Request for Selection (RFS) of Bidders for Agency for EPC (Engineering Procurement and Construction) Supply of Solar-powered mini-grid system for Community Halls in Meghalaya, along with training of unemployed youth in Solar PV (Photovoltaic) and RE (Renewable Energy) based systems for food processing centres.

Issued by: North East Slow Food and Agrobiodiversity Society (NESFAS)

SECTION-I TENDER INFORMATION

S.No	Event	Date/information
1	Date of release of the tender	June 17,2021
2	Last date of submission of bids	July 23, 2021 (Before 5 PM IST)
3	Tender Document	The tender document can be downloaded from www. nesfas.in
4	Address for bid submission	North East Slow Food and Agrobiodiversity Society, Kerrie Ville, Arbuthnott Road, Laitmukhrah, Shillong- 793003
5	Validity of bid	The tender shall be valid for at least 2 months from the date of the tender.
6	Contact details	Executive Director, NESFAS, Kerrie Ville, Arbuthnott Road, Laitumkhrah, Shillong- 793003 (behind Nazareth Hospital Doctor's headquarters) email: infonesfas@gmail.com Phone: : +91 98568 00587 +91 87946 73160

SECTION-II PREFACE AND INTENT

North East Slow Food and Agrobiodiversity Society (NESFAS) with the support of Rural Electrification Corporation Foundation, New Delhi is working towards the preservation of the indigenous food practices and traditions in 130 villages of Meghalaya and Nagaland. Energy deficiency in tribal areas of Meghalaya afflicts several village-level community centre's and hamlets that are yet to be electrified in the state. These community centres if well equipped with clean energy access can serve their purpose of bringing the community together. This could also enhance economic activity in the area that suffers due to lack of power.

The low returns from livelihoods and unemployment/underemployment contribute to high levels of out-migration of local youth, with negative consequences for the development and human resource capacity of the region. There are very limited livelihood opportunities for educated youth in the Northeast combined with a lack of support and training to start local entrepreneurial activities.

Additionally, to increase the productivity at selected food processing centres set up by NESFAS, a Solar dryer and Solar PV lighting facility will be installed. This will create a better environment for the women working in the processing centre.

Objectives

As part of the pilot initiatives of renewal energy for improved rural community wellbeing, the project's primary objective is to demonstrate the path to energy sufficiency in community halls for rural Meghalaya with a focus on Ribhoi, East Khasi Hills and Jaintia hills districts involving communities to promote the use of renewable energy. Specifically, the project would:

- Install RE-systems for decentralized energy generation in selected un-electrified community centres, ensuring energy-sufficiency with a provision of Audio-visual setup for community gatherings. This will further help in facilitating electrified Children reading rooms in case of long hours of electricity load shedding.
- Mawpynthymmai village in Mawkynrew block of East Khasi Hills district has no access to grid electricity. The Solar home lighting project in selected 24 households will make a huge difference to the lives of village communities, will enable children to study long hours, and reduce dependency on kerosene.

- Rural youth with a technical mindset in the target area to be trained as rural technicians. NESFAS aims to create a network of rural technicians who will facilitate the spread of renewable technology energy services and awareness to remote areas of Meghalaya and Nagaland.

- Solar-powered lighting facility and solar dryer to be provided in three selected food processing units set up by NESFAS. This will enhance productivity and facilitate the processing of food products. In Solar-powered dryers, a temperature range of 50-65 degrees is maintained through 24 hours which will further reduce the drying time as compared to open drying. Solar-powered LED lights will ensure a better working environment in the evening hours.

SECTION-III

TARGET AREA AND SCOPE OF WORK

Target Area and Beneficiaries

The target area is Ribhoi, East Khasi Hills and Jaintia Hills districts of Meghalaya. The project will directly impact the village community. The project's approach of decentralized, off-grid RE-based systems would streamline the energy supply in the below-mentioned community centres:

Sl. No.	Name of hall	District	AC Fan	Audio Visual Switch point	Light Points	Electrification Status
1	Plasha	Ri Bhoi	Yes	yes	Yes	Unelectrified
2	Pahamskhen	Ri Bhoi	Yes	yes	Yes	Unelectrified
3	Pashang	East Khasi	No	yes	Yes	Unelectrified
4	Umsawwar	East Khasi	No	yes	Yes	Unelectrified
5	Nongtraw	East Khasi	No	yes	Yes	Unelectrified
6	Ladmawphlang	East Khasi hill	No	yes	Yes	Semi electrified
7	Chamcham	East Jaintia	No	yes	Yes	Unelectrified

- The whole village community will benefit from access to sufficient and reliable electricity from off-grid RE systems in these community centres, which will also act as a place for events, festivities and celebration and facility centre for community health and well-being.
- The lighting facility will also support the community Library project which forms an integral part of NESFAS's approach in making these community centres recreational spaces.

Scope of Work

NESFAS invited bids from agencies and organizations which have a track record in the sector to create a feasible and rooted EPC model for the said constraints and settings below.

1. **Community Centre**

   Installation of as required decentralized Solar PV AC mini-grid to electrify 7 community centres (mentioned above) in Ribhoi, East Khasi Hills and Jaintia Hills districts of Meghalaya.

- 4 LED bulbs of 9 W each with 8 hours of power supply along with mobile charging points to be provided in each community centre.

- 2 BLDC fans to be provided in the aforementioned list of community centres where they are needed.
- One AC point for Audiovisual aid to be provided which can support a projector to showcase participatory videos to the community.
- Stand-alone street lighting system to be provided in each community centre.

2. DC Solar mini-grid for electrification of Mawpynthymmai village

Mawpynthymmai village in Mawkynrew block of East Khasi Hills district has no access to grid electricity. Installation of decentralized Solar PV DC mini-grid to be carried out in 24 households including the Village Church cum learning centre for kids.

- A total of 24 DC mini-grids to be installed in the Mawpynthymmai village.
- 5 LED bulbs of 4 W each with 8 hours of power supply along with mobile charging points to be provided in each household.
- 5 Standalone street lighting systems to be provided at various points in the village.
- The community is willing to support the project by contributing their labour in getting the equipment from the main road to the village.
- Each household will contribute a monthly maintenance fee which will sustain the installed mini-grids for a longer duration.
- An MoU will be signed with households post-installation.
- One youth from the village will be trained in troubleshooting the installed DC mini-grids.

3. Solar Training for rural youth

20-25 rural youth with a technical mindset in the target area to be trained as rural technicians and a certificate to be provided on completion of the course. The participating bidder should also view these trained youth as supporting team members for their potential AMC.

4. RE based intervention in Food processing units and community seed banks

Solar-powered lighting facility and solar dryer to be provided in three selected food processing units set up by NESFAS.

Mentioned below are the name of the villages to include the transportation cost.

- **Community Seed Banks**

  Provision of Solar PV DC mini-grid with similar specification (mentioned in Section 2 above for Mawpynthymmai village) to be provided in Community seed banks set up by NESFAS.

S. No.	Name of hall	District	AC Fan	Light Points	Electrification Status
1	Madanrtiang seed banks	Ri Bhoi	No	Yes	Unelectrified

2	Nonwtraw community seed banks	East Khasi	No	Yes	Unelectrified
3	Umsawwar Community seed bank	East Khasi	No	Yes	Unelectrified

- **Food Processing centres**

Solar dryers can process products especially fruits and vegetables in a clean, safe, hygienic environment. Solar based drying produces better quality and more nutritious foods. Installation of 3 Solar dryers in food processing centre mentioned below:

S. No.	Name of hall	District	Dryer	Light Points	Electrification Status
1	Khweng	Ri Bhoi	yes	Yes	Unelectrified
2	Darichigre	West Garo hills	Yes	Yes	Unelectrified
3	Mawlum Mawjahksew	West Khasi	yes	Yes	Unelectrified

- The dryer should have a drying capacity of 25 kg
- The dryer has to be a cabinet type dryer

5. Decentralized cold storage system for Food processing centres (Pilot program)

Lack of infrastructure at the farm level/village level calls is a crucial missing element in the supply chain in Meghalaya. Post-harvest cold storage at a cluster level in the food processing centre will be a good value addition for the unit.

The benefits of using these decentralised cooling technologies at food processing centre are manifold, as listed below:

- ❖ They will cater to the needs of the energy-starved links within value chains and counter the negative impact in terms of pollution, carbon emissions, water and land contamination, and various other negative environmental impacts.
- ❖ They will create a wide social and economic impact by providing access to affordable energy to small-scale enterprises and farmers/ agricultural workers.
- ❖ They will help in creating jobs in the target area and create gender equality by encouraging entrepreneurship among women.

6. A pilot initiative of installation of a surface water pump to be carried out in one of the project villages.

- The bidding agency to carry out a site assessment for the feasibility of the site.
- A 2 hp Solar water surface pump to be installed at the site post-assessment.

SECTION-IV

INSTRUCTIONS TO BIDDING AGENCIES

SUBMISSION PROCESS OF BID DOCUMENTS:

A. **Downloading & viewing of Tender Document**: Bidders can download and view the tender document from the website www.nesfas.in

B. Submission of Bid Documents: Submission of bids will be through online mode. The bidder has to send a hard copy of bid including letter of submission, bidder general details, technical and financial bid (as mentioned from Annexure 1 to 4) to reach NESFAS office not later than 23 days from the date of releasing the tender.

C. Agencies should upload Bid documents (scanned copies) as mentioned below.

1) **Letter for Submission of Bid** has to be submitted on Company's letterhead duly signed and stamped as per format of **Annexure-I**. This is a mandatory document for submission.
2) **Bidder's General Details** has to be submitted on Company's letterhead duly signed and stamped as per format of **Annexure-II**.
3) **Technical Bid** has to be submitted **through online** mode as per format of **Annexure-III** by specifying Make, Model and specifications of all bills of items that will be used in the project.
4) **Financial Bid** has to be submitted through offline mode as per the format of **Annexure-IV**.
5) **A complete set of this tender document** duly signed and stamped on each page has to be submitted to NESFAS.

Note: All the documents which are to be submitted in **original,** shall be kept in an envelope (SEALED) with subject mentioning "Bid Documents for Supply of _____ of Solar powered AC mini-grid system for Community Halls in Meghalaya" on the top of the envelope and addressing to:

Executive Director, NESFAS, Kerrie Ville,

Arbuthnott Road, Laitumkhrah, Shillong- 793003

SECTION-V

ELIGIBILITY CRITERIA

Bidders must meet the eligibility criteria independently. Bidder will be declared as a technically qualified Bidder based on meeting the eligibility criteria in the Bid.

S. No.	Minimum Qualification Criteria	Documents Required
1	Bidders should be a company incorporated under the Companies Act, 1956 or 2013 including any amendment thereto. In case, the bidder is a Consortium/ Joint Venture Firm of two companies, both members of the Consortium/JV should be registered individually in India under the Companies Act, 1956 or 2013 including any amendment thereto. Note: Please mention in case of a Proprietorship.	Certificate of Incorporation issued under Indian Companies Act 1956 or 2013 from Registrar of Companies to be submitted. In addition to the above, a copy of the PAN and applicable VAT/ Service Tax Certificate should also be submitted.
Financial Eligibility Criteria		
2	Bidder's average annual turnover for the last three financial years (FY 2019-20, 2018-19, 2017-18) should be at least Rs. 50 Lacs.	The audited balance sheet of the last three (FY 2019-20, 2018-19, 2017-18) submitted along with a CA certificate.
Technical Eligibility Criteria		
3	Bidder should have successfully supplied major components of SPV System (SPV Module/ Inverter/ Battery) in last 3 financial years of value as below: **For Single Bidder:** Single Work Order of Rs 10 Lacs O r Two Work Orders of Rs. 20 Lacs	Bidder should submit a copy of the Work order along with any other document from the list below: 1. Proof of receipt of complete payment towards work order. 2. Proof of release of performance bank guarantee against the aid work order. 3. Work completion certificate from the client.

SECTION-VI

DETAILED SCOPE OF WORK & CONDITIONS OF CONTRACT

A. Design Specification of Solar-powered Community Centre

Design, engineering, manufacture, testing, supply including transportation up to designated Store Location and installation of Solar AC mini-grid (with PV panel, MPPT & charge controller cum inverter module, battery and accessories) including 05 (five) years' comprehensive guarantee.

- **SPV Modules: Solar Module SP-170M, 21Voc.**

Peak Power Watts-Pmax (Wp)	170Wp
System Voltage (V)	12V
Maximum Power Voltage-Vmp (V)	17.80V
Maximum Power Current-Impp (A)	8.78Amp
Open Circuit Voltage-Voc (V)	21.6V
Short Circuit Current-Isc (A)	9.25Amp
Surface and type	Ironized Glass and Polycrystalline

- **Battery Specifications:**

Type	Solar Tubular C10 Battery
Chemistry	Lead Acid Rechargeable
Capacity	12V / 150Ah
Voltage Range	11.1V ~ 15.4V
Energy	1500WH
Cycle Life	>2000cycles
Work Temperature Range	Charge: -20~60℃ Discharge:-10~60℃
Storage Temperature Range	-10~60℃

- **Inverter with built-in Charge Controller:**

12V 220V 1000W Modified Sine Wave Solar Inverter With Built-in Charge Controller

Features

1. Built-in solar controllers should be able to charge batteries and convert DC12v to AC 220V.
2. Should adopt a PV-charging control system that can charge automatically.
3. It should come with an LCD.
4. It should have battery reverse protection.

5. Universal socket, suitable for all kinds of plugs.
6.Multifunction control system, including automatic PV-charging, high voltage cut-off, low voltage cut-off, short circuit protection, intelligent cooling function, etc.
The essential specifications of the inverter are mentioned below:

Featured solar panel	21Voc / 200Wp
External battery	12V 100Ah~150Ah
USB output current	1000MA
The output voltage of USB	5.0+/-0.3V
The output voltage of the inverter	AC 220V+/-5%
Maximum continuous power	700W
Peak power	1000W
No-load current	<0.5A
DC input voltage	DC9.7V~15.5V
Output frequency	50+/-3Hz
Conversion efficiency	70%-80%
High Voltage cut off	15V+/-0.5V
Low voltage alarm	11.2V+/-0.3V
Low voltage cutoff voltage	10V+/-0.3V
Overload, short circuit protection	Yes
Output waveform	Modified sine wave
Cooling mode	Fan cooler
Working temperature	-20°C~+70°C
Relative humidity	<90%RH

- **LED Bulb specifications:**
  9 W LED Batten/tube light

- **Solar Street Lighting System:** Supplied Solar Home Lighting System in this project shall be 20W-12V, 3000lumens

- **BLDC Fan:** 12 V BLDC, 28 W ceiling Fan

Note: BLDC fans will not be required in selected community centres. Therefore the system sizing will be done accordingly.

- **Cables and Wiring**: ISI marked system wiring should be provided as per the following:

  - Panel to Inverter/charge controller: Min. 2 core 4 sq. mm flexible multi-strand copper conductor cable as per IS 694. The cable between the panel to the Solar DC charge controller shall be fixed properly with cable ties and shall be laid underground or

enclosed in the pipe as per CPWD specifications between installation support and household.

- ❖ Inverter/Charge controller to battery: Min. 2 core 4 sq. mm flexible multi-strand copper conductor cable as per IS 694
- ❖ Battery to battery connections: Min. 2 core 4 sq. mm flexible multi-strand copper conductor cable as per IS 694

- **Load:**

The load specifications are mentioned below:

Load Description	Standard Load (A)	Quantity Nos. (B)	Operating Hour (C)	Gross Wattage (A x B x C)
LED Tube Light Batten 9W	9 W	4	6.00	216 W
BLDC Ceiling Fan 28W	28 W	2	6.00	336 W
Projector / TV / Communication devices	200 W	1	3.00	600 W
LED Outdoor Light 20W / 12Vdc , 2800Lumens	20 W	1	12.00	240 W
Gross Total Energy Consumed per day			1392	W
Total PV panels energy needed - total appliances Watt-hours per day times 1.3 (the energy lost in the system)			1810	Wp
Size the PV panel (Solar Moule Factor 3.5 for NESA)			517	Wp
Battery sizing (battery loss : 0.85 x DoD : 0.6 x Battery Voltage : 12)			210	AH
Charge Controller Sizing (Imax x 1.5)			22.29	Amp
Daily Energy Generation, 21Voc / 170Wp x 4 Solar module (640Wp*0.7*5Hr)			1785	Wp
Daily Energy storage Capacity , 12V , 150AH @ 70% DoD (150AH*0.7*12V*2)			2520	Wh

- **OPERATION & MAINTENANCE MANUAL:** An Operation, Instruction and Maintenance Manual, in English or the local language, should be provided with the Solar Lighting System. The following minimum details must be provided in the Manual:
  - Basic principles of Photovoltaic.
  - A small write-up (with a block diagram) on Solar Street Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.
  - Type, Model number, Voltage & capacity of the battery, used in the system.

- The make and wattage of the LED used in the lighting system.
- About Charging and Significance of indicators.
- Clear instructions about the erection of the pole and mounting of PV module (s) and lamp housing assembly on the pole.
- Clear instructions on regular maintenance and troubleshooting of the Solar Street Lighting System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar street lighting system.
- O&M Manual should contain the make, model number, country of origin and technical characteristics used in the lighting system.

B. DC Solar mini-grid for electrification of Mawpynthymmai village

Mawpynthymmai village in Mawkynrew block of East Khasi Hills district has no access to grid electricity. Mawpynthymmai does not have road access and one has to walk the mountainous terrain to reach the village. Villagers are generally engaged in agriculture as a primary activity and get most of their food supplies and firewood from the nearby forest. The total number of households in the village is 23 with a population of 137. Installation of decentralized Solar PV DC mini-grid to be carried out in 24 households including the Village Church cum learning centre for kids.

Each of 24 Solar PV DC mini-grid should have the following specifications:

Solar PV Panel (170 W)
Solar Tubular Battery (100 Ah)
Double Core Copper Wiring (2Sq.mm - 100 meter)
MPPT Charge Controller with USB Charging
Solar Junction Box with MCB with Accessories
Solar Panel Frame
1 Solar DC Fan 20W
5 Solar DC LED - 4W including Wire and Switch

- 5 LED bulbs of 4 W each with 8 hours of power supply along with mobile charging points to be provided in each household.
- 5 Standalone street lighting systems to be provided at various points in the village.
- Mawpynthymmai households are sparsely located and individual DC home lighting systems would work well for the community.
- Solar DC mini should have a mobile charging facility as well.
- The Church in the village is often used for village gatherings and also acts as a primary school, Therefore a solar lighting system can be installed there as well.

C. Training Program for rural youth to be trained as technicians

Objective: The low returns from livelihoods and unemployment/underemployment contributes to high levels of out-migration of local youth, with negative consequences for the development and human resource capacity of the region. There are very limited livelihood opportunities for educated youth in the Northeast combined with a lack of support and training to start local entrepreneurial activities. The objective is to select educated youth with a technical mindset in the target area to be trained as rural technicians NESFAS aims to create a network of rural Technopreneurs who will facilitate the spread of renewable technology energy services and awareness to remote areas of Meghalaya and Nagaland.

The trained youth will be equipped to deal with issues arriving from Solar installations in their village community centres. NESFAS also encourages the bidders to identify amongst these youth the potential candidates to maintain the setup mini-grids in the said villages.

Schedule:A short term training program of 10 days with selected 20-25 youths from project villages. The youth will be involved in the set-up of the project also and its installation to have practical experience.

Content: The course should introduce these youth to the working principles of various components of several SPV power systems, installation procedures, basic troubleshooting, preventive maintenance and operation of these systems. The course should include classroom lectures along with hands-on training of various components. NESFAS also wants to nurture the entrepreneurial potential of these youth through this training.

The training program for the youth should have the following components:

- Basics of Solar Energy and electrical concepts
- Basics of Solar PV systems and their components
- Maintenance of personal health and safety at the project site
- site survey for the installation of PV system
- Civil and mechanical parts of Solar PV system
- Installation of electrical components of a solar PV system
- Troubleshooting and maintenance of Solar PV system
- Employability and entrepreneurship skills

Outcome: The desired outcome of the course is the ability of these youth to successfully deal with confidence the situations arising out of Solar PV systems. These empowered youth can start income-generating activities such as energy shops and facilitate the development of the region in the long run. They will also play a crucial role in setting up the Solar mini-grid in their village community centres.

D. Scope of work for Solar Powered lighting and Solar Drier in Food Processing centres

The application of solar energy in the food processing industry can be utilized for drying operations. Solar vegetable-fruit dryers, operating below 55-degree centigrade, are used for this purpose. From the point of view of cleanliness and production, which are vital requirements in food processing, the application of solar energy could be a big advantage for food processing centres set up by NESFAS in Meghalaya. Solar energy is available abundantly in Meghalaya and can be used to benefit food production.

Solar Cabinet Dryer with forced circulation could be used for dehydration and development of value-added products from locally grown fruits, vegetables, leafy greens and forest produce. Drying under simulated shade conditions helps retain nutrients better. Its simple design and ease of handling make it an ideal choice for the application of food processing in rural settings, closer to where the harvest is produced, eliminating the need for expensive transportation or storage of fresh produce. It also creates employment opportunities among the rural population, especially women.

Objective: Installation of 3 Solar dryers in food processing centre and a provision of Solar PV lighting.

Outcome:

- Shortened duration of drying as compared to open drying
- Better nutrient retention due to slow drying process
- High market value for dried products
- Reduced wastage of produce
- Grid independent renewable source of energy for food processing.
- Solar PV lighting system to enable working during evening hours.

Specifications of Solar dryer:

Overall length	2.04 m
Overall height	1.38 m
Absorber plate dimension	1.6 × 0.6 m
Glass cover thickness	0.005 m

Insulation total thickness (bottom)	0.06 m
The gap between the absorber plate and glass cover	0.05 m
The gap between absorber plate and insulation	0.05 m
Number of trays	3
Tray dimension	0.3 × 0.6 m
Distance between trays	0.15 m
The tilt angle of the collector	13° due south

Specifications of Solar PV lighting facility for Food processing unit:

Line Item	Quantity	Warranty - Onsite
PV Panel (170 W) with Packing Cost with wiring	3	20 Years
Solar Tubular Battery (100 Ah)	3	5 Years
Double Core Copper Wiring (2Sq.mm - 100 meter)	3	NA
MPPT Charge Controller with USB Charging	3	1 Year
Solar Junction Box with MCB with Accessories	3	1 Year
Solar Panel Frame	3	NA
Solar DC Fan 20W	3	1 Year
Solar DC LED - 4W including Wire and Switch	15	1 Year

E. **Decentralized cold storage system for Food processing centre**: Lack of infrastructure at the farm level/village level calls is a crucial missing element in the supply chain in Meghalaya. This can be largely attributed to unreliable access to electricity. It is essential to build sustainable supply chains, which will link the farms to the processing and marketing centres seamlessly. In the absence of on-farm cooling and grading arrangements and the slow development of cold chain infrastructure, the farmer is compelled to sell his produce to brokers without waiting for a better price. If the farmer is enabled to grade and store his produce close to the farm, the farmer will be empowered to demand and obtain a better price from the processors and add value to his produce.

F. A pilot initiative to be taken up in Laitsohpliah village by the bidder to provide water supply to the village. Therefore a Solar powered surface water pump has to be installed as per the site conditions with the following components:

- Solar Module: 1800Wp
- Pump Capacity: 2HP
- Galvanized iron module mounting structure
- Pump Controller
- Suitable accessories pipe, cable rope etc.

Please ensure that the following criteria are met by the bidder:

- The Bidder has also to provide OEM's Warranty for the SPV module for 25 years. PV modules used in Solar Home Lighting & Street Lighting System must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty-five (25) years.
- The bidder has to provide a warranty card with the system containing the details of the system.
- The bidder should ensure at least one Service Center/Store in Meghalaya which shall have a minimum of 2% stock of major items like SPV module, battery, inverter, charge controller and LED Lamp for Street Light ready to cater any requirements/replacements during guarantee period or during
- Bidders shall provide proper step by step training (General/ Technical/ Safety) to NESFAS's nominated persons/agencies for daily operation, cleaning, monitoring and maintenance of the system.

SECTION-VII

COMMERCIAL TERMS, CONDITIONS & OTHER PROVISIONS

1. **PRICE:**
   - **1.1** Price should be quoted as per format of Annexure-IV which must be inclusive of all costs involved in the project i.e. complete design, engineering, manufacture, testing, supply including transportation up to Central Locations, insurance, unloading, warranty of Solar Home Lighting & Street Lighting Systems and comprehensive Guarantee of the system including spares for 5 years after commissioning or 5 years 6 months after the date of receipt of material at Store, whichever is earlier including all taxes and duties of Central & State Governments, insurance etc.
   - **1.2** All taxes as per Income Tax & Service Tax rules of the Government of India and Government of Meghalaya will be payable by the Bidder.
   - **1.3** TDS /WCT/Labour Cess will be deducted from the payment of the Bidder as per the

prevalent laws and rules of the Government of India and the Government of Meghalaya as the case may be.

1.4 Price quoted by the bidder shall remain firm & fixed and shall be binding on the Successful Bidder till completion of Comprehensive Maintenance period irrespective of the actual cost of execution of the project. No escalation will be granted for any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.

1.5 The offer must be kept valid for a period of 90 days from the last date of bid submission. No escalation clause would be accepted. The validity can be further extended with mutual consent.

1.6 Bids with non-conformity to the above will be considered as non-responsive.

2. **DELIVERY:** The materials must be delivered timely to the designated Store Location in Meghalaya to complete the work within the sanctioned period.

3. **PERMIT:** The Bidder will arrange for all necessary Permits to supply material as per Tender specified locations.

4. **QUANTITY:** The quantity mentioned in the tender might either increase or decrease according to the requirement.

5. **TAX EXEMPTIONS:** Bidder shall claim any kind of tax exemption on its own. NESFAS shall not be responsible or associated with any tax exemption formalities or applications.

6. **FORCE MAJEURE:** Force majeure shall mean any cause, existing or future, which is beyond the reasonable control of Bidder or NESFAS including, but not limited to, acts of God, storm, fire, floods, explosion, epidemics, quarantine, earthquake, strike, riot, lockout, embargo, interference by civil or military authorities, acts, regulations or orders of any governmental authority in their sovereign capacity, acts of war (declared or undeclared) including any acts of terrorism, and all other such acts of similar or analogous nature (where all such acts to be collectively referred to as “Force Majeure”). NESFAS and Bidder shall not be liable for the failure to perform any obligation in terms of this Proposal

7. **Process of Selection:**

7.1 NESFAS Procurement Committee will examine the proposals and will select the most suitable Firm at the best competitive price.

7.2 The shortlisted firm will have to make a presentation as per the specification stated above

7.3 Selected firm will be communicated and an Agreement will be signed between the two parties so as to be able to take the project forward.

Work Schedule with payment terms:

SNo.	Milestone	Details of milestone	Percentage
Work Schedule for Community halls			
1.	Supply, receipt and acceptance of material on-site	supply, receipt and acceptance of material at the designated warehouse by the bidder. Detailed invoice, packing list and evidence of dispatch to be received.	50%
2.	Successful installation and commissioning of materials at the site. Handover the RE System to Community	A technical evaluation report outlining whether the installed solar systems in the community centres are in line with the technical specifications mentioned in the bid document.	30%
3.	Training of village community in operation and maintenance of the system and 4 weeks from the date of commissioning	On-site training to be provided to the village community and a third party onsite assessment and audit to be conducted in consultation with NESFAS advisory group on innovation 4 weeks post-installation.	20%
Other components			
4.	A certificate training program of rural technicians	20- 25 rural youths with a technical mindset in the target area to be trained as rural technicians and a certificate to be provided on completion of the course	budgeted separately
5.	Solar Powered Lighting and Solar Drier in Food Processing centres	Supply of Solar dryer and installation of SOlar PV lighting at selected food processing centres to be carried out.	budgeted separately

SECTION-VII

GENERAL CONDITIONS OF BID

1. Each bidder should submit **the ONLY SINGLE** bid.
2. The bidder shall ensure that deputed personnel are trained and experienced for jobs as defined in the scope of work for ensuring the high quality and correctness of jobs and to be carried out in a highly professional, safe, and sound managerial manner.
3. NESFAS reserves the right to accept any or reject all proposals, without incurring any liability to

the affected respondents or any obligation to inform the affected respondents on the grounds for NESFAS'S actions prior to contract award

4. NESFAS reserves the right to negotiate - with respondents invited to negotiate- the proposed technical approach and methodology and the proposed price based on the respondents proposal.
5. NESFAS reserves the right to amend the TOR at any time
6. NESFAS reserves the right to waive off any shortfalls; accept the whole, accept part of or reject any or all responses to this tender.
7. NESFAS reserves the right to cancel the bids at any stage and call for fresh tender.
8. NESFAS reserves the right to modify, expand, restrict, scrap, re-float the tender without assigning any reason for the same.
9. The responder shall bear all costs associated with the preparation and submission of its Bid and NESFAS will in no case be responsible for these costs, regardless of the conduct or the outcome of the tender process.
10. NESFAS reserves the right to withdraw, terminate the contract & get it completed at the risk & cost of the agency if the performance of the agency is unsatisfactory, to whom work has been awarded.
11. In case of the supply of any defective material or substandard material, the materials will be rejected & it will be the responsibility of the vendor for taking back & replacing the rejected materials at their own cost.
12. The supplied materials should be strict as per specifications mentioned in this tender, otherwise, the material would be liable for rejection.
13. No price escalation is applicable on account of any statutory payments increase or fresh imposition of customs duty, excise duty, sales tax or duty leviable in respect of the major components in the said acceptance of the tender.
14. Bidder's quoted rates should be firm and fixed. No price variation and escalation will be allowed.
15. Bids must be submitted in the English language only.
16. Incomplete, telegraphic or conditional tenders are not accepted.
17. Canvassing in any manner is strictly prohibited.

Annexure-I

Letter of Submission

Subject- Engagement of service

Dear Sir,

We wish to submit bid against _____ _____d ated: _____for **"Supply of _____ of Solar powered mini grid system for Community Halls in Meghalaya, training of unemployed youth in Solar PV and RE based systems for food processing centres"** as per the requirements of NESFAS.

Further, I hereby certify that:

1. I have read the provisions of all clauses and confirm that notwithstanding anything stated elsewhere to the contrary, the stipulation of all clauses of Bid is acceptable to me and I have not taken any deviation from any clause.

2. I further confirm that any deviation to any clause of Tender found anywhere in my Bid shall stand unconditionally withdrawn, without any cost implication whatsoever to the NESFAS.

3. Our bid shall remain valid for a period of _____days from the last date of bid submission.

Date:
Place:

Signature:
Full Name:

Designation:
Address:

Note: In absence of the above declaration/certification, the Bid is liable to be rejected and shall not be taken into account for evaluation.

Annexure-II

BIDDER'S GENERAL DETAILS

(To be submitted on Company's letterhead duly signed)

Tender No: _____ Dated _____

"Supply of _____ of Solar-powered mini-grid system for Community Halls in Meghalaya, training of unemployed youth in Solar PV and RE based systems for food processing centres"

GENERAL DETAILS

1. **Name of Company:** _____
2. **Year of Incorporation:** _____
3. **Name of Authorized Person:** _____
4. **Regd. Address:**
    a) **Address of Office:** _____
    b) **Contact Person's**
        i. Name & Designation: _____
        ii. Address: _____
        iii. Tel. No. (Landline & Mobile): _____
        iv. Email ID: _____
5. **Type of Firm (Please tick):** Private Ltd./Proprietorship/ Public Ltd./ LLP/ Joint Venture Company
6. **Permanent Account Number:**
7. **Service Tax Reg. Certificate No.:** _____
8. **EMD Details: Rs.** _____

DD/BG No. _____

Name & Address of Bank: _____

_____

Signature……...…….……

Full Name…….…..

Designation…….

Address……..

Annexure-III

TECHNICAL BID

(To be submitted through Offline mode)

No: _____ **Dated** _____

"Supply of _____ of Solar-powered mini-grid system for Community Halls in Meghalaya, training of unemployed youth in Solar PV and RE based systems for food processing centres"

We confirm the following are technical specification of Items that will be supplied for the said work:

1. **Technical specifications of Solar powered AC mini-grid for Community halls:**

2. **Technical specifications of Solar powered DC grid for Mawpynthymmai village:**

3. **Technical specifications of Solar dryer for Food processing centres:**

4. **Technical specifications for Cold storage facility:**

5. **Technical specifications for Solar PV lighting system for food processing centre:**

6. Technical specifications for Solar-powered surface level water pump:

(AUTHORIZED
SIGNATORY) NAME:
SEAL:

Annexure-IV

FINANCIAL BID

(To be submitted through Offline mode)