

TO: Ms Nandita Parshad, Director of the *EBRD* Power & Energy Utilities Team

CC: Mr Vince Novak, Director of the *EBRD* Nuclear Safety Department
Mr Riccardo Puliti, Managing Director, Head of Energy and Natural Resources

Bulgaria:

Centre for Environmental
Information and Education
(CEIE)

Za Zemiata, For the Earth

Croatia:

Green Action

Czech Republic:

Centrum pro dopravu a
energetiku (CDE)

Hnutí DUHA

Estonia:

Estonian Green Movement–FoE

Georgia:

Green Alternative

Hungary:

National Society of
Conservationists – Friends of
the Earth Hungary (MTVSZ)

Latvia:

Latvian Green Movement

Lithuania:

Atgaja

Macedonia:

Eko–svest

Poland:

Polish Green Network (PGN)

Russia:

Sakhalin Environmental Watch

Serbia:

Center for Ecology and
Sustainable Development
(CEKOR)

Slovakia:

Friends of the Earth – Center
for Environmental Public
Advocacy (FoE–CEPA)

Ukraine:

National Ecological Centre of
Ukraine (NECU)

CEE Bankwatch Network's mission is to prevent environmentally and socially harmful impacts of international development finance, and to promote alternative solutions and public participation.

1 June 2012

Dear Ms Parshad,

I'm writing with regards to **the implementation of loan conditions for the K2R4 post start-up safety modernisation programme**, approved by the EBRD in July 2004. This project is particularly relevant at the moment as the EBRD is considering a EUR 300 million loan to Ukraine for safety and modernisation measures at its nuclear reactors – the Ukraine nuclear power plant safety upgrade programme (NPP SUP).

The EBRD board document for the K2R4 project lists key conditions including key loan covenants and guarantee agreements covenants, as well as the expected impacts that were supposed to be achieved through the K2R4 loan by 2010. These included monitoring benchmarks and implementation timings to ensure nuclear safety and smoother operation of Ukraine's wholesale electricity market. Yet as of May 2012, some of these key covenants have not been fully implemented and as a consequence the projected impacts of the K2R4 post-start-up modernisation programme did not materialise.

Although a number of K2R4 loan covenants were implemented, including a modernisation programme and an increase in nuclear liability insurance, those that were not implemented were in fact crucial in reaching the desired outcomes of the loan: **to set a nuclear safety benchmark for Ukrainian reactors compatible with international standards by implementing a nuclear electricity tariff to cover the full costs.**

The EBRD positions its loans as an instrument through which wider positive changes in a given sector are promoted and achieved, accounted for by the bank's transition impact rating. With the K2R4 loan however there is little evidence to support the declared transition impact, since the safety levels at all of Ukraine's reactors have not been raised to fully comply with international safety standards and the nuclear electricity tariff does not cover all the costs associated with its generation.

Ukraine has not demonstrated its ability or readiness to thoroughly fulfill the conditions requested by the European Commission and the EBRD for their loans in the Ukrainian nuclear energy sector. This raises questions about the effectiveness of such an approach when the EBRD invests public money to improve nuclear safety in Ukraine. The new NPP SUP EUR 300 million loan is even more suspect, as the NPP SUP envisages support for old reactors and implementing the project would provide the grounds for extending their lifetimes an additional 15 to 20 years. With every year of operation beyond 20

years the risks of accidents increase significantly¹, so the NPP SUP would not really bring nuclear safety improvements in the longer run. In order to truly decrease the risks of nuclear energy industry, the EBRD should focus its political and financial leverage and work with the Ukrainian government towards the closure and safe decommissioning of old reactors.

Analysis of the major unfulfilled covenants of the K2R4 loan

There are three important covenants of the K2R4 loan that have yet to be implemented, either fully or partially, including:

- the independence and financial sustainability of the state nuclear regulator;
- improved safety levels of another 13 Ukrainian reactors with K2/R4 as the benchmark; and
- ensuring the nuclear electricity tariff covers all costs, including safety upgrades

Independence and financial sustainability of the state nuclear regulator

• *The independence of the SNRCU will be maintained and adequate financial and staff resources shall be available for its proper functioning. These obligations are covenanted in the Guarantee Agreement².*

The State Nuclear Regulatory Committee of Ukraine (SNRCU) operates under Presidential Decree № 155/ 2001. After K2R4 loan approval and until the Fukushima accident no visible attempts were made to strengthen its independence. Only after events at Fukushima did Ukrainian authorities recognize the importance of raising the status of the nuclear regulator. The committee on national safety and defense in its decision of 8 April 2001 tasked the Cabinet of Ministers to bring to the Parliament a draft law on the state nuclear and radiation safety regulator. In June 2011, the Cabinet of Ministers approved a draft law entitled “State commission on safety regulation in the area of nuclear energy” but to date it has not been approved by the Parliament.

However, while the Ukrainian nuclear regulator is *de jure* maintained as an independent body, current financial and staff resources cannot be regarded as sufficient to operate in an adequate manner. According to the 2012 state budget law, the inspectorate is allocated approximately EUR 2.24 million, 28.7 percent less than needed for the body to fulfill its functions³. Moreover, according to the December 2010 presidential decree on restructuring of state bodies, a minimum 30 percent cut in staff is required and as a result, the total number of committee staff has been reduced to 260 people.

	Sweden	Finland	Spain	Ukraine
Number of units	ten operational, three decommissioned	four operational, one under construction	Eight operational	15 operational, three decommissioning, one emergency, two preparing for construction
Budget of regulatory authority	45,2 mln. euro (2012)	34,1 mln. euro (2006)	43,8 mln. euro (2008)	2,2 mln. euro (2012)
Number of employee	270	360 (2008)	468 (2008)	260 (2012)

¹ Meyer,N., D.Rieck, and I.Tweeer. Alterung in Kernkraftwerken. Greenpeace, Hamburg, 1996 (revised version 1998)

² K2R4 post-start-up safety modernization programme, Ukraine. Official document of the EBRD.

³ SNRIU reply to official NECU request (from 5.03.2012). Available at <http://necu.org.ua/wp-content/uploads/VidpovidDIYARU.pdf>

Table 1. Comparative table on budgets and number of employees at state nuclear regulators in some European countries⁴

The table illustrates that the nuclear inspectorate budget and staffing levels are significantly lower in Ukraine when compared to other state nuclear regulators in Europe, even though the range of responsibilities for Ukraine's regulators is much broader and includes research reactors, uranium mines and addressing the fallout from Chernobyl. Therefore the committee's current financial and staff resources cannot be regarded as adequate and sufficient. The recent trend to further cut financing is not encouraging us to believe that the situation will improve in the near future. We conclude that Ukraine has yet to implement in full this guarantee covenant of the K2/R4 loan.

Improved safety levels of other 13 Ukrainian reactors with K2/R4 as a benchmark

• The safety level of 13 operating VVER units will be upgraded over next 6-7 years using K2 and R4 as benchmark. The safety upgrades of these units will be performed in accordance with the Upgrade Package developed by Ukrainian and Western experts, reviewed and agreed by Riskaudit and approved by the SNRCU. The financial provisions for the Upgrade Package will be annually reflected in the EA [Energoatom] tariff. In addition, steps will be undertaken to assist EA to operate these units in accordance with the international safety practice⁵.

Seven years after loan approval, the safety levels at the other 13 reactors operating in Ukraine are not fully compliant with the International Atomic Energy Agency's safety standards, and measures included in the safety upgrade programmes prior to 2010 have also not been fully implemented. Energoatom's electricity tariff does not cover the costs of safety upgrades, nor a number of other costs, including maintenance.

A safety evaluation performed within the framework of the EC-IAEA-Ukraine joint project "On safety evaluation of Ukrainian nuclear power plants" concluded in its 2010 final report that "non-full compliance was found in areas such as: equipment qualification, consideration of severe accidents and seismic design margin"⁶.

By the end of the implementation period from 2006 to 2010, measures under the safety upgrade concept for existing NPP Units were fully implemented for Rivne's Unit 1 only. Ten months later, the state regulator on 8 November 2011 acknowledged approval of implementation of 232 pilot measures (93 percent) and 380 adopted measures (81 percent)⁷ with the rest of planned measures still pending.

The measures both within the concept and modernisation packages that were not implemented were moved to the NPP SUP⁸ that is now under financial consideration by the EBRD.

⁴ Prepared based on the information from above letter of SNRCU

⁵ K2R4 post-start-up safety modernization programme, Ukraine. Official document of the EBRD.

⁶ Fifth joint EU-Ukraine Report on Implementation of the EU- Ukraine Memorandum of Understanding on energy cooperation during 2010;

⁷ Nuclear Safety in Ukraine 25 years after Chernobyl, by Olena Mikolaychuk, Chairperson of SNRIU, November 2011 http://www.vatesi.lt/fileadmin/documents/leidiniai/en/Nuclear_Safety_in_Ukraine_25_years_after_Chernobyl.pdf

⁸ Resolution of SNRIU Board #2, from 16 February 2010; <http://www.snrc.gov.ua/nuclear/uk/publish/article/119023>

Ensuring the nuclear electricity tariff covers all costs including safety upgrades

One of the K2R4 loan agreement covenants was to *“Strictly adhere to the Tariff Methodology and ensure that Tariffs are at a level so as to ensure operating costs, capital expenditures and nuclear safety costs are fully recovered from the Tariff”*⁹.

Although the methodology for setting the electricity tariff is not public, there is information available to indicate that this loan covenant is not being met.

Energoatom’s electricity tariff is regulated by the National Electricity Regulatory Committee (NERC). The tariff for nuclear electricity is the lowest among all other electricity producers in Ukraine and is used as an instrument to keep the wholesale electricity price low. Such an approach to nuclear electricity tariff setting continues to be applied regardless of the conditions of the loan agreements with the EBRD and EURATOM, which require the borrower to strictly adhere to the tariff methodology, *“so as to ensure that Tariffs are at a level so as to ensure revenue for the Borrower adequate to permit all operating costs, capital expenditures and costs associated with nuclear safety to be fully recovered from the Tariff”*¹⁰.

According to Energoatom president Yuriy Nedashkovski, in 2011 the nuclear electricity tariff in Ukraine was the lowest in the world and did not provide necessary financing for the company’s production, investment and social programmes, with deficit levels reaching UAH 6 billion (about EUR 0.57 billion)¹¹.

In January 2012, NERC increased the level of nuclear electricity tariff by 1,2 %, to UAH 0.2264 /kWh or UAH 226,4 MWh (EUR 21,56/ MWh). It is still very low, in comparison for example with Romania EUR 48.96 MWh or France (EDF) EUR 42/ MWh. Herewith, the total deficit projected for 2012 is UAH 4.9 billion (EUR 466 million)¹², and it includes **deficit for maintenance costs on the level of UAH 0.5 billion (EUR 47.56 million)**.

So at the start of 2012, Energoatom’s tariff was not even covering maintenance costs for the operating reactors. From 1 March 2012 the tariff was further decreased to UAH 0.211 /kWh, leading to an additional UAH 1.3 billion deficit in maintenance, down payments for nuclear fuel, capital investments and the like.¹³

Energoatom has in previous years covered its deficits by attracting new bank loans, and the company now faces a situation where debt on bank loans is 27 percent of their production, which further limits the exploitation of this scheme.

The situation illustrates that the EBRD does not have enough influence on the Ukrainian government to ensure Ukraine implements in full all K2R4 loan agreement covenants. It is particularly important to acknowledge this now when the bank is considering another loan for safety modernisation. This EUR 300 million loan **would provide the financial resources that Energoatom and Ukraine failed to accumulate as part of the original K2R4 loan**.

The project summary document for the NPP SUP says that *“Ukraine’s ability to trade with the EU is limited due to its lower nuclear safety standards as EU members have objected to receiving power from a system with such sub-standard nuclear entities. While only thermal facilities in the west of Ukraine are physically able to trade with the*

⁹ K2R4 post-start-up safety modernization programme, Ukraine. Official document of the EBRD

¹⁰ Ex-Post Evaluation of the Euratom Loan Facility. Final report. EC DG Economic and Financial Affairs. 3rd June 2011

¹¹ www.ua-energy.org/post/10438

¹² Official letter of NEC Energoatom to NECU from 3.03.2012. Break down of total UAH 4.9 billion deficit is following capital investments – UAH 4.9 billion, operating costs – UAH 2.4 billion and maintenance costs – UAH 0.5 billion, taxes and budgetary allocations from net profit – UAH 2.5 billion¹².

¹³ Idem

EU, achieving current standards in nuclear safety should lift the nuclear safety related embargo and allow Ukraine greater flexibility to trade with the EU. This strategy is consistent with the country's recent entry into the Energy Community Treaty, which will open Ukraine's energy market to the EU and vice-versa".¹⁴ There is a possibility of nuclear electricity exports to EU member states as a result of the NPP SUP.

The final report of the ex-post evaluation of the Euratom Loan Facility says *"In providing a loan to a non-member country, the European Commission (and the EBRD) would not wish to subsidise other markets at the expense of the European industry..."*. The report also refers to sub-clauses of loan conditions as being *"self-evident in protecting the objectives of the market reform and implementation of an agreed tariff methodology"*. Since the loan conditions on the electricity tariff have not been implemented and new and much larger loans are under consideration by both the EBRD and Euratom, these loans may actually be subsidizing Ukraine's nuclear energy producer and at least some EU member states will not tolerate this.

In considering the new NPP SUP loan, the EBRD is sending the wrong signal to Ukraine as it has failed to implement key covenants of the previous nuclear safety modernisation loan. If the EBRD accepts the partial implementation by Energoatom and the Ukrainian government of loan covenants, it may significantly weaken EBRD leverage to ensure proper implementation of future loans in Ukraine.

In conclusion, we would like to ask the EBRD the following:

- What measures has the EBRD taken to get full implementation of K2R4 conditions?
- What makes the EBRD believe that Energoatom will implement covenants of the new loan agreement, if it did not succeed with implementing in full covenants of the first?
- How is the bank going to ensure that the transition impacts of its projects in the nuclear energy sector are in fact being achieved?

We urge the EBRD **to perform a formal evaluation of the K2R4** post start-up modernization programme before proceeding further with the new loan for Ukrainian reactors safety upgrades. The results of such evaluation should be made public so that they can be verified.

We urge you not to bring NPP SUP to EBRD Board for loan consideration before evaluation of K2R4 loan is performed and before Ukraine complies with all covenants of the K2R4 loan, in particular the following:

- fixes state nuclear regulator independence by state law and provides sufficient finances for regulator's functioning;
- adjust nuclear electricity tariff so that it covers all the costs, including operating costs, capital expenditures and nuclear safety costs.



Sincerely,

Iryna Holovko

CEE Bankwatch Network/ National Ecological Center of Ukraine (NECU)
National Campaigner for Ukraine

¹⁴ Project summary document is available at EBRD website
<http://www.ebrd.com/english/pages/project/psd/2011/42086.shtml>

