

F. No. 32/5/2020-SPV Division
Government of India
Ministry of New and Renewable Energy

Block no. 14, CGO Complex,
Lodi Road, New Delhi -110003

Date: 22 June 2020

Office Memorandum

Subject: Guidelines for installation of innovative standalone solar pumps – reg.

Ministry has been supporting installation of standalone solar pumps in the country under Off-grid and Decentralized Solar PV Programme. In 2019-20, implementation of Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) started with a target to install 17.5 lakh standalone solar pumps by the year 2022.

2. Ministry had received representations from innovators claiming that by using different design/software for the solar pumps performance better than specified by the Ministry can be achieved in a cost effective manner. In order to promote innovative standalone solar pumps, Guidelines for installation of innovative standalone solar pumps are hereby issued with approval of Competent Authority.



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To

All Concerned

Guidelines for Installation of Innovative Stand-alone Solar Pumps

The Ministry of New and Renewable Energy (MNRE) issued updated specifications for stand-alone solar pumps on 17.7.2019. Ministry has received representations from innovators claiming that by using different design/software for the solar pump they can achieve performance better than specified by the Ministry in a cost effective manner. At present under the MNRE Scheme, solar pumps fulfilling the MNRE specifications can be installed, however, in order to promote innovation in technology, the Ministry has decided to permit installation of innovative stand-alone solar pumps in test mode.

These guidelines are applicable for all Indian innovators/manufacturers/service providers, who wish to install innovative stand-alone solar pumps in the country under Schemes operated by the MNRE.

I. Call of Expression of Interest (EoI)

- a) The Ministry will call EoI from time to time for inviting application from solar pump innovators claiming better performance on account of improved efficiency, cost effectiveness, monitoring, other value addition, etc. Only those innovative products which are available for testing and field trial will be eligible for participation in the EoI.
- b) New technologies for which patent/IP related filings have been done (patent may not have been awarded) will also be eligible to participate in the EoI. Organization which has filed the patent should be the sole applicant or lead partner in case of a consortium/JV.
- c) The elements of innovation in the context of improved performance of solar pump needs to be mentioned very clearly by the applicants in their response to EoI. A cost benefit analysis shall also be enclosed with the proposal.

II. Evaluation of Applications

Applications will be evaluated by an Evaluation Committee constituted by MNRE having technical and financial experts of the sector including academic experts. Test report for the proposed solar pump will be submitted by the innovator along with EoI, however, if deemed necessary, the Committee may recommend re-testing of performance of the pump at NISE or any other NABL accredited lab before allowing installation of such pumps in the field. In cases, where the technology is in its nascent stage, special method may be adopted to test the pumps in consultation with the innovator and NISE. The expenditure incurred on testing will be borne by the applicant.

III. Demonstration of the Innovation

- a) On recommendations of the Committee, the innovative technology will be allowed for demonstration in the field after getting consent from respective state implementing agency (SIA) and the beneficiary farmers by the innovator. The innovator will be allowed to install up to 50 solar pumps in different parts of the State/UT for demonstration purpose.
- b) For payment (subsidy and beneficiary share), AMC, performance guarantee, etc., the innovators will be treated at par with other vendors selected through competitive bidding

process and awarded work for installation of solar water pumps in the respective state/UT and the innovators will not get any additional cost over and above the cost discovered through tendering process. Further, the innovators is required to deposit bank guarantee equivalent to payment made to him against the installation of solar pump, which will be encashed, if the pump is failed to meet at least the existing MNRE performance standards during demonstration period of one year. In addition, the innovators have to fill-up indemnity bond against damages caused to farmer due to under performance of pump during the period of demonstration. On successful trail of pump, the indemnity bond and bank guarantee would be released, however, the performance guarantee as applicable during the period of AMC will be retained by the SIA.

- c) The field demonstration will continue for at least one year from date of installation of such pumps and during that period the performance of the pump will be monitored on real time basis. Access to remote monitoring facility for the installed pumps shall be provided to NISE so that field data may be accumulated and evaluated.
- d) Innovator will submit on monthly basis a detailed performance report of the pump including a comparative analysis with similar capacity pump specified by the MNRE, along with feedback from SIA & beneficiary farmers to the Evaluation Committee. MNRE/NISE will also conduct field inspection to check the performance as and when required.
- e) Installed innovative pumps shall meet at least the existing MNRE performance standards. However, only the innovations showing substantial improvement from the MNRE specifications may be considered for adoption. A comparative analysis of performance of innovative technology vis-à-vis MNRE specifications will also be done by the Evaluation Committee.
- f) After detailed examination and deliberations, the Evaluation Committee may recommend for adoption of specifications of innovative pump, with certain modifications, if required.

IV. Adoption of technology by MNRE

On recommendations of the Evaluation Committee, the MNRE may adopt the innovative technology and update the existing specification after having detailed stakeholders' consultation on the same. For innovations with outstanding performance the innovators will get certificate of appreciation from MNRE.
