

## Tariff Framework for Procurement of Power by Distribution Licensees and Others from Solar Energy Projects and Other Commercial Issues for the State of Gujarat

The GERC notified discussion paper for tariff framework concerning procurement of solar power by DISCOMs and other stakeholders. The proposed tariff framework, if finalized after hearing, will come in force from date of order and will mandate competitive bidding for all solar projects, including small projects of 5 MW or less capacity. A brief summary is below:

Particulars	Description
General Principles	<ol style="list-style-type: none"> <li>1. Projects established with new plants and machinery is proposed to be eligible.</li> <li>2. Proposal for 25 years, plant life and tariff period.</li> <li>3. Proposal for projects to follow GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019.</li> <li>4. Reactive power charges, proposed to be as per GERC tariff orders for GETCO.</li> </ol>
Allowed capacity	<ol style="list-style-type: none"> <li>1. Proposed to limit to maximum of 50% of contracted load for captive use, third party sale, and projects under National Solar Mission.</li> <li>2. No limits for MSME (Manufacturing) Enterprises.</li> </ol>
Security Deposit	₹ 5 lakhs/MW to STU/DISCOM is proposed
Tariff determination	Proposal to opt, average of tariff (on 1 <sup>st</sup> April) discovered through competitive bidding during last six months (October-March) for next six months (April-September). Similarly, average of tariff available on 1 <sup>st</sup> October for April - September can be considered for next six months (October - March).
Energy Accounting and RPO	<ol style="list-style-type: none"> <li>1. <b>Not register under REC and Not claiming RPO</b> - Proposal to count RPO towards DISCOMs obligation, allowing banking, and paying for excess injection at ₹ 1.75/Kwh.</li> <li>2. <b>Not registered under REC but claiming RPO</b> - Proposal for time block wise accounting, excess injection can be paid at ₹ 1.75/Kwh.</li> <li>3. <b>Registered under REC and Not registered under REC but DISCOM does not claim green component</b> - Proposal for time block wise accounting, excess injection can be paid at ₹ 1.50/Kwh.</li> </ol>
Transmission/ Wheeling Charge and Losses	<ol style="list-style-type: none"> <li>1. Projects under captive use /third party sale/Registered for REC are proposed to pay transmission charges and losses as applicable to normal OA consumers.</li> <li>2. Solar projects for captive use/third-party sale and not claiming REC/claiming REC may have to pay 50%/100% wheeling charges and losses</li> </ol>
Cross-Subsidy Surcharge & Additional Surcharge	<ol style="list-style-type: none"> <li>1. Projects under REC/Not registered under REC and selling power to third party are proposed to pay 100%/50% CSS and additional charges.</li> <li>2. For projects under MSME (Manufacturing) Enterprise (above 50% of its contracted demand) can be charged 50% CSS and additional charges.</li> <li>3. Projects for captive use, sale to DISCOM, for sale outside the state, are proposed to be exempted from CSS and additional charges.</li> </ol>
CDM benefits	Proposal for 100% sharing for project developer in 1st year, 90% in 2nd, and so on till the sharing becomes 50-50 between the developer and consumer.

The GERC Discussion paper can be accessed [here](#).

### CER Opinion:

1. Regulatory Lag in Determined Tariff: Regulated tariff determination often lags to follow competitively determined tariff due to the inherent nature of the regulatory process and the

dynamic market situation. Decline in the competitively determined solar prices (See Figure 1 below) needs to be reflected in the regulated prices as soon as feasible. Linking of the 'regulated' price for projects below 5 MW to the competitively derived one would address the underlying lag.

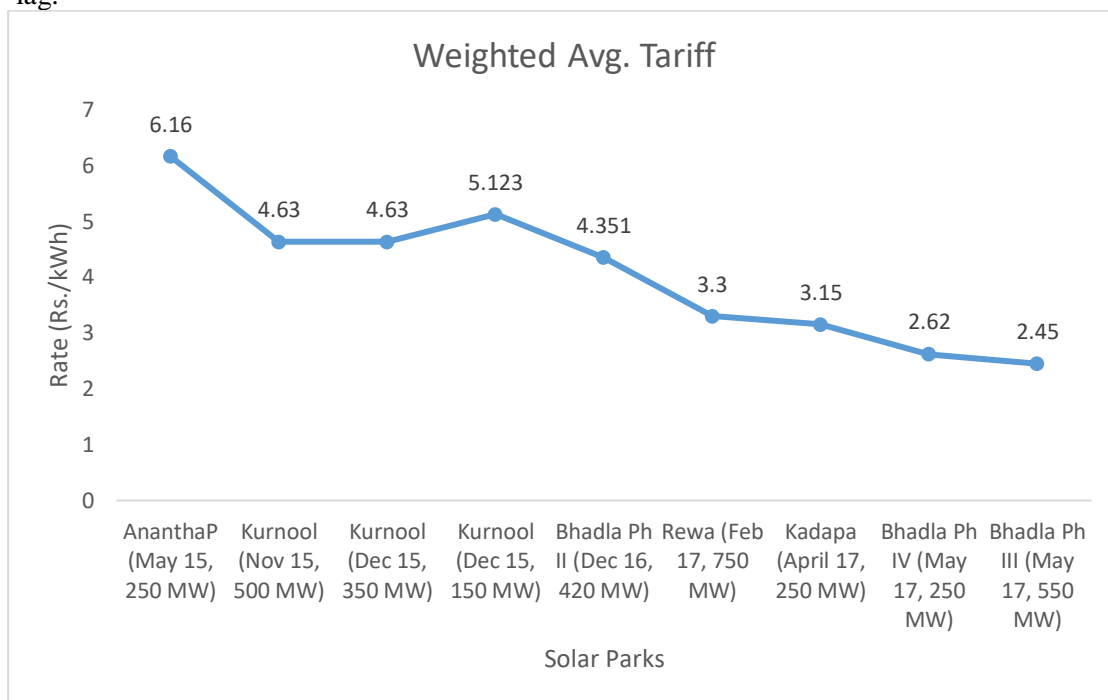


Figure 1: Declining Tariff for Competitively Bid Large Scale Solar PV Projects  
Source: MNRE

Although the discussion paper attempts to explain the new tariff framework, the degree of linkage is not clear.

“The average tariff, available as on 1st April (as discovered in the competitive bidding by GUVNL during previous six months October-March and adopted by the Commission) applicable for the project commissioned during April-September [sic]. Similarly, the average tariff, available as on 1st October (as discovered in the competitive bidding by GUVNL during previous six months April-September and adopted by the Commission) applicable for the project commissioned during October-March.” [sic]

“We therefore, decides [sic] that the small projects which will be installed in the State the procurement of energy from such projects be purchased by the distribution licensee having linkage with the tariff rate discovered under the competitive bidding process.” [sic]

“The power generated from the small scale solar projects having size below 5 MW, the procurement price of energy is at the rate of tariff discovered under the competitive bidding process in different time period of 6 months of the year plus additional 20 paise per kWh thereon for the projects located outside the solar park as under:” [sic]

We are able to conclude the following:

The tariff to be determined for the projects below 5 MW are to be linked to the competitively determined tariff for projects above 5 MW during the previous six months (as per defined block of months).

2. Diseconomies of Scale for Small Projects: Small projects (below 5 MW), have significant diseconomies of scale leading to high cost of installation, financing as well as operation and maintenance (O&M) cost. A decline in tariff for larger projects has primarily been on account of decline in the project cost and the financing costs. Smaller projects have proportionately smaller share of “EPC” cost as compared to larger ones. Hence, a decline in competitively bid prices are not directly replicable for smaller projects.
3. Linking Regulated Tariff to Competitively Determined Prices: The feed in tariff determined for larger (> 5 MW) and smaller ( $\leq$  5 MW) Solar PV projects show that regulated tariff for the later has a mark-up of about 24% than the former (See Figure 2).

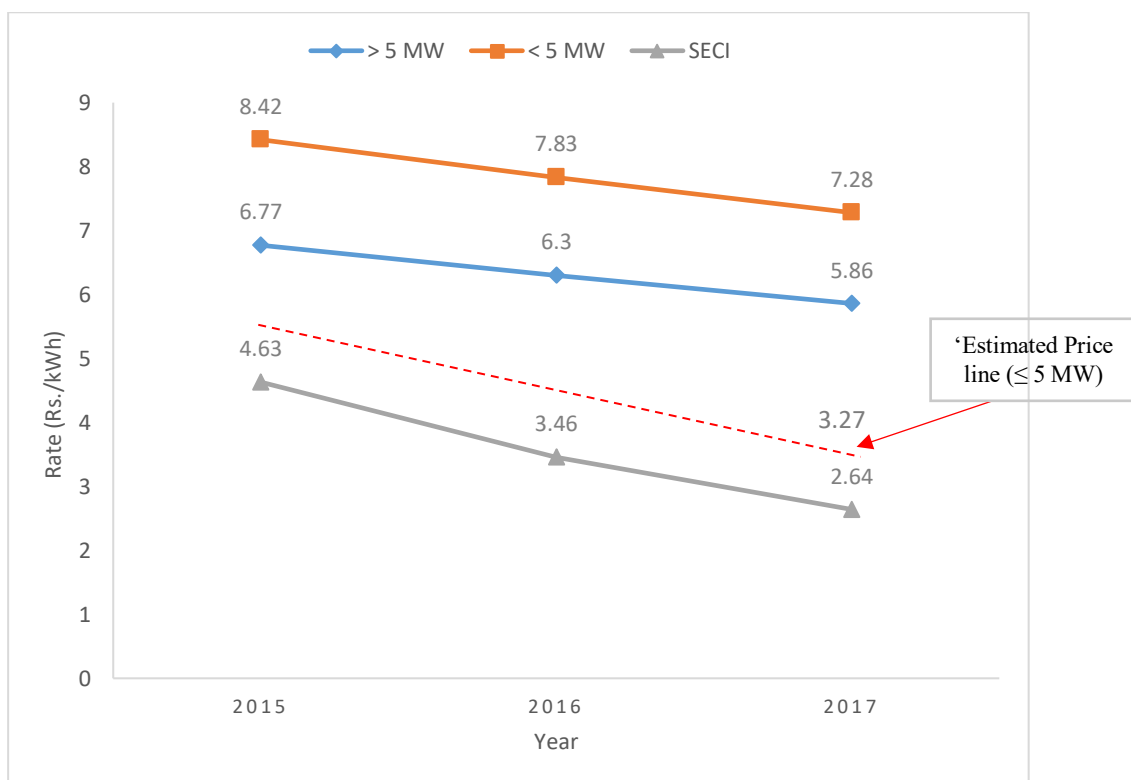


Figure 2: Regulated and Competitively Determined Tariff for small and large Solar PV projects  
Source: GERC DP

We suggest that the basis for linking of tariff for small project can be pegged at a rate bit higher than the prevailing mark-up. This mark-up should later be reviewed for a projected reduction so that project developers are able to adopt innovative procurement, financing and project management practices that should be reflected in the cost of smaller projects.

The 'estimated' regulated price for smaller projects (< 5 MW) for 2017 (Rs. 3.27) would have less than half that of the regulated price. However, we should also note that the mark-up relationship may not necessarily be linear and need to be studied later.

4. An Alternate Solution - Competitive Market for Smaller PV Projects: Given the uncertainty associated with the mark-up relationship between the regulated and the competitive determined prices (across smaller and larger projects), an ideal solution would be to nurture a



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'competitive' market for smaller projects through bundling of larger number of small scale projects and offering them for bidding. This would also help harness some of the economies of scale associated with large scale projects.