PILOT PROGRAM FOR CLIMATE RESILIENCE **Summary - Project/Program Concept Note for the Use of Additional PPCR Resources**			
1. **Country/Region**:	Tajikistan	2. **CIF Project ID#**:	PPCRTJ038A
3. **SPCR endorsement date:**	*10 November 2010*		
4. **Project/Program title:**	*Tajikistan: Enhancing the Climate Resilience of the Energy Sector*		
5. **Type of PPCR investment**	*Private:*	*Public:*	*Mixed: X*
6. **Funding request (in USD million total) (including preparation grant)**:	*Grant: USD 1,000,000*	*Loan: n/a*	
7. **Financing will be used for:**	a – adding to an approved PPCR project/program ☐ b – adding to a PPCR project/program in preparation for Sub-Committee approval X c- a new PPCR project/program ☐		
8. **Implementing MDB:**	*EBRD*		
9. **National executing agency:**	*Barki Tojik (Tajik electricity company)*		
10. **MDB PPCR focal point and project/program task team leader (TTL)**:	*Headquarters-PPCR Focal Point:* *Craig Davies,* *Senior Manager – Climate Change Adaptation,* *EBRD*	*TTL:* *Ramses Ruziev,* *Associate Banker – Power & Energy Utilities,* *EBRD*	
11. **Project/Program Description** (including objectives and expected outcomes)**:**			

The request is for additional grant finance of USD 1 million to support the project "*Tajikistan: Enhancing the Climate Resilience of the Energy Sector*". This project aims to enhance the climate resilience of Tajikistan's energy sector through a multi-layered approach, with a specific focus on Sugd province. This will facilitate targeted interventions that will generate lessons and experience that could subsequently be transferred elsewhere in Tajikistan and beyond. The project scope will go far beyond current practice in the Tajik energy sector by enabling climate change impacts on energy infrastructure and energy security to be better understood and managed. The intention is to help Tajikistan move towards current best available practices in such as those used in OECD countries where climate resilience is beginning to be mainstreamed into energy sector planning and investment, including hydropower operations. This approach is fully in line with the objectives of the SPCR and supports the Government of Tajikistan's strategic objectives of upgrading the country's energy infrastructure, especially hydropower facilities. It addresses some of the most significant barriers to improving the climate resilience of the energy sector by supporting improved policy making and investment planning, building capacity and expertise in key institutions, and introducing best-practice approaches. There is a need for demonstration and initial market transformation in order to ensure the uptake of best practice technology and practices and to raise the capacity of responsible institutions and the energy industry more broadly to be able to implement modern regulations. This project will pursue this by combination of investment, technical assistance and policy dialogue, building on EBRD existing engagement in energy sector upgrades and reforms and in close collaboration with other PPCR activities and IFI initiatives. The key partner in this project will be Barki Tojik, a Tajik electricity company corporatized power utility that operates on a commercially-oriented basis, and which that owns and manages most of Tajikistan's hydropower facilities.

12. **Activities to be financed from the additional resources:**

During the development of this project, which included an extensive Feasibility Study that was funded and managed by EBD, it became apparent that the original envelope of USD 10 million PPCR financing for this project was insufficient to meet all the investment needs of the rehabilitation of Kairakkum HPP, especially taking into account the affordability constraints under which Barki Tojik has to operate. Specifically, the Feasibility Study identified a need for specific surveillance and safety measures that are needed to ensure the climate resilience of the refurbished dam. Specifically, in order to ensure that the refurbished dam is able to withstand extreme weather events, which are projected to increase in both frequency and severity as a consequence of climate change), surveillance instrumentation must be installed at the connection with the dam embankments, and on concrete structures such as the weir, and powerhouse. This will facilitate automatic monitoring of the dam and other relevant structures in order to optimize safety and resilience. As these measures are non-revenue generating yet critical for the safety, climate resilience and overall operations of the dam and the HPP, there is a strong case for additional grant resources to be allocated for this purpose.

13. **Briefly summarize how the proposed project/program further advances the objectives of the endorsed SPCR:**

Tajikistan's Strategic Programme for Climate Resilience (SPCR) acknowledges the high vulnerability of Tajikistan's energy sector to climate change, and identifies this as a crucial dimension of the country's overall vulnerability to climate change, and as a critical threat to the economic well-being, livelihoods and energy security of the Tajik population. As made clear in Tajikistan's Second National Communication to the UNFCCC, Tajikistan's hydropower plants are highly vulnerable to the projected impacts of climate change as they depend upon river basins fed by glacial melt water and snowmelt. Most climate models predict significant changes in the dynamics of Tajik glaciers, snowmelt and precipitation as the climate warms. The International Commission on Large Dams (ICOLD) has already emphasized the urgent need to adapt older dams to cope with the impacts of climate change. At the same time, Tajikistan's Poverty Reduction Strategy emphasizes the importance of increasing the availability of affordable energy and using Tajikistan's abundant hydropower resources to promote economic growth and development. Hydropower provides around 98% of Tajikistan's electricity, while to date only about 10% of the total hydropower potential of 40 GW is being utilized. There is a significant energy deficit, especially in winter, due to the unreliable electricity supply. In line with these challenges, Tajikistan's SPCR argues that in order to safeguard Tajikistan's development, there is an overwhelming case to improve the climate resilience of the hydropower sector by building the technical and institutional capacities of hydropower operators and investing in climate-resilient upgrades of hydropower facilities. As detailed in the full project document, dam safety improvements are urgently needed in order to improve the resilience of Kairakkum hydropower plant to climate change. Specifically, additional finance is needed to install new monitoring and safety instrumentation, in order to improve dam safety in the face of the projected increased frequency and severity of extreme weather events as a consequence of climate change. As these project activities are non-revenue-generating and were not originally foreseen at SPCR stage, there is a case for using additional PPCR grant resources to finance the installation of this essential equipment.

14. **Expected Key Results from the use of the new resources**

Result	**Indicators (consistent with approved PPCR Results Framework)**
B1 (core): Extent to which vulnerable households, communities, businesses and public sector services use improved PPCR supported tools, instruments, strategies, activities to respond to climate variability and climate change.	Kairakkum HPP power generation to be resilient to climatic variation and extreme climate events.
B5 (core): Quality of and extent to which climate responsive instruments/ investment models are developed and tested	Integration of climate change resilience features into Kairakkum HPP rehabilitation

15. **Expected Co-Financing for the project or program:**

	Amount (USD million):	*Type of contribution:*
• MDB (EBRD)	46.6 1	Loan Grant
Total	47.6	

16. **Expected Project/Program Timeframe** Expected Sub-Committee approval date: August 2013 Expected MDB Board Approval: 29 November 2013 (subject to PPCR Subcommittee approval of PPCR contribution)
17. **Other Information:**