

Terms of reference (ToRs)

Tender for hiring a consultant for Technical Assistance to GUVNL on **Project number/ Unified Portal for processing the solar rooftop applications in the State of cost centre:**
Gujarat 14.2298.9-003.00

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1. Context

The target of the National Solar Mission is an installed capacity of 40,000 MW of rooftop solar photovoltaic by 2022. The official statistics of the MNRE show that the currently installed capacity is around 2,800 MW. The State Governments and the respective electricity regulatory commissions have announced suitable policy and regulatory framework for promotion of rooftop solar photovoltaic systems. Despite all that the growth in the solar rooftop sector has been sluggish. To provide impetus to the RTPV sector development, MNRE and some States have recently announced new subsidy schemes.

MNRE has recently announced the Phase-II of the grid connected solar rooftop PV scheme where the subsidy is available only for the domestic category consumers and the beneficiaries will be given subsidy of 40% up to 3KW and subsidy of 20% for system of 3 to 10 KW. This new scheme is being implemented through the State power distribution companies and the State Discoms.

Gujarat is leading State in implementation of MNRE Rooftop Phase 2 scheme. A lot of subsidized installation requests are received on Discom Portal each day. There is a need for pre-dispatch inspection of the equipment. Given the large number of suppliers and EPC players, it is crucial to digitalize the process of pre-dispatch inspection. GUVNL also intends to develop a query handling portal on the unified portal so that the grievances of the consumers can be addressed on a fast-track basis without any delays. GUVNL is committed towards achieving the targets for solar rooftop implementation and all of these digitalization initiatives are proof of the intent of GUVNL. GUVNL has requested GIZ to support development of the following modules:

1. Interest capturing module on the USRP
2. Online Pre-dispatch and post installation inspection tool
3. Fund management module
4. Query handling module
5. Third-party Inspection handbook

German Development Cooperation (GIZ) in partnership with Ministry of New and Renewable Energy (MNRE) is implementing Indo-German Solar partnership project (IGSP). Under IGSEP, the key objective is to support the installation of the solar rooftop PV systems across the States allocated to GIZ by MNRE. Under this ToR GIZ aims to contract a consulting firm to develop the above listed modules with the existing solar rooftop portal of GUVNL.

2. Tasks to be performed by the contractor

The objective of this assignment is listed below from Task 1 to 5:

Task 1: Interest capturing module on the USRP

The consultant will develop a module for capturing the interests of consumers developed from the awareness campaigns in the State. GUVNL is actively supported by GIZ on the demand aggregation for solar rooftop and there is a requirement of integrating the existing unified portal with the interest capturing module seamlessly. The consultant shall get into discussions with the GUVNL officials for development of this module. The exact specifics of the module will be decided by GUVNL.

Task 2: Online Pre-dispatch and post installation inspection tool

The consultant will develop a module/app for online pre-dispatch (PDI) and post installation inspection tool. The consultant shall discuss with GUVNL and finalise the data points to be captured. The consultant shall draft the functionality/concept of both the tools and will start development post the approval of GUVNL. The consultant shall submit a detailed concept note while submitting their bid against this ToR. The scope of work is as follows:

- Review of the existing procedure
 - o Review the existing procedure for interconnection with the distribution network and the existing Unified Single Window Portal and provide standardized procedure to make it more efficient and effective yet meeting all requirements under the existing legal and regulatory framework.
 - o Development of detailed subsidy procedure for GUVNL and MNRE along with standard forms & formats upon understanding gaps/requirement from existing forms/formats and procedures, if any, or develop it if it is not available.
 - o Devising strategy and process for integrating the of existing process, Unified Single Window Portal to the Inspection Tool. Development of detailed BRD document covering both interaction and information functionalities upon addressing above State specific customization requirements.
 - o The consultant shall take final approval on the standardized procedure from all the Discoms in Gujarat and GUVNL and then the Inspection Tool shall be developed as per the guidelines/procedures approved by GUVNL and MNRE
 - o The Consultant shall submit a detailed process mapping report

Tool 1: Development, testing and hosting of Pre-dispatch Inspection Tool

- The tool shall be in-line with the approved procedures by GUVNL and shall also meet the requirements as per the MNRE guidelines for inspection of PV modules
- The Consultant shall develop a Mobile App and web based Inspection Tool which shall process the end to end transaction of inspection by connecting the following stakeholders:
 - o State Nodal Agency (SNA) through Mobile App and web
 - o Discoms through Web portal
 - o Inspectors through Mobile App
 - o PV Module Manufacturer through Web Portal
- The Inspection Tool shall have features for provision to take input of the all the PV modules serial number, wattage and other technical details. There shall have an import feature which can be done through the mobile app or the web platform (the “Software”).
- The Inspection Tool shall also have the feature to fetch the data from the GUVNL’s Surya Gujarat Unified Single Window Portal and both shall work seamlessly.
- The Inspection Tool shall have the facility of email, SMS gateway and Mobile App notifications for communicating with various agencies and consumers
- The Inspection Tool shall have provision to take the following inputs through Mobile App and web portal:
 - o Details of all the PV modules with serial number,
 - o Wattage of each PV module and
 - o Other technical details
 - o Quantity offered for Inspection
 - o Particular PV modules Inspected at OEM’s facility

- There shall have an import feature of serial numbers which can be done through the mobile app or the web platform.
- The scanning of bar code is mandatorily to be provided in order to ensure that the list of the PV modules given for the inspection are the one which are existing in the list offered for inspection. These details will have to entered in the uniform format as per the app configuration.
- The Inspection Tool shall map all the offices of the Discom, PV Module Manufacturer; Inspectors; and PV Installers subject to the requisite information of the hierarchy provided by the respective Discoms.
- The Inspection Tool shall have separate login for consumers and officers of the appropriate agency with user-friendly interfaces and necessary security features.
- The consultant shall facilitate all necessary security procedures for the IT tool.
- The consultant shall also be responsible for hosting the IT tool for a period of 2 months after the development of the Inspection Tool.
- The mobile app should be available on Google's android and Apple's iOS platform

Tool 2: Development, testing and hosting of Post Installation Inspection Tool:

The second module in the Inspection Tool shall be Post Installation Inspection. The envisaged online tool would be simple to navigate and user- friendly in terms of the independent management of content online. The website and the mobile App can be used by the Inspectors to carry out the inspection activity based on the inspection form developed by the Inspector Agency. There will be two stage approval process where the first set of data shall be entered by a Field Office and the same data will be displayed in the Admin/Manager's account. The Manager can either go with the same data or can make the changes, if any, before closing the inspection task. Once the Inspection task is closed and submitted, then the inspection report shall be generated in the PDF format which can either be downloaded or emailed directly from the online tool itself. The tool shall work in the online mode. The Reports shall be available in the following formats:

- PDF
- Excel (summary report of the status of the reports being created)

There will be hierarchy-based model in the Site Inspection where the two-step validation facility be available before finalizing the report. The final submitted reports by the Main Admin can be changed up to maximum numbers of three times and there to make any changes request may be entertained on case to case basis. The following broad categories are mentioned below which shall capture all the important points required for an inspection and under each category there shall be multiple subpoints which will come in the detailed formats at the time of BRD:

- Project Details
- Details of PV Module
- Details of Module Mounting Structure
- Details of DCDB
- Details of ACDB
- Performance Ratio
- Details of Inverter
- Details of Earthing
- Details of Cable Used
- Signature of Installer and Consumer

The consultant shall discuss with GUVNL and finalise the data points to be captured. The consultant shall draft the functionality/concept of both the tools and will start development post

the approval of GUVNL. The consultant shall submit a detailed concept note while submitting their bid against this ToR.

Task 3: Fund Management Module

The consultant shall develop a fund management tool for managing the subsidy disbursement for the solar rooftop applications. The consultant shall develop an efficient tracking mechanism for tracking the subsidy payments from state vs MNRE accounts. The consultant shall discuss the final specifics of the module with GUVNL and take necessary approval.

Task 4: Query Handling Portal

During the implementation process of Residential Rooftop Solar under SURYA-Gujarat scheme, GUVNL and DISCOMs are receiving large number of queries through e-mails from various Empanelled Agencies and Consumers/Applicants. General types of queries receiving are as under:

- **From Agencies:** Application modification in terms of name spelling, phases, Document submission, Increase /decrease of capacity, Payment not reflected on portal, Meter installed but meter detail not uploaded, Quotation not generated from e-Urja, Delete/cancellation of applications, Two applications in same premises, Subsidy not received, Error in fetching data from e-Urja, Change of photo, Aadhar number, Billing related queries, IT related queries, Technical specification related queries, Tax deduction related, etc.
- **From Consumers/ Applicants:** system not installed, payment made but Agency is not responding, Bi-directional Meter not installed, etc

So, to manage, monitor and resolve all such queries, a query resolution mechanism is required to be developed. The EPC company shall raise their query on portal to get ticket number. The query will get transferred to the concerned Officer of the DISCOM for resolving it. There may be three level hierarchical approach to resolve queries, discussed as below:

- Level-2: DISCOM Circle Office level: Nodal Officer for Technical, Billing and IT Side queries. (6 DISCOMS X 3 Persons x 30 circles)
- Level-1: DISCOM Corporate Office level: Nodal Officer for Technical, Billing and IT Side queries. (6 DISCOMS X 3 Persons)
- Level-0: GUVNL Level: Nodal Officer for Technical, Billing and IT Side queries (3 Department x 3 Persons).

For consumers, a separate page would be provided without login by entering application number and raise queries on portal. The consultant shall develop a query resolution portal integrated with unified portal. The consultant shall discuss the final specifics of the module with GUVNL and take necessary approval.

Task 5: Updating the Inspection Handbook

Under the capacity building project TROPHI, GIZ had developed a detailed handbook for the third-party inspections. GUVNL has requested for development of a third-party inspection handbook for the Discom engineers. The handbook will serve as a guiding document for the capacity building and execution of the Inspection of the system. The consultant shall discuss with GUVNL and finalise the scope of the handbook. The consultant may update the handbook developed by GIZ to meet the requirements of the GUVNL.

Deliverables	Deadline/place/person responsible
Inception report	2 weeks
Preliminary report on Task 1 to 5	8 weeks
Beta Version of the module and tools	12 weeks
Final reports on Task 1 to 5	16 weeks

Period of assignment: From September 2020 until February 2021.

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

Technical-methodological concept

Strategy: The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 2).

The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them.

The bidder is required to present and explain its approach to **steering** the measures with the project partners and its contribution to the results-based monitoring system.

The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule that describes how the services according to Chapter 2 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 2.

The bidder is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (**learning and innovation**).

Other specific requirements

The consultant shall strive for gender equality in their proposed staff in the technical proposal.

Project management of the contractor

The bidder is required to explain its approach for coordination with the GIZ project.

- The contractor is responsible for selecting, preparing, training and steering the experts (national, short and long term) assigned to perform the advisory tasks.
- The contractor makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.
The contractor reports regularly to GIZ in accordance with the AVB of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2018

In derogation from GIZ AVB, the contractor makes contributions to reports to GIZ's commissioning party instead of submitting its own reports.

In addition to the reports required by GIZ in accordance with AVB, the contractor submits the following reports:

- Inception report
- Contributions to reports to GIZ's commissioning party
- Brief quarterly or half-yearly reports on the implementation status of the project (5-7 pages)

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

4. Company Profile

To be eligible to participate in this tender, the consulting firm must have minimum 3 years of experience in the field of renewable energy consulting, and installation in India, online portal development for renewable energy and solar energy sector. The consultant shall meet the following minimum requirements and submit documentary evidence, the reference projects shall have value more than EUR 20000.

- i. Firm must have developed and delivered minimum 2 online unified portals for solar energy in last 3 years and at least 5 reference projects in India
- ii. Firm must have minimum 3-year experience in online unified portals for solar rooftop.
- iii. Firm must have minimum 1-year experience of working with Gujarat Discoms.
- iv. Firm must have minimum experience of 3 years in the field of renewable energy
- v. Average annual turnover of the firm for the last 3 years shall be at least EUR 90000
- vi. 2 years of experience with ODA financed projects

Number of employees as on 31.12.2019 shall be at least 10 persons.

5. Personnel concept

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 8), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points.

Team leader

Tasks of the team leader

- Overall responsibility for the advisory package of the contractor
- Ensuring the coherence and complementarity of the services of the contractor with other services delivered by the programme
- Strategy, implementation, monitoring and evaluation of capacity development measures for local partners
- Consideration of cross-cutting themes (e.g. gender equality)
- Personnel management, in particular identifying the need for short-term assignments within the available budget, as well as planning and steering assignments and supporting local and international short-term experts
- Ensuring results monitoring is conducted
- Regular reporting in accordance with deadlines
- Responsibility for controlling the use of funds and financial planning in consultation with GIZ's officer responsible for the commission
- Supporting the officer responsible for the commission in updating/adapting the project strategy, in evaluations and in preparing a follow-on phase

Qualifications of the team leader

- Education/training (2.1.1): University qualification (Degree) in Engineering
- Language (2.1.2): Good business language skills in English, Hindi and Gujarati
- General professional experience (2.1.3): 7 years of professional experience in the Indian Energy sector in the field of renewable energy
- Specific professional experience (2.1.4): 5 years in professional/consulting experience in setting up solar rooftop plants
- Leadership/management experience (2.1.5): 6 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): 2 years of work experience in Gujarat
- Development Cooperation (DC) experience (2.1.7): 2 years of experience in DC projects
- Others (2.1.8): NA

Expert 1: Project Manager

Tasks of expert 1

- Development of solar modules for task 1 to 5
- Assessment of existing procedures, regulations and policies
- Responsible for supporting the Team leader in developing and executing the tasks 1 to 5

Qualifications of expert 1

- Education/training (2.2.1): University qualification (Degree) in Electrical Engineering
- Language (2.2.2): Good business language skills in English, Hindi and Gujarati
- General professional experience (2.2.3): 5 Years of experience in Indian Energy Sector
- Specific professional experience (2.2.4): 3 years' experience in solar sector
- Leadership/management experience (2.2.5): 2 years' experience in project management
- Regional experience (2.2.6): 2 years of experience in projects in Gujarat

- Development Cooperation (DC) experience (2.2.7): 2 years' experience in working with DC
- Other (2.2.8): NA

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

In addition to the above 2 positions, the bidder shall submit a pool of short-term experts as follows:

Short-term expert pool with minimum 2, maximum 4 members

Tasks of the short-term expert pool

- Development of the process map
- Developing the modules

Qualifications of the short-term expert pool

- Education/training (2.6.1): 2 experts with university qualification (degree) in engineering, 1 expert with university qualification (degree) in IT
- Language (2.6.2): 1 expert with very good language skills in English, Bengali and Hindi, General professional experience (2.6.3): 1 expert with at least 5 years of experience in the Renewable Energy sector, 1 experts with at least 5 years of professional experience in the Portal development
- Specific Professional Experience (2.6.4.): 2 years' experience with online portals
- Regional Experience (2.6.5): NA
- Development Cooperation (DC) experience (2.6.6): 2 experts with at least 2 years of experience in DC

The bidder must provide a clear overview of all proposed short-term experts and their individual qualifications.

Other specific requirements

The consultant shall deliver 5 workshops for various stakeholders. In case there are requirements/request from Government for additional trainings/workshops beyond the estimated 5 workshops, the consultant shall be available for delivering the sessions and managing the workshops. The costing for the additional workshops regarding the logistics will be borne by GIZ.

6. Costing requirements

Assignment of personnel

Team leader: On-site assignment for 60 expert days

Project Manager: On-site assignment for 60 expert days

Short-term expert pool: total 120 expert days

Travel

The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the places of performance stipulated in Chapter 2 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

7. Inputs of GIZ or other actors

GIZ shall help in steering the process along with the implementation partners.

8. Requirements on the format of the bid

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English (language).

The core proposal/bid shall not exceed 20 pages (excluding CVs & other supporting company documents; as mentioned in grid for assessing eligibility of firms).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long.

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.

The option is exercised in the form of an extension to the contract based on the already offered individual rates.