

Terms of reference (ToRs)

Development of Monitoring tool for PM KUSUM scheme: Phase II	Project number/ cost centre:
	16.2081.4-001.00

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0. List of abbreviations

AVB	General Terms and Conditions of Contract (local)
ToRs	Terms of reference

1. Context

The Promotion of Solar Water Pumps (PSWP) component of the Indo-German Energy Programme (IGEN) 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. BMZ has commissioned Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), a federal enterprise based in Eschborn and Bonn in Germany, with the implementation of the project.

The PSWP module aims to improve, expand and speed-up the roll-out of sustainable solar water pumps. It is being implemented pan-India with focus to the East and North-East of India (specifically the federal states of Assam, Bihar, Jharkhand, and West Bengal), over a period of four years (October 2018–September 2022).

The objective is to ensure that solar pumps for productive use are rolled out more rapidly through a multi-level and multi-actor approach. The project provides advisory services to the central government (such as MNRE) at national level. In the selected federal states, it actively involves relevant government agencies (such as state implementing agencies), agricultural extension services and financial service providers. The project also accounts for the key role played by the private sector (companies and associations) by entering in specific cooperation arrangements.

The project will engage in four specific fields of activity: (i) promotion enabling policy environment, (ii) implementing successful business, operator and service models, (iii) facilitating access to finance and (iv) capacity building of agricultural service providers.

SWPs are steadily gaining ground in response to the subsidy support being provided under various central and state government schemes. New grid connected SWP models are also being promoted to enable additional farmer income through sale of surplus solar power generated by these pumps. The deployment is expected to increase multi-fold with the roll-out of MNRE's Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (PM KUSUM) which has three components targeting both on and off grid solar pumping as the following

Component-A: Setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants;

Component-B: Installation of 2 million Stand-alone Solar Agriculture Pumps; and

Component-C: Solarisation of 1.5 million Grid Connected Agriculture Pumps

Given the importance of the scheme, MNRE is in the process of developing a dedicated and comprehensive national and state portal that undertake the massive task of monitoring implementation of PM KUSUM and the performance of pumps installed under the scheme. A key output for the PSWP module is to support development of a monitoring system that supplies MNRE and other stakeholders with information on the effectiveness of the promotion programmes and possible environmental impacts especially focusing on groundwater. Thus,

the PSWP team is providing technical support to the MNRE in developing the PM KUSUM national and state portals.

MNRE with support from FCDO, Government of UK has developed National Portal for monitoring the progress of all three components of PM-KUSUM scheme implementation for MNRE. Ministry has also developed state portals for Haryana and Gujarat and integrated them with the National Portal. Work for developing state-level portals and integrating that with National Portal for monitoring progress of Component B (off-grid) for PM KUSUM scheme in 5 states (Tamil Nadu, Uttar Pradesh, Tripura, Punjab and Rajasthan) is being done with GIZ support. However, state portals to support roll-out and implementation of all three components of PM KUSUM scheme are yet to be deployed in majority of the states.

Given this background, the objectives of this ToR are as follows:

- To develop, implement and maintain state-level web-portals for monitoring of all three (A, B & C) components of PM KUSUM scheme and integration of these portals with national portal for PM KUSUM scheme.
- To support capacity development of relevant stakeholders at state-level to ensure optimal operation and utilization of the deployed portals.

2. Tasks to be performed by the contractor

The scope of work for the contractor broadly corresponds to development of state-level **Solar Energy Data Management (SEDM) software** platform for monitoring of PM KUSUM scheme Components (A, B and C) in various states. Contractor needs to provide required services and licenses as specified in “Technical Specification” document for all 20 components (indicated in the list of **State-wise Component-wise Portal Development Details at Annexure-I**). The SEDM software platform shall cover both the parts as per MNRE guidelines where Part-1 is related to System Related Business Modules such as Application Pre Processing, Consumer Management, Site Survey Mobile Application, Asset Management, Scheme Progress Management, Live Asset Monitoring Dash Board, Performance Dash Board, MIS Dash board and Reports, Complaint & Ticket Management etc. and Part-2 is related to RMS Device Integration related SCADA modules such as Device Management with Security, SCADA Tag Processing, Alarm/Events & Notification Processing, Database Archiving and Historian, MDAS/MDM, Report Manager etc. Details of the same is as indicated in the “Technical Specifications” document. The scope of work involves (but not limited to) information gap assessment, development/customization, integration, testing, installation, commissioning, demonstration for acceptance and documentation of the proposed IT system. The development/customization of SEDM software platform will be in line with the SEDM software platform already developed for the state of Haryana and Gujarat (**details of available source codes provided in Annexure-II**).

Task 1: Review of the existing source code and portals

- ❖ Review the existing architecture and available source codes developed for Haryana and Gujarat to make it more efficient and effective yet meeting all requirements under the existing legal and regulatory framework in the focus state. The code will be available to the selected bidder
- ❖ Review of existing IT facility of the selected states
 - Solar Pump Scheme related website/server
 - Other relevant organisations (such as SNAs, Agriculture/Horticulture, Irrigation, etc.)
- ❖ Certify plausibility of integration with national portal in terms of server quality, space availability, other necessary technical parameters
- ❖ Development of detailed documents covering both interaction and information functionalities upon addressing selected States' specific customization requirements
- ❖ Development of detailed report on further enhancement of national and state portals upon understanding gaps/variations from existing forms/formats, procedures and modules.
- ❖ Securing final approval on standardized procedures from all the concerned offices and develop the IT tool as per the guidelines/procedures approved by state govt and MNRE, and existing legal and regulatory requirements of each state.

Task 2: Customization of existing Modules and Development of new modules of State Level Solar Energy Data Management (SEDM) Software Platform Part-1

The contractor will be required to undertake the following activities in each of the selected states:

- ❖ MNRE will provide source codes of existing Haryana and Gujarat projects developed for State Level SEDM Software platform i.e. System Modules related to business process tracking
- ❖ Detail specifications of various software modules required for Component-A, Component-B, Component-C of State Level SEDM platform Part-1 is provided in "Technical Specifications" clause-1.2.
- ❖ If required by State Implementing Agency, Contractor needs to customize work flow related changes in existing source code and architecture for each component-A, Component-B and Component-C(provided by MNRE as) per clause 2.3 of "Technical Specifications"
- ❖ Development of site inspection mobile application as per clause-1.2.7 of "Technical Specifications"

Task 3: Deployment, Integration, Testing, Configuration and Go Live Services for Part-1 of State Level SEDM Platform

The contractor will be required to undertake the following activities in each of the selected states:

- ❖ Contractor needs to provide Component-A, B and C specific services of deployment, integration and testing of various software modules as per Clause 2.1 of “Technical Specifications”
- ❖ Apart from State SEDM Software modules, Contractor is required to provide Component-A, B, and C specific integration services with existing SIA’s software modules or portals as per clause 2.2 of “Technical Specifications”
- ❖ After development, customization, deployment, integration and Testing, Contractor also needs to do the basic configuration related to User & Role Management, Asset Management etc. required specific to Component-A, B and C as per Clause 2.4 of “Technical Specifications”
- ❖ Integration with the National Portal
- ❖ Development/Customisation should ensure compliance with security audit of the state portal
- ❖ Support in addressing vulnerabilities found during security audit. The Security Auditor shall be appointed by GIZ.
- ❖ Facilitation of all necessary security procedures for the state portal
- ❖ Testing of Beta version of state portal in order to check all interactive and information functionalities.
- ❖ Integrate all the State portal with National Portal for flow of Direct Benefit Transfer (DBT) information. The Aadhar information will be authenticated at the State level and thereafter it will be uploaded on National portal which will push this information to the DBT Bharat portal
- ❖ Creation of data backup and retrieval approach document and set up of data backup process and system
- ❖ Role based access for users (MNRE, State Implementing Agencies, Beneficiary of PM KUSUM scheme, Empaneled agency), authentication and authorization as per Clause 1.2.11 of “Technical Specifications”
- ❖ Ensuring necessary security and high availability of application software.
- ❖ Portal administrator (nominated official of SIA) should have ability to add pages and panels with text in defined template and to add videos, images and pdfs on editable section in future
- ❖ The website/portal should be designed in a way that it is usable across multiple media (Computer, Tablet, Mobile phone etc)
- ❖ To design user management tool with enough level of system administration control

- ❖ The portal should follow all principles of Search Engine Optimization ensuring maximum visibility of the portal.
- ❖ Develop document on Software architecture, hardware requirement, connectivity and communication protocol, IT Security protocol and interface between state and national portal.
- ❖ The portal should cater to the best practice in operational experience, data security, data back up and maintenance/monitoring
- ❖ Ensure compliance to National Data Sharing and Accessibility Policy (NDSAP)

Task 4: Capacity Building and Rolling out

- ❖ Conduct workshop / trainings for the concerned officers of state to enable performance of assigned role. The workshops / trainings shall be designed in a way to clear all their doubts and concerns in terms of data entry, business process checks, workflow processes, status updates, O&M, system configuration, troubleshooting or portal etc. to the best possible level. The concept of each workshop shall be approved by GIZ. The trainings should be recorded for future reference and kept in knowledge management section (explained below) of the portal. The trainings should be very clearly structured and categorized to ensure easy access to these materials).
- ❖ Conduct at least 10 training online training sessions for each Component A , 25 for each component B and 25 for each Component C of minimum 2 hour of duration for each session with at least 5 number of participants. Each of the workshop should have some online quiz to check the improved knowledge of the participants. Contractor is advised to develop structure of the training with a measure of its effectiveness.
- ❖ Hand holding for district/SIA officers/empanelled agencies for business process and status update workflow.
- ❖ Development of state-wise manuals of the portals for training of the staff for use of portal. All manual should be in pictorial form as much as possible. The manual should be written in English
- ❖ Development of manual for training of the IT staff for troubleshooting of portal. All manual should be in pictorial form as much as possible. The manual should be written in English
- ❖ Development of one generic video tour (with an approximate length of 30 minutes) of the portal for training of the staff for use of portal
- ❖ Development of Knowledge Management Centre as a part of the portal as repository of all manuals and recordings of trainings for User, O&M and Troubleshooting of portal and any other documents.
- ❖ Suggest states in defining eligibility criteria for staffs responsible for portal management.
- ❖ Facilitate handover of the portal including all source codes to States, MNRE and GIZ.

Task 5: O&M of the State Level SEDM Platform Part-1

- ❖ Undertake remote O&M (**only related to software**) of the state portals with standard uptime upto June 2022 as per Clause-3 of “Technical Specifications”.
- **Remote Operational Support Services** up to 10 Applications of Component-A, 100 applications of each Component-B and Component-C for entire life cycle of application till PCR (Project Completion Report) submission of each application after Go Live of the portal for each component as per Clause-3.1 of “Technical Specifications”
- **Remote Software Maintenance Services** with standard uptime upto June 2022 for after Go Live of the portal for each state as per Clause-3.2 of “Technical Specifications”.. It is expected that all the state portals will GO LIVE by the month October 2021.
- ❖ The details of activities to be covered under O&M is required to mention in the proposal for better clarity
- ❖ Development of state-wise O&M manual for future reference.

Task 6: Supply of State Level SEDM Software Platform Part-2 Device Integration (SCADA) Software as well as Deployment, Configuration, Go Live, Operation and Maintenance Services

- ❖ Contractor needs to provide device based licenses of Device Integration (SCADA) software having multiple modules as per clause 4.2 of “Technical Specifications” for up to 10 applications of each Component-A, 100 applications of each Component-B and 100 applications of each component C
- ❖ SCADA software provided by Contractor shall be designed based on Multilayer software architecture as per clause 7 of “Technical Specifications” where each layer corresponds to a different service or integration to make changes easier than having to tackle entire architecture
- ❖ Contractor also needs to provide various configuration services such as device provisioning, Tag Configuration, User and Role Management Configuration, parameter groups and access policy configuration as per clause 5 of “Technical Specifications”

Task 7: O&M of the State Level SEDM Platform Part-2

- ❖ Contractor needs to maintain availability, functioning and performance of SCADA platform hosted on SIA Infrastructure (NIC Cloud or SIA’s Own Data Centre or SIA’s Private Cloud) as per clause 6 of “Technical Specifications” for up to 10 applications of each Component-A, 100 applications of each Component-B and 100 applications of each component C

Task 8: Incorporating some value added features of National Portal

- ❖ In addition to the existing features, this project is also aiming to further enhance the national portal with some added features, e.g Grievance redressal option (for SIAs) at National Portal regarding IT related issues of state portal , Developing a Chatbot feature (in English) , integration of the Weather Advisory services
- ❖ **It is to be noted that Entire State Level Solar Energy Data Management (SEDM) platform Part-1 and Part-2 both will be hosted on the IT Infrastructure provided by State Implementing Agencies. State Implementing agency may provide NIC Cloud, Own Data Centre or private cloud infrastructure which is excluded from the scope of this tender. Contractor needs to provide required services as mentioned in above tasks to deploy, integrate, test and maintain the same on SIA's infrastructure.**

For O&M services of State Level SEDM software platform Part-1 and Part-2 Contractor is required to provide best in class services to ensure more than 98% of uptime of entire platform. Failing in which will result into the penalties as per clause 8 of "Technical Specifications

Deliverables

Given the objectives and tasks listed above, the contractor is expected to deliver the following for each of the components of different states selected by MNRE:

- Development of 13 PM KUSUM state portals covering total 20 components (as per the list in Annexure I) with state specific customization and integration with national portal in each state, including go-live status
- Plausibility report for PM KUSUM state portal development for each state based on review of respective state servers as well as legal and regulatory guidelines
- Support to Third-party security audit report on each state portal and getting a Security Audit certificate from the Security Auditor appointed by GIZ
- Conduct at least 10 training online training sessions for each Component A , 25 for each component B and 25 for each Component C of minimum 2 hour of duration for each session with atleast 5 number of participants for each of the workshop. Each of the workshop should have some online quiz to check the improved knowledge of the participants. Contractor need to submit of certificate of participation
- Manuals and training recordings for users, O&M and troubleshooting customized for each selected component, as well as one generic video tour for Portal users.
- Deployment, Integration, Testing and Configuration services for State Level SEDM Platform Part-1 for each component-A, B, C
- On Line generation and submission of Project Completion Report of 10 applications of each component-A, 100 applications of each Component-B and 100 applications of each Component-C as a part of O&M Services (Task-5)
- Supply of SCADA Licenses as well as deployment and configuration for State Level SEDM Platform Part-2 (Device Integration) for 10 applications (RMS Devices) of each Component-A, 100 applications (RMS Devices) of each Component-B and 100 applications (RMS Devices) of each Component-C

- Hand over of source code, all the required documents, manuals and audit certificates and other intellectual property developed during this project to individual States, MNRE and GIZ

Timeline

Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term:

Milestone		Deadline
Inception meeting and submission of plausibility report after review of state servers and legal and regulatory guidelines	1 st batch of 10 components	(4 th week)
	2 nd batch of 10 components	9 th week
Deployment of source codes in states' servers and integration with national server	1 st batch of 10 components	22 nd week
	2 nd batch of 10 components	35 th week
Third Party security audit	1 st batch of 10 components	26 th week
	2 nd batch of 10 components	39 th week
Beta version of state portal	1 st batch of 10 components	26 th week
	2 nd batch of 10 components	39 th week
Final state portals accepted by States and MNRE	1 st batch of 10 components	(26 th week)
	2 nd batch of 10 components	(39 th week)
Workshop/Trainings conducted for the officers of SIAs	1 st batch of 10 components	30 th week
	2 nd batch of 10 components	43 rd week

Period of assignment: 17 months from the date of the contract (from February 2021 until June 2022)

An inception meeting after the contract is accepted as well as monthly meetings or update calls (including minutes of the meetings between 2-3 pages) are mandatory. In the inception meeting, the contractor is required to give a presentation on the approach, methodology, details on schedule and milestone and discuss the assignment with GIZ. Furthermore, GIZ will provide a project monitoring sheet to the contractor. The contractor is responsible to fill in the sheet and send an updated version at the end of each month to GIZ.

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 0 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 0).

As a part of the strategy description, the bidder is expected to provide concise answers to the following questions

- What are the key considerations while designing a multi-state, multi-user portal for a mega government scheme like PM KUSUM? What would be your roll out strategy and how do you plan to collect user's feedback on the ease of using the portal from the users?
- What are some of the key measures suggested to ensure data safety and data protection?
- Which documents would you like to submit to MNRE/GIZ for smooth replication of the state portal development work by another firm in some other state? Explain the possibility, risk and challenges in migrating entire database of a state level portal to different server.
- How do you structure the knowledge management centre for better user experience and what would be the key features of the same?
- What would you suggest as some of the additional features which can improve the value of the portal for the users?

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 0 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 0.

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

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 (international and 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 General Local Terms & Conditions

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.

The bidder is required to describe its backstopping concept. The following services are part of the standard backstopping package, which (like ancillary personnel costs) must be factored into the fee schedules of the staff listed in the bid in accordance with section 5.4 of the AVB:

- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between GIZ and field staff
- Contractor's responsibility for seconded personnel
- Process-oriented technical-conceptual steering of the consultancy inputs
- Securing the administrative conclusion of the project
- Ensuring compliance with reporting requirements
- Providing specialist support for the on-site team by staff at company headquarters
- Sharing the lessons learned by the contractor and leveraging the value of lessons learned on site

4. Company Profile

Commercial Eligibility Assessment

- Please provide the legal status of your firm.
- Average annual turnover of the agency or consortium for the last three financial years: at least Euro 150,000.
- The number of employees of the agency or consortium as at 31.12. of the previous year: at least 5 persons.

Technical Eligibility Assessment

The bidder shall have reference projects with a minimum commission value of 20,000 EUR:

- At least 5 reference projects in the technical field of design and development of Web Portal
- At least 3 reference projects in India in the last 3 years

Technical Experience

- Minimum 5 years of experience in national or international projects for designing web portal, data analytics and data visualisation
- Minimum 4 years of experience in management of website

Minimum 4 years of experience in developing IT platform/products for monitoring of Govt Programs

The above criteria will be evaluated only of the lead organisation, in case of consortium partners.

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 7), 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 cum Project Manager

Tasks of the team leader

- Overall responsibility for the advisory package of the contractor
- Coordinating and ensuring communication with GIZ, partners and others involved in the project
- Assessment of existing procedures, regulations and policies
- Strategy, implementation, monitoring and evaluation of capacity development measures for local partners

- 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
- 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): Masters in computer application or relevant professional degree with advanced knowledge on programming.
- Language (2.1.2): Good business language skills in English and Hindi
- General professional experience (2.1.3): 8 years of professional experience of designing similar kind of web-portal
- Specific professional experience (2.1.4): 5 years in professional/consulting experience of designing and setting up M& E for central government programmes
- Leadership/management experience (2.1.5): 5 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): 5 years of experience in IT projects in India
- Development Cooperation (DC) experience (2.1.7): 2 years of experience in DC projects
- Other (2.1.8): Experience of RE project will be an advantage

Expert 1: Researcher

Tasks of expert 1

- Advisory for possible value added information to be integrated in the portal
- Training

Qualifications of expert 1

- Education/training (2.2.1): Bachelor of Engineering/ Masters in Science or relevant professional degree
- Language (2.2.2): Good business language skills in English
- General professional experience (2.2.3): 5 Years of experience in Indian Renewable Energy Sector
- Specific professional experience (2.2.4): 3 years' experience in weather forecasting
- Leadership/management experience (2.2.5): NA
- Regional experience (2.2.6): 3 years' experience in India
- Development Cooperation (DC) experience (2.2.7): 2 years of experience in DC projects
- Other (2.2.8): Shall have managed development of online IT tools/portals

Soft skills of team members

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

- Team skills
- Communication skills
- 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 8, maximum 12

Tasks of the short-term expert pool

- Design, Development, Testing and Management of the portal
- Developing user manuals and materials for the training modules
- Training
- Operation and Maintenance of both Part 1 and Part 2
-

Qualifications of the short-term expert pool

- Education/training (2.2.1): University Degree in Computer Application or other relevant field
- Language (2.2.2): Good business language skills in English
- General professional experience (2.2.3): 3-7 years of professional experience developing websites/web-based pages. Development of webpages for Government agencies will be an advantage
- Specific professional experience (2.2.4): 3 years of web-portal O&M experience
- Regional experience (2.2.5): NA
- Development Cooperation (DC) experience (2.2.6): NA
- Other (2.2.7): Experience of RE project will be an advantage

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

Other specific requirements

In case there are requirements/request from Government for additional trainings/workshops beyond the estimated training sessions mentioned in Task 4, 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

The assessment of the required human days for each state for the listed tasks is as follows:

Personnel	Number of person days
Team Leader cum Project Manager	400 days

Researcher	100 days
Short-term expert pool (IT expert)	2000 days
Total person days	2500 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 0 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

SCADA license

The bidder is required to calculate the cost for supply of SCADA Licenses for State Level SEDM Platform Part-2 (Device Integration) for 10 applications (RMS Devices) of each Component-A, 100 applications (RMS Devices) of each Component-B and 100 applications (RMS Devices) of each Component-C and list the expenses separately.

- **Inputs of GIZ or other actors**

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

7. 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 complete bid shall not exceed 30 pages (excluding CVs and company experience).

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. The CVs can also be submitted in English.

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 shortlisted candidates may be invited for a presentation in either in virtual platform (most probably) or in GIZ Delhi Office within 45 days of the submission of the proposal.

Annexure-I

State-wise Component-wise Portal Development Details

S. No.	State	Component selected for portal development		
		Component-A	Component-B	Component-C
1	Andhra Pradesh			√
2	Goa			√
3	Jammu & Kashmir		√	
4	Jharkhand		√	
5	Karnataka		√	√
6	Madhya Pradesh	√		√
7	Maharashtra			√
8	Odisha	√	√	
9	Punjab			√
10	Rajasthan	√		√
11	Tamil Nadu	√		√
12	Telangana	√		√
13	Uttar Pradesh	√		√
	Total	6	4	10

Annexure-II

MNRE with support from FCDO, Government of UK has developed National Portal for monitoring the progress of all three components of PM-KUSUM scheme implementation for MNRE. Ministry has also developed State Level Solar Energy Data Management (SEDM) Software Platform Part-1 for Haryana and Gujarat and integrated them with the National Portal.

Source code of Haryana and Gujarat state for State Level SEDM Software Platform Part-1 is available which covers following modules developed with reference to the “**Technical Specification**” document.

	List of Software Modules Already Developed and may require customization/configuration	Reference	Haryana	Gujarat
1	State Level KUSUM Web Portal	1.2.15	Y	Y
2	Application Pre Processing	1.2.1	N/A	Y
3	Consumer Management	1.2.1	Y	Y
4	Project Progress Management & Tracking	1.2.2	Y	Y
5	Site Survey Mobile Application	1.2.10	Y	Y
6	Asset Management	1.2.3	Y	Y
7	Live Asset Monitoring	1.2.4	Y	Y
8	Performance Analysis – Dash Board	1.2.5	Y	Y
9	Consumer Monitoring with RMS Data	1.2.13	Y	Y
10	Consumer Mobile Application	1.2.9	Y	Y
11	User & Role Management	1.2.11	Y	Y
12	MIS Dash Board	1.2.14	Y	Y

	List of Software Modules To be Developed	Reference
1	Site Inspection Mobile Application	1.2.7
2	Performance Analysis Reports (Available but custom development may be required based on SIA requirement)	1.2.12
3	MIS Reports (Available but custom development may be required based on SIA requirement)	1.2.6
4	Complaint & Ticket Management with Reports (Available but custom development may be required based on SIA requirement)	1.2.8
5	Energy Audit & Accounting with Reports (Custom development based on SIA requirement)	As per SIA Requirement

Note: Please refer to Technical Specification Document Clause 2.1 for Component-A, Component-B and Component-C specific module requirements.

