

Date: 19 August 2020

Office Memorandum

Subject: Request for comments on draft specifications for technology neutral Lithium batteries for solar off-grid applications

Ministry is implementing various schemes for promotion of off-grid solar applications such as solar street lights, solar study lamps, solar off-grid power packs. To ensure quality of the systems installed, systems specifications have been issued and upgraded by MNRE from time to time.

2. Under the existing specifications for solar street lights and solar study lamps, Lithium Ferro Phosphate batteries (LFP) are being provided under the MNRE Schemes. System specifications for 12 W LED solar street lights may be seen at <https://mnre.gov.in/img/documents/uploads/1cca284fa61049eeb269fa1abae7ba25.pdf> and specifications for solar study lamps may be seen at Pg. no. 36 of the document available at <https://mnre.gov.in/img/documents/uploads/a7afa1471d70433bbcf9731a2ff49593.pdf>.

3. Representations have been received from various stakeholders that specifications for these applications may be battery technology neutral and Lithium chemistries other than LFP may also be allowed to be installed with these systems. Keeping in view suitability of batteries for solar off-grid applications, following broad technology neutral specifications have been worked out for Li batteries:

Parameter	Value
Specific Energy	Minimum 100 Wh/ kg
C Rate (Charging)	Minimum C/4
C Rate (Discharging)	Up to 1C
Charge Discharge Cycles	Minimum 2000 cycles at C/10 rate at 25 deg. C
Thermal Runaway	Minimum 150 deg. C
Depth of discharge	Minimum 85%
Temperature of operation	-5 to 60 deg. C

4. Stakeholders in the off-grid solar applications and energy storage sectors are requested to provide comments/ suggestions on the above specifications. Comments/suggestions may kindly be provided by **28.08.2020 (Friday)** positively through email to shobhit.srivastava@nic.in.



(Shobhit Srivastava)
Scientist-D

To,

All concerned stakeholders