7.5.5. **Appendix Form 5 (Acceptance Certificate)**

Acceptance Certificate of the Rooftop Solar Power Project

(To be issued by OREDA on the letterhead)

TO WHOMSOEVER IT MAY CONCERN

Date: [DD MMM YYYY]

To

[Empaneled Vendor's name]
[Address]
[Email id]
[Mobile no.]

Reference:

1. NIT no. [insert] dated [DD MMM YYYY]
1. RFP no. [insert] dated [DD MMM YYYY]
2. Letter of Intent no. [insert] dated [DD MMM YYYY]
3. Empanelment Order no. [insert] dated [DD MMM YYYY]
4. Joint Commissioning Certificate no. [insert] dated [DD MMM YYYY]
5. Any other correspondence, if any:

This is to certify that [Name of the Empaneled Vendor] having its registered office at [address] has successfully commissioned capacity of [insert capacity] kWp Solar Photovoltaic Power Project at [insert village name] village, [insert district name] District in Odisha with respect to the ref. no. 5 and it is operating successfully for a period of ninety (90) Days from the date of the Joint Commissioning Certificate.

The Acceptance Certificate has been issued on the basis of the following documents enclosed:

1. Acceptance Report as submitted by the Commissioning Committee prepared in line with Commissioning Report

1. Installation report as uploaded on CRC

2. No claim/ lien certificate

Place: [insert place]

[sign here]
Signature
Name of Authorized Representative of OREDA: [insert name]
Designation: [insert designation]
Odisha Renewable Energy Development Agency
Seal:

7.5.6. **Appendix Form 6 (Scheduled Maintenance):**

The periodic Scheduled Maintenance protocol for RTS is given below:

Sr. No.		Task	Quarterly	Semi-annual	Annual	Bi-annual
1		**PV Array**				
	A	Inspect each PV modules for damage	■			
	B	Observe PV array shading and take corrective measures	■			
	C	Clean array with water and removes debris around the array	■			
	D	Inspect array mounting structure, check for loose fasteners, corrosion, broken/ damaged concrete footings, etc. and take corrective measures, if necessary.		■		
	E	Check the array junction box, all wires and cables to take corrective measures if necessary.	■			
	F	Adjust tilt angle, if necessary		■		
	G	Check array current & voltage. If required each module current, voltage & bypass diode condition.	■			
	H	Check for any loose contacts in the string connection (+ve/-ve MC4 connectors)				
2		**PCU**				
	A	Check inverter and/or charge controller for correct settings	■			
	B	Check Inverter capacity and max allowable load using dummy load.			■	
	C	Ventilation fan condition/filter cleaning				
	D	Check all the parameters (I/P & O/P) as per Manufacturer datasheet for any Malfunctioning				
3		**Protection devices**				
	A	Check for continuity of lightning arrestor		■		
	B	Check system earthing		■		
	C	Check all SPDs		■		
	D	Check all bypass/ blocking diodes and take corrective measures if necessary.		■		

7.5.7. **Appendix Form 7 (Test Certificates – IEC and IP certifications)**

The Test Certificate requirements for RTS are given below:

Sl. No.	Major Component	Test Certificates Required	Test description	Designated Test Labs
1	Crystalline Silicon Terrestrial PV Modules	IEC 61215	Design qualification	MNRE/NABL/BIS authorized Test Lab
		IEC 61730	Safety Qualification	MNRE/NABL/BIS authorized Test Lab
		IEC 61701	Salt Mist Corrosion Test	MNRE/NABL/BIS authorized Test Lab
2	Power Conditioning Units (PCU)/ Inverter*	IEC 61683	Efficiency Test	MNRE/NABL/BIS authorized Test Lab
		IEC 60068	Environmental Test	MNRE/NABL/BIS authorized Test Lab
		IEC 62116	Anti-Islanding Protection	MNRE/NABL/BIS authorized Test Lab
		IEC 61727	Grid Interconnection	MNRE/NABL/BIS authorized Test Labs
		IP 65/56	Ingress Protection for Outdoor/Indoor Enclosure	MNRE/NABL/BIS authorized Test Lab

*Self-certified Test reports of PCU may be submitted for capacities above 10 kWp

7.6. Appendix to SOW – CRC guidelines

7.6.1. **Disclaimer**

    7.6.1.1. These guidelines meant for use of OREDA only.

    7.6.1.2. These guidelines are prescribed for installation, Commissioning, Acceptance and Comprehensive Maintenance of renewable energy systems installed by/under OREDA only.

    7.6.1.3. OREDA does neither recommend nor insist other organizations to follow these guidelines for the renewable energy systems developed by either by themselves or through any other organization other than OREDA.

    7.6.1.4. OREDA reserves all the right to modify, amend or supplement these guidelines whenever such necessity arises.

    7.6.1.5. Though adequate care has been taken for preparation of these guidelines the installation and maintenance details prescribed in this document are not the only and absolute prescriptions. Depending upon the on-site conditions, the installation/maintenance technician shall take his/her own well-judged decision while installing or maintaining a given RE system.

    7.6.1.6. Though safety features have not been covered under these guidelines, Indian standard safety guidelines for construction work and electrical works must be followed by all involved in with installation and maintenance of RE systems under these guidelines.

7.6.2. **Declaration**

    7.6.2.1. These guidelines will hereinafter be known as "General Guidelines for Installation and Maintenance of RE Systems under OREDA"

    7.6.2.2. These guidelines shall be applicable to all distributed RE systems installed under the aegis of OREDA.

    7.6.2.3. These guidelines shall be strictly followed by all vendors of OREDA.

    7.6.2.4. These guidelines will also be strictly adhered to by all technicians and supervisory level officers of OREDA.

    7.6.2.5. These guidelines will also constitute an integral part of all tenders of OREDA

    7.6.2.6. The scoring system prescribed in these guidelines shall be applicable to all vendors of OREDA executing projects on behalf of OREDA

7.6.3. **Intent behind framing these guidelines**

    7.6.3.1. These guidelines have been framed solely with the intention of improving the installation standards of RE systems and to extend the quality and timely maintenance services so as to minimize system downtime and guarantee customers' satisfaction.

7.6.4. **Context**

    7.6.4.1. The last few years have witnessed a tremendous rise in the number of RE installation particularly in remote, un-served and underserved parts of the state. In view of the absolute need of these installations to meet the basic requirements such as lighting, the supply of drinking water, irrigating farmlands, etc. it is imperative on the part of OREDA to ensure proper performance of the systems which largely depends on the quality of materials, standards of installation and the certainty and frequency of maintenance.

7.6.4.2. Ministry of New and Renewable Energy, GOI normally determines the quality and standards of the materials which are elaborately reiterated in the respective tender documents.

7.6.4.3. Project-specific installation procedures are often elaborated in the respective tender documents which the vendors are expected to follow meticulously. However, it has been observed that the vendors often do not adhere to these procedures which results in poor performance of the systems. To enable the vendors to follow the procedures meticulously a specific installation App has been developed by OREDA which will be shared with the vendors on their registered mobiles meant to be used by their designated Technicians. The App has been made in such a way that as a technician proceeds for installation of a certain system/device it opens up the step by step installation procedure for the given system/device which the technicians simply has to follow and upload pictures wherever camera buttons have been provided. As a technician completes installation the entire installation report along with pictures will be ready on his mobile for submission to OREDA.

7.6.4.4. Though the primary responsibility of maintenance of the systems has been vested in the concerned vendor the rising number of unresolved service requests at the CRC calls for some serious organizational oversight. Moreover, it is presumed that many customers are also not able to register their requests due to poor or no mobile connectivity, ignorance about CRC and its toll-free number, etc.

7.6.4.5. Keeping the above in view, OREDA during September 2018 introduced a Scheduled Maintenance Regime through its Customer Relationship Centre so as to introduce periodicity and certainty in the maintenance services being extended by the vendors. Like installation, the scheduled maintenance has also been made a mobile application based where the technician responsible for maintenance of the system can step by step follow the prescribed procedure for scheduled maintenance and upload pictures wherever camera buttons have been provided. At the end of the maintenance procedure, a maintenance report can also be generated by the technicians.

7.6.4.6. This initiative is not only expected to increase the performance level of the installations but also greatly reduce service requests by customers.

7.6.5. **Objectives:**

The primary objectives of this new initiative are

1. Increase the economic life span of installations.
2. Ensuring better performance of RE systems.
3. Higher returns on investments.
4. Higher customer satisfaction
5. Better acceptance of decentralized RE based power systems
6. Increased response to climate change mitigation.

7.6.6. **Stakeholders:**

Ensuring proper performance of RE installations calls for the combined effort of all stakeholders such as Customers, Sponsors, PRIs, Vendors, Independent Service Organizations, OEMs, and OREDA.

7.6.6.1. Customers:

Customers are the ultimate users and custodians of RE systems/devices. They are required to own the systems irrespective of the systems being privately owned by them or a public property installed inside their premises. They should be responsible for the safety and security of the systems as well as day-to-day maintenance of the systems as prescribed in the users' manual.

7.6.6.2. Sponsors

Sponsors are the Government Departments/Organizations sponsoring the schemes/program under which the RE systems/devices are installed. Sponsors are responsible for availing and extending maintenance contracts and organizing funds for the same. Sponsors are to be kept informed about the maintenance activities as well as emergent situations that call for material and financial resources.

7.6.6.3. Vendors

Vendors are primarily responsible for supply, installation and commissioning of the RE systems/devices. They are also responsible for the effective maintenance of the systems for the first five years or as may be mentioned in the concerned tender. Vendors are required to extend scheduled maintenance services as well as on-call maintenance services to all systems installed by them. For extending such services smoothly they may establish their own service network or avail services of Independent Service Organizations. Vendors are also required to have back-to-back agreements with their OEMs for extending guarantee, warranty, the supply of spares, etc. Vendors shall work in close coordination with the customers, custodians, field units, respective technical divisions, and CRC of OREDA in order to deliver effective maintenance services.

7.6.6.4. Original Equipment Manufacturers (OEMs)

The Manufacturers of the original equipment used in RE systems/devices are important stakeholders as far as delivery of effective maintenance services is concerned. Without a proper inventory of spares at their end for the entire period of maintenance and quick response to the need for spares at the Project site, it is almost impossible to deliver effective maintenance services on the part of the vendors. Hence OEMs must enter into tripartite agreements with vendors as well as OREDA with regards to the adequacy and timely supply of spares. OREDA may also consider empaneling OEMs of important items such as pumps, invertors, CPUs, etc.

7.6.6.5. OREDA

OREDA represented by its Technical Divisions, Field Units, CRC is the most important stakeholders in respects of

a) Managing processes and providing oversight

b) Establishing principles and parameters for extending maintenance services

c) Setting up performance parameters

d) Monitoring, measuring and analyzing stakeholders' performance.

e) Working for performance improvement

f) Identifying time-bound and appropriate actions as well as working on the same

g) Developing internal preparedness to repair, re-installing systems beyond the scope of the vendors.

h) Developing contingency resources and plans to force majeure situations.

i) Recognizing and encouraging good performance

7.6.7. **Process**

The overall process is hinged on three distinct sub-processes. They are

1. Onboarding the Project
2. Installation & Commissioning of the systems
3. Creation of system IDs and linking to CRM
4. Managing the R&M.

The efficiency of maintenance is largely dependent on the quality and regularity of step 1,2&3. The processes are as follows:

7.6.7.1. ONBOARDING:

Onboarding refers to the creation of the Project-specific database comprising of the following details. Onboarding of each Project is to be done by the concerned Division Head of OREDA.

a) Name of the scheme (Generic-Specific)

b) Name of the sponsors.

c) Details of sanction order indicating the quantity, cost, locations, etc.

d) Date of floating of tender

e) Date of finalization of tenders.

f) Vendor details (name, the quantity of work awarded, the total cost of the work, locations assigned)

g) Date of Issue of LOI

h) Details of survey report submitted by the vendor in response to LOI

i) Details of Project execution schedule submitted by the vendor in response to LOI

j) Date of issue of firm Empanelment Order vendor wise

k) Final date of completion of the Project.

This would get populated onto the database in phases as the scheme progresses from conception to inception.

Once a scheme is on-boarded the details are to be intimated to CRC for the creation of a new account.

7.6.7.2. PROJECT EXECUTION:
The vendor to whom a particular work has been assigned is responsible for the execution of the Project. As soon as a Project is on-boarded with the above details the same will appear on the dashboard of the concerned vendor(s). The vendor then has to assign the Project to a specific technician(s) having registered mobile phones on which the installation apps have been loaded.

The technician will then be able to see his/her assigned Projects on the app provided having details such as the name of the Project, name of the customer, location details including GPS coordinates, the capacity of the Project, etc. As the technician starts executing the Project, he/she has to upload the following details as and when it happens

a) Date of commencement

b) Details of all hard wares

c) Exact location of installation

d) Complete step by step installation details including the picture as per the installation app.

e) Date of commissioning the Project

This would get populated onto the database in phases as the scheme progresses from conception to inception.

7.6.7.3. SUPERVISION:

a) District Level: As soon as the on-boarding is complete the Officer-in-charge of the District RE Cell can see the details on his dashboard. Similarly, he can see the subsequent processes carried out at the vendor and technician levels. At any point in time as may be required the Officer-in-charge of the District RE Cell can undertake filed visits and supervise the progress of the work, quality of work execution, etc.

Once a Project is commissioned the Officer-in-charge of District RE Cell can make necessary checks and upload the Joint Commissioning Certificate on the App provided to him within a stipulated timeline.

b) HQR. Level: After getting the commissioning reports and necessary checks thereon the concerned division of OREDA will create the Project/system ID after which the Project/system will automatically get linked to the CRC which will mark the beginning of the processes at CRC such as Scheduled Maintenance and Corrective Maintenance.
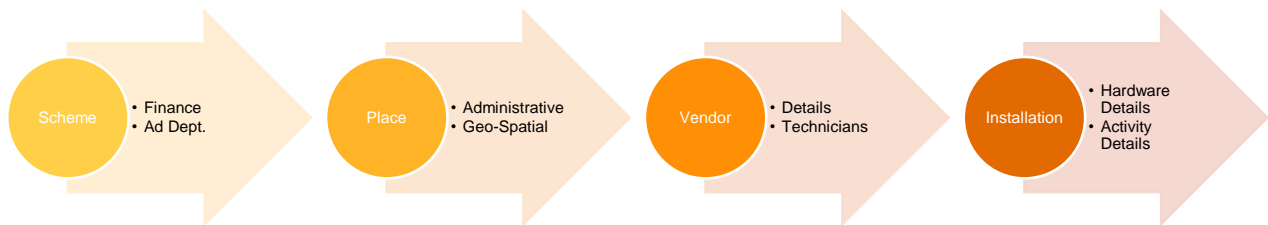
7.6.8. **R&M Management:**

The R&M regime involves two types of efforts. The first is the Scheduled Maintenance Activities, which is done as a preventive action. It is expected that these periodic maintenances will drastically reduce the incidents of breakdowns. This should be done at some periodicity and in each case, a list of activities must be done. The second is the Unscheduled Maintenance Activities which are of corrective nature. This means when any breakdown/ malfunction is detected, the appropriate corrective action needed can be initiated.

7.6.8.1. Scheduled (Preventive) Maintenance:

a) A master maintenance schedule is to be drawn up for the organization covering each installation.

b) This will be done by stratifying the districts into District Clusters based on logistical convenience.

c) Each Cluster will be broken down into three geographical patches (comprising of Blocks/ GPs) called as Maintenance Cluster to evenly distribute the ticket load across each month within that Maintenance Cluster.

d) The CRMS, well before the schedule, will fire a flurry of emails and SMS to the Vendors notifying about the list of installations they must cover in each of the Clusters within that Month. A ticket for each installation in the list will be automatically generated. It may be noted that though the list is sent in one list, separate emails will be sent for each ticket on which communication/ transactions have to be made by the Vendor

e) It's the responsibility of the Vendors to track each case through their authorized technicians and report compliance throughout the month as soon as they cover the installations.

f) The technicians/ SPOC of the vendor must share the documents/evidence required for the acceptance of resolution over e-mail in the same thread the ticket was raised. No resolution mail other than that thread will be accepted. The protocol of communication may get subsequently changed to improve operational efficiency.

g) The CRC as soon as it receives the resolution mail, will cross verify the claim of resolution by the technicians and may close the ticket or return for rework.

h) The CRMS at the end of the month will compute the performance of the ticket/ Vendor/ Scheme and release a scorecard.

7.6.8.2. Unscheduled (Corrective) Maintenance:

a) Breakdown occurs at one of the installations.

b) The customer calls the CRC to submit a service request.

c) The agent at the CRC using the CRMS identifies the customer and registers a request called a ticket.

d) Automatically a set of e-mails is fired to the Vendor, its Technician, Administering Dept. of the Scheme and OREDA.

e) The CRMS tracks each ticket and follows up each case over e-mail and voice calls.

f) After the lapse of certain days, the CRMS auto escalates it to the Nodal Officer/ Scheme Officer for action.

g) The vendor/ Technician resolves the ticket at the field and intimates the CRC about it through the designated communication channel as per the protocol.

h) CRC cross-verifies it with the community/ customer and closes the ticket.

i) CRMS measures performance.

7.6.9. **Repair and Maintenance Regime:**

7.6.9.1. Scheduled Maintenance:

The schedule maintenance regime will focus on the vendor's **certainty and regularity** of visit to the installations under him as his performance parameter. He is expected to comply with a minimum of 90% visit against the Scheduled Tickets within that Service Month.

a) Activities under each category of Tickets:

The vendor is warranted to visit the installations and undertake a list of activities linked to that category of ticket. The ticket category can be of Quarterly, Half Yearly and Annual. To know the installation of a Class-specific and ticket Category-specific list of activities, kindly refer to Appendix Clause 7.5.6.

b) Time Limit:

It's expected that the vendor must complete the activities over the list of installations designated for that maintenance month within that calendar month itself.

It may be noted that they can work on any day without any bias to the day being notified as a holiday or otherwise.

c) Route/ Sequence:

Each installation must be visited once in every quarter, half-yearly and yearly for different categories of activities.

To maintain a uniform gap between the visits every time, the vendor is expected to stick to an optimal sequence in a route.

The number of routes that the vendor identifies depends on how big the list and how many technicians are to be deployed.

Care must be taken so that all installations not only are resolved within a month but also are closed.

d) Score:

On successful completion of one ticket as per the service standard, the vendor will earn certain points, and for each default, it will earn a negative score which is designed to be a deterrent.

The scores are:

Visits	Activity Types	Earnings	Penalties
Visit - 1	Q1	3	-9
Visit - 2	Q2	3	-9
	H1	1	-3
Visit - 3	Q3	3	-9
Visit - 4	Q4	3	-9
	H2	1	-3
	A1	1	-3

7.6.9.2. Corrective Maintenance:

a) Service Standards:

While the Schedule Maintenance regime focuses on the vendor's certainty and regularity of visit to the installation as his performance parameter, Corrective Maintenance Regime focuses on the Timeliness of the vendor to respond to a breakdown situation.

The vendor upon being notified of a breakdown situation shall have to complete his assessment within 2 days and complete the repair work within the next 5 days. All (100%) tickets must be resolved within the time limit given above. If the scope of repair/ replacement is found to be beyond the scope of Maintenance Contract (MC), then the vendor immediately after the field reconnaissance must report the same to the CRC.

    i.   It is expected that at any point in time, none of the vendors would be having cases older than 7 days pending in their list.

    ii.   And, no vendor's installations under a scheme should show 'Non-Working' status of more than 2% of the installations.

b) Methodology:

Corrective maintenance requires a different approach as against the scheduled maintenance methodology. While the scheduled maintenance is predictable, corrective maintenance requires a case-specific approach. The following are recommendations for the most efficient methodology. But the vendors are free to adopt their own if they are complying with the time limit.

c) Reconnaissance:

Within 2 days of the ticket date.

    i.   When a request of service is registered, the vendor as the first response must organize the collection of field level information about the nature of the problem.

    ii.   Based on that feedback from the field, the vendor must decide the following;

- The genuineness of the request,

- If the requirement of repair is beyond the scope of his MC,

- If it is within his scope, then, he must arrange labor, spares, materials needed for the repair, and mobilize them to attend the breakdown at the spot.

This will help the vendor to resolve the request in one visit. This is more necessary as at times the villagers without ascertaining the owner of the installation, register a request in the CRC, and, as there is the possibility of multiple installations in one village and the data matches, the ticket is raised against a working installation.

d) Repair:

Within 7 days of the ticket date.

    i.   The authorized technicians of the vendor must move to the location with the resources to undertake the repair.

    ii.   Upon completion of the repair, the installations must be tested in the presence of the customer/ custodian.

    iii.   Requisite evidence and documentation must be completed by the technicians and immediate intimation need to be sent to the CRC.

e) How to handle repair beyond the scope of MC

    i.   At the reconnaissance stage, when the vendor realizes that the requirement is beyond the scope of MC, he must request closure giving appropriate reasons.

    ii.   He must use the same communication channel as he would have used for resolution,

      iii.   The CRC then would take it off the Vendor list and transfer it to the OREDA list.

      iv.   OREDA will take this matter up with their principals for resolution.

f) Score:

      v.   Each vendor at the start will be given a Credit account of 8760 hrs. (365 Days x 24 hrs.) for each of the installation he is responsible for maintenance. That will be known as the 'Total Achievable Uptime'.

      vi.   When a request for service gets registered at the CRC the clock is started from the next day. The day the Vendor responds to a ticket informing successful resolution, the Clock stops on that day.

      vii.   At the end of a period, the time taken for each ticket for a resolution, which is converted into hours gets deducted from the 'Total Attainable Uptime' of that Ticket.

      viii.   And if the resolution time exceeds the set time of '7 Days', the system will treat those additional days with twice the score.

      ix.   The system is so designed that the lesser the time is taken to resolve, the higher will be his Net Score. More he takes time to resolve; higher will be his penalty score which may erode his other good works.

7.6.10. Implementation:

7.6.10.1. Training and Orientation:

OREDA will conduct orientation and training sessions for the Vendors and their technicians

7.6.10.2. Helpdesk:

OREDA CRC will provide support to the field personnel of the vendors to acquaint themselves with various communication and process protocol.

7.6.10.3. Performance Evaluation:

The following paragraphs explain the way OREDA will evaluate both the performances and how it will turn it into a composite score of performance. The Scheduled Maintenance activities have been given primacy over the Corrective Maintenance activities. While the Scheduled Maintenance is given 80% weightage in the composite score, Corrective Maintenance is given 20%.

7.6.10.4. Rewards and Recognitions

OREDA will do everything under its might to support the good performance of the vendors as achieving very high uptime of its installation and good customer relationship is its prime organizational focus. It also will weed out non-performing vendors by penalizing them for their bad performance and blacklisting them for good.

OREDA will.

a) Give preference to the high performing vendors in the upcoming tenders.

b) Institute Awards and Recognition during important days of OREDA

c) Recover Liquidated Damages in the shape of penalties

d) Blacklist vendors whose past performances are not at all good

7.7. No claim/ lien certificate

No claim/ lien certificate

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]
RFP no.: [insert RFP no.] dated [DD MMM YYYY]

We, the undersigned, certify that we are free and clear from any and all claims, liens, security interest, encumbrances, unpaid vendors'/ suppliers' lien or otherwise, arising out of or in connection to the performance of the Empanelment Order no. [insert] dated [DD MMM YYYY]

Place: [insert place]

[sign here]
Signature
Name of Authorized Signatory: [insert name]
Designation: [insert designation]
Name of the Bidder: [insert Bidder's legal entity name]
Seal: [insert seal of the Bidder]

7.8. Operational Guidelines for Rooftop Solar Power Plants Connected to Grid through Net-metering/bi-directional metering under Renewable Energy Policy-2016

Operational Guidelines
For Rooftop Solar Power Plants Connected to Grid through
Net-metering/bi-directional metering under
Renewable Energy Policy-2016

No. 3022   Dated: 05.06.2017

1. Short Title

Operational Guidelines for Rooftop Solar Power Plants connected to Grid through Net-Metering/bi-directional metering under para 3.3.1 of Odisha Renewable Energy policy-2016.

2. Extent

These Guidelines shall extend to the entire State of Odisha

3. Commencement

It shall come in force from the effective date of Renewable Energy Policy 2016.

4. Terms & Expression

Terms and Expressions used in this operational guidelines shall have the same meaning as in RE Policy 2016 as well as the OERC Order on Net metering/ Bi-directional Metering and their connectivity with respect to solar PV projects vide order No. OERC-Engg.02/2010/1131 dated 19.08.2016.

5. Eligibility

All consumers of electricity in the area of supply of the distribution licensees are eligible to set up rooftop solar power plants.

Stake Holders Roles & Responsibilities

Stake Holder	Roles & Responsibilities
OREDA	• Dissemination of the RTS program across the state and consumer's awareness. • Determine technical specifications for different capacities of RTS project in line with the guidelines issued by MNRE, GoI from time to time. • Empanel installers basing on the demand for RTS systems. • Build and maintain the dedicated online portal for receiving applications, process the same to enable the processes of other stake holders namely DIS-COMs, Banks etc.

	- Provide systematic solutions by developing suitable monitoring frameworks for system performance monitoring, grievance reddressal and post installation services. - Develop human resource (Solar Technicians-Surya Mitras) to take care of installation and maintenance of the RTS systems. - Subsidy management. - Document the achievements and provide periodic reports to government regarding the installed capacity, performance of the systems, information on power generation, environmental impact of RTS systems etc.
DISCOMs	- Assess Technical Feasibility and Issuance of NOC for Installation - Empanel Vendors for supply of Meters - Test & verify meters prior to installation by consumers - Post installation check Metering arrangement and system verification - Interconnection, Synchronization and commissioning, Metering & billing - Provide periodic data on power generated from RTS systems for posting on the website for public information. - Inspection to be made by Electrical inspector after getting completion certificate.
Consumers	- The applicant should be the owner of the property or authorized person and Consumer of DISCOM - The property where RTS is proposed to be installed must be a pucca house with flat or inclined roof. In case where sufficient shade free space is available within the premises of the property ground mounted projects can also be covered under these guidelines. - Understand the net metering policy and complete the application procedure. - Allow easy access to roofs, Roofs should be clear for PV installation. - Maintenance and upkeep of the system as per the manual provided by the installer.

Bankers	• Extension of loans to eligible customers as per the terms of home loan/ home improvement loans on recommendation of OREDA
OERC	• Define technical, regulatory limits for solar injection into LT grid • Define solar PV capacity with voltage level • Net metering regulation, cap on capacity, billing and accounting regulation • Dispute redressal

Processes Flow Time Line

Registration
• Registration Online / www.odisharenewable.In
• Offline application assistance by OREDA

→

Application to DISCOM
• Submit the print out of Application form in the Division Office of DISCOM with relevant documents
• Deposit Application Fees

→

Engagement with DISCOM
• Site Verification & Feasibility Check by DISCOM
• NOC for Installation by DISCOM (90 days validity)
• Intimation to OREDA
• Specify the Net meter Procurement & testing process

Subsidy Process
• Process Subsidy Procedure
• Facilitate engagement with Channel partners
• Issue subsidy approval letter to Consumer

Procurement & Installation of SRT & Net Meters
Consumer to Engage with Channel Partners for procurement & installation (Model Procurement Agreement to be prescribed)
Procure Net Meters form Dealers Authorised by DISCOM and Testing by DISCOM
Submit to the DISCOM the completion Report

→

Installation Verification
• Verification of installed SRT components
• Checklist as per the guidelines of OERC/CEA

Connection verification by DISCOM

→

Safety Verification by Comp. Authority (EIC/ Empanelled Engg.)

→

Synchronisation & Charging
Testing of Net meters Check of the system.
Synchronisation by DISCOM

→

Disbursement of Subsidy

7.9. Step by step online procedure for installing an RTS by the Consumer

Start Application Registration for RTS	2 days
Application Review by OREDA & DISCOM	
Subsidy approval letter, OREDA, HO	18 days
Interconnection feasibility & NOC (JE, EE, SE) Division)	
Interconnection Agreement (JE, EE, SE Division)	
Project Installation by Consumer	50 days
Sharing of Work Completion Report OREDA & DISCOM	10 days
Net Meter installation	
Joint Inspection testing and synchronisation (EE, MRT, EM & R)	
Commissioning Certificate (EE Division)	
Joint Inspection AD, OREDA + System Installer	10 days
Approval for release of subsidy (OREDA) Installer	
Release of Subsidy Installer	
Estimated Time: 90 days	

Odisha Renewable Energy Development Agency I www.rts.odisha.gov.in

For installing an RTS system the interested consumer has to log on to the website and then follow step by step procedure outlined below

Sl. No	Steps	Activity Owner	Milestone
1	First step in this process is to generate login ID and password for the web portal. For this applicant will have to register by providing generic details like Name, Mobile, Email, Address, Site Address etc.	Applicant	Consumer Registration
2	On completion of registration, applicant will receive Login ID and password on its email ID provided during the registration process		
3	After registration, Applicant has to deposit application fees of ₹ 500/- to DISCOMs account through NEFT/IMPS or Offline and save the acknowledgement receipt for filling the grid connectivity form	Applicant	Payment Receipt
4	After registration, applicant can access the user account web page, through which it can apply for from "Application Type 3: For both Subsidy & Net Metering" tab Applicant can access both subsidy and net metering forms	Applicant	Accessing Grid Connectivity and Subsidy Form
5	On accessing the grid connectivity form, applicant needs to provide all the details asked in the form. On completion of connectivity form, applicant has to upload the copy of payment acknowledgement receipt and submit the form.	Applicant	Submission of Connectivity Form

6	On submission of the form, applicant will receive an auto generated acknowledgement from DISCOM on its registered email ID. The acknowledgement would also provide a unique reference number, through which application status can be tracked by the applicant	DISCOM	Acknowledgement from DISCOM
7	Similarly, On accessing MNRE Subsidy form, Applicant will have to first select about "who is filling the applicant form" applicant himself or vendor	Applicant	Vendor Authorization
8	OREDA has selected experienced and reliable vendors through a competitive process and hoisted their details on the website. The applicant may choose any one of these vendors and authorizes the vendor to fill the application on its behalf. However the right of submission of application will remain with applicant only	Applicant	Vendor Authorization
9	On providing authorization to selected vendor, vendor will fill the subsidy form and will save it for applicant to review. Once the applicant is satisfied with all the information provided by the vendor, Applicant will submit the subsidy form.	Vendor	Submission of MNRE Form
10	On submission of subsidy form, applicant will receive an auto generated acknowledgement from OREDA on its registered email ID. The acknowledgement would also provide a unique reference number, through which application status can be tracked by the applicant	OREDA	Acknowledgement from OREDA
11	On receiving subsidy form from applicant, OREDA will screen the application and if it is complete and correct in all sense, then it will approve it for subsidy sanction letter.	OREDA (District Officer)	Approval for Subsidy Sanction Letter

12	While, on receiving the application form, DISCOM officers will screen the application based on available capacity at the distribution transformer level	DISCOM	First level Screening
13	On clearing first level screening, the applicant and the concerned DISCOM officer will enter into an agreement i.e. interconnection agreement. (This activity shall be an Offline activity till modification in OERC Net Metering regulation)	Applicant/ DISCOM	Interconnection Agreement
14	After signing of interconnection agreement, concerned DISCOM officer will screen the application form and if it is complete and correct in all sense, then it will approve it for site inspection.	DISCOM (Divisional/ Sub Divisional Officer)	Application Screening
15	After application screening, DISCOM officers will check for interconnection feasibility and if found feasible will intimate the Divisional Manager to issue an NOC for Interconnection to Applicant	DISCOM (Sub Divisional Officer)	NOC for Interconnection
16	While at OREDA, On receiving application approval from district officer and NOC from DISCOM, the nodal officer at OREDA head officer will issue a subsidy sanction letter to Applicant	OREDA (Nodal Officer)	Issuance of Subsidy Sanction Letter
17	On receiving the NOC from DISCOM and Subsidy Sanction from OREDA, Applicant will start project installation and will upload the work completion report once the project is completed.	Applicant	Work Completion Report
18	On receiving the work completion report, DISCOM Officers will come for Net meter installation and commissioning of project. In this step DISCOM officers will prepare an inspection report and will forward the same to the Divisional Manager for issuance of commissioning certificate.	DISCOM (Divisional Officer)	Commissioning Certificate

19	While on receiving the work completion report from Applicant, OREDA District officer will come for site inspection and will sign a joint inspection report with system installer and Applicant. The Inspection report will be forwarded to the Nodal person for issuance of subsidy release letter.	OREDA (District Officer)	Inspection Report
20	On receiving the inspection report, the Nodal Officer will issue a letter for release of subsidy	OREDA (Nodal Officer)	Subsidy Release Letter
21	After issuance of subsidy release letter, the OREDA accounts department will initiate the process of disbursement of subsidy to applicant's account	OREDA (Accounts Dept.)	Disbursement of Subsidy

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