Basic information

2011/2034(INI) INI - Own-initiative procedure	Procedure completed
Energy infrastructure priorities for 2020 and beyond **Subject** 3.60 Energy policy 3.60.06 Trans-European energy networks 3.60.15 Cooperation and agreements for energy 3.70 Environmental policy	

Key players

European Parliament

Committee responsible	Rapporteur	Appointed
ITRE Industry, Research and Energy	SOSA WAGNER Francisco (NI)	09/12/2010
	Shadow rapporteur KARIŅŠ Krišjānis (PPE) RIERA MADURELL Teresa (S&D) VĂLEAN Adina (ALDE) JADOT Yannick (Verts /ALE) SZYMAŃSKI Konrad (ECR)	

Committee for opinion	Rapporteur for opinion	Appointed
ENVI Environment, Public Health and Food Safety	PLUMB Rovana (S&D)	22/02/2011
REGI Regional Development	ZELLER Joachim (PPE)	27/01/2011

Council of the European Union

Council configuration	Meetings	Date
Transport, Telecommunications and Energy	3097	2011-06-10

European Commission

Commission DG	Commissioner
Energy	OETTINGER Günther

Key events

Date	Event	Reference	Summary
17/11/2010	Non-legislative basic document published	COM(2010)0677	Summary
17/02/2011	Committee referral announced in Parliament		
26/05/2011	Vote in committee		Summary
10/06/2011	Debate in Council		Summary
14/06/2011	Committee report tabled for plenary	A7-0226/2011	
04/07/2011	Debate in Parliament		
05/07/2011	Decision by Parliament	T7-0318/2011	Summary
05/07/2011	Results of vote in Parliament		
05/07/2011	End of procedure in Parliament		

Technical information

Procedure reference	2011/2034(INI)
Procedure type	INI - Own-initiative procedure
Procedure subtype	Initiative
Legal basis	Rules of Procedure EP 55
Other legal basis	Rules of Procedure EP 165
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/7/04874

Documentation gateway

European Parliament

Document type	Committee	Reference	Date	Summary
Committee draft report		PE458.823	04/03/2011	
Amendments tabled in committee		PE460.899	28/03/2011	
Amendments tabled in committee		PE462.547	28/03/2011	
Amendments tabled in committee		PE462.548	28/03/2011	
Committee opinion	REGI	PE460.894	13/04/2011	
Committee opinion	ENVI	PE462.586	24/05/2011	
Committee report tabled for plenary, single reading		A7-0226/2011	14/06/2011	
Text adopted by Parliament, single reading		T7-0318/2011	05/07/2011	Summary

European Commission

Document type	Reference	Date	Summary
Non-legislative basic document	COM(2010)0677	17/11/2010	Summary

Energy infrastructure priorities for 2020 and beyond

2011/2034(INI) - 17/11/2010 - Non-legislative basic document

PURPOSE: to present the priorities for the next two decades with regard to energy infrastructure.

BACKGROUND: the Energy Policy for Europe, agreed by the European Council in March 2007, establishes the Union's core energy policy objectives of competitiveness, sustainability and security of supply. The internal energy market has to be completed in the coming years and by 2020 renewable sources have to contribute 20% to our final energy consumption, greenhouse gas emissions have to fall by 20% and energy efficiency gains have to deliver 20% savings in energy consumption.

Adequate, integrated and reliable energy networks are a crucial prerequisite not only for EU energy policy goals, but also for the EU's economic strategy. A **new EU energy infrastructure policy** is needed to coordinate network development on a continental scale. The challenge of interconnecting and adapting our energy infrastructure to the new needs concerns all sectors. Currently, the EU is paying the price for its outdated and poorly interconnected energy infrastructure. The risk and cost of disruptions and wastage will become much higher unless the EU invests as a matter of urgency in smart energy networks, and exploits its potential for energy efficiency improvements. In the longer term, these issues are compounded by the EU decarbonisation goal to reduce our greenhouse gas emissions by 80-95% by 2050, and raise the need for further developments, such as an infrastructure for large-scale electricity storage, charging of electric vehicles, CO2 and hydrogen transport and storage.

Around EUR 1 trillion must be invested in our energy system between today and 2020 in order to meet energy policy objectives and climate goals. About half of it will be required for networks, including electricity and gas distribution and transmission, storage, and smart grids. Of this, about EUR 200 billion are needed for energy transmission networks alone. However, only about 50% of the required investments for transmission networks will be taken up by the market by 2020. This **leaves a gap of about EUR 100 billion**. Realising all investments needed in transmission for infrastructure would create an additional 775,000 jobs during the period 2011-2020 and add EUR 19 billion to our GDP by 2020, compared to growth under a business-as-usual scenario.

CONTENT: this Communication outlines **a blueprint** which aims to provide the EU with a vision of what is needed for making our networks efficient. . It puts forward a new method of strategic planning which includes the following:

- identify the energy infrastructure map leading towards a European smart **supergrid interconnecting networks** at continental level;
- focus on a limited number of **European priorities which must be implemented by 2020** to meet the long-term objectives and where European action is most warranted;
- based on an agreed methodology, identify concrete projects necessary to implement these priorities (declared as projects of European interest);
- support the implementation of projects of European interest through new tools, such as improved regional cooperation, permitting procedures, better methods and information for decision makers and citizens and innovative financial instruments.

The Commission proposes the following short term priorities to make energy infrastructure suitable for the 21st century.

1) **Making Europe's electricity grid fit for 2020**. It is proposed to focus attention on the following priority corridors :

- offshore grid in the Northern Seas and connection to Northern as well as Central Europe – to integrate and connect energy production capacities in the Northern Seas with consumption centres in Northern and Central Europe and hydro storage facilities in the Alpine region and in Nordic countries;
- interconnections in South Western Europe to accommodate wind, hydro and solar, in particular between the Iberian Peninsula and France, and further connecting with Central Europe, to make best use of Northern African renewable energy sources and the existing infrastructure between North Africa and Europe;
- connections in Central Eastern and South Eastern Europe – strengthening of the regional network in North-South and East-West power flow directions, in order to assist market and renewables integration, including connections to storage capacities and integration of energy islands;
- completion of the BEMIP (Baltic Energy Market Interconnection Plan) – integration of the Baltic States into the European market through reinforcement of their internal networks and strengthening of interconnections with Finland, Sweden and Poland and through reinforcement of the Polish internal grid and interconnections east and westward.

2) Diversified gas supplies to a fully interconnected and flexible EU gas network. Three priority corridors have been identified:

Southern Corridor to diversify sources at the EU level and to bring gas from the Caspian Basin, Central Asia and the Middle East to the EU;

linking the Baltic, Black, Adriatic and Aegean Seas through in particular: (i) the implementation of BEMIP and (ii) the North-South Corridor in Central Eastern and South-East Europe;

North-South Corridor in Western Europe to remove internal bottlenecks and increase short-term deliverability, thus making full use of possible alternative external supplies, including from Africa.

3) **Ensuring the security of oil supply**: the aim of this priority is to ensure uninterrupted crude-oil supplies to land-locked EU countries in Central-Eastern Europe, currently dependent on limited supply routes, in case of lasting supply disruptions in the conventional routes. Diversification of oil supplies and interconnected pipeline networks would also help not to increase further oil transport by vessels, thus reducing the risk of environmental hazards in the particularly sensitive and busy Baltic Sea and Turkish Straits.

4) **Roll-out of smart grid technologies**: the aim of this priority is to provide the necessary framework and initial incentives for rapid investments in a new "intelligent" network infrastructure to support i) a competitive retail market, ii) a well-functioning energy services market which gives real choices for energy savings and efficiency and iii) the integration of renewable and distributed generation, as well as iv) to accommodate new types of demand, such as from electric vehicles. The Commission will set up a smart grids transparency and information platform.

The Commission goes on to set out certain objectives for the longer term networks, such as European Electricity Highways and a European CO2 transport infrastructure.

From priorities to projects: first project lists should be ready in the course of 2012. The projects identified would be examined at EU level to ensure consistency across the priorities and regions and ranked in terms of their urgency with regard to their contribution to the achievement of the priorities and Treaty objectives. Projects meeting the criteria would be awarded a 'Project of European Interest' label.

In order to improve preparation and implementation of the project, the Commission proposes regional cooperation between different countries. It also proposes creating a stable framework for financing by working on two fronts: (i) further improving the cost allocation rules and (ii) optimising the European Union's leverage of public and private funding.

Based on the views expressed by the institutions and stakeholders on this blueprint, the Commission intends to prepare in 2011, appropriate initiatives as part of its proposals for the next multiannual financial framework.

Energy infrastructure priorities for 2020 and beyond

2011/2034(INI) - 05/07/2011 - Text adopted by Parliament, single reading

The European Parliament adopted by 590 votes to 43, with 12 abstentions, a resolution on Energy infrastructure priorities for 2020 and beyond, in response to the communication on the same subject.

I. Strategic planning of energy infrastructure: Members believe that an **EU approach** – developed in cooperation with all stakeholders – is needed in order fully to exploit the benefits of new infrastructure, and stresses the need to develop a complementary harmonised method, in line with the rules of the internal market, for the selection of infrastructure projects. They consider that this method should take into consideration the European and regional perspectives in order to remove disparities and to optimise the socio-economic and environmental effects.

In this context, the resolution stresses that the planning of energy infrastructure projects should comply fully with the precautionary principle. Action plans should be subject to thorough environmental impact assessments on a case-by-case basis, taking into account local and regional environmental conditions. It stresses the need to ensure an adequate degree of security of energy supply for the EU, and to develop favourable relations with non-EU energy supplying and transit countries by means of cooperation in connection with regional and global energy supply transport systems.

According to the Parliament, the **reference scenario used for assessing the energy infrastructure for 2020 needs to be transparent and consistent**: (i) with the overall energy policy objectives enshrined in the Treaty on European Union and the EU's 2050 roadmap; (ii) with other EU policies (such as transport, buildings and the Emission Trading Scheme (ETS)), with the energy efficiency policies required to deliver the 20% energy savings target (in particular the energy efficiency plan), with the potential impact of technological advances, notably for renewable energy and the increasing role of electric vehicles, and with the deployment of smart grids and the 'smart cities and regions' initiatives.

Parliament welcomes the Commission's efforts to promote **regional cooperation** and calls for further guidance on such regional initiatives. It takes the view that regional initiatives should be expanded and further developed. It also emphasises that **cooperation between municipalities and regions** on a national and European level contributes to eliminating energy islands, to the completion of the internal energy market and to the implementation of energy infrastructure projects.

II. A comprehensive infrastructure development scenario: Parliament considers that the **Ten-Year Network Development Plan (TYNDP)** identifies relevant electricity and gas infrastructure projects and should contribute to setting the priorities for the selection of projects of European interest to be developed in order to achieve EU energy and climate goals, without interfering with the functioning of the internal market. The resolution points out that the geographical obstacles inherent in their location make islands and mountain areas very difficult to integrate into the EU energy network and therefore calls on the Commission to take into account the **diverse circumstances in the regions** and to focus expressly on regions with specific geographical and demographic characteristics, such as islands, mountain regions and regions with low population density, in order to achieve greater diversification of energy sources and the promotion of renewables so as to reduce dependence on imported energy.

According to Members, fostering the building of transmission and distribution infrastructure for efficient and intelligent integration of renewable energy and **new electricity uses** (such as electric or plug-in hybrid vehicles) is critical for the successful achievement of overall energy objectives. In this context, they welcome the priority given to the future European super-grid. The Commission is asked to consult all relevant stakeholders with a view to speeding up the identification of electricity highways as an integrated hub-based grid infrastructure in order to optimise connectivity, system resilience and operational flexibility and to reduce costs, without excluding any wider European geographical territory, and calls the Commission to present an outline to Parliament by mid-2014, which addresses as fully as possible the specific needs arising from the transmission of renewable energies.

The resolution endorses the importance of **efficient gas infrastructure in enhancing diversification and security of supply**, in contributing to better internal energy market functioning, and thus in reducing energy dependence. It highlights the need for additional and correct implementation of flexibility requirements in gas infrastructure, in particular with a view to ensuring reverse flows and interconnections, and stresses that gas infrastructure should be developed, with full account being taken of the contribution of LNG and CNG terminals, transport ships and storage facilities, as well as the development of gasified biomass and biogas.

Parliament urges the Commission to evaluate **unconventional gas sources**, taking into account legal issues, life-cycle assessment, available reserves, environmental impact and economic viability. It asks the Commission to conduct, on the basis of the principle of equal treatment of primary energy sources, a thorough evaluation of the potential benefits and risks of using unconventional gas sources in the EU.

Moreover, Parliament considers that, although the decarbonisation of the economy will lead to a progressive decrease in fossil energy use, oil will remain a significant part of EU energy supply for many years and therefore a **competitive European oil transport and refining infrastructure must be maintained** during the transition in order to ensure secure and affordable product supplies to EU consumers.

III. Smart grids: the resolution stresses that the roll-out of smart grids should be **one of the energy infrastructure priorities** with a view to achieving EU energy and climate objectives. It notes the need to create a **stable regulatory framework** in order to promote the very large investment needed in Europe to establish smart grids. The Commission is urged to facilitate the urgent deployment of large smart-grid demonstration projects as the best way to measure the costs and benefits to European society.

Members stress that **smart grid standardisation and interoperability shall be a priority**: Members States are urged, in liaison with European and international standardisation bodies and industry, to speed up work on technical and safety standards for electric vehicles, charging infrastructure, smart grids and **smart metering**, with a view to its completion by the end of 2012. Technologies should be based on open international standards so as to ensure their cost-effectiveness, which will enhance the interoperability of the system and will provide consumers with a choice of solutions.

Members stress that grids should be adapted for new entrants, in order to facilitate small-scale new production sources, such as households and SMEs.

IV. Defining clear and transparent criteria for priority projects: Parliament welcomes the priority corridors identified by the Commission and agree on the need to optimise limited funds. It calls for a clear and transparent methodology leading to the selection of priority projects that meet pressing European needs and emphasises that the selection of projects of European interest (PEIs) should be conducted on the basis of objective and transparent criteria and with the involvement of all stakeholders.

Parliament recalls that PEIs should should be capable of contributing substantially to:

- increasing market integration, competition and market liquidity and reducing market concentration,
- putting an end to energy islands,
- reducing network losses, preventing transmission bottlenecks – including in respect of internal projects as long as they contribute to the development of cross border interconnection – and relieving cross-border transmission,
- resolving single supplier dependency,
- diversification with regard to transit routes and the origin of resources,
- integration of renewable energy to the grid and increasing the use of renewable energy sources by reducing renewable energy curtailment.

Members consider that, to justify projects being accorded priority, the **following criteria should be taken into account**:

- the project must have a European dimension (= clear EU public interest),
- its necessity must be demonstrated on the basis of the infrastructure hierarchy,
- it must be in line with climate, energy efficiency and environmental objectives,
- it must be consistent with long-term EU energy policy (allowing flexible and multifunctional application and avoiding lock-in effects),
- it must offer a good cost-benefit ratio and cost efficiency,
- it must be technically sound.

V. Fast and transparent permit-granting procedures: Parliament welcomes the establishment of a national contact authority (**one-stop shop**) for each European interest project as a single administrative interface between developers and the various authorities involved in the authorisation procedure. Members take the view that, with regard to cross-border projects, further coordination between national one-stop shops and an increased role for the Commission in such coordination should be ensured. They stress that any national contact authority must be **independent and free from political or economic influence**. In addition, PEIs must be processed in order of submission and within the time limit set out in the future Commission proposal.

The resolution stresses the need for a more **participatory approach**, and recognises that securing greater acceptance by local people of energy infrastructure projects goes hand in hand with providing adequate information about the purpose of the projects, and with local involvement in their development at the earliest possible stage. It calls for the participation, at all levels of civil society, of NGOs, industry, the social partners and consumer organisations in the consultation process for projects of European interest. The Commission is called upon to set up a consultation and assessment system in order to identify and disseminate best practices and knowledge in relation to public acceptance of infrastructure.

VI. Financing instruments: Parliament stresses that the **effective functioning of the market** should provide a large part of the cost of the requisite infrastructure investment, on the basis of principles of proper cost-allocation, transparency, non-discrimination and cost-effectiveness and in line with the ‘user pays’ principle. The Commission is requested to assess where the existing regulatory incentives are sufficient to send the necessary signals to the market, and what complementary measures, including those improving cost allocation rules, are needed.

Members take the view that, when **no regulatory alternative is available** and the market alone can not cover the investments needed, **EU funding may be required** to fund some limited PEIs the specific characteristics of which make them commercially unviable but the development of which is

necessary to achieve EU energy policy objectives. Public funding may be used to lever private investment by setting up an innovative mix of financial instruments, provided that it does not distort competition.

Parliament considers that the **fullest possible use should be made of market-based tools**, including improvements to rules on cost allocation, project bonds, revolving funds, renewable energy equity funds, loan guarantees, non-commercial risk-sharing facilities, incentives for funding public-private partnerships, partnerships with the EIB – by improving its intervention capacity and available resources – and use of ETS auction revenue for projects linked to renewable energy sources and energy efficiency, as well as, **where appropriate, other innovative financing instruments**.

Lastly, Parliament supports the idea of issuing common European project bonds to finance Europe’s significant infrastructure needs and structural projects in the framework of the EU 2020 agenda, including the new Strategy on Energy Infrastructure Development.

Energy infrastructure priorities for 2020 and beyond

2011/2034(INI) - 10/06/2011

The Commission informed the Council about this topic as requested by the European Council of 4 February 2011, during which the Commission was invited to report by June 2011 to the Council on figures for the investments likely to be needed, on suggestions as to how to respond to financing requirements and on how to address possible obstacles to infrastructure investment.

The Commission's report contains its analysis with regard to the investment needs of European relevance in electricity (about EUR 140 billion) and gas infrastructures (about EUR 70 billion) for the period up to 2020, the investments at risk of not being delivered due to various obstacles as well as the measures proposed to respond to the financing requirements and overcome the obstacles identified.

A Commission's legislative proposal in this field is expected to be presented in October 2011.