



सत्यमेव जयते

GOVERNMENT OF GUJARAT

ENERGY AND PETROCHEMICALS DEPARTMENT

G.R. NO. SLR-11-2015-2442-B

SACHIVALAYA, GANDHINAGAR

Dated the 13th August 2015

GUJARAT SOLAR POWER POLICY-2015



TABLE OF CONTENTS

1	PREAMBLE	3
2	VISION	3
3	OBJECTIVES	3
4	TITLE	4
5	OPERATIVE PERIOD	4
6	ABBREVIATIONS AND DEFINITIONS	4
7	INSTALLED CAPACITY	5
8	ELIGIBLE ENTITY	6
9	PROJECT-BASED PROVISIONS AND INCENTIVES.....	6
9.1	ROOFTOP SOLAR PV SYSTEMS WITH NET METERING	6
9.1.1	<i>Eligible Entity for Rooftop PV system with net metering</i>	<i>6</i>
9.1.2	<i>For Residential and Government Consumers.....</i>	<i>6</i>
9.1.3	<i>For Industrial, Commercial and Other Consumers.....</i>	<i>7</i>
9.2	SOLAR PROJECTS WITH SALE OF POWER TO DISCOMS	9
9.3	SOLAR PROJECTS UNDER REC MECHANISM WITH SALE OF POWER TO DISCOMS AT APPC	11
9.4	SOLAR PROJECTS WITH SALE OF POWER UNDER NSM	12
9.5	SOLAR PROJECTS WITH SALE OF POWER TO THIRD PARTY UNDER OPEN-ACCESS.....	14
9.6	SOLAR PROJECTS FOR CAPTIVE CONSUMPTION	9
9.7	AGRICULTURE SOLAR PUMPS.....	16
9.8	STAND-ALONE PV SYSTEMS AND HOME LIGHTING SYSTEM	16
9.9	CANAL-TOP AND CANAL-BANK SOLAR PV PROJECTS	16
9.10	TECHNOLOGY DEMONSTRATION PROJECTS.....	17
9.11	OTHER SCHEMES.....	17
10	LAND FOR SOLAR PROJECTS	17
11	GRID CONNECTIVITY AND EVACUATION FACILITIES.....	17
11.1	GRID INTEGRATION.....	17
11.2	GRID CONNECTIVITY	18
11.3	EVACUATION FACILITIES	18
11.3.1	<i>Within Solar Park.....</i>	<i>18</i>
11.3.2	<i>Outside Solar Park</i>	<i>19</i>
12	METERING AND ENERGY RECORDING	19
13	SECURITY DEPOSIT	19
14	FORECASTING AND SCHEDULING.....	20
15	REACTIVE POWER.....	20
16	OPERATION AND MAINTENANCE OF DEDICATED LINES.....	20
17	RESTRICTIONS	20

18	STATE NODAL AND FACILITATING AGENCIES.....	21
18.1	STATE NODAL AGENCY.....	21
18.2	FACILITATING AGENCY.....	21
19	OTHER RELEVANT POLICIES AND INCENTIVES.....	21
19.1	GUJARAT INDUSTRIAL POLICY 2015.....	21
19.2	ELECTRONICS POLICY FOR THE STATE OF GUJARAT (2014-19).....	21
19.3	MODIFIED SPECIAL INCENTIVE PACKAGE SCHEME (M-SIPS) OF GOVERNMENT OF INDIA	21
20	REGULATION	21
21	MID-TERM REVIEW	21
22	POWER TO REMOVE DIFFICULTIES.....	22



The Sun at Tithal Beach, Surat.

1 PREAMBLE

1.1 The State of Gujarat (the “State”) intends to increase the share of renewable energy, particularly solar energy in its energy basket. It is with this intention that the State launched the Gujarat Solar Policy-2009, for which it received a very enthusiastic response. The policy resulted in a cumulative solar capacity in excess of 1000 megawatts (MW) with investment of about INR 9,000 crores. This policy also witnessed setting up India’s first and Asia’s largest Solar Park at Charanka in Patan District, and the country’s first MW scale canal-top solar plant at Chandrasan in Mehsana District of Gujarat.

1.2 The Government of Gujarat (the “State Government”) has also acknowledged the fact that power from renewable sources is, at present, significantly more expensive than those generated from conventional sources like coal-based power plants. The increase of renewable energy in the total energy basket has to be done in a manner that does not add undue burden to the Consumers in the State. Therefore, this Solar Power Policy-2015 (this “Policy”) is intended to facilitate and promote large scale addition of solar power generation

capacities in Gujarat while taking into account the interest of all its stakeholders, such as the Investors, Developers, Technology Providers, Power Utilities, Grid Operators and the Consumers.

2 VISION

The State Government envisions a future with reduced dependence on fossil-based energy by promoting renewable energy sources. The State recognizes that renewable energy can also significantly increase the State’s and the Nation’s energy security. Above all, it is the vision of the State Government to provide a clean and sustainable environment for its Citizens.

3 OBJECTIVES

Gujarat is rich in solar energy resource with substantial amounts of barren and uncultivable land, solar radiation in the range of 5.5-6 kilowatt-hour (kWh) per square meter per day, an extensive power network and utilities with reasonably good operational efficiency. It has the potential for development of more than 10,000 MW of solar generation capacity. While Gujarat’s Solar Power Policy-2009 was framed to establish and jumpstart utility-scale solar power generation and the solar sector as a whole not only for the State but also for the Country, this Gujarat Solar Power Policy-

2015 aims to scale up the solar power generation in a sustainable manner.

Accordingly, the State Government introduces the 'Gujarat Solar Power Policy - 2015' with the following objectives:

- 3.1 To promote green and clean power and to reduce the State's carbon emission;
- 3.2 To reduce dependency on fossil fuels for energy security and sustainability;
- 3.3 To help reduce the cost of renewable energy generation;
- 3.4 To promote investment, employment generation and skill enhancement in the renewable energy sector;
- 3.5 To promote productive use of barren and uncultivable lands;
- 3.6 To encourage growth of local manufacturing facilities in line with the 'Make in India' programme;
- 3.7 To promote research, development and innovation in renewable energy.

RESOLUTION

4 TITLE

This Policy shall be known as the 'Gujarat Solar Power Policy-2015'.

5 OPERATIVE PERIOD

- 5.1 This Policy shall come into effect from date of its notification and shall remain in operation up to March 31, 2020.
- 5.2 Solar Power Generators (SPGs) installed and commissioned during the Operative Period shall become eligible for the benefits and incentives declared under this Policy, for a period of 25 years from their date of

commissioning or for the lifespan of the SPGs, whichever is earlier.

6 ABBREVIATIONS AND DEFINITIONS

- 6.1 "ABT" means Availability Based Tariff.
- 6.2 "Act" means Electricity Act 2003, including amendments thereto.
- 6.3 "ALDC" means Area Load Dispatch Centre.
- 6.4 "APPC" means Average (Pooled) Power Purchase Cost.
- 6.5 "C" means project capacity in kW/MW.
- 6.6 "CDM" means Clean Development Mechanism.
- 6.7 "CEA" means Central Electricity Authority.
- 6.8 "Central Agency" means National Load Dispatch Centre (NLDC) as designated by CERC for the purpose of REC regulations.
- 6.9 "CERC" means Central Electricity Regulatory Commission of India.
- 6.10 "CTU" means Central Transmission Utility.
- 6.11 "DisCom" means Distribution Licensee.
- 6.12 "Facilitating Agency-(ies)" means Gujarat Power Corporation Limited (GPCL) or any other agency notified by State Government for development of Solar Parks/ solar projects.
- 6.13 "GERC" means Gujarat Electricity Regulatory Commission.
- 6.14 "GoI" means Government of India.
- 6.15 "Government/ State Government" means Government of Gujarat.
- 6.16 "GUVNL" means Gujarat Urja Vikas Nigam Limited.
- 6.17 "INR" means Indian Rupee.
- 6.18 "kV" means kilovolt.

- 6.19 “kW” means kilowatt.
- 6.20 “kWh” means kilowatt hour.
- 6.21 “MNRE” means Ministry of New and Renewable Energy, Government of India.
- 6.22 “MoP” means Ministry of Power.
- 6.23 “MW” means Megawatts.
- 6.24 “NSM” means National Solar Mission.
- 6.25 “NVVN” means NTPC VidyutVyapar Nigam.
- 6.26 “NPV” means Net Present Value.
- 6.27 “Obligated Entities” means entities obligated to fulfill the Renewable Power Purchase Obligation as prescribed by GERC
- 6.28 (This) “Policy” means Gujarat Solar Power Policy-2015.
- 6.29 “PPA” means Power Purchase Agreement.
- 6.30 “PV” means Photovoltaic(s).
- 6.31 “Renewable attribute” means renewable element of the solar energy used for meeting RPO by obligated entity or for generation of REC.
- 6.32 “REC” means Renewable Energy Certificate.
- 6.33 “RPO/ RPPO” means Renewable (Power) Purchase Obligation, which may also imply Solar Power Purchase Obligation for the purpose of this Policy.
- 6.34 “RTU” means Remote Terminal Unit.
- 6.35 “SECI” means Solar Energy Corporation of India.
- 6.36 “SLDC” means State Load Dispatch Centre.
- 6.37 “State Nodal Agency (SNA)” means

Gujarat Energy Development Agency (GEDA).

- 6.38 “Solar Park” means contiguous area for development of solar power generation projects, having aggregate capacity of 100 MW or more, and notified as such by Government of Gujarat.
- 6.39 “Solar Park Developer” means a person who develops and/ or maintains Solar Parks and also creates and/ or maintains common infrastructure facilities.
- 6.40 “Developer/ Solar Power Developer” means an entity that makes an investment for setting up solar power project and generating electricity from solar energy.
- 6.41 “SPG” means Solar Power Generator.
- 6.42 “State” means State of Gujarat.
- 6.43 “State Transmission Utility (STU)” means Gujarat Energy Transmission Corporation Limited (GETCO).

7 INSTALLED CAPACITY

The Government of Gujarat anticipates maximum participation from Investors in setting up MW-scale solar projects under solar photovoltaic (PV) and solar thermal technologies. Besides, kilowatt (kW)-scale solar projects in the form of solar rooftop systems shall be encouraged during the Operative Period of this Policy. The installation capacity targets for the StateDiscoms shall be as per the renewable power purchase obligation (RPO) defined by the Gujarat Electricity Regulatory

Bird-eye view, Charanka Solar Park, Patan.



Commission (GERC), from time to time. Further, the State proposes to undertake necessary activities and become an integral part of the National Solar Mission (NSM) in order to help the mission meet its goals. The minimum size of a MW-scale project shall be 1 MW and that for a kW-scale project shall be 1 kW.

8 ELIGIBLE ENTITY

Any company or body corporate or association or body of individuals, whether incorporated or not, or artificial juridical person shall be eligible for setting up of SPGs, either for the purpose of captive use and/ or for selling of electricity to the Distribution Licensee/ Third Party whether or not under the renewable energy certificate (REC) mechanism in accordance with the Electricity Act-2003, as amended from time to time.

The entity desiring to set up a solar power project shall submit a proposal, with requisite details to the State Nodal Agency (SNA), as may be specified by the SNA, for qualifying for the benefits/facilitation under this Policy.

9 PROJECT-BASED PROVISIONS AND INCENTIVES

9.1 Rooftop Solar PV Systems with Net Metering

The State will facilitate rooftop solar PV systems with net metering on government, residential, industrial and commercial buildings.

9.1.1 Eligible Entity for Rooftop PV system with net metering

In addition to the general eligibility defined in Section 8 of this Policy, the Eligible Entity for the rooftop solar PV systems with net metering shall:

- i. own the rooftop solar PV system;
- ii. own or be in legal possession of the premises including the rooftop or terrace on which the entity intends to install the PV system including the PV modules;
- iii. be a Consumer of the local DisCom, and the premises where the entity intends to set up the rooftop photovoltaic system shall be connected to the DisCom's grid; and
- iv. consume all of the electricity generated from the rooftop solar PV system at the same premise. If the Consumer is not able to consume all of the generated electricity in the same premise, relevant provisions defined in this Policy shall be applicable to the generated surplus electricity.

9.1.2 For Residential and Government Consumers

The following provisions shall be applicable to Residential Consumers and Government Buildings:

CAPACITY	Up to a maximum of 50% of Consumer's sanctioned load.
TARIFF	<p><i>In case of net import:</i> Consumer's existing tariff shall apply.</p> <p><i>In case of net export:</i> Any surplus energy generated and exported after adjustment of consumption at the end of the billing cycle shall be purchased</p>

	by the concerned DisCom at APPC rate of the year in which the SPG is commissioned.
METERING	As per Central Electricity Authority (Installation & Operation of Meters) Amendment Regulations, 2014 as amended from time to time. Bi-directional meter of same accuracy class as the Consumer's meter existing before SPG installation shall be used.
DEMAND CUT	Not applicable.
TRANSMISSION CHARGE	Not applicable as energy is consumed at point of generation.
TRANSMISSION LOSS	Not applicable as energy is consumed at point of generation.
WHEELING CHARGE	Not applicable as energy is consumed at point of generation.
WHEELING LOSS	Not applicable as energy is consumed at point of generation.
ENERGY ACCOUNTING	Banking of energy shall be allowed within one billing cycle of the consumer.
ELECTRICITY DUTY	Exempted on the generated solar power.

CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE	Exempted on the generated solar power.
RPO	The generated energy from the SPG shall be credited towards meeting the DisCom's RPO.
REC	Not applicable as the generated solar energy shall be used to meet the DisCom's RPO.
CDM	100% retained by the Consumer.

9.1.3 For Industrial, Commercial and Other Consumers

Industrial, Commercial and Other Consumers shall be provided with two options for contractual arrangement as a part of promotion for rooftop solar systems:

Type 1: shall utilize only the 'energy' attribute of the generated solar energy from the rooftop solar PV system, and not utilize the 'renewable' attribute for RPO or REC.

Type 2: shall utilize both the 'energy' as well as the 'renewable attribute' of the generated solar energy.

Type 2(a) wherein the 'renewable attribute' would be used to meet the Consumer's RPO.

Type 2(b) wherein the 'renewable attribute' would be used to get RE certificate under REC Mechanism.

Rooftop PV installation, J M Bhavan, Gandhinagar.



CAPACITY	Up to a maximum of 50% of the sanctioned load/ contract demand of the Consumer.		<u>Type 2 Consumer:</u> ABT-compliant meter shall be used.
TARIFF	<p><u>For Type 1 Consumer:</u> <i>In case of net import:</i> Consumer's existing tariff shall apply.</p> <p><i>In case of net export:</i> surplus solar energy generated and exported after adjustment of consumption at the end of the billing cycle shall be purchased by the concerned DisCom at APPC rate of the year in which the SPG is commissioned.</p> <p><u>For Type 2 Consumer:</u> <i>In case of net import:</i> Consumer's existing tariff shall apply.</p> <p><i>In case of net export:</i> surplus solar energy generated and exported after adjustment of consumption in 15-minute time blocks shall be purchased by the DisCom at the APPC rate of the year in which the SPG is commissioned for Type 2 (a); and at 85% of APPC rate of the year in which the SPG is commissioned for Type 2(b).</p>	DEMAND CUT	Exemption from demand cut up to 50% of the installed solar capacity, wherever technically feasible.
		TRANSMISSION CHARGE	Not applicable as energy is consumed at point of generation.
		TRANSMISSION LOSS	Not applicable as energy is consumed at point of generation.
		WHEELING CHARGE	Not applicable as energy is consumed at point of generation.
		WHEELING LOSS	Not applicable as energy is consumed at point of generation.
		ENERGY ACCOUNTING	<p><u>For Type 1 Consumer:</u> Banking of energy shall be allowed within one billing cycle of the Consumer, wherein set-off may be given against energy consumed at any time of the billing cycle. However peak charges shall be applicable for consumption during peak hours.</p> <p><u>For Type 2 Consumer:</u> The solar energy generated shall be adjusted against consumption in a 15-minute time block. Surplus solar energy generated and exported during a 15-minute time block shall be purchased by the DisCom (i) for Type 2 (a) at the APPC rate of the year in which the SPG is commissioned and, (ii) for Type 2(b) at 85% of APPC rate of the year in which SPG is commissioned.</p>
METERING	<p>As per Central Electricity Authority (Installation & Operation of Meters) Amendment Regulations, 2014 as amended from time to time.</p> <p><u>Type 1 Consumer:</u> The bi-directional meter of same accuracy class as the Consumer's meter existing before SPG installation shall be used.</p>	ELECTRICITY DUTY	Exempted on the generated solar power.

CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE	<p><u>Type 1 Consumer:</u> Exempted on the generated solar power.</p> <p><u>Type 2 Consumer:</u> Exempted on the generated solar power</p>
RPO	<p><u>Type 1 Consumer:</u> All the solar energy generated by the SPG shall be credited towards meeting the concerned DisCom's RPO.</p> <p><u>Type 2 Consumer:</u> Type 2 (a) the solar energy generated and consumed by the Consumer during a 15-minute time block shall be credited towards meeting the Consumer's RPO. Surplus solar energy exported during the 15-minute time block and purchased by the DisCom shall be credited towards meeting the DisCom's RPO. Type 2(b) the solar energy generated in 15 time block shall be considered for getting RE Certificate.</p>
REC	<p><u>Type 1 Consumer:</u> Not applicable as the generated energy shall be credited towards meeting the DisCom's RPO.</p> <p><u>Type 2 Consumer:</u> Type 2 (a) The solar energy consumed by consumer during the 15-minute time block shall be credited towards meeting consumer's RPO. Type 2 (b) The SPG may avail RE certificate for entire net generation.</p>
CDM	100% retained by the Consumer/generator.

9.2 Solar Projects for Captive Consumption

Solar projects set up for captive use, both directly or under the REC mechanism.

CAPACITY	Up to a maximum of 50% of the contract demand of the Consumer.
TARIFF	<p>(i) Not applicable for self consumption.</p> <p>(ii) Any surplus solar energy not consumed by consumer as per Energy Accounting shall be purchased</p> <p>(a) at APPC rate of the year in which the SPG is commissioned if the renewable attribute on solar energy is given to Discom.</p> <p>(b) at 85% of APPC rate of the year in which the SPG is commissioned if renewable attribute is not given to the Discom.</p>
METERING	Using ABT-compliant meter, at receiving end of STU substation/ 11 kV system of DISCOM as case may be.
DEMAND CUT	Exemption from demand cut up to 50% of the installed capacity.
TRANSMISSION CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
TRANSMISSION LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING CHARGE	For the project not registered under REC – 50% of Wheeling charges applicable to normal Open-Access Consumer determined by GERC, as

	<p>amended from time to time.</p> <p>For the project registered under REC– Wheeling charges applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.</p>
WHEELING LOSS	<p>For the project not registered under REC – 50% of Wheeling losses as applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.</p> <p>For the project registered under REC– Wheeling losses as applicable to normal Open-Access Consumer determined by GERC, as amended from time to time</p>
ENERGY ACCOUNTING	<p>If not registered under REC mechanism:</p> <p>(i) Case 1: If the Consumer does not take renewable attribute of solar energy for meeting its RPO, banking of the energy shall be allowed within the Consumer's billing cycle, wherein set-off may be given during a billing cycle. However, peak charges shall be applicable for consumption during peak hours.</p> <p>(ii) Case 2 (a) : If the Consumer takes renewable attributes of the solar energy consumed for meeting its RPO, then energy accounting shall be based on 15 minute time block-basis.</p> <p>Case 2 (b) If registered under REC mechanism: Energy accounting shall be based on 15 minute time block-basis.</p>
ELECTRICITY DUTY	Exempted on the generated solar power

CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE	Exempted.
RPO	<p>(i) Case 1: If not registered under REC mechanism: If the Consumer does not use the renewable attribute of solar energy for meeting its RPO, the generated solar energy shall be used for meeting the DisCom's RPO.</p> <p>(ii) Case 2(a): Consumer who set up SPG for meeting its own RPO will get the RPO credit to the extent of the solar energy consumed by it. However, Discom shall get RPO credit for surplus solar energy (after 15 minutes cycle adjustment) purchased by it at APPC of the year in which the SPG is commissioned.</p> <p>Case 2 (b) If registered under REC mechanism: Not applicable, as REC will be claimed.</p>
REC	<p>If not registered under REC mechanism: Not applicable.</p> <p>If registered under REC mechanism: REC shall be claimed by the Developer, i.e. Consumer.</p>
CDM	100% retained by the Developer.

9.3 Solar Projects with Sale of Power to DisComs

DisComs, in order to meet their RPO, may purchase solar power, both PV and solar thermal, from Developers at a power purchase rate determined through competitive bidding.

CAPACITY	<i>Overall capacity: Based on year-</i>
----------	---

	on-year RPO targets set by GERC from time to time.
TARIFF	Shall be decided through competitive bidding.
METERING	Using ABT-compliant meter, at receiving end of STU substation/ of 11 kV systems of DISCOMs, as case may be.
DEMAND CUT	Not applicable.
TRANSMISSION CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
TRANSMISSION LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
ENERGY ACCOUNTING	Energy settlement shall be on a 15-minute time block-basis.
ELECTRICITY DUTY	Exempted on the generated solar power.

CROSS SUBSIDY SURCHARGE& ADDITIIONAL SURCHARGE	Exempted on the generated solar power.
RPO	The energy generated by the SPG and procured by the DisCom shall be credited towards the DisCom's RPO.
REC	Not applicable as the procured energy would be credited to the DisCom's RPO.
CDM	Since tariff is determined through Competitive bidding, the SPG shall retain 100% of the CDM benefits.

9.4 Solar Projects under REC Mechanism with Sale of Power to DISCOMs at APPC

Solar Developers may set up solar power projects under the REC mechanism. The Developers shall be required to apply for accreditation to the State Nodal Agency and thereafter to the Central Agency for registration and issuance of certificates under the REC mechanism. The administrative procedure, as decided by the Central Electricity Regulatory Commission (CERC), and as amended from time to time, shall be followed. The power generated from these projects maybe purchased through long term PPA by DisComsas

A PV Power Project at Charanka, Patan.



subject to their power requirement at APPC rate of the year in which the SPG is commissioned.

CAPACITY	<i>Overall capacity:</i> As determined by DisComs from time to time based on their energy requirement. <i>Minimum project size:</i> 250 kW, or as specified by REC Regulations.
TARIFF	APPC rate of the year in which the SPG is commissioned.
METERING	Using ABT-compliant meter, at receiving end of STU substation/ 11 kV system of DISCOMs as the case may be.
DEMAND CUT	Not applicable.
TRANSMISSION CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
TRANSMISSION LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
ENERGY ACCOUNTING	Accounting based on 15-minute time block-basis.
ELECTRICITY DUTY	Exempted on generated solar power.
CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE	Not applicable.
RPO	Not applicable as REC would be claimed by Solar Developer / SPG.

REC	Shall be claimed by Solar Developer/SPG.
CDM	As per GERC order, as amended from time to time.

9.5 Solar Projects with Sale of Power under NSM

Solar power projects may be set up under NSM with sale of power to SECI, NVVN, or any other such designated agencies.

CAPACITY	(i) In case power is exported outside the State / Sale of power to Discoms in the State - As specified in the scheme publicized by MNRE, SECI, NVVN, or any other such bid processing organization from time to time. (ii) In case power is sold within the State to the consumers – Up to a maximum of 50% of the sanctioned load/ contract demand of the Consumer.
TARIFF	(a) For sale to outside State or DISCOMS within State:- Determined through tariff-based Competitive bidding or any other determined tariff by the bid processing organization. (b) Sale to consumers within State: (i) Mutually agreed-upon tariff between the Developer and the buyer/Consumer for the energy consumed by buyer/consumer. (ii) Any surplus solar energy not consumed by buyer/consumer as per Energy Accounting shall be purchased by Discom (a) at APPC rate of the year in which the SPG is commissioned if renewable

	<p>attribute is given to Discom;</p> <p>(b) at 85% of APPC rate of the year in which the SPG is commissioned if renewable attribute is not given to the Discom.</p>
METERING	Using ABT-compliant meter, at receiving end of STU substation/ 11 kV system of DISCOM as the case may be.
DEMAND CUT	Not applicable.
TRANSMISSION CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
TRANSMISSION LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
ENERGY ACCOUNTING	<p>(1) Sale to outside state and Discoms within State: Accounting based on 15-minute time block-basis.</p> <p>(2) Sale to consumers within State:-</p> <p>(i) If not registered under REC mechanism:</p> <p>(i) Case 1: If the Consumer does not take credit of the generated solar energy for meeting its RPO and the Discom is given the renewable attributes, the adjustment of energy shall be allowed within the Consumer's billing cycle, wherein set-off may be given against energy</p>

	<p>consumed at any time of the billing cycle. However peak charges shall be applicable for consumption during peak hours.</p> <p>(ii) Case 2 (a) : If the Consumer takes renewable attribute of the solar energy consumed for meeting its RPO, then energy accounting shall be based on 15-minute time block-basis.</p> <p>(iii) Case-2 (b) If registered under REC mechanism: Energy accounting shall be based on 15-minute time block-basis.</p>
ELECTRICITY DUTY	Exempted on the generated solar power.
CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE	<p>(a) Not applicable if sale of power is outside State or to Discoms within the State.</p> <p>(b) Sale to consumers within State:</p> <p>(i) For the projects not registered under REC- 50% of surcharge as applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.</p> <p>(ii) For the projects registered under REC- as applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.</p>
RPO	<p>(a) For sale to outside State or DISCOMS within State: As specified in the scheme.</p> <p>(b) Sale to consumers within State:</p> <p>(i) Case 1: If not registered under REC mechanism: If the Consumer does not use the generated solar energy for meeting its RPO, the generated solar energy shall be credited towards</p>

	<p>meeting the DisCom's RPO.</p> <p>(ii) Case 2(a) Surplus solar energy purchased by Discoms at APPC rate of the year in which the SPG is commissioned shall be credited towards meeting the DisCom's RPO.</p> <p>(iii) Case 2 (b) If registered under REC mechanism: Not applicable, as REC will be claimed.</p>
REC	<p>(a) For sale to outside State or DISCOMS within State: As specified in the scheme.</p> <p>(b) Sale to consumers within State: <i>If not registered under REC mechanism:</i> Not applicable. <i>If registered under REC mechanism:</i> REC shall be claimed by the Developer / SPG</p>
CDM	<p>(a) For sale to outside State or DISCOMS within State: As specified in the scheme.</p> <p>(b) Sale to consumers within State: As per the mutual agreement between the Developer and Consumer.</p>

9.6 Solar Projects with Sale of Power to Third Party under Open-Access

Solar Developers may set up SPGs for sale of power to Third Parties under Open-Access, both directly or under the REC mechanism.

'CONTRACTED' CAPACITY	Up to a maximum of 50% of the sanctioned load/ contract demand of the Consumer.
TARIFF	(i) Mutually agreed-upon tariff

	<p>between the Developer and the Consumer for the energy consumed by consumer.</p> <p>(ii) Any surplus solar energy not consumed by consumer as per Energy Accounting shall be purchased-</p> <p>(c) at APPC of the year in which the SPG is commissioned if the renewable attribute on solar energy is given to Discoms.</p> <p>(d) at 85% of APPC of the year in which the SPG is commissioned if renewable attribute is not given to the Discom.</p>
METERING	Using ABT-compliant meter, at receiving end of STU substation/ 11 kV system of DISCOMs as case may be.
DEMAND CUT	Exemption from demand cut up to 50% of the installed capacity in case of Third-Party sale.
TRANSMISSION CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
TRANSMISSION LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING CHARGE	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
WHEELING LOSS	As applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.
ENERGY ACCOUNTING	<p><i>If not registered under REC mechanism:</i></p> <p>(i) Case 1: If the Consumer does not take credit of the generated solar energy towards</p>

	<p>its RPO and renewable attribute is given to the discom, the adjustment of energy shall be allowed within the Consumer's billing cycle, wherein set-off may be given against energy consumed at any time of the billing cycle. However peak charges shall be applicable for consumption during peak hours.</p> <p>(ii) Case 2 (a) : If the Consumer take Credit of the solar energy consumed towards its RPO, then energy accounting shall be based on 15-minute time block-basis.</p> <p>(iii) Case-2 (b): If registered under REC mechanism: Energy accounting shall be based on 15-minute time block-basis.</p>
ELECTRICITY DUTY	Exempted on the generated solar power.
CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE	<p>For the projects not registered under REC- 50% of surcharge applicable to normal Open-Access Consumer determined by GERC, as amended from time to time.</p> <p>For the projects registered under REC- as applicable to normal Open-Access Consumer determined by GERC, as</p>

	amended from time to time.
RPO	<p>(i) Case 1: If not registered under REC mechanism: If the Consumer does not intend to take credit of the generated solar energy towards its RPO, the generated solar energy shall be credited towards meeting the DisCom's RPO.</p> <p>(ii) Case 2(a): Consumer who set up SPG for meeting its own RPO will get the RPO credit to the extent of the solar energy consumed by it. However, Discom shall get RPO credit for surplus solar energy (after 15 minutes cycle adjustment) purchased by it at APPC of the year in which the SPG is commissioned.</p> <p>(iii) Case 2 (b) If registered under REC mechanism: Not applicable, as REC will be claimed.</p>
REC	<p>If not registered under REC mechanism: Not applicable.</p> <p>If registered under REC mechanism: REC shall be claimed by the Developer / SPG.</p>
CDM	As per the mutual agreement between the Developer and Consumer.



Solar Collectors for 100 TR Solar Air-conditioning System at Muni Seva Ashram, Vadodara.

9.7 Agriculture Solar Pumps

- 9.7.1 Gujarat has considerable deployment of irrigation pump sets. Taking this into consideration the State Government in collaboration with the Central Government/ MNRE/ MoP/ Multilateral Agencies will undertake measures to provide solar powered pump sets through subsidy support.
- 9.7.2 In case of surplus power generation from the solar pump sets, the DisComs may buy this surplus solar energy at APPC rate of the year in which the solar pump set is commissioned.
- 9.7.3 The State Government will launch schemes after determining the subsidy amount and the individual as well as total capacity of the solar irrigation pump sets from time to time.
- 9.7.4 The solar energy generated by the irrigation pump sets shall be credited towards the DisCom's RPO.

9.8 Stand-alone PV Systems and Home Lighting System

- 9.8.1 The State will facilitate decentralized and off-grid solar applications as per guidelines of the State Government/ MNRE to meet various electrical and thermal energy requirements for domestic and other purposes. The State has also taken up an initiative for home lighting systems for isolated and scattered houses in extremely remote areas where grid connection is not currently feasible.
- 9.8.2 SNA shall determine the capacity of the projects from time to time in consultation with the Energy and Petrochemicals Department, Government of Gujarat.
- 9.8.3 RECs may also be claimed if the systems qualify under the REC Regulations at any point in time. If no REC is claimed, the solar energy generated by such systems shall be credited towards the DisCom's RPO.

9.9 Canal-top and Canal-bank Solar PV Projects

- 9.9.1 Gujarat was the first State to realize the innovative canal-top project of



Narmada Canal-top Project, Chandrasan, Mehsana.

1 MW on a Narmada branch canal at Chandrasan, Mehsana and 10 MW at Vadodara. Such projects address three major objectives: saving of land, saving of water and generation of clean energy. The State may continue to facilitate such initiatives on canal tops as well as canal banks.

9.9.2 All provisions related to transmission and wheeling charges/ losses, energy accounting, RPO/ REC, etc. of this Policy shall also be applicable to canal-top and canal-base projects as per the respective project categories indicated in this Policy.

9.9.3 All incentives provided by MNRE shall be applicable to such projects.

9.10 Technology Demonstration Projects

The State, in its bid to promote innovation in clean energy, welcomes proposals for innovative technology demonstration projects. The proposals will be vetted on their techno-commercial merit and if found suitable, will be supported for demonstration by extending various provisions of this Policy.

9.11 Other Schemes

The State promotes solar cooking systems not only a bid for a cleaner environment but also to promote a healthy standard of living. Similarly, the State also encourages the use of solar hot water systems owing to their energy saving potential and economic payback. The State Nodal Agency, among other agencies, may undertake schemes to promote solar cooking and water heater systems.

10 LAND FOR SOLAR PROJECTS

The Solar Project Developer shall be responsible for obtaining the land for setting up and operating solar power project.

11 GRID CONNECTIVITY AND EVACUATION FACILITIES

11.1 Grid Integration

11.1.1 Grid stability and security is of prime importance. Since the penetration of infirm nature of renewable energy may endanger grid security, adequate protection measures are necessary. The Central Electricity Authority (CEA), GoI has

published a Gazette Notification No 12/X/STD/CONN/GM/CEA dated October 15, 2013 known as the Central Electricity Authority (Technical Standards for connectivity to the Grid) Amendment Regulations, 2013, specifying various technical requirements for grid connection of renewable energy sources. These regulations and provisions of gridcode shall be binding to the Solar Project Developers and SPGs.

11.1.2 Interconnection voltages:

PROJECT CAPACITY (C)	INTERCONNECTION SPECIFICATION
$1 \text{ kW} \leq C < 6 \text{ kW}$	230 V, 1 ϕ , 50 Hz
$6 \text{ kW} \leq C < 100 \text{ kW}$	415 V, 3 ϕ , 50 Hz
$100 \text{ kW} \leq C < 4 \text{ MW}$	11 kV, 3 ϕ , 50 Hz
$C \geq 4 \text{ MW}$	66/ 132/ 220/ 400 kV, 3 ϕ , 50 Hz

11.1.3 Interconnection voltages shall be governed as per Gujarat Electricity Grid Code-2013 and GERC's orders, as amended from time to time.

11.2 Grid Connectivity

- 11.2.1 The respective evacuation facility shall be initially approved by CTU/ STU/ DisCom depending on injection level after carrying out system studies.
- 11.2.2 For start-up, stand-by and auxiliary power requirement, the same shall be governed by GERC regulations and orders.
- 11.2.3 No parallel operation charges shall be applicable to the SPG.
- 11.2.4 Connectivity charges to be paid to DisCom shall be INR 5,000/- per project for capacities less than 100 kW. For capacities of 100 kW and above, normal connectivity charges shall be applicable.

11.3 Evacuation Facilities

11.3.1 Within Solar Park

Developer of Solar Project/ Solar Park shall establish dedicated line for evacuation of power up to STU/ CTU sub station and install RTUs etc. at their own cost. SPG shall be integrated to the grid by installing RTUs to enable real time monitoring of the

GETCO Substation at Charanka Solar Park, Patan.



injection of power by SLDC.

- a. Solar Project Developer/ Solar Park Developer shall lay dedicated line for evacuation of power up to sub-station of STU/ 11 kV system of DisCom as per system study by STU/ DisCom where the Project Developer/ Solar Park Developer desires to inject power in the State grid. From there onwards, STU/ DisCom shall ensure transmission/ distribution system and connectivity.
- b. Solar Project Developer/ Solar Park Developer shall lay dedicated line for evacuation of power up to CTU interface/ substation as per system study by CTU if Project Developer/ Solar Park Developer desires to inject power directly in inter-state transmission system. From there onwards, CTU may ensure transmission system and connectivity with inter-state network wherever power is to be exported out of the State.

11.3.2 Outside Solar Park

To optimize costs, Common dedicated transmission line shall be encouraged for cluster of adjoining Developers with appropriate metering at their respective end of project as well as a common meter for such SPGs at the receiving end at CTU Interface/ STU substation/ 11 kV system of DisCom. Energy injection by each SPG at the receiving end shall be worked out on the basis of meter reading of common meter appropriately apportioned as per the respective meter reading at the sending end meter of that SPG by SLDC.

12 METERING AND ENERGY RECORDING

- 12.1 The electricity generated from the SPGs, shall be metered on 15-minute time block by STU/DisCom/SLDC/ALDC at the receiving end of the STU substation/ 11 kV system of DisCom. For the purpose of energy accounting, solar generating projects shall provide ABT-compliant meters at the interface points. Interface metering shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations 2014 and amendment thereto. STU/ DisCom shall stipulate specifications in this regard.
- 12.2 The metering of SPG for domestic rooftop and government buildings, shall be on net metering-basis (bidirectional) or gross metering-basis (dual meter), as per specifications provided by the DisCom.

13 SECURITY DEPOSIT

- 13.1 In case, Obligated Entities decide to procure solar power from the Solar Project Developers and sign Power Purchase Agreement, the Developer shall be required to provide Bank Guarantee@ INR 25 lakhs per MW for MW scale and proportionate amounts for kW scale projects at the time of signing of Power Purchase Agreement with Obligated Entities. The bank guarantee shall be refunded, if the developers achieve commercial operation within time period mentioned in Power Purchase Agreement. In case the Developer

fails to achieve commercial operation as specified in the Power Purchase Agreement, the bank guarantee shall be forfeited.

- 13.2 In every case, whether Obligated Entity is procuring or not procuring solar power, SPGs shall submit security deposit of INR 5 lakhs per MW to STU/DisCom for ensuring speedy and timely completion of evacuation facility by SPG failing which bank guarantee may be forfeited.

14 FORECASTING AND SCHEDULING

- 14.1 The SPGs shall, for the time being, be exempted under scheduling procedure for Intra State ABT. SPG shall however abide by instruction of State Load Dispatch Centre.
- 14.2 The actual energy injected in the grid during particular time block of 15 minutes shall be post-facto considered available for drawl schedule for sale of power to DisCom/ Third Party or for giving set-off against the consumption of recipient unit in case of wheeling.
- 14.3 As and when forecasting and scheduling mechanism is made applicable to Solar Power projects, these Solar Power projects shall abide

by such rules and regulations.

15 REACTIVE POWER

The drawl of reactive power shall be charged as per the GERC order, as amended from time to time.

16 OPERATION AND MAINTENANCE OF DEDICATED LINES

The Operation and Maintenance of dedicated evacuation line shall be carried out at the cost of the Solar Park/ Project/ Plant Developer as per applicable technical standards and best practices.

17 RESTRICTIONS

- 17.1 Only New Plant and Machinery shall be eligible for installation under this Policy. After commissioning of solar project (rooftop or ground mounted), the installation shall not be allowed to be transferred inter se or from one location to another.
- 17.2 No fossil Fuel viz. coal, gas, lignite, oil, naphtha etc. shall be allowed to be used in Solar Thermal Power Projects, beyond the ceiling allowable under

1 MW Multi-Technology PV Power Plant, Pandit Deendayal Petroleum University, Gandhinagar.



MNRE guidelines.

18 STATE NODAL AND FACILITATING AGENCIES

18.1 State Nodal Agency

Gujarat Energy Development Agency (GEDA) shall act as the Nodal Agency for:

- 18.1.1 Registration of projects;
- 18.1.2 Facilitating approval of power evacuation plans etc.;
- 18.1.3 Respond to queries and problems of Developers; and
- 18.1.4 Accreditation and recommending the solar power project for registering with Central Agency under REC mechanism.

18.2 Facilitating Agency

Gujarat Power Corporation Limited (GPCL) or any other agency notified by State Government for development of Solar Park shall act as the Facilitating Agency.

19 OTHER RELEVANT POLICIES AND INCENTIVES

19.1 Gujarat Industrial Policy 2015

The Government of Gujarat has launched the “Gujarat Industrial Policy 2015” (Industries and Mines Department) and envisions to boost the renewable sector through its provisions. This policy promotes the “Make in India” campaign and provides for subsidy benefits, simplification of procedures, strengthening single window system, etc. to manufacture in the State.

19.2 Electronics Policy for the State of Gujarat (2014-19)

The Government of Gujarat has also launched the “Electronics Policy for the State of Gujarat (2014-19)” (Department of Science and Technology) which supports facilitation for setting up semiconductor wafer facilities. It also extends benefits for solar cell manufacturing, solar modules and panel manufacturing, solar lanterns/ lamps manufacturing and all the systems and devices that come under the purview of solar technology.

19.3 Modified Special Incentive Package Scheme (M-SIPS) of Government of India

The Government of India has launched the Modified Special Incentive Package Scheme (M-SIPS) to provide incentives and attract investments in electronic systems design and manufacturing industries. These industries include manufacturing of polysilicon, ingots and wafers, crystalline/ polycrystalline cells and modules, thin-film modules, transformers and allied electronics. The manufacturer/ Developers may avail the benefits of this scheme.

20 REGULATION

The Hon’ble Gujarat Electricity Regulatory Commission shall be guided by this Policy while framing its rules, regulations and orders.

21 MID-TERM REVIEW

State Government may undertake a mid-term review of this policy after a period of 2 years or as and when the need arises in view

of any technological breakthrough or to remove any difficulties or inconsistency with Electricity Act 2003, as amended from time to time.

22 POWER TO REMOVE DIFFICULTIES

If any difficulty arises in giving effect to this Policy, State Government may issue necessary orders or clarification/

interpretation to remove such difficulties either on its own volition or based on representations from stakeholders.

23 POWER TO INTERPRET

If there is any confusion or dispute about the meaning, intent or purpose of any provision of this Policy, the interpretation given by Energy & Petrochemicals Department, Government of Gujarat shall be final and binding to all concerned.

This issues with the concurrence of the Finance Department dated August 13, 2015 on the Department's file of even number.

By order and in the name of the Governor of Gujarat.

(Smt. Shobhana Desai)

Additional Secretary to the Government of Gujarat

Energy and Petrochemicals Department

Copy to:

- *The Principal Secretary to H.E. The Governor of Gujarat, Raj Bhavan, Gandhinagar.
- The Secretary, Ministry of Power, GoI, Shram Shakti Bhavan, New Delhi
- The Secretary, Ministry of New & Renewable Energy, CGO Complex, New Delhi
- The Principal Secretary to the Hon. C. M., Sachivalaya, Gandhinagar
- The P.S. to Hon. MOS (E&P), Sachivalaya, Gandhinagar
- The Secretary, CERC, New Delhi
- The Chairman, Central Electricity Authority, New Delhi
- The Deputy Secretary to the Chief Secretary, Sachivalaya, Gandhinagar

- The Secretary, GERC, Gift City, Gandhinagar
- *The Registrar, Gujarat High Court, Ahmedabad
- *The Secretary, Vigilance Commission, Gandhinagar
- The Principal Secretary, Finance Department, Sachivalaya, Gandhinagar
- The Resident Commissioner, Gujarat State, New Delhi
- *The Secretary, Gujarat Legislature Secretariat, Sachivalaya, Gandhinagar
- All Departments of Secretariat, Sachivalaya, Gandhinagar
- All Branches of Energy & Petrochemicals Department
- The Chairman, Power Finance Corporation Limited, New Delhi
- The Chairman & Managing Director, Gujarat Power Corporation Ltd. Gandhinagar
- The Chairman, Gujarat Urja Vikas Nigam Limited, Vadodara
- The Managing Director, Paschim Gujarat Vij Company Limited, Rajkot
- The Managing Director, Gujarat State Electricity Corporation Limited, Vadodara
- The Managing Director, Gujarat State Generation Limited, Gandhinagar
- The Managing Director, Uttar Gujarat Vij Company Limited, Mehsana
- The Managing Director, Madhya Gujarat Vij Company Limited, Vadodara
- The Managing Director, Dakshin Gujarat Vij Company Limited, Surat
- The Managing Director, Gujarat Energy Transmission Corporation Limited, Vadodara
- The Director, Gujarat Energy Development Agency, Gandhinagar
- The Chief Executive Officer, Torrent Power Limited, LalDarwaja, Ahmedabad
- The Managing Director, Gujarat Paguthan Energy Corporation Pvt. Ltd., Ashram Road, Ahmedabad
- The National Thermal Power Corporation Limited, Zangar, Gandhar, Dist. Bharuch
- The National Thermal Power Corporation Limited, Kavas, Hazira, Gandhar, Dist. Surat

*By Letter
