

Procedure file

Basic information		
INI - Own-initiative procedure	2012/2103(INI)	Procedure completed
Energy roadmap 2050, a future with energy		
Subject		
3.60 Energy policy		
3.60.04 Nuclear energy, industry and safety		
3.60.05 Alternative and renewable energies		
3.60.08 Energy efficiency		
3.60.10 Security of energy supply		
3.60.15 Cooperation and agreements for energy		
3.70.02 Atmospheric pollution, motor vehicle pollution		
3.70.03 Climate policy, climate change, ozone layer		
4.60.02 Consumer information, advertising, labelling		
4.60.06 Consumers' economic and legal interests		
4.70.05 Regional cooperation, cross-border cooperation		
6.40 Relations with third countries		

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	ITRE Industry, Research and Energy		17/04/2012
		EFD TZAVELA Niki	
		Shadow rapporteur	
		PPE REUL Herbert	
		S&D VAN BREMPT Kathleen	
		ALDE HALL Fiona	
		Verts/ALE JADOT Yannick	
		ECR SZYMAŃSKI Konrad	
		Committee for opinion	Rapporteur for opinion
	AFET Foreign Affairs		30/05/2012
		PPE SARYUSZ-WOLSKI Jacek	
	ENVI Environment, Public Health and Food Safety		09/05/2012
		PPE JORDAN Romana	
	REGI Regional Development		21/06/2012
		PPE KOLARSKA-BOBIŃSKA Lena	
	IMCO Internal Market and Consumer Protection		21/06/2012
		ALDE SCHMIDT Ollie	
European Commission	Commission DG	Commissioner	
	Energy	OETTINGER Günther	

Key events			
15/12/2011	Non-legislative basic document published	COM(2011)0885	Summary
14/06/2012	Committee referral announced in		

	Parliament		
24/01/2013	Vote in committee		
08/02/2013	Committee report tabled for plenary	A7-0035/2013	Summary
11/03/2013	Debate in Parliament		
13/03/2013	Results of vote in Parliament		
14/03/2013	Decision by Parliament	T7-0088/2013	Summary
14/03/2013	End of procedure in Parliament		

Technical information

Procedure reference	2012/2103(INI)
Procedure type	INI - Own-initiative procedure
Procedure subtype	Strategic initiative
Legal basis	Rules of Procedure EP 54
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/7/09373

Documentation gateway

Non-legislative basic document		COM(2011)0885	15/12/2011	EC	Summary
Committee draft report		PE491.249	15/06/2012	EP	
Amendments tabled in committee		PE496.406	01/10/2012	EP	
Amendments tabled in committee		PE496.501	01/10/2012	EP	
Committee opinion	IMCO	PE496.509	06/11/2012	EP	
Committee opinion	AFET	PE496.346	14/11/2012	EP	
Committee opinion	REGI	PE496.464	29/11/2012	EP	
Committee report tabled for plenary, single reading		A7-0035/2013	08/02/2013	EP	Summary
Text adopted by Parliament, single reading		T7-0088/2013	14/03/2013	EP	Summary

Energy roadmap 2050, a future with energy

PURPOSE: to present the Commissions Energy Roadmap 2050.

BACKGROUND: the EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050 in the context of necessary reductions by developed countries as a group. The Commission analysed the implications of this in its "[Roadmap for moving to a competitive low-carbon economy in 2050](#)". The "[Roadmap to a Single European Transport Area](#)" focussed on solutions for the transport sector and on creating a Single European Transport Area.

The EU policies and measures to achieve the [Energy 2020](#) goals and the Energy 2020 strategy are ambitious: by 2020, at least 20 % reduction in greenhouse gas emissions compared to 1990 (30% if international conditions are right); saving of 20 % of EU energy consumption compared to projections for 2020; 20 % share of renewable energies in EU energy consumption, 10% share in transport. These measures will continue to deliver beyond 2020 helping to reduce emissions by about 40% by 2050. They will, however, still be insufficient to achieve the EU's 2050 decarbonisation objective as only less than half of the decarbonisation goal will be achieved in 2050. This creates uncertainty among investors, governments and citizens. Today, there is inadequate direction as to what should follow the 2020 agenda.

The Roadmap does not replace national, regional and local efforts to modernise energy supply, but seeks to develop a long-term European technology-neutral framework in which these policies will be more effective. It argues that a European approach to the energy challenge will increase security and solidarity and lower costs by providing a market for new products and services. The Commission estimates potential cost

savings of around 25% for some stakeholders if there were a more European approach for efficient use of renewable energy.

CONTENT: in this Energy Roadmap 2050, the Commission explores the challenges posed by delivering the EU's decarbonisation objective while at the same time ensuring security of energy supply and competitiveness. The scenarios in this Roadmap all imply major changes in carbon prices, technology and networks. A number of scenarios examined how to achieve an 80% reduction in greenhouse gas emissions implying some 85% decline of energy-related CO₂ emissions including from transport. The Commission has also analysed Member States' and stakeholders' scenarios and views.

The Energy Roadmap 2050 shows that decarbonisation is feasible. Whichever scenario is chosen, a number of "no regret" options emerge which can bring down emissions effectively and in an economically viable way. Furthermore, the overall system costs of transforming the energy system are similar in all scenarios. A common EU approach can help keep costs down.

To achieve this new energy system, ten conditions must be met:

1. **Energy 2020:** the immediate priority is to implement fully the EU's Energy 2020 strategy. All existing legislation needs to be applied, and the proposals currently in discussion, notably on energy efficiency, infrastructure, safety and international cooperation, need to be adopted swiftly. The path towards a new energy system also has a social dimension. The Commission will continue to encourage social dialogue and social partners' involvement to help a fair transition and an efficient management of change.
2. **Energy efficiency:** the energy system and society as a whole need to be dramatically more energy efficient. The co-benefits of achieving energy efficiency in a wider resource efficiency agenda should contribute to meeting the goals in a faster and cost-efficient manner.
3. **Renewable energy sources:** particular attention should continue to be given to the development of renewable energy. Their rate of development, impact in the market and rapidly growing share in energy demand call for a modernisation of the policy framework. The EU's 20% renewable energy target has so far proven an efficient driver in development of the renewable energy in the EU and timely consideration should be given to options for 2030 milestones.
4. **Research and innovation:** higher public and private investments in R&D and technological innovation are crucial in speeding-up the commercialisation of all low-carbon solutions.
5. **Internal energy market:** the EU is committed to a fully integrated market by 2014. There are regulatory and structural shortcomings that need to be addressed. Well-designed market structure instruments and new ways of cooperation are required for the internal energy market to deliver its full potential as new investments are coming into the energy market and the energy mix is changing.
6. **Energy prices** need to better reflect costs, notably of the new investments needed throughout the energy system. The earlier prices reflect costs, the easier the transformation will be in the long run. Special attention should be paid for the most vulnerable groups, for which coping with the energy system transformation will be challenging. Specific measures should be defined at national and local levels to avoid energy poverty.
7. **New infrastructure:** a new sense of urgency and collective responsibility must be brought to bear on the development of new energy infrastructure and storage capacities across Europe and with neighbours.
8. **Safety and security:** there will be no compromise on safety and security for either traditional or new energy sources. The EU must continue to strengthen the safety and security framework and lead international efforts in this field.
9. **International aspects:** a broader and more coordinated EU approach to international energy relations must become the norm, including redoubling work to strengthen international climate action.
10. **Investment:** Member States and investors need concrete milestones. The Low carbon economy roadmap has already indicated greenhouse gas emission milestones. The next step is to define the 2030 policy framework, reasonably foreseeable and the focus of most current investors.

The Commission will carry out discussions with other EU institutions, Member States and stakeholders on the basis of this Roadmap. It will update it regularly, reassessing what is necessary in the light of progress and changes.

On the basis of the Roadmap, the Commission will continue to bring forward initiatives, starting with comprehensive proposals on the internal market, renewable energy and nuclear safety next year.

Energy roadmap 2050, a future with energy

The Committee on Industry, Research and Energy adopted the own-initiative report by Niki TZAVELA (EFD, EL) on the Energy Roadmap 2050: a future with energy, in response to the Commission Communication on the subject.

Objectives of the EU2050 Energy Roadmap: Members stress the importance of the EU's energy policy amidst the economic and financial crisis, and the role that energy plays in spurring growth and economic competitiveness and creating jobs in the EU. The Commission is asked to propose post-2020 strategies and a policy framework for 2030, including milestones and targets on greenhouse gas emissions, renewable energy and energy efficiency, with the aim of establishing an ambitious and stable legal and regulatory framework. Since defining energy targets for 2050 and the intervening period assumes pan-European governance, Members propose the adoption of a strategy that allows Member States to cooperate under the Roadmap in a spirit of solidarity the creation of a European Energy Community. They note that the 2030 policy framework must be defined within a timeframe that is appropriate for providing investor security.

Key Elements of a long-term strategy: welcoming the Commission's view that increased deployment of renewables, energy efficiency and energy infrastructure are the no regret options, regardless of the specific path chosen to achieve a decarbonised 2050 energy system, the report invites the Commission to:

- explore a combined high renewables and high energy efficiency scenario, noting that a choice made about which path to take would help increase investment certainty;
- take decentralised generation explicitly into account in future estimates of renewable energy in the EU energy mix, and map financial,

technical and infrastructural obstacles that hamper the growth of decentralised generation in Member States.

Energy efficiency: Members stress that the EUs long-term energy-efficiency policy should take the reduction of energy use in buildings as a central element, calling on Member States to adopt ambitious, long-term building renovation strategies as required by the [Energy Efficiency Directive](#). The current quality of building renovation needs to be substantially scaled up in order to significant reduction of energy consumption of the existing building stock by 80 %, relative to 2010 levels, by 2050.

The report calls, furthermore, for greater attention to be paid to the heat and cooling sectors in the transformation of the energy system, noting that this sector represents about 45 % of the final energy consumption in Europe.

Renewable energy: Members make a series of recommendations on increasing uptake. Stressing the importance of stable regulatory frameworks, both on an EU as on a Member State level to stimulate investments, the committee is concerned by Member States increasingly abrupt changes to support mechanisms for renewable energy, and it calls on the Commission to monitor carefully the implementation of the Renewable Energy Directive and to take action if necessary.

Infrastructure: energy infrastructure projects are characterised by vast upfront investment and a 20-60 year operational lifetime. The current market environment is highly unpredictable, and Members note that investors are hesitant when it comes to energy infrastructure development, stressing the need to promote new strategies and innovative instruments in this regard.

Specific energy sources: noting that all types of low-carbon technology will be needed to achieve the goal of decarbonising the EUs energy system, Members agree that natural gas will play an important role, in the short to medium term, in the transformation of the energy system. They also note that carbon capture storage (CCS) could play a role on the road to decarbonisation by 2050 and they advocate strategies to this effect.

Social dimension: lastly, special attention should be given to energy poverty and employment, and Members add that the Commission, Member States and local authorities should find tailored solutions with a special emphasis on low-income and vulnerable households.

Energy roadmap 2050, a future with energy

The European Parliament adopted by 377 votes to 195 with 37 abstentions a resolution on the Energy Roadmap 2050: a future with energy, in response to the Commission Communication on the subject.

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- take decentralised generation explicitly into account in future estimates of renewable energy in the EU energy mix, and map financial, technical and infrastructural obstacles that hamper the growth of decentralised generation in Member States.

Energy efficiency: Member States are encouraged to step up their efforts to reach the 20 % energy efficiency target, which is currently not on track.

Members stress that the EUs long-term energy-efficiency policy should take the reduction of energy use in buildings as a central element, calling on Member States to adopt ambitious, long-term building renovation strategies as required by the [Energy Efficiency Directive](#). The current quality of building renovation needs to be substantially scaled up in order to significant reduction of energy consumption of the existing building stock by 80 %, relative to 2010 levels, by 2050.

Parliament calls, furthermore, for the EU to consider the full integration of the heating and cooling sector into the transformation of the energy system, noting that this sector represents about 45 % of the final energy consumption in Europe.

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Specific energy sources: noting that all types of low-carbon technology will be needed to achieve the goal of decarbonising the EUs energy system, Members agree that natural gas will play an important role, in the short to medium term, in the transformation of the energy system. They consider affording greater importance to gas, particularly if technologies for carbon capture and storage become more widely available, and they advocate strategies to this effect.

Social dimension: special attention should be given to energy poverty and employment, and Members add that the Commission, Member States and local authorities should find tailored solutions with a special emphasis on low-income and vulnerable households.

Arctic: Members note the importance of an agreement on a special regime and call on the Commission to come forward with a holistic

assessment of the benefits and risks of EU involvement in the Arctic, including an environmental risk analysis, given the very fragile and indispensable areas, especially in the high Arctic.