

CLIMATE INVESTMENT FUNDS

July 17, 2017

**[APPROVAL BY MAIL]: BANGLADESH: POWER SYSTEM EFFICIENCY IMPROVEMENT
PROJECT – ADDITIONAL FINANCING- OFF GRID SOLAR PV: SOLAR IRRIGATION
(ADB)(SREP)- XSREBD064A**

ASIAN DEVELOPMENT BANK RESPONSE TO COMMENTS FROM UNITED KINGDOM

1. Thank you for the constructive suggestions. ADB will include relevant indicators in the design and monitoring framework to ensure that cost details are documented appropriately.

2. This suggestion is well-appreciated and is fully consistent with ADB's recently updated procurement guidelines which emphasize value for money (VFM) rather than lowest responsive price as a fundamental basis for sustainable investments.

Below provides comparison of solar irrigation system cost according to capacity:

Solar Irrigation System Cost (\$)			
System Capacity	BREB Pump System		IDCOL (2015)
	FS cost (2015 data)	DPP updated cost (July 2016)	
1.5 HP (2 kWp)	8,120.22	5,995.89	TBD*
3 HP (4 kWp)	15,310.26	11,313.00	8,461
5 HP (6.7 kWp)	23,543.61	21,632.97	
7.5 HP (10 kWp)	34,034.01	28,911.00	
8 HP (11 kWp)			31,343
22.5 HP (30 kWp)			65,261.69

* To be determined based on the results of due diligence which will be completed by end of July 2017

Based on BREB cost estimates (2015-2016), the proposed project's 2,000 solar irrigation pump's has average cost per HP of around \$4,000- \$4,700. The cost comprises the complete pump installation including cost on permanent evacuation line (\$1,634 [1.3 lakh taka] per system) for 5 HP and 7.5 HP systems. The project's cost per HP is just about half of this price as compared to other similar completed projects (solar powered irrigation pump and SHS) in the country which is around \$11,400 (9.07 Lakh Taka).

Regarding INDCs' \$0.6 billion estimated investment needs for solar irrigation, ADB will check with the government on the specific number of pumps to be installed. Hypothetically, if the average cost of solar irrigation systems is about \$2500/kW, it will have 240MW solar irrigation systems installed. If the average capacity of a solar irrigation system is 3kW, there are going to be 80,000 sets of irrigation systems. This is without any consideration of economies of scale and discounts for bulk procurement. This will be updated once the data is collected from the government.