

# TAMIL NADU ENERGY DEVELOPMENT AGENCY

## Tamil Nadu Solar Energy Policy 2012

Sl. No.	Description	Summary																														
1.	<b>Order</b>	Approved by Govt. of Tamilnadu vide no. GO(Ms)No.121/Energy(C2) dt. 19-10-2012																														
2.	<b>Technology</b>	Solar Power Project																														
3.	<b>Nodal Agency</b>	Tamil Nadu Energy Development Agency (TEDA)																														
4.	<b>Objective &amp; Target</b>	<ul style="list-style-type: none"> <li>To achieve energy security</li> <li>To reduce carbon emission</li> <li>To project Tamil Nadu as a Solar Hub</li> <li>To promote Research and Development in the Solar energy sector and hybrid systems</li> <li>To create skilled man power and employment in this area</li> <li>To generate 3000MW of Solar energy and achieve grid parity by 2015</li> </ul>																														
5.	<b>Potential</b>	<ul style="list-style-type: none"> <li>Tamil Nadu has reasonably high Solar insolation (5.6-6.0 kWh/m<sup>2</sup>/day) with around 300 clear sunny days in a year.</li> </ul>																														
6.	<b>Solar Purchase Obligation (SPO)</b>	<ul style="list-style-type: none"> <li>Tamil Nadu will mandate 6% SPO (starting with 3% till December 2013 and 6% from January 2014) for the following category consumers: <ul style="list-style-type: none"> <li><b>(a) HT consumers (HT Tariff I to V)</b> This category will cover all HT consumers including <ul style="list-style-type: none"> <li>(i) Special Economic Zones (SEZs)</li> <li>(ii) Industries guaranteed with 24/7 power supply</li> <li>(iii) IT parks, Telecom Towers</li> <li>(iv) All colleges &amp; Residential Schools</li> <li>(v) Buildings with a built up area of 20,000 sq.m or more</li> </ul> </li> <li><b>(b) LT Commercial (LT Tariff V)</b> <b>Categories exempted from SPO</b> <ul style="list-style-type: none"> <li>(i) Domestic consumers</li> <li>(ii) Huts</li> <li>(iii) Cottage and Tiny Industries</li> <li>(iv) Powerlooms</li> <li>(v) Lt industrial consumers</li> <li>(vi) Agricultural consumers</li> </ul> </li> </ul> </li> <li>SPO to be administered by TANGEDCO. The above obligated consumers may fulfill their SPO by: <ul style="list-style-type: none"> <li>(i) Generating captive Solar power in Tamil Nadu equivalent to or more than their SPO</li> <li>(ii) Buying equivalent or more than their SPO from a third party developers</li> <li>(iii) Buying RECs generated by Solar Power Projects equivalent to or more than their SPO</li> <li>(iv) Purchasing power from TANGEDCO at Solar Tariff</li> <li>(v) Consumers desirous to avail SPO exemption by captive Solar generation shall necessarily install separate meters to measure their captive generation. This mechanism will require generation of 1000 MW by 2015</li> </ul> </li> </ul>																														
7.	<b>Mechanism to Generate 3000MW by 2015</b>	<ul style="list-style-type: none"> <li>3000 MW of Solar power to be achieved through Utility Scale Projects, Rooftops, and under REC mechanism as follows: <table border="1" data-bbox="570 1566 1442 1827"> <thead> <tr> <th>Year</th> <th>Utility Scale (MW)</th> <th>Solar Roof Tops (MW)</th> <th>REC (MW)</th> <th>Total (MW)</th> </tr> <tr> <td></td> <td>(a)</td> <td>(b)</td> <td>(c)</td> <td>(a)+(b)+(c)</td> </tr> </thead> <tbody> <tr> <td>2013</td> <td>750</td> <td>100</td> <td>150</td> <td>1000</td> </tr> <tr> <td>2014</td> <td>550</td> <td>125</td> <td>325</td> <td>1000</td> </tr> <tr> <td>2015</td> <td>200</td> <td>125</td> <td>675</td> <td>1000</td> </tr> <tr> <td><b>Total</b></td> <td><b>1500</b></td> <td><b>350</b></td> <td><b>1150</b></td> <td><b>3000</b></td> </tr> </tbody> </table> </li> <li>In utility scale out of 1500MW, 1000MW will be funded through SPO and balance 500MW through Generation Based Incentive (GBI) provided by the Govt.</li> </ul>	Year	Utility Scale (MW)	Solar Roof Tops (MW)	REC (MW)	Total (MW)		(a)	(b)	(c)	(a)+(b)+(c)	2013	750	100	150	1000	2014	550	125	325	1000	2015	200	125	675	1000	<b>Total</b>	<b>1500</b>	<b>350</b>	<b>1150</b>	<b>3000</b>
Year	Utility Scale (MW)	Solar Roof Tops (MW)	REC (MW)	Total (MW)																												
	(a)	(b)	(c)	(a)+(b)+(c)																												
2013	750	100	150	1000																												
2014	550	125	325	1000																												
2015	200	125	675	1000																												
<b>Total</b>	<b>1500</b>	<b>350</b>	<b>1150</b>	<b>3000</b>																												

Sl. No.	Description	Summary												
8.	<b>Renewable Energy Certificate (REC )</b>	All the obligated entities committed to meet SPO will necessarily have to either produce Solar power (captive) or buy Solar power from Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) or purchase Solar RE Certificates for an equivalent quantity through the Power Exchange from the Promoters who have tradable RE Certificates. Under this mechanism Solar power promoters are eligible to possess one tradable RE Certificate per every 1000 units of energy (1 MWh) wheeled to the Distribution utility or to any other licensee.												
9.	<b>CDM Benefits</b>	All Solar power producers are eligible to avail of the Clean Development Mechanism (CDM) benefits to enhance the viability of the projects.												
10.	<b>Power Evacuation Facilities</b>	Projects to evacuate power at suggested voltages: <table border="1" data-bbox="527 583 1458 814"> <thead> <tr> <th>Solar PV System Size</th> <th>Grid Connected</th> </tr> </thead> <tbody> <tr> <td>&lt;10kWp</td> <td>240V</td> </tr> <tr> <td>&lt;10kWp to &lt;15kWp</td> <td>240V/415V</td> </tr> <tr> <td>&lt;15kWp to &lt;50kWp</td> <td>415V</td> </tr> <tr> <td>&lt;50kWp to &lt;100kWp</td> <td>415V</td> </tr> <tr> <td>&gt;100kWp</td> <td>11kV</td> </tr> </tbody> </table>	Solar PV System Size	Grid Connected	<10kWp	240V	<10kWp to <15kWp	240V/415V	<15kWp to <50kWp	415V	<50kWp to <100kWp	415V	>100kWp	11kV
Solar PV System Size	Grid Connected													
<10kWp	240V													
<10kWp to <15kWp	240V/415V													
<15kWp to <50kWp	415V													
<50kWp to <100kWp	415V													
>100kWp	11kV													
11.	<b>Wheeling and Banking Charges</b>	Banking charges for wheeling of power generated from the Solar Power Projects, to the desired locations for captive use/third party sale within the State will be as per the orders of the TNERC.												
12.	<b>Exemption from Payment of Electricity Tax</b>	100% of electricity generated from solar power used for self consumption/sale to utility, allowed for 5 years												
13.	<b>Tax Concession</b>	As per TN Industrial Policy												
14.	<b>Single Window Clearance (TEDA)</b>	Various statutory clearances that are essential for the development and commissioning of Solar Energy Projects will be handled by TEDA in co-ordination with the concerned departments/agencies. Guaranteed single window clearance will be provided through TEDA in 30 days so that the plants can be commissioned in less than 12 months.												
15.	<b>In-principle Clearance</b>	Empowered Committee: An Empowered Committee under the Chairmanship of the Honourable Minister for Electricity will accord project clearances for the establishment of solar power projects to be bid out in the State												
16.	<b>Other Promotional Schemes</b>	<ul style="list-style-type: none"> <li>• Development of Solar Parks: Utility scale Solar parks may comprise 250 MW in sizes of 1 to 5 MW, 600 MW in sizes of 5 to 10 MW and 650 MW of sizes above 10 MW.</li> <li>• Solar Power projects will be developed through competitive/reverse bidding. Solar Parks with a capacity of about 50 MW each will be targeted in 24 districts.</li> <li>• Net metering: - Net metering will be allowed (at multiple voltage levels) to promote rooftop penetration. - Net metering facility will be extended to Solar power systems installed in commercial establishments and individual homes connected to the electrical grid to feed excess power back to the grid with "power credits" accruing to the Photovoltaic energy producer.</li> <li>• Domestic rooftop GBI: All domestic consumers will be encouraged to put up roof-top Solar installations. A generation based incentive (GBI) of Rs 2/unit for first two years, Re 1/ unit for next two years and Re 0.5/unit for subsequent 2 years will be provided for all Solar or Solar-Wind hybrid rooftops being installed before 31st march, 2014. A capacity addition of 50MW is targeted under this scheme. Consumers desirous of availing GBI shall necessarily install separate meters to measure rooftop generation.</li> <li>• <b>Solar water heating system:</b> <ul style="list-style-type: none"> <li>– Use of Solar water heating system mandatory for new house/building/marriage halls/hotels etc by amending relevant Acts of Municipalities/Corporations</li> <li>– Installation of Solar water heating will be made mandatory for industries having hot water boiler/steam boiler using fossil fuel.</li> </ul> </li> </ul>												

<b>Sl. No.</b>	<b>Description</b>	<b>Summary</b>
<b>17.</b>	<b>Exemption from Demand cut</b>	Exemption from demand cut to the extent of 100%of the installed capacity assigned for captive use purpose will be allowed
<b>18.</b>	<b>Facilitation by Nodal Agency</b>	<ul style="list-style-type: none"> <li>• All statutory clearances from Govt. Departments/Agencies</li> <li>• Evacuation approval from State Transmission Utility (STU)</li> <li>• Connectivity to the substation of STU</li> <li>• Common clearances from TNPCB etc., whenever feasible for providing plug and play facility to Solar developers.</li> </ul>
<b>19.</b>	<b>Plant and Machinery</b>	Only new plant and machinery are encouraged as per international standards. Machineries and components will be approved either by MNRE, GoI or by approved test centres in India / International test houses. Plant / machineries with Plant Load factor as per latest standards will be approved.
<b>20.</b>	<b>Incentives to Manufacturers</b>	Appropriate tax incentives as per Tamil Nadu Industrial Policy will be provided to attract investors from India and abroad.