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REPORT

on supporting early demonstration of sustainable power generation from fossil fuels
(2008/2140(INI))

Committee on Industry, Research and Energy

Rapporteur: Christian Ehler

Rapporteur for opinion (*):
Guyla Hegyi, Committee on the Environment, Public Health and Food Safety

(*) Associated committee - Rule 47 of the Rules of Procedure

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(*) Associated committee - Rule 47 of the Rules of Procedure

MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on supporting early demonstration of sustainable power generation from fossil fuels (2008/2140(INI))

The European Parliament,

- having regard to the Commission Communication of 23 January 2008 on supporting early demonstration of sustainable power generation from fossil fuels (COM(2008)0013) and the accompanying Commission staff working document on impact assessment (SEC(2008)0047),
- having regard to the proposal for a directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community (COM(2008)0016) and the accompanying Commission staff working document on impact assessment (SEC(2008)0052),
- having regard to the proposal for a directive of the European Parliament and of the Council on the geological storage of carbon dioxide and amending Council Directives 85/337/EEC, 96/61/EC, Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC and Regulation (EC) No 1013/2006 (COM(2008)0018) and the accompanying Commission staff working document on impact assessment (SEC(2008)0054),
- having regard to the Commission Communication of 22 November 2007 entitled A European strategic energy technology plan (SET-Plan): Towards a low carbon future (COM(2007)0723) and the accompanying Commission staff working documents on a technology map (SEC(2007)1510) and a capacities map (SEC(2007)1511), for the European Strategic Energy Technology Plan,
- having regard to the Commission Communication of 23 January 2008 entitled 20-20 by 2020: Europe's climate change opportunity (COM(2008)0030),
- having regard to the Commission Communication of 10 January 2007 entitled An energy policy for Europe (COM(2007)0001),
- having regard to Decision No 1982/2006/EC of the European Parliament and of the Council of 18. December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 - 2013)¹,
- having regard to Rule 45 of its Rules of Procedure,
- having regard to the report of the Committee on Industry, Research and Energy and the opinion of the Committee on the Environment, Public Health and Food Safety

¹ OJ. L 412, 30.12.2006, p. 1.

(A6-0418/2008),

- A. whereas according to the latest scientific and technological findings, without massive research and development investment in other technologies, the use of fossil fuels within the EU , will continue to be necessary for some decades to come to ensure security of supply,
- B. whereas coal is the only fossil fuel available in the EU which is capable of curbing the growing dependence on oil and gas imports from unstable third countries, and, as such, has strategic significance,
- C. whereas, while in many Member States coal plays a major role in the energy mix, coal-fired power stations require major modernisation and investment to reduce the generation of greenhouse gas emissions,
- D. whereas many Member States possess large coal reserves which, it is estimated, will last well into the next century,
- E. whereas the widespread use of carbon dioxide capture and storage (CCS) technologies, - in power stations and also on a long term basis in industrial sectors with large CO₂ emissions, - could help in the attainment of ambitious EU climate targets beyond 2020, and the use of these technologies complements energy efficiency efforts on the supply and demand side and in the field of renewable energies,
- F. whereas, in many growing economies in the world, energy production depends on coal and any climate policy achievements in those regions are very closely linked to the possibility of using coal with reduced emissions,
- G. whereas the use of CCS technologies in power stations from 2020 will only be possible if demonstration projects produce new and necessary developments in technology ,and improvements in efficiency and economic viability whilst at the same time ensuring respect for the environment,
- H. whereas delays in constructing demonstration facilities cast into doubt the use of CCS technologies in power stations and thus the attainment of climate policy targets,
- I. whereas there is as yet no suitable and necessary legislative framework for the use of CCS technologies,
- J. whereas existing Community legislation at in this area must be transposed as soon as possible by national or regional legislation and must be supplemented by new legislative proposals, particularly as regards the establishment of transport infrastructures,
- K. whereas the lack of legislation makes it difficult for undertakings to take investment decisions and for potential investors to act in the financial markets,
- L. whereas the construction of at least 12 demonstration facilities must be supported, and demonstration projects for at EU level should be selected on the basis of whether they will provide the necessary findings as regards individual technologies and the various

transport and storage options,

1. Underlines that the aim of EU climate policies should be the worldwide reduction of greenhouse gas emissions;
2. Recalls the 2005 Special Report on CCS by the Intergovernmental Panel on Climate Change (IPCC) which identified CCS as a promising technology for the rapid reduction of global greenhouse gas emissions, with the potential to achieve a reduction of up to 55% by 2100;
3. Recognises that the use of CCS technologies can contribute to attaining the EU's stated climate targets after 2020; points out however that support for the use of CCS technologies complements the efforts being made in improving energy efficiency and increasing the use of renewable energies;
4. Recalls the commitment by the European Council of 8 and 9 March 2007 to stimulate the construction and operation by 2015 of up to 12 demonstration facilities for sustainable fossil fuel technologies in commercial power generation;
5. Stresses the need to ensure that national debates are held, and all specialists in the area are involved, in conveying the importance of the early demonstration of sustainable power generation from fossil fuels;
6. Endorses the view that the construction of at least 12 demonstration facilities within the EU is necessary in order to achieve the desired use of CCS technologies in power stations and to secure CO₂ storage from 2020; takes the view in this context that if possible, the demonstration of CCS technologies shall also be supported in other industrial facilities before 2020; points out that the demonstration of CCS processes in the capture, transport, and storage phases, needs to establish whether the CCS technologies can be used safely and whether they are a cost-effective solution to the problem of climate change;
7. Views the further development and use of CCS technologies as a means of making progress towards achieving at the same time the objectives of security of supply, climate protection and competitiveness;
8. Takes the view that in the light of the role played by fossil fuels in the energy mix of many countries worldwide, CCS technologies in the EU could, in addition to the efforts being made to increase energy efficiency and the use of renewable energies, contribute to achieving security of supply and climate protection ;
9. Stresses that binding and strict criteria should be set for the long term safety and permanence of storage sites;
10. Considers that storage under the seabed can, in the event of accidents, endanger marine ecosystems;
11. Takes the view that the measures unveiled by the Commission are not sufficient to provide the desired incentives for constructing at least 12 demonstration facilities by 2015;

12. Calls on the Commission to produce a detailed assessment of the cost of, and the share of private and public funding in, each of the 12 demonstration facilities;
13. Considers that a direct financial commitment is necessary in order to ensure that 12 demonstration facilities are constructed;
14. Points out that investment decisions and capital acquisition on financial markets for demonstration facilities are made more difficult by the absence of a legislative framework, in particular at national and regional level, and by uncertainties about future movements in emission trading allowance prices;
15. Takes the view that the time delay between the potential support from emissions trading from 2013, and the necessary planning and construction phase of demonstration facilities, can be overcome by making financial resources available;
16. Proposes in this connection that the risk sharing finance facility resources held back after the adoption of the Seventh Framework Research Programme until the mid-term review, should be committed for CCS demonstration facilities so as to make resources available promptly to support these projects and, if possible, to supplement them with other funds in cooperation with the European Investment Bank, as envisaged by the Commission;
17. Considers furthermore that, in connection with the EU emission trading scheme (EU ETS), incentives for CCS technology production should be increased, by allocating, within the EU ETS, allowances for anticipated CCS technology production with an increase of at least 25 % from 2013, but considers further that such allowances should be allocated at least two years prior to construction so that they can be traded; considers alternatively, that an allocation of 500 million emission trading allowances for the support of the projects within the EU should be envisaged; furthermore encourages the Member States to use proceeds from auctioning emission allowances in the framework of the EU ETS to support CCS technologies and the necessary infrastructure;
18. Considers it imperative that at least the 12 demonstration facilities earmarked for assistance should cover all possible combinations of the three CCS technologies with the various energy sources and storage options and for these facilities to be sited with a view to maximum geographical spread across the European Union;
19. Strongly recommends that power station projects with a proposed minimum output of 180 MW, be included in the selection;
20. Takes the view that the necessary basis for authorisation procedures for transport and storage should be created forthwith at national and regional level;
21. Regards as necessary an additional EU commitment on facilitating development of the necessary transport infrastructure, and notes in this regard the authorisation procedures in individual Member States for other transport infrastructures which can last for years, and in this connection points to the importance of shortening such procedures to ensure construction by 2020;
22. Regards the use of structural fund resources for CCS demonstration facilities as an option

only if individual regions have not yet committed the appropriations or submitted proposals for other long-term projects, and emphasises that the acceptance of climate protection efforts will decrease if appropriations for improving economic and social cohesion have to compete with climate protection measures;

23. Instructs its President to forward this resolution to the Council and Commission and the governments and parliaments of the Member States.

EXPLANATORY STATEMENT

In submitting the communication entitled 'Supporting early demonstration of sustainable power generation from fossil fuels' the Commission has provided a basis for discussing policy measures ranging from incentives to improve public acceptance of the technology, to providing the necessary legislative framework or removing legal obstacles and providing support through emissions trading, the EIB or the Structural Funds.

There is general agreement that the European Union will only be able to attain its ambitious climate policy targets after 2020 if it succeeds in ensuring broad use of CCS technologies in power stations. Any delays in the demonstration projects will lead to delays in deployment after 2020.

Coal, given its importance in providing affordable energy prices and security of supply for the population of Europe, is an indispensable component of the energy mix, and the use of coal in a way which does not damage the climate must be promoted.

The rapporteur recognises that the problem with the measures proposed by the Commission is that they will not be available in time to push ahead with completion of the demonstration projects by 2015. Moreover, investment decisions for CCS demonstration facilities and the acquisition of financial resources will be stymied by the absence of a legislative framework. While adoption of the directive on geological storage is currently being pushed ahead with at European level, there is generally a lack of corresponding initiatives at national or regional level, in particular as regards the necessary transport infrastructure

In this draft report, support is advocated for constructing at least 12 demonstration plants with a minimum output of 200 MW. To do so, rapid progress is needed in drawing up and adopting the legislation both on geological storage and on transport infrastructure. Financial incentives must also be provided before 2013. The RSFF appropriations, EUR 500 million of which have been held back by Parliament until the mid-term review, could suitably be earmarked in future for CCS demonstration facilities. With EIB co-financing, EUR 1 billion could be available. Moreover, more use than hitherto planned could be made of the ETS through the earlier allocation of allowances to support demonstration facilities.

It must be ensured during the process of selecting demonstration projects to receive EU aid that the chosen projects hold out the prospect that the necessary findings in respect of individual technologies and the various transport and storage options will be produced. The projects selected should therefore cover the possible combinations of the three CCS technologies with the various energy sources and storage options.

9.10.2008

OPINION OF THE COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND FOOD SAFETY (*)

for the Committee on Industry, Research and Energy

on Supporting Early Demonstration of Sustainable Power Generation from Fossil Fuels
(2008/2140(INI))

Rapporteur (*): Gyula Hegyi

(*) Associated committees - Rule 47 of the Rules of Procedure

SUGGESTIONS

The Committee on the Environment, Public Health and Food Safety calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following suggestions in its motion for a resolution:

1. Underlines that the aim of European climate policies should be the worldwide reduction of greenhouse gas emissions;
2. Recalls the 2005 Special Report on Carbon Dioxide Capture and Storage (CCS) by the Intergovernmental Panel on Climate Change (IPCC) which identified CCS as a promising technology for the rapid reduction of global greenhouse gas emissions, with the potential to achieve a reduction of up to 55% by 2100;
3. Recalls that most forecasts project that primary energy supply will continue to be dominated by fossil fuels until at least the middle of the century and that therefore CCS is a complementary technology for achieving the required CO₂ emission reductions by 2050 along with progress in energy efficiency and the development of renewable energies;
4. Recalls the commitment by the European Council of 8 and 9 March 2007 to stimulate the construction and operation by 2015 of up to 12 demonstration plants of sustainable fossil fuel technologies in commercial power generation;
5. Considers that although CCS is an end-of-pipe technology, it can form part of European

climate policies under the condition that safety and environmental integrity can be guaranteed throughout the chain; stresses, however, that it should not lead to a decrease in energy efficiency measures and renewable energy investments;

6. Stresses that binding, strict criteria should be set for the long term safety and permanence of storage sites;
7. Stresses that early CCS demonstration at industrial scale in the EU is critical to bringing environmentally safe CCS to wide commercial deployment from 2020 worldwide;
8. Considers that storage under the seabed can, in case of accident, endanger the marine ecosystems;
9. Considers that, due to its high technical and financial costs, CCS may contribute to an energy structure with a few very large power plants, although small decentralised plants with cogeneration are better suited to reaching a 20 per cent growth in energy efficiency in Europe;
10. Considers that CCS reduces the efficiency of power plants;
11. Considers it both rational and essential for wider use to be made in the coal-based energy sector of the latest low-emission coal-burning technologies, which ensure highly efficient energy production and have a significantly lower impact on the environment;
12. Underlines that increasing coal combustion will lead to further air pollution, including sulphur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), dust and mercury emissions;
13. Points out that there is no existing Best Available Technique (BAT) Reference Document (BREF) on CCS, under the Integrated Pollution Prevention and Control (IPPC) Directive; stresses, therefore, that before 2015 a horizontal BREF will need to be presented on CCS;
14. Considers that the use of CCS should be a result of competition with other carbon control means under the agreed caps of GHG emissions, and that CCS should not be subsidised; believes that CCS installations should be financed by the power sector whenever it is the most feasible solution to reduce CO₂ emissions;
15. Considers that CCS is an energy technology driven by the need to combat climate change and that its economic viability is entirely dependent on the CO₂ price; believes that the EU Emissions Trading Scheme (ETS) is therefore a suitable instrument for establishing a transitional Project Demonstration Mechanism providing the necessary incentives to allow early investment in the CCS demonstration programme;
16. Proposes that the EU ETS Directive establish a reserve of up to 500 million allowances to be awarded to large-scale commercial demonstration projects that are undertaking the capture and geological storage of carbon dioxide in the territory of the EU;
17. Calls on the Commission to bring forward the necessary legislative proposals to establish the procedures for the identification and approval of the demonstration projects, and the

award of allowances to demonstration projects taking into consideration the following criteria:

- ensuring the development of a wide range of CCS technologies at best value cost and in geographically balanced locations across the EU;
- allowances should be awarded against the verified geological storage of CO₂;
- a higher incentive should be provided for earlier movers and for the more complex technology, and/or transport and storage configurations;
- ensuring that demonstration projects balance the need for cost recovery and avoid the risk of windfall profits, exploring the potential intermediary role of the European Investment Bank in this area;
- the operation of the project demonstration mechanism should be limited in time and volume so as not to provide a long-term support for the industry.

RESULT OF FINAL VOTE IN COMMITTEE

Date adopted	7.10.2008
Result of final vote	+: 39 -: 10 0: 4
Members present for the final vote	Adamos Adamou, Margrete Auken, Liam Aylward, Pilar Ayuso, Irena Belohorská, Johannes Blokland, John Bowis, Frieda Brepoels, Hiltrud Breyer, Martin Callanan, Magor Imre Csibi, Avril Doyle, Mojca Drčar Murko, Jill Evans, Anne Ferreira, Elisabetta Gardini, Matthias Groote, Satu Hassi, Gyula Hegyi, Jens Holm, Marie Anne Isler Béguin, Christa Klauß, Eija-Riitta Korhola, Urszula Krupa, Peter Liese, Jules Maaten, Marios Matsakis, Linda McAvan, Roberto Musacchio, Riitta Myller, Péter Olajos, Miroslav Ouzký, Vladko Todorov Panayotov, Vittorio Prodi, Frédérique Ries, Guido Sacconi, Daciana Octavia Sârbu, Amalia Sartori, Richard Seeber, Bogusław Sonik, María Sornosa Martínez, Salvatore Tatarella, Antonios Trakatellis, Evangelia Tzampazi, Thomas Ulmer, Anja Weisgerber, Åsa Westlund, Glenis Willmott
Substitute(s) present for the final vote	Iles Braghetto, Bairbre de Brún, Caroline Lucas, Miroslav Mikolášik
Substitute(s) under Rule 178(2) present for the final vote	Dieter-Lebrecht Koch

RESULT OF FINAL VOTE IN COMMITTEE

Date adopted	16.10.2008
Result of final vote	+: 25 -: 2 0: 0
Members present for the final vote	Jerzy Buzek, Giles Chichester, Den Dover, Nicole Fontaine, Adam Gierek, Norbert Glante, András Gyürk, Fiona Hall, Ján Hudacký, Romana Jordan Cizelj, Anne Laperrouze, Anni Podimata, Miloslav Ransdorf, Herbert Reul, Teresa Riera Madurell, Catherine Trautmann, Claude Turmes
Substitute(s) present for the final vote	Etelka Barsi-Pataky, Ivo Belet, Daniel Caspary, Manuel António dos Santos, Christian Ehler, Juan Fraile Cantón, Malcolm Harbour, Pierre Pribetich, Silvia-Adriana Țicău
Substitute(s) under Rule 178(2) present for the final vote	Mikel Irujo Amezaga