

South Ukraine Transmission Project

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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.

Background

The European Bank for Reconstruction and Development (EBRD) is considering lending EUR 175 million to the National Energy Company of Ukraine, Ukrrenergo, for implementing the South Ukraine Transmission Project. An equal amount of financing was approved by the EIB in October 2009. The project foresees construction of a new 750 kV power transmission line connecting the Zaporizhska Nuclear Power Plant (NPP) with the newly planned 750/330 kV Kahovska substation, two 330kV double circuit diversions between the Kahovska substation and existing 330 kV lines, and modernisation of the existing 330/220/110 kV Novokahovska substation.

The project sponsor, Ukrrenergo, started the public consultations and disclosure process on 4 August 2009. The project was criticised by the local public and Ukrainian NGOs for its negative environmental impact, support for nuclear energy generation and the dire practices in public engagement that Ukrrenergo has demonstrated so far.

Main environmental concerns

According to the project the 750 and 330 kV transmission lines will cross a number of protected natural areas along the planned route in the Zaporizka and Khersonska provinces of Ukraine.

The plans to cross the territory of the Lower Dniper National Park with a 330kV double circuit diversion are extremely troubling. The official decision to create this park was approved by the authorities in 2007, while the initial ideas date back to the 1920s. Currently the park is passing the final stages before full recognition and establishment. This park aims to protect the unique areas along the last sections of the River Dniper that remain free from dams. These areas are known for their rich biodiversity and serve as a well-known recreation area for people living in the region.

If the transmission line does ultimately cross the park, the required construction activity will significantly decrease its value while the presence of high voltage lines on its territory will seriously disturb the daily lives of its inhabitants, primarily birds who live there and migrate along the River Dniper, using these territories as a breeding and resting place. It should be noted also that industrial activities in national parks are strictly forbidden under the Law of Ukraine on Protected Natural Areas.

Furthermore, the same corridor through the Lower Dniper National Park will most likely be used in the future to prolong the 750 kV line from Kahovska substation to Prymorska in the Odeska Oblast. Such expansion will further significantly increase the negative impact on protected territories.

In general, the southern regions of Ukraine are not rich in vegetation. Therefore every island of unspoiled nature is extremely valuable. Regrettably the 750 kV transmission line is planned to cross nearly every protected area that can be found along the outline route, including nature reserves of national importance such as Urochische Bilozirske in Zaporizka Oblast, and of local importance such as Vodiansky Kuchugury in Zaporizka Oblast and Kairska Balka in Khersonska Oblast.

Is such a gargantuan project really needed?

Ukrenergo claims that construction of new transmission lines is required for the "full utilization of the 6000 MW capacity of Zaporizhska NPP" whose output capacity is restricted to 5300 MW because of the current state of the transmission network. However, in reality, the Zaporizhska NPP operates at full load just for limited periods of time. Thus during the one year period from 1 September 2007 to 31 August 2008 it operated only 70 days (19 percent of the time) with limited output imposed by the UPS dispatch.¹ The rest of the time its output was lower and depended on the reactors' performance (i.e. operating or repair/maintenance/accident condition), rather than grid capacity.

The transmission capacity of the new 750 kV line is estimated at 2000–2500 MW, which is several times higher than the current deficit of 700 MW. Thus, even bearing in mind the need for some reserve capacity, the question of the technical justification remains open.

The second main potential benefit and urgent need claimed for this project is the improvement of the power supply to the South of Ukraine (namely Crimea). Currently Crimea is supplied with electricity by three 330 kV transmission lines – two of them run from the Novokakhovska substation and one from Melitopol.² Though some modernisation was recently implemented at the latter, the technical conditions of the three lines are not satisfactory and cause limitations on the transmission. No plans to construct a new line to Crimea have been made public. If Ukrenergo is serious about addressing the energy demands of Crimea first it should focus its efforts on

¹ This period was chosen for the following reasons: it covers winter when electricity consumption reaches its maximum and winter 2007/2008 was chosen as falling in the pre-crisis period, with no decrease in consumption as could be observed in 2008/2009 season. The data for the analysis was compiled from daily reports published by the Ministry of Fuel and Energy of Ukraine: pages from http://mpe.kmu.gov.ua/fuel/control/uk/publish/category?cat_id=35088&page=31 to http://mpe.kmu.gov.ua/fuel/control/uk/publish/category?cat_id=35088&page=59

² Another 220 kV line from Novokakhovska is also in operation, however it mainly supplies the industrial complex in Northern Crimea and does not play a significant role in feeding the peninsula.

modernising these existing transmission lines that already work at their limits rather than trying to feed extra power into them.

The new 750/330 kV Kahovska substation is designed for a capacity of 1400 MW which is again twice as high as the 700 MW gap in the Zaporizhska NPP's output. It is supposed to operate in parallel with the already existing NovoKahovska substation, which will be modernised under the same project. If further combined with potential capacity expansion at Kahovka HPP (also connected to NovoKahovska substation) such a node will have an enormous power surplus and the problem will remain.

The project's economics is also doubtful. According to the ESIA report, the annual under production of electricity by Zaporizhska NPP reaches 1.0 TWh/year, so it is possible to assume that an equal amount will be additionally transmitted by Ukrrenergo in the case of the project's completion. The average annual tariff for electricity transmission approved for Ukrrenergo for 2010 is 0.002 EUR³, so the annual revenue on the level of current tariffs is about EUR 2 million. Even considering a possible increase of tariffs during the following years and benefits from modernising the grid and substations, as well as improving the system's reliability, the question of the EUR 450 million project's profitability remains unclear.

Is Ukrrenergo a reliable client for the EBRD?

In October 2009, almost two months after the official start of the project's public consultations and disclosure period, the National Ecological Centre of Ukraine (NECU) discovered and reported to the EBRD⁴ a number of serious flaws. The project documentation was not available in a number of designated places and the general level of public awareness about the project was very low.

A further fact finding mission by NECU has also found low public acceptance of the project from those who are aware of it and may be potentially affected. The construction of these transmission lines will require the acquisition of agricultural lands – since agriculture is the main economic activity in the region, people may disagree with such plans and actively oppose them. According to letters received from local authorities (one Regional State Administration and one village council in Zaporizhska Oblast and one Regional State Administration, one town council and four village councils in Kherson Oblast) in December 2009 local landowners have not yet been consulted by Ukrrenergo regarding compensation. NECU receive confirmation from authorities that only one landowner was approached directly by a letter from the Regional State Administration in December 2008. . Compared with the negative experience with Ukrrenergo in Usatove on another transmission lines project, the risk of conflicts with landowners and the local population is substantially higher with this project due to its greater scale.

³ <http://economics.unian.net/rus/detail/30935>

⁴ http://www.necu.org.ua/wp-content/uploads/necu_to_ebrd_letter_on_consultations.pdf

In general, Ukrrenergo has so far failed to demonstrate any visible willingness towards civilised practices of stakeholder engagement, conflict resolution and proper project preparation and implementation, which raises concerns about its intentions and ability to improve.

Recommendations

- We urge the EBRD to suspend any further consideration of lending to Ukrrenergo until the company: (i) demonstrates visible progress in resolving the conflict in Usatove by civilised means and in line with EBRD policies, Ukrainian legislation and best international practices, and; (ii) properly resolves the social and environmental challenges associated with the already approved Adjalyk – Usatove and Rivne – Kyiv transmission line projects.
- The EBRD is requested to ensure that all proper permits and property documentation are obtained by Ukrrenergo and thoroughly studied by the bank prior to board consideration of any further potential lending to the company.
- The South Ukraine Transmission Project should not be supported by EBRD under the current design. The alternative solutions aiming to address the problems need to be investigated, both including the downscaling or 'do nothing' option.
- We request the EBRD to publish a financial and technical assessment of the project as part of the disclosure process, as well as the bird survey referred to in its Project Summary Document.

For more information

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