

**F. No. 32/2/2020-SPV Division**  
**Government of India**  
**Ministry of New & Renewable Energy**  
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**Block No. 14, CGO Complex**  
**Lodhi Road, New Delhi-03**

**Date: 15.12.2020**

**Office Memorandum**


**Subject: Specifications for Solar Street Lights and Solar Study Lamps – specifying minimum performance parameters for batteries – reg.**

Ministry had issued specifications for Solar Street Lights and Solar Study Lamps being procured under Off-grid and Decentralized Solar PV Applications Programme of the Ministry. The present specifications for these applications provide use of Lithium Ferro Phosphate (LFP) batteries. Representations were received from stakeholders to also include Lithium batteries of chemistry other than LFP.

2. Ministry after having detailed stakeholder consultation has decided to specify minimum performance parameters for batteries to be used for Solar Street Lights and Solar Study Lamps in place of specifying LFP. Accordingly, all Lithium based batteries, fulfilling following performance parameters, shall be used for Solar Street Lights and Solar Study Lamps under the Off-grid and Decentralized Solar PV Applications Programme of the Ministry:

<b>Parameter</b>	<b>Qualifying condition</b>
Specific Energy	Minimum 120 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°C
Thermal Runaway	Minimum 120 °C
Depth of discharge	Minimum 85% at 25 °C
Temperature of operation	10 to 50 °C (with thermal management system for ambient temperatures lower and higher than the given range)

3. This is issued with approval of Competent Authority.

  
(Shobhit Srivastava)  
Scientist 'D'

To,

All concerned