October 8, 2013

Response of EBRD on Approved by mail: Tajikistan Enhancing the Climate Resilience of the Energy Sector (EBRD)

Hi Andrea,

Please find attached our responses to the comments from the PPCR Sub-Committee on the above project.

Best regards,

Craig Davies

EBRD response to SC comments on PPCR energy sector proposal

SC member	Comment/question	EBRD response
Germany/ Spain	In our view the proposal would greatly benefit from identifying the adaptation-related aspects and benefits of the proposed interventions more clearly and from further elaborating them. In its present version, there is little that sets the proposal apart from a conventional approach in the energy sector. To ensure this, we recommend specifying the concrete innovations aimed to increase climate resilience in comparison to standard rehabilitation in the context of hydropower generation.	EBRD considers that this is a highly innovative proposal in which detailed analyses of climate change projections have been used to inform the investment design, including rehabilitation specifications and technology selection, as well as the supporting institutional development activities. It is not a business-as-usual energy sector project, but is to our knowledge the first example in the developing world of the application of best-practice climate change analysis in the refit of a major hydropower facility. Specifically, the concrete innovations that will enhance climate resilience are the following: • The innovative use of detailed climate change and hydrological modelling techniques to project the range of hydrological conditions under which Kairakkum HPP will have to operate over the next 80 years; • The use of the above climate change/hydrological scenarios to inform the modelling of the peak maximum flood (PMF)at Kairakkum HPP, which was used to determine the dam safety measures that need to be incorporated into the dam refit; • The use of the above climate change/hydrological scenarios to identify the turbine upgrade scenario (i.e. the specifications of the new turbine equipment) that will optimise energy generation in the face of the increased hydrological variability that is projected as a consequence of climate change • The incorporation of a major institutional capacity building package (i.e. Activity II) that will enable Barki Tojik to move towards best international practice in managing climate change risks to hydropower operations.
	We recommend including necessary arrangements to ensure that the enhanced production of electric energy translates into increased availability to local users instead of increased export rates.	At the moment, Kairakkum HPP produces only around 20% of the electricity used in Sugd Province. The remaining electricity comes from outside Sugd province, mainly from other regions of Tajikistan such as the Vakhsh cascade. Since Uzbekistan withdrew from the Central Asian Electricity Grid in 2009 there has been no possibility of cross-border energy exports out of Sugd Province anyway. This situation means that it will not be possible for extra electricity (generated as a result of Kairakkum HPP rehabilitation) to be exported outside Tajikistan. Instead, it will be used to make up for the severe energy shortfall that Sugd Province is already facing.

	We recommend particular consideration of the above mentioned risk for sustainability of the project results (financial situation of Barki Tojik caused by too low electric energy tariffs, poor collection rates, weak corporate governance and financial management) and effectively monitoring the proposed actions to mitigate these risks.	EBRD is aware of Barki Tojik's financial situation and institutional challenges, and is working hard in coordination with other IFIs and donors to provide support through its energy sector operations and investments. Barki Tojik faces financial challenges which constrain its possibilities to address energy sector challenges from its own means. Scope for tariff increases, although essential, is constrained by low affordability and the absence of a social safety net. In order to address these challenges, EBRD (together with other IFIs) is working with Barki Tojik and with the Tajik authorities. Comprehensive support from IFIs and international donors is helping the Government design and implement the energy sector reform agenda, and jointly agreed upfront conditionalities will ensure demonstration of political commitment and address the most critical points. To this end EBRD intends to put in place clear conditions linked to the hard loan component of this project: • Prior increase of the average tariff from 2.25 USD cents in June 2013 to 3.5 USD cents before the first disbursement, plus agreement with the Government of Tajikistan to continue tariff adjustments to full cost recovery. • Presentation of unqualified audit report as an essential step to increase the transparency of Barki Tojik. • Approval by the Government of Tajikistan of the Reform Plan for Barki Tojik. The Reform Plan contains a set of measurable benchmarks for a phased restructuring based on work developed by ADB. The need to improve Barki Tojik's corporate governance is being addressed through a series of IFI technical assistance activities including the ADB-financed restructuring of Barki Tojik, EBRD-financed support to modernise energy regulation and institutional strengthening, and extensive policy dialogue. The World Bank is also considering providing support to improve the social safety net.
	In terms of energy efficiency on the supply side, it should also be considered that energy losses in the Tajik power transmission and distribution networks are nearly double the level of good practice. We recommend taking this into account during project implementation and including measures to reduce the energy losses, as feasible.	EBRD is very aware of the severe problems with energy losses in the energy sector in Tajikistan. Addressing loss reduction in transmission/distribution is and will remain to be a central part of EBRD's policy dialogue and technical support activities in the energy sector in Tajikistan. As explained in the project documents, this project will be closely coordinated with the related "Sugd Loss Reduction Project" also being implemented by EBRD and Barki Tojik. This project focuses on demand-side management by financing the installation of modern electricity meters, meter reading systems and design and installation

		of an automated billing system in northern Sugd region of Tajikistan. The project will reduce existing level of electricity losses in the network, increase bill collection levels and improve quality of electricity supply. This project will allow for transparent accounting of electricity generated mainly by the Kairakkum plant. The new, improved billing system in Sugd region will in turn produce accurate bills, process payments and provide the necessary information to allow unpaid accounts to be targeted. As Kairakkum hydropower plant is the only generating facility in Sugd Province, this project is highly complementary to Activity III and is also highly relevant to Activity I.
	As this should be a standard procedure for such a significant investment, we recommend preparing a cost-benefit analysis, to the extent feasible in this phase.	A comprehensive, detailed economic evaluation was carried out as part of the in-depth Feasibility Study for Kairakkum HPP rehabilitation that was commissioned by EBRD in 2012. Naturally it is an absolute prerequisite and a mandatory part of EBRD's project cycle for this kind of analysis to be carried out. This included a full benefit-to-cost ratio (BCR) analysis that went further than business-as-usual by analysing the BCR under the range of climate change/hydrological scenarios that were mentioned above. The approval of the proposed USD 46.6 million non-concessional loan by EBRD's Board will rest upon this detailed economic analysis that we also be rigorously assessed by EBRD's Office of the Chief Economist.
	However, in order to ensure the effective implementation of the gender-sensitive approach, the gender aspects need to be reflected in the results framework. To this end, we highly recommend including meaningful output and especially impact level indicators measuring the extent to which women and men benefit from project activities.	This point is noted. EBRD will work together with the Tajik PPCR Secretariat and the CIF Admin Unit to build in some gender-disaggregated indicators into the final Results Framework for this project. The most suitable place to do this will be under "A1.3 (core): Numbers of people supported by the PPCR to cope with effects of climate change".
	We recommend identifying and using potential synergies with the above mentioned projects [i.e. bilateral German activities in the areas of renewable energy, energy efficiency and SMEs] during operational planning and implementation.	EBRD will be pleased to coordinate with and learn lessons from these related activities and will make contact with the German Embassy and GIZ office during the next project mission.
Japan	Energy sector is one of the prioritized issues for JICA's assistance to Tajikistan. We would appreciate if you could share with us the project progress information and analysis on energy efficiency at the hydro power plant during/post project implementation. It is also appreciated if experts/mission members could visit JICA Tajikistan office for discussion, in case they visit Tajikistan.	EBRD will be pleased to keep JICA informed about progress with project implementation. We will establish contact with the JICA office in Dushanbe during the next project mission.

UK	Pleased to see that the project has been developed with the active input of EBRD's Gender Team. However, Activity 1 could have greater gender impact if it also looked at school energy use, can this be added to the scope?	This is an interesting suggestion. EBRD will explore the expansion of the scope of Activity I so that it covers major public institutions such as schools and possibly hospitals etc.
	Could be more specific on what gender related activities they anticipate supporting as a result of this survey (they say will use EBRD resources for, e.g. for A1)	It is anticipated that the surveys and subsequent analytical work under Activity I will be used to develop a framework for planning and prioritising energy supply (including its spatial and temporal availability) in a way that best meets the needs of communities and enterprises (taking into account gender considerations). For example, enterprises (and men) may prioritise energy supply during the day (e.g. industry, irrigation pumps) while households (and women/children) may prioritise it in the evenings (e.g. cooking, studying). Similarly there may be important cases where permanent electricity supply is imperative, e.g. hospitals.
	Interesting that Sugd was the centre of the light manufacturing industry – do they now manufacture low energy lights now?	This is a misunderstanding. In the project documentation, "light manufacturing" refers to manufacturing that is less capital-intensive and more labour-intensive, such as agri-processing, textiles, etc. It does not refer to the manufacture of lights.
	We would like more detail about construction – will power generation continue throughout the works or be disrupted? If the latter there may be social impacts due to national power shortages, that could be covered in the social environmental section.	The implementation of Activity III (i.e. construction phase) will not require the full shutdown of the entire HPP. During the refurbishment of the dam (including the replacement of turbines and spillways), no more than one turbine/spillway will be worked on at a time. This means that at least five remaining turbines/spillways will be fully operational at all times during the refit. Power generation will by only marginally affected during the refit (there will be at least five turbines in operation at any given time) and the total operating capacity will increase as soon as the first new turbine is installed.
	Could they explore ways of monitoring and evaluating the impact of the hydropower refurbishment – as this is an innovative activity and demonstration aspect so important, would be good to measure in the long term what the impact has been, perhaps in quite scientific/engineering terms as well as on community resilience.	This point is noted. EBRD will work together with the Tajik PPCR Secretariat and the CIF Admin Unit to refine the project Results Framework to reflect this issue. The most suitable place is likely to be under "B5 (core): Quality of and extent to which climate responsive instruments/ investment models are developed and tested".
	Indicators used could be more specific on how will measure these things, e.g. improved capacity, though these maybe developed as programme is implemented.	This point is noted. EBRD will work together with the Tajik PPCR Secretariat and the CIF Admin Unit to refine the project Results Framework further, taking into account the comments received from the Germany and the UK.
	Can the project team clarify how the financing will work if the bid for the competitive reserve is not successful, can we assume the success of component 3 is not dependent on this 10 million?	The additional resources are required for the successful implementation of this project. In the event that the bid for the additional USD 10 million concessional finance from the PPCR Competitive Reserve) is unsuccessful, then EBRD will have to find an alternative source of co-financing. However it is EBRD's view

		that the PPCR Competitive Reserve is the most appropriate source of funding for these project components. As there is no alternative source of co-financing identified at the moment, failure to secure these funds will result in delays to implementation.
	Why was this allocated to turbine refurbishment specifically? Is this the most appropriate part for credit financing, and project success not critically dependent on?	As explained in the project documents, EBRD proposes to allocate grant resources to non-revenue generating investment components such as dam safety, while allocating concessional finance resources to the turbine upgrade, which is revenue generating. As a component of the concessional finance will need to be repaid it is necessary to have a revenue stream that will support these repayments. This revenue stream will be provided through the additional power generation made possible by the turbine upgrade. Conversely the dam safety measures, while absolutely essential, will not create a revenue stream and so are most appropriately met through the use of grant resource, which do not have to be repaid.

Date: 8 October 2013