programmes. This will also include support to implementing EU energy policy to achieve the 2020 [2030] targets and objectives of the Energy Roadmap 2050.
- Coordination actions with the Member States to meet common challenges by aligning their national research and innovation programmes with the Strategic Energy Technology Plan (and its updated Integrated Roadmap) and the Communication on Energy Technologies and Innovation.
- Coordination of European industry's research and innovation activities through industrial initiatives of the SET Plan and the Energy Technology Platforms (e.g. Wind, Solar, Electricity Grids, Carbon Capture & Storage, Bio Energy, Smart Cities, Nuclear Fission and Fusion, Fuel Cells and Hydrogen).

This will be carried out under direct and indirect management²⁹ and in line with the provisions of Article 30 of the Financial Regulation on the principles of economy, efficiency and effectiveness. Grant proposals are evaluated by independent experts who judge their merit both technically and in terms of the value of the grant sought. These experts make recommendations that need to be incorporated in the proposals before the Commission seeks the agreement of the Member States to the project (via the Programme Committee) and signs the grant agreements. This ensures that the projects meet the necessary quality requirements at the best price.

For Horizon 2020 the project management of the grants will be externalised to the Innovation and Networks Executive Agency and the Executive Agency for Competitiveness and Innovation. This decision followed an impact assessment which identified this as the most efficient option.

The effectiveness of the programme will be monitored by the different indicators identified below, as well as more general “administrative” indicators related to internal control. There will be a mid-term evaluation during the programme.

ABB activity: ABB activity: Horizon 2020 – Research and innovation related to energy					
Financial resources (€) in commitment appropriations			Human resources		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
316,967,960	5,084,000	322,051,960	24	4	28

Relevant general objectives: 1, 2, 3.		
1. Specific objective: Making the transition to a reliable, affordable, publicly accepted, sustainable and competitive energy system, aiming at reducing fossil fuel dependency in the face of increasingly scarce resources, increasing energy needs and climate change.	<i>Spending programme</i>	
Output indicator³⁰: Share of the overall Energy challenge funds allocated to the following research activities: renewable energy, end-user- energy-efficiency, smart grids, energy storage and market uptake of energy innovation activities³¹		
<i>Baseline</i>	<i>Milestone (2016)</i>	<i>Target (2020)</i>
New approach	85%	85%

²⁹ It is planned that the ELENA-EIB Facility implemented under the energy efficiency part of the H2020 will be implemented by the EIB, based on the FAFA.

³⁰ The ENER specific result indicators, agreed with RTD, will be introduced in the Management Plan as of 2017 (i.e. once they become relevant due to the availability of data); and the standard result indicators from the Horizon 2020 (Specific Programme Draft, page 187) legal basis are included in the Annex 5 of the RTD Management Plan which addresses these standard result indicators across all of Horizon 2020.

³¹ For the later: in the framework of the Intelligent Energy Europe Programme within the Competitiveness and Innovation Programme

Main outputs in 2014		
	<i>Indicator</i>	<i>Target</i>
<i>Main policy outputs</i>		
Staff Working Document on the Integrated roadmap on energy technologies and innovation	Adoption	2nd Quarter 2014
Communication on the Action Plan for the implementation of the Integrated roadmap on energy technologies and innovation	Adoption	4th Quarter 2014
Communication from the Commission on the Smart Cities 4 th quarter 2014s and Communities Strategic Implementation plan	Adoption	4 th Quarter 2014
<i>Main expenditure-related outputs</i>		
Calls launched	Launch	In 2014, launch of the energy calls which are foreseen in the H2020 Work Programme 2014-2015 to be launched in 2014
Calls evaluated	Evaluation	In 2014, evaluation of the energy calls which are foreseen in the H2020 Work Programme 2014-2015 to be using the budget of 2014