

# CLIMATE INVESTMENT FUNDS

February 1, 2017

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**[APPROVAL BY MAIL]: MONGOLIA: UPSCALING RURAL RENEWABLE ENERGY- SOLAR PV  
(WORLD BANK) (SREP)- XSREM056A**

**RESPONSE RECEIVED FROM THE WORLD BANK**

#1. With respect to Component B (10 MW Solar Power) of the proposal, and the statement that “a substantial number of licenses with power purchase agreements (PPAs) have been granted to developers of solar power (with a total capacity of 200 MW)” The solar investment in the Western Energy System (WES) supports the scaling up of renewable energy (RE) in a remote area of the Mongolian grid in order to achieve:

(i) reducing Russian electricity imports, which currently stand at 70 percent of the WES supply; (ii) enhancing energy independence while addressing urgent needs for generation expansion; (iii) reducing transmission losses; (iv) increasing CO<sub>2</sub> emission savings; and (v) creating opportunities for job and skills development in building sustainable energy systems.

The WES was chosen as the testbed for Mongolia’s first public solar investment after public workshops held in Ulaanbaatar during the preparation of the SREP investment plan revealed low private sector interest due to the WES’ remoteness and low overall load. During the same stakeholder consultations, private sector players expressed concerns relating to perceived financial risks in having the local state-owned electric utility company WRES be the off-taker given its negative operating margins and reliance on government subsidies. Due to the relative poverty and isolation of the region WRES has social (i.e. lower than cost-recovery) pricing of electricity with the financial gap filled by government subsidies. The SREP contribution will allow WRES to supply solar generated power at a cost of US\$5.4/kWh compared to the present average generating cost of US\$6.0/kWh thereby reducing its subsidy requirement going forward. It is true that Power Purchase Agreements (PPAs) have been granted to develop 200MW of solar generation capacity. However, with the feed-in-tariff (FIT) regime for solar in the US\$15–18 cents/kWh range, the actual implementation of PPA-backed projects would pose a huge fiscal challenge for Mongolia. It is therefore not realistic that more than a few of these projects will go ahead and none of those would be in the WES.

#2. On the clarity about the market failures which show that Component B is necessary after Component A is completed. Component A addresses the need to upgrade Soviet-era power distribution infrastructure; it will not address market failures for RE generation technologies. The SREP funds deployed under Component B are critical to address a market failure that is specific to the isolated grids of Mongolia. In the absence of the SREP funds that will enable WRES to operate a solar plant no private sector investment could be expected given the significant levels of perceived risks. The SREP IP also includes a US\$1.2 million technical assistance support to strengthen the regulatory framework to remove barriers for private participation in power infrastructure and ultimately move towards a more sustainable energy sector development path. Through this work, which is about to start, key areas of engagement with the Ministry of Energy (MOE), the National Dispatching Center (NDC) and the Energy Regulatory Commission (ERC) are system analysis and operations, energy policy support, assistance with PPAs and renewable energy pricing and market evolution. The expectation is that this work will lead to improvements in the enabling environment for RE investments by private developers and in turn scale-up of RE generation by IPPs in the CES (the main electricity network in Mongolia).