

Framework for Energy+Cooperation with Bhutan

I INTRODUCTION

The Norwegian Minister of International Development announced a pledge of NOK 100 Million to the Prime Minister of Bhutan on 14 October 2012 with the intention of entering into an Energy+ Cooperation Partnership. The Gross National Happiness Commission of the Royal Government of Bhutan (“Bhutan”), and the Energy+ partners, represented initially by the Ministry of Foreign Affairs of the Kingdom of Norway (“key partner”) and the Asian Development Bank (“ADB” and together with the other partners, “the partners”) are all participants in the wider international Energy+ Partnership.

The purpose of this document is to establish the Framework for an Energy+ Cooperation between Bhutan and the Energy+ partners (hereinafter called “the Cooperation”) aimed at supporting efforts to increase access to sustainable energy and reduce greenhouse gas emissions through the use and development of renewable energy and energy efficiency in Bhutan. The expectation of the parties is that this framework could also serve as a model to be replicated for cooperation between Energy+ partners in other countries in the region. Furthermore, the document describes relevant activities and required procedures to implement the Cooperation in line with the Energy+ approach in the period 2013-2017. The document also describes the process for measuring, reporting and verifying (MRV) results and how payment by results should be channelled.

The document is not legally binding and expresses the voluntary commitment of Bhutan and the Energy+ partners to cooperate in accordance with this document in the future.

II PURPOSE OF THE COOPERATION

The Energy+ Cooperation between Bhutan and the Energy+ partners intends to assist Bhutan to achieve universal access to sustainable energy, development of renewable energy and reduce emissions of greenhouse gases from the energy sector. The Cooperation will also support the implementation of the Sustainable Energy for All (SE4ALL) initiative in Bhutan.

III GENERAL APPROACH AND PRINCIPLES

The Cooperation will be based on the following principles:



- *Sectoral approach:* The long term goal is to develop a Cooperation between Bhutan and the Energy+ partners that addresses the energy sector to promote transformational change towards increased access to and development of renewable energy in Bhutan and reduction of greenhouse gas emissions in the region. Initially the Cooperation is foreseen to focus on key energy sub-sectors.
- *Payment by results:* The Energy+ partners intend to provide payment by results based on increased access to sustainable energy, development of renewable energy and reduced emissions of greenhouse gases relative to business-as-usual (BAU) baselines.
- *Enabling environment to leverage private and commercial investments:* The Cooperation intends to provide best-practice support on the design and implementation of policy measures, strengthening institutions and improving governance to incentivize commercial investments that would in turn increase access to and development of renewable energy and to reduce emissions of greenhouse gases relative to business-as-usual baselines. The Cooperation will demonstrate the use of results-based financing approaches, alongside other mechanisms, to stimulate private and public investment and innovation to help deliver outcomes mentioned above.
- *Phased approach:* The Cooperation is intended to be implemented in three phases, flexibly applied, to develop an enabling environment for energy-related initiatives: i) support for strategic planning (e.g. low emission and energy sector strategies and investment plans), and institutional, policy and regulatory measures, where needed; ii) support to implement the required plans, policies, institutional and regulatory measures and incentive mechanisms for transformative change, and to build the necessary capabilities (including measurement, reporting and verification (MRV)) to enable the implementation of results-based financing programs, and other mechanisms, designed to stimulate markets, build capacity, encourage innovation, and catalyze investments; iii) provision of payment by results according to the outcomes delivered by way of providing access to and development of renewable energy and reduced emissions of greenhouse gases relative to BAU baselines.

Achieving increased access to and development of renewable energy and to reduce emissions of greenhouse gases will require a committed, coordinated and sustained response from Bhutan and the Energy+ partners, leading to radically scaled-up investment and service delivery. The Cooperation will build on the following principles:

- Be fully transparent regarding financing, support from other Energy+ partners, actions and results.
- Give all relevant stakeholders, including local communities and civil society, and in particular women, subject to national legislation, and where applicable, international instruments, the opportunity of full and effective participation in energy sector planning and implementation.
- Ensure that all investments and activities implemented under the auspices of the Cooperation will comply with national and relevant international, social and environmental commitments, standards and practices.

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IV SCOPE OF THE COOPERATION

The scope of the Energy+ Cooperation with Bhutan is to provide support to increase access to energy services like electricity connection, heating, cooking and processing requirements; in developing renewable energy initiatives in Bhutan and the reduction of greenhouse gas emissions in the region; support to increase output from renewable energy resources through capacity building, institution and reform of legislation; support in development of renewable energy master plan; and support energy efficiency programmes to enhance energy security.

Overall, this will support Bhutan's efforts to achieve increased access to and development of renewable energy and to reduce greenhouse gas emissions, relative to agreed-upon BAU baselines in the energy sector. This will support Bhutan's efforts to achieve the targets in the "Sustainable Energy for All" (SE4ALL) initiative as well as Bhutan's Five-year Development Plan and the implementation of the "National Strategy and Action Plan for Low Carbon Development, 2012".

V IMPLEMENTATION OF COOPERATION THROUGH A PHASED APPROACH

The Cooperation will be implemented in three phases: I) Readiness Activities 2013-2014; II) Implementation 2015 - 2016; and III) Payment by Results 2016 - 2017. The objective is to implement the first two phases from 2013 till mid-2016, and depending on the outcome of an annual review after Phase II, see article VI, to start the implementation of Phase III in mid-2016.


PHASE I - READINESS ACTIVITIES 2013- 2014

In Phase I, Bhutan will undertake the need assessment with financing from Energy+ partners to undertake required preparatory steps to develop required plans, strategies, supporting capacity building and institutional development and strengthening activities.

The activities to be carried out in Phase I (2013 - 2014) include:

- 1) By 2013, take an active role in the Low Emission Capacity Building (LECB) Project implemented by National Environment Commission in the implementation of the "National Strategy and Action Plan for Low Carbon Development, 2012" and identification of Nationally Appropriate Mitigation Actions (NAMAs) related to the energy sector.
- 2) By mid 2013, initiate the preparatory studies to enhance energy generation from renewable energy sources like solar, wind, biomass, small hydropower and uptake of Renewable Energy Technologies like improved stoves, biogas, and solar thermal technologies to meet other non-electricity energy requirements.
- 3) By mid 2013, initiate the development of a Renewable Energy (RE) Master Plan consistent with the "National Strategy and Action Plan for Low Carbon Development, 2012".



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- 4) By mid 2013, carry out detailed survey for on/off-grid electrification and firm up cost estimates for electrification.
- 5) By mid 2013, initiate the development of implementation rules and guidelines for the promotion of RE technologies in Bhutan.
- 6) By mid 2013, endeavour to establish an Energy+ partners coordination group among the Energy+ Partnership in order to improve coordination within the energy sector.
- 7) By 2013 through 2014, initiate preparation of guidelines and regulations for enabling public and private sector participation in development of renewable energy resources in accordance with the Sustainable Hydropower Development Policy 2008 including institutional capacity development for undertaking preparatory studies.
- 8) By mid 2014, initiate the assessment of capacities of key implementation agencies of Bhutan and conduct a need assessment study to identify capacity building and training needs.
- 9) By mid 2014, launch advocacy campaign on energy conservation and efficiency measures including a campaign to promote the use of CFL (compact fluorescent lamp) and White Light Emitting Diodes (WLEDs).
- 10) By the end of 2014, prepare a National Policy on Energy Efficiency covering key sectors of the economy, i.e. buildings, industry, agriculture and transport.
- 11) By mid 2014, formulate and adopt feed-in-tariffs (FiT), as appropriate for grid connected RE systems.
- 12) By mid 2014, design and establish a financial mechanism as a mutually agreed channel adhering to best practise and internationally recognized fiduciary, environmental and social safeguards and standards.
- 13) By the end of 2014, update the Energy Data Directory 2005.
- 14) By mid 2014, come up with plans for feasibility studies and development of hydropower resources.
- 15) By the end of 2014, develop a system for measuring, reporting and verifying (MRV) progress on increased access to and development of renewable energy and reduced greenhouse gas emissions relative to the agreed-upon BAU baselines for the energy sector. The MRV system for access to energy services will use indicators developed by the SE4ALL initiative. The MRV system for reduced greenhouse gas emissions will be based on the 2006 IPCC Guidelines, will measure emissions in ton CO₂ equivalent and should, where relevant, take into account methodologies developed under the Clean Development Mechanism (CDM) or other carbon trading mechanisms. The MRV system should build on relevant national institutions, allow for continuous improvement over time and contribute to build capacity for Bhutan's reporting obligations to the United Nations Framework Convention on Climate Change (UNFCCC). A plan for the necessary MRV capacity building activities should be developed by the end of 2013. Proxy indicators may initially be used for measuring and reporting progress relative to the BAU baselines. This will include setting up necessary institutional arrangements. By the end of 2014,

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establish a BAU baseline for the provision of payment by results to measure increased access to and development of renewable energy and reduced emissions of greenhouse gases caused by energy efficiency measures and deployment of renewable energy.

- 16) By the end of 2014, establish a system for independent, international verification of results achieved in terms of increased access to and development of renewable energy and reduced greenhouse gas emissions as basis for determining the maximum level of annual payments under subsequent Phases.
- 17) By the end of 2014, establish a national energy registry¹ to support the scaling up and delivery of climate change investments by providing regular, up to date information about investment needs in the energy sector and about available technical and financial resources seeking attractive investments and partners.
- 18) By the end of 2014, endeavour to establish a national RE and EE research laboratory in cooperation with the Royal University of Bhutan, as defined by the Renewable Energy Policy.

The Energy+ partner intends to provide funding to Bhutan for the implementation of activities described in points 1 – 18 above. Support for 2013-14 will be made upfront while support for 2015 and onwards will be based on verified implementation of the deliverables identified above.

PHASE II – IMPLEMENTATION 2015 - 2016

Phase II is planned to be initiated in mid-2015, with a shared aspiration to be completed by mid 2016. The aim of this Phase is to develop the required enabling environment for receiving full payments by results supported through implementation of policies and measures. In addition, it is envisaged that Bhutan will have developed the enabling environment sufficiently to receive full payment by results ex-post mid 2016 in terms of increased access to and development of renewable energy and reduced greenhouse gas emissions.

Furthermore, this will support Bhutan's efforts to bring about transformative change in the energy sector, including through funding mechanisms and instruments to enhance commercial investments.

The activities to be carried out by Bhutan by mid-2016 includes:

- 1) Implementation of RE technologies in Bhutan including capacity building to increase access to energy services focusing initially on on-grid electrification of off-grid households, use of biogas plants, energy efficient stoves and solar water heating systems.
- 2) RE Policy and Roadmap adopted and integrated into National Energy strategy.

¹ A registry records nationally appropriate mitigation actions (NAMAs) seeking international support, to facilitate the matching of finance, technology and capacity-building support with these actions, and to recognize other NAMAs.

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- 3) Implement necessary sector reforms and improved legislation in order to create a better framework for private and commercial investments, according to needs identified.
- 4) Develop and approve appropriate quality standards for renewable energy technologies.
- 5) National policy on EE adopted and EE Implementation Guidelines prepared.
- 6) Make the registry operational with a focus on the information and knowledge management and matching functions. The national registry should be compatible with the UNFCCC registry under development.
- 7) Enabling market structures and improved business models developed to promote private sector participation in RE development.
- 8) Implementation of guidelines and regulations for public and private sector participation in development of clean and renewable energy initiatives including preparatory studies for investment and strengthening the necessary institution capacity.
- 9) Start necessary measurement, reporting and verification of progress in accordance with the MRV system developed in Phase I, and follow up actions to facilitate further improvements in the MRV system.

The Energy+ partners intend to provide funding for the implementation of activities described in points 1- 9 above. Funding for Phase II activities will focus on results in terms of enabling policies and measures and increased access to renewable energy, implementation plan for development of renewable energy and reduced greenhouse gas emissions. The detailed modalities for providing payment by results will be developed in a Joint Implementation Note, to be prepared by Bhutan and the Energy+ partners.

The Energy+ partner intends to channel financial contributions through the established financial mechanism, ref Article VI below.

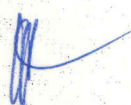


PHASE III - PAYMENT BY RESULTS MID-2016 - 2017

The plan is to initiate Phase III by mid-2016, payments by results based upon independently verified results achieved in year 2016 in terms of increased access to and development of renewable energy and reduced greenhouse gas emissions.

The detailed modalities for providing payment by results will be developed in a Joint Implementation Note, to be prepared by Bhutan and the Energy+ partners.

The Energy+ partners intend to channel financial contributions through the financial mechanism, ref Article VI below.

Support provided will help Bhutan to enhance energy security through diversification and promotion of RE technologies, development of renewable energy resources and through demand side management.

VI FINANCIAL MECHANISM FOR THE COOPERATION

Support from Energy+ partners (represented initially by the Ministry of Foreign Affairs of the Kingdom of Norway) will be channeled through a co-financing partnership arrangement administered by the ADB to support the development objectives for the Energy+ initiative in Bhutan.

Funds from Energy+ partners will be committed and channeled through contribution agreements, or similar arrangements, to be established between the Energy+ partners and the financial mechanism managed by the ADB. The detailed terms and conditions for support will be set forth in bilateral contribution agreements or similar arrangements.

VII JOINT CONSULTATION GROUP

Bhutan and the Energy+ partners will establish a Joint Consultation Group (JCG) to contribute to the effective implementation of the Cooperation. The JCG will consist of representatives from Bhutan and the Energy+ partners, and any other representatives as agreed by Bhutan and the Energy+ partners.

Terms of reference and rules of procedure for the JCG based on a draft prepared by Bhutan will be agreed during the first meeting of the JCG. The JCG will convene Annual meetings to ensure effective implementation of the Cooperation based on its terms of reference.

VIII INTERNATIONAL VERIFICATION

Taking into account the importance of building national capacity, Participants will develop a process for annual independent, international verification of results. The verification reports will be public.

IX DOCUMENTS TO BE PRODUCED

For the implementation of the Cooperation a Joint Implementation Note will be developed jointly by the end of 2013, which shall include:

- a) A process and timeline for agreeing on initial metrics and indicators for measuring and reporting progress on increased access to sustainable energy, development of renewable energy and reduced greenhouse gas emissions for the energy sector relative to agreed-upon BAU baseline².
- b) Methodology and approach to determine the maximum level of payment.
- c) A process and timeline for agreeing on a system for independent verification of results as a basis for determining annual payment under Phase III.
- d) Other requirements as deemed appropriate by the JCG.
- e) In conformity with the Energy+ principles on sectorial results-based approaches develop modalities for payment by results for Phase I and Phase II

² Through this activity it will be clarified how a BAU baseline should be developed.



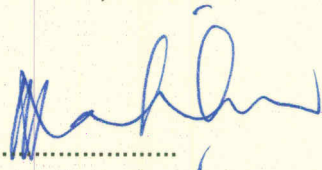
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which should be included in the specific Contribution Agreement(s) to be prepared.

X TERMINATION

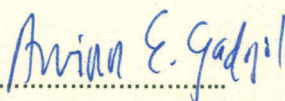
In conformity with the Energy+ principles on sectorial results-based approaches and governed by agreed-upon Contribution Agreement(s) Bhutan or an Energy+ partner may choose to withdraw from the Energy+ Cooperation with adequate prior written notice of not less than three months' written notice. The Cooperation also ends with any Energy+ partner if the Contribution Agreement with that Energy+ partner terminates. The Joint Implementation Note (ref. paragraph IX) will develop necessary modalities and procedures for renegotiation of the Cooperation including modalities for withdrawing from the Cooperation. Due concerns should be given to how ongoing projects/programs in Bhutan should be financed or terminated.

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New Delhi, 1.2.2013



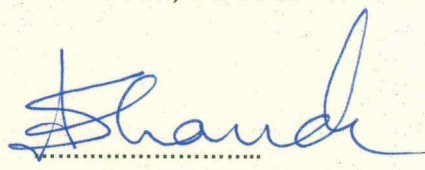
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Pema Gyamtsho

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New Delhi, 1.2.2013



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Seethapathy Chander

February 01, 2013