

GOVERNMENT OF NCT OF DELHI

Draft Delhi Solar Energy Policy, 2015 Dated 10th September, 2015

Sl. No.	Description	Summary
1.	Title	<ul style="list-style-type: none"> • Draft Delhi Solar Energy Policy, 2015 Dated 10th September, 2015 • Policy to be applicable for any solar energy generating system with a capacity of 1 kWp or more
2.	Operative Period	Policy to come into effect on 1 st October 2015 and remain valid for next five years unless modified or superseded by other policy
3.	Abbreviations	As per policy
4.	Objectives	<ul style="list-style-type: none"> • To reduce reliance on unsustainable energy and increase energy security • To Promote rapid growth of rooftop solar power • Encourage market-based approach and public-private partnerships to drive demand and adoption, with minimal use of State government subsidies. • Develop initiatives to raise public awareness of solar energy in Delhi. • Ensure fairness for all stakeholders in the solar ecosystem, including rooftop owners, DISCOMS, investors, consumers of non-solar power, technology and services providers. • Use regulatory mechanisms to drive demand and adoption, i.e. mandating solar plant deployments on government rooftops etc. • Promote net metering and grid-connectivity for all solar plants. • Generate employment in the solar energy sector through skill development. • Provide generation-based incentives for the domestic segment where solar power costs are yet to achieve parity for most users, as well as tax exemptions and waivers. • Promote a robust investment climate that enables multiple financial models, from self-owned (CAPEX) to third-party owned (RESCO) models. • Facilitate access to loans at preferential interest rates through various schemes • Establish policy implementation, monitoring and compliance framework to for efficient execution and periodic review of the Policy. • Develop solar energy as part of an overall strategy of providing affordable, reliable, 24x7 power to all citizens
5.	Legislative framework for policy	<ul style="list-style-type: none"> • To help achieve solar capacity targets outlined in this Policy, Delhi Electricity Regulatory Commission (DERC) to determine annual Solar Renewable Purchase Obligation (RPO) targets for the DISCOMS, separate from the non-Solar RPO targets. • Annual Solar RPO targets must be at a commensurate level with the target capacities of this Policy. • DISCOMS must source at least 75% of their RPO targets within the state of Delhi. All solar energy generated at a net metered connection site in a DISCOM's territory to count towards that DISCOM's RPO target. • In case a DISCOM fails to comply with the above RPO mandates, penalties specified by DERC for such non-compliance to be strictly enforced. <p>For more Details refer the Policy</p>
6.	Eligible entities	Policy to apply to all electricity consumers under all electricity tariffs in Delhi and to all entities that setup and operate Power plants in Delhi
7.	Nodal Agency	Energy Efficiency and Renewable Energy Management Centre (EE&REM)

8.	Target capacity	<ul style="list-style-type: none"> To achieve solar power generation targets, Policy mandates solar installations to be completed within 5 years on all government-owned rooftops State aims to implement minimum targets, elaborated below, within the Operative Period: <table border="1" data-bbox="602 327 1458 808"> <thead> <tr> <th>Fiscal Year</th> <th>New Solar Energy (MW)</th> <th>Cumulative Solar Energy (MW)</th> <th>Annual Growth (%)</th> <th>Percentage of Peak grid load</th> <th>Percentage of total electricity consumption</th> </tr> </thead> <tbody> <tr> <td>FY 16</td> <td>30</td> <td>35</td> <td>700%</td> <td>1%</td> <td>0.15%</td> </tr> <tr> <td>FY 17</td> <td>84</td> <td>119</td> <td>240%</td> <td>2%</td> <td>0.56%</td> </tr> <tr> <td>FY 18</td> <td>193</td> <td>312</td> <td>162%</td> <td>5%</td> <td>1.43%</td> </tr> <tr> <td>FY 19</td> <td>294</td> <td>606</td> <td>94%</td> <td>9%</td> <td>2.66%</td> </tr> <tr> <td>FY 20</td> <td>385</td> <td>991</td> <td>63%</td> <td>14%</td> <td>4.16%</td> </tr> <tr> <td>FY 21</td> <td>285</td> <td>1275</td> <td>29%</td> <td>17%</td> <td>5.10%</td> </tr> <tr> <td>FY 22</td> <td>228</td> <td>1503</td> <td>18%</td> <td>19%</td> <td>5.73%</td> </tr> <tr> <td>FY 23</td> <td>187</td> <td>1690</td> <td>12%</td> <td>20%</td> <td>6.14%</td> </tr> <tr> <td>FY 24</td> <td>161</td> <td>1850</td> <td>10%</td> <td>21%</td> <td>6.40%</td> </tr> <tr> <td>FY 25</td> <td>145</td> <td>1995</td> <td>8%</td> <td>21%</td> <td>6.57%</td> </tr> </tbody> </table>	Fiscal Year	New Solar Energy (MW)	Cumulative Solar Energy (MW)	Annual Growth (%)	Percentage of Peak grid load	Percentage of total electricity consumption	FY 16	30	35	700%	1%	0.15%	FY 17	84	119	240%	2%	0.56%	FY 18	193	312	162%	5%	1.43%	FY 19	294	606	94%	9%	2.66%	FY 20	385	991	63%	14%	4.16%	FY 21	285	1275	29%	17%	5.10%	FY 22	228	1503	18%	19%	5.73%	FY 23	187	1690	12%	20%	6.14%	FY 24	161	1850	10%	21%	6.40%	FY 25	145	1995	8%	21%	6.57%
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9.	Implementation plan	<p>GNCTD to promote installation of solar power plants(SPP) under all consumer segments and categories to realize the aforesaid minimum targets.</p> <p>I. Grid connected solar rooftop plants</p> <ul style="list-style-type: none"> State to promote development of grid-connected solar plants on rooftops for meeting own electricity needs and injecting surplus electricity into the distribution grid. Grid-connectivity to comply with “DERC (Net Metering for Renewable Energy) Regulations, 2014” and DERC’s “Terms and Conditions for Determination of Tariff for Procurement of Power for Grid-connected Solar Photovoltaic Power Projects” 2013. <p>i. Group Net Metering</p> <p>To encourage solar plants on rooftops of buildings that cannot consume all the energy generated locally, DISCOMS to facilitate Group Net Metering</p> <p>ii. Virtual Net Metering</p> <ul style="list-style-type: none"> To give access to the solar net metering facility for consumers who do not have a suitable roof for installing a solar system (e.g. residential consumers who live in apartments, consumers with shaded rooftops) State government to work with DERC to approve and announce Virtual Net Metering for all consumers not later than 1 April 2017. <p>II. Generation and sale of electricity to persons other than DISCOM</p> <p>State Nodal Agency to extend support for the implementation of SPPS and sale of electricity generated to a Person other than the Distribution Licensee, or DISCOM.</p> <p>III. Solar power plants under schemes announced by Govt. of India</p> <ul style="list-style-type: none"> State to assist solar project developers participating in schemes announced by MNRE to promote solar plants. SNA to submit to MNRE the recommendations necessary to finalize such schemes in consultations with all stakeholders, including DISCOMS DERC to announce framework for implementation of such schemes <p>IV. Solar power plants under REC mechanism</p> <ul style="list-style-type: none"> State to promote development of solar power plants under the renewable energy certificate (REC) mechanism specified by the Central Electricity Regulatory Commission (CERC). SNA to extend support for accreditation of SPP and for recommending its registration with the Central Agency as per directions given by DERC 																																																																		

10.	Promotional policy for grid connected rooftop solar system	<ul style="list-style-type: none"> • State to encourage implementation of grid connected solar plants as outlined below. • All grid connected solar plants to comply with applicable CEA (Grid Standards) Regulations, 2013 and other applicable rules, regulations, and guidelines as amended from time to time <p>I. Government / public institutions</p> <ul style="list-style-type: none"> • State mandates deployment of solar plants with net metering on all existing, upcoming, or proposed buildings of government organisations, government owned or aided hospitals, schools and other educational/research institutes, hostels and training institutes • It will be mandatory for all such government buildings with a minimum shadow free rooftop area of 50 m² to install a solar PV plant with a minimum capacity (kWp) computed as follows: $Capacity\ in\ kWp = (Total\ shadow\ free\ rooftop\ area \times 75\%) / 12$. • Deployment of SPPs on all State government properties to be carried out in a phased manner, to be completed within the Operative Period of the Policy. <p>II. Commercial and Industrial establishments</p> <p>State to encourage deployment of solar plants with net metering on all commercial and industrial buildings with available rooftop areas</p> <p>III. Residential consumers</p> <ul style="list-style-type: none"> • State to encourage installation of SPP with net metering on all residential buildings, colonies, townships, housing societies, private bungalows, farm houses, etc. • All development agencies (private and public, including DDA and PWD) and the Municipal Corporations of Delhi to facilitate deployment of SPP
11.	Generation Based Incentives (GBI)	<ul style="list-style-type: none"> • State to offer a limited-time GBI for net metered connections in the domestic/residential of INR 2.00 per unit of gross solar energy generated, proposed for 3 years, starting from 1st January 2016 to 31st December 2018. • Minimum eligibility criteria for GBI to be 1,000 solar energy units generated per annum. Annual generation eligible for GBI to be capped at 1,500 kWh per kWp, irrespective of the readings of the solar generation meter. • Funds for the disbursement of GBI to come from a Green Fund established by the State of Delhi for promoting solar energy. • SNA to be responsible for managing this Green Fund.
12.	Other incentives	<ul style="list-style-type: none"> • Exemption from the payment of Electricity Tax and Cess • Exemption on open access charges • Exemption on conversion charges • Exemption on wheeling and banking charges • Exemption from payment of Cross subsidy charges • No Transmission Charges • Exemption on VAT and entry tax All solar panels, inverters, energy meters, and other devices purchased for the installation of solar plants in Delhi shall be exempted from VAT and entry tax during the Operative Period. • Must Run status All solar power systems to be treated as 'Must Run' power plants and not subjected to Merit Order Rating /Merit Order Dispatch principles. • CDM (Clean Development Mechanism) benefit <ul style="list-style-type: none"> • All risks, costs, and efforts associated with the availing of carbon credits to be borne by the solar energy generating entity. • Generating entity to retain the entire proceeds of carbon credit, if any, from an approved CDM project. • Building bylaws amendment for rooftop solar installations State to advise the Municipal Corporations and local Urban Bodies for making suitable amendments in the existing building bylaws to encourage installation of solar plants. The following advisories to be issued by the GNCTD for this purpose – <ul style="list-style-type: none"> • Height of the module structure carrying solar panels to be not counted towards the total height of the building as permitted by building bylaws, except near airports where building regulations issued by the Airports Authority of India take precedence. • No approval required from Municipal Corporation/ Urban Development Bodies like the DDA for putting up solar plants in existing/ new buildings. • The support structure on which rooftop solar panels are installed shall be a temporary structure.

13.	Role of the State Nodal Agency (EE&REM)	<p>State Nodal Agency to facilitate Eligible Entities in implementing the solar plant to provide single-window services and undertake following activities:</p> <ul style="list-style-type: none"> • Announcement of solar policy, amendments, and related schemes • Allotment of the solar power capacities • Facilitation in development of solar projects • Support in establishing protocols/procedures for easy adoption of solar power • Maintain a website for consumers interested in Rooftop Solar • Identification of Sites for Deployment of Rooftop Solar Power Plants • Management of the Green Fund and Disbursement of the GBI • Support in availing Subsidies • Amendment in Bylaws • Capacity Building, Awareness Creation, Green Fund Management. • Budgetary Support from State Government as necessary.
14.	Role of DISCOMS	<ul style="list-style-type: none"> • DISCOMS to support SPPs installation and their connectivity with their grid network. • DISCOMS to comply with the regulatory framework specified by the DERC and provisions contained in this Policy • To promote online applications for net metering and display online status of all net metering applications received, whether online or offline. • DISCOM to maintain a database of net metering application requests, approval status, installation and commissioning data, which will be submitted to the SNA on a quarterly basis.
15.	Role of IPGCL	<p>In collaboration with the State Nodal Agency, IPGCL will:</p> <ul style="list-style-type: none"> • Aggregate capacity on government rooftops, float tender and manage the entire bidding process. • Perform technical and commercial evaluation of the bid, select the most suitable bidder, and ensure their compliance with technical standards. • Facilitate signing of the PPA between the consumer and the winning bidder. • Monitor and supervise the timely completion of the entire rooftop solar project. • No parallel operation charges to be levied on RE projects.
16.	Role of Consumer and Solar Plant Developer	<ul style="list-style-type: none"> • Consumer having rooftop solar plants with PPA, to provide convenient and periodic rooftop access to RESCO. • Consumer to retain full physical ownership of the rooftop and ensure reasonable security to visiting service staff. • Before commissioning a power plant of capacity up to 150 KWp, consumer to submit a release form to DISCOM certifying that the installer performed routine safety checks and verifications. • SNA authorized to perform onsite checks on solar installations.
17.	Metering and billing arrangements	<ul style="list-style-type: none"> • Consumers with solar net metering service connections to have bidirectional vector summation service connection energy meters that record and display the imported and exported active and reactive energy in separate registers. • Bidirectional meter to have the same (or better) accuracy, capacity and functionalities as the existing service connection meter. • Metering and billing arrangement to comply with DERC Net Metering Regulations and Guidelines, Central Electricity Authority (Installation and Operation of Meters) Regulations and its amendments, as applicable.
18.	Evacuation facility and connectivity to the electricity system	<ul style="list-style-type: none"> • Evacuation voltage as per directives issued by DERC • Evacuation infrastructure to be developed/augmented by the State Transmission Licensee/DISCOM. • Connectivity of solar plants with the electrical grid at 33 kV and above to be as per DERC Net Metering Regulations and Guidelines, Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 and below 33 kV with CEA (Technical Standards for Connectivity of Distributed Generation Resources) Regulations, 2013, as amended

19.	Monitoring of parameters	<ul style="list-style-type: none">• Developers with solar plants above 1 MW capacity to install necessary equipment to monitor solar irradiance, wind speed, ambient air temperature, and electricity generated and injected into the electricity system or self-consumed from the solar plant.• Monitoring report to be submitted to SNA on regular time period for the useful life of the plant.• SNA to develop necessary infrastructure to record such parameters.
20.	Empowered committee	To oversee, monitor and resolve various issues arising out of this Policy, an Empowered Committee to be constituted under the chairmanship of the Chief Secretary of the GNCTD.