



**Friends of
the Earth
Europe**

EU Nuclear Liabilities

The failure to uphold the polluter pays principle and the case for effective state aid control through new internal market legislation.

Introduction

Nuclear liabilities are the 'clean-up' costs that follow the closure of a nuclear power station at the end of its working life. Such costs are substantial, and include the dismantling of the reactor and the management of radioactive waste including spent fuel produced during its operation. Typically, a reactor that operates for 40 years may take as long again to decommission. The wastes produced in the reactor, particularly used fuel, will remain hazardous for significantly longer.

Such liabilities are not contingent on future events that may or may not occur. The liabilities are real costs that have mostly already been incurred and so must at sometime be met. In principle, liabilities are described in company financial statements (balance sheets). Normally they are discharged from income set-aside during the working lifetime of each reactor. (After a reactor is finally shut down, it no longer generates any revenue.) The provisioning of such funds to meet future liabilities, if done adequately, contributes to the fulfilment of both the polluter pays principle and normal economic principles whereby the price charged for a product (electricity) reflects *all* the costs incurred in making it - including decommissioning costs - plus margin of profit for the company and its investors. However, in practice there is mounting evidence that many nuclear firms within the EU are failing to meet these basic principles.

The recent UK state aid cases of British Energy plc and BNFL plc have already been well documented. Across a total of 19 reactors and ancillary plant, these two firms have combined undiscounted liabilities amounting to around £55 bn (€79bn), which according to official estimates are spread over the next 135 years. Both companies only avoided declaring themselves bankrupt due to the heavy intervention of the UK government, which offered substantial subsidies

and moved to take direct responsibility for liabilities over the long term. The European Commission is shortly expected to begin an investigation into the expansion of a state aid scheme in Slovakia, where a substantial deficit in a decommission fund also exists. Similar problems in other EU states are also becoming apparent.

In the EU (after 2007) there will be 20 operators of nuclear plants at 67 locations in 16 member state territories, which between them currently generate about a third of the EU's electricity. Friends of the Earth Europe estimates that the total combined liabilities held by these operators are, at today's prices, in excess of €500bn¹. Although some operators in some territories are required to put a share of their income into a special fund to meet liabilities when they become due, this is not the case for all operators. Moreover, whilst some existing funds may have or be expected to gain sufficient resources to meet forecast liabilities, many do not. In either case, there is or will be a deficit, which as the UK cases have shown is likely to be substantial. Unless there is effective preventative regulatory action, at the EU level, such deficits will most likely be met with state aid.

EU Internal Energy Market

In the framework of the EU's single market, nuclear-sourced electricity is required to compete with electricity generated by other means, and with other energy options such as demand-side management. The trading of power between member state territories is also growing in significance. These circumstances generally correspond to the European Union's wider

¹ The €500bn figure is a working estimate by Friends of the Earth Europe. It is based on the scaling-up of liability estimates in some individual states to approximate a EU-wide total. The European Commission is currently launching new research in order to identify the extent of post-closure liabilities in the EU.

economic, social and environmental objectives as expressed in the treaties, ('a single internal market'), in the so-called Lisbon agenda ('increasing competitiveness'), and frequently elsewhere both in the Institutions and in the capitals ('effective market-based approaches to policy'; 'the internalisation of externalities').

In this context, and given the special characteristics of the nuclear sector noted above, it is necessary for policymakers to ensure that nuclear operators always act in ways that do not distort competition in the internal energy market. In particular, such firms must not sell their power under its cost price and subsequently not be able to meet all the incurred liabilities at the times those liabilities become due, often long after a reactor ceases to generate sales revenue.

The current views of EU Institutions

European Commission

The European Commission does not have a single view on this issue, as different services take up different positions. The Directorate General for Transport & Energy, which is currently the lead service, has in recent years been a vocal sponsor of the nuclear industry, has so therefore has not so far taken any effective action that would introduce more disciplined market-based conditions to the sector. On the other hand, the Directorate Generals for Competition, Internal Market and Economic and Financial Affairs wish to develop free and fair competition in the energy sector, in line with the Union's broader strategy of economic efficiency and integration between territories.

In relation to the application of state aid controls in particular, a provisional 'compromise position' appears to have been reached between Commissioners Monti and Palacio at the College meeting of 27 May 2003, in which it was agreed that the Commission would "pay particular attention to ensuring the full application of the relevant provisions of Community law." Here, the phrase "Community law" refers to both to the European Community **and** the European Atomic Energy Community.

Such divergent views and, so far, the lack of any effective action by the Commission are highly unsatisfactory and represent a clear failure to uphold important EU treaties and policies in a major industrial sector. Steps should be taken to introduce a more consistent approach, which is in line with the broader goals of the Union. An opportunity for this, for example, is the recently announcement by the Commissioner for Competition, Mrs Neelie Kroes, of a review of the energy sector, which began last month (June 04).

Council of Ministers

The position taken in the Council of Ministers is also somewhat variable. On one side, there is general support for the EU's overall economic objectives (single market, competitiveness, removing distortions etc). On the other hand, several large states have often sought to block actions in order to defend either firms that they still directly own or to support firms established within their territories that they wish to be 'national champions'. It is also probable that some states are seeking to hide structural financial issues in their nuclear sector from wider scrutiny as, depending on the approach taken, such liabilities are often so substantial as to have a significant impact on a state's overall national accounts and therefore on some related macro-economic indicators, particularly public debt.

European Parliament

In 2003, during the passage of the second Electricity Directive, the European Parliament attempted to include new controls for the proper management of post-closure nuclear finance. For reasons that include some of those noted above, the Council and Commission blocked such moves.

Instead, two 'compromise' Declarations were made, one by the three Institutions, and another by the Commission alone. (See Box 1.)

Box 1: THE 2003 STATEMENTS, 'LINKED TO' THE NEW ELECTRICITY DIRECTIVE 2003/54 WITH REGARD TO DECOMMISSIONING AND WASTE MANAGEMENT ACTIVITIES (OJ 2003 L176)

Inter-institutional Statement:

The European Parliament, the Council and the Commission underline the need for Member States to ensure that adequate financial resources for decommissioning and waste management activities, which are audited in Member States, are actually available for the purpose for which they have been established and are managed in a transparent way, thus avoiding obstacles to fair competition in the energy market'.

Commission Statement:

The Commission notes the importance of ensuring that funds established for the purpose of decommissioning and waste management activities, which relate to the objectives of the Euratom Treaty, are managed in a transparent way, and used only for the said purpose. In this context, it intends, within the scope of its responsibilities of the Euratom Treaty to publish an annual report on the use of decommissioning and waste management funds. It shall pay particular attention to ensuring the full application of the relevant provisions of Community law'.

These statements are problematic for a number of reasons:

Firstly, their status is unclear. Although printed in the EU Official Journal L series (which is reserved for legal-binding acts) they are not legislation and so they are not binding. Moreover, although they are printed immediately after the new Electricity Directive, which was published the same day, they do not appear to be formally a part of it.

Second, the inter-institutional statement appears to be at odds with the EC Treaty on two points: (i) "audited in member states" overlooks the responsibility of the Commission under Article 88 to keep state aids under "constant review"; and (ii) it is the Community in general, and the Commission in particular through its exclusive right of initiative, that has the responsibility and power to establish and/or maintain the internal market including *inter alia* by the elimination of distortions. (Part 3, Title 6, EC Treaty)

Finally, it is misleading to suggest that Member States are responsible for decommissioning finance when it is in fact undertakings/operators who are responsible, as they are for the other aspects of their commercial operations such as construction and operational costs.

The Commission's First Annual Report

In line with the 2003 statements, in October 2004 the Commission (led by DG-TREN) adopted its first annual "report on the use of financial resources earmarked for the decommissioning of nuclear power plants"(COM 2004/0719). Friends of the Earth Europe was critical of this report for the following reasons:

1. The Report was mistaken to focus on Member States and not on undertakings/operators. It is only the later that makes electricity to sell in the single market and consequently has liabilities on balance sheets of each undertaking;
2. The Report was only 11 pages long, and so lacked sufficient detail; the report's claim that member states did not provide such detail overlooks the obvious fact that significantly more information is freely available from open sources, such as the annual reports of firms which operate nuclear plant;
3. The Report failed to account clearly for different categories of liability: in some territories, reactor dismantling costs and waste-management costs are considered together, whilst in other territories they are not;
4. The Report used several different methods to describe nuclear liabilities, which therefore made it extremely difficult to compare one country or operator with another.

5. The Report failed to propose binding legislation under the correct legal base in the EC treaty. Instead it propose a non-binding Commission Recommendation later this year;

Some illustrative scenarios ...

1. Market logic: 'maximum profits, then switch off and walk away!'

The main aim of any firm is to deliver a return on investment (profit), which in turn directly affects the commercial practices it adopts. In hypothetical circumstances, where there were no controls to ensure nuclear liabilities are provided for, then - if taken to its extreme - a nuclear operator would sell electricity at the best price for the longest period and then, when a reactor reaches the end of its life and is closed down, the firm would simply walk away, leaving others - usually citizens through their taxes - to meet the decommissioning costs. The special characteristics of the nuclear sector, coupled with the high level of public concern, will make it impossible for the state in the host territory not to step in. Closed reactors and spent nuclear fuel cannot be left rusting in the wind! Whilst it is accepted that this extreme example is unlikely to occur in reality, such a scenario is described here in order to show the logical reality faced by firms operating in a trading environment that lacks adequate regulation.

2. Every reactor needs an adequate pension

As individuals and as a society, most of us recognise the need to save for our retirement. We work and earn income for around 40 years and then, after retirement, we live maybe 20 years more, drawing on the pension fund we have built up in order to live comfortably and fulfil our needs and wants. If we failed to do this, then in our retirement, we would rely increasingly or perhaps exclusively on state aid (or charity) in order not to live in poverty and not to be vulnerable to basic risks.

Similarly, nuclear power plants have a significant retirement period that is costly and that ought to be funded from resources set-aside during periods of economic productivity. In the European Union's competitive internal energy market and without an effective 'reactor pension fund' system in place, it is increasingly likely (and in some cases already a reality) that closed reactors will therefore rely on state aid, often for long period of time. Just as the EU policy-makers are organising adequate financing for an ageing human population, so we should also act to ensure the ageing fleet of reactors in Europe will also properly be paid for.

Is Euratom 'carte blanche' for subsidies?

The European Atomic Energy Community (EAEC, or Euratom) is an organisation established since 1957 to promote and regulate nuclear power that remains a constituent part of the EU today. As part of the 2003-4 Inter-Governmental Conference on the new Constitutional Treaty, delegations agreed that the Euratom Community would stay in force *alongside* a newly-cast European Union, after the new treaty enters into force.

Whilst the relationship between the Euratom Community and the European Community (and, legally speaking, the new-EU in future) has never been clearly defined, it is essential to recognise that the Euratom law does not provide 'carte blanche' for nuclear subsidies. Although Euratom does contain *some* measures with respect to nuclear safety, safety *per se* cannot be construed as an argument for unlimited subsidy, contrary to that which has been argued in some quarters.

3. Regulation and standards, not subsidy

Nuclear safety is important but it should be ensured by effective regulation and not by blanket subsidy. To illustrate this, a useful comparison can be made with the way in which the aviation sector is dealt with by public authorities. Flying has associated with it certain catastrophic risks, namely that an aircraft might crash and so potentially kill those on board and others on the ground. Such risks are reduced not by giving lots of subsidy to the airlines but by setting regulatory standards that airlines are required by law to meet. Similarly, it should not be acceptable that nuclear operators may rely on having some of their costs met from state funds, rather than all relevant costs should properly be reflected in the price charged for the product, whilst safety and other standards are maintained through effective regulation.

Nuclear accident liabilities

The 'contingent liability' associated with the risk of serious nuclear accidents (which means 'who exactly would pay for the off-site damages caused by the contamination?') should not be confused with liabilities as they are described in *this* briefing. As mentioned in the introduction, the liabilities referred to here are for the most part already real: reactors have already commenced operations and so nuclear fuel cores have become irradiated. As stated earlier, there is therefore *already* a substantial 'clean-up' cost that must be met in the future by someone.

Friends of the Earth's demands and future work

Friends of the Earth Europe believes post-closure nuclear liability finance is a substantial and strategic issue for the future development of the energy sector in Europe, and one that cannot be overlooked any longer.

In the context of the increasing cost of carbon emissions coupled with concerns about the security of energy supplies, necessary new investments in the energy sector will be guided both by politicians and by markets. Establishing the full costs of all energy options therefore matters. However, in relation to the nuclear sector, given the conflicting interests of many states that are noted above, this can only be done effectively at the European level. Such an initiative should use all the necessary tools available in the primary law, in particular competition and internal market law-making powers.

Friends of the Earth Europe is seeking to ensure this happens at the EU level. On-going research will add to the evidence for a proactive approach, particularly by the Commission as the initiator of legislation. Key case studies will continue to be investigated, for example via documenting other nuclear state aid schemes.

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