

12th December 2018

Request for Quotation

Introduction: Bharatiya Mahila Federation, Thane (<http://www.bmfthane.org>), is working with ReNewClimate Strategies LLP (RNCS) on a project to reduce water related stress and to take steps for water conservation at the same time in a village called Lakudpada in Murbad Taluka. The project includes a two-pronged strategy (1) Powering existing water supply system by solar energy (installation of solar PV panels and inverter), installation of storage tanks and laying new HDPE pipeline from the pump to the storage tanks and (2) Construction of a pond for harvesting rain water for use by villagers, cattle and to recharge the aquifers. The village Lakudpada is located at 19.371152, 73.589089 and is one of the seven hamlets: Mal, Lakud pada, Manichi wadi, Sukal wadi, Jambhul wadi, Bhang wadi and Vadachi wadi of Mal gram panchayat. The hamlet Lakud Pada has around 100 households and estimated population of about 600 - 800.

Bharatiya Mahila Federation invites quotations from manufacturers and system integrators for solar water pumping system to be installed on an existing borewell in Lakudpada village in Mal gram panchayat in Murbad Taluka of Thane District. The system requirements are as follows:

Application: Solar pump to be installed on a bore well and water to be pumped to storage tanks in multiple locations in the village.

Depth of the borewell: estimated 300 feet

Distance of farthest storage tank from the bore well: estimated 500 meters

Discharge: 1500 Litres/hr or 6000 Litres/day

Dual Pumps: The bore well will have solar pump installed at deeper level (at about 250 feet from top) and the existing hand pump will also be installed at the level of 120 feet or so as per existing pipes. A special water chamber (as is done in government solar pump schemes) may have to be installed to take care such dual installation. The installation should be such that it should be possible to use both pumps.

Compound: The solar panels and controller will be enclosed in a sturdy metal compound to ward off cattle and to provide general protection. This compound should have an arrangement for a hinged section (like door) which can be locked up with the next fixed section of the compound.

Height of the storage tank from bore well and Distance from discharge of the bore well and pipeline: 15 ft in all (5 feet height of water tank, 5 feet for the stone platform for the tank and 5 feet as height difference from the bore well to the bottom of the stone platform). Distance from discharge of the bore well to the farthest storage tank is 500 meters (approx. length of pipeline). Pipeline from the borewell to the storage tanks will be 2 inch dia. HDPE pipe. This information is provided only for calculation of head and pump capacity. The pipeline and its laying as well as the storage tanks, related plumbing and construction of the stone platform to mount the storage tanks should not be a part of the bid.

Only the HDPE pipe that is to go inside the bore well +3 meters needs to be a part of bid. The pipe length outside the bore well should be 3 meters. This pipe and required accessories to fit the pipe and to join it to a 2-inch HDPE pipe needs to be included in the bid.

Earthing and lightning arrester: This needs to be provided.

Solar Panels: Solar panels are to be mounted near the bore well as there is sufficient place available near the bore well. The solar panels have to be mounted on a strong supporting structure so that the panels can withstand the maximum wind speeds in that area. The panels should be at sufficient height so that they cannot be tampered with easily. The wiring from the solar panels to the controller should be well protected.

Controller: The controller / inverter should be mounted under the solar panels. The controller should have a facility to monitor the usage and performance of the pump remotely. Voltage and current, power produced, on/off times, error conditions, estimate volume of water pumped in each on/off session as well as cumulative volume of water pumped and power generated should be monitored and available for reporting on the portal. This remote monitoring with adequate reports should be visible on an internet portal and access should be provided to such a portal for monitoring this pump. Monitoring data should be collected and used at 5 minute interval and data should not be dropped because of temporary difficulties in communication. There should be a facility to download the data at the pump itself using a pen drive. The access should be protected by user code and password. Full performance and usage data about pump should be downloadable in a CSV format. The data should be online for the entire period for which maintenance service is provided.

Warranty and Maintenance services: Five year on-site extended warranty and on-site comprehensive maintenance service (parts and labour) from the date of installation and commissioning is required for all installed equipment and for the monitoring facility on the internet portal. A facility should be provided to file a maintenance complaint on phone and additionally including on whatsapp and a complaint number needs to be given for each complaint filed. Each complaint must be resolved within 5 days of its filing. The purchaser has a right to receive on demand, detailed data regarding warranty and maintenance complaints and resolution from the supplier.

You should size the wattage of the solar panels and the power of the pump based on requirement given above. Supplied equipment must be such that 6000 litres of water can be delivered at the storage tanks in any 4 hours of pumping from 9 :00 am to 4:00 pm.

Kindly send your competitive quotation for the above requirement. In case you are interested to visit the location before submitting the quotation (village Lakudpada Gram Panchayat Mal, Tal. Murbad, Dist. Thane) please do so at your cost after prior information to BMF so as to inform the village head.

Quote should include cost of delivery to the site, installation, commissioning, and all taxes (to be mentioned separately). Separate cost should be given for a) Five year warranty and maintenance services and b) for all other equipment including monitoring facility.

Payment Terms : 50% of cost a) and 20% of cost b) at the time of placing order

20% of cost a) within a fortnight of delivery of all equipment and access to monitoring portal

30% of cost a) within a fortnight from installation and commissioning

20% of cost b) on the anniversary date of installation and commissioning for 4 years

Last date of submission of Technical and Price quotation: 25 December 2018

For any technical clarifications please contact: 9819022799