

Terms of reference (ToRs) for the procurement of services below the EU threshold

	Project number
Terms of Reference (ToR) for engaging mini/micro grid practitioner/promoter/enabler to demonstrate pilots on enhancing rural livelihoods by utilising energy supplied by renewable energy mini/micro grids in rural areas	17.2166.1-001.00

1. Context	2
2. Background:.....	3
3. The Areas of Activities for IGEN Access-II Programme	3
4. Objective	4
5. Break-up of Tasks to be performed	4
6. Timeline and Reporting	7
7. General Deliverables for the Project Management	8
8. Program Steering and Reporting.....	8
9. Qualification Criteria of the firm	9
10. Human resource requirement	9
11. Quality Assurance and Other Bidding Requirements	11
12. Structure of the Proposal	12
13. Further Requirements.....	13

Terms of reference (ToRs) for the procurement of services below the EU threshold

1. Context

The Indo-German Energy Programme (IGEN Access - II) is a bilateral cooperation project carried out by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Indian Ministry of New and Renewable Energy. IGEN Access - II aims to improve the energy supply in rural areas of selected federal states.

India has emerged as the fastest growing economy in the world with impressive growth rate of 7.3% for the year 2018-19 and is predicted grow at 7.5% in the following two years. India's current economic and social development is the result of systematic policy driven proactive governance. The government has initiated policies and programmes dedicated towards poor, marginalized strata of the society. Some of the activities initiated by the government for social and economic development are Swachh Bharat Mission (Clean India Mission) for improved quality of life, minimum pension for workers, social security for the common man, universalizing the banking system, rejuvenating the Ganga river, providing 24X7 power to all, connecting India through roads and rail, building affordable housing for the poor, and developing smart cities.

Though India has emerged as the world's fastest growing economy, still a quarter of its population lack access to basic electricity. The Government of India has achieved 100% household electrification by April 2019 and has set out an ambitious agenda to provide 24/7 supply to all households by 2022. In addition, the government has also incorporated renewable energy in its strategy with ambitious targets of 175 GW of renewable energy by 2022 to reduce the fossil fuel dependence and increase the environmental and social benefits.

Besides conventional source of energy, smart and interactive RE systems are an efficient, effective and complementary option for India that paves the way forward to a low carbon economy. To do so, RE planning as well as associated systems and processes should be far more flexible and efficient to balance dynamism of supply and demand. Considering, inefficiencies associated with long distance transmission as well as unmet local energy demand RE can be used in isolation or to compliment the central grid. RE can be quickly deployed and they carry the environmental and social advantage of reducing emissions; improving air quality; spurring local job creation and education and can also facilitate productive uses for economic benefit.

The Government of India faces the challenge of sustaining economic and industrial growth alongside providing affordable and reliable power to its people, at the same time reducing the country's carbon footprint.

This unmet energy demand and global consensus to move towards clean energy presents a huge business opportunity. Renewable energy solutions like decentralized renewable energy (DRE) systems and grid tied RE systems have a huge potential and an important role to play in providing access to energy to in India and especially the rural population of India.

2. Background:

Rural electrification in India has made a remarkable progress in the past few decades with the state providing electricity grid connection to all willing households in early 2019. This achievement was the result of ambitious and consistent efforts from the central and state governments to boost rural electrification via public and private distribution companies (DISCOMs). Schemes like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya) have played a crucial role in electrifying villages and households respectively across India. It is by no means a simple feat for the country, progressing from few gigawatts to 367 GW (total installed capacity), having a total Transmission & Distribution network of more than 10 million kilometres and per capita consumption of more than 1000 units. To guarantee energy access for all villages and households, several technology solutions were needed.

Mini grids have played a major role in providing electricity across India. This includes not only household electricity but also electricity for other productive uses. However, in its internal assessment, IGEN Access-II found out that many mini-grids are unfortunately either underused or not functional anymore (especially community operated mini-grids). While the current status where the mini grids are partly functional or non-functional is problematic, revival of the same may be a potential solution for electricity supply beyond basic lighting.

Adequate electricity for livelihood activities is an important precursor to economic growth in rural areas. Mini grids could be one solution where they can be used complementary to the distribution grid. They could work as a back-up source, also could be used in meeting the productive end use requirements of users beyond the households needs. It is inevitable that if DISCOMs and Mini-grid systems work together, it could prove to be a win-win situation for both. This approach will also ensure that the valuable resources invested in mini grid assets are not stranded.

While there has been tremendous progress made in rural electrification, challenges remain in ensuring connections to rural business and micro enterprises. Mini-grid developers apart from supplying renewables-based electricity to all types of customers (for e.g. farmers for irrigation) can play an active role in catalysing the use of electricity for promoting usage of clean energy, energy efficiency and in supporting livelihood activities.

3. The Areas of Activities for IGEN Access-II Programme

IGEN Access-II Programme is geared to specialists and managers at state-run and private energy companies, to providers of financial and other services and to private and public training facilities and networks. Acting through these intermediaries, the module will indirectly reach the rural population who will then benefit from a modern, environment-friendly, high-quality energy supply, irrespective of gender, age, income or ethnicity.

It is expected that implementing the below-mentioned measures will increase the share of RE in rural areas of the partner federal states, and thus boost diversification in the Indian energy matrix (results hypothesis). In the long term, expanding RE will reduce the need to operate conventional power plants and thus increase their capacities. The upshot: fuel savings and reduced emissions

Terms of reference (ToRs) for the procurement of services below the EU threshold

of climate-noxious gases. In this way, the project will make another important contribution to a sustainable and above all eco-friendly energy supply in India, thus contributing directly to the achievement of the programme objective.

The module aims to improve rural energy supply in selected Indian federal states. Therefore, one of its key elements centres on strategic advice for decision-makers (e.g. relevant Ministries, State Nodal Agencies and other departments) regarding the initiation of a cross-sector energy planning process for rural areas. Secondly, the module will work on improving overall sector environment by facilitating access to finance, improving capacities and awareness for demand and supply side stakeholders. In addition, development of concepts to explore role of decentralised renewables in special conditions, like disaster prone areas, livelihood generation etc is also planned. All this will lead of more affordable and reliable access of power in rural areas.

Module objective of IGEN Access-II programme: The energy supply is improved in rural areas of selected federal states.

Module objective indicators:

1. The number of RE systems sold to rural users by module-backed providers has quadrupled.
2. 4 recommendations elaborated by the module for improving the quality of the energy supply under certain specific conditions are implemented.
3. 40% of women-led Village Level Enterprises (VLEs) that disseminate RE confirm that their standard of living has improved by two points on a scale from 1 to 5.
4. Implementation of one component from the energy plans (e.g. remuneration system for integrated decentralised energy systems, subsidy programme for promoting electric mobility) is funded in 2 federal states respectively.

4. Objective

Demonstrate the concept of improving the utilization of mini/micro grid assets through electricity supply to support livelihood activities for at least 700 end users.

5. Break-up of Tasks to be performed

IGEN Access-II intends to engage with Mini/micro grid practitioner/promoter/enabler to demonstrate the increased utilization of mini/micro grid systems through electricity supply for productive uses in rural areas, hence increasing rural livelihoods. The organisation will closely work with various stakeholders involved to demonstrate suitable pilots. The preferred areas for the intervention will be in the states including, Bihar, Madhya Pradesh, Uttarakhand, Uttar

Terms of reference (ToRs) for the procurement of services below the EU threshold

Pradesh, Tripura and, Jharkhand. However, the organisation may suggest additional states, with adequate justification to be included in the list.

Focal Area 1: Demonstrating sustainable working model to supply electricity to 500 small and medium size business owners including women entrepreneurs.

The organisation will support in connecting the small and medium size business owners to the mini/micro grids beyond their lighting needs. This will include capacity building of the businesses in terms of the services provided to them. Support should be given to develop business model for the newly created entrepreneurs. The organisation can further elaborate in their technical proposal, if they would consider the existing business owners to connect them to mini/micro grid facilities with justification.

Focal Area 2: Demonstrating sustainable working model to supply electricity to 200 farmers for agriculture and allied activities.

The organisation will support in connecting the farmers to get the services from mini/micro grids. The services from the mini/micro grid help the farmers to irrigate their fields. The organisation will identify and demonstrate the other farm activities where the services of mini/micro grids will be utilised.

Financial linkages between business owners/farmers and financial institutions to install the required appliances, as required, may also be necessary. **Support provided on this aspect by the organisation would be an added advantage.** This will be considered as “**further requirements**” and will have an impact on the assessment of the technical proposal.

The bidders are open to propose different numbers for focal areas 1 and 2, in case there is a strong justification for the same.

Key activities to be performed:

1. Baseline and end line Surveys

The overall assignment is focused on linking the mini/micro grids with productive application, with a focus to generate livelihoods. The objective of this task is to observe the impact created on identified¹ parameters.

1.1 Beneficiaries/end users: the organisation needs to conduct a baseline and end line analysis to determine the impact created as a result of this intervention. The base/end line data sheet will be finalised in consultation with GIZ Technical Expert and may include parameters like for e.g. current source of energy, consumption level etc.

¹ The organisation will propose indicative parameters in the proposal to conduct baseline and end line. Details on these parameters will be finalised during implementation stage after the approval from GIZ.

Terms of reference (ToRs) for the procurement of services below the EU threshold

1.2 Mini/micro grid facilities perspective: Develop and document the data sheet with regards to mini/micro grids that will be utilised under the project.

1.2.1 The organisation needs to highlight in the proposal, how many mini/micro grids will be considered to achieve the objective of this assignment.

1.2.2 In case the organisation is proposing to install new mini/micro grid facilities, they would have to ensure and highlight in the technical proposal that those mini/micro grids should be there on ground and functional within 3 months from the award of the contract. It is assumed that the demand analysis for new/upcoming mini/micro grids would already have considered the productive loads as base loads.

2 Stakeholder engagement

The organisation is required to share a stakeholder map in the proposal, detailing out different stakeholders to be involved in the project. These stakeholders may include implementing partners, government institutions, financial institutions (in case financial linkages are proposed), type of beneficiaries/users/base loads etc. the roles and responsibilities of these stakeholders need to be explained in the proposal.

3 Implementation

The implementation under this assignment plays a crucial role. Before this phase, it is expected that all the details have been finalised with respect to stakeholders including beneficiaries, productive application to generate livelihoods based on the logical assessments etc. The organisation is expected to develop the detailed plan during the execution of the project; however, it is recommended that the bidders should propose a suggestive implementation plan in their technical proposal.

3.1 Selection of beneficiaries/users/base loads: The bidder needs to propose a suitable selection criterion for identification of the beneficiaries/users (small business owners/farmers) to be covered under this project. This will be developed in consultation with GIZ Technical Expert during project implementation period. It is up to the bidder to propose if they want to go ahead with existing or new productive loads. Rational for selecting any business profile including new or existing should be proposed. Sustainability of the intervention needs to be ensured

3.2 On-board small business owners as well as farmers, and connect them to mini-grid electricity

3.3 Demonstrate ten (10) business profiles utilising the services of mini grids to generate revenues. Indicative business profiles for example may include technological demonstration of utilities such as RO water treatment, bulk milk chillers, electric rice hullers, food processing units, oil expellers, cattle farming, fishery, horticulture, cold storage, organic farming, e-mobility, etc.

Terms of reference (ToRs) for the procurement of services below the EU threshold

3.4 Support in the establishment of financial linkages with partners to get loan sanctioned, appliances installed etc, will be an added advantage.

4 Monitoring and Evaluation

A detailed monitoring mechanism needs to be developed to demonstrate how the bidder will achieve the desired impact sustainably. The suggestive monitoring mechanism needs to be shared at the proposal stage, along with milestones (including number of end users) to be reached with time schedule and key deliverables. The proposal also needs to clearly detail out how sustainability of the intervention will be ensured after the project period.

5 Knowledge dissemination Plan

The bidder needs to propose a detailed knowledge dissemination plan. This will entail wider knowledge sharing within the sector to encourage replication and scalability.

The selected organisation will develop a factsheet on project, process, and products. The parameters and template will be developed in consultation with GIZ.

The organization in their technical proposal should explain the approach and methodology, adopted to perform the key activities explained above.

Along with the details above the organization is also required to address the following aspects within their technical proposal.

- I. Overall Approach in undertaking this assignment including specifically the approach adopted towards identifying and including mini/micro-grid sites, potential livelihood activities, identification of end users, etc.
- II. Specific activities to be undertaken along with the timeline.
- III. What are the perceived risks in the implementation of the above assignment?

6. Timeline and Reporting

The expected duration of the project to be around **110 human-resource days** spread over **15 months period** from the date of award of the contract. GIZ may also require the organisation to prepare short reports / concept notes / discussion papers / minutes of meeting from time to time.

Payments will be linked to milestones achieved quarterly.

Terms of reference (ToRs) for the procurement of services below the EU threshold

Following are the estimated Human resource requirement envisaged in this assignment

Human Resources	No.	Days
Team Leader	1	25
Sector Expert	1	40
Research analyst/Field coordinator	1	45

It is also estimated that the above 3 experts would undertake 8 round trips to the site of the implementation of the different concept they would propose. However, it is encouraged that the organisation should propose detailed travel requirements that is needed to implement the overall project viz. different experts and the numbers of travel to be taken by each.

7. General Deliverables for the Project Management

The organisation is expected to provide the following deliverables

- Two (2 numbers) roundtable meetings with the stakeholders to present the findings. Out of the two roundtables, one should be at (1) at state level, and one at national level (preferably at New Delhi).
- Updates (conference call or one to one meeting) on a fortnightly basis on project progress.
- Inception report within the first two weeks of the project
- Project monitoring sheet (template to be provided by IGEN Access-II) within the first two weeks of the project
- Baseline Report
- Fact sheets.
- Quarterly Progress Reports
- Final Report (including the end line survey results)
- Updates (conference call or one to one meeting) on a fortnightly basis on project progress.

8. Program Steering and Reporting

- The organisation will report to a Technical Expert (to be nominated) from IGEN Access-II programme of GIZ India.
- The organization is to designate a team lead; who should take all key decision on behalf of firm and should act as a point of contact for all communication.
- During the period of assignment, the organisation is expected to report on a fortnightly basis regarding the progress on the assignment. The organisation is expected to develop

Terms of reference (ToRs) for the procurement of services below the EU threshold

a Project Monitoring Sheet (PMS) for regular tracking of progress made on the assignment. The format of PMS will be shared with the organisation.

9. Qualification Criteria of the firm

GIZ through this assignment would like to demonstrate pilots on ground. The assignment requires diverse skill set, experience and the bidders need to ensure and prove that they have all the relevant skills needed for completing the assignment successfully.

The firm/team should have experience in undertaking performance analysis study of technologies for agricultural sector, expertise in undertaking the capacity gap assessments and understanding of the ecosystem for mini/micro grid sector in India. GIZ foresees, Mini/micro grid developer/promoter or enabler as a critical stakeholder (and lead partner in case of a consortium) in the implementation of the said activities. The proposed team should have the following experience and expertise:

1. The organisation (Mini/micro grid developer/promoter/enabler) should have at least four years of ground presence.
2. Experience of working with Farmers community.

The bidder needs to demonstrate following ability through adequate references and documents.

- Provide evidence of at least 5 reference projects / assignments in “rural electrification” with at least 5 references “using mini/micro grids system for livelihood promotion” in the last three years. The commissioning value of the reference project must be a minimum of 10000 euros.
- Average annual turnover for the last three financial years for the firm should be more than 65,000 euros. Demonstrate ability to work in a highly collaborative environment with teams that are subject to time and skill constraints.
- The bidding firm should have at least 10 persons working as their employees.
- The bidding firm should have ground presence in potential states for implementing this assignment preferably in Bihar, Madhya Pradesh, Uttarakhand, Uttar Pradesh, Tripura and, Jharkhand.
- Firm should have experience to create livelihood opportunities. These experiences will be considered while evaluating the eligibility of the bidding firm.
- It is also desirable that the firm should have experience of development projects (ODA financed). This will be considered while evaluating the eligibility of the bidding firm for this assignment.

10. Human resource requirement

The organisation is expected to provide a pool of expert to accomplish the overall assignment. The pool of experts should encompass:

- a. Project Management specialist/Team Lead

Terms of reference (ToRs) for the procurement of services below the EU threshold

- b. Other expert with experience in energy access, social mobilisation and business development
- c. Field coordinator cum research analyst

10.1 Project Management Specialist/Team Leader

Reports to – GIZ (assigned GIZ’s Technical expert and GIZ’s IGEN Access-II lead)

Core Responsibility	Core Competencies & Requirements
<ul style="list-style-type: none"> • First point person of contact for the project • Ensure transparency and quality standards • Proof reading of documents • Acts as back stopper for the project on any human resource gap during course of project period • Checks on the fund utilisation and financial planning in consultation with the officer responsible for the commission at GIZ • Develops a detailed action plan for the team members based on the agreed deliverables for the project • Responsible for reports and other reporting compliances as per ToR 	<ul style="list-style-type: none"> • Master’s degree in energy or related field and at least ten (10) years of overall experience (refer 2.1.1 and 2.1.3 in the technical assessment grid). At least five (5) years of operational experience (refer 2.1.4). • Minimum of five (5) years of work experience in programme management (refer 2.1.5) • Possess personal qualities of integrity, credibility, and commitment to execute mandate • Knowledge of spoken Hindi in addition to English (refer 2.1.2) • Should have regional work experience in the mentioned in this TOR. (refer 2.1.6) • Should have at least five (5) years of experience in the development sector (refer 2.1.7).

10.2 Sector expert

Reports to – Team Leader

Core Responsibility	Core Competencies & Requirements
<ul style="list-style-type: none"> • Support team in energy /mini-grid related scenario building. • Technical feasibility of the solutions. 	<ul style="list-style-type: none"> • Should have bachelor’s degree in energy or development studies or related field (refer 2.2.1) and at least five (5) years of operational experience (refer 2.2.3)

Terms of reference (ToRs) for the procurement of services below the EU threshold

<ul style="list-style-type: none"> • Implementation of various technical solution on ground. • Support researcher/analyst in developing documents 	<ul style="list-style-type: none"> • Should have knowledge of local Indian language and fluency in English (speaking and writing) (refer 2.2.2) • Minimum of three (3) years of work experience in related fields including energy access, social mobilisation and business development on the ground (refer 2.2.4) • Minimum 2 years of experience in program management. (refer 2.2.5) • Should have regional work experience as specified in the TOR (refer 2.2.6).
---	--

10.3 Field co-ordinator cum research analyst

Reports to – Team Leader

Core responsibility	Core Competencies & Requirements
<ul style="list-style-type: none"> • Support in the implementation of the project. • Support in the monitoring and evaluation of the assignment. • Focal point for GIZ, to provide field information from the project. 	<ul style="list-style-type: none"> • Bachelor's degree in business administration/Science/Maths or related field (refer 2.3.1) • Knowledge of spoken Hindi and English (refer 2.3.2) • Should have qualitative and quantitative skills for developing survey questionnaires, experience of working with rural communities (refer 2.3.3) • Minimum of three (3) years of work experience in conducting surveys, assessments, data analysis and report writing. (refer 2.3.4). • Should have regional work experience as specified in the TOR (refer 2.3.6).

11. Quality Assurance and Other Bidding Requirements

To ensure the quality of the outputs the organisation must meet the following requirements:

Terms of reference (ToRs) for the procurement of services below the EU threshold

- GIZ honours intellectual copyrights and strictly prohibits any copyright violations and plagiarism
- GIZ will not be providing any fund to be used to create assets on ground. The bidder must keep this checked while preparing the technical as well as financial proposals.
- Reports or documents pertaining to the project and prepared by the organisation need to be thoroughly verified prior to submission. Sub-quality deliverables would not be accepted
- It is expected that all documents will undergo a final proofread by the team leader
- The organisation ensures that GIZ staff is briefed continuously on the progress of the project and informed immediately on any changes whatsoever (e.g. delays, availability of information etc.)
- All meetings will be documented by the organisation. The minutes of meetings need to be approved by the staff of GIZ
- The organisation is not allowed to replace project staff without prior approval by the staff of GIZ
- All the steps of the scope shall be coherent and complimentary in nature and they should not be considered as individual isolated steps
- GIZ encourages to share the results achieved from the assignment including relevant data with the larger audience for better sectoral learnings.
- The bidder organisation can refer to the parameters mentioned in the Technical assessment grid (attached in the Tender document) to prepare the technical proposal.

12. Structure of the Proposal

- The proposal should contain a very brief company profile followed by a detailed approach and methodology to execute the project. The proposal should also contain the project timeline highlighting milestones and deliverables. Please elaborate the roles and responsibilities of the different team members in the proposal;
- The entire proposal including approach and methodology proposed, CVs etc., needs to be in English. Each CVs need to be in uniform format with a maximum of three pages; The length of technical proposal should not exceed 25 pages;
- The template for financial quotes has been attached with the tender documents. The potential bidders are advised to follow the attached budget template;
- The bidder is expected to keep separate detailed budgetary provision for flights, other (local/national) travel costs, per diems and accommodation costs for their team.
- Consideration of local resources should be clearly outlined in the proposal. Local resources could be used for coordination purposes and local logistics.

Terms of reference (ToRs) for the procurement of services below the EU threshold

13. Further Requirements

- All reports, slides, presentations and other media and information material need to be submitted to GIZ in soft copy and in hard copy as required;
- Timelines shall be strictly adhered and delay in any of the deliverable shall be reported and aligned with GIZ in advance.
- The bidder may be required to make technical presentation to GIZ before final selection at GIZ office. In case it is required, the bidder will be informed in advance.

Note

- In order to select a suitable organisation, GIZ may invite shortlisted organisations to present their methodology and approach to a committee which will help GIZ in making final selection.
- It may also be foreseen that GIZ may consider termination of the contract prematurely in case of limited participation or due to any other unforeseen events. All communications through any media (e.g. print, newspaper, journals and any other mass/social media) must be approved by the responsible person of GIZ