



To  
The Secretary,  
Andhra Pradesh Electricity Regulatory Commission (APERC)  
4<sup>th</sup> Floor, 11-4-660, Singareni Bhavan,  
Red Hills, Hyderabad – 500 004

Date: 16 August 2016

**Subject: Submission of Comments / suggestions on Draft on "Power Evacuation Practice Directions for Solar, Wind, Mini Hydel, Bio-mass and Municipal Solid Waste Plants"**

Dear Sir,

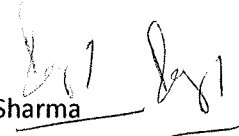
This is with reference to the subject draft published on the website of the Hon'ble Commission inviting comments / suggestions from the stakeholders vide notice dated 26<sup>th</sup> July 2016. At the outset we broadly welcome the initiative taken by the Hon'ble commission to promote renewable projects and convey our gratitude for providing us this opportunity to participate in such consultation process before finalizing the subject draft in the State of Andhra Pradesh.

We are submitting our comments / suggestions as per Annexure I and we sincerely request the Hon'ble Commission to consider our submissions while finalizing the subject regulations.

**About ReNew Power:**

ReNew Power Ventures Ltd. is among top and fastest growing renewable independent power producers in the country which is in the business of setting up wind, solar and roof-top power plants. ReNew has about 1200 MW of operational wind projects in Telangana, Maharashtra, Karnataka, Gujarat and Rajasthan; and another 1500+ MW of wind and solar projects in the pipeline that will enable us to become 2 GW+ company in FY 17. ReNew is also setting up various solar roof-top projects across the country and is fast growing in this sphere as well. ReNew has 650 Million USD investment by Abu Dhabi Investment Authority, Goldman Sachs, Asian Development Bank and Global Environment Facility that makes us the best capitalized renewable IPP in India.

Yours sincerely,

  
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Annexure 1Comments/Suggestions on practice directions on power evacuation for solar, Wind, Small Hydro, Bio-mass and Municipal Solid Waste power plants.

Sr. No.	Clause No.	Proposed Provision	Comment/Suggestion
	5(ii)	<p>(b) For Solar/Wind Power Projects under Cluster Scheme upto 10 MW connected to 33/11 kV SS through 33 kV line:</p> <p>The common metering for Solar/Wind projects connected to a 33 kV SS shall be provided after the pooling 33 kV bus bar side in Pooling SS. This point shall be considered as Interconnection point where energy is delivered by each Solar/Wind power project to grid. <b>Also, metering for each individual project shall be provided at Project's switchyard (on 11kV side of 415V/11 kV Generator Transformer). As such, each Solar/Wind power project will have two metering points, one at Project's switchyard and another metering point is common metering point at 33 kV Pooling SS.</b></p> <p>(c) For Solar/Wind power projects under cluster scheme connected to EHT pooling SS:</p> <p>The common metering for Solar/Wind projects connected to a Pooling Substation (SS) shall be provided after the pooling EHT bus bar side in Pooling SS. This point shall be considered as Interconnection point where energy is delivered by each Solar/Wind power project to grid. <b>Also, metering for each individual project shall be provided at Project's switch yard (on 33 kV side of Generator Transformer). As such, each Solar/Wind power project will have two metering points, one</b></p>	<p>The mentioned clauses deals with the position at which meters are to be installed for the purpose of energy accounting and billing of solar/wind projects developed under the cluster scheme.</p> <p>The clause stipulates requirement of two meters one at the interconnection/delivery point and another one at the switch yard of each project. The rationale behind such a provision is to Separately account for energy injected into the grid and contribution of each entity owning a project under the cluster scheme. We complete understand and appreciate the concern of the Hon'ble commission and in line with the same we would like to make following suggestions:</p> <ul style="list-style-type: none"> <li>• <b>A common metering to be provided at 33 KV/EHT side of the pooling substation as the case maybe. Same will measure for the total energy injected/delivered by the cluster of projects.</b></li> <li>• <b>For establishing the individual contributions made by various entities, we would like to suggest that the in place of metering at individual project switch yard a group metering arrangement will be more appropriate. The group meters needs to be installed based upon the different entities owing plants under the cluster.</b></li> </ul>

		<b><i>at Project's switchyard and another metering point is common metering point at EHT Pooling SS.</i></b>	<p>The above mentioned arrangement will serve the purpose of energy accounting with same level of reliability at the same time the concept of group metering will reduce the financial implications on entities owning the projects.</p> <p>In addition to the above same practice is being followed in the state of Karnataka and Tamil Nadu.</p>
2.	5(V)	<p><b>Execution of Power evacuation work, Owning &amp; O &amp; M of infrastructure for lifetime:</b></p> <p>The Developer shall abide by the orders, rules, regulations and terms and conditions as approved by APERC from time to time for operation of Solar/Wind/Small Hydro/MSW farms, power evacuation, transmission and wheeling of energy. All electrical installations within the farm site and upto pooling sub-station shall be as per the statutory requirements and shall be certified by the Chief Electrical Inspector General (CEIG) or any other statutory authority.</p> <p><b>Individual Projects of BiO-mass and Municipal Solid waste Projects:</b></p> <p>APTRANSCO/DISCOM will take up the erection of 11 kV, 33 kV or EHT line work from Metering point (Outgoing feeder of power project) to grid Sub-station on payment of total estimated cost by the Project Developer or Power Producer.</p> <p><b><i>APTRANSCO/DISCOM is not entitled to levy supervision charges on their internal works.</i></b></p> <p>Alternatively, the Project Developer or Power Producers can take up the work on their own by paying 5% supervision charges to APTRANSCO/DISCOM. <b><i>After completion of work, the ownership of 11 kV, 33 kV or EHT Line from metering point</i></b></p>	<p>The mentioned clause deals with execution of power evacuation work, owning and O &amp; M of infrastructure. In view of same we would like the Hon'ble commission to kindly specify the following:</p> <ul style="list-style-type: none"> <li>• As per the mentioned clause the APTRANSCO/DISCOM is not entitled to levy supervision charges on the internal work. In view of same we request the Hon'ble Commission to define the scope of internal work with clear boundaries. It should be specifically mentioned that the internal work includes erection of any transmission infrastructure from projects switchyard to the metering point at the polling substation and for purpose of calculation of supervision charges any cost incurred towards internal work needs to be excluded.</li> <li>• In relation to the cost related to O&amp;M work for power evacuation system beyond the metering point and upto the grid substation of APTRANSCO/DISCOM, we request the Hon'ble Commission to kindly specify the party responsible to pay the O&amp;M cost and if the same is to be borne by the Developers we request the Hon'ble commission to specify the O&amp;M Charges on per MW basis.</li> </ul>

		<p><b><i>(Outgoing feeder of power project) to DISCOM/APTRANSCO grid shall be transferred to DISCOM/APTRANSCO and DISCOM/ APTRANSCO shall carryout O&amp;M of 33 kV/EHT line whichever is applicable.</i></b></p> <p><b>Solar/Wind Projects/Hybrid projects of Solar and Wind (For both individual and cluster Scheme projects):</b></p> <p><b><i>APTRANSCO/DISCOM is not entitled to levy supervision charges on their internal works within the Solar/wind farm site and upto pooling sub-station.</i></b></p> <p>The ownership of 11 kV or 33 kV network along with Pooling SS (33 kV or EHT) will be with the Power Producers. It shall be the duty of the Power Producers, being the owners of the generating companies to operate and maintain the 11 kV or 33 kV network and Pooling SS (33 kV or EHT) as per the rules and regulations made for the purpose.</p> <p>APTRANSCO/DISCOM will take up the erection of EHT or 33 kV line work from Pooling SS to grid Sub-station on payment of total estimated cost by the Project Developer or Power Producers. Alternatively, the Project Developer or Power Producers can take up the work on their own by paying 5% supervision charges to APTRANSCO/DISCOM. <b><i>After completion of work, the ownership of 33 kV or EHT Line from Pooling SS to DISCOM/APTRANSCO grid shall be transferred to DISCOM/APTRANSCO and DISCOM/ APTRANSCO shall carryout O&amp;M of 33 kV/EHT line whichever is applicable</i></b></p>	<p><b>Stipulating the responsibility of payment of O&amp;M charges and their value on per MW basis will provide a clear picture which and will reduce ambiguity at later stage.</b></p>
3.	5(vi)	<p><b>Testing, Commissioning and Synchronization with the Grid:</b></p> <p>The Project Developer/ Power Producer shall file an application with DISCOM and obtain Temporary Power Supply</p>	<p>The mentioned clause deals with the provisions of Testing, Commissioning and Synchronization with the grid. In relation</p>

	<p>for construction purpose. The Project Developer shall have to pay all applicable charges for availing temporary power supply.</p> <p>After complete erection of the power evacuation infrastructure, the concerned Officers of APTRANSCO &amp; DISCOMs shall inspect the same and confirm readiness for energization.</p> <p>The metering for Power Projects shall be provided as per the practice directions issued by the Commission. Before installation, the meters shall be tested by testing agencies having “National Accreditation Board for Testing and Calibration Laboratories” (NABL), accreditation. The Meters shall be installed and sealed by the authorized Officers of APTRANSCO and DISCOMs only.</p> <p>Power supplied from the grid to Projects during testing will be charged at HT-I Temporary Tariff and will be collected by DISCOM. The energy pumped into the grid during testing and commissioning period, if any, up to commencement of Commercial Operation shall be free of cost. This energy need not be taken into account for billing. <b><i>The Officers of DISCOMs &amp; APTRANSCO will witness testing and satisfactory performance of Wind projects.</i></b></p> <p><b><i>The concerned DISCOM will issue permission for synchronization of Power Project with the Grid for Commercial Operation and date on which the 1st machine of the power plant Project synchronizes with the grid for Commercial Operation shall be the Commercial Operation Date (COD) of the project.</i></b></p>	<p>to same we would like to the Hon’ble commission to kindly consider the following:</p> <ul style="list-style-type: none"> <li>• The testing and commissioning of the plant is required to be done in presence of officials from APTRANSCO/DISCOM. In view of same we request you to kindly specify if any cost is to be paid on account of testing and commissioning under whose scope it will fall. If the cost is to be borne by the developer we request the Hon’ble commission to kindly specify the same to avoid any ambiguity at later stage.</li> <li>• The Hon’ble commission has specified that for wind projects the date of synchronization of first machine shall be considered as Commercial Operation Date of the project. As wind and solar plants are almost of same nature we request the Hon’ble commission to please specify similar provisions for solar power projects also.</li> </ul>
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4.	5	<p><b>Extension of power supply for startup operations or for plant maintenance:</b></p> <p><b><i>APTRANSCO/DISCOMs shall extend power supply to all these generating plants either at Low Tension (LT) or at High Tension (HT) as desired by the power producer/ Developer for maintenance, startup operations and lighting purpose. The tariff for these plants shall be equal to Green Energy tariff (for FY 2016-17, the tariff is Rs 11.32/unit without any fixed charges and minimum charges) determined in the relevant Tariff Orders from time to time.</i></b> The DISCOMs shall file tariff proposals under section 62 of the Electricity Act, 2003 in the ARR proposals of FY 2017-18, for supply of electricity to the generating plants.</p>	<p>The mentioned clause deals with drawl of power by the power plant for maintenance, startup operation and lighting purpose. The Hon’ble commission has decided to fix a tariff of Rs. 11.32/kWh without any fixed charges and minimum charges.</p> <p>With respect to same we would like to draw the kind attention to fact that as per the prevailing tariff order consumer Category “Green Energy” is optional and consumers who wishes to use renewable energy, can avail supply electricity under the category. The tariff charged is exceptionally high (more than 200%) as compared to present tariff offered by plants based on renewable energy sources in the ongoing bids conducted by the states. Charging such a high tariff will affect the viability of projects and it will be unjust to the generators if they are supplied electricity under a consumer category which is optional in nature for others.</p> <p>We would also like to point out that Ministry of New and Renewable Energy in its amended standard bidding guidelines for solar projects has stated:</p> <p><b>“13.9. Net Metering: There shall be net-metering concept that means <b>whatever power is being imported by the SPD during the time when plant is not generating shall be deducted from the export of power and the net power shall be billed at the applicable rate. i.e., Export and Import of electricity by the plant shall be billed at the same rate.</b>”</b></p> <p>Section 63 of the Act states that:</p> <p>“Notwithstanding anything contained in section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding</p>
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			<p>in accordance with the guidelines issued by the Central Government.”</p> <p><b>In view of above we request the Hon’ble commission allow such renewable plants to be billed under net metering basis as has also been suggested by the Central Government in the guidelines issued by it.</b></p>
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