To: EBRD Nandita Parshad, Director Power and Energy Utilities Team Riccardo Pulliiti, Head of Energy and Natural Resources

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Re.: Nuclear involvement EBRD in Ukraine – Greenpeace action in Kiev

Vienna, 18 December 2012

Dear Mr. Puliiti,

Thank you for your letter to my colleague Jutta Matysek concerning the the proposed nuclear involvement of the EBRD in Ukraine in reaction to the Greenpeace action at your offices in Kiev.

We appreciate the fact that the Bank has been involved in intensive dialogue concerning this project with the public and more specifically with Greenpeace, the CEE Bankwatch Network and other NGOs. But as our action already indicated, we fear that some of the crucial arguments are not taken into account by the EBRD staff and Board so far. This is also illustrated by your letter.

You state that "[t]he EBRD is considering providing financing to Energoatom exclusively for investments to improve the safety of Urkaine's operating nuclear units regardless of whether their operating period is extended or not." However:

1. Only a 20 year life-time extension makes an upgrade for Ukraine financially feasible. With supporting the upgrade, EBRD finances life-time extension.

The necessary upgrades for life-time extension cannot be made without the requested EBRD financing and a 20 year spread of repayments of further financing. Indeed, initial intentions from the Ukrainian safety authorities to agree only with a limited extension of life-time came under pressure because of this reason.¹ As a result, the usual prolongation of 10 years attached to the 10 year safety re-assessment was extended to 20 years, whereas from nuclear safety viewpoint a shorter extension of 5 years or less would have been more prudent. The only conclusion can be that the EBRD loan is from the Ukrainian point of view not primarily meant for risk reduction, but for life-time extension. It is simply a scandal that that total picture is not reflected in the project documentation.

2. Life-time extension to 50 years increases risk.

There is world-wide no experience with nuclear plant life-time extension beyond 43 years (Beznau, Switzerland) and very limited experience with life-

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¹ Oral communication on several occasions from the Ukrainian Nuclear Safety Regulator

time extensions over 40 years – in the EU only 3 reactors that all are up for closure on the short term. There is, however, ample experience with the fact that life-times extended beyond the technical design life-time lead to a larger number of incidents and lower availability factors. Because of the fact that essential equipment like the reactor vessel cannot be replaced, the risk of a large accident is increasing exponentially after the technical design life-time.

3. Nuclear power plants with extended life-time are not state of the art.

It goes without saying that plants with extended life-times beyond their technical design life, even after upgrades, fail to meet the standards currently set for new nuclear power stations – they are basically sub-par in respect to socially accepted risk.

4. Total costs for upgrades force unacceptable life-time extension periods.

A potential response to keep control over increase of risk would be to give older power stations very short extensions of service license and intensive oversight. One could think of annual extensions. However, there are very costly upgrades necessary because many parts that are reachable and exchangeable already have been worn out beyond acceptability. Post-Fukushima stress tests have only increased those costs. A spread of those costs over a short pay-back period would not be financially feasible. The financial risk would increase further because of the – experienced – reduced availability factor of ageing reactors. This taken together leads to political pressure for up to 20 years extension. From risk management perspective, this is, however, unacceptable.

5. Political pressure on the regulatory system in Ukraine increases risk.

The fact that the Ukrainian nuclear regulator did not get the political space to propose shorter life-time extensions nor has sufficient capacity to accompany this with more intensive oversight is proof of the political pressure it is under – in spite of its good intentions. The Fukushima catastrophe has shown that this type of interference adds to insufficient safety culture, which in turn increases risk for a major nuclear accident.

6. Life-time extension increases risk of failing decommissioning and radioactive waste policies.

Ukraine currently faces lack of funds for implementing a decommissioning and waste policy that reduces risks. Prolongation of life-time does not help solving this situation, but is pushing efforts backwards and increases the radioactivity of to be decommissioned material – making it more expensive to manage, as well as increases the amount of radioactive waste and with that the cost and risk for future generations.

7. Twenty years life-time extension leads to an increase of risk.

Even though upgrades may reduce risk (though not guaranteed!) for a limited period, the exponential growth of risk because of deterioration of non-upgradable parts will out-do this reduction far earlier than the granted life-time extension of 20 years. We therefore need conclude that in the case of <u>a 20 years life time extension</u>, <u>overall net risk increases</u> considerably in spite of the upgrades.

This leads to the conclusion that **instead of reducing risk with the proposed project, the EBRD** is financing an increase of risk.

We do not understand why EBRD staff and management keeps – also in its letter – hiding behind an artificial separation between the proposed upgrade and the related life-time extensions.

In order to reduce the risk from nuclear power in Ukraine, Ukraine should phase out its old nuclear power stations after their technical design life-time and replace generation capacity with energy efficiency and renewable energy sources.

When all arguments are weighed, the decision of the EBRD is whether to implicitly support extension of life-time of these outdated VVER 440/213, VVER 1000/302, VVER 1000/338 and VVER 1000/320 reactors for 20 years and increasing with that the overall risk for the Ukrainian and European population, or to refrain from the upgrade and help a phase-out of these reactors out as soon as their technical design life-time expires and support a phase-in of less risky and cleaner alternatives.

We therefore call upon the EBRD to refuse financing for these nuclear upgrades. We call upon EBRD management and staff to present this whole picture to the board before the final decision is taken.

Yours sincerely,

Ir. Jan Haverkamp Greenpeace expert consultant on nuclear energy and energy policy