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Indo-German Energy Programme – Access to Energy for Rural Areas

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Terms of Reference (ToR) for capacity building of officials of regional rural banks for promotion of solar powered irrigation pumps to eligible farmers through Ministry of New and Renewable Energy – National Bank for Agriculture and Rural Development (MNRE-NABARD) bank finance programme.

1. Background

The Access to Energy Programme under the Indo-German Energy Programme (IGEN-Access) is a bilateral technical co-operation measure between the Federal Ministry for Economic Co-operation and Development (BMZ), Germany and the Ministry of New and Renewable Energy (MNRE), Government of India. The project aims at improving the sector environment for inclusive rural energy enterprises. The IGEN-Access project is currently being implemented in four states of Uttarakhand, Uttar Pradesh, Bihar and West Bengal. The programme is being implemented over a period of three years (March 2015 – March 2018). BMZ has commissioned GIZ with the implementation of the project. GIZ is a federal enterprise based in Eschborn and Bonn, Germany.

BMZ supports the international initiative called "Powering Agriculture: An Energy Grand Challenge for Development" (PAEGC), where it collaborates with USAID, the Swedish International Development Cooperation Agency (SIDA), Duke Energy Corporation (Duke) and the Overseas Private Investment Corporation (OPIC). The objective of PAEGC is to develop and scale clean energy solutions [1] for increased yield, decreased post-harvest loss, and increased value added processing - while simultaneously working to decouple the agriculture/fossil fuel linkage and invest in low-carbon economic growth. The BMZ has commissioned GIZ to implement this contribution to the PAEGC on its behalf through the project "Sustainable Energy for Food – Powering Agriculture (PA)". The German contribution

[1] In the context of PAEGC, the term 'clean energy' is defined as: Usable energy (i.e. electricity, illumination, heating/refrigeration, mechanization) that is derived from renewable sources and supports a reduction in fossil fuel use, increase in efficiency, and/or limitation of greenhouse gas emissions. Clean energy sources include – solar, hydro, wind, geothermal, sustainably harvested biomass, and biogas.

includes support for innovative cooperation formats with private and public sector actors, which demonstrate scalable actions.

IGEN Access and PA jointly aim at nurturing the Market Ecosystem for Solar Powered Irrigation in India.

2. Context

The market for solar powered pump in India is at present primarily driven by government subsidies for solar powered irrigation pumps (SPIPs) consumers and by government procurement for different schemes. Since procurements by governments or supported programmes constitutes more than 80% of the market, there is a strong incentive for business to government (B2G) sales. This limits the SPIP market to a great extent.

The open and unsubsidized market for SPIP has been struggling because of high cost of SPIPs and lack of consumer financing options. With the reduction in the global price for solar panels and the promotion of access to end user financing through banks, there is a high potential for a market-based approach for promotion of solar powered irrigation systems.

Although there is a huge market potential for solar powered irrigation pumps, there are many gaps within the existing market ecosystem. The demand for the product is low due to limited knowledge about the technology and its benefits. The supply chain to tap this potential is underdeveloped due to the primary focus on government tenders. Misplaced accountability often leads to poor installations and aftersales services. The bankers are unwilling to lend to the end users due to their limited knowledge of the technology and due to their inhibition about recovery of the loan. These are some of the factors that are negatively influencing the growth of the B2C segment.

The Government of India has (November 2014) initiated a new scheme with MNRE – NABARD which has the potentials for addressing some of the above stated market distortions. The objective of the programme is the installation of 30,000 solar PV water-pumping systems for irrigation by 2017. NABARD will play the role of subsidy channelizing agency under the scheme. An advance of three crores has been disbursed by MNRE to NABARD for solar pumping programme. Some of the salient features of the programme are as follows:

- Back-end subsidy for the end user - 40% cost will be subsidy by NABARD.
- Pumps with capacity up to 10 HP can be installed. However, the total subsidy will not exceed the subsidy for 5 HP pump.

- Unlike the previous solar lighting programme, the fund is already parked by MNRE with NABARD and therefore is expected to ensure on-time delivery of the subsidy to the end user.

The MNRE – NABARD scheme has the potentials for bringing the focus back on the farmers. It also allows the end consumer to choose the technology service provider and also the size and capacity of the solar powered pump. Therefore, the programme has the potentials to bring the accountability of the private sector back towards the farmers/ end users. Thus the scheme has the potential for creating an enabling market condition for the B2C (business to consumer) market.

IGEN Access as parts of its mandate is supporting MNRE in achieving this programmes objectives by providing capacity building, training and technical assistance to partners implementing the scheme.

3. Objectives

The objective of this assignment is to

a) Support capacity building of 300 regional rural bank officials responsible for financing solar powered irrigation pumps to eligible farmers as per the existing government programmes to creation of an enabling market condition for solar powered irrigation systems in the states of Bihar, Uttar Pradesh and West Bengal.

b) Provide technical assistance to officials of regional rural banks involved in undertaking the necessary due diligence for at least 20 bank loans (group or individual loans) for solar powered irrigation pumps through existing government schemes and thereby creating favourable market conditions for solar powered irrigation systems.

4. Scope of Work

The scope of work is divided into three broad sections. The scope of work under section 4.1 is the preparatory phase for designing of the training materials for the officials of regional rural banks. The phase deals with undertaking a training needs assessment, capacity gap assessment, secondary review and research on the existing training and skill development materials available for the intervention, value addition to the existing training materials, designing the training schedule and piloting training sessions. The scope of work under section

4.2 is to organize training and capacity building programmes for 300 regional rural bankers across three states of Uttar Pradesh, Bihar and West Bengal. The section 4.3 is the execution phase by ensuring that there are at least 20 loans (group or individual) sanctioned for suitable farmers/ farmer's groups under the prevailing government programmes/ schemes.

4.1 Preparatory phase

The preparatory phase is designed to create the relevant training materials for capacity building of officials from regional rural banks. The consulting firm is expected therefore to utilize the preparatory phase to make a review of the existing literature on the training materials available for the bankers, interact with the existing banker's training institutes like Banker's Institute for Rural Development (BIRD), undertake a training needs assessment and explore the existing gaps within the existing training manuals. The consulting firm can utilize the preparatory phase to design the training modules and pilot the module for the capacity building of the bankers. We would also encourage the consulting firm to interact with the private sector (solar pump manufactures, integrators) to understand the challenges faced by them in convincing regional rural banks for providing bank loans for solar powered irrigation pumps. We would also request the consulting firm to consult NABARD and associated banker's training institute to collect feedback and recommendations on the training materials and on the training structure.

We would request the consulting firm to facilitate in setting up a core advisory group of technical experts (3-4) to comment on the training materials, training methodology and for commenting of the outcomes. We expect that the group would play an advisory role to the proposed intervention and would be independent of the core experts from the consulting firm. The consulting firm will be responsible for suggesting the names of experts for advisory group. GIZ will be responsible for finalizing the composition of the advisory group. We expect the consulting firm to organize a round table with the advisory group once in every quarter during the project duration at the GIZ New Delhi office. It is worthwhile to mention that the consulting firm will have to co-ordinate with the advisory team. The travel & accommodation costs, honorarium and other associated costs of the advisory group will be borne by GIZ. The advisory group should remain active throughout the assignment duration.

Further, to optimize sustainability of the capacity building measures, the consulting firm is expected to develop a monitoring and evaluation (M&E) system, capture the participants' feedback as well as information about if/how they apply the training contents after the training. The concept should cover both the training and implementation phase.

Expected duration for the preparatory phase is 4 months

Main tasks under the preparatory phase

- Designing a focused training needs assessment study and capacity gap assessment to capture the present areas of skill development of rural bankers for promotion of solar powered irrigation pumps
- Review of the existing training and skill development materials available and customization of the exiting training materials available within GIZ for rural bankers to promote agricultural-asset financing
- Facilitate in setting up a core advisory group of experts (3-4) for advisory functions
- Piloting of the training materials designed for the bankers and collection of feedback on the materials from the sector experts
- Finalizing of the training materials and the training programme design to be used for capacity building of the regional rural bankers based on a pilot training
- Developing a M&E concept

Deliverables

1. An approach note on the methodology for undertaking the training needs analyses among the bankers and the adult training/ learning methodology to be used for the training of the regional rural bankers
2. A report on the findings from training needs analyses (TNA) and capacity gap analysis
3. Finalized training material and the programme design for the regional rural bankers after undertaking the pilots (For example, the training material can be a combination of course materials, audio-visuals, case studies, reference readings)
4. Finalized M&E concept

4.2 Training and Capacity building phase

The consulting firm is expected to shortlist, select, invite official from regional rural banks and co-ordinate the capacity building training for 300 bankers across three states of West Bengal, Bihar and Uttar Pradesh. We expect at least three sets of capacity building training programmes in each state with at least 30-35 bankers per training session. The consulting firm must ensure that the relevant senior level bankers who are responsible for authorization

and disbursement of the agricultural pump loans should participate in the training programme. As part of the capacity building programme, we would highly recommend to create opportunities to invite experienced bankers who have already supported in promotion of solar powered irrigation pumps within their respective states to share their experience. The venue and the duration of the training should be determined to ensure easy accessibility and participation of all the participants within the respective states. The training and capacity building programme should be undertaken in any two districts from each of above mentioned three states. Six districts from the three states should be covered under the intervention. The potential list of the districts within the three states to be covered under the training is provided as **annexure 1.**

Duration for the capacity building phase is 6 months

Main tasks

- Developing a training schedule for the capacity building programme for relevant bankers across the three states of West Bengal, Bihar and Uttar Pradesh
- Organize the capacity building training programme for 300 bankers across 6 districts over 3 states of West Bengal, Bihar and Uttar Pradesh
- Organize interactive sessions along with representatives of private sector (solar pump manufacturers/ integrators) to have an improved understanding of the operational challenges
- Collect feedback on the capacity building programme from the participants of each of the session

Deliverables

- One report capturing the process and the key feedback from training organized by the consulting firm
- A database for the bankers invited for the training programme along with their contact details.

4.3 Implementation phase

The consulting firm is also expected to ensure that the training and capacity building programme leads to installation of the solar powered irrigation pumps on the ground. We would expect that the consulting firm provides implementation support for undertaking the necessary due-diligence to the regional rural bankers in implementing solar powered irrigation

pumps. The nature of technical support required would be evident in course of the technical needs assessment and capacity building phase. In order to facilitate installation of solar powered pumps, we would expect the consulting firm to organize interactive sessions between private sector and the bankers. Organizing "Kisan melas" (farmer's fair) along with the private sector, relevant farmers and rural bankers would be one means of brining different stakeholder together.

At the end of this phase, the consulting firm should collect feedback from the bankers, private sector firms and the farmers (incl. the ones that were granted a loan as well as the ones rejected) about the loan approval process including recommendations for improvements.

Duration for the implementation phase is 6 months (Overlapping 2 months with the capacity building phase)

Main tasks

- Develop a pipeline of eligible farmers based on consultation with the regional rural banks, and existing private sectors within the respective selected districts of each state
- Organize interactive sessions along with representatives of private sector (solar pump manufacturers/ integrators) to have an improved understanding of the operational challenges
- Organizing at least 2 "kisan mela" (Farmer's fair) along with the farmers, bankers and private sector in each of the 3 states (a total of 6 melas in 3 states) for improved awareness and simplification /facilitation of the loan disbursement process for solar powered irrigation pumps.
- Facilitate in providing technical assistance to bankers for undertaking the due diligence of the eligible farmers leading to disbursement of 20 loans for solar powered irrigation pumps across 3 states as per government norms
- Collect feedback on the loan approval process from the bankers, private sector firms and farmers.

Deliverables

- Approach note on the technical support for implementation of the solar pump programme
- One consolidated consultation report on the interactions between private sector, farmers and bankers, including the feedback of the different actors.

- Designing of knowledge products (tools) to facilitate due diligence process for the bankers (eg. a set of bench marks/criteria for helping bankers to make a judgment)

- Develop a set of frequently asked questions (FAQ) based on the questions and queries raised by the regional rural bankers on solar powered irrigation system. The materials should be designed in a manner to assist bankers in establishing thumb rules for disbursement of loans for promotion of SPIPs.

In order to make justice to the selection process for the most suitable bidder, we would expect the bidding firms to answer the following questions as part of the proposal.

Preparatory phase

- What would be the approach adopted by the consultant to undertake the training needs analysis (TNA) and capacity gap assessment?

- What would be the approach to collect significant M&E data?

- We would request the bidder to share a tentative structure of the training session. We would expect the consultant to answer the broad issues which will be covered as part of the training and also to comment on duration of the training. What training tools to be used as part of the training programme? Would field visits/ audio visuals be used as part of the training?

Training and capacity building

- What would be your approach to convince bankers to be a part of the training? Kindly let us know if you have used the approach before in any of your earlier assignments

- Keeping in mind that most of the bankers would be mid-level officials from the banking sector, we would request the bidding firm to provide an overview of the approach and methods to be used for imparting effective training?

Execution phase

- What approach will be adopted to bring diverse stakeholders together for effective execution of the intervention?

- Kindly let us know your approach to facilitate disbursement of 20 loans for solar powered irrigation pumps.

- What are the anticipated risks and the mitigation strategies to be adopted for the intervention?

Designing of the core advisory group

- What would be your strategy for selection of key experts for developing the core advisory group from the sector? According to your opinion, what sectors should be represented in the advisory group (example agri-finance expert etc) Can you provide 4-5 potential names who you think will be ideal for the core advisory group?

5. Structure of the proposal

We would highly appreciate brevity in response to the questions mentioned in the ToR. The bidder needs to answer each of the questions under the different sections. The capability statement of the firms should be provided in the annexure of the proposal. Please elaborate roles and responsibilities of the different members of the implementing team as part of your proposal.

6. Qualification criteria, Team composition, Timeframe & Reporting

The assignment requires diverse skill set, experience and the bidder needs to ensure and prove that they have all the relevant skills needed for completing the assignment successfully. The firm/team should have experience in developing training modules and imparting training/capacity building for bankers on new technology/financial products. The proposed team should have the following experience and expertise:

- Experience of developing high quality training and capacity building modules using adult learning methodology.
- Experience of working in the solar powered irrigation system space and interactions with multi-stakeholders within the sector
- Experience of delivering and implementing high quality capacity building initiatives for public institutions. However, experience of delivering training on financing of renewable energy devices/ technologies is highly desirable.

The proposed core team for this assignment should have members with the following skills, experience and expertise:

- Team member with experience of around 10 years for conducting training needs analysis (TNA) and capacity gap analysis. It would be of added advantage if the TNA expert has experience relating to skills assessment of bankers / finance professionals
- Team member with experience of designing and developing high quality training materials through innovative adult learning methods. It would be of added advantage if the experience is relating to training of bankers / finance professionals
- Two key human resource with at least 10 years' experience of conducting training needs analysis and providing high quality training programmes for bankers
- A technical expert with at least 10 years of knowledge about solar water pump technology and on agri-financing of the same
- A team leader with experience of at least 15 years for managing complex and multi-stakeholders in development sector.

The bidding firms should provide relevant documents to demonstrate the above-mentioned skill-sets within the team. We would need the team to have a set of professionals for technical backstopping.

We are expecting that each set of banker training will be a one and half day event with requirement of one night accommodation for the participants. We are expecting the human resource days for the following experts for undertaking the assignment. Please note that this is an estimate and may differ based on the approach suggested by the bidding firm.

Human Resource	Approximate number of human resource days
Team leader	10
Training needs assessment / capacity needs assessment expert	35
Trainer for capacity building of bankers (2)	145
Content developer for training materials	45
Expert on Agri-financing	45
Field co-ordinators (2)	120

We expect that the total duration of the assignment is expected to be around 400 human resource days spread over 14 months starting from November 16 to December 17.

Technical Expert IGEN-Access, will be the point of contact for the selected bidding firm.

Annexure 1

The target for rolling out the scheme of Ministry of New and Renewable Energy GOI for promoting solar photovoltaic water pumping systems for irrigation purpose are as follows:

Name of the State	Targets (Physical units)
Bihar	1350
Uttar Pradesh	6600
West Bengal	1500
Total target for Solar pumps in the above mentioned states	9450

Shortlisted districts for the proposed intervention

Name of the State	Name of the target districts
Bihar	• Vaishali • Muzaffarpur • Patna
Uttar Pradesh	• Agra • Muzzafarnagar • Sitapur • Gonda
West Bengal	• Nadia • Murshidabad • Purbo Mednapur • Coochbehar

Reference documents

- The link to the NABARD scheme

  https://www.nabard.org/uploads/Circular%20No.252WEB.PDF

- Updated link for use of the scheme
  https://www.nabard.org/pdf/SolarPumpingProg_Cont20161780.pdf