

Notice Inviting RFP
(to be published in newspapers/website)

No. Agri/Engg/4958/RFP/Solar Pump-set/ 2021-22/

dtd. / /2022.

In continuation to earlier notice inviting RFP published vide no. Agri/Engg/4958/RFP/Solar Pump-set/2021-22/01 dtd.20/08/2021, the Chief Engineer Agriculture, Assam on behalf of the Director of Agriculture, Assam invites Request Proposal for empanelment of additional manufacturers/ system integrators for Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW on turn-key basis in Assam to facilitate wide range of opportunities to the farmers for selection of brand/ model of solar pump-set of their choice. Interested suppliers who have qualified in the competitive bid published and conducted by Energy Efficiency Service Ltd. (EESL) on behalf of MNRE vide No. EESL/06/2020-21/KUSUM/SWPS/1-10HP/Off Grid/202101032 Dated 14-1-2021 may submit their proposal for empanelment. Detail RFP document may be downloaded from departmental website <https://diragri.assam.gov.in>

The proposal shall be submitted electronically in PDF format as an attachment to ceagriassan@yahoo.in and the hardcopy to be submitted to O/o the Chief Engineer, Agriculture, Assam, Directorate of Agriculture, Khanapara, Guwahati-22 on or before **17/02/202 from 10.00 AM to 5.00 PM.**

The authority will not be liable for delay in submission of proposal due to any reason and system errors (if any).

Sd/-
Chief Engineer, Agriculture, Assam
Khanapara, Guwahati-22

REQUEST FOR PROPOSAL (RFP)

FOR

**Empanelment of manufacturers/system integrators for Supply,
Installation and Commissioning of SPV Water Pumping System and
Installation of STW on turn-key basis in Assam**

Issued by: Chief Engineer, Agriculture, Directorate of Agriculture,
Assam, Khanapara, Guwahati-22.

Contact Name: Chief Engineer, Agriculture, Assam

Email: ceagriassam@yahoo.in

RFP Issued on: 29/01/2022

Responses Due date: 17/02/2022

1. Introduction

The Chief Engineer, Agriculture, Assam on behalf of the Director of Agriculture, Govt. of Assam received an allocation of Rs. 423.07 Crore under RIDF for installation of Solar operated Shallow Tube Well for creation of irrigation potential in the state. The scheme intends to supply, installation and commissioning of SPV water pumping system and installation of shallow tube well (STW) on turn-key basis to small and marginal farmers at a subsidized rate which will be installed at various locations in different districts of Assam. The department proposes to install a total target of **11,700 nos.** of STWs in the State during the financial year 2021-22. However, 10-20% variation of target may occur. These STWs are to be operated with Solar Photovoltaic Water Pumping System with 2 HP DC Solar Pumps (Surface/ Submersible) (PV Array capacity of 1800Wp).

For empanelment of manufacturers/system integrators for Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW on turn-key basis in Assam, the Chief Engineer Agriculture, Assam on behalf of the Director of Agriculture, Assam had invited Request for Proposal (RFP) vide notice no. Agri/Engg/4958/RFP/Solar Pump-set/2021-22/01 dtd. 20/08/2021. The department empanelled the following manufacturers/system integrators namely: (1) M/S Rotomag Motors & Controls Pvt. Ltd., (2) M/S Abhishek Solar Industries Pvt. Ltd., (3) M/S Icon Solar - EN Power Technologies Private Limited, Raipur, (4) M/S PV Power Technology Pvt Ltd.

Now, to facilitate wider range of opportunities to the farmers for selection of brand/model SPV pump-set the Chief Engineer, Agriculture, Assam on behalf of the Director of Agriculture, Govt. of Assam invites proposals to empanel **additional manufacturers/system integrators** for Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW on turn-key basis in Assam.

Interested manufacturers/ system integrators who would like to participate and empanel themselves and qualified in the competitive bid published and conducted by **Energy Efficiency Service Ltd. (EESL) on behalf of MNRE vide No. EESL/06/2020-21/KUSUM/SWPS/1-10HP/Off Grid/202101032 Dated 14-1-2021** for “Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW” on turn-key basis under RIDF or any other state sponsored scheme, for the year 2021-22 may submit their proposal as per detail mentioned below.

2. RFP Timeline

Schedule of events for the RFP is as follows-

| Event | Date | Time |
|---|------------|--------------|
| RFP Issued on | 29/01/2022 | 4.00 PM |
| RFP submission date (by email and hardcopy) | 17/02/2022 | Upto 5.00 PM |
| Publishing of Empanelled list | 28/02/2022 | 5.00 PM |

3. Admissible subsidy

As per schematic provision admissible subsidy is as follows:

| SN | Particulars of item | Admissible subsidy | Farmer's share |
|----|--|--------------------|----------------|
| 1. | Supplying, installation and commissioning of SPV water pumping system. | 85% | 15% |
| 2. | Installation of STW (Civil work) | 75% | 25% |
| 3. | Construction of 10,000 litre capacity water storage tank (Optional item) | 85% | 15% |

4. Standard operating procedure (SOP)

Standard operating procedure will be as per guideline of the scheme as attached in **Annexure-2**

5. Technical Specification of Solar PV Water Pumping system

Technical specification of SPV water pumping system with 2 HP DC solar pumps (surface/ submersible) (PV array capacity of 1800Wp) shall be in compliance with technical specification mentioned for the same in the MNRE Bid stated above.

6. Benchmark cost of SPV water pumping system

Benchmark cost for standalone solar pumps is as approved by MNRE vide order no. 318/38/2018-GCRT dtd. 25.06.2020 (at **Annexure-3**) or the latest rate approved by MNRE as and when published will be applicable.

7. Scope of works

Scope of work for supply, installation and commissioning of SPV water pumping system and installation of STW should be in accordance with Scope of works attached at **Annexure -1**

8. Performance Security Deposit

Prior to empanelment, on issue of notice from purchaser, the successful Respondents shall deposit Performance Security initially for an amount of Rs.10 Lakh (Ten lakh) in the form of Fixed Deposit Receipt/ Bank Guarantee from any Nationalized/ Scheduled Bank duly pledged in favour of '**Chief Engineer, Agriculture, Directorate of Agriculture, Assam, Khanapara, Guwahati-22**, payable at Guwahati. The Performance Security Deposit shall be adjusted time to time for a value equivalent to **3%** of the contract amount. The Performance Security Deposit shall be valid up to **60 days** after the date of completion of warranty (i.e., five years) and CMC period to be effective from the date of commissioning of the SPV pumping system. Failure on the part of the successful Respondents to deposit the Performance Security shall constitute sufficient grounds for de-listing. The Performance Security Deposit, as applicable, shall be forfeited in part, or full, if the Respondent not able to complete the contract as per contract agreement including warranty and CMC obligation. A model format for Bank Guarantee for performance security is attached at **Annexure-4**

9. Format for Submission of RFP

All responses must be submitted electronically in PDF format (**distinctly scanned**) as an attachment to an email and sent to the email address shown in the cover page of RFP document. The subject line of the email should be: "[Organization] Solar RFP Response." However, a hardcopy of the RFP required to be submitted by hand or by registered post as per RFP timeline stated above.

The RFP process may be withdrawn or cancelled by the Director of Agriculture, Assam at any time without assigning any reason thereof. The Director reserves the right to accept or reject any proposal, and to annul the empanel process and reject all proposal at any time prior to Award of Contract, without thereby incurring any liability to the affected proposer(s).

All costs associated with responding to this RFP will be borne by the Respondent.

Chief Engineer, Agriculture, Assam
Khanapara, Guwahati-22

The following information must be submitted in the proposal in the order shown.

| SN | Particulars | Responses (separate sheet may be used) |
|-----|---|---|
| 1. | Business name (name of company) | |
| 2. | Registered Office Address | |
| 3. | E-mail | |
| 4. | Website | |
| 5. | Authorized Contact Person(s) with name, designation, Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made | |
| 6. | Proposer or his authorized signatory must put his seal & signature in each & every pages of this RFP document as token of acceptance. All formats, annexure provided in the RFP document must be completely filled (wherever required) and duly signed by the proposer or his authorized signatory with seal, failing which the proposal may be rejected. | |
| 7. | Have the Respondent/Company ever been debarred By any Govt. Dept./ undertaking/ PSU. | |
| 8. | GST No. | |
| 9. | PAN No. | |
| 10. | Year of Incorporation | |
| 11. | Description of Respondent's capabilities in providing its products and/or services | |
| 12. | Organizational background and experience in providing solar projects. | |
| 13. | Key team members who would work on this project | |
| 14. | A detailed technical description of proposed SPV water pumping system and all components | |
| 15. | Description and specifications of the mounting structure, foundation and installation techniques, tracking system. | |
| 16. | Warranty and CMC | |
| 17. | Undertaking for execution of work as per Scope of Work for Supply, installation and commissioning of SPV water pumping system and installation of STW. (Format in Annexure-5) | |
| 18. | Documentary evidence of being approved in the competitive bid published and conducted by Energy Efficiency Service Ltd. (EESL) on behalf of MNRE vide No. EESL/06/2020-21/KUSUM/SWPS/1-10HP/Off Grid/202101032 Dated 14-1-2021 | |

Annexure-1

**SCOPE OF WORK FOR SUPPLY, INSTALLATION AND COMMISSIONING OF SPV
WATER PUMPING SYSTEM AND INSTALLATION OF STW**

| | |
|------------|---|
| 1. | Supply, installation and commissioning of SPV water pumping System : The empanelled Respondent shall generate demand for their proposed SPV water pumping system among prospective farmers in various districts of the State of Assam and as per interest of beneficiary farmers, they will select the system from empanelled manufacturers/ system integrators. Respondent shall supply, install and commission of SPV water pumping system and install STW at various locations in different districts of Assam without any preference for any specific site/district or without any prejudice to any beneficiary. |
| 1.1 | The Respondent will have full responsibility for packaging, forwarding, transportation, supply and any type of breakages/ losses etc. thereto. The goods/ systems will be delivered at the destination, installed and commissioned at site in the perfect conditions. |
| 1.2 | Respondent shall install SPV water pumping system with 2 HP DC surface or submersible solar pump (PV Array capacity of 1800Wp) as the case may be, after installation of STW successfully. Manufacturers will have to put a Name plate/ Label and Mark Bar code &/ Serial No./ Code No. etc. of their products as per NABL/ MNRE/ BIS/ BEE or other applicable specification(s). |
| 1.3 | The Respondent shall be responsible for survey (selection of proper bore well/ tube well having sufficient yield in the premises of beneficiary), supply, installation & commissioning of various capacities/ heads of SPV water pumping systems with all required accessories and fittings i.e. SPV panels should be mounted on a suitable structure with a provision of three times manual tracking, surface/ submersible motor pump set with a suitable inverter/ controller with a provision of remote monitoring of pump, electronics (MPPT, Inverter, Electronics Protections), interconnected cables, on-off switch, GI/ HDPE riser pipe/ suction pipe & all required accessories, fittings related to civil works along with 5 years warranty & Comprehensive Maintenance Contract (CMC) etc. in different villages/ sites located all over the state of Assam. The same make of solar panels, pumps and inverter/ controller, for which the test report is submitted in the RFP, should be supplied by the Respondent. |
| 1.4 | Civil works for installation/ grouting of SPV pole/ mounting structure/ electrical work etc. shall be scope of Respondent. It should have proper foundation as the steel structure of solar panel has to withstand wind of up to 150 km/hr velocities. A model Plan and estimate of foundation for the steel structure of solar panel is attached at Annexure –6 which is exclusive of benchmark cost. |
| 1.5 | All metal casing or shielding of the pumping system shall be thoroughly grounded to ensure safety of the SPV water pumping system. |
| 1.6 | An Operation and Maintenance Manual, in both Assamese and English language, should be provided with the SPV water pumping System. The manual should have information about solar energy photovoltaic modules, motor pump set, tracking system, mounting structures, Electronics & Switches etc. it should have also clear instructions about mounting of PV module, DO's and DONT's and on regular maintenance and trouble shooting of the pumping system. Name and address of the person or centre to be contacted in case of failure or complaint should also be provided. A warranty card for the modules and the motor pump set should also be provided to the beneficiary. Further, a certificate shall have to be provided by the Respondent, from any license holder contractor/ supervisor, certifying that all electrical works are carried out in accordance with applicable electrical safety standards prescribed by APDCL/ Govt. of Assam from time to time. |

| | |
|------|--|
| 1.7 | The Respondent shall be required to submit performance report to the purchaser after commissioning on half-yearly basis till completion of Comprehensive Maintenance Contract (CMC) period. The Respondent will submit the consolidated annual performance report to the purchaser, which will contain an abstract of half-yearly reports submitted already. |
| 1.8 | The supplied materials should be strictly as per TS by MNRE, otherwise it will be liable for rejection. In case of any defective material or any type of substandard material is supplied, the material will be rejected and it will be the responsibility of the Respondent for taking back the rejected materials at his own cost within (15) fifteen days from the date of communication of rejection. Purchaser/ beneficiary shall not be responsible for security/ safety of the material rejected. Any type of fittings, accessories, assemblies, essentially required components as per NABL/ MNRE/ BIS/ BEE Standards & Practices as applicable, but not described or mentioned in bidding document shall have to be supplied by the Respondent at his own cost. |
| 1.9 | Defective materials will not be accepted under any conditions and shall be rejected outright without any compensation. The Respondent shall be liable for any loss/ damage sustained by purchaser due to defective work. The Respondent shall replace the defective material at his own expenses to the satisfaction of purchaser/ beneficiary. The Respondent shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of the materials. |
| 1.10 | There should be provision of remote monitoring on all systems through Remote Monitoring System. Such system shall be with the latest software/ hardware configuration and data connectivity for online/ real time monitoring, subject to availability of service network. In areas where internet services are not available, the data shall be made available through data logger. These systems should be supplied and maintained by the Respondent under CMC for 5 years. |
| 1.11 | The Respondent shall not assign, sublet or transfer the contract or any part thereof to any party without the prior express consent of the purchaser. |
| 1.12 | In the event of any of the breach of the conditions of the contract at any time on the part of the Respondent, the contract may be terminated by the purchaser without any compensation to the Respondent. All payments due shall be forfeited. |
| 2. | Five years Warranty and Comprehensive Maintenance Contract (CMC): |
| 2.1 | It is mandatory on the part of Respondent for providing post installation CMC services for maintaining and monitoring the commissioned SPV water pumping systems up to the period of 5 years from the date of commissioning. The date of CMC will begin from the date of commissioning of the SPV water pumping system. |
| 2.2 | For carrying out the maintenance service during the warranty & CMC effectively, the Respondent shall establish at least one local service centre at each district where number of SPV water pumping systems commissioned by Respondent are equal or more than one hundred. The Respondent will maintain the records of maintenance/ certificate of half-yearly visits. As the maintenance facility is to be provided in the warranty of CMC, hence no additional payment will be made for maintaining the above inventory at the service centre. |
| 2.3 | It shall be the responsibility of the Respondent to ensure 100% working status during the five year warranty and CMC period. The Respondent will have to arrange all required instruments, tools, spares, trained manpower and other necessary facilities at service centre and shall repair/ replace all defective components such as SPV module, Inverter, controller, pump, mounting structures, electronics, wiring etc.; at his own cost against warranty. |

| | |
|-----|---|
| 2.4 | <p>During 5 year warranty and CMC service shall have two distinct components as described below:</p> <p>a) Preventive / Routine Maintenance: This shall be done by the Respondent at least once in every six months and shall include activities such as cleaning and checking the health of SPV water pumping system, tightening of all electrical connections, adjusting nut & bolts, screws, members etc. of mounting structure, and any other activity that may be required for proper functioning of the SPV water pumping system as a whole.</p> <p>b) Breakdown/ Corrective Maintenance: Whenever a complaint is lodged by the user/ purchaser, the Respondent or his representative shall attend to resolve the same in not exceeding (7) seven days from the date of intimation and the rectification/ replacement work done shall be certified by the District engineer/ beneficiary, failing of which the Breakdown/ Corrective Maintenance shall be done by the purchaser at the risk and cost of the Respondent and all such expenses shall be recovered from him.</p> |
| 2.5 | <p>Insurance:</p> <p>Insurance of the SPV water pumping system is under the scope of CMC covering the warranty period. The Respondent is responsible for insurance coverage of the SPV water pumping system for following events:</p> <p>a) Loss & theft</p> <p>b) Damages due to lightening, hailstorm or other natural calamities</p> |
| 2.6 | <p>After the commissioning of the SPV water pumping system, the following instances might lead to shortening of the CMC period. Accordingly it may lead to recovery of exigency charges @4% of the work order value of that pump, for each year of reduction from intended CMC period of 5 years.</p> <p>a) Water level recedes below pump shutoff level</p> <p>b) Theft of component(s)</p> <p>c) Panel breakage/ damage</p> <p>d) Bore well collapse</p> <p>e) Controller damage</p> |
| 3 | <p>Timeline:</p> <p>Respondent shall have to commission the SPV water pumping system within the time period allowed, on the basis of quantity and location of works, in the respective work order.</p> |
| 3.1 | <p>In case of non-commission of SPV water pumping system within the allowed time period due to unavoidable circumstances or event of Force Majeure, purchaser may grant time extension subject to justified reasons submitted by the Respondent to his satisfaction.</p> |
| 3.2 | <p>The time period specified in the work order shall be deemed to be the essence of the contract and the Respondent shall arrange all the needful within the stipulated period.</p> |
| 4 | <p>Installation of STW (Boring works)</p> |
| 4.1 | <p>As per requirement of site and aquifer condition, two separate provisions for STW are available. Viz.</p> <p>– (i) STW up to a depth of 45 meter by manual boring commissioned with surface pump and (ii) STW up to a depth of 75 meter by machine boring commissioned with submersible pump.</p> |
| 4.2 | <p>Site of construction of bore-well would be in the farm land of the beneficiary farmer</p> |
| 4.3 | <p>Construction of bore-well is exclusively for irrigation purpose</p> |
| 4.4 | <p>Construction of bore-well up to 45m depth of boring in case of surface/ centrifugal pump and up to 75m depth of boring in case of submersible pump</p> |
| 4.5 | <p>Skilled artisan would be engaged for construction of bore-well</p> |
| 4.6 | <p>Boring works should to be executed as per plan and estimate approved by the Agriculture Department as attached in Annexure -7 and 8. Bill will be raised as per actual measurement recoded in MB for civil work of STW.</p> |

| | |
|------|---|
| 4.7 | Explore the water bearing strata to achieve maximum yield from the bore-well. |
| 4.8 | Survey of site and any bore-well in the nearby field to assess the minimum boring required to achieve the desired yield. |
| 4.9 | Successful installation of STW to achieve adequate discharge after coupled with 2 hp surface/submersible solar pump. |
| 4.10 | Obtain satisfactory certificate indicating discharge (litre/sec), litho log of bore-well jointly signed by the beneficiary and Junior Engineer concerned. |
| 4.11 | Area affected by arsenic and Fluoride shall not be considered for construction of bore-well |
| 4.12 | Bore-well having inadequate discharge shall be considered as failure boring. |
| 4.13 | No. reimbursement shall be made against failure boring |
| 4.14 | The respondent must complete his job within the stipulated time frame. |

Guidelines for Supply, Installation and Commissioning of Solar Photovoltaic Water Pumping System and installation of Shallow Tube Well on turnkey basis under RIDF

| | |
|-----------|--|
| A. | Introduction |
| | This Guideline is based on guideline approved by Department of Agriculture, Govt. of Assam, vide no. AGA.01/2017/311 Dated 3 rd Nov, 2018 and minutes vide No. AGA.241/2018/20 dated 06 th July, 2019. This Guideline supersedes earlier guideline for Installation of Shallow Tube Well (STW) with Solar PV powered Pump-set under RIDF, 2016-17 and to be effective from the date of circulation. The Directorate of Agriculture will finalise the district wise target for Supply, installation and commissioning of SPV system and installation of STW to create assured irrigation potential. |
| B. | Abbreviation/Definition |
| | <p>STW: Shallow Tube Well;</p> <p>SPV System: Solar Photovoltaic Water Pumping System;</p> <p>WST: Water Storage Tank of 10,000 litre capacity (RCC/Brick masonry);</p> <p>RIDF: Rural Infrastructure Development Fund under National Bank for Agriculture and Rural Development;</p> <p>Project: Supply, installation and commissioning of SPV system and installation of STW on turnkey basis;</p> <p>Beneficiary: Group of farmers or individual farmer applying / selected for availing subsidy against the project;</p> <p>Subsidy: Admissible Govt. Subsidy against project component;</p> <p>Department: Department of Agriculture, Govt. of Assam;</p> <p>Directorate: Directorate of Agriculture, Govt. of Assam, Khanapara, Guwahati-22;</p> <p>Director: Director of Agriculture, Govt. of Assam;</p> <p>Chief Engineer: Chief Engineer, Agriculture, Directorate of Agriculture, Govt. of Assam, Khanapara, Guwahati-22;</p> <p>DLSC: District Level Selection Committee;</p> <p>DBT: Direct Benefit Transfer of subsidy amount;</p> <p>District Engineer: Executive Engineer or Asstt. Executive Engineer of Agriculture Department, Govt of Assam, who is in-charge of the respective District;</p> <p>DAO: District Agriculture Officer;</p> <p>ADO: Agriculture Development Officer of Agriculture Department, Govt of Assam;</p> <p>JE: Junior Engineer of Agriculture Department, Govt of Assam;</p> <p>AEA: Agriculture Extension Assistant of Agriculture Department, Govt of Assam;</p> <p>NGO: District NGO entrusted for the district against the project.</p> <p>Vendor/Supplier: Manufacturer/System Integrator empanelled by Director for Supply, installation and commissioning of SPV system and installation of STW on turnkey basis.</p> |
| C. | Eligibility criteria |
| | <p>i) Group of farmers or individual farmer having around 2.00ha (15 bighas) of contiguous cultivable agricultural land for creation of assured irrigation potential, shall be eligible for admissible subsidy. Willing farmers may submit application in prescribed format(Annexure-I)through District NGO or directly to the office of the District Engineer.</p> <p>ii) In case of Group of farmers, an agreement to be executed between members as per format enclosed at Annexure-I(A)for equitable distribution of water and the admissible subsidy shall be in the name of leader of the Group. This agreement required to be submitted along with application.</p> <p>iii) Farmers from Char areas and Forest Villages who may not be having land holding document issued by revenue authority, the ADO or AEA would identify the farmers applied for STW and Secretary Gram Panchayat (GP) concerned would provide land possession certificate.</p> |

| D. | Admissible Subsidy | | | | | | | | | | | | | | | | |
|-----------|--|--------------------|---------------------|--------------------|----------------|----|---|-----|-----|----|----------------------------------|-----|-----|----|---|-----|-----|
| | Table -1:: Subsidy Pattern | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>SN</th> <th>Particulars of item</th> <th>Admissible subsidy</th> <th>Farmer's share</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Supplying, installation and commissioning of SPV water pumping system</td> <td>85%</td> <td>15%</td> </tr> <tr> <td>2.</td> <td>Installation of STW (Civil work)</td> <td>75%</td> <td>25%</td> </tr> <tr> <td>3.</td> <td><u>Optional item</u> Construction of 10000 litre capacity Water Storage Tank (RCC/Brick Masonry)</td> <td>85%</td> <td>15%</td> </tr> </tbody> </table> | SN | Particulars of item | Admissible subsidy | Farmer's share | 1. | Supplying, installation and commissioning of SPV water pumping system | 85% | 15% | 2. | Installation of STW (Civil work) | 75% | 25% | 3. | <u>Optional item</u> Construction of 10000 litre capacity Water Storage Tank (RCC/Brick Masonry) | 85% | 15% |
| SN | Particulars of item | Admissible subsidy | Farmer's share | | | | | | | | | | | | | | |
| 1. | Supplying, installation and commissioning of SPV water pumping system | 85% | 15% | | | | | | | | | | | | | | |
| 2. | Installation of STW (Civil work) | 75% | 25% | | | | | | | | | | | | | | |
| 3. | <u>Optional item</u> Construction of 10000 litre capacity Water Storage Tank (RCC/Brick Masonry) | 85% | 15% | | | | | | | | | | | | | | |
| E. | Application process :- | | | | | | | | | | | | | | | | |
| | <p>i) The District NGO/ Extension machinery of Agriculture Department shall collect application forms along with supporting documents from willing farmers and after verification by ADO or JE concern, shall submit to the District Engineer for placing before DLSC. The application form shall be made available in the office of the EE/DAO/AEE/SDAO and in the web site www.diragri.assam.gov.in.</p> <p>ii) Online application by using portal: Farmers may apply for STW by visiting http://assamagriculture.in. Interested farmers may register their names in the portal for which a unique ID number will be generated against their name. Farmers may apply for STW as per provision available under the scheme using his ID number. Farmer may apply on his own using smart phone or may request the District Engineer or Dist. NGO or approach CSC- Arunodoi Kendra to complete the application process.</p> | | | | | | | | | | | | | | | | |
| F. | Selection of Beneficiaries :- | | | | | | | | | | | | | | | | |
| | <p>District Level Selection Committee (DLSC) shall be constituted as per Govt. Notification number AGA364/2013 Pt/240 dtd. 20.08.2018 (enclosed at Annexure-VIII(A)) and for Kokrajhar /Chirang /Baksa /Udalguri (BTC) Districts shall be constituted as per Govt. Notification No. BTC/Agri-78/2015/170 dtd-30.08.2018 (enclosed at Annexure-VIII(B)).</p> <p>(i) The District Engineer will prepare list of beneficiaries on first come first serve basis and place the same before the DLSC. The DLSC will select list of eligible beneficiaries on the basis of eligibility criteria.</p> <p>(ii) The District Engineer, on receipt of approval of beneficiaries list from DLSC, shall issue a provisional sanction letter (format at Annexure-II) in favour of the selected beneficiary. On the strength of provisional Sanction Letter, selected beneficiary would deposit Farmer's share for SPV Pumping System and for installation of STW as per their choice of Vendor/Make/Model of SPV System from the empanelled list. Farmer's share shall be deposited in the form of bank draft, drawn in favour of respective supplier, to the District Engineer. District Engineer shall maintain a register to record details of farmers' share received and disbursed.</p> <p>(iii) On deposition of Farmer's share and after obtaining an undertaking from the beneficiary (format at Annexure-IV) the District Engineer will issue Final Sanction Order (format at Annexure III).</p> | | | | | | | | | | | | | | | | |
| G. | Role of District NGO:- | | | | | | | | | | | | | | | | |
| | <p>To facilitate community/ beneficiary participation and smooth implementation, one NGO is engaged in each District for following activities in compliance with TOR approved by Govt.-</p> <ol style="list-style-type: none"> i) NGOs will work in close coordination with respective District Engineer. The District Engineer will monitor the activities of the NGOs under their respective districts and time to time report to the Directorate accordingly. ii) Disseminate project information amongst the local farmers. iii) Organize district/block/village level awareness/training/orientation on various issues of the project like technical, environmental and social issues. iv) Mobilise farmers and collect applications for STW and submit to the respective District Engineer. v) Educate farmers for optimum and efficient use of irrigation water. vi) To ensure proper project documentation and maintenance of STW by farmers. vii) To record GPS readings of installed STW under the project. viii) To collect and deliver water samples from STW for chemical testing to the designated testing laboratory. Testing parameters and cost of individual test may be seen Table- 3. ix) Any other related activities pertaining to implementation of the project assigned by the district Engineer. x) The NGO will submit claim (as per claim format at Statement- C/D) through District Engineer for payment of remuneration against their performed activities. | | | | | | | | | | | | | | | | |

| Table -2:: Remuneration schedule for District NGO | | | |
|--|--|---------------------|-----------------------|
| SN | Particulars. | Unit. | Rate. |
| 1. | Collection of application, awareness camp, motivation etc. | Each STW | Rs.165.00 |
| 2. | Recording of GPS Reading | Each STW | Rs.30.00 |
| 3. | i) Collection of Water Sample as per testing laboratory norms including cost of bottles. | Each STW | Rs.18.75 |
| | ii) Delivery of water sample to laboratories for testing (arsenic, fluoride etc complete as per directions) | Each STW | Rs. 36.25 |
| 4. | Necessary Arrangement for installation of STW | Each STW | Rs. 250.00 |
| Total for each STW installed in the project | | | Rs. 500.00 |
| Table -3::Rate Schedule for Water sample test | | | |
| SN | Particulars | Cost/Sample (in Rs) | Remarks |
| 1. | Testing for Arsenic | 324.00 | Applicable to all STW |
| 2. | Testing for Flouride | 300.00 | As per requirement |
| 3. | Testing for Iron | 240.00 | As per requirement |
| 4. | Testing for Hydrocarbon | 240.00 | As per requirement |
| H. | Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW on turn-key basis | | |
| | i) Chief Engineer on behalf of the Director Agriculture will empanel manufacturers/ system integrators for Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW on turn-key basis. | | |
| | ii) The District Engineers will issue Final Sanction Order indicating the Vendor/Make/ Model of SPV Pumping System, details of beneficiary and location for supply, installation and commissioning of SPV Pumping System and installation of STW with intimation to the vendor/supplier to execute the project. | | |
| | iii) During layout of site for STW, the field engineer should maintain a distance not exceeding 6m between the bore hole and SPV panel to minimize power loss and for efficient discharge. The SPV panel should be installed in a shadow free area. | | |
| | iv) 'Scope of work' as per RFP vide No. Agri/Engg/4958/RFP/Solar Pump-set/ 2021-22/01 dtd. 20 /08/2021, through which vendor/ supplier are empanelled, is enclosed at Annexure-VII . Empanelled vendor/ supplier shall comply the 'Scope of work' for execution of the project. | | |
| | vii) Civil works for installation/ grouting of SPV pole/ mounting structure/ electrical work etc. shall be executed by empanelled vendor/ supplier as per model Plan and estimate of foundation for the steel structure of solar panel is enclosed at Annexure – IX (B) . It should have proper foundation as the steel structure of solar panel has to withstand wind of up to 150 km/hr velocities. | | |
| | viii) Boring works for installation of STW shall be executed by empanelled vendor/ supplier as per approved plan and estimate (enclosed in Annexure –IX (A) and IX (F)). | | |
| | ix) 1st & Final Bill will be prepared by the District Engineer and will record the measurement in MB along with litho-log against installation of each STW. The Bill and MB along with all relevant documents will be retained by the District Engineer for future verification and audit etc. | | |
| | x) District engineer will assess average depth of boring for the district to calculate tentative farmers' share for installation of STW. Accordingly farmers' share deposited for installation of STW shall be adjusted in the 1 st & final bill prepared against the respective work and will reflect in the claim submitted for release of Govt. share. | | |
| | ix) For releasing of Govt. share (subsidy) to the Supplier against supply and commissioning of the SPV pumping system, the Supplier shall produce the following documents to the respective District Engineers for preparation of bill, MB and statement- B(ii) : | | |
| | a) Tax Invoice in triplicate along with delivery challan for installation of STW materials of SPV Pumping system. | | |
| | b) Physical Verification Report (Annexure-V) jointly signed by Supplier, respective District Engineer and the beneficiary. | | |
| | c) Coloured photograph(s) of SPV array, pump, controller/ inverter along with STW duly certified by the respective District Engineer. | | |
| | d) Handing over certificate of SPV pumping system to the beneficiary jointly signed by the beneficiary and Supplier and countersigned by the respective District Engineer. | | |
| | e) Performance report based on data received from remote monitoring system or data logger, in cases where internet services are not available. | | |
| | f) Certificate for civil work for installation of mounting structure of SPV etc. certified by the District Engineers. | | |
| | District Engineer will retain the original documents viz. bill, MB, Tax invoice etc. in his office for future verification, audit etc. | | |

| | |
|-----------|--|
| I. | Optional Item: Construction of Water Storage Tank (WST) of 10000 litre capacity (RCC/Brick) |
| | (i) The construction of water storage tank of 10000 litre capacity (RCC/Brick) may be done by the beneficiaries from their own resources under the supervision of technical staff of respective District Engineer. Materials required for construction of storage tank shall be procured by the beneficiary themselves from the open market as per specification laid down in the approved Plan and Estimate attached at Annexure- IX (C) and IX (D) . |
| | (ii) Bill will be raised by the district engineer after completion of work as per actual measurement recoded in MB for civil work for submission of claim to the Directorate. The subsidy will be disbursed to the beneficiary's account directly observing the laid down procedure of DBT, prescribed by the Govt. The Bill and MB along with all relevant documents will be retained by the District Engineer for future verification and audit etc. |
| J. | Disbursement of Subsidy:- |
| | On completion of installation of STW, commissioning of Solar PV Pump-sets and construction of water storage tank, the District Engineer will submit claims as per prescribed format at Statement -B (i) for water storage tank/ Statement -B(ii) for STW and SPV pump-set for release of admissible subsidy through RTGS in favour of the: (a) Supplier for supply, installation and commissioning of Solar PV Pump-set and for installation of STW (b) Beneficiary (s) who have constructed water storage tank. |
| K. | Data Uploading in RIDF portal: (www.ridfportal.in) |
| | All information pertaining to beneficiaries, installation of STW, Commissioning of SPV pump-sets and construction of WST, if any, shall be uploaded on the RIDF portal prior to submission of claim for release of subsidy. |
| L. | Utilization of STW :- |
| | For optimum utilization of Irrigation potential created, the ADO, AEA would prepare crop plan for each STW and Irrigation plan for each crop. Water utilization and crop production report shall be prepared by the DAO. |
| M. | Duration of Service :- |
| | The duration of service for Solar Photovoltaic Water Pumping System is 20 years and STW is 10 years from the date of commissioning. |
| N. | Monitoring & Evaluation :- |
| | i) Monitoring of the scheme would be done periodically by the Departmental officers as well as Third party may be engaged by the Department. ii) Within 15 days of release of subsidy, uploading of beneficiaries' data and Geo-tagging of every STW in Departmental website and 'Bhuvan' Platform shall be carried out. District NGO shall assist in this regard. Beneficiaries' data in Excel file & hard copies shall be made available for the same purpose by the District Engineer. iii) Water samples testing of each STW shall be done in the designated testing laboratory or Laboratory of Public Health Engineering Department of the district. District NGO engaged by District Engineer shall collect water sample from the STW and would deliver to the designated laboratory for testing. iv) The District Engineer shall properly maintain a Record Keeping Register for STW and SPV Pumping system to record Vendor/Make/ Model/ Sl. No. of Solar Pump set, Solar Controller and Solar PV Array, and beneficiary details as per format at Annexure-IV . v) The operation & maintenance of the SPV system and STW shall be done by the beneficiary. The beneficiary shall clean the PV panels on weekly basis so that the performance of the solar panels remains optimum. The cost of maintenance of the Pump-sets is to be borne by the beneficiary. vi) During the life time (duration of service of the SPV system), beneficiary shall not sell or transfer the SPV system to any other party. Appropriate legal action would be initiated against the defaulter. vii) Beneficiary shall be responsible for any damage, loss and theft of the SPV system. viii) Officials of Agriculture Department, district Administration or any other Agency / Officials, as authorized, shall inspect the SPV system and STW at any time to ensure its utilization. Log Book and the Cultivation Register duly maintained by the beneficiary shall be open for verification by the Officials. ix) In case of any dispute related to the project, the Director of Agriculture shall resolve the issue amicably. |

-Sd/-

Director of Agriculture,
Assam, Khanapara, Guwahati-22

No. 318/38/2018-GCRT
Government of India
Ministry of New & Renewable Energy

Block No. 14, CGO Complex
Lodhi Road, New Delhi
Date: 25 June 2020

ORDER

Subject: Benchmark costs for Off-grid Solar PV Systems for the Year 2020-21 –reg.

I am directed to convey the approval of competent authority for issuing of the benchmark costs for Off-grid Solar PV Systems for the Year 2020-21. System-wise benchmark costs are as under:

(i) Standalone Solar Pumps

| Pump Capacity | Pump Type | Benchmark Cost (Rs. per Pump) | |
|---------------|---------------------------|-------------------------------|--|
| | | General Category States/ UTs | North Eastern States/Hill States & UTs/ Island UTs |
| 0.5 HP | AC/DC Surface | 53,000 | 58,300 |
| | AC/DC Submersible | 68,000 | 74,800 |
| 1 HP | AC/DC Surface | 92,400 | 1,01,700 |
| | AC/DC Submersible | 1,03,700 | 1,14,100 |
| 2 HP | AC/DC Surface | 1,22,200 | 1,34,600 |
| | AC/DC Submersible | 1,31,400 | 1,44,600 |
| 3 HP | AC/DC Surface | 1,63,200 | 1,79,700 |
| | AC/DC Submersible | 1,68,300 | 1,85,400 |
| 5 HP | AC/DC/Surface/Submersible | 2,36,500 | 2,60,500 |
| 7.5 HP | AC/DC/Surface/Submersible | 3,52,500 | 3,87,750 |
| 10 HP | AC/DC/Surface/Submersible | 4,45,000 | 4,45,000 |

(ii) Solar Lighting Systems

| System | Benchmark Costs (Rs. per system) | |
|---|----------------------------------|--|
| | General Category States/ UTs | North Eastern States/Hill States & UTs/ Island UTs |
| Solar Study Lamps* | 395 | 437 |
| Solar Street Lights# (with Li batteries) | 19,400 | 21,340 |

* Solar study lamp with 2.5 Wp solar panel, 1 W LED luminaire and 3.2 V – 2000 mAh Li battery as per MNRE specifications.


Solar street lights with 75 Wp solar panel, 12 W LED luminaire and 12.8 V – 30 Ah Li battery as per MNRE specifications.

(iii) Standalone Solar Power Plants/Packs

| Capacity | Battery back-up (hrs) | Benchmark Costs (Rs. per Wp) | |
|-----------------------------|-----------------------|------------------------------|--|
| | | General Category States/ UTs | North Eastern States/Hill States & UTs/ Island UTs |
| Up to 10 kW | 6 | 94 | 103 |
| | 3 | 74 | 81 |
| | 1 | 62 | 68 |
| Above 10 kW and up to 25 kW | 6 | 84 | 92 |
| | 3 | 66 | 72 |
| | 1 | 55 | 60 |

2. Above mentioned benchmark costs will come into effect from the date of issue of this Order. However, the cases wherein the tender has been finalized as on the date of issuance of this Order but Letter of Award (LoA) is yet to be placed, benchmark costs for FY 2019-20 issued vide Order dated 25.07.2019 will be applicable, provided that the LoA is placed by 15.07.2020. From 16.07.2020 onwards, above benchmark costs will be applicable in all cases under Ministry's programmes.

3. All the above benchmark costs are for systems installed as per MNRE specifications inclusive of the total system cost and its installation, commissioning, transportation, insurance, comprehensive maintenance charges for five years, online monitoring and applicable fees and taxes.


 (Shobhit Srivastava)
 Scientist-D

To

All Concerned

Format for Bank Guarantee for Performance Security
(To be on non-judicial stamp paper of Minimum Rs. 1000/-)

This Deed of Guarantee made on _____ (Day) _____ of _____ (Month) _____ of _____ (Year) Between _____ (hereinafter to be called as Guarantor) on the One Part / On behalf of M/s _____ (Herein-after called the Respondent), and in favour of the Director of Agriculture, Assam, (hereinafter to be called as the Authority) on the following Terms, and Conditions:

In consideration of the [Insert name of the Respondent] submitting the RFP for "Solar Project Development" vide No.Agri/ Engg/_____ dtd_____ and Authority considering such response to the RFP of [Insert name of the Respondent](which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and selecting the Successful Respondent and issuing letter of empanelment to (Insert Name of Successful Respondent) as per terms of RFP and the same having been accepted by the successful Respondent). As per the terms of the RFP, the [insert name & address of bank] hereby agrees unequivocally, irrevocably and unconditionally to pay to the Authority at [Insert Name of the Place from the address of the Authority] forthwith on demand in writing from the Authority, or any officer authorized by it in this behalf, any amount upto and not exceeding Rupees _____ [Rupees _____ (Total Value in words)] only, on behalf of M/s [Insert name of the Respondent]. This guarantee shall be valid and binding on this Bank up to and including _____ and shall not be terminable by notice or any change in the constitution of the Bank or the term of Agreement or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective Agreement.

Our liability under this Guarantee is restricted to Rupees _____ (both in numbers and words)

Our Guarantee shall remain in force until the Authority shall be entitled to invoke this Guarantee till _____. The Guarantor Bank hereby agrees and acknowledges that the Authority shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by the Authority, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to the Authority.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by [Insert name of the Respondent]. The Guarantor Bank shall not require the Authority to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against the Authority in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Gauhati shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly the Authority shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the selected Supplier, to make any claim against or any demand on the Supplier or to give any notice to the Supplier or to enforce any security held by the Authority or to exercise, levy or enforce any distress, diligence or other process against the Respondent.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rupees _____ (Rupees _____ only) and it shall remain in force until we are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if the Authority serves upon us a written claim or demand.

Signature

Name

Power of Attorney No.

For

[Insert Name of the Bank]

Banker's Stamp and Full Address.

Dated this ____ day of ____, 20__

Witness:

1. _____

Signature

Name and Address _____

2. _____

Signature

Name and Address _____

Undertaking for execution of work as per Scope of Work for Supply, installation and commissioning of SPV water pumping system and installation of STW

(To be on non-judicial stamp paper of Minimum Rs. 100/-)

We declare that, we M/s _____ [insert name of the Respondent] are

Tick mark [√] where applicable)

Manufacturer of major component of SPV water pumping system, namely.....[name of components]

OR

System Integrator

We, undertake that we have read, examined and understood the RFP document for “Supply, Installation and Commissioning of SPV Water Pumping System and Installation of STW” issued vide No.Agri/ Engg/ -----Dtd: ----- and submit our proposal conforming to the aforesaid RFP.

We confirm that neither we nor any of our Affiliate has submitted proposal other than this proposal directly or indirectly in response to the aforesaid RFP.

We shall ensure that we will execute the project as per the provisions of the RFP and all the provisions of the said RFP shall be binding on us.

We accordingly agreed to submit Performance Security Deposit in the event of acceptance of our proposal.

We hereby unconditionally and irrevocably agree and accept that the decision made by the Purchaser in respect of any matter regarding or arising out of the RFP shall be binding on us. We hereby expressly waive any and all claims in respect of RFP process in complete.

We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of contract of capacity offered.

We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this proposal and execute the contract, in the event of empanelment of us. We further undertake and agree that all such factors as mentioned in the RFP have been fully examined and considered while submitting the proposal.

It is confirmed that our proposal is consistent with all the requirements of submission as stated in the RFP and subsequent communications from the Purchaser. The information submitted in our proposal is complete, strictly as per the requirements stipulated in the RFP and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our proposal. We confirm that all the terms and conditions of our proposal are valid for acceptance for a period as specified in the RFP. We confirm that we have not taken any deviation so as to be deemed non-responsive.

We undertake to supply, install and commission of our SPV water pumping system and install STW at various locations in different districts of Assam without any preference for any specific site/district or without any prejudice to any beneficiary from our end.

We undertake to generate demand for our SPV water pumping system among prospective farmers in various districts of the State of Assam and we understand that as per interest of beneficiary farmers, they will select the system from empanelled manufacturers/ system integrators as per their choice.

We undertake to carry out the maintenance service during the warranty & CMC effectively for the stipulated period. We undertake that will maintain the records of maintenance/ certificate of half-yearly visits. We understand that as the maintenance facility is to be provided in the warranty of CMC, hence no additional payment will be made for maintaining the above inventory at the service centre.

We undertake that we shall establish at least one local service centre at each district where number of SPV water pumping systems commissioned by us are equal or more than one hundred.

We undertake to set up at least one outlet for delivery of pump-set to the beneficiaries in each of the districts for which the contract is awarded.

We confirm that in clear terms that all the facilities exist in our factory for inspection & testing and these will be made available to the Purchaser or his representative for inspection if Purchaser feels necessary.

We solemnly undertake that the responsibility of execution of the Contract as per the terms and conditions of the RFP/Contract Agreement shall be entirely ours.

We have thoroughly examined and understood the RFP and are fully aware of the scope of work required. We are hereby submitting our proposal as per provision made in the RFP only.

We shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government income tax & service tax norms will be payable by us. TDS will be deducted from our payment as per the prevalent laws and rules of Government of India and Government of Assam in this regard.

Dated the ____ day of _____ 2019

Thanking you,
Yours faithfully,

For and on behalf of:

Signature: (Authorized Signatory)

Name of the Person:

Designation:

Date:

Place:

Annexure-E

DETAILED ESTIMATE FOR RCC BASE FOR SPV PANNEL
 RATE:- Schedule rate of APWD (Building) Schedule for the year 2013-2014

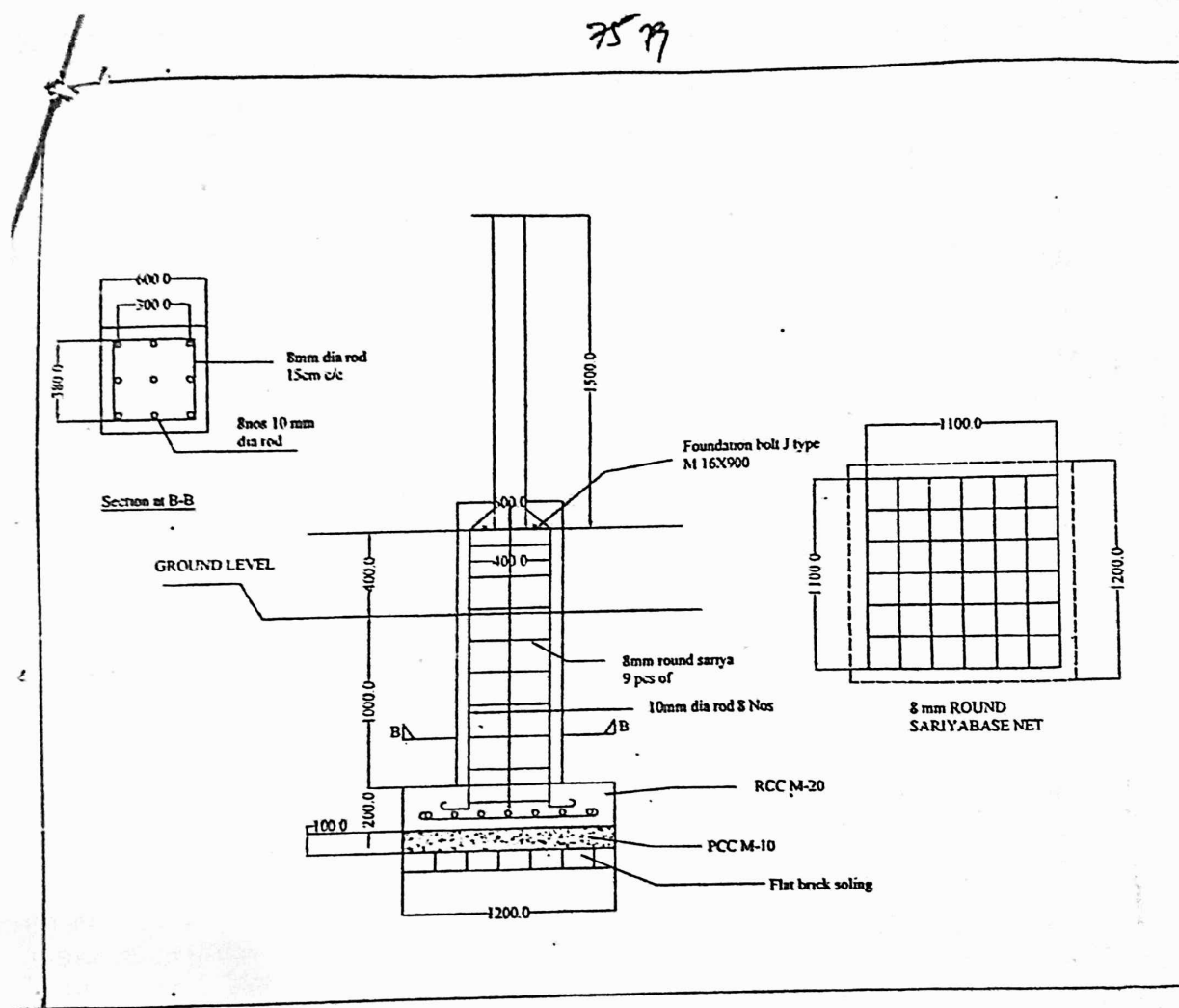
| SL. NO | Description of Item | Unit | NO | L | B | H | TOTAL | Rate | Amount |
|--------------------------------------|---|------|----|------|------|------|---------|------------|---------|
| EARTH WORK | | | | | | | | | |
| 1 | Earth work in excavation for foundation trenches of walls, retaining walls, footings of columns, steps and septic tank etc. including refilling (return filling) the quantity as necessary after completing of work, breaking clods in return filling, dressing, watering and ramming etc. and removal of surplus earth with all lead and lifts as directed and specified in the following classification of soils including bailing out water where necessary as directed and specified. | | | | | | | | |
| | Foundation for Column | Cum | 1 | 1.20 | 1.20 | 1.40 | 2.02 | | |
| | Total | | | | | | 2.02 | Rs. 106.62 | 219.38 |
| BRICK SOLING | | | | | | | | | |
| 2 | Providing brick soling in Foundation and under floor with best quality picked jhama bricks, sand packed and laid to level and in panel after preparing the sub-grade as directed including cost material and labour complete. | | | | | | | | |
| | Brick on flat soling. | Sqm | 1 | 1.20 | 1.20 | | 1.44 | | |
| | TOTAL | | | | | | 1.44 | 368.71 | 530.94 |
| PCC 1:2:4 | | | | | | | | | |
| 3 | Plain cement concrete (1:2:4) works with coarse aggregate of sizes 13mm to 32mm in foundation bed for footing steps, walls etc. as directed and specified including curing complete (shuttering where necessary shall be measured and paid separately). | | | | | | | | |
| | Foundation for Column | Cum | 1 | 1.20 | 1.20 | 0.10 | 0.14 | | |
| | TOTAL | | | | | | 0.14 | 4292.86 | 618.17 |
| RCC | | | | | | | | | |
| 4 | Providing and laying plain/reinforced cement concrete works cement, coarse sand & 20mm down graded stone aggregate including dewatering if necessary, and curing complete but excluding cost of form work and reinforcement for reinforced cement concrete work (form work and reinforcement will be measured and paid separately) | | | | | | | | |
| | (A) In Substructure upto plinth level. | | | | | | | | |
| | Foundation footing, columns with base, tie and plinth beam, pile cap, base slab, retaining walls, walls of septic tank, inspection pit and the like and other works not less than 100 mm thick upto plinth level. N) Without using admixture, c) M25 grade | | | | | | | | |
| | Foundation (square portion) | CUM | 1 | 1.20 | 1.20 | 0.20 | 0.29 | | |
| | Above GL | CUM | 1 | 0.60 | 0.60 | 1.40 | 0.50 | | |
| TOTAL | | | | | | 0.79 | 5496.65 | 4353.35 | |
| TIMBER SHUTTERING (FORM WORK) | | | | | | | | | |
| 5 | Providing formwork of ordinary timber planking so as to give a rough finish including centering, strutting and propping etc. , height of propping and centering below supporting floor to ceiling not exceeding 4.0M and removing the same for in situ reinforced concrete and plain concrete work in | | | | | | | | |
| | Foundation | Sqm | 1 | 4.80 | | 0.30 | 1.44 | | |
| | | Sqm | 1 | 2.40 | | 1.40 | 3.36 | | |
| | TOTAL | | | | | | 4.80 | 364.01 | 1747.25 |
| STEEL REINFORCEMENT | | | | | | | | | |
| 6 | Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete | | | | | | | | |
| | Foundation (Horizontal) | kg/m | 22 | 1.20 | 0.39 | | 10.30 | | |
| | Foundation (Vertical) | kg/m | 8 | 1.80 | 0.62 | | 8.93 | | |
| | W/mup | kg/m | 10 | 2.24 | 0.39 | | 8.74 | | |
| | TOTAL | | | | | | 27.96 | 71.59 | 2001.66 |

78

| CEMENT PLASTER SKIRTING WITH CEMENT MORATR IN PROPORTION 1:4 | | | | | | | | | |
|--|----------------------|-----|---|------|--|------|------|------------------------------------|-----------|
| 7 | Foundation portion 1 | Sqm | 1 | 2.40 | | 0.40 | 0.96 | | |
| | Foundation portion 2 | Sqm | 1 | 0.60 | | 0.60 | 0.36 | | |
| | TOTAL | | | | | | 1.32 | 230.44 | 304.18 |
| | | | | | | | | TOTAL | 9,774.93 |
| | | | | | | | | Adding 15% due to price escalation | 1,466.23 |
| | | | | | | | | Sub-Total = | 11,241.16 |
| | | | | | | | | Deduct 5% Vat | 562.05 |
| | | | | | | | | Sub-Total = | 10,679.11 |
| | | | | | | | | Add 12% GST | 1,281.49 |
| | | | | | | | | Grand Total = | 11,960.60 |
| | | | | | | | | Say Rs. | 11,961.00 |

(Rupees Eleven Thousand Nine Hundred Sixty One) Only

7579



65

Annexure - A**MODEL ESTIMATE FOR INSTALLATION OF SHALLOW TUBE WELL (STW)
UP TO 45 METER DEPTH**

Rate based on Schedule of rate of PIIE for 2015-16 & APWD(B) for 2013-14

| SN | SOR No | Description of Item | Unit | Quantity | Rate | Amount |
|---|-----------|---|-------|----------|-------|------------------|
| A. Material cost | | | | | | |
| 1 | 5.1 (h) | Medium duty Galvanized Iron (GI) pipe 80 mm dia having ISI Mark | Meter | 1.5 | 611.1 | 916.65 |
| 2 | 5.3 (6) | UPVC Casing pipe withstanding 6kgf/cm ² 80 mmdia | Meter | 38.5 | 310.2 | 11942.7 |
| 3 | 5.2 (c) | PVC ribbed screen stainer 80 mm dia having ISI mark, | Meter | 6 | 471.2 | 2827.2 |
| 4 | | PVC non returnable check valve 90mm dia having ISI mark. | Nos. | 1 | 300 | 300 |
| 5 | 6.1.7 (h) | PVC End plug, 90 mm dia best quality having ISI Mark. | Nos. | 2 | 54.2 | 108 |
| 6 | 6.1.1(h) | PVC socket 90 mm dia pressure 6kgf/cm ² | Nos. | 5 | 42 | 210 |
| 7 | 6.1.2 (h) | PVC adaptor | Nos. | 1 | 78 | 78 |
| 9 | | PVC suction pipe dia 75mm with working pressure 6kgf/cm ² | Meter | 1 | 150 | 150 |
| 10 | 6.8.1 (a) | Solvent cement (250 ml) | No. | 1 | 152 | 152 |
| SUB TOTAL (A) = | | | | | | 16,684.55 |
| B. Labour cost for Installation of STW | | | | | | |
| 1 | 7.1.3 | Labour charge of making bore hole of 100 mm dia and collecting sample of soil at every 3.00 Meter depth. | | | | |
| | | a. For 0 to 20 m depth | Meter | 20 | 193.6 | 3872 |
| | | b. For 20 m to 40 m depth | Meter | 20 | 301.6 | 6032 |
| | | c. For 40 m to 60 m depth | Meter | 5 | 372.4 | 1862 |
| 2 | 7.1.12 | Labour charge of sinking lowering, fitting fixing of Direct Action (Tara hand pump assembly in position with 90 mm/50 mm dia P.V.C casing pipe with ribbed screen placed in potable water bearing strata with 40 mm dia sand trap with end cap at bottom of well, washing the bore well etc. and supplying necessary jointing materials including carriage of materials and cleaning and priming the tube well all complete as directed. | Meter | 45 | 25.9 | 1165.5 |

116
266

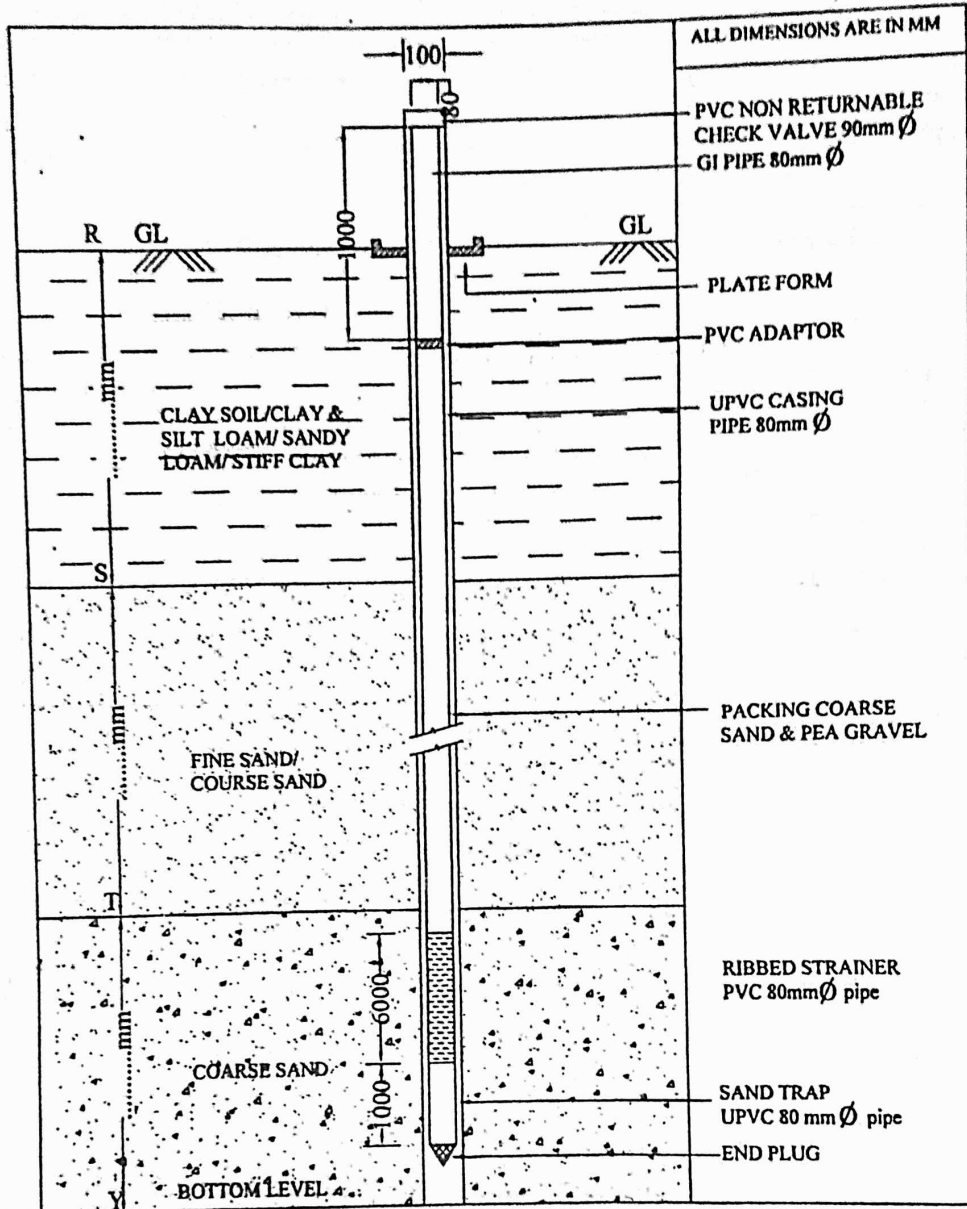
| | | | | | | |
|--|--------|--|-------|----|-------------------|-----------|
| 3 | 7.1.16 | Providing and packing coarse sand around stainer and casing pipe including supplying and carriage of materials all complete as directed and specified. | Meter | 45 | 9.5 | 427.5 |
| 4 | 7.1.21 | Labour charges for providing Bentonite clay including the cost of Bentonite clay around 150/200 mm dia tube well up to depth of 6 m from top. | Meter | 2 | 544.5 | 1089 |
| SUB TOTAL (B)= | | | | | | 14,448.00 |
| TOTAL (A+ B)= | | | | | | 31,132.55 |
| Adding 15% due to price escalation | | | | | | 4,669.88 |
| Sub-Total = | | | | | | 35,802.43 |
| Deduct 5% Vat | | | | | | 1,790.12 |
| Sub-Total = | | | | | | 34,012.31 |
| Add 12% GST | | | | | | 4,081.48 |
| Sub Total of (A+B) = | | | | | | 38,093.79 |
| C. Cement Concrete Floor base (1.50m X 1.50m) | | | | | | |
| | | Construction of floor base Flat Brick soiling, P.C.C and R.C.C , Plastering works as directed. (enclosed estimate) | Sq.m | | Estimate enclosed | 4,740.53 |
| Sub of TOTAL-(C) | | | | | | 4,740.53 |
| Grand Total (A+B+C) = | | | | | | 42,834.32 |

(Rupees Fourty Two Thousand Eight Hundred Thirty Four and Thirty Two Paise) Only

SPECIMEN COPY

LITHOLOG OF STW (Max. Depth upto 45m for Diesel/Electrical/SPV Pumpset)

Name & Add of Farmer :- i) Name.....
 ii) Father /Husband Name.....
 iii) Vill..... iv) P.O.....
 v) Dist..... vi) EE(A)/AEE(A).....
 Date of Installation..... Latitude..... Longitude.....



Annexure-B-

Estimate for installation of Shallow Tube Well (STW) up to 75 M depth using Rotary Rig. Rate based on SOR, PHE for 2015-16 & APWD (B) for 2013-14

| SN | SOR No. | Item Details | Unit | Qty | Rate (Rs) | Amount (Rs) |
|---|-----------|--|-------|-------|-----------|-----------------|
| A. Material Cost | | | | | | |
| 1 | 5.1 (h) | Medium duty galvd. Iron (GI) Pipe 125 mm dia having ISI Mark | Metre | 1.50 | 1162.70 | 1744.05 |
| 2 | 5.3 (6) | UPVC Casing pipe withstanding 6 kgf/cm ² , 125 mm dia | Metre | 65.00 | 628.90 | 40878.50 |
| 3 | 5.2 | PVC ribbed screen strainer with nylon 125 mm dia having ISI mark, with opening space between 12% to 25% of the surface area and with average size of slot in between 1 mm to 1.50 having ISI mark. | Metre | 9.00 | 709.10 | 6381.90 |
| 4 | 5.3 | UPVC Column pipe withstanding 6 kgf/cm ² , 40 mm dia. Having ISI mark | Metre | 45.00 | 146.80 | 6606.00 |
| 5 | 6.1.7 (h) | PVC End Cap 140 mm dia best quality having ISI mark | Nos | 1.00 | 306.00 | 306.00 |
| 6 | 6.1.1 (h) | PVC socket 140 mm dia pressure 6kgf/cm ² | Nos | 14.00 | 210.00 | 2940.00 |
| 7 | 6.1.2 (h) | PVC adopter | Nos | 1.00 | 220.00 | 220.00 |
| 8 | 6.1.6 | UPVC Reducing Socket 40 x 30 mm | Nos | 1.00 | 237.00 | 237.00 |
| 9 | 6.8.1 (a) | Solvent cement (500 ml) | Nos | 1.00 | 299.00 | 299.00 |
| Total -- (A) | | | | | | 59612.45 |
| B. Labour cost for installation of STW | | | | | | |
| 1 | 8.1.1 | Preparation of site for placement of the drilling rig including excavation of mud pit, circulation drain, collection chamber etc. all complete | Each | 1.00 | 8126.00 | 8126.00 |
| 2 | 8.1.2 | Movement of rig from the divisional HQ to the drilling site incl. cost of POL all complete as directed. | Km | 30.00 | 29.00 | 870.00 |
| 3 | 8.1.3.a | Transportation of ancillary equipment..... To and fro including cost of POL all complete as directed upto 100 km distance divisional HQ | Km | 30.00 | 43.40 | 1302.00 |
| 4 | 8.1.4.a | Transportation of all store materials..... as directed upto 100 Km distance divisional HQ | Km | 30.00 | 43.40 | 1302.00 |
| 5 | 8.1.5.a | Transportation of air compression as directed upto 100 km distance divisional HQ | Km | 30.00 | 43.40 | 1302.00 |
| 6 | 8.1.8 (b) | Providing water supply facilities at drilling site all complete as directed. By installing 1 no 5 Hp dewatering | Each | 1.00 | 5412.00 | 5412.00 |

| | | | | | | |
|---|--------|---|-------|-------|-------------------|-------------|
| 7 | 8.2.2 | Boring in hard soil/pebble/Gravl by bit size 7 7/8 and collecting sample of soil at every 3.0 m depth all complete as directed. Using Rotary Rig. | Metre | 75.00 | 1,289.00 | 96,675.00 |
| 8 | 8.5.1 | Extraction of drilling pipe/bits including washing of bore hole all complete as directed. | | | | 3405.00 |
| | | 1st Day | Metre | 30.00 | 113.50 | 6242.50 |
| | | 2nd Day | Metre | 55.00 | 113.50 | 8512.50 |
| | | 3rd Day | Metre | 75.00 | 113.50 | |
| 9 | 7.1.14 | Labour charge for sinking, lowering, fitting, fixing in position of 150 mm dia UPVC pipe assembly.....Complete as directed. | | | | 3130 |
| | | 0 to 50 | Metre | 50 | 62.6 | 1830 |
| | | 50 to 100 | Metre | 25 | 73.2 | |
| 10 | 8.5.5 | Developing the bore well with air compressor, make - kirloskar/cumins all complete as directed. | Hr. | 4.00 | 2593.50 | 10374.00 |
| 11 | 8.5.6 | Supplying and packing in pea gravel around the periphery of caising including screening, wasing etc. all | Cu. m | 5.74 | 2563.80 | 14716.21 |
| Total -- (B) | | | | | | 163,199.21 |
| Sub Total (A+B) | | | | | | 222,811.66 |
| Adding 15% due to price escalation | | | | | | 33,421.75 |
| Sub-Total = | | | | | | 256,233.41 |
| Deduction 5% VAT | | | | | | 12,811.67 |
| Sub-Total = | | | | | | 243,421.74 |
| Add 12% GST | | | | | | 29,210.61 |
| Sub Total of (A+B) = | | | | | | 272,632.35 |
| (C) Cement Contrete floor base (1.50 m x 1.50 m) | | | | | | |
| 1 | | Construction of floor base Flat Brick soling, PCC and RCC, Plastering works as directed. | Sq.m | 2.25 | Estimate enclosed | 4740.53 |
| Sub Total -- (C) | | | | | | 4740.53 |
| Grand Total (A+B+C) = | | | | | | 277,372.88 |
| Say Rs. | | | | | | 2,77,373.00 |

Rupees (Two Lakh Seventy Seven Thousand Three Hundred Seventy Three)

Checked by

LITHOLOG OF STW (Max. Depth upto 75m for Diesel/Electrical/SPV Pumpset)

Name & Add of Farmer :- i) Name.....
 ii) Father /Husband Name.....
 iii) Vill..... iv) P.O.
 v) Dist..... vi) EE(A)/AEE(A).....
 Date of Installation..... Latitude..... Longitude.....

