



EUROPEAN COMMISSION

Brussels, 2.12.2011  
COM(2011) 780 final

**REPLIES OF THE COMMISSION TO THE SPECIAL REPORT OF THE COURT  
OF AUDITORS**

**"EU FINANCIAL ASSISTANCE FOR THE DECOMMISSIONING OF NUCLEAR  
PLANTS IN BULGARIA, LITHUANIA AND SLOVAKIA: ACHIEVEMENTS AND  
FUTURE CHALLENGES"**

## **REPLIES OF THE COMMISSION TO THE SPECIAL REPORT OF THE COURT OF AUDITORS**

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#### **EXECUTIVE SUMMARY**

I. With the overall goal of improving nuclear safety, Bulgaria, Lithuania and Slovakia agreed to shut down 8 reactors in their EU accession treaties. These Treaties were ratified by all Member States. Without the EU funds provided for decommissioning and mitigation this would not have happened, particularly given the concerted political pressure in these three Member States, which reached its peak during the severe gas supply crisis in early 2009.

III. (a) The Accession Treaties set the policy framework for the EU's financial support without quantifying the expected achievements. The amounts fixed for this assistance were the outcome of political negotiations, which recognised the extraordinary burden placed on the Member States by the shutdown commitments. As such the amounts were not a specific proportion of the estimated costs, but rather an expression of solidarity between the EU and the concerned Member States.

In the intervening years the Commission has put in place a procedural framework that sets specific objectives, defines roles and responsibilities and clearly defines the reporting and supervision requirements. This framework allows the Commission to have a clear picture of the programme's achievements in all three Member States.

The Commission considers that the programmes have been successful in reaching the overall goal of significantly improving nuclear safety as well as helping Member States mitigate the effects of early closure.

The Commission intends to further define specific objectives, priorities and results to be obtained when making its legislative proposal for EU support under the next Multi-Annual Financial Framework. This proposal will take into account that all eight nuclear power plants have been closed, stayed closed and dismantling has started and the impacts of early closure have been mitigated through replacement of capacity and energy efficiency measures.

III.(b) In July 2011, the Commission reported to the Council and the European Parliament<sup>1</sup> on the progress of the three decommissioning programmes.

This report and the accompanying Commission staff working document contain detailed information on the use of financial resources, which was made available in the context described under III(a).

Delays and cost overruns are not unusual given that projects financed by the programmes are often long, complex and politically sensitive.

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<sup>1</sup> COM (2011) 432 REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL On the use of financial resources during 2004-2009 provided to Lithuania, Slovakia and Bulgaria to support the decommissioning of early shut-down nuclear power-plants under the Acts of Accession and SEC (2011) 914 COMMISSION STAFF WORKING PAPER "Nuclear Decommissioning Assistance Programme data"

III.(c) For nuclear safety and licensing reasons, the organisational changes, which are the clear responsibility of the nuclear power plant operators and not the primary objective of the EU financing programmes, can only start once the last reactor unit has been shut down.

III.(d) The ultimate responsibility for decommissioning and its financing lies with the Member State in which the nuclear power plant is situated. It is not for the EU to make up any funding shortfall. Nevertheless, acknowledging the historical circumstances further EU financial contributions for the period 2014-2020 are currently under discussion in the Council and European Parliament following the Commission's recent Communication 'A budget for Europe 2020'. However, EU support will be conditional on the concerned Member States committing adequate additional resources.

IV.(a) The Commission has operated within the legal and procedural framework for an effective, efficient and economic use of EU Funds as described under III(a). It will continue to work within this framework until the end of 2013 but is further developing it for the next multiannual financial framework. The proposal to extend EU financial support for decommissioning beyond 2013 will be accompanied by an Impact Assessment.

The Commission will review its performance indicators so that they can be in place for the period after 2013.

IV.(b) The Commission will implement this recommendation, through its proposals for EU assistance beyond 2013, which will be accompanied by an impact assessment.

## **INTRODUCTION**

2. Under normal circumstances, operators should ensure the financing of the decommissioning process; however, in line with its Recommendation 2006/851/Euratom, the Commission considers that, given their historical legacy from the communist period up to 1989, the EU support for decommissioning in Bulgaria, Lithuania and Slovakia is justifiable for historical reasons.

This is in accordance with the recently adopted Waste Directive (OJ L 199, 2.8.2011, p. 48)

6. The closure commitment was then enshrined in the Accession Treaties and ratified by all 27 Member States.

7. While the financial contribution did have the objectives of decommissioning and mitigation measures, they have to be seen in the context of the EU's overall objective in the nuclear field, which is to maximise nuclear safety. This contribution was intended as an expression of solidarity between the EU and the concerned Member States and was not based on a specific proportion of estimated costs.

8. The Accession Treaties provide the framework for the funding scheme. The detailed discussions during the accession negotiations were the basis for the funding scheme put forward by the Commission.

In the particular case of extending support for Bulgaria to the period 2010-2013, the Commission re-examined the justification for such additional financial assistance (SEC(2009)1431 final).

13. The three beneficiary countries contribute with their own financial resources to decommissioning the nuclear power plants as well as to mitigating measures in the energy sector. As such, co-financing has been an established practice since the pre-accession period.

## **OBSERVATIONS**

18. Although recognising that the decommissioning process is not yet complete, the Commission would like to point out a number of major achievements. There have been several years of safe maintenance of the closed reactor units pending complete removal from reactor cores. There has been the complete defuelling of Bohunice reactors 1 and 2 and Kozloduy 1 and 2 and the core of Ignalina 1. Decommissioning strategies were revised and updated in Bulgaria and Slovakia. Bohunice has the basic waste management infrastructure in place and obtained the decommissioning licence for phase 1. In Bulgaria the dry spent fuel storage facility has been built, as well as the design and supply of main equipment for the first phase of decommissioning. In Lithuania some of the major waste storage infrastructure buildings are close to completion and the free-release measurement facility completed. The dismantling has started at all three sites.

19. Certain information having a significant impact on the decommissioning planning will only become available as work progresses. For example, planning for dismantling the reactor core can only be finalised in the decommissioning plan once the reactor has been shut down and a detailed radiological characterisation carried out.

This type of iterative process (also known as a graduated approach in IAEA safety standards) is standard practice in the sector and is recognised as an efficient approach to decommissioning.

20.(a) Given the iterative nature of decommissioning planning outlined above (paragraph 19), the completion of the waste inventories depends on further detailed radiological characterisation. The data available were sufficient for defining the waste infrastructure, taking into account that, in principle, the final disposal of spent fuels and nuclear waste is outside the scope of the programme.

20.(b) Waste management plans exist for all eight reactors. Their detail improves as the radiological characterisation progresses. For example, some activities to dismantle the reactor core can only be performed after defuelling.

The data for Bohunice V1 were of the quality required to obtain the phase 1 nuclear decommissioning licence from the nuclear regulator after first having obtained a positive opinion from the Commission, as required under the Euratom Treaty.

20.(c) Estimating decommissioning costs in detail is an iterative process. Some costs can only be estimated accurately once the corresponding activity has been designed.

20.(d) The EU is currently financing tools and databases for a monitoring system.

Monitoring structures (meetings, reporting) are in place at each of the nuclear power plants.

22. While key projects on the critical path at Ignalina have been delayed, for Bohunice and Kozloduy delays have not yet impacted on the decommissioning completion date.

The final disposal is outside the scope of the decommissioning programme and remains a responsibility of the Member States concerned.

### **Box 1 - Delays and cost overruns**

The plasma melting technology was the market response to the procurement process and was approved by the relevant safety authorities. The project is co-financed from national resources.

Plasma melting technology can potentially serve many more purposes than traditional technologies.

24. The ultimate responsibility for decommissioning and its financing lies with the Member State in which the nuclear power plant is situated. It is not for the EU to make up any funding shortfall. Nevertheless the Commission ensures that such issues are discussed at meetings of the Member States' Management Committee. In addition, it is important to note that the EU has met its financial commitments.

26. The Accession Treaties or subsequent regulations identified the need for mitigating measures. The EU support scheme is designed to ensure that the measures proposed by the Member State are in accordance with and based on their national energy strategies, which inevitably consider the impact of the nuclear plants' closure.

Moreover, for Bulgaria, the Commission is aware that the assessment was outdated and no longer relevant. The EU therefore made its continued financing of mitigating measures for the period 2010-2013 conditional on Bulgaria providing evidence that projects proposed are integral to their national energy strategy and consequential to the closure of Kozloduy.

27. For Kozloduy, the EBRD's assessment indicated that around 500 MW of production capacity would be compensated. In Lithuania, EU support for upgrading a thermal power plant led to an expected capacity compensation of 1045 MW becoming available as replacement capacity, as was foreseen in Protocol 4 to the Accession Treaty.

29. As far as the production capacity is concerned, the Commission considers that 44% will be compensated for Lithuania and 31% for Bulgaria.

The Commission considers that the mitigation measures were prioritised by each of the Member States in accordance with their national energy strategy.

### **Box 2 - Weak relationship between mitigation activities and reactors' early closure**

For Kozloduy, the EBRD's assessment indicated that around 31% of production capacity lost would be compensated.

The Commission considers that there was a strong link between the contribution to the HUDA and the closure of Ignalina nuclear power plant.

Technically the link to the closure is clear: installing 400/110 kV transformers was necessary to relieve the 220kV grid following the Bohunice V1 shut down. This project was 44% co-financed with Slovak resources.

31. The Commission considers that it did ensure the translation of the broad priorities of the Accession Treaties into a coherent set of projects.

The annual Combined Programming Document breaks the broad priorities down into well-defined individual objectives for the use of the EU financial support. Based on a proposal from the beneficiary Member State these objectives are then discussed in the Member States' Management Committee. They then become an integral part of the annual Commission Decision on financing and provide the basis for the elaboration of detailed, individual projects with clearly identified milestones and deliverables.

32. Despite the absence of systems to assess progress against overall programme objectives, monitoring and reporting on programme achievements takes place.

33. Joint reply to 33 and 34.

34. The Commission's 2011 report (COM 2011/ 432) and the accompanying staff working document (SEC 2011/914) provide details of the achievements.

35. The Commission considers that it has always been clear that it has overall responsibility for the EU funds contributing to the programmes.

Nevertheless, the general framework provided by the Accession Treaties has been progressively complemented by a clear procedural framework<sup>2</sup> for implementing the EU financial support. This is supported by the EBRD fund rules, the operating agreement between the EC and the CPMA, as well as the annual Contribution Agreements with both implementing bodies. This framework now clearly defines the roles and responsibilities of the involved parties and defines detailed requirements for monitoring and reporting. The Commission will also propose further strengthening this framework in its forthcoming proposals to extend the funds.

The Commission considers that it had sufficient information on which to base its decisions, including information that went beyond formal evaluations and reporting. It has also gone beyond supervision of budgetary execution, considering whether the overall objectives have been achieved.

36. Following the last agreed reactor closure in each country, there is increasing sense of ownership by the Member States concerned.

Progress is measured and resources have been used effectively. There is clear evidence of progress in decommissioning and in mitigating the consequences (achievements were assessed, see also p. 27) of reactor closure.

38. Second indent. It is important to take into account that these personnel costs also covered safe maintenance of the shut down reactor units.

39. For nuclear safety and licensing reasons, the organisational changes, which are the clear responsibility of the nuclear power plant operators and not the primary objective of the EU financing programmes, can only start once the last reactor unit has been shut down. For example, in Lithuania this reorganisation could not start before 2010 and in Slovakia this reorganisation could only become effective once the decommissioning licence had been obtained in July 2011.

## **CONCLUSIONS AND RECOMMENDATIONS**

40. Without the EU financial assistance the three Member States would not have met their closure commitments and refrained from reopening them under sometimes intense political pressure, particularly during the severe gas supply crisis in early 2009.

In addition the assistance provided for major replacement capacity that contributed to the fact that the closure did not result in any electricity blackouts.

The Commission considers that the needs still to be met are sufficiently clear given that there are revised decommissioning plans in place for all three sites. In addition, it is also clear that no further support for mitigation measures will be required post 2013 as the replacement capacity will have

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<sup>2</sup> revised Commission Decision of procedures of 2010 and annual Commission Decision on financing

been put in place, energy efficiency measures implemented and the restructuring of the network successfully completed.

41. Within the framework provided by the Accession Treaties, the policy framework for nuclear decommissioning was intentionally flexible, in order to allow EU support to be adjusted to the Member State beneficiary's needs.

In accordance with the Accession Treaties and subsequent Council Regulations the Commission has put in place a procedural framework that sets specific objectives, defines roles and responsibilities and clearly defines the reporting and supervision requirements. The Commission's supervision focuses on achieving the programme objectives, as well as on budgetary execution and project implementation. It has a clear picture of the achievement of the programmes' objectives and the status of the decommissioning programmes in all three Member States.

In addition, waste flow plans exist and the required radioactive waste processing and storage technologies and facilities are being identified, designed, constructed or have been finished.

42. The ultimate responsibility for decommissioning and its financing lies with the Member State in which the nuclear power plant is situated. It is not for the EU to make up any funding shortfall.

Nevertheless, acknowledging the historical circumstances further EU financial contribution for the period 2014-2020 is currently under discussion in the Council and European Parliament following the Commission's recent Communication 'A budget for Europe 2020).

***Recommendation Establish the extent of EU support in a result- oriented way***

(a) First indent. A needs assessment will be part of the proposals to extend financial EU support for decommissioning beyond 2013. This takes the form of an impact assessment.

(a) Second indent. The Commission has operated within the legal and procedural framework for an effective, efficient and economic use of EU Funds as described under III(a). It will continue to work within this framework until the end of 2013 but is further developing it for the next multiannual financial framework. The proposal to extend EU financial support for decommissioning beyond 2013 will be accompanied by an Impact Assessment.

The Commission will review its performance indicators so that they can be in place for the period after 2013.

(b) The Commission will implement this recommendation, through its proposals for EU assistance beyond 2013, which will be accompanied by an impact assessment.

### ANNEX III

#### ASSESSMENT OF 16 DECOMMISSIONING PROJECTS

**Bohunice Audited project 1.** The Commission considers that the decommissioning strategy report has been finalised and will use it as a basis for further detailing waste flows and paths.

Furthermore, the licence holder obtained the decommissioning licence for phase 1 as planned in July 2011. With the decommissioning licence, a new organisational structure became operational. Past weaknesses were related to the transition period.

**Bohunice Audited project 2.** The Commission considers that this project is a direct consequence of the closure of V1 and, in addition, provides back-up steam and heat for all the Bohunice facilities.

**Bohunice Audited project 3.** The baskets had been produced to compensate for those previously used for spent fuel removal from Bohunice V1 unit.

**Bohunice Audited project 5.** The licence holder obtained the decommissioning licence for phase 1 as planned in July 2011. With the decommissioning licence, a new organisational structure became operational. Weaknesses in the past were related to the transition period.

**Ignalina Audited project 6.** Nuclear safety is ensured by INPP staff that perform safe maintenance. The delay just extends the period of safe maintenance and does not impact upon nuclear safety.

**Ignalina Audited project 7.** The delays are being addressed.

**Ignalina Audited project 8.** IIDSF rules require a PMU. As the beneficiary for this project was INPP, the PMU function was assured by the DPMU to avoid creating an additional PMU at Ignalina.

**Ignalina Audited project 9.** The Commission considers that externalisation was based on the fact that the Ignalina NPP Unit only had limited capabilities to perform the necessary investigations and studies.

**Ignalina Audited project 10.** The Commission considers that it was important to bring in external expertise for the general project management and procurement as this expertise was lacking amongst the INPP staff.

**Ignalina Audited project 12.** The Commission considers that separating the design of the landfill from its construction serves to define scope and costs which will be incurred at the (more expensive) second state more closely and thereby gives a sounder basis for entering into a construction contract.

**Kozloduy Audited project 13.** The Commission considers that it was important to bring in external expertise for the general project management and procurement as this expertise was lacking amongst the KNPP staff.

Regarding the reliability of cost estimates, identification of decommissioning activities, and absence of RAW inventories see Commission replies to paragraph 20.



**Kozloduy Audited project 14.** The delays can be explained by the need to more than double the capacity of the facility.

**Kozloduy Audited project 15.** Such a risk needs to be addressed.

**Kozloduy Audited project 16.** The Commission considers that since units 3 and 4 are in cold shutdown mode, the recent transfer of units 1&2 will provide for such a demarcation.

#### ANNEX IV

#### ASSESSMENT OF 6 MITIGATION PROJECTS

**Bohunice Audited project 1** The Commission considers that there was a clear link as the project was a direct result of the power imbalance resulting from Bohunice V1 shutdown.

**Ignalina Audited project 2.** The upgrade of LPP provided replacement capacity. It is the economic context that defines the balance between using the LPP or importing electricity. Reliable production capacity is required if the economic context changes.

**Ignalina Audited project 3.** The CPMA continues to recognise the importance of converting the 2<sup>nd</sup> and 3<sup>rd</sup> housing areas of Visaginas to a closed-type district heating system.

**Ignalina Audited project 4.** The Commission observes that the termination of the project was decided by national authorities following a change of priorities.

**Kozloduy Audited project 5.** BEERECL addresses investments in the private sector. In terms of coordination the public authorities (Ministry) is fully involved.

The EBRD has initiated a gradual phasing out of the incentives provided and increased the eligibility criteria for such projects.

**Kozloduy Audited project 6.** Bulgaria joined the EU in 2007 and hence it was only from then that it had access to the full range of EU funds. At the time of planning and implementation of the project (2004-2005) the situation was very different.