

CLIMATE INVESTMENT FUNDS

May 31, 2017

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

COMMENTS FROM SWITZERLAND

Thank you for circulating the project application regarding SREP Bangladesh Off-Grid Solar PV Irrigation. We have the following questions (Q) and comments (C):

1. Project description and rationale:

- a. (Q) This project is described as part of the ADB financed "Power System Efficiency Improvement Project" which notably contains the upgrading of an existing 450 MW thermal power plant at Ashuganj. Please explain how this SREP financed project fits into the larger ADB project and what was the rationale of adding it other than access to SREP funding.
- b. (Q) Table 4 contains a list and quantities of solar irrigation pumps to be provided by the project. Please add the budgeted unit prices to this table and thereby explain how the total project cost of USD 47'385'000.- is derived from the 2000 irrigation pumps (and other equipment) to be provided and installed.
- c. (Q) Please explain how the project will be implemented:
 - i. How will the equipment and installation works be procured?
 - ii. Who will be responsible for such procurement?
 - iii. How will farmers get access to the irrigation pumps?
 - iv. Who will determine which farmers get access to the pumps?
 - v. What will be the financial arrangements with beneficiaries regarding own contribution (equity), loan portion (from ADB) and grant portion (SREP)?
- d. (Q) You mention that electricity from the larger pumps (5 HP and 7.5 HP systems) will be injected into rural mini-grids:
 - i. Who will build the mini-grids and how will they be financed? By whom?
 - ii. Who will own and operate the mini-grids?
 - iii. What kind of agreements will be made between the solar irrigation pump owners/operators and the mini-grid operators?
 - iv. Who will coordinate such agreements?

2. Project financing

- a. (C) It is noted that the requested SREP grant has been reduced by USD 1.78 million compared to the IP with a note that the GoB may request funding approval of that amount if additional grant funding becomes available under SREP. Please understand that while we agree that grant requests be reduced or substituted by non-grant contributions, we do not support the concept of splitting applications with the idea of reinstating reduced amounts later. Besides creating increased administrative work this would not be fair to other countries waiting with ready projects in the SREP reserve pipeline.
- b. (Q) What are the implications of the case that the SREP Subcommittee rejects the reinstatement of the USD 1.78 million mentioned above?
- c. (Q) We noticed that a USD 6.6 million contribution by the GOB foreseen in the IP for this project was reduced to \$75'000. Please explain why, what was to be financed by the difference and what will be financed by the remainder?
- d. (Q) We also noticed that an equity contribution from buyers/consumers was added to the project (contrary to the IP). Please explain what this equity contribution is, notably in relation with question 1c above. Who is expected to provide this equity?

3. Expected results

- a. (C) The GoB and ADB did not fully respond to our request to detail the expected outcomes in the Results Framework at the stage of IP endorsement. Among the little information provided was that 43 GWh electricity would be generated from off-grid solar PV annually (Answer to nr.10 of our questions and comments to the IP). Since the project, which requests 80% of the SREP contribution for off-grid solar PV (according to the IP),

foresees to generate on-ly 5 GWh/y (Table 4 and results framework of the project), what about the gap of 38 GWh/y?

b. (C/Q) With a potential to save (only) 678 tons of diesel/year the project seems marginal in view of the one million tons of diesel consumed for irrigation anyway. Also the overall investment of USD 47.385 million seems very high in relation to the savings of 678 tons of diesel per year. Is this figure accurate? Please explain.

c. (C) The co-financing leverage factor is only 1:1.1325 well below the SREP ob-jective of 1:4.

d. (C) With only 43'206 tons of CO₂ avoided over the project lifetime, the carbon reduction cost based on SREP grant is reaching USD 514 per ton. This is excessive to qualify the project as a carbon reduction project.

4. Financial and economic viability

a. (Q) Table 7 summarizes the direct benefit earnings from irrigation and power generation:

i. The last rows states revenue per pump per month but this seems to be (wrongly) added up instead of averaged in the "Total" column. Please explain.

ii. How do these revenues compare to the unit costs of installed solar irrigation systems?

iii. Who are the beneficiaries of these earnings?

b. (C/Q) With EIRR at 48.75% and FIRR at 21%, the project seems economically and financially quite viable. Why is an SREP contribution needed to co-finance it?

c. (C/Q) Acknowledging that there is limited long-term commercial financing available in Bangladesh, please explain why you are requesting grants from SREP to co-finance this project.

d. (Q) What would be the implications if the project was co-financed by an SREP non-grant contribution?