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REPORT

on the use of financial resources earmarked for the decommissioning of nuclear power plants
(2005/2027(INI))

Committee on Industry, Research and Energy

Rapporteur: Rebecca Harms

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MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on the use of financial resources earmarked for the decommissioning of nuclear power plants (2005/2027(INI))

The European Parliament,

- having regard to the communication from the Commission on the use of financial resources earmarked for the decommissioning of nuclear power plants (COM(2004)0719),
- having regard to its position at first reading on 13 March 2002 with a view to the adoption of a European Parliament and Council directive amending directives 96/92/EC and 98/30/EC concerning common rules for the internal markets in electricity and natural gas¹,
- having regard to its position at second reading on 4 June 2003 with a view to the adoption of a European Parliament and Council directive concerning common rules for the internal market in electricity and repealing Directive 96/92/EC²,
- having regard to Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC³, and the related interinstitutional statement by the European Parliament, Council and Commission and the Commission statement of 15 July 2003 on decommissioning and waste management activities,
- having regard to Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation⁴,
- having regard to the Commission's proposals for a Council Directive (Euratom) setting out basic obligations and general principles on the safety of nuclear installations (2003/0021(CNS)) and for a Council Directive (Euratom) on the management of spent nuclear fuel and radioactive waste (2003/0022(CNS)) (COM(2003)0032),
- having regard to the communication from the Commission to the Council and the European Parliament on nuclear safety in the European Union (COM(2002)0605),
- having regard to the report of the French Court of Auditors of 27 January 2005 regarding decommissioning obligations, and in particular that using provisions which have been earmarked for future decommissioning for other purposes could create distortions of competition between producers in the Community,
- having regard to the Commission Decision C/2004/3474 of 22 September 2004 concerning the state aid which the UK is subsequently providing to restructure the nuclear undertaking British Energy Group plc,

¹ OJ C 47 E, 27.2.2003, p. 350.

² OJ C 68 E, 18.3.2004, p. 211.

³ OJ L 176, 15. 7. 2003, p. 37.

⁴ OJ L 159, 29.6.1996, p. 1.

- having regard to Rule 45 of its Rules of Procedure,
- having regard to the report of the Committee on Industry, Research and Energy (A6-0279/2005),

The importance of decommissioning nuclear power plants

1. Recognises that it is important, for the protection of human beings and the environment, that nuclear power plants are properly decommissioned after they are shut down definitively;
2. Notes that there is a massive reduction in radioactivity following the removal of the nuclear fuel when a nuclear power plant is shut down. The residual radioactivity however requires a high level of nuclear safety to meet the requirements of Directive 96/29/EURATOM laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation;
3. Notes that a lack of financial resources for decommissioning measures in some cases might delay the decommissioning of nuclear power plants and should hence be avoided;
4. Welcomes the Commission's intention to report annually to the European Parliament on the use of financial resources earmarked for the decommissioning of nuclear power plants;

Financial resources earmarked for decommissioning

5. Considers it necessary to ensure that in each Member State all nuclear undertakings have sufficient financial resources available when needed to cover all the costs of decommissioning, including waste management
6. Calls on the Commission, with due regard for the subsidiarity principle, to draw up precise definitions concerning the use of financial resources in each Member States, taking into account the decommissioning as well as the management, conditioning and final disposal of the resultant radioactive waste;
7. Notes that the approach to the management of financial resources *earmarked* for decommissioning differs from one Member State to another, and calls for the sound management of these financial resources;
8. Calls for the use of these financial resources for fair investments fully in line with EU Competition law avoiding distortion;
9. Considers it necessary for the financial resources to be managed and used with maximum transparency, and for external auditing to be guaranteed;

Safety and environmental aspects

10. Regards the Commission communication (COM(2004)0719) as an opportunity to draw attention to the safety aspects of decommissioning nuclear power plants;

11. Notes that each step in the decommissioning of nuclear power plants must consider the safety of humans and the environment, and that previous experience should as far as possible be put to good use;
12. Notes the existence of immediate decommissioning and staged decommissioning strategies, whose respective advantages and disadvantages should be weighed up in view of the location and the characteristics of the reactor;
13. Is of the opinion that safety issues relating to the protection of humans and the environment should be paramount in respect of the choice of decommissioning strategy;
12. Notes that the dismantling or decommissioning of nuclear power plants are part of nuclear legislation included in the consistent application of Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337 EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment;
15. Calls for a review, in all Member States, of the practice of releasing low-level radioactive substances, in particularly large quantities, from areas subject to nuclear and radiation protection legislation when a plant is decommissioned;

Economic aspects

16. Considers it acceptable for exceptions to apply, for example in the new Member States, due to safety considerations;
17. Wonders whether the accounting provisions made so far in a number of Member States and the corresponding financial resources are equal to the real needs;
18. Welcomes the financial support, subject to certain basic conditions, granted by the European Union to certain decommissioning projects in the new Member States;
19. Supports the Commission's position that the cost of decommissioning for nuclear, such as other external costs and subsidies in other types of electricity production, must also be taken into account in assessing the economic viability of any power plant, avoiding distortion of competition ;
20. Notes that the operator of a nuclear power plant is responsible for arranging insurance to cover civil liability during the entire decommissioning period against unforeseen incidents or accidents in line with the international liability conventions;
21. Notes that the Paris Convention of 29 July 1960, and the Brussels Supplementary Convention of 31 January 1963 are still in force, and cannot be unilaterally abolished by the EU; moreover the European Parliament in its legislative resolution of 26 February 2004 agreed to the proposal for a Council decision authorising the Member States which are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy to ratify, in the interest of the European Community, the Protocol amending that Convention, or to accede to it;

22. Instructs its President to forward this resolution to the Council and Commission.

EXPLANATORY STATEMENT

Introduction

According to the Commission, around 50 to 60 of the 149 nuclear power plants operating in the EU in June 2005 will be decommissioned in the next 20 years¹. The average age of the nuclear power plants in operation is over 20 years, and many are more than 25 years old.

The lifespan (active life) of a nuclear power plant, like that of other technical installations, is limited. In particular, changes in the properties of the materials in the reactor pressure vessel and the components of the primary cooling circuit through neutron irradiation, heat, mechanical wear and tear and corrosion make it necessary to shut down a nuclear power plant definitively after a certain active life. Moreover, decommissioning may be necessitated by incidents or the discovery that the current safety level is insufficient for a particular installation.

Decommissioning and potential dangers

Even after a nuclear power plant has been shut down and the nuclear fuel has been removed, the plant must still be considered to be a nuclear installation as even a residual radioactivity of 10^{17} Bq represents a danger to human beings and the environment. High safety standards therefore also need to be observed during decommissioning.

A failure to take decommissioning measures following the closure of a nuclear power plant could have far-reaching consequences for the environment and people living in the vicinity. This is a particular danger in the new Member States owing to a lack of financial resources.

After reactors have been shut down, the instability or permeability of the building structures creates risk: radioactive substances can escape through openings; contaminated liquids can seep into the ground through cracks and possibly pollute local drinking water. In the long run, even unusual weather conditions can cause a problem. A failure to implement decontamination measures increases the risk to the surrounding area.

Such dangers make it imperative to begin carrying out decommissioning measures when a nuclear power plant is shut down.

Decommissioning produces large quantities of radioactive waste. To reduce these quantities, Directive 96/29/Euratom provides the possibility for low-level radioactive substances to be exempted from nuclear and radiation protection legislation and treated as conventional waste. Many Member States make use of this possibility. France, however, has developed its own concept for managing these substances with a repository adapted to meet the relevant safety requirements. This practice, which is to be preferred, makes it possible to avoid uncontrolled release of radionuclides, which occurs to some extent under exemption, and/or their accumulation in the conventional area, something which cannot be excluded.

Decommissioning measures and strategy

The decommissioning of a nuclear power plant, from closure to greenfield, comprises a

¹ COM(2004)0719.

number of different activities. Important decisions concerning safety need to be taken as part of a separate procedure which takes into account all aspects of the decommissioning and in which the directive on environmental impact assessment is consistently applied. The Commission should verify whether this is actually the case in all Member States.

Two decommissioning strategies are possible:

In the case of **immediate decommissioning**, the measures are taken on a step-by-step basis without delay. Given the continuing high risk, the complexity of the installation and the precautions necessary in dismantling and disassembling systems and components, as well as in demolishing buildings, this type of decommissioning requires more than 10 years.

A **staged decommissioning** comprises an interruption phase (between 30 and 100 years, depending on the country concerned), during which the reactor building and possibly parts of some adjoining buildings are cocooned. In this phase, essential systems (ventilation, lighting, radioactivity measurement) continue to operate. All other pipes and electric lines are cut off and sealed at the boundary of this area, as are all openings, with the exception of one exit. The result (in so far as the structure of the building allows) is a monitored, hermetically sealed area from which practically no radioactive substances can escape.

The **choice of decommissioning strategy** should not be rigidly pre-determined or subject primarily to economic considerations; rather, it should be guided by the impact on humans and the environment. Above all, negative consequences resulting from delayed or inadequate decommissioning must be prevented. Both decommissioning strategies have advantages, which for the most part correspond to the disadvantages of the other strategy. In each case, the decommissioning strategy should be chosen in a manner that is transparent and comprehensible for the public and the Commission.

In this regard, it would be sensible for the Commission to draw up a list of criteria to apply in choosing the decommissioning strategy which relate to the safety aspects concerning protection of humans and the environment. In particular, the following criteria should be taken into account:

- the state of building structures;
- the hydrological conditions at the site;
- the quality of surface water and groundwater at the site;
- interaction with other installations;
- the availability of repositories;
- accident safety systems;
- the type of reactor;
- the level of residual radioactivity;
- the exposure of staff and inhabitants to radiation;

- the quantities of waste produced;
- dismantling techniques;
- staff issues;
- the subsequent use of the site;
- economic aspects.

With a list such as this, the EU could promote the attainment of important safety-related objectives in the Euratom Treaty and uniform EU standards without unduly encroaching on national powers.

The staged decommissioning strategy requires a considerably longer period of time. In this case there should be a time limit applied, regular safety checks of the ‘cocoon’ and regular reports to the Commission. It is also necessary to ensure that, should incidents or accidents occur during decommissioning, it is the plant’s former operator who is liable under civil law, not society.

Financing of decommissioning

According to the Commission, the cost of decommissioning a nuclear power plant is between EUR 200 million and EUR 1 billion². These costs should be fully taken into account in an economic evaluation of the use of nuclear energy for producing electricity and heating.

In order to secure financing for decommissioning, the Commission is calling for the creation of funds to which the nuclear power plant operators would have to contribute throughout the active life of the plant. The availability and adequacy of resources for decommissioning as well as for management of radioactive waste must be guaranteed. Such resources need to be guaranteed over a period of several decades. ‘To this end, the creation of decommissioning funds independent from the operators and specifically earmarked for the decommissioning of their nuclear installations is the best option to achieve the objective of decommissioning the installations in conformity with all the necessary safety conditions.’³

Since the liberalisation of the internal market in energy in Europe, if not earlier, and in the context of integrated product liability, those responsible for a nuclear power plant, i.e. its operators, have had to demonstrate that they have secure access to sufficient resources for decommissioning. This access must be regulated in law by each Member State in such a manner that sufficient resources are available without creating a potential for distortion of competition in the liberalised energy market. According to the Commission, the reality is somewhat different.

For example, provisions in Germany total more than EUR 30 billion. These resources have been used by energy supply companies using nuclear energy to acquire other energy

² COM(2002)0605.

³ (2003/0021(CNS)), (2003/0022(CNS)) and COM(2003)0032.

companies or other companies in other sectors of the economy. Massive economic advantages result, with regard both to competitors who also possess nuclear power plants but have no access to provisions, as well as to competitors who use sources of energy in respect of which provisions for the disposal of installations are not required or are only required to a very limited extent. In the future, these economic advantages must be abolished in order, from an overall environmental perspective, to prevent all renewable energy and investments in efficiency being prejudiced.

In other Member States there are insufficient resources in these funds and it is clear already that substantial demands will have to be made on the taxpayer. This applies not only to the new Member States but also, for example, to France, whose electricity supply depends in large part on nuclear power and where there is a dominant State enterprise. The money in the fund is also used by EDF to buy up or acquire a stake in other enterprises. The French Court of Auditors has strongly criticised the lack of clarity regarding decommissioning obligations, the fact that the active life of a plant can be changed arbitrarily, the lack of transparency in the presentation of accounts and, as a result of all this, a lack of transparency in the State's obligations. In a section on adequate financial resources, it explains in particular that in an electricity market which is becoming more open to competition every day, using provisions which have been earmarked for future decommissioning for other purposes could create distortions of competition between producers in the Community⁴.

To safeguard the environment and the precautionary principle in the EU Treaty and in the interests of a liberalised energy market, the availability of sufficient financial resources for decommissioning must be guaranteed by a system of funds harmonised at EU level but independent for each Member State. In determining the structure and size of the fund, priority consideration must be given to the safety aspects in order to prevent, on a sustained basis, possible consequences for humans and the environment.

The directive to be drawn up by the Commission should take account, inter alia, of the following aspects:

- the start and duration of payments and the minimum level of resources to be accumulated in the fund;
- the method of calculating decommissioning costs;
- the permanent separation between the funds and the budgets of the undertakings concerned, putting them beyond the access of those undertakings, and their establishment at a bank or other public or publicly-controlled institution;
- a ban in the event of a failure to observe this strict separation as well as State control of cross-subsidies and their misuse;
- the purposes for which the resources in the fund can be used (taking into account the costs of management, including disposal);
- a ban on the temporary withdrawal of resources from the fund for investments not

⁴ Cour de Comptes (Court of Auditors): 'Dismantling nuclear installations and managing radioactive waste', 26 January 2005, <http://www.ladocumentationfrancaise.fr/brp/notices/054000069.shtml>.

linked to the installation.

PROCEDURE

Title	Financial resources earmarked for the decommissioning of nuclear power plants	
Procedure number	2005/2027(INI)	
Basis in Rules of Procedure	Rule 45	
Committee responsible Date authorisation announced in plenary	ITRE 10.3.2005	
Committee(s) asked for opinion(s) Date announced in plenary	CONT 10.3.2005	ENVI 10.3.2005
Not delivering opinion(s) Date of decision	16.3.2005	14.3.2005
Enhanced cooperation Date announced in plenary		
Motion(s) for resolution(s) included in report		
Rapporteur(s) Date appointed	Rebecca Harms 15.3.2005	
Previous rapporteur(s)		
Discussed in committee	20.6.2005	13.7.2005
Date adopted	26.9.2005	
Result of final vote	for:	35
	against:	1
	abstentions:	4
Members present for the final vote	Ivo Belet, Šarūnas Birutis, Jan Březina, Renato Brunetta, Jerzy Buzek, Joan Calabuig Rull, Pilar del Castillo Vera, Jorgo Chatzimarkakis, Giles Chichester, Den Dover, Adam Gierek, András Gyürk, Fiona Hall, David Hammerstein Mintz, Rebecca Harms, Ján Hudacký, Romana Jordan Cizelj, Werner Langen, Anne Laperrouze, Nils Lundgren, Angelika Niebler, Reino Paasilinna, Herbert Reul, Teresa Riera Madurell, Mechtild Rothe, Paul Rübig, Andres Tarand, Britta Thomsen, Patrizia Toia, Catherine Trautmann, Claude Turmes, Nikolaos Vakalis, Dominique Vlasto	
Substitutes present for the final vote	Malcolm Harbour, Edit Herczog, Lambert van Nistelrooij, Francisca Pleguezuelos Aguilar, Vittorio Prodi, Esko Seppänen	
Substitutes under Rule 178(2) present for the final vote	Ulrich Stockmann	
Date tabled – A6	29.9.2005	A6-0279/2005