

30/03/2016-17/PVSE
Ministry of New and Renewable Energy
SPV Off-Grid Division

Block No14, CGO Complex,
Lodi Road, New Delhi-110 003
Dated: 21st December, 2016

OFFICE MEMORENDUM

Subject: Minutes of the meeting with stakeholders to discuss and finalize the specifications of Solar Charkha and Solar Rickshaw under Solar Off-Grid Programme

A meeting with stakeholders of Solar Charkha and Solar Rickshaw was held on 7th December 2016 under the chairmanship of Shri Santosh Vaidya, Joint Secretary, MNRE. The minutes of the meeting is enclosed.

2. This is for your kind information

Nikhil Gakkhar
21/12/16

(Nikhil Gakkhar)
Scientist-B
Telefax- 011-24361151

Encl: As above

To:

1. Joint Secretary, Ministry of Textile, Phase-1 40 Community Centre, Industrial Area Phase I, Naraina, New Delhi, Delhi 110028
2. Joint Secretary, Ministry of Road Transport & Highways, Transport Bhawan 1, Parliament Street, New Delhi-110001
3. Joint Secretary, Ministry of Power, Rafi Marg, Sansad Marg Area, New Delhi, Delhi 110001
4. Chief Executive Officer BSES Rajdhani Power Limited BSES Bhawan, Nehru Place, New Delhi- 110019
5. Chief Executive Officer BSES Yamuna Power Limited Shakti Kiran Building, Opp. Karkardooma Court, Delhi:- 110 032
6. Chief Executive Officer BSES North Delhi Power Ltd., NDPL House, Hudson Lines Kingsway Camp, Delhi-110 009
7. CEO & Managing Director Tata Power Delhi Distribution Limited NDPL House, Hudson Lines, Kingsway Camp Delhi-110 009
8. NIC to upload on website

Minutes of the Meeting with stakeholders to finalize the specifications of Solar Charkha and Solar Rickshaw under SolarOff-Grid Programme

A meeting to finalize the design and specifications of Solar Charkha and Solar Rickshaw was held on 7th December 2016, at MNRE, under the chairmanship of Joint Secretary, Shri Santosh Vaidya. The following points were discussed during the meeting.

1. Joint Secretary, MNRE, briefed about the need of Solar powered Charkha and Solar Rickshaw to be introduced in the programme. Following points were discussed during the meeting:

A. Solar Charkha

- i) MGIRI, Wardha has given a presentation on Solar charkha for 8 to 10 spindles and explained the case studies of installed charkhas across the country by MGIRI.
- ii) The main issue pointed out was permanent motor magnets, which have circuit issues for lesser RPM operations. Hence the system required special design for the motor. In this regard, representative from Shakti Pumps, offer to provide solutions.
- iii) Representative from UREDA, updated that the 8 to 10 spindle are only suitable for the imported wool. So, for the Indian conditions, single spindle charkha should also be considered. It was decided that the ministry will sought the specifications of single spindle charkha for the consideration.
- iv) It was decided by Joint Secretary to put target on solar powered charkhas and explore the other solar based applications for powered looms. The Ministry may consult Ministry of Textile for the upscaling of the project, with current schemes of Ministry of Textiles.
- v) It was also decided that the Ministry will provide support for the installation of solar charkha as well as retrofitting of existing charkhas for the solarisation.

B. Solar Rickshaw

- i) For the solar powered rickshaw, two scenarios were considered
 - Solar PV on the hood of the E-Rickshaw
 - Central charging station for batteries

It was stated that most of the existing E-Rickshaws in the market are non ICAT approved and the standards are not defined under the Motor Vehicles

Act of the Ministry of Road Transport and Highways. Even in some of the states, the regulations and norms to use solar panel on the rooftop of E-Rickshaws are not approved.

- ii) In rickshaws also, the main issues are with the electronic circuits. Apart from that, the charging of batteries (in hoodtop PV) would be very less, specially during continuous moving of rickshaw in the daytime. Hence the grid charging is must. It was informed by the stakeholders that solarization would support the existing battery charging to some extent and would increase the mileage.
- iii) One of the stakeholders suggested that the use of Li Ion batteries should be preferred over lead acid batteries. Ministry may provide support to overcome the additional cost.
- iv) The stakeholders also agreed to central charging stations to provide battery backup especially during night time. This will help to reduce load on DISCOMS due to illegal theft of power.
- v) Another suggestion is the use of compressed air for the Rickshaws.
- vi) It was decided that the Ministry may consult Ministry of Power, Ministry of Road Transport and Highways and DISCOMS to bring uniformity in the standards and norms for solar powered E-Rickshaw. Pilot based central charging station may be installed in the Delhi region with the help of DISCOMS.

The meeting ended with the vote of thanks from Director, Off Grid