



TERMS OF REFERENCE

Scaling-up Renewable Energy in Low Income Countries Program (SREP)

Joint Mission

25-28 August 2015

Mongolia



CONTEXT OF THE MISSION

1. The Climate Investment Funds (CIF) was established in 2008 with the goal of promoting international cooperation on climate change issues, and supporting the mitigation and adaptation efforts of low income countries. SREP was developed under the CIF umbrella that was approved in 2009 to demonstrate the social, economic, and environmental viability of low carbon development pathways in the energy sector. It seeks to create new economic opportunities and increase energy access through the production and use of renewable energy. Currently, SREP covers 27 countries, including Mongolia.
2. In March 2012, the SREP Subcommittee invited the Government of Mongolia to prepare an SREP Investment Plan (IP). The Government confirmed its interest by submitting the Confirmation of Interest Form on 31 October 2013. In July 2014, the SREP subcommittee approved a funding allocation of USD300,000 to support the development of the country's SREP IP. Mongolia is expected to receive up to USD30 million to support the IP should additional funding become available.
3. The Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the World Bank Group (WBG), including the International Finance Corporation (IFC), and other relevant stakeholders have been supporting the Government of Mongolia in developing the SREP IP (Phase I pre-investment) in consultation with relevant stakeholders. It was agreed that ADB will be the "lead MDB" and would therefore coordinate the joint efforts of the MDBs in the country. The finalization and endorsement of the IP by the SREP Sub-Committee will mark the beginning of Phase II which is the implementation stage.

PREPARATORY ACTIVITIES

The GoM has already undertaken a number of preparatory activities including:

- a. Joint Scoping Mission from 28 April to 02 May 2014 to identify key development partners, undertake stock taking of existing activities and documentation available on a range of analytical, strategic and programming activities related to renewable energy in Mongolia;
- b. Request for USD300,000 investment plan preparation grant approved by the MDB Committee on 17 July 2014;
- c. Hiring and mobilizing of consultants to support the Government of Mongolia in the preparation and development of SREP investment plan (Phase 1). The consultants team is composed of: Mike Emmerton (Team Leader/RE Specialist), Sakari Oksanen (International RE economist), Bavuudorj Ovgor (Deputy Team Leader/National RE Specialist), and Burmaa Chadraaval (National RE Specialist);
- d. Inception report prepared and submitted by the consultants;
- e. Inception Workshop organized on 05 March 2015 to discuss the approach and methodologies for the IP preparation, preliminary findings on opportunities and constraints

in renewable energy development, ongoing issues and bottlenecks for sustainable investment in renewable energy development, and necessary policy and regulatory reforms. Representatives from government agencies, private investors and donor agencies participated in the workshop.

- f. Joint Programming Mission from 15-17 April 2015 to discuss key issues that would be critical for the IP preparation, including key policies and regulatory issues for renewable energy development; discuss priorities in renewable energy investment that the government would implement with SREP financing support; provide inputs in formulating project concepts; and agree on next steps for the finalization of the IP.
 - During the mission, the government identified renewable energy system development in small cities and towns in western region as priority investments for SREP funding support. The government suggested building demonstration project for renewable energy system (solar, wind, and shallow ground heat pump) deployment in targeted cities and towns in the region to decarbonize local energy system and minimize electricity import. The mission agreed to assist the government to firm up project concept under the SREP TA for further feasibility assessment.
 - Other suggestion for the SREP funding include technical assistance to strengthen institutional and organizational capacity, and promote regulatory reforms; and support for private sector investments under the changing regulatory framework

4. Draft SREP IP has been prepared and shared with MDBs for review before the proposed joint programming mission in 25-28 August 2015.

5. The government agreed to submit the final IP by September 2015 for endorsement at the SREP subcommittee meeting in November 2015.

JOINT MISSION OBJECTIVES

6. The MDBs are organizing this Joint Mission to assist the Government of Mongolia on the final planning and preparation of the SREP IP for submission to the SREP sub-committee for consideration in November 2015. The joint mission will include a field visit to the proposed project site in the Western Region and a presentation of the draft SREP IP to relevant stakeholders. The proposed dates for the Joint Mission are 25-28 August 2015.

Field Trip to Western Region: 25-27 August 2015

7. The government is proposing renewable energy system development in Western Region as priority investment using SREP funding. SREP subcommittee members and MDB representatives will be invited to visit the project candidate site and carry out consultation with key local stakeholders. The activity aims to:

- i. identify and discuss key challenges and opportunities of renewable energy system development in western region;
- ii. identify and discuss needs and expectations of local stakeholders; and
- iii. agree on project scope.

SREP Stakeholders Consultation Workshop: 28 August 2015

8. The SREP TA consultants team will present the draft SREP IP for Mongolia and will carry out consultation with MDB representatives and local stakeholders. The half-day consultation workshop aims to:

- i. discuss progress on the preparation of the Mongolia SREP IP;
- ii. identify and discuss major opportunities for renewable energy development in Mongolia and discuss specific priority renewable energy projects to be supported under the SREP, taking into account SREP investment criteria and readiness for implementation; and
- iii. agree on the next steps and the timetable to finalize the investment plan

9. The expected outputs of the Joint Mission are: (i) identification of specific renewable energy priority projects that would be ready for implementation and be supported by the Government, if the investment plan is approved; (ii) agreed timetable for the next steps of preparation of the Mongolia SREP IP; (iii) an Aide Memoire describing the process, key findings and recommendations of the Joint Mission

TENTATIVE AGENDA AND TIMETABLE

10. Table 1 presents the tentative agenda and timetable for the Joint Mission activities.

Table 1: Tentative Agenda and Timetable, 25-28 August 2015

| Date/Time | AM | PM |
|------------------|---|---|
| 24 August (Mon) | Mission team arrives in Ulaanbaatar, Mongolia | |
| 25 August (Tue) | Kick-off meeting with Ministry of Energy | Leave Ulaanbaatar City by air to Uvs City |
| 26 August (Wed) | Meeting with Western Energy Systems (WES) officials | Project site visit |
| 27 August (Thu) | Return flight to Ulaanbaatar City | |
| 28 August (Fri) | SREP Stakeholders Consultation Workshop | Wrap-up meeting with TA consultant team and MOE |
| 29 August (Sat) | Mission team departs Mongolia | |

COMPOSITION OF THE MISSION

11. The Joint Mission will be coordinated by the Government of Mongolia. The government focal point is: Mr. Makhbal Tumenjargal (Specialist for Renewable Energy Policy, Strategic Policy and Planning, Ministry of Energy; m.tumenjargal@energy.gov.mn, m.tumee@ymail.com).

12. The MDBs' focal points for SREP are:

- ADB: Jiwan Acharya (jacharya@adb.org);
- WB: Gevorg Sargsyan (gsargsyan@worldbank.org);
- IFC: Joyita M. Mukherjee (jmukherjee1@ifc.org);
- EBRD: Andreas Biermann (BiermanA@ebrd.com).

13. The SREP mission team will be composed of the following MDB representatives:

| MDB | Representative/s |
|------------|--|
| ADB | <p>Mr. Jiwan Acharya Senior Climate Change Specialist, Clean Energy E-mail: jacharya@adb.org Phone: +63 2 632 6207</p> <p>Mr. Shigeru Yamamura Senior Energy Specialist E-mail : syamamura@adb.org Phone : +63 2 632 6501</p> |
| World Bank | <p>Mr. Peter Johansen Senior Energy Specialist E-mail: pjohansen@worldbank.org Phone: +1 202 458 1919</p> <p>Mr. Roberto La Rocca Energy Specialist Email: rlarocca@worldbank.org Phone:</p> |
| IFC | <p>Ms. Joyita M. Mukherjee Senior Operations Officer E-mail: jmukherjee1@ifc.org Phone:</p> <p>Mr. Andrey Shlyakhtenko Senior Climate Finance Specialist Email: ashlyakhtenko@ifc.org Phone:</p> <p>Mr. Tuyen Nguyen Resident Representative</p> |

| MDB | Representative/s |
|------|--|
| | E-mail: Ntuyen@ifc.org Phone: +(976) 7007 8280 |
| EBRD | Mr. Matthieu Le Blan Head of Office E-mail: leblanm@ebrd.com Phone: +97611319278 Mr. Remon Zakaria Principal Manager, Energy Efficiency and Climate Change E-mail: zakariar@ebrd.com Phone: +90 212 386 1100 |

ANNEX 1: LIST OF STAKEHOLDERS

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| GOVERNMENT |
| <ul style="list-style-type: none"> • Ministry of Economic Development • Ministry of Finance • Ministry of Energy • Ministry of Environment and Green Development • Ministry of industry and agriculture • Ministry of Construction and Urban Development • National Renewable Energy Center • Energy Corporation • Energy Regulatory Commission • National Dispatching Center • National Transmission Company • Central Region Transmission Company • Ulaanbaatar Distribution Network Company |
| DEVELOPMENT PARTNERS |
| <ul style="list-style-type: none"> • German Development Bank (KfW) • Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH • Japan International Cooperation Agency • United States Agency for International Development • Korea International Cooperation Agency • United Nations Development Programme |
| CIVIL SOCIETY |
| <ul style="list-style-type: none"> • Energy association • Mongolian wind energy association • World Vision • The Asia Foundation • Mongolian Foundation For Open Society (Soros Foundation) |
| PRIVATE SECTOR |
| <ul style="list-style-type: none"> • Mongolian Bankers Association • Mongolian Chamber of Commerce and Industry • Business Council of Mongolia • Trade and Development Bank of Mongolia LLC • Khan Bank LLC • XacBank LLC • Golomt Bank • Development Bank of Mongolia • State Bank • General Electric • Nova Terra • Ferrostaal • Newcom Company • Irradiance Co. Ltd • Malchin Co. Ltd • Sopoco LLC • Aydiner • AB Solar • Cleantech LLC • Sanco Solar LLC • Water Energy Co .Ltd • Institute of Physics & Technology, Mongolian Academy of Sciences • Sainshand Wind Park Co. Ltd • Mon-Energy Consult Co.Ltd |

- Nomin Energy and IT Co.Ltd
- Mongolian University of Science and Technology
- Local entities with RE project plans/proposals (typically with an international partner)
- Operating mining companies with potential need for RE supply: Oyu Tolgoi, Energy Resources, Erdenes Talvan Tolgoi, MAK, Erdenes Mining Corp.

a) **Increased installed capacity from renewable energy sources:** A high priority for most low income countries is expanding their generation capacity in order to ramp up modern energy use and energy access. Therefore, SREP-funded investments should result in increased MW from renewable energy, as well as increased energy (GWh) per capita in the country.

b) **Increased access to energy through renewable energy sources:** SREP may support grid extensions and decentralized energy systems with a view to expanding the percentage of the population with access to non-fossil-fueled electricity. Investment proposals should demonstrate how the investments are part of the Government's long term commitment to increasing energy access.

c) **Low Emission Development:** SREP may support the use of renewable energy technologies for electricity generation and services to replace fossil fuel technologies that would be deployed in a business-as-usual scenario aimed at substantially increasing commercial energy use in low income countries. In particular, benefits from SREP investments will often arise from "leap-frogging" technologies, in which low income countries will be assisted to mainstream renewable energy technologies into the overall energy system.

d) **Affordability and competitiveness of renewable sources:** Affordability is essential for increasing access and for ensuring the long term renewable energy market development. SREP funding should address clearly-defined cost barriers to adoption of renewable energy technologies, such as connection costs for rural consumers, higher capital costs of new technologies, transmission costs related to grid-connected renewables, and risk adjusted rates of return sought by investors.

e) **Productive use of energy:** SREP programs should promote the generation and productive use of energy.

f) **Economic, social and environmental development impact:** Investment proposals for SREP financing should demonstrate the generation of economic, social and environmental benefits.

g) **Economic and financial viability:** Investment proposals should demonstrate the economic viability of investments and the financial viability with the inclusion of time bound SREP resources.

h) **Leveraging of additional resources:** Activities should maximize the leverage of funds from other partners.

i) **Gender:** SREP investments should seek to strengthen the capacity of women to be active participants in the economic sector and avoid negative impacts on women.

j) **Co-benefits of renewable energy scale-up:** SREP investments should include decreased air pollutants from energy production and consumption as well as the potential to reduce stress on forest resources. Investments and activities should elaborate on the potential positive effects on air quality and natural resource management through the adoption of renewable energy technologies.