



Procedure file

Basic information		
INI - Own-initiative procedure	2008/2005(INI)	Procedure completed
European strategic energy technology plan		
Subject		
3.50.01.05 Research specific areas		
3.50.08 New technologies; biotechnology		
3.60 Energy policy		
3.60.05 Alternative and renewable energies		
3.70.02 Atmospheric pollution, motor vehicle pollution		

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	ITRE Industry, Research and Energy		30/01/2008
		PPE-DE BUZEK Jerzy	
	Committee for opinion	Rapporteur for opinion	Appointed
	ENVI Environment, Public Health and Food Safety		17/03/2008
		PSE AYALA SENDER Inés	
Council of the European Union	Council configuration	Meeting	Date
	Competitiveness (Internal Market, Industry, Research and Space)	2871	29/05/2008
	Transport, Telecommunications and Energy	2854	28/02/2008
	Competitiveness (Internal Market, Industry, Research and Space)	2852	25/02/2008
European Commission	Commission DG	Commissioner	
	Energy and Transport	PIEBALGS Andris	

Key events			
22/11/2007	Non-legislative basic document published	COM(2007)0723	Summary
17/01/2008	Committee referral announced in Parliament		
25/02/2008	Debate in Council	2852	Summary
28/02/2008	Resolution/conclusions adopted by Council		Summary
29/05/2008	Resolution/conclusions adopted by Council		
05/06/2008	Vote in committee		Summary

13/06/2008	Committee report tabled for plenary	A6-0255/2008	
08/07/2008	Debate in Parliament		
09/07/2008	Results of vote in Parliament		
09/07/2008	Decision by Parliament	T6-0354/2008	Summary
09/07/2008	End of procedure in Parliament		

Technical information

Procedure reference	2008/2005(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/6/58000

Documentation gateway

Non-legislative basic document		COM(2007)0723	22/11/2007	EC	Summary
Document attached to the procedure		SEC(2007)1508	22/11/2007	EC	
Document attached to the procedure		SEC(2007)1509	22/11/2007	EC	
Document attached to the procedure		SEC(2007)1510	22/11/2007	EC	
Document attached to the procedure		SEC(2007)1511	22/11/2007	EC	
Committee draft report		PE404.506	17/03/2008	EP	
Amendments tabled in committee		PE405.769	08/05/2008	EP	
Committee opinion	ENVI	PE405.868	03/06/2008	EP	
Committee report tabled for plenary, single reading		A6-0255/2008	13/06/2008	EP	
Text adopted by Parliament, single reading		T6-0354/2008	09/07/2008	EP	Summary
Commission response to text adopted in plenary		SP(2008)4891	27/08/2008	EC	
Commission response to text adopted in plenary		SP(2008)5307	29/09/2008	EC	

European strategic energy technology plan

PURPOSE: to present a European Strategic Energy Technology Plan (SET-Plan).

BACKGROUND: The inter-related challenges of climate change, security of energy supply and competitiveness are multifaceted and require a coordinated response. A wide range of policies and measures are being developed to combat these challenges: i) binding targets to reduce greenhouse gas emissions by 20% and ensure 20% of renewable energy sources in the EU energy mix by 2020; ii) a plan to reduce EU global primary energy use by 20% by 2020; iii) carbon pricing through the Emissions Trading Scheme and energy taxation; iv) a competitive Internal Energy Market; v) and an international energy policy. Now we need a dedicated policy to accelerate the development and deployment of cost-effective low carbon technologies.

Harnessing technology is vital to achieve the Energy Policy for Europe objectives adopted by the European Council on 9 March 2007. To meet the targets, we need to lower the cost of clean energy and put EU industry at the forefront of the rapidly growing low carbon technology sector. In the longer term, new generations of technologies have to be developed through breakthroughs in research if we are to meet the greater

ambition of reducing our greenhouse gas emissions by 60-80% by 2050.

Current trends and their projections into the future show that we are not on a pathway to meet our energy policy objectives. The energy innovation process, from initial conception to market penetration, suffers from unique structural weaknesses. There is neither a natural market appetite nor a short-term business benefit for such technologies. In addition, public energy research budgets in the EU have declined substantially since the 1980s.

It is evident that many of the technological challenges that can be addressed by an EU energy policy are beyond the reach of the instruments and models of cooperation that are currently being used. Bearing this in mind, the Commission proposes a new approach based more on the development of joint programmes, and making use of the full potential of the European Research and Innovation Area and the Internal Market.

CONTENT: the SET-Plan proposes to deliver: i) a new joint strategic planning; ii) a more effective implementation; iii) an increase in resources; iv) and a new and reinforced approach to international cooperation.

Joint Strategic Planning: To steer the implementation of the SET-Plan, reinforcing the coherence between national, European and international efforts, the Commission will, in early 2008, establish a Steering Group on Strategic Energy Technologies. The mandate of the group will be to conceive joint actions, through coordinating policies and programmes, make resources available and monitor and review progress in a systematic manner, in order to reach common objectives. The Commission will also introduce an information system aimed at establishing a precise overview of energy technologies throughout Europe.

Collaboration at Community level: The Commission proposes to launch new priority initiatives, starting in 2008, in the following areas: i) European Wind; ii) Solar Europe; iii) Bio-energy Europe; iv) European CO₂ capture, transport and storage; v) European electricity grid; vi) and Sustainable nuclear fission initiatives. The Commission proposes to create a European Energy Research Alliance and to initiate, in 2008, an action on European energy infrastructure networks and systems transition planning.

Resources: In order to address the need to increase investment, the Commission intends to present a Communication on financing low carbon technologies at the end of 2008. This Communication will examine, in particular, the opportunity of creating a new European mechanism/fund for the industrial-scale demonstration and market replication of advanced low carbon technologies and will consider the costs and benefits of tax incentives for innovation. The Commission will use the Marie Curie Actions of the Research Framework Programme to boost the training of researchers in the energy field. Member States' own actions to increase the human resource base should also be better coordinated.

International Cooperation: International cooperation, for example on research or the setting of international standards, is vital to stimulate the global development, commercialisation and deployment of, and access to, low carbon technologies. The measures proposed in the SET-Plan should bring about a reinforced international cooperation strategy. It is also important to ensure that the EU increasingly speaks with one voice in international fora, to achieve a more coherent and stronger partnership effect.

Moving forward: the Commission calls on the Council and Parliament to: 1) reaffirm that energy technology forms a fundamental pillar of Europe's Energy and Climate Change policies, and is vital to achieve decarbonisation targets; 2) endorse a Community objective to jointly and strategically plan energy research and innovation efforts in alignment with EU energy policy goals; 3) confirm that a better and more effective implementation of current energy research and innovation efforts is fundamental; 4) confirm that a better use of and overall increase in resources, both financial and human, are needed to accelerate the development and deployment of low-carbon technologies of the future; 5) welcome the Commission's intentions to prepare in 2008 a Communication on financing low carbon technologies; and 6) agree on the need to reinforce international cooperation.

European strategic energy technology plan

The Council held an exchange of views on the strategic energy technologies action plan (SET-plan). The exchange of views, based on a questionnaire drawn up by the presidency, focussed on energy-related research as well as on the impact of the plan on the competitiveness of European industry.

The debate revealed a broad consensus on the importance of the SET-plan in order for the EU to be a leading actor in this area and on the new opportunities that it might represent for European companies. Research in this field could also significantly contribute to the reduction of greenhouse gas emissions.

Conclusions on the SET-plan will be adopted at the Transport, Telecommunications and Energy Council meeting on 28 February, with a view to providing input for the Spring European Council.

The conclusions are based on a Commission communication presented last year in response to a request from the 2007 Spring European Council, where it was recognised that there was a need to step up energy research, in particular to boost the competitiveness of sustainable energies, notably renewables, and low carbon technologies and to pursue the further development of energy efficient technologies.

European strategic energy technology plan

The Council adopted Conclusions in which it welcomes the presentation of the Communication "A European Strategic Energy Technology Plan (SET Plan)" by the Commission, in response to an invitation by the Spring 2007 European Council.

The Council notes that a European Energy Technology policy is an essential element for the achievement of the European Union's ambitious energy and climate goals for 2020. This policy should increase synergies at Community level and should take into account existing cooperation structures in energy technology Research, Development, Demonstration and Deployment (RDD&D).

This policy requires increased and sustained funding, for RDD&D on clean, sustainable and efficient energy technologies including "market pull" measures in areas where the incentives for the private sector are not sufficient. The full engagement of the private sector is essential. Therefore, industry, investors, innovators and researchers must be provided with a stable and predictable policy framework which gives clear signals, regulatory certainty and transparency and concrete commitments, at European as well as national level, so as to allow them to plan and decide in the medium- and long-term.

The Council therefore suggests the following goals and actions:

1. to set up the six priority Industrial Initiatives as proposed by the Commission, and launch each one of them as soon as possible. These initiatives should be of a voluntary nature, and can take the form of public-private partnerships or of joint programming by groups of interested Member States. Proposals for these initiatives should demonstrate their cost-effectiveness and added value. The Commission is encouraged to continue to examine areas with great potential such as marine energy, energy storage and energy efficiency;
2. to further increase efforts on energy efficiency by supporting and stimulating RDD&D on end-use technologies;
3. to set up by the summer of 2008 a group of high level government representatives from each Member State (the "High Level Steering Group"), which convenes in order to exchange information and propose options for an optimisation of overall energy RDD&D efforts;
4. to establish a structured dialogue between research centres leading to a European Energy Research Alliance; to search for ways and means to include other stakeholders, for example by means of a European Energy Technology Summit;
5. to aim for substantial increases in European, and when appropriate, national funding for energy RDD&D;
6. to improve and enlarge the Community's world-class knowledge base of energy researchers and research institutes ("capacity building"), including by reducing barriers to mobility, attracting world-class human capital and improving science education;
7. to develop, where appropriate, covenants between government, industry and researchers for different types of energy-producing and energy-saving technologies, in support of the objectives of the SET-Plan;
8. to make policies and measures, including Community programmes in all relevant areas such as research, state aid, agriculture, transport and public procurement, supportive of the achievement of the energy and climate change goals agreed by the Spring 2007 European Council;
9. to further promote international cooperation on RD&D on clean energy technologies, by developing differentiated strategies and building upon ongoing cooperation with third countries, where mutual interest and benefits exist.

In this context, the Commission is invited to:

- in 2008, start work on the above agreed goals, in close consultation and cooperation with Member States and other relevant actors, including by preparing a Communication on financing low carbon technologies, and by engaging in planning and preparatory steps for the transition to low carbon energy networks and systems;
- review the Strategic Energy Technology Plan at regular intervals, and to establish as a matter of priority an open-access European energy technology information and knowledge management system;
- implement, where appropriate, the relevant Community Programmes in support of the goals of the SET Plan, respecting fully their respective legal bases.

European strategic energy technology plan

The Committee on Industry, Research and Energy adopted an own-initiative report by Jerzy BUZEK (EPP-ED, PL) on the European Strategic Energy Technology Plan, in response to the Commission's Communication on the subject.

MEPs welcome the European Strategic Energy Technology (SET) Plan. They consider that a European energy technology policy with adequate financial support is fundamental to achieving the EU's energy and climate change objectives for 2020. They believe that the development and deployment of innovative, low-cost, low-carbon energy technologies, energy efficiency and renewable energy are essential to reducing emissions and creating new markets for EU industry.

The parliamentary committee considers that in order to achieve these targets it is vital to reduce the cost of green energy and to boost innovation in the energy sector. To that end, they recommend improving the process of technology transfer from research centres to enterprises, cutting market penetration times, ending the current technological and regulatory inertia and enhancing network interconnectivity.

Coordination and Strategic Planning: the report emphasises the need to enhance the coordination of Strategic Energy Technologies at various levels and among different partners. It supports the establishment of a High Level Steering Group and a transparent and easily accessible information system on energy technology, especially for SMEs. MEPs also emphasise the vital importance of improving coordination with third countries, particularly emerging economies.

Research and technology transfer: MEPs reiterate that the SET plan must build energy research and innovation capacity on a European scale. Coordination must extend to the various scientific and technological fields that play a part in energy technology research and development, particularly biology, information technology, materials science and macro-technologies. The report emphasises the need to improve the transfer of technologies from research centres to enterprises so that the private sector invests more in research and assumes greater risks.

European Industrial Initiatives (EIs): MEPs believe that increased support is needed for low carbon technologies in the demonstration and commercialisation phase. Therefore, they welcome the proposed EIs. The EIs should be focussed on areas which have the greatest potential to help achieve the EU's climate change, energy efficiency and renewable energy objectives on a sustainable basis, as well as allowing reduced costs and replication in the long term.

The parliamentary committee calls for biofuels research to be intensified and notes the importance of developing large scale biomass to gas conversion to produce hydrogen and liquid synthetic fuels for sustainable transport technologies. The Commission is called to investigate the possibility of extending the proposed EIs to other sectors with significant emissions reduction potential such as cogeneration, hydrogen, the construction and housing sector, heating and cooling systems, better energy storage and distribution infrastructures and interconnection of networks.

MEPs believe that the development of carbon capture and storage (CCS) technology could play a role in reducing greenhouse gas emissions,

provided its efficiency and safety is assured. They call on the Commission to facilitate the realisation of up to 12 proposed CCS full-scale demonstration projects within the EIs.

Financing: the report points out that the SET plan should not be financed through the reallocation of funds made available for energy under FP7 and CIP. MEPs encourage the Commission to ensure adequate financing and support for new low carbon and zero carbon technology R&D, demonstration and commercialisation, so that from 2009 onwards, at least EUR 2 billion per annum of the EU budget is spent on support for such technologies independently from FP7 and CIP. The Commission is called to put forward proposals for additional resources in the mid-term review of the financial framework 2007-2013.

European strategic energy technology plan

The European Parliament adopted by 596 votes to 85, with 14 abstentions, a resolution on the European strategic energy technology plan (SET-Plan), in response to the Commission's communication on the subject. The own initiative report had been tabled for consideration in plenary by Jerzy BUZEK(EPP-ED, PL) on behalf of the Committee on Industry, Research and Energy.

MEPs welcome the European Strategic Energy Technology plan and consider that a European energy technology policy with adequate financial support is fundamental to achieving the European Union's energy and climate change objectives for 2020. They believe that the development and deployment of innovative, low-cost, low-carbon energy technologies, energy efficiency and renewable energy are essential to reducing emissions and creating new markets for EU industry. The Parliament considers that in order to achieve these targets it is vital to reduce the cost of green energy and to boost innovation in the energy sector. To that end, it recommends improving the process of technology transfer from research centres to enterprises, cutting market penetration times, ending the current technological and regulatory inertia and enhancing network interconnectivity.

Coordination and Strategic Planning: the resolution emphasises the need to enhance the coordination of Strategic Energy Technologies at various levels and among different partners. MEPs support the establishment of a High Level Steering Group and a transparent and easily accessible information system on energy technology, especially for SMEs. They also emphasise the vital importance of improving coordination with third countries, and reinforcing international cooperation in order to implement a coherent and differentiated strategy in relation to developed, developing and emerging economies.

Research and technology transfer: MEPs reiterate that the SET plan must build energy research and innovation capacity on a European scale. Coordination must extend to the various scientific and technological fields that play a part in energy technology research and development, particularly biology, information technology, materials science and macro-technologies. The resolution emphasises the need to improve the transfer of technologies from research centres to enterprises so that the private sector invests more in research and assumes greater risks.

European Industrial Initiatives (EIs): MEPs believe that increased support is needed for low carbon technologies in the demonstration and commercialisation phase. Therefore, they welcome the proposed EIs. The EIs should be focussed on areas which have the greatest potential to help achieve the EU's climate change, energy efficiency and renewable energy objectives on a sustainable basis, as well as allowing reduced costs and replication in the long term.

The resolution strongly supports the proposed EIs on wind, solar, bio-energy, CO₂ capture, transport and storage, electricity grids and nuclear fission. In particular, MEPs call for biofuels research to be intensified and stress the importance of developing large-scale biomass to gas conversion to produce hydrogen and liquid synthetic fuels for sustainable transport technologies. The Commission is called to investigate the possibility of extending the EIs proposed to other sectors with significant emissions reduction potential such as cogeneration, hydrogen, the construction and housing sector, heating and cooling systems, better energy storage and distribution infrastructures and interconnection of networks.

MEPs believe that the development of carbon capture and storage (CCS) technology could play a role in reducing greenhouse gas emissions, provided its efficiency and safety is assured. They call on the Commission to facilitate the realisation of up to 12 proposed CCS full-scale demonstration projects within the EIs.

Financing: the resolution points out that the SET plan should not be financed through the reallocation of funds made available for energy under FP7 and CIP. MEPs encourage the Commission to ensure adequate financing and support for new low carbon and zero carbon technology R&D, demonstration and commercialisation, so that from 2009 onwards, at least EUR 2 billion per annum of the EU budget is spent on support for such technologies independently from FP7 and CIP. The Commission is called to put forward proposals for additional resources in the mid-term review of the financial framework 2007-2013.