GUJARAT URJA VIKAS NIGAM LIMITED

Sardar Patel Vidyut Bhavan, Race Course, Vadodara 390007
Phone (0265) (Direct), 2334751 PBX : (0265) 2310582-86 Web : www.guvnl.com
Fax : (0265) 2344543, 2337918, 2338164 CIN U40109GJ2004SGC045195

Ref.No.: GUVNL/COM/Solar Policy-2021/ 75 **Date :** 20/01/2021

To,
The Secretary
Gujarat Electricity Regulatory Commission
6th Floor, GIFT ONE,
Road 5-C, Zone- 5,
Gandhinagar – 382 355

By FAX 079 -23602360, 2054/55

AD(Legal) / Ex (Legal) 21/01/2021
Pl. Process Urgently.
20/01/2021

Sub: Filing of Petition under Section 86 of Electricity Act 2003 seeking incorporation of provisions of Solar Power Policy-2021 notified by Government of Gujarat vide GR No: SLR-11/2020/77/B1 dated 29.12.2020 appropriately in the Order dated 08.05.2020 for Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat and GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 as amended from time to time.

Sir,

Please find enclosed herewith GUVNL's petition on affidavit (five copies) in the above subject matter.

The amount of Rs. 10,000/- as Court Fees for filing of Petition in the terms of Hon'ble GERC (fees, fines and charges) Regulations, 2005 is deposited to Hon'ble Commission through NEFT/RTGS vide transaction reference asunder:

Cheque No: Bank of India – Cheque No. **268143** dated 20.01.2021
Transaction ID: **UTR No: BKIDN21020480673**

G.E.R.C.
Inward No- 0363
Date : 20 JAN 2021

Kindly give the acknowledgment of receipt of fees.

Pl. accept the fees of Rs. 10,000/- subject to verification of GERC (Fees, Fines & Charges) Regulations, 2005.
20/01/2021

Thanking you,

Yours faithfully,

(K. P. Jangid)
General Manager (COM)

As per ML No. 2686 dt. 20.1.21 of Rs. 10,000=00 Received by RTGS on dt. 20.1.21.
20.1.21

Encl: As above

Copy to:

1. Shri Bhargav Patel
   Section Officer, EPD
   5th Block, 5th Floor,
   Sachivalaya, Gandhinagar

This has reference to your letter No. SLR/11/2020/77/B1 dated 31.12.2020

BEFORE THE HONORABLE GUJARAT ELECTRICITY REGULATORY COMMISSION AT GANDHINAGAR

Case No.

Filing No.

IN THE MATTER OF Petition under Section 86 and other applicable provisions of the Electricity Act 2003 seeking incorporation of provisions of Solar Power Policy-2021 notified by Government of Gujarat vide GR No: SLR-11/2020/77/B1 dated 29.12.2020 appropriately in the Order dated 08.05.2020 for Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat and GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 as amended from time to time.

AND

Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhavan
Race Course,
Vadodara – 390 007

..... **Petitioner**

AND

1. Madhya Gujarat Vij Company Ltd (MGVCL) Corporate Office, Sardar Patel Vidyut Bhavan, Race Course, **Vadodara**- 390007

2. Uttar Gujarat Vij Company Ltd (UGVCL) Corporate Office, Visnagar Road, **Mehsana**

3. Paschim Gujarat Vij Company Ltd (PGVCL) Corporate Office, Nana Mava Road, Laxminagar, **Rajkot**



...DIA (GUJ. STATE) RECD. NO. 6250/ 2008 GOVT. OF INDIA

4. Dakshin Gujarat Vij Company Ltd (DGVCL) Corporate Office, Kapodra, **Surat**

5. Torrent Power Ltd (Dist), Electricity House, Lal Darwaja, **Ahmedabad**

6. Torrent Power Ltd (Surat), 3 "Torrent House", Station Road, **Surat**

7. Torrent Power Ltd (Dist), Plot No. Z/21, Phase-1, SEZ, **At Dahej**, Tal Vagra, Dist:Bharuch-392130

8. Deendayal Port Trust, Business Development Cell, P.O Box No. 50, **Kandala**, Dist: Kutchh

9. Aspen Infrastructure Ltd., Survey No. 26, Village Pipaliya, Tal: **Waghodia**, Dist.- Vadodara

10. Jubilant Infrastructure Ltd., Plot No. 5, **Vilayat GIDC**, Tal: Vagra, Dist: Bharuch

11. GIFT Power Co. Ltd, Office No. 1, 28th Floor, GIFT One Tower, Building 56A, Block No. 56, Road-5C, Zone-5, GIFT CITY, **Gandhinagar**–382355.

12. MPSEZ Utilities Pvt. Ltd. **Mundra (Kutchh)**
Address: Adani House, Nr. Mithakhali Circle, Navrangpura, Ahmedabad

.....Respondents

MOST RESPECTFULLY SHOWETH

PREAMBLE

1.0 The Petitioner hereinabove, Gujarat Urja Vikas Nigam Limited (hereinafter referred to as 'GUVNL') is company incorporated under the provisions of The Companies Act 1956. As per the provisions of Gujarat Electricity Industry Reorganization and Comprehensive Transfer Scheme, 2003 notified by State Government under the Gujarat Electricity Industry (Reorganization and Regulation) Act 2003, the function of Bulk Purchase and Bulk Sale of Power on behalf of State owned distribution licensees in State, is assigned to Gujarat Urja Vikas Nigam Ltd as per the re-organization scheme. Accordingly, on behalf of four state owned subsidiary Distribution Companies, namely Uttar Gujarat Vij Company Ltd. (UGVCL), Madhya Gujarat Vij Company Ltd. (MGVCL), Dakshin Gujarat Vij Company Ltd. (DGVCL) and Paschim Gujarat Vij Company Ltd. (PGVCL), the activity of bulk purchase and bulk sale of power is carried out by the Petitioner.

2.0 The Respondents hereinabove namely (i) Madhya Gujarat Vij Company Ltd (MGVCL) Vadodara, (ii) Uttar Gujarat Vij Company Ltd (UGVCL) Mehsana, (iii) Paschim Gujarat Vij Company Ltd (PGVCL) Rajkot, (iv) Dakshin Gujarat Vij Company Ltd (DGVCL) Surat, (v) Torrent Power Ltd (Dist), Ahmedabad, (vi) Torrent Power Ltd (Surat), Surat, (vii) Torrent Power Ltd (Dist), Dahej, (viii) Deendayal Port Trust, Kandala, (ix) Aspen Infrastructure Ltd., At- Waghodia, Dist.- Vadodara, (x) Jubilant Infrastructure Ltd., Vagra Dist: Bharuch, (xi) GIFT Power Co. Ltd, Gandhinagar, (xii) MPSEZ Utilities Pvt. Ltd., Mundra (Kutchh), are the distribution licensees (hereinafter collectively referred to as 'DisComs') in the State of Gujarat undertaking the function of distribution and retail sale of electricity to consumers within their respective area of supply.

SUBMISSION:



3.0 It is humbly submitted that the Government of Gujarat vide GR No: SLR-11/202020/77/B1 dated 29.12.2020 has notified Gujarat Solar Power Policy 2021. This conducive policy framework is aimed to rapidly scale up the State's solar energy capacity in order to contribute to India's overall renewable energy targets keeping in mind India's commitments under International Climate Agreements. The Copy of Gujarat Solar Power Policy-2021 is enclosed herewith and marked as **ANNEXURE-A.**

4.0 The salient features of Solar Power Policy 2021 notified by the State Government, is highlighted as under:

a) In the Solar Power Policy 2021, provisions are made for granting various concessions / relaxation / benefits for installation of solar projects by various entities such as (i) Solar Projects for Residential consumers, (ii) projects under captive use, (iii) projects under Third Party Sale arrangement, (iv) projects set up for sale to DISCOMs, (v) projects under REC Mechanism, (vi) solar projects set up for RPO Compliance by obligated entities etc.

b) Operative Period: The Policy came into effect from the date of its notification (i.e. 29.12.2020) and shall remain in operation up to 31st December 2025.

c) Capacity Installation: The minimum size of MW project shall be 1 MW and that for a KW scale project shall be 1 KW.

d) Only new plant and machinery shall be eligible for installation under the policy. The restriction on use of fossil fuel is provided under clause 19.

e) Important provisions for solar projects for Residential consumers is summarized as under:

- Solar Projects set up by residential consumers on their rooftop / premises is allowed irrespective of consumer sanctioned load. Incentives under existing schemes can be availed by consumers as per the provisions of the scheme.

J. ZALA
AREA : BARODA
DIST. : (GUJ. STATE)
REGD. NO. 6250/
2008
GOVT. OF INDIA

- Solar Projects can also be set up by a developer on the rooftop / premises of a residential consumer for generation and sale of power to such consumer in the same premises (Third Party Sale) for which the developer and consumer can enter into a lease agreement and/or power sale agreement.

Capacity Restriction	No restriction on installed capacity
Capital subsidy	As per Government of Gujarat scheme announced from time to time
Third party sale	Allowed
Energy Accounting	As per billing cycle
Surplus Injection Compensation	**For self-consumption** Rs. 2.25/Unit for first 5 years, thereafter 75% of simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding 6-month period. **For third party sale** 75% of simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding 6-month period.
Banking Charges	None
Transmission and Wheeling Charges	None
Cross Subsidy and Additional Surcharges	Not applicable for self-consumption Applicable in case of third-party sale
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

f) Important provisions for solar projects under Captive use is summarized as under:

- The captive project refers to generation of power by Industrial, Commercial, Institutional and other consumers.
- The use of electricity for self-consumption within the same premises or at different premises by the consumer having 100% ownership of Solar Power Project shall be considered as captive use.
- No capacity restrictions shall be applicable under this category.
- Installation of solar projects with collective ownership of more than one consumer investing/holding 100% of equity amount collectively shall be allowed. In such cases of collective ownership, the energy generated is allowed to be consumed by each of the consumer based on ratio of their equity in such solar project.
- Projects set up for captive use shall have the option to switch over from captive use to DisCom sale once in their life-time and upon such switch over, the applicable tariff under agreement to be signed with DisComs shall be lowest tariff discovered and contracted in competitive bidding process conducted by GUVNL for Non-park based Solar Projects as on the commercial operation date (COD) of the project

Capacity Restriction	No restriction on installed capacity
Energy Accounting	**For HT/EHV consumers:** Energy set-off; Between 07.00 hours to 18.00 hours of same day **For LT demand-based consumers:** Energy set-off; Between 07.00 hours to 18.00 hours in the billing cycle **For LT other than demand-based consumers**: Energy setoff shall be on billing cycle basis.

Surplus Injection Compensation	**For MSME:** Rs. 2.25 for first 5 years, thereafter 75% of simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding 6-month period. **For others:** 75% of simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding 6-month period.
Banking Charges	**MSME units and other than Demand Based Consumers:** Rs. 1.10 per unit on energy consumed **For demand-based consumers:** Rs 1.50 per unit on energy consumed **For Government Buildings:** Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	Exempted
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

g) Important provisions for solar projects under Third Party Sale arrangement is summarized as under:

- This refers to solar power project of Industrial, Commercial, Institutional and other consumers.
- The sale of electricity by the owner of SPSs to separate consumers is to be considered as Third-Party Sale. Installation of solar projects by a developer for third party sale is allowed without any capacity restriction. Developers can also install solar projects on rooftop / premises of a consumer for generation and sale of power to such consumer in the same or different premises or to another consumer by entering into lease agreement and/or power sale agreement.

Capacity Restriction	No restriction on installed capacity
Energy Accounting	**For HT/EHV consumers:** Energy set-off; Between 07.00 hours to 18.00 hours of same day **For LT demand-based consumers:** Energy set-off; Between 07.00 hours to 18.00 hours in the billing cycle **For LT other than demand-based consumers**: Energy setoff shall be on billing cycle basis.
Surplus Injection Compensation	75% of simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding 6-month period.
Banking Charges	**MSME units and other than Demand Based Consumers:** Rs. 1.10 per unit on energy consumed **For demand-based consumers:** Rs 1.50 per unit on energy consumed **For Government Buildings:** Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	As decided by GERC from time to time
Electricity Duty	As per the provisions of Gujarat Electricity Duty Act, 1958

h) Projects set up for sale to DISCOMs

- Projects through Competitive Bidding – DisComs shall procure solar power with or without storage and / or blended with other RE sources by following competitive bidding process in accordance with Guidelines issued by Government of India from time to time under Section 63 of Electricity Act.
- Projects at pre-fixed levelized tariff (below 4 MW) – DisComs may procure solar power from distributed solar projects up to 4 MW capacity at pre-fixed levelized tariff as per the mechanism of applicable tariff stipulated

under the "Policy for development of Small Scale Distributed Solar Projects – 2019" notified through GR No. SLR/11/2019/51/B1 dated 06.03.2019. The tariff shall be fixed at the time of signing the PPA with the DisComs. Projects can be set up on land or other premises having ownership or legal possession of the developer. Installation of projects below 0.5 MW capacity may also be allowed under this category.

i) Important provisions for solar projects under REC Mechanism is summarized as under:

Developers are allowed to set up solar power projects under the REC mechanism in accordance with the administrative procedure regarding registration and accreditation, as decided by the Central Electricity Regulatory Commission (CERC), and as amended from time to time.

Capacity Restriction	Up to sanctioned load / contract demand if set up for Captive / Third Party Sale
Energy Accounting	15-minute time block basis
Surplus Injection Compensation	65% of the simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding 6-month period.
Banking Charges	Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	As decided by GERC from time to time
Electricity Duty	As per the provisions of Gujarat Electricity Duty Act, 1958

j) Important provisions for solar projects for RPO compliance by obligated entities is summarized as under:

Capacity Restriction	No restriction on installed capacity
Energy Accounting	15-minute time block basis
Surplus Injection Compensation	75% of the simple average of tariff discovered in GUVNL bid for Non-park based solar projects in the preceding

	6-month period.
Banking Charges	Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	**For captive consumers:** Not applicable **For third party sale:** As decided by GERC from time to time
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

k) Wheeling and Transmission of Electricity

Wheeling of power for captive consumption / third party sale is allowed on payment of transmission charges, transmission losses, wheeling Charges and wheeling losses, as applicable to normal open access consumers. If the generated solar energy is consumed within the same premises without use of grid, no transmission / wheeling charges & losses shall be applicable.

If a Solar Power Generator owner desires to wheel electricity to more than one location, he shall pay Rs 0.05 / kWh on energy fed into the grid to distribution licensee in whose area power is consumed in addition to the above-mentioned transmission charges and losses, as applicable.

l) Cross Subsidy Surcharge and Additional Surcharge

Cross Subsidy Surcharge and Additional Surcharge is not applicable in case of Captive Projects. In case of projects set up for Third Party Sale, Cross Subsidy Surcharge and Additional Surcharge is applicable as applicable to normal open access consumers. These charges shall be as determined by Hon'ble GERC from time to time.

m) Evacuation Facilities

- Within Solar Park:

  (i) Developer of Solar Project/ Solar Park shall establish dedicated line for evacuation of power up to STU/

CTU substation and install RTUs etc. at their own cost. Solar Power Generator (SPG) shall be integrated to the grid by installing RTUs to enable real time monitoring of the injection of power by SLDC.

(ii) Solar Project Developer/ Solar Park Developer shall lay dedicated line for evacuation of power up to sub-station of STU/ 11 kV system of DisComs per system study by STU/ DisComs where the Project Developer/ Solar Park Developer desires to inject power in the State grid. From there onwards, STU/ DisComs shall ensure transmission/ distribution system and connectivity.

(iii) 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.

- 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.

- Metering

  The electricity generated by the SPGs, shall be metered on 15-minute time block basis 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 as amended from time to time. STU/ DisCom shall stipulate specifications in this regard.

  In case of consumers having contracted load / sanctioned demand not exceeding 1 MW, DisComs may allow installation of non-ABT meters at consumer level reprogrammed at consumer's cost as per the energy accounting requirement.

- There are other provisions which are detailed in the Policy which are not being elaborated herein for shake of brevity but GUVNL craves reference to the Policy.

5.0 It is respectfully submitted that the generation and consumption of solar power in the State is governed as per the provisions of (i) Hon'ble Commission's order dated 08.05.2020 in the matter of '*Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat*' (referred to as "*Solar Tariff Order*") - for Non-Rooftop solar projects involving wheeling of solar energy and (ii) *GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016* as amended from time to time (referred to as "*Net-Metering Regulations*") – for Rooftop solar projects involving consumption of solar energy at the same location. The copy of GERC Solar Tariff Order dated 08.05.2020 and Net-Metering Regulations and amendments

are annexed herewith and marked as **ANNEXURE- B &C** respectively.

6.0 It is respectfully submitted that there are certain changes in the Solar Power Policy – 2021 vis-à-vis applicable Solar Tariff Order / Net-Metering Regulations for solar power projects in the State of Gujarat requiring incorporation in the Solar Tariff Order dated 08.05.2020 and GERC Net-Metering Regulations. The major changes are in relation to treatment of energy accounting, applicability of banking charges, removal of capacity restriction etc. The statement of major changes are summarized as under:

(A) Solar projects involving wheeling of power for Captive use / Third Party Sale:

Provisions	Provisions of Solar Order dated 8.5.2020	Solar Power Policy 2021	Justification of Policy Provisions
Capacity Restriction	For all cases: 50% of Sanctioned Load / Contracted Demand except Residential Rooftop and MSME (Manufacturing)	No restriction on installed solar capacity under captive/ third party sale except for REC based projects wherein solar capacity is allowed up to Sanctioned load	To allow consumers to set up required solar capacity for meeting their consumption requirement
Energy Accounting	For all cases: If RE attributes is given to DISCOM-Billing Cycle basis. If RE Attribute utilized for meeting self RPO / REC based projects - 15 min basis MSME installing solar capacity in excess of 50% of contract demand – 15 min basis . (Separate petition is filed for carrying out energy accounting on 7.00 hrs to 18.00 hrs daily basis as per GR dated 1.9.2020)	**For all Non-demand based LT consumers**: solar energy set-off is to be given on billing cycle basis. **For LT demandbased consumers:** solar energy set-off is to be given during time period between 07.00 hours to 18.00 hours in the billing cycle **For HT/EHV consumers**: solar energy set-off is to be given during time period between 07.00 hours to 18.00 hours of same day **For all REC based projects and projects set up for meeting RPO Compliance by obligated entities** –15 min basis	Generation of solar energy is of infirm nature and may not be available at the time of consumption. This has implication on grid operation apart from financial implication. Therefore, as a balancing of interest of solar projects and consumers, it is provided to utilize solar energy during the period of generation either on daily basis or billing cycle basis.
Surplus Injection Compensation	For all cases Rs. 1.75/Unit for 25 years except REC based projects- wherein rate is Rs. 1.50/Unit for 25 years	**For MSME consumers**: Rs. 2.25 for first 5 years, thereafter 75% of simple average of tariff discovered in GUVNL bid **For all other cases except REC**	Since, cost of solar generation is declining nature due to economy of scale and technological advancement, the compensation for infirm

Provisions	Provisions of Solar Order dated 8.5.2020	Solar Power Policy 2021	Justification of Policy Provisions
	(Separate petition is filed for applicability of Rs. 2.25/Unit instead of Rs. 1.75/Unit for MSME consumers as per GR dated 1.9.2020)	**based projects**: 75% of simple average of tariff discovered in GUVNL bid **For REC based projects-** 65% of simple average of tariff discovered in GUVNL bid	surplus energy injection is linked with bid discovered tariff.
Banking Charges	Not applicable	**For MSME consumers and other Non-demand based consumers**: Rs 1.10 / unit on solar energy consumed **For all demand-based consumers(Other than MSME):** Rs 1.50 / unit on energy consumed **For Government Building:** Exempted	***As per Note herein under**
Wheeling Charges & Losses	Captive use- 50% Third Party Sale - 100% MSME- 100%	100% for all cases	Any under-recovery of wheeling charges and losses have implication on general body of consumers. Therefore, 100% wheeling charges and losses are suggested.
Cross Subsidy and Additional Surcharges	Captive- Not applicable Third Party (Non-REC) - 50% Third Party (REC) - 100% Third Party (MSME installing solar capacity in excess of 50% of contract demand)- 100%	Captive- Not applicable For all other cases: 100%	Cross Subsidy and Additional Surcharges is levied to compensate DisCom towards loss of Cross subsidy revenue from cross subsidizing consumers. In case any concession is granted the same will impact the ability of DISCOM to supply power at cheaper rate to other consumers such as BPL, AG category.

(B) Rooftop Solar projects for Captive use /Third Party sale– Residential Consumers (Clause 9 of the Policy)

Provisions	Provisions of Net-Metering Regulations	Solar Power Policy 2021	Justification of Policy Provisions
Ownership	Consumer shall have legal possession of premises and own solar rooftop project for self-consumption.	Solar Projects can also be set up by a developer on the rooftop / premises of a residential consumer for generation and sale of power to such consumer in the same premises (Third Party Sale) for which the developer and consumer shall enter into a lease agreement and/or power sale agreement.	Restriction for ownership is removed to provide more flexibility to consumer and solar power project developers to utilize rooftop space for solar power generation and consumption.
Capacity Restriction	No restriction for solar capacity	No restriction for solar capacity	
Energy Accounting	Solar energy Set off is to be given on billing cycle.	Solar energy Set off is to be given on billing cycle.	

Provisions	Provisions of Net-Metering Regulations	Solar Power Policy 2021	Justification of Policy Provisions
Surplus Injection Compensation	Rs. 2.25/Unit for 25 years	**For Self-consumption:** Rs. 2.25/unit for the first 5 years and thereafter 75% of simple average of tariff discovered in GUVNL bid. **For Third Party Sale:** 75% of simple average of tariff discovered in GUVNL bid.	Since, cost of solar generation is declining nature due to economy of scale and technological advancement, the compensation for infirm surplus energy injection is linked with bid discovered tariff.
Banking Charges	Not applicable	Not applicable	For promotion of solar rooftop projects
Transmission and Wheeling Charges & Losses	Not applicable	Not applicable	Generation and consumption is at same location.
Cross Subsidy and Additional Surcharges	Not applicable since third party sale arrangement is not allowed	Self-Consumption- Not applicable Third Party Sale - Applicable	Cross Subsidy and Additional Surcharges is levied for Third Party Sale to compensate DisCom towards loss of Cross subsidy revenue from cross subsidizing consumers. In case any concession is granted the same will impact the ability of DISCOM to supply power at cheaper rate to other consumers such as BPL, AG category.

(C). Rooftop Solar projects for Captive use /Third Party sale – Non-residential consumers – (Clause 11 of the Policy)

Provisions	Provisions of Net-Metering Regulations	Solar Power Policy 2021	Justification of Policy Provisions
Ownership	Consumer shall have legal possession of premises and own solar rooftop project for self-consumption.	Developers can also install solar projects on rooftop / premises of a consumer for generation and sale of power to such consumer in the same or different premises or to another consumer by entering into lease agreement and/or power sale agreement.	Restriction for ownership is removed to provide more flexibility to consumer and solar power project developers to utilize rooftop space for solar power generation and consumption.
Capacity Restriction	50% of Sanctioned Load / Contracted Demand MSME (Manufacturing)	No restriction on installed solar capacity under captive/ third party sale except for REC based projects wherein solar capacity is allowed up to Sanctioned load	To allow consumers to set up required solar capacity for meeting their consumption requirement

Provisions	Provisions of Net-Metering Regulations	Solar Power Policy 2021	Justification of Policy Provisions
Energy Accounting	Consumers allowing DISCOMs to utilize RE attribute of solar energy: On billing cycle basis If RE Attribute utilized for meeting self RPO / REC based projects– 15 min time block basis MSME installing solar capacity in excess of 50% of contract demand – 15 min time block basis	**For Non-demand based LT consumers**: On billing cycle basis. **For demand based LT consumers:** During time period between 07.00 hours to 18.00 hours in the billing cycle **For HT/EHV consumers**: During time period between 07.00 hours to 18.00 hours of same day **For REC based projects and projects set up for meeting self RPO Compliance as obligated entities** – 15 min time block basis	Generation of solar energy is of infirm nature and may not be available at the time of consumption. This has implication on grid operation apart from financial implication. Therefore, as a balancing of interest of solar projects and consumers, it is provided to utilize solar energy during the period of generation either on daily basis or billing cycle basis.
Surplus Injection Compensation	Rs. 1.75/Unit for 25 years except REC based projects wherein rate is Rs. 1.50/Unit for 25 years	**For MSME**: Rs. 2.25 for first 5 years, thereafter 75% of simple average of tariff discovered in GUVNL bid **For all other cases except REC based projects**: 75% of simple average of tariff discovered in GUVNL bid **For REC based projects-** 65% of simple average of tariff discovered in GUVNL bid	Since, cost of solar generation is declining nature due to economy of scale and technological advancement, the compensation for infirm surplus energy injection is linked with bid discovered tariff.
Banking Charges	Not applicable	**For MSME consumers and Non-demand based consumers**: Rs 1.10 / unit on solar energy consumed **For demand-based consumers (Other than MSME):** Rs 1.50 / unit on energy consumed **For Government Building:** Exempted None	***As per Note herein under**
Transmission and Wheeling Charges & Losses	Not applicable	-Not applicable if generation and consumption is at same location without involving Distribution / Transmission network -100% in case of wheeling of power involving Distribution / Transmission network.	Since wheeling of power is allowed from rooftop solar project to another location, levy of Transmission and Wheeling Charges & Losses is provided.
Cross Subsidy and Additional Surcharges	Not applicable since third party sale arrangement is not allowed	Self-Consumption - Not applicable Third Party Sale - Applicable	Cross Subsidy and Additional Surcharges is levied to compensate DisCom towards loss of Cross subsidy revenue from cross subsidizing consumers. In case any concession is granted the same will impact the ability of DISCOM to supply power at cheaper

Provisions	Provisions of Net-Metering Regulations	Solar Power Policy 2021	Justification of Policy Provisions
			rate to other consumers such as BPL, AG category.

***Note:** Solar power generation is infirm in nature and there is time gap between generation of solar energy and consumption at recipient unit. Further, the solar capacity ceiling is removed allowing consumer to install solar capacity as per their consumption requirement irrespective of their sanctioned load/ contracted load. Moreover, consumer is allowed to consume generated solar energy any time during 7.00 Hrs to 18.00 Hrs basis. Therefore, the Distribution companies are required to keep equivalent generation capacity ready from conventional sources to meet the power requirement of such consumers at the time when solar generation is not available. This will have additional financial implication on Distribution Companies towards keeping equivalent additional conventional generation capacity available which is having fixed cost payment liability. In addition, there is also cost implication on DISCOMs due to backing down of conventional generation capacity to accommodate surplus solar generation when there is no/less consumption by respective consumers wheeling solar power. Considering the same, in order to balance the interest of solar power projects and general body of consumers specifically when solar capacity ceiling is removed in the Policy, it is provided to levy banking charges so that part of additional cost implication can be recovered from solar power consumption and burden on the general body of consumers can be reduced to that extent.

7.0 Hon'ble Commission is requested to bring corresponding amendments in the Solar Tariff Order dated 08.05.2020 and GERC Net-Metering Regulations for incorporating above charges among others in line with Gujarat Solar Power Policy -2021.

8.0 It is respectfully submitted that Energy & Petrochemicals Dept. Government of Gujarat vide letter dated 31.12.2020 has directed GUVNL, the Petitioner hereinabove, to seek approval of Hon'ble Commission for giving effect of provisions of the Solar Power Policy 2021 by way of filing of proper petition before Hon'ble Commission. The copy of letter dated 31.12.2020 is enclosed herewith and marked as **ANNEXURE-D.**

9.0 It is respectfully submitted that in terms of above communication from Government of Gujarat, the Petitioner-GUVNL has preferred the present petition before the Hon'ble Commission for seeking approval of Hon'ble Commission for giving effect of provisions of the Solar Power Policy 2021 by incorporating provisions in Solar Tariff Order and Net-Metering Regulations.

10.0 In addition to the above, it is respectfully stated that petition filed by GUVNL being Petition No. 1904 of 2020 in the matter of seeking modification in the Hon'ble Commission's order for giving effect to the modification notified by Government of Gujarat vide GR dated 01.09.2020 in relation to Solar Power Project set up by MSME (Manufacturing enterprises) for providing energy accounting on 7.00 hours to 18.00 hours on the same day instead of 15 minute time block basis as per earlier GR dated 26.09.2019. Hon'ble Commission is requested to decide the Petition by allowing appropriate modifications for carrying out energy accounting in terms of Government GR dated 01.09.2020 for MSME (Manufacturing enterprises) since there are number of solar projects are envisaged and in the stage of implementation during the period from 01.09.2020 to 29.12.2020. Therefore, separate approval / Order of Hon'ble Commission is required to allow MSME Solar projects registered between 01.09.2020 to 29.12.2020 to commission as per amended Solar MSME Policy vide GR dated 01.09.2020.

11.0 It is respectfully submitted that under Section 61,62, 66, 86 and 181 of the Electricity Act 2003, Hon'ble Commission has jurisdiction to entertain the present petition for incorporation of provisions of the Solar Power Policy 2021 in the order/regulations of Hon'ble Commission for giving effect to provisions of Solar Power Policy 2021 in the State.

12.0 The Petitioner crave leave of Hon'ble Commission to make modification / deletion / alteration in the petitioner and / or to make further submission in the matter.

PRAYER:



The Petitioner most respectfully prays to Hon'ble Commission:

i. To take on record and admit the present petition,

ii. To incorporate provisions of Solar Power Policy-2021 notified by Government of Gujarat vide GR No: SLR-11/202020/77/B1 dated 29.12.2020 appropriately in the order dated 08.05.2020 for Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat and GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 as amended from time to time.

iii. During pendency of present petition, as an interim arrangement, Hon'ble Commission may please to allow Distribution Companies to implement provisions of Solar Power Policy – 2021 with effect from its notification dated 29.12.2020.

GUJARAT URJA VIKAS NIGAM LIMITED
- PETITIONER

DATE : 20/01/2021
PLACE: VADODARA

DECLARATION

Declaration that the subject matter of present Petition has not been raised by the Petitioner before any other competent forum and that no other competent forum is currently seized of the matter or has passed any order in relation thereto.

GUJARAT URJA VIKAS NIGAM LIMITED

PETITIONER

DATE : 20/01/2021

PLACE: VADODARA

4. Dakshin Gujarat Vij Company Ltd (DGVCL) Corporate Office, Kapodra, **Surat**

5. Torrent Power Ltd (Dist), Electricity House, Lal Darwaja, **Ahmedabad**

6. Torrent Power Ltd (Surat), 3 "Torrent House", Station Road, **Surat**

7. Torrent Power Ltd (Dist), Plot No. Z/21, Phase-1, SEZ, **At Dahej**, Tal Vagra, Dist:Bharuch-392130

8. Deendayal Port Trust, Business Development Cell, P.O Box No. 50, **Kandala**, Dist: Kutchh

9. Aspen Infrastructure Ltd., Survey No. 26, Village Pipaliya, Tal: **Waghodia**, Dist.- Vadodara

10. Jubilant Infrastructure Ltd., Plot No. 5, **Vilayat GIDC**, Tal: Vagra, Dist: Bharuch

11. GIFT Power Co. Ltd, Office No. 1, 28th Floor, GIFT One Tower, Building 56A, Block No. 56, Road-5C, Zone-5, GIFT CITY, **Gandhinagar**–382355.

12. MPSEZ Utilities Pvt. Ltd. **Mundra (Kutchh)** Address: Adani House, Nr. Mithakhali Circle, Navrangpura,Ahmedabad

Sr. No. 1385
Date : 20 / 1 / 2021

... **Respondents**

AFFIDAVIT

I, Hetal Patel, son of Shri Hasmukhbhai Patel aged about 38 years resident of Vadodara do hereby solemnly affirm and state as under:

1. I am Junior Engineer working in Gujarat Urja Vikas Nigam Limited and am well conversant with the facts of the case and able to swear to the present Affidavit.

BEFORE THE HONORABLE GUJARAT ELECTRICITY REGULATORY COMMISSION AT GANDHINAGAR

Filing No.

IN THE MATTER OF

Petition under Section 86 and other applicable provisions of the Electricity Act 2003 seeking incorporation of provisions of Solar Power Policy-2021 notified by Government of Gujarat vide GR No: SLR-11/202020/77/B1 dated 29.12.2020 appropriately in the order dated 08.05.2020 for Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat and GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 as amended from time to time.

AND

Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhavan
Race Course,
Vadodara – 390 007

..... **Petitioner**

AND

1. Madhya Gujarat Vij Company Ltd (MGVCL) Corporate Office, Sardar Patel Vidyut Bhavan, Race Course, **Vadodara**- 390007

2. Uttar Gujarat Vij Company Ltd (UGVCL) Corporate Office, Visnagar Road, **Mehsana**

3. Paschim Gujarat Vij Company Ltd (PGVCL) Corporate Office, Nana Mava Road, Laxminagar, **Rajkot**

2. I, on behalf of the Petitioner, Gujarat Urja Vikas Nigam Limited have gone through the contents of the accompanying Petition and say that the contents stated therein are based on the records of the Petitioner maintained in the normal course of business.

3. I say that the annexures are true copies of their originals.

Deponent

VERIFICATION:

I, the Petitioner above named do hereby verify that the contents of my above Affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Identified before me.

GUJARAT URJA VIKAS NIGAM LIMITED

PETITIONER

DATE : 20/01/2021

PLACE: VADODARA

My Commission Expires
on 04/07/2023

NOTARY
H. J. ZALA
AREA : BARODA
DIST. : (GUJ. STATE)
REGD. NO. 6250/
2008
GOVT. OF INDIA

Solemnly Affirmed/Declared
Sworn Before me by.....

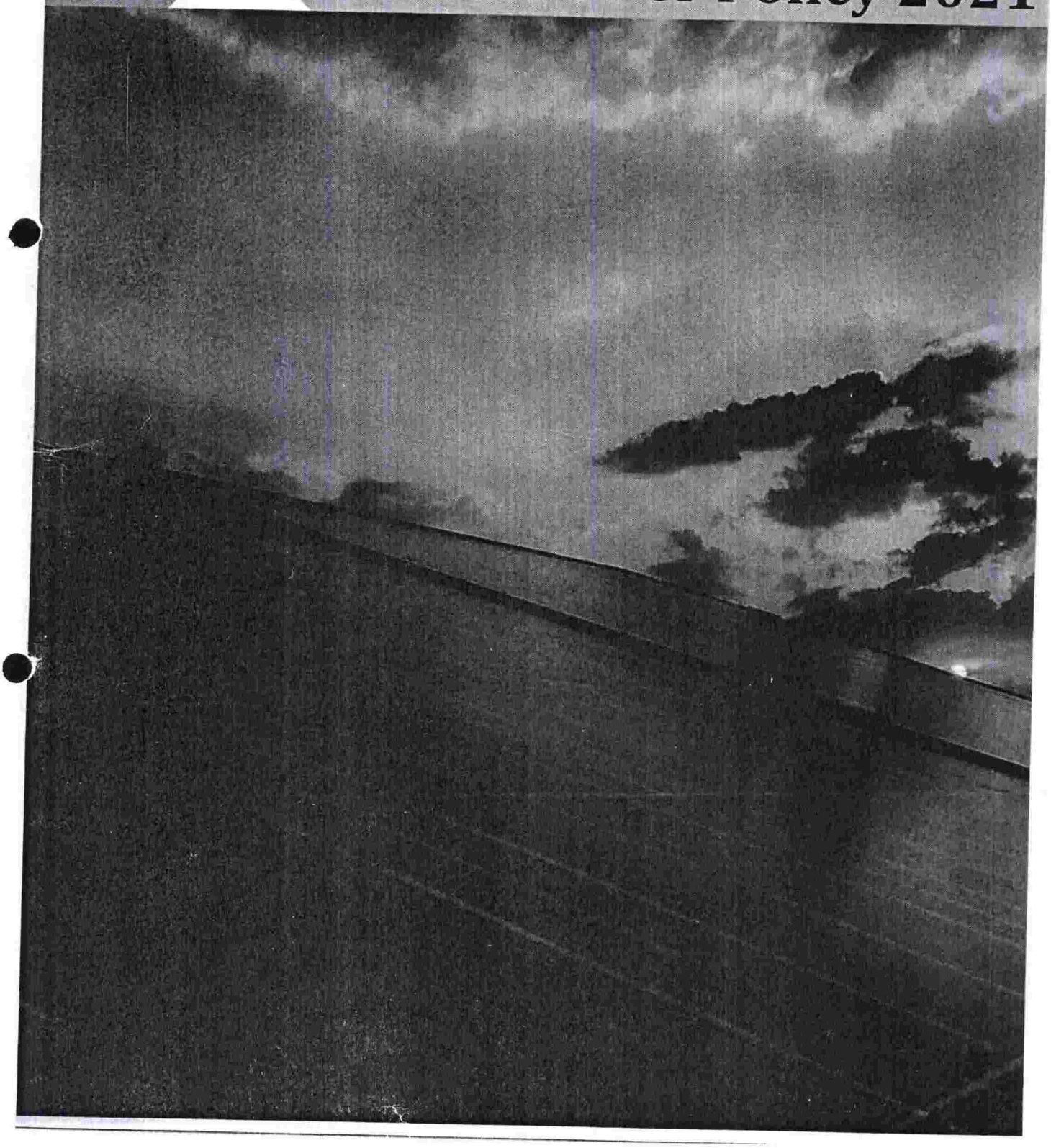
H. Z. ZALA
NOTARY (Govt. of INDIA)

Annexure- A

24

सत्यमेव जयते
ગુજરાત સરકાર
Government of Gujarat

Gujarat
Solar Power Policy 2021



सत्यमेव जयते
ગુજરાત સરકાર
Government of Gujarat

Gujarat Solar Power Policy 2021

Government of Gujarat

Energy and Petrochemicals Department

GR No: SLR/11/2020/77/B1

Sachivalaya, Gandhinagar.

Dated the 29th December 2020

Contents

1. PREAMBLE 5
2. VISION 5
3. OBJECTIVES 5
4. TITLE 6
5. ABBREVIATIONS & DEFINITIONS 6
6. OPERATIVE PERIOD 8
7. CAPACITY INSTALLATION 8
8. ELIGIBLE ENTITIES 8
9. PROJECTS FOR RESIDENTIAL CONSUMERS 8
10. PROJECTS UNDER CAPTIVE USE 10
11. PROJECTS UNDER THIRD PARTY SALE 13
12. PROJECTS SET UP FOR SALE TO DISCOM 15
13. PROJECTS UNDER REC MECHANISM 15
14. SOLAR PROJECTS FOR RPO COMPLIANCE 17
15. WHEELING & TRANSMISSION OF ELECTRICITY 18
16. CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE 18
17. STATE GOVERNMENT FACILITATION & NODAL AGENCY 19
18. LAND & PREMISES 19
19. RESTRICTIONS 19
20. GRID INTEGRATION & SUPPORT FROM STATE UTILITIES 19
21. METERING 21
22. ELECTRICITY DUTY 21
23. FORECASTING AND SCHEDULING 21
24. SECURITY DEPOSIT 21
25. REGULATION 22
26. MID TERM REVIEW 23
27. RIGHT TO REMOVE DIFFICULTIES 23
28. RIGHT TO INTERPRET 23

1. PREAMBLE

The Government of Gujarat ("State") recognizes the growing impacts of climate change at local and national levels and has taken various policy initiatives to mitigate the impact.

The State is having a significant potential of solar energy resource due to its topography and has witnessed the deployment of both large scale and distributed solar PV systems indigenously. Since the inception of the Solar Policy in 2009 and the subsequent revision in 2015 and 2019, the State has installed over 3,200 MW of solar PV technology across all segments until 2020.

To align with India's ambitious solar PV capacity expansion program, the State envisages to accelerate the deployment of solar power by means of implementation of large-scale projects, small scale distributed systems, establishment of ultra-mega solar parks. These targets will be achieved by introducing new mechanism that will support consumers, businesses and developers in the sector.

2. VISION

The State intends to meet its sustainable development goals by advancing the development of solar energy in a manner that would position it as a mainstream source of energy supply as well as a primary contributor to the national target of 100 GW Solar Capacity by 2022 as part of India's Global Commitment.

3. OBJECTIVES

Accordingly, the State Government introduces the **"Gujarat Solar Power Policy 2021"** with the following objectives:

3.1 To rapidly scale up the State's solar energy capacity in order to contribute to India's overall renewable energy targets keeping in mind India's commitments under international climate agreements.

3.2 To reduce the dependence on fossil fuels and further energy security in the State.

3.3 To further the Sustainable Development Goals (SDG) of Gujarat.

3.4 Employment generation and skill enhancement and promotion of local manufacturing facilities

3.5 To establish core technical competence in professionals by promoting research, development, deployment and innovation in the solar energy sector.

3.6 To spread awareness about solar power technologies amongst all the electricity consumers.

3.7 To create an investment friendly environment that can provide a win-win situation for all stakeholders in the Power Sector.

4 TITLE

This Policy shall be known as the **'Gujarat Solar Power Policy 2021'** (henceforth "Policy")

5 ABBREVIATIONS & DEFINITIONS

5.1 "ABT" means Availability Based Tariff.

5.2 "Act" means Electricity Act, 2003, including amendments thereto.

5.3 "CDM" means Clean Development Mechanism.

5.4 "CEA" means Central Electricity Authority.

5.5 "CERC" means Central Electricity Regulatory Commission.

5.6 "COD" means Commercial Operation Date.

5.7 "Cr." means Crore.

5.8 "DisCom" means Distribution Licensee in the State.

5.9 "GERC" means Gujarat Electricity Regulatory Commission.

5.10 "GoI" means Government of India.

5.11 "Government/ State Government" means Government of Gujarat.

5.12 "kV" means kilovolt.

5.13 "kW" means kilowatt.

5.14 "MSME" means Micro Small and Medium Enterprises – Manufacturing (MSME – Manufacturing Enterprises Development) as per MSMED Act 2006.

5.15 "MW" means megawatt.

5.16 "Obligated Entities" means entities obligated to fulfill the Renewable Power Purchase Obligation (RPO) as prescribed by GERC.

5.17 "Policy" means Gujarat Solar Power Policy 2021.

5.18 "PPA" means Power Purchase Agreement.

5.19 "Premises" means as defined in GERC Supply Code.

5.20 "Project Capacity" means the maximum AC capacity at the delivery point.

5.21 "PV" means Photovoltaic(s).

5.22 "Renewable attribute" means renewable element of the solar energy used for meeting RPO by obligated entity or for generation of REC.

5.23 "RE" means Renewable Energy.

5.24 "REC" means Renewable Energy Certificate.

5.25 "RPO" means Renewable Purchase Obligation, which may also imply Solar Power Purchase Obligation for the purpose of this policy.

5.26 "SLDC" means State Load Dispatch Centre.

5.27 "State Nodal Agency (SNA)" means Gujarat Energy Development Agency (GEDA).

5.28 "Developer/ Solar Power Developer" means an entity that makes an investment for setting up solar power project and generating electricity from solar energy.

5.29 "SIC" means Surplus Injection Compensation.

5.30 "SPG" means Solar Power Generator.

5.31 "Solar Power Plant (SPP) / Solar Plant" means a power plant generating electricity from solar resources.

5.32 "SPS" means Solar Power System.

5.33 "State" means State of Gujarat.

6 OPERATIVE PERIOD

6.1 This policy will come into effect from the date of its notification and shall remain in operation for a period up to 31st December 2025.

6.2 The Solar Power Systems (SPS) 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 life span of the SPS, whichever is earlier.

7 CAPACITY INSTALLATION

7.1 The capacity installation targets for the DisComs shall be based on the renewable power purchase obligation (RPO) defined by the Gujarat Electricity Regulatory Commission (GERC), from time to time.

7.2 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 ENTITIES

8.1 Any individual or 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 SPSs, either for the purpose of captive use and/ or for selling of electricity to the Distribution Licensee or Third Party whether or not under the renewable energy certificate (REC) mechanism subject to provisions of this policy and in accordance with the Electricity Act-2003, as amended from time to time.

8.2 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 PROJECTS FOR RESIDENTIAL CONSUMERS

9.1 Solar Projects set up by residential consumers on their rooftop / premises shall be allowed irrespective of consumer sanctioned load. Incentives under existing schemes can me availed by consumers as per the provisions of the scheme.

9.2 Solar Projects can also be set up by a developer on the rooftop / premises of a residential consumer for generation and sale of power to such consumer in the same premises (Third Party Sale) for which the developer and consumer shall enter into a lease agreement and/or power sale agreement.

9.3 In case of Residential Consumers, the Energy Accounting shall be carried out on Billing Cycle basis.

9.4 Surplus Energy generated from the solar project after set off on billing cycle basis shall be purchased by respective DisCom at the following rates.

9.4.1 In case of self-owned systems and SURYA Gujarat scheme consumers: At Rs.2.25 / unit for the first 5 years from commissioning of project and thereafter for the remaining term of the project at 75% of the simple average of tariff discovered and contracted under competitive bidding process conducted by GUVNL for non-park based solar projects in the preceding 6-month period, i.e. either April to September or October to March as the case may be, from the commercial operation date (COD) of the project.

9.4.2 In case of Third-Party Sale covered under Clause 9.2 - At 75% of the simple average of tariff discovered and contracted under competitive bidding process conducted by GUVNL for Non-park based solar projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the commercial operation date (COD) of the project.

Such rates shall be declared by GUVNL on six monthly basis and shall be applicable under the connectivity agreement to be executed by DisComs

9.5 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by DisCom at applicable tariff of respective category of consumer as determined by Hon'ble GERC from time to time.

9.6 No transmission and wheeling charges and losses shall be applicable as solar power is generated and consumed in the same premises.

9.7 No Banking charges shall be applicable on solar power consumed by Residential Consumers.

9.8 Cross subsidy and additional surcharge shall not be applicable for self-consumption. However, Cross subsidy and additional surcharge for projects under third party sale shall be applicable.

9.9 Consumers and DisComs shall comply with the provisions of applicable regulations, standards and codes notified by various authorities such as GERC and CEA on aspects like metering, connectivity and safety.

9.10 Summary of Benefits:

Capacity Restriction	No restriction on installed capacity
Capital subsidy	As per Government of Gujarat scheme announced from time to time
Third party sale	Allowed
Energy Accounting	As per billing cycle
Surplus Injection Compensation	**For self-consumption** Rs. 2.25/Unit for first 5 years, thereafter 75% of lowest tariff discovered in GUVNL bid (refer above) **For third party sale** 75% of lowest tariff discovered in GUVNL bid (refer above)
Banking Charges	None
Transmission and Wheeling Charges	None
Cross Subsidy and Additional Surcharges	Not applicable for self-consumption Applicable in case of third-party sale
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

10 PROJECTS UNDER CAPTIVE USE

10.1 This section of the policy shall refer to industrial, commercial, institutional and other consumers.

10.2 The use of electricity for self-consumption within the same premises or at different premises by the consumer having 100% ownership of SPS shall be considered as captive use.

10.3 No capacity restrictions shall be applicable under this category.

10.4 Installation of solar projects with collective ownership of more than one consumer investing / holding 100% of equity amount collectively shall be allowed. In such cases of collective ownership, the energy generated shall be allowed to be consumed by each of the consumer based on ratio of their equity in such solar project.

10.5 In case of solar projects set up by HT / EHV consumers for captive use, the energy set-off shall be allowed between 07.00 hours to 18.00 hours of the same day. That means, the generated solar energy during a day shall be consumed by HT or EHV consumer during 07.00 hours to 18.00 hours on the

same day. The surplus energy after the specified period shall be purchased by DisCom at rates specified under this policy.

10.6 In case of solar projects set up by LT demand-based consumers for captive use, the energy set-off shall be allowed between 07.00 hours to 18.00 hours basis of the same billing cycle. That means, the generated solar energy during a billing cycle shall be consumed by the consumer during the specified period in the same billing cycle. The surplus energy after the billing cycle shall be purchased by the DisCom at rates specified under this policy.

10.7 The energy accounting for all other LT consumers i.e., other than demand-based LT consumers shall be on billing cycle basis.

10.8 The surplus energy, not consumed by the consumer after set off shall be compensated by DisComs following rates (SIC).

a. In case of MSME Manufacturing Enterprises - At Rs 2.25 / unit for first 5 years from commissioning of project and thereafter for the remaining term of the project at 75% of the simple average of tariff discovered and contracted under competitive bidding process conducted by GUVNL for Non-park based solar projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the commercial operation date (COD) of the project. The same shall remain fixed for the entire term of the agreement

b. In case of other than MSME Manufacturing Enterprises - At 75% of the simple average of tariff discovered and contracted through competitive bidding process conducted by GUVNL for Non-park based solar projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the commercial operation date (COD) of the project. The same shall remain fixed for the entire term of the agreement.

10.9 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by the DisCom at the applicable tariff of the respective category of consumer as determined by Hon'ble GERC from time to time.

10.10 In case of projects set up for captive use, no cross-subsidy surcharge and additional surcharge shall be applicable.

10.11 Transmission and wheeling charges and losses as determined by GERC shall be levied as applicable depending on the location of the plant and the point of consumption.

10.12 Banking charges of Rs.1.50/ unit on solar energy consumed in case of Demand Based Consumers shall be applicable. In case of MSME units and other than Demand Based Consumers, Banking Charges of Rs.1.10 per unit on Solar Energy Consumed shall be applicable. Banking Charges shall not be applicable to government buildings.

10.13 Projects set up for captive use shall have the option to switch over from captive use to DisCom sale once in their life-time and upon such switch over, the applicable tariff under agreement to be signed with DisCom shall be lowest tariff discovered and contracted in competitive bidding process conducted by GUVNL for Non-park based Solar Projects as on the commercial operation date (COD) of the project.

10.14 Consumers and Utilities shall comply with the provisions of applicable regulations, standards and codes notified by various authorities such as GERC and CEA on aspects like metering, connectivity, open access, forecasting & scheduling and safety.

10.15 Summary of benefits:

Capacity Restriction	No restriction on installed capacity
Energy Accounting	**For HT/EHV consumers:** Energy set-off; Between 07.00 hours to 18.00 hours of same day **For LT demand-based consumers:** Energy set-off; Between 07.00 hours to 18.00 hours in the billing cycle **For LT other than demand-based consumers:** Energy setoff shall be on billing cycle basis.
Surplus Injection Compensation	**For MSME:** Rs. 2.25 for first 5 years, thereafter 75% of simple average of tariff discovered in GUVNL bid (refer above) **For others:** 75% of simple average of tariff discovered in GUVNL bid (refer above)

Banking Charges	**MSME units and other than Demand Based Consumers:** Rs. 1.10 per unit on energy consumed **For demand-based consumers:** Rs 1.50 per unit on energy consumed **For Government Buildings:** Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	Exempted
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

11 PROJECTS UNDER THIRD PARTY SALE

11.1 This section of the policy shall refer to industrial, commercial, institutional and other consumers.

11.2 The sale of electricity by the owner of SPSs to separate consumers shall be considered as Third-Party Sale. Installation of solar projects by a developer for third party sale shall be allowed without any capacity restriction. Developers can also install solar projects on rooftop / premises of a consumer for generation and sale of power to such consumer in the same or different premises or to another consumer by entering into lease agreement and/or power sale agreement.

11.3 Installation of solar projects for supply of solar power to the consumer of DisCom shall be allowed without any capacity ceiling under third party sale.

11.4 In case of solar projects set up by HT / EHV consumers, the energy set-off shall be allowed between 07.00 hours to 18.00 hours of the same day. That means, the generated solar energy during a day shall be consumed by HT or EHV consumer during 07.00 hours to 18.00 hours on the same day. The surplus energy after the specified period shall be purchased by DisCom at rates specified under this policy.

11.5 In case of solar projects set up by LT demand-based consumers, the energy set-off shall be allowed between 07.00 hours to 18.00 hours basis of the same billing cycle. That means, the generated solar energy during a billing cycle shall be consumed by the consumer during the specified period in the same

billing cycle. The surplus energy after the billing cycle shall be purchased by the DisCom at rates specified under this policy.

11.6 The surplus energy, not consumed by the consumer after set off shall be compensated by DisComs at 75% of the simple average of tariff discovered and contracted through competitive bidding process conducted by GUVNL for Non-park based Solar Projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the commercial operation date (COD) of the project. The same shall be remain fixed for the entire term of the Agreement.

11.7 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by DisCom at applicable tariff of respective category of consumer as determined by Hon'ble GERC from time to time.

11.8 Cross subsidy surcharge and additional surcharge shall be applicable similar to normal open access consumers as determined by GERC from time to time.

11.9 Transmission and wheeling charges and losses as determined by GERC shall be levied as applicable depending on the location of the plant and the point of consumption.

11.10 Banking charges of Rs 1.50 / unit on energy consumed in case of Demand Based Consumers shall be applicable. In case of MSME units and other than Demand Based Consumers, Banking Charge of Rs.1.10 per unit on Solar Energy Consumed shall be applicable. Banking Charges shall not be applicable to government buildings.

11.11 Consumers, Utilities and Developers shall comply with the provisions of applicable regulations, standards and codes notified by various authorities such as GERC and CEA on aspects like metering, connectivity, open access, forecasting & scheduling and safety.

11.12 Summary of benefits:

Capacity Restriction	No restriction on installed capacity
Energy Accounting	**For HT/EHV consumers:** Energy set-off; Between 07.00 hours to 18.00 hours of same day **For LT demand-based consumers:** Energy set-off; Between 07.00 hours to 18.00 hours in the billing cycle

	For LT other than demand-based consumers: Energy setoff shall be on billing cycle basis.
Surplus Injection Compensation	75% of simple average of tariff discovered in GUVNL bid (refer above)
Banking Charges	**MSME units and other than Demand Based Consumers:** Rs. 1.10 per unit on energy consumed **For demand-based consumers:** Rs 1.50 per unit on energy consumed **For Government Buildings:** Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	As decided by GERC from time to time
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

12 PROJECTS SET UP FOR SALE TO DISCOM

12.1 **Projects through Competitive Bidding -** DisComs shall procure solar power with or without storage and / or blended with other RE sources by following competitive bidding process in accordance with Guidelines issued by Government of India from time to time under Section 63 of Electricity Act.

12.2 **Projects at pre-fixed levelized tariff (below 4 MW) –** DisComs may procure solar power from distributed solar projects up to 4 MW capacity at pre-fixed levelized tariff as per the mechanism of applicable tariff stipulated under the "Policy for development of Small Scale Distributed Solar Projects – 2019" notified through GR No. SLR/11/2019/51/B1 dated 06.03.2019. The tariff shall be fixed at the time of signing the PPA with the DisCom. Projects can be set up on land or other premises having ownership or legal possession of the developer. Installation of projects below 0.5 MW capacity may also be allowed under this category.

13 PROJECTS UNDER REC MECHANISM

13.1 Developers may set up solar power projects under the REC mechanism in accordance with the administrative procedure regarding registration and

accreditation, as decided by the Central Electricity Regulatory Commission (CERC), and as amended from time to time.

13.2 In case of projects to be set up for captive / third party sale under REC Mechanism, installation of solar projects up to sanctioned load / contract demand shall be allowed.

13.3 The energy accounting for the projects set up under REC Mechanism shall be carried out on 15-minute time block basis.

13.4 In case of projects set up for captive / third party sale under REC Mechanism, surplus energy after giving set-off on 15 min time block basis, shall be compensated by DisComs at 65% of the simple average of tariff discovered and contracted by GUVNL through competitive bidding process for Non-park based solar projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the commercial operation date (COD) of the project. The same shall remain fixed for the entire term of the agreement.

13.5 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by DisCom at applicable tariff of respective category of consumer as determined by Hon'ble GERC from time to time.

13.6 In case DisCom agrees to purchase the electricity component of power from a project under REC Mechanism, the applicable tariff payable by DisComs shall be, 65% of the simple average of tariff discovered and contracted by GUVNL through competitive bidding process for Non-Park based solar projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the date on which the PPA is executed. The same shall remain fixed for the entire term of the agreement.

13.7 No banking charges shall be applicable.

13.8 In case of Projects set up for third party sale, cross subsidy surcharge and additional surcharge shall be applicable similar to normal open access consumers as determined by GERC from time to time.

13.9 Transmission and wheeling charges and losses as determined by GERC shall be levied as applicable depending on the location of the plant and the point of consumption.

13.10 **Summary of benefits:**

Capacity Restriction	Up to sanctioned load / contract demand
Energy Accounting	15-minute time block basis
Surplus Injection Compensation	65% of the simple average of tariff discovered in GUVNL bid (refer above)
Banking Charges	Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	As decided by GERC from time to time
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

14 SOLAR PROJECTS FOR RPO COMPLIANCE

14.1 Consumers shall be allowed to set up projects to fulfill their RPO requirements regardless of their contracted demand. For such projects the energy accounting shall be done on a 15 min time block basis.

14.2 The surplus solar energy purchased by Distribution Company from captive / third party solar projects shall be considered for fulfilling RPO of Distribution Company.

14.3 The surplus energy injected into the Grid shall be compensated by DisComs at 75% of the simple average of tariff discovered and contracted by GUVNL through competitive bidding process for Non-park based solar projects in the preceding 6-month period, i.e., either April to September or October to March as the case may be, from the commercial operation date (COD) of the project. The same shall remain fixed for the entire term of the agreement.

14.4 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by DisCom at applicable tariff of respective category of consumer as determined by Hon'ble GERC from time to time.

14.5 Cross subsidy surcharge and additional surcharge shall not be applicable in case of captive consumption. For third party sale projects, both the charges shall be applicable. These surcharges shall be similar to normal open access consumers as determined by GERC from time to time

14.6 No banking charges shall be applicable.

14.7 Transmission and wheeling charges and losses as determined by GERC shall be levied as applicable depending on the location of the plant and the point of consumption.

14.8 Summary of benefits:

Capacity Restriction	No restriction on installed capacity
Energy Accounting	15-minute time block basis
Surplus Injection Compensation	75% of the simple average of tariff discovered in GUVNL bid (refer above)
Banking Charges	Exempted
Transmission and Wheeling Charges	As decided by GERC from time to time
Cross Subsidy and Additional Surcharges	**For captive consumers:** Not applicable **For third party sale:** As decided by GERC from time to time
Electricity Duty	As per the provision of Gujarat Electricity Duty Act, 1958

15 WHEELING & TRANSMISSION OF ELECTRICITY

15.1 Wheeling of power for captive consumption / third party sale shall be allowed on payment of transmission charges, transmission losses, wheeling Charges and wheeling losses, as applicable to normal open access consumers. If the generated solar energy is consumed within the same premises without use of grid, no transmission / wheeling charges & losses shall be applicable.

15.2 If a Solar Power Generator owner desires to wheel electricity to more than one location, he shall pay Rs 0.05 / kWh on energy fed into the grid to distribution licensee in whose area power is consumed in addition to the above-mentioned transmission charges and losses, as applicable.

16 CROSS SUBSIDY SURCHARGE & ADDITIONAL SURCHARGE

16.1 Cross Subsidy Surcharge and Additional Surcharge shall not be applicable in case of Captive Projects. In case of projects set up for Third Party Sale, Cross Subsidy Surcharge and Additional Surcharge shall be equal to charges for normal open access consumers. These charges shall be as determined by GERC from time to time.

17 STATE GOVERNMENT FACILITATION & NODAL AGENCY

17.1 Gujarat Energy Development Agency (GEDA) shall be the State Government Nodal Agency for facilitation and implementation of this policy. The nodal agency will facilitate and assist the project developers to undertake the following activities in achieving the objectives of the Policy.

- Registration of projects;
- Respond to queries and problems of Developers of Solar Power Projects;
- Accreditation and recommending Solar Power Projects for registering with Central Agency under REC mechanism;
- Certifying the commissioning of Solar Projects.

18 LAND & PREMISES

18.1 Securing legal possession / ownership of the land and/or premises on which the solar projects are to be set up, shall be the sole responsibility of developer / consumers as the case may be.

19 RESTRICTIONS

19.1 Only New Plant and Machinery shall be eligible for installation under this Policy. No fossil Fuel viz. coal, gas, lignite, oil, naphtha etc. shall be allowed to be used by any projects set up under this policy. In case of Solar Thermal Power Projects, fossil fuel beyond the ceiling allowable under MNRE guidelines shall not be used.

20 GRID INTEGRATION & SUPPORT FROM STATE UTILITIES

20.1 Grid Integration

- Stability of Grid and its security is of prime importance. Since the penetration of infirm nature of Renewable Energy may endanger grid security, adequate protection measures are necessary.
- Grid integration shall be in accordance with the Central Electricity Authority (CEA) technical guidelines 'Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019.
- Interconnection voltages:

Project Capacity(C)	Interconnection Specification
1 kW < C < 6 kW	230 V, 1φ, 50 Hz
6 kW < C < 100 kW	415 V, 3φ, 50 Hz
100 kW < C < 4 MW	11 kV, 3φ, 50 Hz
C >4 MW	33/66/132/ 220/400, 3φ, 50 Hz

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

20.2 Grid Connectivity

- The respective evacuation facility shall be initially approved by CTU/ STU/ DisCom depending on injection level after carrying out system studies.
- For start-up, stand-by and auxiliary power requirement, the same shall be governed by GERC regulations and orders.
- No parallel operation charges shall be applicable to the SPG.
- Connectivity charges to be paid to DisCom / STU shall be in accordance with the provisions of respective scheme notifications and GERC Regulations.
- The connectivity shall be granted to project developers by GETCO / DisCom from a published list of sub-stations where spare capacity for connectivity is available by updating such list on regular time period intervals.

20.3 Evacuation Facilities

- **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 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.

- **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.

20.4 Reactive Power

- The drawl of reactive power by solar generator shall be charged as per the GERC Order, as amended from time to time.

21 METERING

21.1 The electricity generated by the SPGs, shall be metered on 15-minute time block basis 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 as amended from time to time. STU/ DisCom shall stipulate specifications in this regard.

21.2 In case of consumers having contracted load / sanctioned demand not exceeding 1 MW, DisComs may allow installation of non-ABT meters at consumer level reprogrammed at consumer's cost as per the energy accounting requirement.

22 ELECTRICITY DUTY

22.1 Electricity Duty on solar consumption shall be subject to the provision of Gujarat Electricity Duty Act, 1958 as amended from time to time.

23 FORECASTING AND SCHEDULING

23.1 Forecasting and scheduling of energy for day-to-day operations shall be governed by GERC Regulations and its amendments issued from time to time.

24 SECURITY DEPOSIT

24.1 In case, DisCom decides to procure solar power from the Solar Project Developers and sign Power Purchase Agreement, the Developer shall be

required to provide Bank Guarantee as per terms and conditions of bid documents / Govt Scheme / MNRE Guidelines.

24.2 In case of projects not falling under Clause 24.1 above, the Project Developers shall be required to provide Bank Guarantee towards Security Deposit @ 5 Lakh / MW at the time of signing of PPA with obligated entities.

24.3 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.

24.4 Where projects are set up for captive / third party sale, SPGs shall submit Bank Guarantee towards Security Deposit of INR 5 lakhs per MW to STU/DisCom for ensuring speedy and timely completion of evacuation facility by SPG, In case, the SPG fails to commission the entire evacuation line along with bays and metering system within the time period mentioned hereunder, STU / DisCom shall encash the Bank Guarantee.

Solar Project capacity (MW)	Period of Commissioning
1 MW to 100 MW	1.5 years from the date of allotment of transmission capacity
101 MW to 200 MW	2 years from the date of allotment of transmission capacity
201 MW to 400 MW	2.5 years from the date of allotment of transmission capacity
401 MW to 600 MW	3.5 years from the date of allotment of transmission capacity

24.5 The Solar Power Project Developer shall commission the Solar Power Project of at least 10% of the allotted capacity within one month of charging of evacuation line, failing which; the Developer shall be liable to pay long-term Transmission Charges for 10% of allotted capacity till such 10% of allotted capacity is commissioned. Balance 90% capacity shall be required to be commissioned within two years failing which GETCO shall cancel the capacity allotment to the extent of capacity not commissioned and the developer shall have no claim on such capacity. Further, GETCO shall include such cancelled capacity in the list of spare capacity for RE integration to be published on their website for prospective consumers.

25 REGULATION

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

26 MID TERM REVIEW

26.1 The 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 the Electricity Act 2003, as amended from time to time.

27 RIGHT TO REMOVE DIFFICULTIES

27.1 The State Government shall have right to remove any difficulties arising in giving effect to this policy and issue clarification/interpretation to remove such difficulties either on its own motion or based on representations from stakeholders.

28 RIGHT TO INTERPRET

If there is any ambiguity or dispute about the meaning, intent or purpose of any provision of this Policy, the interpretations 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 27th December, 2020 on the Department's file of even number.

By order and in the name of the Governor of Gujarat

(Dr. Nisarg Joshi)
Deputy Secretary to the Government
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, Lal Darwaja, Ahmedabad
- The Managing Director, Gujarat Paguthan Energy Corporation Pvt. Ltd., Ashram Road, Ahmedabad
- The National Thermal Power Corporation Limited, Zanor, Gandhar, Dist. Bharuch
- The National Thermal Power Corporation Limited, Kawas, Hazira, Gandhar, Dist. Surat

*By Letter

Annexure B

TARIFF FRAMEWORK FOR PROCUREMENT OF POWER BY DISTRIBUTION LICENSEES AND OTHERS FROM SOLAR ENERGY PROJECTS AND OTHER COMMERCIAL ISSUES FOR THE STATE OF GUJARAT

Order No. 03

8th May, 2020

GUJARAT ELECTRICITY REGULATORY COMMISSION

6th Floor, GIFT ONE,
Road 5C, Zone 5, GIFT CITY,
Gandhinagar-382355,
Gujarat

Contents

CONTENTS 2

ABBREVIATIONS 4

1. INTRODUCTION 7

1.1. Background 7

1.2. The Electricity Act, 2003 7

1.3. National Electricity Policy, 2005 8

1.4. Tariff Policy, 2006 9

1.5. Tariff Policy, 2016 9

1.6. National Action Plan on Climate Change 12

1.7. Gujarat Solar Power Policy, 2009 12

1.8. Jawaharlal Nehru National Solar Mission 13

1.9. GERC Solar Tariff Order, 2012 13

1.10 Gujarat Solar Policy, 2015 14

1.11 GERC Solar Tariff Order, 2015 15

1.12 Gujarat's Renewable Purchase Obligation 16

1.13 Policy for development of Small Scale Distributed Solar PV Power Projects-2019 17

1.15 Surya Urja Rooftop Yojana (SURYA) 18

1.16 Discussion Paper for Solar Energy Tariff Framework 18

1.17 Public Hearing 18

2. COMMENTS AND SUGGESTIONS ON PROPOSED TARIFF FRAMEWORK AND COMMISSION'S VIEW 20

2.1. Clause 3.1: Tariff Framework 20

2.2. Clause 3.2(a): Control Period 23

2.3. Clause 3.2(b): Plant and Machinery 23

2.4. Clause 3.2(e): Eligibility Criteria 24

2.5. Clause 3.3: Capacity 24

2.6. Clause 3.5: Security Deposit 25

2.7. Clause 3.8: Energy Accounting and RPO 27

2.8. Clause 3.9: Transmission/ Wheeling Charge and Losses 29
i. General 29
ii. Transmission Charges and Losses 29
iii. Wheeling Charges and Losses 29
iv. Wheeling at Two or More Locations 29

2.9. Clause 3.10: Cross-Subsidy Surcharge & Additional Surcharge 30

3. TARIFF FRAMEWORK, GENERAL PRINCIPLES AND OTHER CONSIDERATIONS 32

3.1. Tariff Framework 32

3.2. General Principles 33

3.3. Capacity 33

3.4. Evacuation Facilities 34

3.5. Security Deposit 35

3.6. Operation and maintenance of dedicated lines 35

3.7. Metering 35

3.8. Energy Accounting and RPO 36

3.9. Transmission/ Wheeling Charge and Losses 37
i. General 37
ii. Transmission Charges and Losses 37
iii. Wheeling Charges and Losses 37
iv. Wheeling at Two or More Locations 37

3.10. Cross-Subsidy Surcharge & Additional Surcharge 37

3.11. Sharing of Clean Development Mechanism (CDM) Benefit 38

Annexure - 1: List of Stakeholders communicated their views on the Discussion Paper 39

Annexure - II: List of Stakeholders participated in the public hearing 40

Abbreviations

ABT	:	Availability-Based Tariff
AC	:	Alternating Current
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
CUF	:	Capacity Utilization Factor
DC	:	Direct Current
EPC	:	Engineering, Procurement & Commission
EPD	:	Energy and Petrochemicals Department
GEDA	:	Gujarat Energy Development Agency
GERC	:	Gujarat Electricity Regulatory Commission
GETCO	:	Gujarat Energy Transmission Corporation Ltd.
GHI	:	Global Horizontal Insolation
GoG	:	Government of Gujarat
GoI	:	Government of India
h	:	Hour
Hz	:	Hertz
IEC	:	International Electrotechnical Commission
IMD	:	India Meteorological Department
INR	:	Indian Rupees
JNNSM	:	Jawaharlal Nehru National Solar Mission
kWh	:	Kilowatt-hour (also known as a 'Unit')
L	:	Litre
Lac(s)	:	A unit in the Indian numbering system, which equals to 100,000. Also known as 'Lakh.'
LCOE	:	Levelized Cost of Electricity
MAT	:	Minimum Alternate Tax
MNRE	:	Ministry of New and Renewable Energy
MW	:	Megawatt

NASA	:	National Aeronautics and Space Administration
NSM	:	National Solar Mission
NTPC	:	National Thermal Power Corporation Ltd.
NVVN	:	NTPC Vidyut Vyapar Nigam Ltd.
O&M	:	Operation and Maintenance
ph	:	Phase
PPA	:	Power Purchase Agreement
PR	:	Performance Ratio
PV	:	Photovoltaic(s)
RBI	:	Reserve Bank of India
REC	:	Renewable Energy Certificate
RPO	:	Renewable Purchase Obligation
SBI	:	State Bank of India
SECI	:	Solar Energy Corporation of India
SERC	:	State Electricity Regulatory Commission
SEZ	:	Special Economic Zone
SPP	:	Solar Power Policy
sq.	:	Square
STC	:	Standard Testing Conditions
STU	:	State Transmission Utility
V	:	Voltage
W	:	Watt

54

Order No. 03 of 2020

In the matter of:

Tariff framework for procurement of power by distribution licensees and others from Solar Energy Projects and other commercial issues for the State of Gujarat

Date of Public hearing: 07.03.2020

Date of the Order: 08.05.2020

CORAM

Shri Anand Kumar, Chairman

Shri P. J. Thakkar, Member

1. Introduction

1.1. Background

In exercise of the powers conferred under Sections 3 (1), 61 (h), 62 (1) (a), and 86 (1) (b) & (e) of the Electricity Act, 2003, National Electricity Policy, 2005, and Tariff Policy, 2016 and all other powers enabling it in this behalf, the Gujarat Electricity Regulatory Commission (GERC or Commission) presents this Order on the tariff framework for procurement of power by Distribution Licensees and others from Solar power projects to be commissioned prospectively.

The Gujarat Solar Power Policy-2015 as well as the amendments notified by the Government of Gujarat, have been considered while preparing this Order. The Commission had issued the previous generic Tariff Order on 17th August, 2015, for procurement of power by Distribution Licensees from Solar power projects in Gujarat. The Control Period of GERC Solar power Tariff Order 2015 expired on 31 March, 2018. This Order details the tariff framework for the prospective period as well as the intervening period.

The Commission duly considered the various provisions of the following Statutory/Policy documents, while preparing the Discussion Paper on the proposed Tariff framework:

1.2. The Electricity Act, 2003

The following provisions of the Act provide the enabling legal framework for promotion of Renewable Sources of energy by the State Electricity Regulatory Commissions (SERCs):

1.2.1 Section 61 (h) of the Act provides that, while specifying the terms and conditions of determination of tariff, the Commission shall be guided by the objective of promotion of cogeneration and generation of electricity from renewable sources of energy.

> *"The promotion of cogeneration and generation of electricity from renewable sources of energy."*

1.2.2 Section 62 (1) (a) of the Act provides for determination of tariff for supply of electricity by a generating company to a distribution licensee.

> *"Supply of electricity by a generating company to a distribution licensee: Provided that the Appropriate Commission may, in case of shortage of supply of electricity, fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating company and a licensee or between licensees, for a period not exceeding one year to ensure reasonable prices of electricity."*

1.2.3 Section 86.1 (b) of the Act regulates the procurement process of electricity by the distribution licensees as under:

"regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;"

1.2.4 Section 86.1 (e) of the Electricity Act 2003 mandates promotion of cogeneration and generation of electricity from renewable sources of energy:

"Promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee."

1.2.5 Section 3 (1) of the Electricity Act 2003 requires the Central Government to formulate, inter alia, the National Electricity Policy in consultation with the Central Electricity Authority (CEA) and State Governments. The provision is quoted below:

"The Central Government shall, from time to time, prepare the National Electricity Policy and tariff policy, in consultation with the State Governments and the Authority for development of the power system based on optimal utilization of resources such as coal, natural gas, nuclear substances or materials, hydro and renewable sources of energy."

1.3. National Electricity Policy, 2005

The National Electricity Policy, 2005 formulated in compliance with the above-stated Section 3 of the Electricity Act envisages:

Clause 5.6.1 stipulates about the need for Technology Development and R&D on non-conventional energy systems, as reproduced below:

"Special efforts would be made for research, development demonstration and commercialisation of non-conventional energy systems. Such systems would need to meet international standards, specifications and performance parameters."

Clause 5.12 stipulates several conditions for promotion and harnessing of renewable energy sources. The salient features of the said provisions of NEP are reproduced below.

5.12.1: Non-conventional sources of energy being the most environment-friendly, there is an urgent need to promote generation of electricity based on such sources of energy. For this purpose, efforts need to be made to reduce the capital cost of projects based on non-conventional and renewable sources of energy. Cost of energy can also be reduced by promoting competition within such projects. At the same time, adequate promotional measures would also have to be taken for development of technologies and a sustained growth of these sources.

5.12.2: The Electricity Act, 2003, provides that co-generation and generation of electricity from non- conventional sources would be promoted by the SERCs by providing suitable measures for connectivity with the grid and sale of electricity to any person and also by specifying, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee. Such percentage for purchase of power from non-conventional sources should be made applicable for the tariffs to be determined by the SERCs at the earliest. Progressively, the share of electricity from non-conventional sources would need to be increased as prescribed by State Electricity Regulatory Commissions. Such purchase by distribution companies shall be through competitive bidding process. Considering the fact that it will take some time before non-conventional technologies compete, in terms of cost, with conventional sources, the Commission may determine an appropriate differential in prices to promote these technologies.

1.4. Tariff Policy, 2006

The Tariff Policy, 2006 issued by the Ministry of Power, Government of India, also emphasizes on the importance of non-conventional sources of energy generation and states:

"Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage for purchase of energy from such sources taking into account availability of such resources in the region and its impact on retail tariffs. Such percentage for purchase of energy should be made applicable for the tariffs to be determined by the SERCs latest by April 1, 2006."

1.5. Tariff Policy, 2016

In compliance with the Section (3) of the Act, the Central Government has notified the revised Tariff Policy on 28th January, 2016. The Tariff Policy elaborates the role of Regulatory Commissions, the mechanism for promoting renewable energy, the time-frame for implementation, etc. Clause 5.2 of the Tariff Policy provides as under:

"Provided also that the State Government can notify a policy to encourage investment in the State by allowing setting up of generating plants, including from renewable energy sources out of which a maximum of 35% of the installed capacity can be procured by the Distribution Licensees of that State for which the tariff may be determined under Section 62 of the Electricity Act, 2003."

Clause 6.4 of the Tariff Policy addresses various aspects associated with promoting and harnessing renewable sources of energy generation including co-generation from renewable energy sources, as reproduced below:

1) *"Pursuant to provisions of Section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with MNRE.*

Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs.

(i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification of this policy which shall be such that it reaches 8% of total consumption of energy, excluding Hydro Power, by March 2022 or as notified by the Central Government from time to time.

(ii) Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Act.

(iii) It is desirable that purchase of energy from renewable sources of energy takes place more or less in the same proportion in different States. To achieve this objective in the current scenario of large availability of such resources only in certain parts of the country, an appropriate mechanism such as Renewable Energy Certificate (REC) would need to be promoted. Through such a mechanism, the renewable energy based generation companies can sell the electricity to local distribution licensee at the rates for conventional power and can recover the balance cost by selling certificates to other distribution companies and obligated entities enabling the latter to meet their renewable power purchase obligations. The REC mechanism should also have a solar specific REC.

(iv) Appropriate Commission may also provide for a suitable regulatory framework for encouraging such other emerging renewable energy technologies by prescribing separate technology based REC multiplier (i.e. granting higher or lower number of RECs to such emerging technologies for the same level of generation). Similarly, considering the change in prices of renewable energy technologies with passage of time, the Appropriate Commission may prescribe vintage based REC multiplier (i.e. granting higher or lower number of RECs for the same level of generation based on year of commissioning of plant).

2) *States shall endeavour to procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste to energy plants. Procurement of power by Distribution Licensee from renewable energy sources from projects above the notified capacity, shall be done through competitive bidding process, from the date to be notified by the Central Government.*

   However, till such notification, any such procurement of power from renewable energy sources projects, may be done under Section 62 of the Electricity Act, 2003. While determining the tariff from such sources, the Appropriate Commission shall take into account the solar radiation and wind intensity which may differ from area to area to ensure that the benefits are passed on to the consumers.

3) *The Central Commission should lay down guidelines for pricing intermittent power, especially from renewable energy sources, where such procurement is not through competitive bidding. The tariff stipulated by CERC shall act as a ceiling for that category.*

4) *In order to incentivize the Distribution Companies to procure power from renewable sources of energy, the Central Government may notify, from time to time, an appropriate bid-based tariff framework for renewable energy, allowing the tariff to be increased progressively in a back-loaded or any other manner in the public interest during the period of PPA, over the life cycle of such a generating plant. Correspondingly, the procurer of such bid-based renewable energy shall comply with the obligations for payment of tariff so determined.*

5) *In order to promote renewable energy sources, any generating company proposing to establish a coal/lignite based thermal generating station after a specified date shall be required to establish such renewable energy generating capacity or procure and supply renewable energy equivalent to such capacity, as may be prescribed by the Central Government from time to time after due consultation with stakeholders. The renewable energy produced by each generator may be bundled with its thermal generation for the purpose of sale. In case an obligated entity procures this renewable power, then the SERCs will consider the obligated entity to have met the Renewable Purchase Obligation (RPO) to the extent of power bought from such renewable energy generating stations.*

   Provided further that in case any existing coal and lignite based thermal power generating station, with the concurrence of power procurers under the existing Power Purchase Agreements, chooses to set up additional renewable energy generating capacity, the power from such plant shall be allowed to be bundled and tariff of such renewable energy shall be allowed to be pass through by the Appropriate Commission. The Obligated Entities who finally buy such power shall account towards their renewable purchase obligations.

Provided also that scheduling and despatch of such conventional and renewable generating plants shall be done separately.

6) *In order to further encourage renewable sources of energy, no inter-State transmission charges and losses may be levied till such period as may be notified by the Central Government on transmission of the electricity generated from solar and wind sources of energy through the inter-State transmission system for sale.*

7) *Appropriate Commission may provide regulatory framework to facilitate generation and sale of electricity from renewable energy sources particularly from roof-top solar system by any entity including local authority, Panchayat Institution, user institution, cooperative society, Non-Governmental Organization, franchisee or by Renewable Energy Service Company. The Appropriate Government may also provide complementary policy support for this purpose."*

1.6. National Action Plan on Climate Change

The Prime Minister of India released the country's National Action Plan on Climate Change (NAPCC) on 30th June 2008. There are Eight National Missions which form the core of the National Action Plan. The NAPCC consists of several targets on climate change issues and addresses the urgent and critical concerns of the country through a directional shift in the development pathway. It outlines measures on climate change related adaptation and mitigation while simultaneously advancing development. The Missions form the core of the Plan, representing multi-pronged, long-term and integrated strategies for achieving goals in the context of climate change. NAPCC set the target of 5% renewable energy purchase for FY 2009-10. Further, NAPCC envisages that such target will increase by 1% annually for the next 10 years. This would mean NAPCC envisages renewable energy to constitute approximately 15% of the energy mix of India.

The National Action Plan on Climate Change is the National strategy of India to achieve a sustainable development path that simultaneously advances economic and environmental objectives. The National Action Plan hinges on the development and use of new technologies. The National Solar Mission is one of the eight national missions which form the core of the National Action Plan. Based on this vision a National Solar Mission was launched.

1.7. Gujarat Solar Power Policy, 2009

The Gujarat Solar Power Policy was announced on 6th January, 2009, by the Energy and Petrochemicals Dept. (EPD), Government of Gujarat, with the following objectives:

- Promoting generation of green and clean power in the State using solar energy.

- To put in place an appropriate investment climate, that could leverage the Clean Development Mechanism (CDM).
- Productive use of the wastelands, thereby engendering a socio-economic transformation.
- Employment generation and skill enhancement of local youth.
- Promotion of R&D and facilitation of technology transfer.
- Establish core technical competence in professionals in the State to initiate and sustain use and effective management of newer applications.
- Promotion of local manufacturing facilities.
- Creation of environmental consciousness among citizens.

This Policy was effective up to 31st March, 2014, and targets a net installed solar generation capacity of 500 MW.

1.8. Jawaharlal Nehru National Solar Mission

The Jawaharlal Nehru National Solar Mission (JNNSM) was announced in 2009. JNNSM aims to promote the development of solar energy for grid connected and off-grid power generation. The ultimate objective is to make solar power competitive with fossil based applications by 2020-2022. The mission aims to achieve 22 GW of both off-grid and on-grid solar power by 2022, which was subsequently revised to 100 GW by 2022.

In order to encourage rapid scale-up, a scheme is introduced in cooperation with the Ministry of Power, National Thermal Power Corporation Ltd. (NTPC) and Central Electricity Authority (CEA) to offtake solar power and reduces the financial burden on the government. NTPC Vidyut Vyapar Nigam Ltd. (NVVN), a wholly owned subsidiary of NTPC, was chosen as the nodal agency for entering into Power Purchase Agreement (PPA) with solar power Developers during Phase 1 (Batch 1&2). In the Phase 2 (Batch 1) of the NSM, the Solar Energy Corporation of India (SECI) signed the PPA on behalf of the government due to absence of unallocated power for bundling purposes.

State Governments are also encouraged to promote and establish solar generation parks with dedicated infrastructure for setting up utility scale plants to ensure ease of capacity creation.

1.9. GERC Solar Tariff Order, 2012

Gujarat Electricity Regulatory Commission (GERC), in its Order No. 1 of 2012 dated 27th January, 2012 determined the tariff for procurement of power by Distribution Licensees and others from solar energy projects for the State of Gujarat. In fact, GERC was the first State Electricity Regulatory Commission (SERC) in the country to issue a comprehensive Tariff Order on solar energy.

The said order was challenged by solar energy society of India by filing appeal no. 75 of 2012 before Hon'ble APTEL. Hon'ble APTEL passed an order dated 17th April, 2013 in the said appeal and remanded the matter to the Commission directing to pass the consequential order in terms of the observation and directions given in the said Judgment. Based on the above Judgment the Commission passed an order dated 7th July, 2014 and also issue corrigendum to it by order dated 11th July, 2014.

1.10 Gujarat Solar Policy, 2015

Government of Gujarat, Energy and Petrochemical department declared the solar power policy of Gujarat, vide G.R. No. SLR-11-2015-2442-B dated 13th August 2015, which would be operative till 31st March, 2020. This policy intends to facilitate and promote large scale promotion of the solar power generation capacities in the State and the interests of all the investors, developers, consumers and various other stakeholders.

The main features of the Policy are as follows:

- The minimum size of a MW scale project shall be 1 MW and 1 KW for KW scale projects.
- Any company or group of individuals shall be eligible for setting up a solar generating plant, either for purpose of captive use and/or selling of electricity to distribution licensee/third party whether or not under REC mechanism in accordance with Electricity Act 2003.
- There is project based provisions and incentives provided for Rooftop solar PV systems with net metering depending on the type of consumers.
- The State is blessed with several natural resources of energy that augments its renewable energy growth. Through its proactive planning on capacity addition front it has successfully managed to eliminate the demand supply deficit. In sync with the solar power policy the Government has also launched the Industrial Policy 2015, through which Government would encourage private participation in all energy generation to meet the growing demand in the state.
- Promoting generation of green and clean power in the State using solar energy.
- To put in place an appropriate investment climate, that could leverage the Clean Development Mechanism (CDM).
- Productive use of the wastelands, thereby engendering a socio-economic transformation.
- Employment generation and skill enhancement of local youth.
- Promotion of R&D and facilitation of technology transfer.

- Establish core technical competence in professionals in the State to initiate and sustain use and effective management of newer applications.
- Promotion of local manufacturing facilities.
- Creation of environmental consciousness among citizens.

1.11 GERC Solar Tariff Order, 2015

Gujarat Electricity Regulatory Commission (GERC) determined the solar tariff in its discussion paper titled "Determination of tariff for Procurement by the Distribution Licensees and others from Solar Energy Projects" and thereafter the Commission passed an order No. 3 of 2015 dated 17th August, 2015 declaring the solar tariff order for kilowatt and megawatt scale solar projects. The levelized tariffs for solar photovoltaic plants for a period from July 1, 2015 to March 31, 2018 arrived through a financial analysis were as follows:

Table 1.2: Levelized tariff for megawatt-scale and kilowatt-scale photovoltaic systems

For Megawatt Scale Projects	July 1, 2015 to March 31,2016	April 1, 2016 to March 31,2017	April 1, 2017 to March 31,2018
Without accelerated depreciation benefit	INR 6.77 per kWh	INR 6.30 per kWh	INR 5.86 per kWh
With accelerated depreciation benefit	INR 6.17 per kWh	INR 5.74 per kWh	INR 5.34 per kWh

For kilowatt Scale Projects	July 1, 2015 to March 31,2016	April 1, 2016 to March 31,2017	April 1, 2017 to March 31,2018
Without accelerated depreciation benefit	INR 8.42 per kWh	INR 7.83 per kWh	INR 7.28 per kWh
With accelerated depreciation benefit	INR 7.64 per kWh	INR 7.11 per kWh	INR 6.61 per kWh

Table 1.3: Levelized tariff for solar thermal power plants commissioned between April 1, 2015 and March 31, 2018

Category	Levelized Tariff	Period
Without accelerated depreciation benefit	INR 11.22 per kWh	For 25 Years
With accelerated depreciation benefit	INR 10.11 per kWh	For 25 Years

1.12 Gujarat's Renewable Purchase Obligation

GERC, in its regulations titled 'Procurement of Energy from Renewable Sources' (Notification No. 1 of 2018) dated 21st April, 2018 has mandated to obligatory entities for minimum purchase of electricity (in kWh) from renewable energy sources.

Table 1.5: Renewable Purchase Obligation for Gujarat, 2017-2022[1]

Year	Minimum Quantum of purchase (in %) from renewable energy sources (in terms of energy in kWh).			
	Wind (%)	Solar (%)	Others (Biomass, Bagasse, MSW and Hydro) (%)	Total (%)
(1)	(2)	(3)	(4)	(5)
2017-18	7.75	1.75	0.50	10.00
2018-19	7.95	4.25	0.50	12.70
2019-20	8.05	5.50	0.75	14.30
2020-21	8.15	6.75	0.75	15.65
2021-22	8.25	8.00	0.75	17.00

The Commission has also decided that if the above mentioned minimum quantum of power purchase either from Solar or Wind or Others (including Biomass, Bagasse, Hydro and MSW) is not available in a particular year of FY 2017-18 to 2021-22, then in such cases, additional renewable energy available either from Solar or Wind or Others shall be utilised for fulfilment of RPO in accordance with Column 5.

The Commission has also added new third para after second para of Regulation 4.1 of the Principal Regulations as under:

Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy Projects in the State of Gujarat, in the ratio of their procurement of power from all sources including their own, at the tariff discovered through a Competitive Bidding Process as envisaged in the Gujarat Waste to Energy Policy, 2016 subject to ceiling of generic tariff as determined by the Commission.

[1] https://bit.ly/2QCjJaI | Notification: No. 01 of 2018

1.13 Policy for development of Small Scale Distributed Solar PV Power Projects-2019

The Government of Gujarat, Energy and Petrochemical department declared a Policy for development of Small Scale Distributed Solar PV Power Projects-2019, vide G.R. No: SLR/11/2019/51/B1 dated 6th March, 2019, which would be operative for a period of 5 years. This Policy for the Development of Small Scale Distributed Solar Projects - 2019 aims at facilitating the development of Small Scale Solar Projects with a size of 0.5 MW and above up to 4 MW in the distribution network of licensees of Gujarat State in rapid manner and at the same time the rate of power purchase is proposed at reasonable level. Any individual, company or body corporate or association or body of individuals, Co-operative Society of individuals/farmers or artificial juridical person shall be eligible for setting up Small Scale Solar Projects under this policy exclusively for the purpose of sale to Obligated Entities i.e. Distribution Licensees for fulfillment of RPO of such Obligated Entities. The main aim of this policy is to encourage small investors to participate in the energy transition without having to participate in the auctions, for which they may not have the relevant institutional capacity.

The tariff applicable under this Policy shall be as per following mechanism:

The tariff contracted in the Competitive Bidding Process conducted by GUVNL at which PPAs are signed for procurement of Solar Power from projects located outside the Solar Park prevailing as on 31st March (computed based on simple average of such tariff discovered and contracted over six months ending on 31st March) of any given year with an addition of Rs. 0.20 per unit shall be the applicable tariff at which the PPAs shall be signed during the immediately succeeding period of April to September by the Obligated Entities with these Solar Projects under this policy and similarly the contracted tariff prevailing as on 30th September of any given year (computed based on simple average of such tariff discovered and contracted over six months ending on 30th September) with an addition of Rs. 0.20 per unit shall be the applicable tariff for PPAs to be signed during the immediately succeeding period of October to March

The additional INR 0.20 per unit addition in tariff is allowed for INR 0.12 per unit for saving in transmission loss as power will be injected in distribution grid and INR 0.08 per unit is to compensate for expensive land cost, higher capital investment and maintenance cost due to small size of projects. The above mentioned tariff shall be applicable for a PPA term of 25 years from Commercial Operation Date of the Projects.

1.14 Amendments in Gujarat Solar Power Policy for MSME Manufacturing Enterprises

The State Government amended the provisions of Solar Power Policy 2015, vide G. R. No. SLR-11/2015/2442/B1 dated 26th September 2019, to make special provisions for the MSME sector,

which is the backbone of industrial activity in Gujarat, to provide special dispensation in the policy to Micro, Small and Medium Manufacturing Enterprises (MSME) so that MSME (Manufacturing) can arrange affordable power by setting up solar capacity as per their consumption requirement. In respect of Micro, Small and Medium Manufacturing Enterprises (MSME) - Manufacturing consumers across the State, Micro, Small and Medium Manufacturing Enterprises shall be allowed to set up of Solar Project of any capacity, irrespective of its sanctioned load/contract demand with the concerned DISCOM. Any surplus solar power not consumed by consumers shall be purchased by DISCOMs at INR 1.75/Unit and Energy Accounting shall be carried out on 15 minute time block basis.

1.15 Surya Urja Rooftop Yojana (SURYA)

The Government of Gujarat launched the Surya Urja Rooftop Yojana-Gujarat (SURYA-Gujarat), vide G. R. No. SLR-11/2015/401/B1 dated 5th August, 2019 to give further boost for promotion of Solar Roof Top in the State for residential sector. The Policy has targeted 2 lakh residential consumers during the year 2019-20 and 8 lakh residential consumers cumulatively until the year 2021-22. This is over and above the capacity commissioned as on 31st March, 2019. The Policy operative period shall be up to the financial year 2021-22. Any capacity of solar rooftop system equal to or greater than 1 (one) kilowatt DC can be installed irrespective of the sanctioned load of the residential consumers. The electricity generated from the solar rooftop system shall be net metered on the billing cycle period and the surplus power fed to the grid upon self-consumption shall be purchased by the concerned distribution licensee at the rate of INR 2.25 per unit.

1.16 Discussion Paper for Solar Energy Tariff Framework

The Commission also considered the prevailing Tariff for energy from Solar PV in other States, the levelized tariff approved by the Commission in 2012 and 2015 and various Policies of Government and Orders of the Commission, related to Solar Energy. Further, the Commission has also considered the competitively discovered tariffs for energy from Solar PV projects in Gujarat and other States, while proposing the tariff framework for the prospective period as well as the intervening period, in the Discussion Paper.

Accordingly, the Discussion Paper was published on the Commission's website www.gercin.org in downloadable format on 04th February, 2020, inviting comments from stakeholders by 04th March, 2020. A list of stakeholders communicated their views on the Discussion Paper is given at **Annexure I.**

1.17 Public Hearing

The Commission examined the objections / suggestions received. The Commission fixed the date for public hearing on the proposed Tariff framework for Solar Energy Projects on 07th

March, 2020 at the Commission's Office, Gandhinagar. The public hearing was conducted in the Commission's Office at Gandhinagar as scheduled on the above date. A list of stakeholders participated in the public hearing and presented their objections/suggestions is given at **Annexure-II**.

The main comments and views expressed by the stakeholders through their written/oral submissions and the Commission's views thereon have been summarized in the following paragraphs. It may be noted that all the suggestions given by the stakeholders have been considered, and the Commission has attempted to elaborate all the suggestions as well as the Commission's decisions on each suggestion, however, in case any suggestion is not specifically elaborated, it does not mean that the same has not been considered.

Wherever possible, the comments and suggestions have been summarised clause-wise, along with the Commission's analysis and ruling on the same. However, in some cases, due to overlapping of the issues/comments, two clauses have been combined in order to minimise repetition.

2. Comments and Suggestions on Proposed Tariff Framework and Commission's View

2.1. Clause 3.1: Tariff Framework

2.1.1. Proposed in Discussion Paper

"*.....In view of the above, the* ***Commission has decided to determine the tariff for all prospective Solar power projects, based on the rates discovered through competitive bidding, and discontinue the practice of determining the generic tariff for Solar power projects.***

Further, as stated earlier, the Control Period under the present dispensation expired on 31st March, 2018. The present Order outlines the approach and tariff framework for the prospective period. However, projects have continued to be set up during the intervening period, i.e., post 31st March, 2018 and before date of commencement of the dispensation approved in this Order. Hence, in order to ensure regulatory certainty for such projects set up in the intervening period, it is clarified that the Control Period ended on 31st March, 2018, shall be deemed to be extended till the date of effectiveness of the tariff framework proposed in this Order. .....

The Gujarat Urja Vikas Nigam Limited has also filed a Petition No. 1802/2019 before the Commission for approval of the same and the same was decided and approved the tariff mechanism vide Order dated 08.08.2019.....

We note that the tariff discovered in the competitive bidding process at State as well National level is quite lower than the feed-in-tariff determined by the Commission. The aforesaid facts prove that the tariff discovered under the competitive bidding process is quite lower than the feed-in-tariff determined by the Commission from time to time. ***We therefore, decides 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.***

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 paisa per kWh thereon for the projects located outside the solar park as under:*

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) shall be applicable for the project commissioned during April-September. 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) shall be applicable for the project commissioned during October-March.

Incase average tariff is not available for particular 6 months period then latest average tariff available for 6 months period as discussed above shall be considered.

The distribution licensees shall place on its website the applicable tariff on which it will buy the energy generated from Small Scale Solar Power Projects of the capacity of 0.5 to 5 MW. The rate will be updated every 6 months.

For solar thermal technology, the Commission is of the view that solar thermal technology has failed to achieve the same economies of scale as compared to solar PV technology. Further, several projects commissioned in earlier years have failed to perform satisfactorily, showing that the technology is not yet mature for Indian conditions. Thus, owing to large variations of technology and their respective costs, it is difficult to determine a generic tariff. Therefore, the Commission adopts a project specific tariff for solar thermal technology for power generation. "

2.1.2. ***Suggestions/Objections of the Stakeholders***:

Some Developers suggested that the tariff should be determined for all prospective Solar Power Projects based on competitive bidding, in place of applying the competitive bidding rate of Mega scale solar projects with correction factor to KW based Solar Power Project a separate formula should be devised based on actual field criteria and cost escalation.

Some Developers suggested that additional INR 0.20 per unit is not cost competitive for small scale solar project, there should be capacity based matrix to make investment competent enough to derive maximum possible opportunities in win-win situation for developers and Discom.

Some stakeholder suggested that additional INR 0.20 per unit is potentially likely to interest small investors who are unable to participate in the large tenders, however whether the Rs.0.20/kWh higher rate would be viable for these small projects remains to be seen.

Some other Stakeholders suggested that the discussion paper presents a solid case for the need to continue with the practice of tariff discovery through competitive bidding and hence this proposal is most welcome.

Some Distribution companies suggested that in regard to the period after 31.03.2018, the Order dated 17.08.2015 should not be extended. Evidently, there was no rate for surplus power determined for the period after 31.03.2018 and Distribution company has already entered into the wheeling agreements with some of the solar power projects commissioned after 31.03.2018 for wheeling of energy and the generators have willingly agreed to the applicable competitive bidding rate. Therefore it would be incongruous to give APPC tariff to such generators who have already agreed to a competitive bid rate which is lower than APPC rate. There would have been no reason to enter into agreements with such generators after expiry of the control period of order dated 17.08.2015.

There cannot be consideration of allowing APPC / 85% of APPC for the period after 31.03.2018 which is much higher than the competitive bid rate as well as being substantially

higher than the rate of Rs. 1.75 per unit proposed by the Hon'ble Commission. Therefore at the very least, the proposed framework should apply from 01.04.2018.

2.1.3. Commission's Ruling

The intent of the Act, Policies and Regulations is also to prefer competitive bidding for renewable energy in future so as to maintain reasonable and competitive tariff. It is, therefore, in the interest of the consumers that such solar energy is procured by the licensees at the most competitive rates.

As regards Additional Rs. 0.20 per unit is not cost competitive, the issue is very well dealt in the Order dated 08.08.2019 of the Petition No.1802/2019.

As regards the contentions of Distribution licensees that the period after 31.03.2018, the Order dated 17.08.2015 should not be extended and proposed framework should apply from 01.04.2018, the Commission has stated in its Order dated 22.11.2019 in Petition No. 1727 of 2018, that the Commission will take an appropriate view in the matter at the time of revising the relevant Regulations and Orders to decide about the monetary compensation if any in such cases. Accordingly, the Commission published the Discussion Paper and invited comments, and has finalised its Order after considering the comments received. However, it is not appropriate to make any dispensation effective retrospectively. Projects set up in the intervening period cannot be subjected to a dispensation that has been decided after a public process at a later date.

Hence, as stated in Commission's past directions/Orders and stand taken with regard to necessity of pre-publication of draft Regulation/Order and public consultation prior to making any amendment in the existing Regulations/Orders, the contentions raised by Distribution licensees are not acceptable and other terms of the existing Orders shall be deemed to be extended till the date of issuance of this Order.

In view of the above, the Commission retains the approach for tariff determination as proposed in the Discussion Paper, with minor modification and to provide more clarity as under:

"The power generated from the small scale Solar Power Projects having size 0.5 MW or above but below 5 MW, the procurement price of energy shall be at the rate of tariff discovered under the competitive bidding process and adopted by the Commission in different time period of 6 months of the year plus additional 20 paisa per kWh thereon for the projects located outside the solar park as under:

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) shall be applicable for the project commissioned during April-September. 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) shall be applicable for the project commissioned during October-March.

In case average tariff is not available for particular 6 months period then latest average tariff available for 6 months period as discussed above shall be considered. "

2.2. Clause 3.2(a): Control Period

2.2.1. Proposed in Discussion Paper

a) Control Period

The new control period of the tariff framework approved in this Order shall be effective from the date of this order till further Order in this regard.

2.2.2. Commission's Ruling

Commission is of the view that it would be appropriate to have pre-defined control period up to 31st March, 2023. Hence, the Commission has modified the Clause as under:

"a) Control Period
The new control period of the tariff framework approved in this Order shall be effective from the date of this Order to 31st March, 2023."

2.3. Clause 3.2(b): Plant and Machinery

2.3.1. Proposed in Discussion Paper

b) Plant and Machinery

Solar Power Projects established with only new Plants and Machinery would be eligible for the benefit of tariff determined within the scope of this Order.

2.3.2. *Suggestions/Objections of the Stakeholders*:

One Developer suggested to consider old Plant and Machinery eligible for the benefit of tariff determined within the scope of this Order.

2.3.3. Commission's Ruling

The Commission do not find any merit to consider old Plant and Machinery eligible for the benefit of tariff approved within the scope of this Order.

To provide more clarity it is modified as under;

"b) Solar Power Projects established with only new Plants and Machinery would be eligible for the benefit of tariff approved within the scope of this Order."

c) Useful life of Plant

The Useful Life for the Solar Power Projects to be commissioned during the new Control Period shall be considered as 25 years.

d) Tariff period
The tariff period for the tariff framework approved by the Commission for procurement of Solar Power Projects by the distribution licensees in the State shall be 25 years.

2.4. Clause 3.2(e): Eligibility Criteria

2.4.1. Proposed in Discussion Paper

e) Eligibility Criteria
The Solar power projects commissioned during the new control period will be eligible to sell power to distribution licensees of Gujarat at the tariff approved by the Commission under this Tariff framework.

2.4.2. Commission's Ruling

The Commission has modified the Clause as under to provide more clarity as under;

"e) Eligibility Criteria

The Solar power projects commissioned and PPAs signed during the new control period will be eligible to sell power to distribution licensees of Gujarat at the tariff approved by the Commission under this Tariff framework."

2.5. Clause 3.3: Capacity

2.5.1. Proposed in Discussion Paper

The maximum capacity for solar power projects shall be up to a maximum of 50% of consumers contracted load for captive use, Third-party sale, power projects set up under NSM with sale of power to consumers within the State.

However, MSME (Manufacturing) Enterprise are allowed to set up Solar Power project of any capacity irrespective of their sanctioned load/contract demand.

2.5.2. *Suggestions/Objections of the Stakeholders*:

Some Developer suggested that for Units operating completely on Captive / Group Captive there should be no restriction. And for consumers operating using power from Discom, In order to balance the objective of Grid Stability and promoting Green Power the restriction on capacity should be increased to at least 100% of Contracted Load after taking into consideration of the above two factors. In such cases there can be some amount of restriction on the power being injected to the Grid if there is a demonstrable Challenge in Grid Management.

Some Distribution companies suggested that in order to ensure safety, reliability and efficiency of the Distribution Network, a cap of 50% of contracted demand/sanctioned load is proposed inclusive of all renewable sources for all the consumers seeking wheeling of power for captive/ third party sale including MSME(Manufacturing). This is also essential to ensure that such open access customers are not benefited at the cost of small consumers who otherwise will have to cross subsidize consumers with higher paying capacity.

One of the developer raised the issue regarding DC capacity of solar plant, and requested for clarification, and suggested that Plant capacity should be in AC as all the permission regarding electricity connections are in terms of AC. Further, as per the clarifications issued by SECI in this regard that, there is no need for monitoring DC capacity of the project as far as generation on AC side is in line with the permission.

2.5.3. ***Commission's Ruling***

Looking to the present status of Solar PV installations and its impact on grid and other electricity consumers, the Commission decides to continue present arrangement of cap of 50% installation for consumers other than MSME (Manufacturing) Enterprises and in order to make exiting Regulation aligned to State Government Policy for MSME (Manufacturing) Enterprises, they are allowed to install Solar PV system above 50% of its sanctioned load/ contract demand subject to 15-minute settlement mechanism.

As far as Capacity of Solar PV plant installation is concerned, the Commission has already defined the "Plant Capacity" in the Order no. 3 of 2015 issued on 17th August, 2015, it is reproduced as under;

"…… The Commission therefore decides to retain the definition of the capacity of the solar plant as the cumulated rated capacity of the photovoltaic modules at Standard Testing Conditions (STC). Moreover a tolerance of ±3% is retained due to design and module constraints."

Hence, no modification has been made to this Clause.

2.6. Clause 3.5: Security Deposit

2.6.1. **Proposed in Discussion Paper**

For all solar power projects, it is required to submit security deposit of INR 5 lakhs per MW to STU/Discom for ensuring speedy and timely completion of evacuation facility by Solar power project developers failing which bank guarantee may be forfeited.

2.6.2. ***Suggestions/Objections of the Stakeholders*:**

Transmission licensee suggested that to add the following table in the above clause in line with already existing provisions of the Wind Orders:

Table 2-1: Capacity and Commissioning Period for the Solar Projects

MW	Period for commissioning the entire capacity
1 MW to 100 MW	1.5 years from the date of allotment of transmission capacity
101 MW to 200 MW	2 years from the date of allotment of transmission capacity
201 MW to 400 MW	2.5 yea rs from the date of allotment of transmission capacity
401 MW to 600 MW	3.5 years from the date of allotment of transmission capacity

The bank guarantee shall be encashed by the transmission company if the project is not commissioned within a specified time period as given above, provided further that the developer shall commission at least 10% of the allotted capacity within one month of charging of the evacuation line. Failing this, the developer shall be liable to pay long term transmission charges for 10% of allotted capacity till such 10% of allotted capacity is commissioned. Developer shall open Irrevocable, Revolving Letter of Credit for the 10% amount.

Further suggested that in case of delay in commissioning of the project beyond the prescribed time period due to unforeseen reasons beyond the control of the project developer, the developer may approach GETCO for time limit extension approval.

2.6.3. ***Commission's Ruling***

In view of the above, the Commission consider the submission of GETCO, to create seriousness amongst the Solar Power Project developer and to avoid unutilisations of assets created by licensees for Solar Power Project developers, the Commission has modified the Clause as under;

"In order to assure GETCO/DISCOMs about seriousness of project developer towards commissioning of the Solar projects, the Solar Power Project Developers have to furnish a Bank Guarantee of Rs 5 Lakh/MW to GETCO/DISCOMs based on allotment of evacuation capacity, and in case the Solar Power Project Developer fails to commission the entire evacuation line along with bays and metering system, within the time period mentioned hereunder, GETCO/DISCOMs shall encash the Bank Guarantee.

Table 2-2: Capacity and Commissioning Period for the Solar Projects

Solar Project Capacity in MW	***Period for commissioning the entire evacuation line along with bays and metering system***
1 MW to 100 MW	*1.5 years from the date of allotment of evacuation capacity*
101 MW to 200 MW	*2 years from the date of allotment of evacuation capacity*
201MW to 400 MW	*2.5 years from the date of allotment of evacuation capacity*
401 MW to 600 MW	*3.5 years from the date of allotment of evacuation capacity*

Provided that GETCO may issue extension on case to case basis to the Developers if they fail to commission the entire evacuation line along with bays and metering system within the stipulated time period due to unforeseen reasons.

The Solar Power Project Developer shall commission the Solar Power Project of at least 10% of the allotted capacity within one month of charging of evacuation line, failing which, the Developer shall be liable to pay long-term Transmission Charges for 10% of allotted capacity till such 10% of allotted capacity is commissioned."

2.7. Clause 3.8: Energy Accounting and RPO

2.7.1. ***Proposed in Discussion Paper:***

i. Solar projects not registered under REC Mechanism and the consumer does not take benefit of the renewable attribute

For such projects, the adjustment of the Solar energy generation shall be allowed within the consumer's billing cycle. The entire Solar energy generation of such consumer shall be utilized for meeting the RPO of that Distribution Licensee.

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.

In the event of any surplus Solar energy not consumed as per energy accounting, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar power projects.

For the Solar power projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand, energy account settlement shall be carried out on 15 minute time block basis.

ii. Solar projects not registered under REC Mechanism and the consumer takes the benefit of the renewable attribute to meet their own RPO.

The energy accounting shall be carried out on 15 minutes time block basis.

In the event of any surplus solar energy not consumed as per energy accounting based on 15-minute time block, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar power projects.

Such surplus energy compensated by the Distribution Licensee shall be utilized for meeting the RPO of that Distribution Licensee.

iii. ***Solar projects registered under REC Mechanism and the Solar projects not registered under REC Mechanism but benefit of the renewable attribute is not given to distribution licensee.***

The energy accounting shall be carried out on 15 minutes time block basis.

In the event of any surplus Solar energy not consumed as per energy accounting based on 15-minute time block, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.50 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar power projects.

2.7.2. ***Suggestions/Objections of the Stakeholders:***

Some Developers suggested that Consumers with less than 1 MW should not have Energy Accounting of 15 minutes.
It is also submitted by one Developer that 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. In the event of any surplus solar energy not consumed as per energy accounting, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus injection Compensation(SIC) from time to time for whole life of the solar power projects.

Some Distribution companies request to completely do away with any banking facility and consider settlement in 15 minutes time block basis as par with other open access consumers in order to reduce the burden on the other consumers.

It is also submitted by one Distribution company that the Commission may consider to allow levy of banking charges for Solar Power Projects also. Further, in the changed scenario when there is significant reduction in the solar power cost, as a balancing of interest, the Commission may enhance banking charges from 2%.

Some Educational Institutes requested that 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.

Some of the stakeholders suggested that to encourage more participation, the banking period shall be increased to six months. States like Rajasthan, Karnataka etc. provide banking period of more than 6 months.

2.7.3. ***Commission's Ruling:***

The Commission decides to continue the existing arrangement of settlement mechanism to balance the interest of stakeholders. Hence, no modification has been made to this Clause.

2.8. Clause 3.9: Transmission/ Wheeling Charge and Losses

2.8.1. ***Proposed in Discussion Paper:***

i. General

Whenever the entire Solar generation is sold to distribution licensee, the generator will supply the power at the interconnection point. Thereafter, the transmission/ wheeling charges will be borne by the distribution licensee.

ii. Transmission Charges and Losses

Solar Power Projects setup for captive use /Third party sale/Registered under REC, transmission charges and losses as applicable to normal Open-Access Consumers shall be applicable.

iii. Wheeling Charges and Losses

i. Solar Power Projects for captive consumption and not registered under REC Mechanism, 50% of Wheeling charges and losses as applicable to normal Open-Access Consumers shall be applicable.

ii. For Solar Power Projects set up for third-party sale/National Solar Mission and registered under REC Mechanism, 100% of the Wheeling Charges & Losses as applicable to normal Open-Access Consumers shall be applicable.

iv. Wheeling at Two or More Locations

If a Solar Power Generator owner desires to wheel electricity to more than two locations, he shall pay INR 0.05 per unit on energy fed into the grid to distribution licensee in whose area power is consumed in addition to the abovementioned transmission charges and losses, as applicable.

2.8.2. ***Suggestions/Objections of the Stakeholders:***

Some Developers suggested that whenever the entire Solar generation is sold to distribution licensees, the generator will supply the power at the interconnection point. Thereafter, the transmission/ wheeling charges will be borne by the distribution licensee.

Some stakeholders suggested that given the fall in the prices of solar PV, it would be prudent to do away with such concessions for new solar projects. If this is too abrupt a change for the sector, GERC at least suggest a sunset clause and gradually phase out such concessions in 2-3 years.

A Developer suggested that for real promotion of solar generation in Gujarat, the wheeling charges and losses should not be more than 50% for both captive and third party sale.

Some Distribution companies suggested that the solar power projects opting for captive use should be treated at par with other open access consumers by levying wheeling charges and losses as determined by the Hon'ble Commission.

2.8.3. ***Commission's Ruling:***

As stated in the Discussion Paper, the Commission has proposed differential treatment for the Captive Solar Projects in accordance with the "Gujarat Solar Power Policy – 2015". The Commission is of the view that Captive Solar Projects are entitled to such differential treatment. The EA 2003 also gives certain concessions to Captive Projects, and similar concessions have been given in the "Gujarat Solar Power Policy – 2015", which have been adopted by the Commission. Hence, no modification has been made to this Clause.

2.9. Clause 3.10: Cross-Subsidy Surcharge & Additional Surcharge

2.9.1. ***Proposed in Discussion Paper****:*

i. *For the Solar Power Project registered under REC Mechanism with sale of power to third party (including sale of power under NSM) within the State, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable.*

ii. *For the Solar Power Projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable.*

iii. *For the Solar Power Project not registered under REC Mechanism with sale of power to third party (including sale of power under NSM) within the State, 50% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumer shall be applicable.*

iv. *For the Solar Power Projects set up for captive consumption, for sale to distribution licensee and for sale outside the State, Cross-Subsidy Surcharge and Additional Surcharge shall not be applicable.*

2.9.2. ***Suggestions/Objections of the Stakeholders*****:**

Some Developers suggested that as per Section 42 (2) of Electricity Act 2003, "Provided also that such surcharge shall not be leviable in case open access is provided to a person who has established a captive generating plant for carrying the electricity to the destination of his own use".

A developer suggested that Cross Subsidy should not be applicable if consumed by the Unit, This will restrict the MSME to access cheaper Power.

Distribution licensee suggested that there has been significant reduction in the capital cost of solar power projects and consequently the cost of generation of solar power. Under the changed scenario, huge capacity addition is expected by consumers specifically cross subsidizing Industrial/ Commercial consumers to avail cheaper source of power. Therefore, it would be in the interest of all the stakeholders not to extend any concessions on the Cross Subsidy Surcharge, Additional Surcharge, wheeling charges and wheeling losses for wheeling of solar power.

2.9.3. ***Commission's Ruling:***

As stated in the Discussion Paper, the Commission has proposed differential treatment for the Captive Solar Projects in accordance with the "Gujarat Solar Power Policy – 2015". The Commission is of the view that Captive Solar Projects are entitled to such differential treatment. The EA 2003 also gives certain concessions to Captive Projects, and similar concessions have been given in the "Gujarat Solar Power Policy – 2015", which have been adopted by the Commission. Hence, no modification has been made to this Clause.

3. Tariff Framework, General Principles and Other Considerations

Having considered all the comments from the stakeholders, the Commission hereby issues the final Tariff Framework for Solar Power Projects for the prospective period as under:

3.1. Tariff Framework

The tariff for all prospective Solar Power Projects shall be determined based on the rates discovered through competitive bidding.

The tariff for Solar Power Projects below the threshold limit of eligibility for participating in Competitive Bidding shall be purchased by the distribution licensee having linkage with the tariff rate discovered under the competitive bidding process.

The power generated from the small scale Solar Power Projects having size 0.5 MW or above but below 5 MW, the procurement price of energy shall be at the rate of tariff discovered under the Competitive Bidding process and adopted by the Commission in different time period of 6 months of the year plus additional 20 paisa per kWh thereon for the projects located outside the solar park as under:

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) shall be applicable for the project commissioned during April-September. 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) shall be applicable for the project commissioned during October-March.

In case average tariff is not available for particular 6 months period then latest average tariff available for 6 months period as discussed above shall be considered.

The distribution licensees shall place on its website the applicable tariff at which it will buy the energy generated from Small Scale Solar Power Projects of the capacity of 0.5 to 5 MW. The rate will be updated every 6 months.

For Solar Thermal Technology, the Commission is of the view that Solar Thermal Technology has failed to achieve the same economies of scale as compared to Solar PV technology. Further, several projects commissioned in earlier years have failed to perform satisfactorily, showing that the technology is not yet mature for Indian conditions. Thus, owing to large variations of technology and their respective costs, it is difficult to determine a generic tariff. Therefore, the Commission shall determine project specific tariff for Solar Thermal Technology for power generation.

3.2. General Principles

a) Control Period

The new control period of the tariff framework approved in this Order shall be effective from the date of this Order to 31st March, 2023.

b) Plant and Machinery

Solar Power Projects established with only new Plants and Machinery would be eligible for the benefit of tariff approved within the scope of this Order.

c) Useful life of Plant

The Useful Life for the Solar Power Projects to be commissioned during the new Control Period shall be considered as 25 years.

d) Tariff period

The tariff period for the tariff framework approved by the Commission for procurement of Solar Power Projects by the distribution licensees in the State shall be 25 years.

e) Eligibility Criteria

The Solar power projects commissioned and PPAs signed during the new control period will be eligible to sell power to distribution licensees of Gujarat at the tariff approved by the Commission under this Tariff framework.

f) Forecasting and scheduling for Solar power

The Solar power projects shall require to follow the provisions as prescribed under the GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019 notified on 19th January, 2019 and its amendments issued from time to time.

g) Applicability of Merit Order Dispatch Principle

The Solar power plants irrespective of plant capacity shall be considered as 'MUST RUN' power plants and shall not be subjected to 'Merit Order Dispatch' principles.

h) Reactive Energy Charges

The Reactive Energy Charges as approved by the Commission in tariff Orders for the Gujarat Energy Transmission Corporation Ltd. (GETCO) from time to time shall be applicable to such projects.

3.3. Capacity

The maximum capacity for solar power projects shall be up to a maximum of 50% of consumer's sanctioned load for captive use, Third-party sale, power projects set up under NSM with sale of power to consumers within the State.

However, MSME (Manufacturing) Enterprise are allowed to set up Solar Power project of any capacity irrespective of their sanctioned load/contract demand.

3.4. Evacuation Facilities

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 CEA (Technical Standards for connectivity to the Grid) Regulations, 2007 and its amendments from time to time and The CEA (Technical Standards for connectivity of the Distributed Generation Sources) Regulations, 2013 and its amendments from time to time, specifying various technical requirements for grid connection of renewable energy sources shall be applicable. These Regulations and provisions of Sate Grid Code shall be binding to the Solar Project Developers and SPGs.

Interconnection voltages shall be governed as per Gujarat Electricity Grid Code-2013, Electricity Supply Code-2015 and GERC's orders, as amended from time to time.

The intending Solar Generator shall apply to the STU/ Distribution Licensee concerned well in advance.

The evacuation facility shall be approved by STU/ DISCOMs depending on injection level after carrying out system studies.

The intending Solar generator 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 generator desires to inject power in the State grid. From there onwards, STU/ DISCOM shall ensure transmission/ distribution system and connectivity.

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 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.

Switchyard equipment, metering and protection arrangement and RTUs at generator end shall be provided by the owners of solar generators at their cost. The interconnection voltage at generator switchyard will depend on the quantum of power to be evacuated and as per the connectivity granted by the STU/ Distribution licensees in line with the State Grid Code and Supply Code.

3.5. Security Deposit

In order to assure GETCO/DISCOMs about seriousness of project developer towards commissioning of the Solar Power Projects, the Solar Power Project Developers have to furnish a Bank Guarantee of Rs 5 Lakh/MW to GETCO/DISCOMs based on allotment of evacuation capacity, and in case the Solar Power Project Developer fails to commission the entire evacuation line along with bays and metering system, within the time period mentioned hereunder, GETCO/DISCOMs shall encash the Bank Guarantee.

Table 3-1: Capacity and Commissioning Period for the Solar Projects

Solar Project Capacity in MW	Period for commissioning the entire evacuation line along with bays and metering system
1 MW to 100 MW	1.5 years from the date of allotment of evacuation capacity
101 MW to 200 MW	2 years from the date of allotment of evacuation capacity
201MW to 400 MW	2.5 years from the date of allotment of evacuation capacity
401 MW to 600 MW	3.5 years from the date of allotment of evacuation capacity

Provided that GETCO may issue extension on case to case basis to the Developers if they fail to commission the entire evacuation line along with bays and metering system within the stipulated time period due to unforeseen reasons.

The Solar Power Project Developer shall commission the Solar Power Project of at least 10% of the allotted capacity within one month of charging of evacuation line, failing which, the Developer shall be liable to pay long-term Transmission Charges for 10% of allotted capacity till such 10% of allotted capacity is commissioned.

3.6. Operation and maintenance of dedicated lines

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

3.7. Metering

The electricity generated from the Solar Power Generators, 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 and RTUs 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.

3.8. Energy Accounting and RPO

i. Solar Power Projects not registered under REC Mechanism and the consumer does not take benefit of the renewable attribute

For such projects, the adjustment of the Solar energy generation shall be allowed within the consumer's billing cycle. The entire Solar energy generation of such consumer shall be utilized for meeting the RPO of that Distribution Licensee.

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.

In the event of any surplus Solar energy not consumed as per energy accounting, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar Power Projects.

For the Solar Power Projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand, energy account settlement shall be carried out on 15 minute time block basis.

ii. Solar Power Projects not registered under REC Mechanism and the consumer takes the benefit of the renewable attribute to meet their own RPO.

The energy accounting shall be carried out on 15 minutes time block basis.

In the event of any surplus solar energy not consumed as per energy accounting based on 15-minute time block, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar power projects.

Such surplus energy compensated by the Distribution Licensee shall be utilized for meeting the RPO of that Distribution Licensee.

iii. **Solar Power Projects registered under REC Mechanism and the Solar Power Projects not registered under REC Mechanism but benefit of the renewable attribute is not given to distribution licensee**.

The energy accounting shall be carried out on 15 minutes time block basis.

In the event of any surplus Solar energy not consumed as per energy accounting based on 15-minute time block, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.50 per unit or the rate, if any, specified by the

Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar Power Projects.

3.9. Transmission/ Wheeling Charge and Losses

i. ***General***

Whenever the entire Solar generation is sold to distribution licensee, the generator will supply the power at the interconnection point. Thereafter, the transmission/ wheeling charges will be borne by the distribution licensee.

ii. ***Transmission Charges and Losses***

Solar Power Project setup for captive use /Third party sale/Registered under REC, transmission charges and losses as applicable to normal Open-Access Consumers shall be applicable.

iii. ***Wheeling Charges and Losses***

i. Solar Power Projects for captive consumption and not registered under REC Mechanism, 50% of Wheeling charges and losses as applicable to normal Open-Access Consumers shall be applicable.

ii. For Solar Power Projects set up for third-party sale/National Solar Mission and registered under REC Mechanism, 100% of the Wheeling Charges & Losses as applicable to normal Open-Access Consumers shall be applicable.

iv. ***Wheeling at Two or More Locations***

If a Solar Power Generator owner desires to wheel electricity to more than two locations, he shall pay INR 0.05 per unit on energy fed into the grid to distribution licensee in whose area power is consumed in addition to the abovementioned transmission charges and losses, as applicable.

3.10. Cross-Subsidy Surcharge & Additional Surcharge

i. For the Solar Power Project registered under REC Mechanism with sale of power to third party (including sale of power under NSM) within the State, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable.

ii. For the Solar Power Projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable.

iii. For the Solar Power Project not registered under REC Mechanism with sale of power to third party (including sale of power under NSM) within the State, 50% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumer shall be applicable.

iv. For the Solar Power Projects set up for captive consumption, for sale to distribution licensee and for sale outside the State, Cross-Subsidy Surcharge and Additional Surcharge shall not be applicable.

3.11. Sharing of Clean Development Mechanism (CDM) Benefit

The sharing of CDM benefits as per Regulation 21 of the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012 (Notification No. L-1/94/CERC/2011 dated 6th February, 2012) is as under:

"100% of the gross proceeds on account of CDM benefit to be retained by the project Developer in the first year after the date of commercial operation of the generating station. In the second year, the share of the Beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the Generating Company and the Beneficiaries."

This Regulation for sharing of CDM benefit shall be retained for Solar Power Projects in Gujarat.

The commission decides that this Order shall come into force from date of issue of this Order.

Sd/-
[P. J. THAKKAR]
Member

Sd/-
[ANAND KUMAR]
Chairman

Place: Gandhinagar.
Date: 08.05.2020

Annexure - 1: List of Stakeholders communicated their views on the Discussion Paper

Sr. No.	Name of Stakeholders
1	Welspun Group
2	Gujarat Urja Vikas Nigam Limited (GUVNL)
3	Federation of Renewable & Consumers of Energy
4	IB Vogt Solar India Pvt. Ltd.
5	Madhu Silica Pvt. Ltd.
6	ASSOCHAM
7	RAMEV Project
8	Confederation of Indian Industry-Gujarat
9	Gaurav Lotia
10	Users Welfare Association
11	Rajkot Chamber of Commerce and Industry
12	Reliance Industries Ltd.
13	Torrent Power Limited
14	Gujarat Electricity Transmission Corporation Limited (GETCO)
15	Prayas
16	Dr. Anoop Singh, IIT-Kanpur

Annexure - II: List of Stakeholders participated in the public hearing

Sr. No.	Name of Stakeholders
1	Welspun Group
2	Gujarat Urja Vikas Nigam Limited (GUVNL)
3	Federation of Renewable & Consumers of Energy
4	IB Vogt Solar India Pvt. Ltd.
5	Madhu Silica Pvt. Ltd.
6	Confederation of Indian Industry - Gujarat
7	Users Welfare Association
8	Rajkot Chamber of Commerce and Industry
9	Reliance Industries Ltd.
10	Torrent Power Limited
11	Gujarat Electricity Transmission Corporation Limited (GETCO)
12	Madhya Gujarat Vij Company Limited (MGVCL)
13	Uttar Gujarat Vij Company Limited (UGVCL)
14	UUWA

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION

GANDHINAGAR

Suo-Motu Order No. 06 of 2020

Removal of difficulty in the matter of:

"Order No. 3 of 2020 dated 08.05.2020 for Tariff framework for procurement of power by distribution licensees and others from Solar Energy Projects and other commercial issues for the State of Gujarat."

CORAM

Shri Anand Kumar, Chairman

Shri P. J. Thakkar, Member

Date: 05.08.2020

Order

1. The Commission vide Order No. 03 of 2020 Dated 08.05.2020, decided the Tariff Framework, General Principles and Other Considerations for Solar Power Projects for the prospective period after due consultation process with the stakeholders.

2. GUVNL vide Letter No.GM/IPP/423 dated 25.06.2020 submitted that they have received requests from Solar Project Developers for signing of PPAs under the Policy for Development of Small Scale distributed Solar Project-2019. The Policy provides 12 months' time period, from the date of signing of PPAs for commissioning of distributed Solar projects and PPAs cannot be signed without mentioning of Tariff. Looking to the said difficulty in implementing the Commission's order, GUVNL requested to modify the relevant para of Solar Tariff Order No. 03 of 2020 dated 08.05.2020 suitably and in line with the Government of Gujarat Policy for Development of Small Scale distributed Solar Project-2019 dated 06.03.2019.

3. The power to remove difficulties is conferred upon the Commission to remove trivial difficulties in implementing its order effectively without making a change in the substance. In addition to above, the said power to remove difficulty can only be exercised to the extent necessary only for giving effect to a particular provision. The need arises because at the time of passing an order, it may not be possible to foresee all the difficulties which might arise in its working.

4. Accordingly, the Commission has published draft Suo-Motu Order on the Commission's website www.gercin.org in downloadable format on 30th June, 2020, and Publice Notices were also published in two Gujarati and one English newspapers, inviting comments from stakeholders by 15th July, 2020 on the draft Order on removal of difficulties in Solar Tariff Order No. 03 of 2020 dated 08th May, 2020. Several stakeholders have submitted their comments and list of such stakeholders is attached as **Annexure-I**.

5. Further, the Commission has published notice for Virtual Public Hearing (Through Video Conference) on the Commission's website www.gercin.org on 22nd July, 2020, which was scheduled on 31st July, 2020 and also informed to the stakeholders through mail from whom comments on the Draft Suo-Motu Order were received. List of stakeholders who presented their views during Virtual Publice Hearing (Through Video Conference) is attached as **Annexure-II.**

6. The main comments and views expressed by the stakeholders through their written submissions/oral submission during virtual Publice hearing and the Commission's views thereon have been summarized in the following paragraphs.

7. Wherever possible, the comments and suggestions have been summarised clause-wise, along with the Commission's analysis and ruling on the same. However, in some cases, due to overlapping of the issues/comments, two clauses have been combined in order to minimise repetition.

8. In para 4 of Draft Suo-Motu Order, it was proposed that:

   Following para of Solar Tariff Order 03 of 2020;

   "3.1 Tariff Framework

   .....

   .....

   .....

   .....

   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) shall be applicable for the project commissioned during April-September. 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) shall be applicable for the project commissioned during

October-March.

.....

....."

Shall be substituted by following para;

"3.1 Tariff Framework

.....

.....

.....

.....

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) shall be applicable for the projects commissioned under PPAs signed during April-September. 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) shall be applicable for the projects commissioned under PPAs signed during October-March.

.....

....."

Commission's Ruling:

As no comment has been received on this para, the Commission decides to substitute the para of Clause 3.1 of Solar Tariff Order No. 03 of 2020 as proposed in the Draft Suo-Motu Order with minor modification to provide more clarity, as under;

"3.1 Tariff Framework

.....

.....

.....

.....

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) shall be applicable for the projects to be commissioned under PPAs signed during April-September. 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) shall be applicable for the projects to be commissioned under PPAs signed during October-March.

.....

....."

9. In para 5(i) of Draft Suo-Motu Order, it was proposed to substitute the Clause 3.2(c) of Solar Tariff Order 03 of 2020 as under;

Existing Clause:

"3.2(c) Useful life of Plant

The Useful Life for the Solar Power Projects to be commissioned during the new Control Period shall be considered as 25 years."

Substituted by:

"3.2(c) Useful life of Plant

The Useful Life for the Solar Power Projects to be commissioned under PPAs signed during the new Control Period shall be considered as 25 years."

Suggestions from Stakeholders:

TPL submitted that the Useful life of the Plant is always related to the Commissioning of the plant independent of date of PPA. Further, it is also not consistent with the provisions of the GoG Solar Power Policy, 2015 which is applicable for projects installed and commissioned during the Operative Period of the Policy and not the PPA signing date. In this background, clause 3.2 (c) should be retained as it is without any amendment

Commission's Ruling:

The Commission take a note of submission. To provide more clarity, the Commission decides to modify proposed clause as under;

"3.2(c) Useful life of Plant

The Useful Life for the Solar Power Projects to be commissioned under PPAs signed during the new Control Period shall be considered as 25 years from their date of commissioning."

10. In para 5(ii) of Draft Suo-Motu Order, it was proposed to substitute the Clause 3.2(e) of Solar Tariff Order 03 of 2020 as under;

Existing Clause:

"3.2(e) Eligibility Criteria

The Solar power projects commissioned and PPAs signed during the new control period will be eligible to sell power to distribution licensees of Gujarat at the tariff approved by the Commission under this Tariff framework."

Substituted by:

"3.2(e) Eligibility Criteria

The Solar power projects to be commissioned under PPAs signed during the new control period will be eligible to sell power to distribution licensees of Gujarat at the tariff approved by the Commission under this Tariff framework."

Suggestions from Stakeholders:

TPL submitted that, as per the GoG Solar Power Policy, 2015 projects installed and commissioned during the Operative Period of the Policy are entitled for the benefit under the said Policy. Further, as per the proposed amendment, there may be incident where PPA is signed during fag end of the Control Period and commissioning takes place after completion of the Control Period. As per the proposed amendment, even such projects will also be considered as eligible in contradiction of the Solar Power Policy, 2015. In this background, Clause 3.2 (e) may be suitably amended so as to ensure that only the projects commissioned during the new Control Period is eligible under this tariff framework

Commission's Ruling:

Solar Power Generators have to enter into the Power Purchase Agreement with the distribution licensee to whom it want to sell electricity prior to commissioning of Solar Power Plants. The Scheduled Commercial Operation Date is defined at Clause 5.11 of the Policy for Development of Small Scale Distributed Solar Projects – 2019, is reproduced as under;

""SCOD" or '"Scheduled Commercial Operation Date" shall mean the date as to be declared by the developer in the PPA, on or before which the Solar Project of the developer shall be commissioned and such date shall not exceed 12 (twelve) months from the date of execution of the PPA."

Moreover, As mentioned at para 2 above, GUVNL stated that they have received requests from Solar Project Developers for signing of PPAs under the Policy for Development of Small Scale distributed Solar Project-2019. The Policy provides 12 months' time period, from the date of signing of PPAs for commissioning of distributed Solar projects and PPAs cannot be signed without mentioning of Tariff.

Looking to the above, to provide regulatory certainty and to ensure optimum Renewable Energy Procurement by distribution licensee to achieve targets of RPO set by the Commission, it is necessary to clarify that the Solar Power Projects to be commissioned under PPAs signed during the new control period will be eligible to

sell power to distribution licensees. If we consider commissioning of the project for eligibility for sell of power to distribution licensee, it may happen that One year out of Three years control period may be without any power purchase tie-up from RE sources. Hence, the Commission do not consider the submission of TPL.

The Commission decides to substitute the Clause 3.2(e) of Solar Tariff Order No. 03 of 2020 as proposed in para 5(ii) of Draft Suo-Motu Order, as under;

"3.2(e) Eligibility Criteria

The Solar power projects to be commissioned under PPAs signed during the new control period will be eligible to sell power to distribution licensees of Gujarat at the tariff approved by the Commission under this Tariff framework."

11. In para 5(iii) of Draft Suo-Motu Order, it was proposed to substitute the Clause 3.10(ii) of Solar Tariff Order 03 of 2020 as under;

Existing Clause:

3.10(ii) For the Solar Power Projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable.

Substituted by:

3.10(ii) For the Solar Power Projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand in case of third party sale, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable.

Suggestions from Stakeholders:

Some of the stakeholders submitted that Cross Subsidy Surcharge and Additional Surcharge should be removed in case of Captive and Third Party sale.

Commission's Ruling:

The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance. The need arises because at the time of passing an order, it may not be possible to foresee all the difficulties which might arise in its working. The Commission while issuing Solar Tariff Order No. 03 of 2020, dealt with suggestions/objections received from stakeholder regarding applicability of Cross Subsidy Surcharge and Additional Surcharge. Hence, the Commission do not find any merit to reopen it. The Commission has proposed only minor modification in existing

Clause 3.10(ii) of Solar Tariff Order No.03 of 2020, to provide more clarity and to remove difficulties in implementing it.

The Commission decides to substitute the Clause 3.10(ii) of Solar Tariff Order No. 03 of 2020 as proposed in para 5(iii) of Draft Suo-Motu Order, as under;

"3.10(ii) For the Solar Power Projects set up by MSME (Manufacturing) Enterprise above 50% of its contracted demand in case of third party sale, 100% of Cross-Subsidy Surcharge and Additional Surcharge as applicable to normal Open-Access Consumers shall be applicable."

Additional Points suggested by Stakeholder:

12. Clarification of Clause 3.5 Security Deposit

Suggestions from Stakeholders:

One stakeholder requested to modify Clause 3.5 (Security Deposit) suitably so that the solar projects awarded under tariff based competitive bidding route as per the Guidelines issued by MoP dated 03.08.2017 shall be excluded to furnish Security Deposit to GETCO.

Commission's Ruling:

The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance. The Commission while issuing Solar Tariff Order No. 03 of 2020, dealt with suggestions/objections received from stakeholder regarding Security Deposit.

Further, this clause is also in line with the Clause 13 of Solar Policy-2015 reproduced as under;

"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."

Hence, the Commission do not find any merit to reopen it.

Hence, Commission decides there is no need of further clarification.

13. Clarification of Clause 3.8(i)

Suggestions from Stakeholders:

One stakeholder requested for modification in Clause 3.8(i) to provide more clarity with respect to applicability of banking of energy in case of captive consumption (Generation and consumption are at same location or at different locations) as under;

i. Solar projects not registered under REC Mechanism and the consumer does not take benefit of the renewable attribute

For such projects, the adjustment of the Solar energy generation shall be allowed within the consumer's billing cycle. The entire Solar energy generation of such consumer shall be utilized for meeting the RPO of that Distribution Licensee.

Banking of energy shall be allowed to consumer having distance or co-located solar power plant, 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.

.....

.....

Commission's Ruling:

The suggested modification create more confusion and implementation issues. It will restrict facility of banking of energy limited to those consumer having distance or co-located solar power plant only.

Hence, Commission decides there is no need of further clarification.

14. Clarification of applicability of Surplus Injection Compensation as provided in Clause 3.8(ii) and 3.8(iii).

Suggestions from Stakeholders:

PGVCL submitted that, as per the Clause No: 3.8 (ii), the consumer who takes benefit of RE attributes for its own RPO, the applicable Surplus Injection Compensation (SIC) rate is Rs. 1.75/Unit. Whereas as per clause- 3.8(iii), if the benefits of RE attribute is not given to Distribution Licensee (means consumer takes benefit of RE attributes for

its own RPO), the applicable Surplus Injection Compensation (SIC) rate is Rs. 1.50/Unit. Thus, there is infirmity in applicability of Surplus Injection Compensation rate for consumer who do not give RE attribute to DISCOM but takes benefit of RE attributes for its own RPO.

In view of above, it is required to be clarified in the order for applicability of SIC for consumers who do not give benefits of RE attributes to DISCOMs but utilize the same for their own RPO requirement

Commission's Ruling:

Clause 3.8(ii) and 3.8(iii) are reproduced as under;

> ***"ii. Solar Power Projects not registered under REC Mechanism and the consumer takes the benefit of the renewable attribute to meet their own RPO.***
>
> .....
>
> *In the event of any surplus solar energy not consumed as per energy accounting based on 15-minute time block, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar power projects.*
>
> *Such surplus energy compensated by the Distribution Licensee shall be utilized for meeting the RPO of that Distribution Licensee.*
>
> ***iii. Solar Power Projects registered under REC Mechanism and the Solar Power Projects not registered under REC Mechanism but benefit of the renewable attribute is not given to distribution licensee.***
>
> .....
>
> *In the event of any surplus Solar energy not consumed as per energy accounting based on 15-minute time block, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.50 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Solar Power Projects."*

In para 3 of Clause 3.8(ii) it is mentioned that "*Such surplus energy compensated by the Distribution Licensee shall be utilized for meeting the RPO of that Distribution Licensee.*", whereas such provision is not available in Clause 3.8(iii). Hence, it is very much clear that whenever distribution licensees purchase such surplus energy and utilize it toward fulfilment of their RPO obligations, such excess electricity shall be compensated by the concerned Distribution Licensee at the rate Rs.1.75 per unit.

Hence, Commission decides there is no need of further clarification.

15. Clarification of applicability of Transmission/ Wheeling Charge and Losses as provided in Clause 3.9

i) Clause 3.9(ii) Transmission Charges and Losses

Suggestions from Stakeholders:

Some of the stakeholders suggested that transmission charges and losses should not be levied in case of Third Party sale within the Distribution Licensee. One stakeholder suggested that transmission charges should be on quantity of power transmitted and not on capacity of plant.

Commission's Ruling:

Clause 3.9(ii) is reproduced as under;

> *"**ii. Transmission Charges and Losses***
> *Solar Power Project setup for captive use /Third party sale/Registered under REC, transmission charges and losses as applicable to normal Open-Access Consumers shall be applicable."*

The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance. The Commission while issuing Solar Tariff Order No. 03 of 2020, dealt with suggestions/objections received from stakeholder regarding applicability of Transmission Charges and Losses. Hence, the Commission do not find any merit to reopen it.

Hence, Commission decides there is no need of further clarification.

ii) Clause 3.9(iv) Wheeling at Two or More Locations

Suggestions from Stakeholders:

PGVCL submitted that, there is infirmity in the provision of Clause 3.9 (iv) and its title with regard to applicability of additional Rs. 0.05/Unit for wheeling of energy for more than one locations. As per the clause, additional charge of Rs. 0.05/unit is applicable for wheeling at more than two locations whereas as per title, additional charges is applicable for wheeling at two or more locations. Accordingly, it is required to modify the clause 3.9 (iv).

Commission's Ruling:

Clause 3.9(iv) is reproduced as under;

> ***iv. Wheeling at Two or More Locations***
> *If a Solar Power Generator owner desires to wheel electricity to more than two locations, he shall pay INR 0.05 per unit on energy fed into the grid to distribution licensee in whose area power is consumed in addition to the abovementioned transmission charges and losses, as applicable.*

The Commission considers the submission of PGVCL and decides to correct and modify the Clause 3.9(iv) of Solar Tariff Order 03 of 2020 to remove ambiguity as under;

> ***"iv. Wheeling at Two or More Locations***
> *If a Solar Power Generator owner desires to wheel electricity to two or more locations, he shall pay INR 0.05 per unit on energy fed into the grid to distribution licensee in whose area power is consumed in addition to the abovementioned transmission charges and losses, as applicable."*

16. Clarification of Capacity of Plant

Suggestions from Stakeholders:

One stakeholder suggested that not to put cap on DC capacity and one stakeholder ask to clarify capacity of installation, is it AC or DC?

Commission's Ruling:

Para 2.5.3 of Solar Tariff Order No.03 of 2020 is reproduced as under;

> ***"2.5.3. Commission's Ruling***
> *Looking to the present status of Solar PV installations and its impact on grid and other electricity consumers, the Commission decides to continue present arrangement of cap of 50% installation for consumers other than MSME (Manufacturing) Enterprises and in order to make exiting Regulation aligned to State Government Policy for MSME (Manufacturing) Enterprises, they are allowed to install Solar PV system above 50% of its sanctioned load/ contract demand subject to 15-minute settlement mechanism.*
>
> *As far as Capacity of Solar PV plant installation is concerned, the Commission has already defined the "Plant Capacity" in the Order no. 3 of 2015 issued on 17th August,*

2015, it is reproduced as under;

"..... The Commission therefore decides to retain the definition of the capacity of the solar plant as the cumulated rated capacity of the photovoltaic modules at Standard Testing Conditions (STC). Moreover a tolerance of ±3% is retained due to design and module constraints."

....."

The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance. The Commission while issuing Solar Tariff Order No. 03 of 2020, dealt with suggestions/objections received from stakeholder regarding capacity of plant. Hence, the Commission do not find any merit to reopen it.

Hence, Commission decides there is no need of further clarification.

17. Issue related to Extension of Date of Implementation of Solar Tariff Order No. 03 of 2020.

Suggestions from Stakeholders:

Some of the stakeholders requested to extend the date of implementation of Solar Tariff Order No. 03 of 2020 dated 8th May, 2020 up to 31st December, 2020 instead of date of Order i.e. 8th May, 2020, looking to the COVID-19 scenario.

Commission's Ruling:

The Commission had issued draft Tariff Framework for Solar projects based on dynamic tariff on 4th February 2020. Further, the hearing on the matter was scheduled and concluded on 7th March 2020. It was expected that new solar projects commissioned thereafter will be covered under new framework. Moreover, The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance.

Hence, Commission decides there is no need of further clarification.

18. Relaxation to Desalination Plants from certain provisions of Solar Tariff Order No. 03 of 2020.

Suggestions from Stakeholders:

Shri Reby Thomas Elsan on behalf of 1)Dwarka Sea Water Desalination Pvt. Limited, 2) Gir Somnath Desalination Pvt. Limited, 3) Kutch Sea Water Desalination Pvt. Limited, 4) Bhavnagar Desalination Pvt. Limited, submitted that Provisions of GoG Policy for "Desalination Plants within Integrated power generation units in the State of Gujarat", issued vide G.R. No. SLR-11-2018-1602-B1 dated 15.05.2019 and amendment dated 19.07.2019 should be incorporated as listed below in Solar Tariff Order;

1. Capacity allowed 400% of CD
2. Banking for one month billing cycle
3. Purchase of surplus energy by GUVNL at the rate of competitive bidding of last six months.

And also requested to exempt them from applicability of Cross Subsidy Surcharge and Additional Surcharge.

Commission's Ruling:

The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance. It is submitted by the objector that he has also filed petition seeking review of Order No. 03 of 2020 issued on 8th May, 2020.

The Commission decides that the issues raised by the objector shall be dealt at the time of proceeding of the petition shortly. Hence, there is no need of further clarification at this stage.

19. Issue related to Incentives received by distribution licensee from MNRE

Suggestions from Stakeholders:

Federation of Renewable & Consumers of Energy submitted that incentive received by Distribution licensees from MNRE under PMKUSUM Scheme (under Component - A: Setting up of 10,000 MW of Decentralized Ground Mounted Grid Connected Solar Power plants of individual plant size up-to 2 MW) shall be Reimbursed to Farmers who installed solar power projects.;

Commission's Ruling:

The Commission has issued draft Suo-Motu Order and invited objections/suggestions to remove difficulties in implementing its order effectively without making a change in the substance.

Hence, Commission decides there is no need of further clarification.

20. We Order accordingly.

Sd/-	Sd/-
(P. J. THAKKAR)	**(ANAND KUMAR)**
Member	**Chairman**

Place: Gandhinagar
Date: 05.08.2020

Annexure - I: List of Stakeholders who submitted their views on the Discussion Paper

Sr. No.	Name of Stakeholders
1	Paschim Gujarat Vij Company Ltd.
2	Rajkot Chamber of Commerce and Industries
3	Bahuchar Energy, Survey No. 502, Navaghanshyamgadh
4	Ronak Energy, Survey No. 521, Navaghanshyamgadh
5	Raj Energy, Survey No. 521, Navaghanshyamgadh
6	Dhavdi Energy, Survey No. 521, Navaghanshyamgadh
7	Pari Energy, Morbi
8	Madhuvan Green Energy, Morbi
9	Comandant Solar Energy Pvt.Ltd, Morbi
10	Creanza Solar Energy Pvt.Ltd, Morbi
11	Orinda Power Energy, Survey no.23, Dudhai
12	Pawansut Power Energy, Survey No.79, Dudhai
13	Enwatech Engineers, Ahmedabad
14	Aditya Power Corporation
15	Madhu Silica, Vartej, Bhavnagar
16	Likhiya Green Energy, Chanchpar, Morbi
17	Rojmala Green Energy, Chanchpar, Morbi
18	Sunbright Power
19	Satyam Power
20	Satyam Energy, Jam Dudhai, Jamnagar
21	Shivam Energy, Jam Dudhai, Jamnagar
22	Sundaram Energy, Jam Dudhai, Jamnagar
23	Duva Green Energy, Morbi
24	Goldi Solar Pvt. Ltd., Surat
25	Shree Cement Ltd, Bangurnagar, Rajsthan
26	Dwarka Sea Water Desalination Pvt. Ltd.,
27	Gir Somnath Desalination Pvt. Ltd.,
28	Kutch Sea Water Desalination Pvt. Ltd.,

Sr. No.	Name of Stakeholders
29	Bhavnagar Desalination Pvt. Ltd.,
30	Federation of Renewable & Consumers of Energy
31	Torrent Power Ltd
32	Aditya Birla Renewables Limited

Annexure - II: List of stakeholders who presented their views during Virtual Publice Hearing (Through Video Conference)

Sr. No.	Name of Stakeholders
1	Paschim Gujarat Vij Company Ltd.
2	Rajkot Chamber of Commerce and Industries
3	Comandant Solar Energy Pvt.Ltd, Morbi
4	Creanza Solar Energy Pvt.Ltd, Morbi
5	Madhu Silica, Vartej, Bhavnagar
6	Rojmala Green Energy, Chanchpar, Morbi
7	Goldi Solar Pvt. Ltd., Surat
8	Shree Cement Ltd, Bangurnagar, Rajsthan
9	Dwarka Sea Water Desalination Pvt. Ltd.,
10	Gir Somnath Desalination Pvt. Ltd.,
11	Kutch Sea Water Desalination Pvt. Ltd.,
12	Bhavnagar Desalination Pvt. Ltd.,
13	Torrent Power Ltd
14	Aditya Birla Renewables Limited
15	Chamber of Commerce and Industries, Kutch
16	Sisam Ceramics Pvt. Limited
17	Ambit Energy Pvt. Limited
18	Gujarat Urja Vikas Nigam Ltd.
19	BEE Electric Power Pvt. Limited

Annexure. C

GUJARAT ELECTRICITY REGULATORY COMMISSION

Notification No. 5/2016

Regulations for Net Metering Rooftop Solar PV Grid Interactive Systems

June 2016

Table of Contents

1 Short title, and commencement..... 2
2 Definitions and Interpretations..... 2
3 Scope and application.....7
4 General Principles.....7
5 Capacity Targets for distribution licensee..... 8
6 Eligible Entity and individual project capacity..... 9
7 Procedure for Application.....10
8 Interconnection with the Grid.....14
9 Energy Accounting and Settlement.....19
10 Dispute Resolution..... 22
11 Solar Renewable Purchase Obligation.....22
12 Applicability of other charges..... 23
13 Metering arrangement..... 23
14 Sharing of CDM benefits.....24
15 DemandCut.....24
16 Penalty for Compensation.....25
17 Power to give directions.....25
18 Power to relax.....25
19 Power to amend.....25
20 Power to Removal of difficulty.....26
21 Annexure - I 27
22 Annexure - II 29
23 Anneuxre - III.....30
24 Annexure - IV 31
25 Annexure - V.....42
26 Annexure - VI 49

Date: 18/06/2016

Notification No. 5/2016

In exercise of powers conferred under Sections 61, 66, 86(1)(e) and 181 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in this behalf, the Gujarat Electricity Regulatory Commission hereby makes the following Regulations for the grid connected Solar Rooftop Photovoltaic System:

1 Short title, and commencement

1.1 These Regulations shall be called the Gujarat Electricity Regulatory Commission (Net Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016.

1.2 These Regulations shall come into force from the date of its notification in the Official Gazette.

2 Definitions and Interpretations

2.1 In these Regulations, unless the context otherwise requires,

a) **"Act"** means the Electricity Act, 2003 (36 of 2003) as amended from time to time ;

b) **"Agreement"** means a connection agreement entered into between the Distribution Licensee and the consumer;

c) **"Area of supply"** means the geographic area within which the licensee, for the time being, is authorised by its licence to supply the electrical energy;

d) **"Average Power Purchase Cost"** (APPC) means the Weighted Average Pooled Price at which the distribution licensee has purchased the electricity including cost of self generation, if any, in the previous year from all the energy suppliers on long-term, medium-term and short-term basis, but excluding energy purchased from renewable energy sources,

e) **"Billing Cycle or Billing Period"** means the period for which regular electricity bills are prepared for different categories of consumers by the Distribution licensee, as specified by the Commission;

f) **"Commission"** means the Gujarat Electricity Regulatory Commission constituted under the Act;

g) **"Consumer"** means any person who is supplied with electricity for his own use by a Distribution licensee or the Government or by any other person engaged in the business of supplying electricity to the public under the Act or any other law for the time being in force and includes any person whose premises, for the time being, is connected for the purpose of receiving electricity with the works of a distribution licensee, the Government or such other person, as the case may be;

h) **"Connected load"** expressed in kW, kVA or HP, refers to aggregate of the manufacturer's rated capacities of all the energy consuming devices or apparatus connected with the Distribution licensee's service line on the consumer's premises which can be operated simultaneously. For the purpose of levy of any charges and for deciding the supply voltage, the connected load shall be determined as per the method prescribed in the Gujarat Electricity

Regulatory Commission (Electricity Supply Code and Related Matters) Regulations, 2015 and subsequent amendments thereto;

i) **"Contracted load"** or **"Sanctioned load"** or **"Contracted demand"** means the maximum demand in kW, kVA or HP, agreed to be supplied by the licensee and indicated in the agreement executed between the licensee and the consumer;

j) **"Distribution licensee"** or **"licensee"** or **"supply licensee"** means a person who is granted a licence under Section 14 of the Act authorizing him to operate and maintain a distribution system and supplying electricity to the consumers in his area of supply;

k) **"Electricity Supply Code"** means the GERC (Electricity Supply Code and Related Matters) Regulations, 2015 notified by the Commission under Section 50 of the Act as amended from time to time;

l) **"Eligible Consumer"** means a consumer of electricity in the area of supply of the distribution licensee, who intends to use a Rooftop Solar PV System, given that such system is self owned, to offset part or all of the consumer's own electrical requirements.

m) **"Financial Year"** or **"Year"** means the period beginning from first (1^{st}) of April in an English calendar year and ending on thirty first (31^{st}) of March of the next year;

n) **"Interconnection Point"** means the interface of Rooftop Solar PV System connected with the load side of meter/Distribution licensee cut out/switch gear fixed in the premises of the consumer.

o) **"Invoice"** means either a Regular Bill / Supplementary Bill or a Regular Invoice/ Supplementary Invoice raised by the distribution licensee as provided in Regulation 2.1(e) of these Regulations;

p) **"Net Metering"** means an arrangement under which Rooftop Solar PV System installed at Eligible Consumer's premises delivers surplus electricity, if any, to the Distribution Licensee after off-setting the electricity supplied by the distribution licensee to such Eligible Consumer during the applicable billing period.

q) **"Net meter"** means an appropriate energy meter capable of recording both import & export of electricity or a pair of meters one each for recording the import and export of electricity as the case may be;

r) **"Obligated entity"** means the entity mandated under clause (e) of sub-section (1) of Section 86 of the Act to fulfil the Renewable Purchase Obligation and identified as such under Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Energy Sources) Regulations, 2010 as amended from time to time;

s) **"Premises"** means rooftops or/and Open areas on the land, building or infrastructure or part or combination thereof in respect of which a separate meter or metering arrangements have been made by the licensee for supply of electricity;

t) **"Rooftop Solar PV Power Plant" or "Rooftop Solar PV System"** or **"Solar Generating Plant"** means the Solar Photo Voltaic Power Plant including small solar systems installed on the rooftops/ground mounted or open land of

consumer premises that uses sunlight for direct conversion into electricity through photovoltaic technology;

u) **"Renewable Energy Certificate (REC)"** means the certificate issued in accordance with the procedures approved by the Central Electricity Regulatory Commission;

v) **"Renewable Energy System"** means the system to generate electricity from such source(s) which are recognized as renewable energy source(s) by the Gujarat Electricity Regulatory Commission in GERC (Procurement of Energy from Renewable Energy Sources) Regulations, 2010 as amended from time to time;

w) **"State Nodal Agency"** means the agency as designated by the State Government through Solar Policy 2015;

x) **"Tariff Order"** in respect of a licensee means the most recent order issued by the Commission for that licensee indicating the rates to be charged by the licensee to various categories of consumers for supply of electrical energy and services;

2.2 All other words and expressions used in these Regulations although not specifically defined herein above, but defined in the Act, or defined under any law passed by the Parliament applicable to the electricity industry in the State shall have the meaning assigned to them in the Act or in such law.

2.3 Headings or Capital words are inserted for convenience and may not be taken into account for the purpose of interpretation of these Regulations;

2.4 Words in the singular or plural term, as the case may be, shall also be deemed to include the plural or the singular term, respectively;

2.5 Abbreviations used in these Regulations shall have the meanings as stated in **Annexure - I.**

3 Scope and Application

3.1 These Regulations shall apply to the distribution licensee and consumers of electricity of distribution licensee availing supply from it in its area of supply in the State of Gujarat, or consumers who are receiving electricity from its own generating source but situated in the distribution licensee area.

3.2 The Eligible Consumer may install the Rooftop Solar PV System under net metering arrangement which,

a) shall be within the permissible rated capacity as defined under these Regulations.

b) shall be located in the consumer's premises.

c) shall interconnect and operate safely in parallel with the distribution licensee network.

3.3 These Regulations do not preclude the right of relevant Distribution licensee or State Government Department/authorities to undertake Rooftop Solar PV projects above 1 MW capacity through alternative mechanisms.

4 General Principles

The distribution licensee shall provide the net metering arrangement to the eligible consumer, who intends to install grid connected Rooftop Solar PV System, in its area of supply on non-discriminatory and first come first served basis.

Provided that the consumer is eligible to install the grid connected Rooftop Solar PV System of the rated capacity as specified under these Regulations;

Provided further that the interconnection of such system with the grid is undertaken as specified under the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 read with Central Electricity Authority (Technical Standards for Connectivity of Distributed Generated Resources) Regulations, 2013 and provisions of GERC (Terms and Condition of Intra-State Open Access) Regulations, 2011 as amended from time to time.

5 Capacity Targets for Distribution Licensee

The Distribution Licensee shall provide net metering arrangement to Eligible Consumers.

Provided that the cumulative capacity to be allowed at a particular distribution transformer shall not exceed 65% of the peak capacity of the distribution transformer;

5.1 The distribution licensee shall update distribution transformer capacity available for connecting Rooftop Solar PV Systems under net metering arrangement on yearly basis and shall provide the information to the Commission.

Provided that if augmentation of transformer/distribution network is required, the cost of such augmentation shall be borne by the consumer.

The capacity of Rooftop Solar PV System to be installed at the premises of any consumer shall not be less than one Kilo Watt (1kW).

6 Eligible Consumer and individual project capacity

6.1 In addition to the general eligibility defined in Regulation 2.1(l) of these Regulations, the Eligible Consumer for the Rooftop Solar PV System with net metering shall:

i. be a consumer of the local distribution licensee;

ii. own or be in legal possession of the premises including the rooftop or terrace or building or infrastructure or open areas of the land or part or combination thereof on which the Solar PV System is proposed to be installed;

iii. connect the proposed Rooftop Solar PV System to the Distribution System of the Licensee;

iv. consume all of the electricity generated from the Rooftop Solar PV System at the same premises. If the consumer is not able to consume all of generated electricity in the same premises, he shall be governed by Regulation 9 of these Regulations.

6.2 The maximum Rooftop Solar PV System capacity to be installed at any Eligible Consumer's premises shall be upto a maximum of 50% of consumer's sanctioned load/contract demand;

Provided that the installed capacity shall not be less than 1 kW and shall not exceed 1 MW;

Provided also that the installed capacity is aligned with the provisions for permitting consumer connections as stated in the Gujarat Electricity Regulatory Commission (Electricity Supply Code and Related Matters) Regulations, 2015 as amended from time to time, read with the provisions of GERC (Terms and Conditions of the Intra-State Open Access) Regulations, 2011 as amended from time to time.

7 Procedure for Application

Various activities and different authorities are associated with the Solar Rooftop PV project. It is necessary that the different entities carry out the works within prescribed time limit. Therefore, time frame prescribed in the table below shall be scrupulously followed by the concerned authorities.

Sr. No.	Activity	Sub Activity	Duration in day(s)
1.	Registration at GEDA	GEDA shall issue Registration Certificate	5 days from receipt of duty completed application
2.	Approval from Chief Electrical Inspector	CEI shall approve Single Line Diagram, Earthing Diagram and Wiring Diagram	10 days from receipt of duly completed application
3.	Application to Distribution Licensee	Applicant shall submit application in prescribed format along with following compliance and documents to Distribution Licensee • Capacity of Solar Rooftop to be installed (Maximum shall be 50% of the Consumer's sanctioned load) • Copy of registration at GEDA • Documents related to legal possession of roof-top /NOC of co-owners, in case of joint ownership. • Approval of Chief Electrical Inspector (CEI) for Single Line Diagram, Earthing Diagram and Wiring Diagram.	
4.	Technical Feasibility Report (TFR)	On Registration with Distribution Licensee, letter to concerned Circle/Division for TFR and informing applicant regarding specifications of CTPT, meter.	5 days from receipt of duly completed application
5.	TFR from field	TFR to include following	10 days from the

Sr. No.	Activity	Sub Activity	Duration in day(s)
		a) Name of Consumer. b) Load details of the building where roof-top is to be installed as under: Name of Division, Sub-Division, Consumer Name, Consumer No., Address, Tariff, Contract Demand/ Load, Connected Load c) Name of 11KV feeder, Transformer capacity, Solar Rooftop capacity already connected as well as approved/sanctioned on this transformer including this proposed Solar Rooftop capacity whether total Rooftop solar capacity is within the rated capacity of transformer. d) Maximum demand recorded during last one year. e) No dues certificate. f) No legal disputes pending certificate. g) Detailed estimate to be recovered from applicant for strengthening of Distribution Licensee's system for the work to be carried out for providing connectivity and evacuation facility of surplus power to be injected by the applicant. Note: Solar installation to be restricted up to T/C capacity, and if required, it is to be strengthened at the cost of Solar Rooftop Generator.	letter of Head Office
6	Post TFR	On receipt of TFR from field, Head Office shall issue letter to applicant regarding In principle consent for connectivity, payment of connectivity charges and execution of connectivity agreement within 15 days. OR Issuing estimate to applicant for system strengthening (if required) to be paid	5 days from receipt of TFR from field office

Sr. No.	Activity	Sub Activity	Duration in day(s)
		within 30 days, payment of connectivity charges and execution of connectivity agreement.	
7	Signing of connectivity agreement and issuance of letter to applicant for completion of project work	**Case 1 (No system strengthening required)** On payment of Connectivity Charges and execution of Connectivity Agreement within 15 days of consent. Letter to applicant to complete the project work within 6 months **Case 2 (If system Strengthening required)** On payment of Connectivity Charges and execution of Connectivity Agreement within 30 days along with payment of estimate. Letter to applicant to complete the project work within 6 months.	5 days from execution of agreement 5 days from execution of agreement
8	System strengthening by Distribution Licensee	Distribution Licensee to complete the work of system strengthening on payment of estimate.	45 days in parallel to project installation
9	Notice to applicant for commissioning	Issuance of two months notice to applicant for commissioning of the project on expiry of 6 months project completion period.	Within 5 days on expiry of 6 months
10	In case of non-completion of work by applicant	If no intimation received from applicant on expiry of 2 months notice period, application shall be cancelled informing the applicant within 30 days forfeiting all charges paid for Solar Rooftop Project.	Within 5 days on expiry of 2 months
11	On completion of work by applicant	Intimation to applicant to submit following documents within 5 days: (if not submitted along with intimation of commissioning by applicant) 1. Ownership of Solar PV system 2. Installation charging approval of Chief Electrical Inspector(CEI) 3. Meter/ CTPT testing certificate from High-tech lab and ERDA. 4. All equipment should comply with	5 days from receipt of completion letter from applicant

Sr. No.	Activity	Sub Activity	Duration in day(s)
		IEC standards. Applicant to submit relevant IEC certificate/test reports for all equipments ,i.e. for modules/SPV/inverters/cables/junction box/Transformer /RMU/CTPT/meter etc. 5. Installation of proper protection system (inverter shall have anti islanding feature) along with second line of protection such as no volt relay, applicant has to pay connectivity charges and execute connectivity agreement with Distribution Licensee Note: If applicant is not submitting above documents within 5 days, application shall be cancelled forfeiting all charges paid for Solar Rooftop Project.	
12	Intimation to Field Office	On receipt of documents from the applicant, intimation to Field Office/Sub-division for installation of meter (Solar meter to record total generation and bidirectional/ABT meter for net metering).	5 days from receipt of documents from the applicant
13	Report from field/sub-division	Installation of meter (Solar meter to record total generation and bidirectional/ABT meter for net metering) and intimate to applicant and report to HO	7 days from receipt of letter from HO
14	Intimation to GEDA	Distribution Licensee shall intimate to GEDA for issuing commissioning certificate	5 days from receipt of letter from Distribution Licensee
15	Issuance of Commissioning Certificate from GEDA	GEDA shall visit the site in consultation with Distribution Licensee and applicant and issue Commissioning Certificate	5 days from the receipt of intimation from applicant

8 Interconnection with the Grid: Standards and Safety

(1) The interconnection of the Rooftop Solar PV System with the network of the distribution licensee shall be made as per the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 and GERC (Terms and Conditions of Intra-State Open Access), Regulations, 2011 as amended from time to time.

The interconnection of the Rooftop Solar PV System with the distribution system of the licensee shall conform to the relevant provisions of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 as amended from time to time.

Provided that a variation in the rated capacity of the system within a range of five percent (5%) shall be allowed;

Provided further that the system qualifies the technical requirements for grid interconnection with the network of the distribution licensee.

(2) The connectivity levels at which the Rooftop PV Solar System shall be connected with the grid are as specified below:

Sr. No.	Connected load of Eligible Consumer	Connectivity level
1.	Upto 6 kW	240 V- single phase
2.	Above 6 kW and upto 18.65 kW	415 V-Three phase
3.	Above 18.65 kW and upto 100 kW/kVA	415 V-Three phase
4.	Above 100 kW/kVA	HT level

(3) The above connectivity norms are applicable to all the Rooftop Solar PV System for seeking connectivity with the network of the distribution licensees. HT consumers may install Rooftop Solar PV System at LT/HT voltage and connect

them to their LT/HT system for interconnection of Rooftop Solar PV System with the local distribution licensee's grid, for which the relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, as amended from time to time, Central Electricity Authority (Standards of connectivity of distributed generation resources) Regulations, 2013 and GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 as amended from time to time shall be applicable.

(4) The Rooftop Solar PV Energy Generator shall be responsible for safe operation, maintenance and rectification of defects of its system up to the interconnection point beyond which the responsibility of safe operation, maintenance and rectification of any defects in the system including the net meter shall rest with the distribution licensee.

(5) The consumer/ Rooftop Solar PV Energy Generator shall be solely responsible for any accident to human being/ animals whatsoever (fatal/non-fatal/departmental/non-departmental) that may occur due to back feeding from the Rooftop Solar PV System when the grid supply is off, based on the issue decided by the Chief Electrical Inspector. The distribution licensee reserves the right to disconnect the consumer's installation at any time in the event of such exigencies to prevent accident or damage to men and materials.

(6) The tests as per EN 50160 and as per distribution licensee's standards shall be carried out by the Chief Electrical Inspector to ensure the quality of power generated from the Rooftop Solar PV System.

(7) Any alternate source of supply shall be restricted to the consumer's network and the consumer shall be responsible to take adequate safety measures to prevent battery power/diesel generator power/back-up power extending to distribution licensee's LT grid on failure of distribution licensee's grid supply.

(8) The distribution licensee shall have the right to disconnect the Rooftop Solar PV System from its system at any time in the following conditions:

(i) Emergencies or maintenance requirement on the distribution licensee's system,

(ii) Hazardous conditions existing on the distribution licensee's system due to operation of Rooftop Solar PV System or protective equipment as determined by the Distribution Licensee/Transmission Licensee/SLDC, and

(iii) Adverse electrical effects, such as power quality problems, on the electrical equipment of other consumers of the distribution licensee caused by the Rooftop Solar PVS system as determined by the distribution licensee.

(9) Subject to sub Regulation 8(4) above, the distribution licensee may call upon the Rooftop Solar PV generator to rectify the defect within two days of such intimation.

(10) The Rooftop Solar PV System should be capable of detecting an unintended islanding condition. This system must have anti-islanding protection to prevent any unfavourable conditions including failure of supply. IEC-62116 shall be followed to test islanding prevention measure for grid connected photovoltaic inverters.

(11) Every Rooftop Solar PV System shall be equipped with automatic synchronization device:

Provided that Rooftop Solar PV System using inverter shall not be required to have separate synchronization device, if the same is inherently built into the inverter.

(12) The Rooftop Solar PV System operating in parallel with electricity system shall be equipped with the following protective functions to sense abnormal conditions on electricity system and cause the Rooftop Solar PV System to be

automatically disconnected from the electricity system or to prevent the Rooftop Solar PV System from being connected inappropriately to the electricity system;

(i) Over and under voltage trip functions if voltage reaches above 110% or below 80% respectively with a clearing time upto two (2) seconds;
(ii) Over and under frequency trip functions, if frequency reaches 50.5 Hz or below 47.5 Hz with a clearing time upto 0.2 seconds;
(iii) The Rooftop Solar PV System shall cease to energize the circuit to which it is connected in case of any fault in the circuit;
(iv) A voltage and frequency sensing and time delay function to prevent the Rooftop Solar PV System from energizing a de-energized circuit and to prevent the Rooftop Solar PV System from reconnecting with electricity system unless voltage and frequency is within the prescribed limits and are stable for at least sixty (60) seconds; and
(v) A function to prevent the Rooftop Solar PV System from contributing to the formation of an unintended island, and cease to energize the electricity system within two (2) seconds of the formation of an unintended island.

(13) The equipment of the Rooftop Solar PV System shall meet the following requirements:

(i) Circuit Breakers or other interrupting equipment shall be suitable for their intended application with the capability of interrupting the maximum available fault current expected at their location,
(ii) The Rooftop Solar PV System and associated equipment shall be so designed that the failure of any single device or component shall not potentially compromise the safety and reliability of the electricity system and
(iii) Paralleling device of the Rooftop Solar PV System shall be capable of withstanding 220% of the nominal voltage at the interconnection point.

(14) Every time the Rooftop Solar PV System of the Eligible Consumer is synchronized with the distribution system, it shall not cause voltage fluctuation greater than ±5% at the point of inter connection.

(15) After considering the maintenance and safety procedures, the distribution licensee may require a Rooftop Solar PV System to provide a manually operated isolating switch between the Rooftop Solar PV System and the electricity system, which shall meet following requirements:

(i) Allow visible verification that separation has been accomplished;
(ii) Include indications to clearly show open and closed positions;
(iii) Be capable of being reached quickly and conveniently twenty four (24) hours a day by licensee's personnel without requiring clearance from the applicant;
(iv) Be capable of being locked in the open position;
(v) May not be rated for load break nor may have feature of over-current protection; and
(vi) Be located at a height of at least 2.44 m above the ground level.

(16) Prior to synchronization of the Rooftop Solar PV System for the first time with the distribution system of the licensee the applicant and the licensee shall agree on the protection features and control diagrams.

(17) The power conditioning unit shall have the features of filtering out harmonics and other distortions before injecting the energy into the system of the distribution utility. The technical standards, power quality standards and inverter standards shall be as per Annexure - V of these Regulations or any other standards as may be specified by CEA from time to time.

(18) The commissioning test of the Rooftop Solar PV System shall be carried out in the presence of representatives of consumer/owner of Rooftop Solar PV System,

GEDA and concerned officer of the distribution licensee. The commissioning certificate shall be signed by all the above named parties. Date of commissioning shall be recognised from the date on which successful commissioning test is conducted.

(19) The Commissioning certificate must contain of the following details:

I. Details of Solar PV panels including name of the manufacturer, type, size/capacity of the panels, etc.;
II. Details regarding inverter, types of inverters and size;
III. Total capacity of the Solar PV Plant;
IV. Details of meter installed along with the types of meter accuracy, serial number, etc.

9 Energy Accounting and Settlement

Any energy injected prior to commissioning shall be deemed as inadvertent power. The consumer/Solar PV owner is not eligible to receive any monetary compensation for such inadvertent power.

9.1 For each billing period, the licensee shall show the quantum of electricity injected by Eligible Consumer/Solar PV system in the grid, electricity supplied by the distribution licensee, net billed electricity for payment by the consumer and net exported energy after adjustment against the consumption separately.

(1) For Residential and Government consumers

9.2 In the event the electricity supplied by the distribution licensee during any billing period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System, the distribution licensee shall raise invoice for the net electricity consumption at the consumer's prevailing tariff;

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity shall be purchased by the concerned Distribution Licensee at the APPC rate determined by the Commission for the year in which the Rooftop Solar PV System is commissioned for whole life of the Rooftop Solar PV System; e.g. for the Rooftop Solar PV System commissioned during 2016-17, the APPC rate determined by the Commission for FY 2015-16 shall be applicable.

Banking of energy shall be allowed within one billing cycle of the consumer.

The distribution licensee in addition to consumer tariff shall be eligible to raise invoice for any other charges as allowed by the Gujarat Electricity Regulatory Commission from time to time.

(2) For Industrial, Commercial and Other Consumers utilizing the 'energy attribute' of the generated solar energy from the Rooftop Solar PV System and not registered under REC mechanism.

9.3 In the event the electricity supplied by the distribution licensee during any billing period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System, the distribution licensee shall raise invoice for the net electricity consumption at the consumer's prevailing tariff;

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity after adjustment of consumption shall be purchased by the concerned Distribution Licensee at the APPC rate determined by the Commission for the year in which the Rooftop Solar PV System is commissioned for whole life of the Rooftop Solar PV System;

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.

The distribution licensee in addition to consumer tariff shall be eligible to raise invoice for any other charges as allowed by the Gujarat Electricity Regulatory Commission from time to time.

(3) For Industrial, Commercial and Other Consumers utilizing the 'energy attribute' of the generated solar energy from the Rooftop Solar PV System and utilizing the 'renewable attribute' for RPO compliance.

9.4 In the event the electricity supplied by the distribution licensee during any billing period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System, the distribution licensee shall raise invoice for the net electricity consumption at the consumer's prevailing tariff;

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity after adjustment of consumption in 15 minutes time block shall be purchased by the concerned Distribution Licensee at the APPC rate determined by the Commission for the year in which the Rooftop Solar PV System is commissioned for whole life of the Rooftop Solar PV System;

(4) For Industrial, Commercial and Other Consumers utilizing the 'energy attribute' of the generated solar energy from the Roof top Solar PV System and utilizing the 'renewable attribute' for REC.

9.5 In the event the electricity supplied by the distribution licensee during any billing period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System, the distribution licensee shall raise invoice for the net electricity consumption at the consumer's prevailing tariff;

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity after adjustment of consumption in 15 minute time block shall be purchased by the concerned Distribution Licensee at the 85% of APPC rate determined by the Commission for the year in which the Rooftop Solar PV System is commissioned for whole life of the project;

9.6 The energy accounting and settlement for wheeling power from solar projects other than Rooftop set up for captive purpose shall be in line with the provision at Para 9.3 to 9.5.

10 Dispute Resolution

10.1 In case of any dispute pertaining to these Regulations and its interpretation, it shall be decided by the Gujarat Electricity Regulatory Commission by observing the prescribed procedure.

11 Solar Renewable Purchase Obligation

11.1 The quantum of electricity consumed by the Eligible Consumer, who is not defined as an obligated entity, from the Rooftop Solar PV System under net-metering arrangement shall qualify towards compliance of Renewable Purchase Obligation (RPO) for the distribution licensee and no REC shall be issued as the generated solar energy shall be used to meet the Distribution licensee's RPO.

Industrial, Commercial and other than Residential and Government Consumers, utilizing both, 'energy attribute' as well as 'renewable attribute' of the generated solar energy, the solar energy generated and consumed by such

consumers during the 15 minute time block shall be credited towards meeting the consumer's RPO and no REC shall be issued for such generation.

11.2 However, surplus energy, if any, exported during the 15 minute time block purchased by distribution licensee, shall be credited towards meeting the Distribution Licensee's RPO and no REC shall be issued for such generation.

Provided that if such consumers utilize the 'renewable attribute' to get Renewable Energy Certificate under the REC mechanism then entire solar energy generated in 15 minute time block shall be considered for issuing REC.

12 Applicability of other charges

12.1 The Rooftop Solar PV System under net metering arrangement, installed on the Eligible Consumer's premises, shall be exempted from Transmission Charge, Transmission Loss, Wheeling Charge, Wheeling Loss, Cross Subsidy Surcharge and Additional Surcharge.

13 Metering arrangement

13.1 The metering system shall be as per the Central Electricity Authority (Installation & Operation of Meters) Regulations, 2006as amended from time to time.

13.2 Bi-directional meter or alternately two separate meters for import and export of the same accuracy class as the consumer's meter existing before the commissioning of the Rooftop Solar PV System shall be installed in replacement of existing meter. Such meters may be provided by the distribution licensee or consumer. If the meter is installed by the distribution licensee in that case, cost of the same shall be recovered from the consumer.

13.3 Industrial, Commercial and Other consumers utilizing both 'energy attribute' as well as 'renewable attribute' of the generated solar energy shall have to use ABT compliant meter.

13.4 These meters shall be Meter Reading instrument (MRI) or wireless equipment compliant for recording meter readings.

Provided, if bills are prepared on the basis of MRI downloads or if meter reading is taken on the basis of remote meter-reading and the consumer wishes to have a record of the reading taken, he shall be allowed so by the licensee.

13.5 The main Solar Meters shall be of 0.2s class accuracy and with facility for recording meter readings using Meter Reading Instrument (MRI) or wireless equipment. Check meters shall be mandatory for Rooftop Solar PV Systems having capacity more than 20 kW. For installations size of less than or equal to 20 kW, the Solar Check meters would be optional.

Provided that the cost of new/additional meter (s) shall be borne by the Eligible Consumer such meter shall be tested and installed by the distribution licensee.

The meters installed shall be inspected, verified for the accuracy and sealed by the distribution licensee in the presence of the representative of the consumer. Provided that in case the Eligible Consumer is under the ambit of time of day tariff, meters compliant of recording time of day consumption/generation shall be installed.

13.6 The meter reading taken by the distribution licensee shall form the basis of commercial settlement.

14 Sharing of CDM benefits

100% of the gross proceeds on account of CDM benefit to be retained by the Rooftop Solar PV System owner.

15 Demand Cut

No demand cut shall be applicable for the Residential and Government consumers. However, Industrial, Commercial and Other consumers shall be exempted from demand cut up to 50% of the installed solar capacity, wherever technically feasible.

16 Penalty or Compensation

In case of failure of net metering system, penalty or compensation shall be payable as per the provisions of the GERC (Standard of Performance of Distribution Licensee)Regulations, 2005 as amended from time to time.

17 Power to give directions

The Commission may from time to time issue such directions and orders as may be considered appropriate and necessary for implementation of these Regulations.

18 Power to relax

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person, after following due process of law.

19 Power to amend

The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations after following due process of law.

20 Power to Removal of difficulty

If any difficulty arises in giving effect to these Regulations, the Commission may issue necessary orders or clarification/interpretation to remove such difficulties either on its own volition, or based on representations from stakeholders.

Sd/-
[Roopwant Singh, IAS]
Secretary
Gujarat Electricity Regulatory Commission

Date: 18/06/2016

Place: Gandhinagar

Annexure - I

ABBREVIATIONS

ABT	Availability Based Tariff
AC	Alternating Current
AT&C	Aggregate Technical and Commercial
BIS	Bureau of Indian Standards
CB	Circuit Breaker
CEA	Central Electricity Authority
CT	Current Transformer
DC	Direct Current
Distribution Licensee	Dakshin Gujarat Vij Company Limited, Madhya Gujarat Vij Company Limited, Uttar Gujarat Vij Company Limited, Paschim Gujarat Vij Company Limited, Torrent Power Limited- Ahmedabad, Torrent Power Limited- Surat, Torrent Energy Ltd., ASPEN Infrastructure Limited, Kandla Port Turst, MPSEZ Utilities Private Limited and Jubilant Infrastructure Limited
EHT	Extra High Tension
EHV	Extra High Voltage
FOR	Forum of Regulators
GBI	Generation Based Incentive
GEDA	Gujarat Energy Development Agency
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Ltd.
GIS	Geographical Information System
GOI	Government of India
GPS	Global Positioning System
GSM	Global System for Mobile Communications
GSS	Grid Substation
GUVNL	Gujarat Urja Vikas Nigam Ltd.
HP	Horse Power
HT	High Tension
IEC	International Electro-technical Commission
IEEE	Institution of Electrical and Electronics Engineers
INR	Indian Rupee
kV	Kilo Volt
kVA	Kilo Volt Ampere
kW	Kilo Watt
kWp	Kilo Watt Peak

kWh	Kilo-Watt Hour
LT	Low Tension
MNRE	Ministry of New and Renewable Energy
MPLS	Multi protocol Label Switching
MVA	Mega Volt-Ampere
MW	Mega watt
MWp	Mega Watt Peak
NM	Net-Meter
O&M	Operations and Maintenance
PCU	Power Conditioning Unit
PT/VT	Potential/Voltage Transformer
RE	Renewable Energy
REC	Renewable Energy Certificate
RPO	Renewable Purchase Obligation
SLDC	State Load Despatch Centre
SM	Solar Meter
SPV	Solar Photo Voltaic
TVM	Tri-Vector Meter
UM	Utility Meter

Annexure II

Application Form to be kept on web-site by the distribution licensee

Annexure-III

Connectivity charges payable by the solar roof top consumer/Solar PV project owner

Connectivity Charges applicable for Rooftop Solar PV System shall be as under:

System Size	Applicable fees per connection
From 1 kW up to 6 kW	INR 1,500
More than 6 kW up to 100 kW	INR 10,000
More than 100 kW up to 1 MW	INR 50,000

The Connectivity Charges for Rooftop Solar PV System shall be payable to the respective Distribution Licensee.

Annexure-IV

Inter connection Agreement between Distribution Licensees and solar roof top PV project owner

Net Metering Inter Connection agreement

This Agreement is made and entered into at (location)____ on this (date) _____ day of (month)_____ year _____ between the Consumer, by the name of ---------- having premises at (address) _____ _____ as first party

AND

_____ (Name of the Distribution Licensee), Company registered under the Companies Act 1956/2013 and functioning as the "Distribution Licensee" under the Electricity Act 2003 having its Head Office at, _____ (hereinafter referred to as __ or Distribution Licensee which expression shall include its permitted assigns and successors) a Party of the Second Part.

AND, WHEREAS _____(name of the consumer) desires to set-up such Solar Photovoltaic Rooftop System of ___ kW at _____ connected with (Name of the Distribution Licensee)'s grid at _____Voltage level for his/her/its own use within the same premises.

WHEREAS, the Gujarat Energy Development Agency (GEDA) through letter dated _____ has registered for developing and setting up ____ kW own Rooftop Solar PV System for his/her/its own use under Gujarat Solar Power Policy - 2015 at his/her/its premises in legal possession including rooftop or terrace.

And whereas, the Distribution Licensee agrees to provide grid connectivity to the Consumer for injection of the electricity generated from his Rooftop Solar PV System of capacity ___ kilowatts (kW) into the power system of Distribution Licensee and as per conditions of this agreement and in compliance with the applicable Policy / rules/ Regulations/ Codes (as amended from time to time) by the Consumer which includes-

1. Government of Gujarat Solar Power Policy 2015
2. Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010.
3. Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 as amended from time to time
4. Central Electricity Authority (Installation and Operation of Meters) Regulation 2006.
5. Gujarat Electricity Regulatory Commission (Electricity Supply Code & Related Matters) Regulations, 2015,
6. Gujarat Electricity Regulatory Commission Distribution Code, 2004 and amendments thereto,
7. Instruction, Directions and Circulars issued by Chief Electrical Inspector from time to time.
8. CEA (Technical Standards for connectivity of the Distributed Generation) Regulations, 2013 as amended from time to time.

Both the parties hereby agree as follows:

1. Eligibility

1.1 Consumer shall own the Rooftop Solar PV System set up on its own premises or premises in his legal possession.

1.2 Consumer needs to consume electricity in the same premises where Rooftop Solar PV System is set up.

1.3 Consumer shall ensure capacity of Rooftop Solar not to exceed 50% of his contract load/demand/sanctioned load during initial 2 years of the connectivity agreement.

1.4 Consumer has to meet the standards and conditions as specified in Gujarat Electricity Regulatory Commission Regulations and Central Electricity Authority Regulations and provisions of Government of Gujarat's Solar Power Policy 2015 for being integrated into grid/distribution system.

2. Technical and Interconnection Requirements

2.1 Consumer agrees that his Rooftop Solar PV System and Net Metering System will conform to the standards and requirements specified in the Policy, Regulations and Supply Code as amended from time to time.

2.2 Consumer agrees that he has installed or will install, prior to connection of Rooftop Solar Photovoltaic System to Distribution Licensee's distribution system, an isolation device (both automatic and inbuilt within inverter and external manual relays) and agrees for the Distribution Licensee to have access to and operation of this, if required and for repair & maintenance of the distribution system.

2.3 Consumer agrees that in case of non availability of grid, Rooftop Solar Photovoltaic System will disconnect/isolate automatically and his plant will not inject power into the Licensee's distribution system.

2.4 All the equipments connected to the distribution system shall be compliant with relevant International (IEEE/IEC) or Indian Standards (BIS) and installations of electrical equipments must comply with Central Electricity Authority (Measures of Safety and Electricity Supply) Regulations, 2010 as amended from time to time.

2.5 Consumer agrees that licensee will specify the interface/inter connection point and metering point.

2.6 Consumer and licensee agree to comply with the relevant CEA Regulations in respect of operation and maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage, frequency, flicker etc.

2.7 In order to fulfill Distribution Licensee's obligation to maintain a safe and reliable distribution system, Consumer agrees that if it is determined by the Distribution Licensee that Consumer's Rooftop Solar Photovoltaic System either causes damage to and/or produces adverse effects affecting other consumers or Distribution Licensee's assets, Consumer will have to disconnect Rooftop Solar Photovoltaic System immediately from the distribution system upon direction from the Distribution Licensee and correct the problem to the satisfaction of distribution licensee at his own expense prior to reconnection.

2.8 The consumer shall be solely responsible for any accident to human being/animals whatsoever (fatal/non-fatal/departmental/non-departmental) that may occur due to back feeding from the Rooftop Solar plant when the grid supply is off if so decided by CEI. The distribution licensee reserves the right to disconnect the consumer's installation at any time in the event of such exigencies to prevent accident or damage to man and material.

3. Clearances and Approvals

3.1 The Consumer shall obtain all the necessary statutory approvals and clearances (environmental and grid connection related)before connecting the photovoltaic system to the distribution system.

4. Access and Disconnection

4.1 Distribution Licensee shall have access to metering equipment and disconnecting means of the Rooftop Solar Photovoltaic System, both automatic and manual, at all times.

4.2 In emergency or outage situation, where there is no access to the disconnecting means, both automatic and manual, such as a switch or breaker, Distribution Licensee may disconnect service to the premises of the Consumer.

5. Liabilities

5.1 Consumer shall indemnify Distribution Licensee for damages or adverse effects from his negligence or intentional misconduct in the connection and operation of Rooftop Solar Photovoltaic System.

5.2 Distribution Licensee shall not be liable for delivery or realization by the Consumer of any fiscal or other incentive provided by the Central/State Government.

5.3 Distribution Licensee may consider the quantum of electricity generation from the Rooftop Solar PV System owned and operated by (i) Residential and Government Building, (ii) consumers who are not utilizing 'renewable attribute' for meeting its RPO or registered under REC Mechanism, (iii) surplus energy purchased by Distribution Licensees from the Rooftop Solar project which are not under REC Mechanism under net metering arrangement towards RPO compliance.

6. Metering:

Metering arrangement shall be as per Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time.

(a) In case of Residential and Government Buildings, Bi-directional meter shall be installed of same accuracy class as installed before setting up of Rooftop Solar PV System.

(b) In case of Industrial, Commercial and other consumers-

(i) Type-1 consumer (consumers not utilizing 'Renewable' attribute for RPO or REC)-Bi-directional meter shall be installed of same accuracy class as installed before setting up of Rooftop Solar PV System.

(ii) Type-2 (a) & (b) (consumers utilizing both 'renewable attribute' and 'energy attribute') ABT compliant meter having 15 minute integration shall be installed.

7. Commercial Settlement

All the commercial settlements under this agreement shall be as per Government of Gujarat's Solar Power Policy 2015 and Order No. 1of 2015 dated 17.08.2015 of the Gujarat Electricity Regulatory Commission and any subsequent orders in this regard. The commercial settlement will be as follows:

(A) Residential consumers and Government Building

(i) In case of net import of energy by the consumer from distribution grid during billing cycle, the energy consumed from Distribution Licensee shall be billed as per applicable tariff to respective category of consumers as approved by the Commission from time to time. The energy generated by Rooftop Solar PV System shall be set off against units consumed (not against load/demand) and consumer shall pay demand charges, other charges, penalty etc as applicable to other consumers.

(ii) In case of net export of energy by the consumer to distribution grid during billing cycle, Distribution Licensee shall purchase surplus power, after giving set off against consumption during the billing period, at the Average Pooled Power Purchase Cost (APPC) as determined by the Commission for the year in which the Rooftop Solar PV System is commissioned over the life of the system i.e. 25 years. Such surplus purchase shall be utilized for

meeting RPO of Distribution Licensee. However, fixed / demand charges, other charges, penalty etc shall be payable as applicable to other consumers.

(B) For Industrial, Commercial and other consumers

(a) Type-1 consumer (consumers not utilizing 'Renewable' attribute for RPO or REC)

(i) in case of net import of energy by the consumers from distribution grid during billing cycle, the energy consumed from Distribution Licensee shall be billed as per applicable tariff to respective category of consumers as approved by the Commission from time to time. The energy generated by Rooftop Solar PV System shall be set off against units consumed (not against load/demand) and consumer shall pay demand charges, peak charges, other charges, penalty etc as applicable to other consumers of respective category.

(ii) In case of net export of energy by the consumer to distribution grid during billing cycle, Distribution Licensee shall purchase surplus power, after giving set off against consumption during the billing period, at the Average Pooled Power Purchase Cost (APPC) determined by the Commission for the year in which Rooftop Solar PV System is commissioned, over the life of the system i.e. 25 years. Such surplus purchase shall be utilized for meeting RPO of Distribution Licensee. However, fixed / demand charges, peak charges, other charges, penalty etc shall be payable as applicable to the respective category of consumers.

(b) Type-2 (a) - consumers utilizing renewable attribute to meet its RPO

(i) Energy accounting shall be undertaken on 15 minute basis. In case of net import of energy by the consumer from distribution grid, the energy consumed from Distribution Licensee shall be billed as per applicable tariff to respective category of consumers as approved by the Commission from time to time. The energy generated by Rooftop Solar PV System shall be set off against units consumed (not against load/demand) and consumer shall pay demand charges, peak charges, other charges, penalty etc. as applicable to the respective category of consumers.

(ii) In case of net export of power on 15 minutes basis after giving set off against consumption, Distribution Licensee shall purchase such surplus power at the APPC determined by the Commission for the year in which the Rooftop Solar PV System is commissioned over the life of the system i.e. 25 years. Such surplus purchase shall be utilized for meeting RPO of Distribution Licensee. However, fixed / demand charges, peak charges, other charges, penalty etc. shall be payable as applicable to the respective category of consumers.

(c) Type-2 (b) - consumers utilizing renewable attribute under REC Mechanism

(i) Energy accounting shall be undertaken on 15 minute basis. In case of net import of energy by the consumer from distribution grid, the energy consumed from Distribution Licensee shall be billed as per applicable tariff to respective category of consumers as approved by the Commission from time to time. The energy generated by Rooftop Solar PV System shall be set off against units consumed (not against load/demand) and consumer shall pay demand charges, peak charges, other charges, penalty etc. as applicable to the respective category of consumers.

(ii) In case of net export of power on 15 minutes basis after giving set off against consumption, Distribution Licensee shall purchase such surplus power at the 85% of APPC determined by the Commission for the year in which the Rooftop Solar PV System is commissioned over the life of the system i.e. 25 years. However, fixed / demand charges, peak charges, other charges, penalty etc shall be payable as applicable to the respective category of consumers.

8. Connection Costs

8.1 The Consumer shall bear all costs related to setting up of Rooftop Solar Photovoltaic System including metering and inter-connection. The Consumer agrees to pay the actual cost of modifications and upgrades to the service line, cost of up gradation of transformer to connect photovoltaic system to the grid in case it is required.

9. Inspection, Test, Calibration and Maintenance prior to connection

Before connecting, Consumer shall complete all inspections and tests finalized in consultation with the (Name of the Distribution license) and if required Gujarat Energy Transmission Corporation Limited (GETCO) to which his equipment is connected. Consumer shall make available to DISCOM all drawings, specifications and test records of the project or generating station as the case may be.

10. Records:

Each Party shall keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this Agreement and the operation of the Rooftop Solar PV System.

11. Dispute Resolution:

11.1 All disputes or differences between the Parties arising out of or in connection with this Agreement shall be first tried to be settled through mutual negotiation, promptly, equitably and in good faith.

11.2 In the event that such differences or disputes between the Parties are not settled through mutual negotiations within sixty (60) days or mutually extended period, after such dispute arises, then for

(a) any dispute in billing pertaining to energy injection and billing amount, it would be settled by the Consumer Grievance Redressal Forum and Electricity Ombudsman.

(b) any other issues pertaining to the Regulations and its interpretation; it shall be decided by the Gujarat Electricity Regulatory Commission following appropriate prescribed procedure.

12. Termination

12.1 The Consumer can terminate agreement at any time by giving Distribution Licensee 90 days prior notice.

12.2 Distribution Licensee has the right to terminate Agreement with 30 days prior written notice, if Consumer commits breach of any of the terms of this Agreement and does not remedy the breach within 30 days of receiving written notice from Distribution Licensee of the breach.

12.3 Consumer shall upon termination of this Agreement, disconnect the Rooftop Solar Photovoltaic System from Distribution Licensee's distribution system within one week to the satisfaction of Distribution Licensee.

Communication:

The names of the officials and their addresses, for the purpose of any communication in relation to the matters covered under this Agreement shall be as under:

In respect of the (Name of distribution licensee):	In respect of the Consumer
* Additional C.E.(R&C) _____ Gujarat Vij Company Limited/Equivalent Authority,	(_____)

Authorised person by the distribution licensees ...

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their authorised officers, and copies delivered to each Party, as of the day and year herein above stated.

FOR AND ON BEHALF OF Distribution Licensee _____ Authorized Signatory WITNESSES 1. _____ ( ) 2._____ ( )	FOR AND ON BEHALF OF THE PROJECT OWNER _____ Authorized Signatory WITNESSES 1._____ ( ) 2._____ ( )

Annexure - V

Inverter Standards

Inverter should comply with IEC61683/IS61683 for efficiency and measurements and should comply with IEC 60068-2(1,2,14,30)/ Equivalent BIS Standard for environmental testing.

Inverter should supervise the grid condition continuously and in the event of grid failure(or)under voltage(or) overvoltage, Solar System should be disconnected by the circuit Breaker/Auto switch provided in the inverter and shall comply with requirements specified at Regulation 8 of these Regulations.

Harmonics Standards

As per the standard IEEE519, the permissible individual harmonics level shall be less than 3% (for both voltage and current harmonics) and Total Harmonics Distortion (THD) for both voltage and current harmonics of the system shall be less than 5%.

Technical and interconnection requirements Parameter

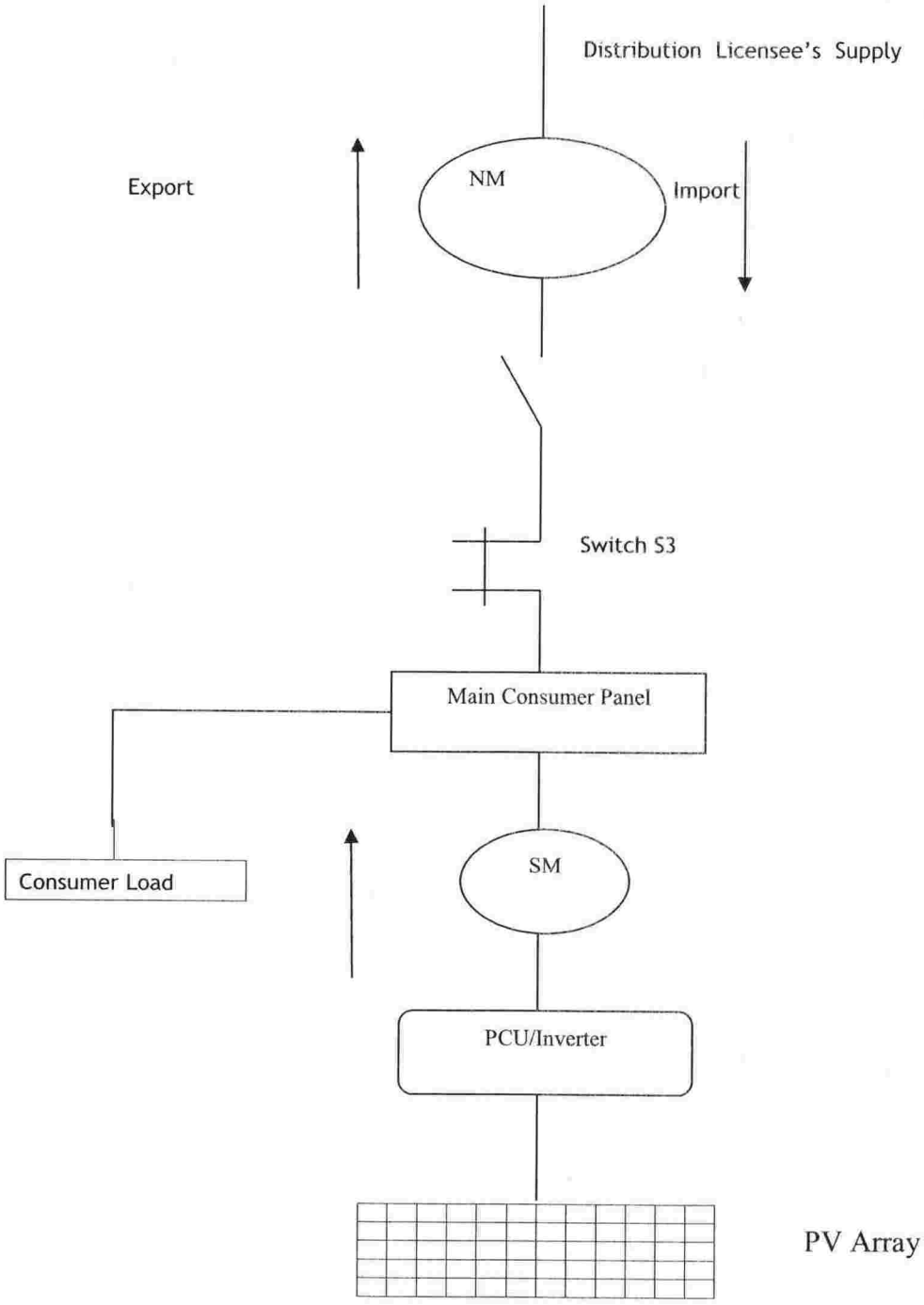
Parameter	Reference (as amended from time to time)	Requirement
Overall conditions of service	State Distribution/Supply Code	Compliance with the terms and conditions of supply.
Overall Grid Standards	Central Electricity Authority (Grid Standards) Regulations 2010	Compliance with Grid standards as regards the frequency, voltage and protection coordination.
Meters	Central Electricity Authority (Installation & Operation of Meters) Regulations, 2006	Compliance with the specifications of the meters.

Parameter	Reference (as amended from time to time)	Requirement
Safety and supply	Central Electricity Authority(Measures relating to Safety and Electric Supply)Regulations,2010 as amended from time to time	Compliance with safety provisions for electrical installations and apparatus with voltage below and above 650volts.
Harmonic Requirements Harmonic Current	IEEE519 CEA (Technical Standards for Connectivity to the Grid)Regulations,2007 as amended from time to time	The Total Harmonic Distortion (THD) for voltage at the interconnection point should not exceed5%. For the current distortion limits, the Total Demand Distortion(TDD) in terms of ratio of available short circuit current to the demand current(Isc/IL) should remain within limits specified for various harmonics for different TDD values.
Synchronization	CEA (Technical Standards for Connectivity to the Grid)Regulations, 2007 as amended from time to time	Photo Voltaic system must be equipped with a grid frequency synchronization device. Every time the generating station is synchronized to the electricity system, it shall not cause voltage fluctuation greater than +/-5% at point of inter connection.

Parameter	Reference (as amended from time to time)	Requirement
Voltage	CEA (Technical Standards for Connectivity to the Grid)Regulations, 2007 as amended from time	The voltage-operating window should minimize nuisance tripping and should be with in operating range of 80%to110%of the nominal connected voltage. The photovoltaic system must isolate itself from the grid within a clearing time of 2 seconds.
Flicker	CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 as amended from time.	Operation of Photovoltaic system should not cause voltage flicker in excess of the limits stated in IEC 61000standardsas follows: Short-term flicker(Pst):The flicker severity evaluated over a short period of time (10 minutes) should be <=1. Long-term flicker (Plt):The flicker severity evaluated over a long period of time (typically 2hours) should be <=0.65.
Frequency	CEA (Technical Standards for Connectivity to the Grid)Regulations,2007 as amended from time	There should be over and under frequency trip functions with a clearing time of 0.2 seconds, when the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5Hz on lower side).

Parameter	Reference (as amended from time to time)	Requirement
DC injection	CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 as amended from time.	Photovoltaic system should not inject DC power more than0.5% of full rated output at the inter connection point or 1% of rated inverter output current into distribution system under any Operating conditions.
Power Factor	CEA (Technical Standards for Connectivity to the Grid)Regulations, 2007 as amended from time	When the output of the inverter is greater than 50%, the power output from the inverter shall have a lagging power factor of greater than0.9.
Islanding and Disconnection	CEA (Technical Standards for Connectivity to the Grid)Regulations, 2007 as amended from time	The photovoltaic system must island/disconnect itself within IEC standard stipulated time in the event of fault, voltage or frequency variations.
Overload and Overheat	CEA (Technical Standards for Connectivity to the Grid)Regulations, 2007 as amended from time	The inverter should have the facility to automatically switch off in case of overload or overheating and should restart when normal conditions are restored.
Paralleling Device	CEA (Technical Standards for Connectivity to the Grid)Regulations, 2007 as amended from time	Paralleling device of photovoltaic system shall be capable of withstanding 220% of the normal voltage at the interconnection point.

Schematic Arrangement for interconnection of Rooftop & Small PV Solar Power Plant with the Distribution Licensee's/Distribution Licensee's grid

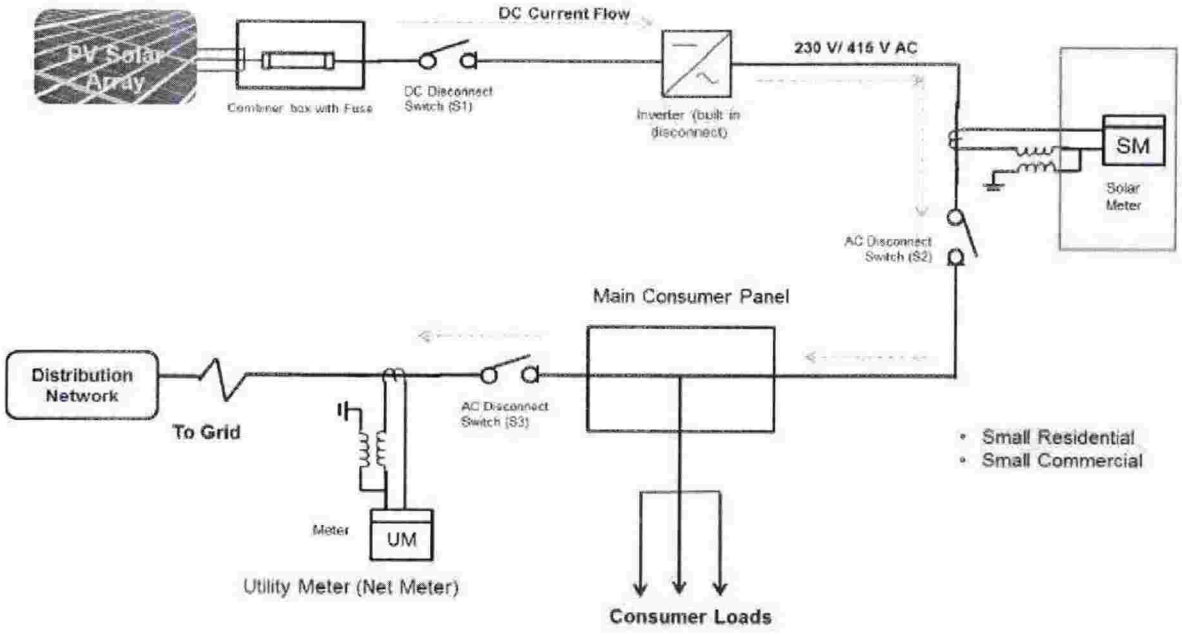


Normally, Solar Generation shall be connected with Grid. When grid fails, Inverter controlled Switch S3 Opens and on restoration of grid S3 Closes.

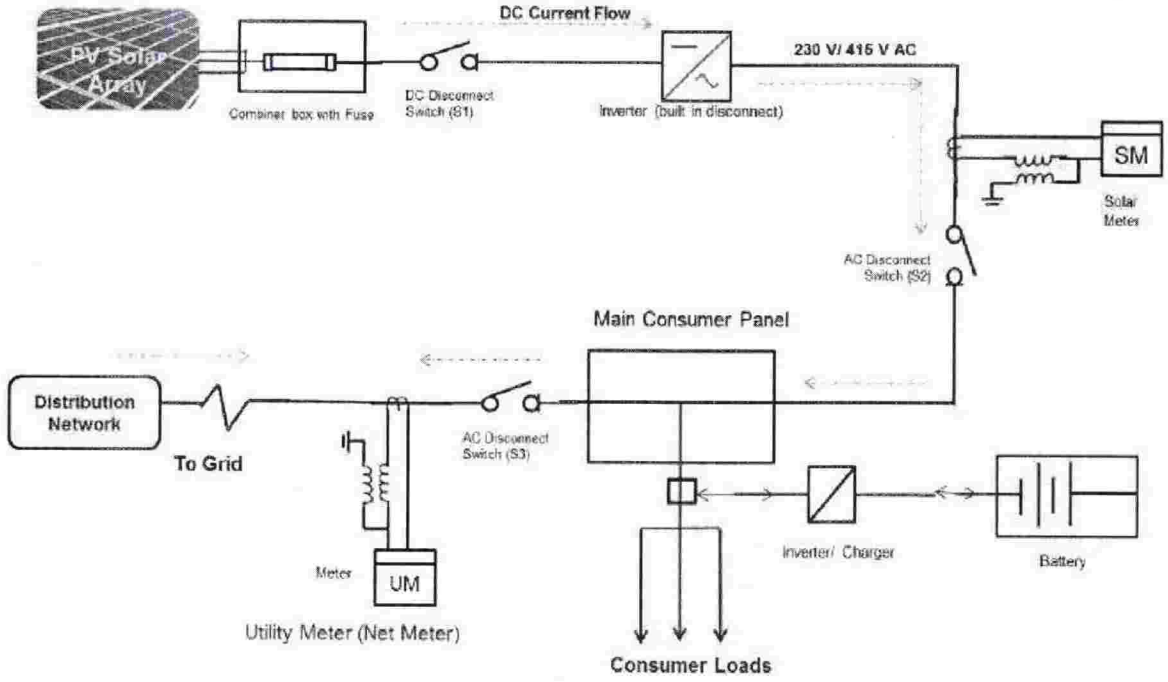
Abbreviations:
NM: Net Meter, SM: Solar Meter, PCU: Power Conditioning Unit

Net Metering configuration options

(1)Two meter configuration without storage



(2)Two meter configuration with storage



Annexure - VI

Specification for meters for net metering

(a) Meter for Solar Generation Measurements:

Solar Meter Major Technical Parameters

Sr. No.	Technical Parameters	Connectivity at 415 V & below voltage level		
		Whole current meters		CT operated
1.	Applicability	Solar plant capacity upto 6 kW	Solar plant capacity above 6 kW and upto 15 kW	Solar Plant Capacity above 15 kW and upto 50 kW
2.	Number of phases and wires	Single Phase,2 Wire	Three Phase, 4Wire	ThreePhase,4 Wire
3.	Measurand(s)	kWh	kWh	kWh, kVAh, kVA, PF
4.	Standard Voltage and frequency	240 V, 50±5%	3X240V(P- N),415V(P- P) 50±5%	3X240V(P-N), 415V(P-P) 50±5%
5.	Current Rating	5-30	10-60	5 Amp
6.	Accuracy class	1.0	1.0	0.5S
7.	Indian Standard or IEC to which conforming	IS 13779-1999	IS 13779-1999	IS 14697,IS13779
8.	Import-export feature	Only Import	Only Import	Only Import
9.	Communication Port/Protocol	Optical/ DLMS	Optical, RS-232/DLMS	Optical,RS-232/ DLMS

(b) Meter for Net-Metering Measurements:

Net-Meter Major Technical Parameters

Sr. No.	Technical Parameters	Connectivity at 415 V & below voltage level		
		Whole current meters		CT operated
1.	Applicability	Upto 6 kW connected load	Above 6 kW and upto 18.65 kW connected load	Above 18.65 kW and upto 50 kVA contract demand
2.	Number of phases and wires	Single Phase, 2 Wire	Three Phase, 4 Wire	Three Phase, 4 Wire
3.	Measurand(s)	kWh	kWh	kWh, kVAh, kVA, PF
4.	Standard Voltage and frequency	240 V,	3X240 V (P-N), 415 V (P- P) 50±5%	3X240 V (P-N), 415 V (P-P) 50±5%
5.	Current Rating	10-60	10-60	1 Amp
6.	Accuracy class	1.0	1.0	0.5S
7.	Indian Standard or IEC to which conforming	IS 13779-1999	IS 13779-1999	IS 14697,IS 13779
8.	Import-export feature	Import & Export	Import & Export	Import & Export
9.	Communication Port/ Protocol	Optical/ DLMS	Optical, RS-232/ DLMS	Optical, RS-232/ DLMS

Extra No. 369

વાર્ષિક લવાજમનો દર રૂા. ૩૫૦૦/-

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

Vol. LVIII] FRIDAY, OCTOBER 6, 2017/ASVINA 14, 1939

Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-C

Statutory Rules and Orders (Other than those published in Parts I, I-A and I-L) made by Statutory Authorities other than the Government of Gujarat including those made by the Government of India, the High Courts, the Director of Municipalities, the Commissioner of Police, the Director of Prohibition and Excise, the District Magistrates and the Election Commission, Election Tribunals, Returning Officers and other authorities under the Election Commission.

GUJARAT ELECTRICITY REGULATORY COMMISSION

GUJARAT ELECTRICITY REGULATORY COMMISSION (NET METERING ROOFTOP SOLAR PV GRID INTERACTIVE SYSTEMS) (FIRST AMENDMENT) REGULATIONS, 2017

NOTIFICATION: NO. 2 OF 2017

In exercise of Powers conferred under Section 61, 86 and 181 of the Electricity Act, 2003 (Act No. 36 of 2003) and all other powers enabling it in this behalf, and after previous publication, the Gujarat Electricity Regulatory Commission hereby makes the following Regulations, to amend Gujarat Electricity Regulatory Commission (Net Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 (hereinafter referred to as "The Principal Regulations") namely:

1) **Short Title Extent and Commencement:**

(i) These Regulations shall be called the Gujarat Electricity Regulatory Commission (Net Metering Rooftop Solar PV Grid Interactive Systems) (First Amendment) Regulations, 2017.

(ii) These Regulations shall extend to the whole of the State of Gujarat.

2) These Regulations shall come into force with effect from the date of their publication in the Official Gazette.

3) Amendment in Regulation 6.2 of the Principal Regulations:

The first para of Regulation 6.2 shall stand amended as under:

The maximum Rooftop Solar PV System capacity to be installed at any Eligible Consumer's premises except Residential Consumers shall be upto a maximum of 50% of consumer's sanctioned load/contract demand; whereas in case of Residential Consumers, the Rooftop Solar PV System capacity shall be irrespective of their sanctioned load/contract demand.

4) Amendment in Regulation 7 of the Principal Regulations:

First bullet point of Sub Activity (3) of Regulation 7 regarding the capacity of the Solar Rooftop plant to be installed at Consumer's premises stands amended as under:-

Sr. No.	Activity	Sub Activity	Duration in day(s)
3.	Application to Distribution Licensee	Applicant shall submit application in the prescribed format along with following compliance and documents to Distribution Licensee • Capacity of Solar Rooftop to be installed (Subject to Regulation 6.2)	

5) Amendment in Clause 1.3 of Annexure – IV, Inter connection Agreement between Distribution Licensee and Solar Rooftop PV project owner, Net Metering Inter Connection Agreement of the Principal Regulations:

Clause 1.3 of Annexure – IV, Inter connection Agreement between Distribution Licensee and Solar Roof top PV project owner, Net Metering Inter Connection Agreement of the principal Regulations shall be amended as under:

Consumer other than Residential Consumer shall ensure capacity of Rooftop Solar not to exceed 50% of his contract load/demand/sanctioned load during initial 2 years of the connectivity agreement; whereas in case of Residential Consumers, the Rooftop Solar PV System capacity shall be irrespective of their sanctioned load/contract demand.

ROOPWANT SINGH, IAS
Secretary,
Gujarat Electricity Regulatory Commission.

Date: 6/10/2017.

Place: Gandhinagar.

GOVERNMENT CENTRAL PRESS, GANDHINAGAR.

GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)

GUJARAT ELECTRICITY REGULATORY COMMISSION (NET METERING ROOFTOP SOLAR PV GRID INTERACTIVE SYSTEMS) (SECOND AMENDMENT) REGULATIONS, 2020

NOTIFICATION NO. 2 OF 2020

In exercise of the powers conferred under Sections 61, 86 and 181 of the Electricity Act, 2003 (Act No. 36 of 2003) and all other powers enabling it in this behalf, and after previous publications, the Gujarat Electricity Regulatory Commission hereby makes the following Regulations, to amend the Gujarat Electricity Regulatory Commission (Net Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 (hereinafter referred to as "Principal Regulations") namely:

1) **Short Title Extent and Commencement:**

(i) These Regulations shall be called the Gujarat Electricity Regulatory Commission (Net Metering Rooftop Solar PV Grid Interactive Systems) (Second Amendment) Regulations, 2020.

(ii) These Regulations shall extend to the whole of the State of Gujarat.

2) These Regulations shall come into force with effect from the date of their publication in the Official Gazette.

3) **Amendment in Regulation 2.1 of the Principal Regulations:**

(a) Addition of New Definition clause "Micro, Small and Medium (Manufacturing) Enterprise or MSME (Manufacturing)" in Regulation 2.1 of the Principal Regulations:

The following new definition clause shall stand inserted in Regulation 2.1 after existing Regulation 2.1(o) of the Principal Regulations as Regulation 2.1 (oa):

(oa) "Micro, Small and Medium (Manufacturing) Enterprise or MSME (Manufacturing) Enterprise" shall mean a registered enterprise as per the definition of Micro, Small and Medium Manufacturing Enterprises and in accordance with the provisions of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 as amended from time to time.

As per Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 the MSME (Manufacturing) category is defined as – The enterprises engaged in manufacture or production of goods pertaining to any industry specified in first schedule to Industries (Development and Regulation) Act, 1951 or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The Manufacturing Enterprises are defined in terms of Investment in Plant and Machinery as under:

TYPE	MANUFACTURING
	Investment in Plant & Machinery
Micro Enterprises	Not more than Rs. 25 Lakh
Small Enterprises	More than Rs. 25 Lakh but does not exceed Rs. 5 Crore
Medium Enterprises	More than Rs. 5 Crore but does not exceed Rs. 10 Crore

4) **Amendment in Regulation 5 of the Principal Regulation**

The second para of Regulation 5 of the Principal Regulations shall stand amended as under:

Provided that the cumulative capacity to be allowed at a particular distribution transformer shall not exceed capacity of the distribution transformer;

5) **Amendment in Regulation 6.2 of the Principal Regulations read with First Amendment:**

(a) **The first para of Regulation 6.2 of the Principal Regulations as well as the amended Regulations (First Amendment) shall stand amended as under:**

The maximum Rooftop Solar PV System capacity to be installed at any Eligible Consumer's premises except Residential Consumers (including connections for common utilities such as water works, elevators, common passage lights, street lights, garden, gym, swimming pool etc. which are being charged residential tariff) and MSME (Manufacturing) Enterprise shall be upto a maximum of 50% of consumer's sanctioned load/contract demand; whereas in case of Residential Consumers (including connections for common utilities such as water works, elevators, common passage lights, street lights, garden, gym, swimming pool etc. which are being charged residential tariff) and MSME (Manufacturing) Enterprise, the Rooftop Solar PV System capacity shall be irrespective of their sanctioned load/contract demand.

6) **Amendment in Regulation 7 of the Principal Regulations:**

In this Regulation wherever the word 'GEDA' appears, the same shall stand replaced by 'GEDA or agency designated by the Government of Gujarat'.

In table at Sr.No. 11 Subactivity no.5 shall stand replaced as under:

"5. Installation of proper protection system (inverter shall have anti islanding feature) along with second line of protection such as no volt relay (for Solar PV system above 10 Kw), applicant has to pay connectivity charges and execute connectivity agreement with Distribution Licensee"

7) **Amendment in Regulation 9 of the Principal Regulations:**

Regulation 9 "Energy Accounting and Settlement" of the Principal Regulations shall stand replaced as under:

9) Energy Accounting and Settlement

Any energy injected prior to commissioning shall be deemed as inadvertent power. The consumer/Solar PV owner is not eligible to receive any monetary compensation for such inadvertent power.

For each billing period, the licensee shall show the quantum of electricity injected by Eligible Consumer/Solar PV system in the grid, electricity supplied by the distribution licensee, net billed electricity for payment by the consumer and net exported energy after adjustment against the consumption separately.

9.1 For Residential and Government Consumers

In the event the electricity supplied by the distribution licensee

during any billing period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System, the distribution licensee shall raise an invoice for the net electricity consumption at the consumer's prevailing tariff;

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity shall be compensated by the concerned Distribution Licensee at the rate of Rs. 2.25 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for the whole life of the Rooftop Solar PV System.

Banking of energy shall be allowed within one billing cycle of the consumer.

The distribution licensee in addition to consumer tariff shall be eligible to raise an invoice for any other charges as allowed by the Gujarat Electricity Regulatory Commission from time to time.

9.2 For Industrial other than MSME (Manufacturing) Enterprise, Commercial and Other Consumers utilizing the 'energy attribute' of the generated solar energy from the Rooftop Solar PV System and not registered under REC mechanism

In the event the electricity supplied by the distribution licensee during any billing period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System, the distribution licensee shall raise an invoice for the net electricity consumption at the consumer's prevailing tariff;

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity after adjustment of consumption shall be compensated by the concerned Distribution Licensee at the rate Rs. 1.75 per unit or

the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Rooftop Solar PV System;

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.

The distribution licensee in addition to consumer tariff shall be eligible to raise an invoice for any other charges as allowed by the Gujarat Electricity Regulatory Commission from time to time.

9.3 For MSME (Manufacturing) Enterprise Consumers utilizing the 'energy attribute' of the generated solar energy from the Rooftop Solar PV System and not registered under REC mechanism.

The energy accounting shall be carried out on 15 minutes time block basis

In the event the electricity injected by the Rooftop Solar PV System exceeds the electricity consumed during any 15 minutes time block resulting in net energy injection in to the grid, such excess injection after in to the grid shall be compensated by the concerned Distribution Licensee at the rate of Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Rooftop Solar PV System;

In the event the electricity consumption by the eligible consumer

during any 15 minutes time block period exceeds the electricity injeted by the Eligible Consumer's Rooftop Solar PV System resulting in energy supplied by the distribution licensee, the distribution licensee shall raise an invoice for the aggregated sum of such electricity supply in each 15 minutes time block during the billing period at the consumer's prevailing tariff.;

The distribution licensee in addition to consumer tariff shall be eligible to raise an invoice for any other charges as allowed by the Gujarat Electricity Regulatory Commission from time to time.

However, if the installation of Roof Top Solar PV by the MSME (Manufacturing Eneterprise) consumer is within 50% of the Contracted capacity, then it shall be governed by Regulation 9.2 as above.

9.4 For Industrial, Commercial and Other Consumers utilizing the 'energy attribute' of the generated solar energy from the Rooftop Solar PV System and utilizing the 'renewable attribute' for RPO compliance.

The energy accounting shall be carried out on 15 minutes time block basis.

In the event the electricity injected by the Rooftop Solar PV System exceeds the electricity consumed during any 15 minutes time block resulting in net energy injection in to the grid, such excess injection after adjustment of consumption in 15 minutes time block shall be compensated by the concerned Distribution Licensee at the rate of Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time

to time for whole life of the Rooftop Solar PV System;

In the event the electricity consumption by the eligible consumer during any 15 minutes time block period exceeds the electricity generated by the Eligible Consumer's Rooftop Solar PV System resulting in energy supplied by the distribution licensee, the distribution licensee shall raise an invoice for the aggregated sum of such electricity supply in each 15 minute time block during the billing period at the consumer's prevailing tariff.

9.5 For Industrial, Commercial and Other Consumers utilizing the 'energy attribute' of the generated solar energy from the Roof top Solar PV System and utilizing the 'renewable attribute' for REC.

The energy accounting shall be carried out on 15 minutes time block basis.

In the event the electricity injected by the Rooftop Solar PV System exceeds the electricity consumed during any 15 minutes time block resulting in net energy injection in to the grid, such excess injection after adjustment of consumption in 15 minutes time block shall be compensated by the concerned Distribution Licensee at the rate of Rs. 1.50 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time for whole life of the Rooftop Solar PV System;

In the event the electricity consumption by the eligible consumer during any 15 minutes time block period exceeds the electricity injected by the Eligible Consumer's Rooftop Solar PV System resulting in energy supplied by the distribution licensee, the

distribution licensee shall raise an invoice for the aggregated sum of such electricity supply in each 15 minute time block during the billing period at the consumer's prevailing tariff.

9.6 The energy accounting and settlement for wheeling power from solar projects other than Rooftop set up for self consumption purpose shall be in line with the provision at Regulation 9.2 to Regulation 9.5.

9.7 In the event of any amount payable by the concerned DISCOM at the end of billing cycle, the same shall be shown as credit and to be carried forward in the next billing cycle. At the end of Financial Year, if the credit amount for the consumer is more than Rs. 100/-, such credit amount shall be paid by the concerned DISCOM to the consumer. In case the credit amount at the end of the Financial Year is less than Rs. 100/-, the same shall be carried forward in the next billing cycle of the following Financial Year.

8) **Amendment in Regulation 13.5 of the Principal Regulations:**

Para 13.5 of the Principal Regulations, shall be replaced with the following para:

"The main Solar Meter and Net Meter shall be of 1.0 and 0.5S or better class accuracy as per Table (a) 'Meter for Solar Generation Measurements' and Table (b) 'Meter for Net Metering Measurements' respectively at Annexure VI and with facility for recording meter readings using Meter Reading Instrument (MRI) or wireless equipment. Check Meters shall be mandatory for Rooftop Solar PV Systems having capacity more than 20 kW. For installations size of less than or equal to 20 kW, the Solar Check

Meters would be optional.

Provided that the cost of new/additional meter (s) shall be borne by the Eligible Consumer and that such meter(s) shall be tested and installed by the distribution licensee.

The meters installed shall be inspected, verified for the accuracy and sealed by the distribution licensee in the presence of the representative of the consumer.

Provided that in case the Eligible Consumer is under the ambit of time of day tariff, meters capable of recording time of day consumption/generation shall be installed."

9) **Deletion of both the diagrams under "Net Metering configuration options" i.e. (1) Two meter configuration without storage and (2) Two meter configuration with storage of the Principal Regulations:**

The diagrams under "Net Metering configuration options" of the Principal Regulations i.e. (1) Two meter configuration without storage and (2) Two meter configuration with storage shall stand deleted.

10) **Amendment in Clauses 7 (A) (ii) of Annexure IV to Principal Regulations pertaining to Interconnection Agreement between Distribution Licensee and Solar Rooftop PV Project Owner.**

The above Clause of Annexure- IV to the Principal Regulations, shall stand replaced with the following para:

(ii) "In case of net export (net injection) of energy by the consumer to distribution grid during billing cycle, the Distribution Licensee shall compensate for surplus power, after giving set off against

consumption during the billing period, at the rate of Rs. 2.25 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time , over the life of the Rooftop Solar PV system i.e. 25 years. The entire Solar energy generation of such consumer shall be utilized for meeting the RPO of that Distribution Licensee. However, fixed / demand charges, other charges, penalty, etc. shall be payable as applicable to the respective category of consumers."

11) **Amendment in Clause 7 (B) (a) (ii) of Annexure IV to Principal Regulations pertaining to Interconnection Agreement between Distribution Licensee and Rooftop PV Project Owner.**

The above Clause of Annexure- IV to the Principal Regulations, shall be replaced with the following para:

(ii) "In case of net export (net injection) of energy by the consumer to distribution grid during billing cycle, the Distribution Licensee shall compensate for surplus power, after giving set off against consumption during the billing period, at the rate of Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time, over the life of the Rooftop Solar PV system i.e. 25 years. The entire Solar energy generation of such consumer shall be utilized for meeting the RPO of that Distribution Licensee. However, fixed / demand charges, peak charges, other charges, penalty, etc. shall be payable as applicable to the respective category of consumers."

12) **Addition of new Clause 7(B)(a)(iii) after Clause 7(B)(a)(ii) of Annexure IV to Principal Regulations pertaining to Interconnection Agreement between Distribution Licensee and**

Rooftop PV Project Owner.

(iii) "In case of installation of Roof Top Solar PV by the MSME(Manufacturing Enterprise) consumer is within 50% of Contracted Demand, then it shall be governed by Clause (i) & (ii) as above.

In case of installation of Roof Top Solar PV by the MSME (Manufacturing Eneterprise) consumer is more than 50% of Contracted Demand, then the energy accounting shall be carried out on 15 minutes time block basis. In case of net export (net injection) of power on 15 minutes basis after giving set off against consumption, the Distribution Licensee shall compensate for such surplus power at the rate of Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Copmensation (SIC) from time to time, over the life of the Rooftop Solar PV system i.e. 25 years. The entire Solar energy generation of such consumer shall be utilized for meeting the RPO of that Distribution Licensee. However, fixed / demand charges, peak charges, other charges, penalty, etc. shall be payable as applicable to the respective category of consumers."

13) **Amendment in Clause 7 (B) (b) (ii) of Annexure IV to Principal Regulations pertaining to Interconnection Agreement between Distribution Licensee and Solar Rooftop PV Project Owner.**

The above Clause of Annexure- IV to the Principal Regulations, shall be replaced with the following para:

(ii) "In case of net export (net injection) of power on 15 minutes basis after giving set off against consumption, the Distribution Licensee

shall compensate for such surplus power at the rate of Rs. 1.75 per unit or the rate, if any, specified by the Commission for Surplus Injection Copmensation (SIC) from time to time, over the life of the Rooftop Solar PV system i.e. 25 years. Such surplus energy purchased by the Distribution Licensee shall be utilized for meeting the RPO of that Distribution Licensee. However, fixed / demand charges, peak charges, other charges, penalty, etc. shall be payable as applicable to the respective category of consumers."

14) **Amendment in Clauses 7 (B) (c) (ii) of Annexure IV to Principal Regulations pertaining to Interconnection Agreement between Distribution Licensee and Solar Rooftop PV Project Owner.**

The above Clause of Annexure- IV to the Principal Regulations, shall be replaced with the following para:

(ii) "In case of net export (net injection) of power on 15 minutes basis after giving set off against consumption, the Distribution Licensee shall compensate for such surplus power at the rate of Rs. 1.50 per unit or the rate, if any, specified by the Commission for Surplus Injection Compensation (SIC) from time to time, over the life of the Rooftop Solar PV system i.e. 25 years. However, fixed / demand charges, peak charges, other charges, penalty, etc. shall be payable as applicable to the respective category of consumers."

15) **Amendment in Clause 1.3 of Annexure IV of the Principal Regulations:**

The existing Clause 1.3 of Annexure IV to the Principal Regulations shall

stand replaced with the following clause:

1.3 "Consumers other than Residential Consumers (Residential Consumers shall be including the connections for common utilities such as water works, elevators, common passage lights, street lights, garden, gym, swimming pool etc. which are being charged Residential Tariff) and MSME (Manufacturing Enterprise) shall ensure capacity of Rooftop Solar not to exceed 50% of his contract load/demand/sanctioned load during the currency of the connectivity agreement.

Sd/-
[Roopwant Singh, IAS]
Secretary
Gujarat Electricity Regulatory Commission
Gandhinagar, Gujarat

Date: 23/01/2020.
Place: Gandhinagar.

Annexure-D

→ Solar Policy 172

Fax- 1787

ક્રમાંક: **SLR/11/2020/ 77 /B1**
ઉર્જા અને પેટ્રોકેમિકલ્સ વિભાગ,
સચિવાલય, ગાંધીનગર.
તા.૩૧/૧૨/૨૦૨૦

પ્રતિ,
મેનેજીંગ ડીરેક્ટરશ્રી
ગુજરાત ઉર્જા વિકાસ નિગમ લી.
સરદાર પટેલ વિદ્યુત ભવન, રેસ કોર્સ, વડોદરા

વિષય: સોલાર પાવર પોલીસી-૨૦૨૧ બાબત.

શ્રીમાન,

ઉપરોક્ત વિષય પરત્વે જણાવવાનું કે, અત્રેના વિભાગના સમાન ક્રમાંકના તા.૨૯/૧૨/૨૦૨૦ ના ઠરાવથી ઇસ્યુ કરેલ "સોલાર પાવર પોલીસી-૨૦૨૧" ની વિવિધ જોગવાઈઓ મુજબ મેળવવાની થતી મંજૂરીઓ માટે તાત્કાલિક કાર્યવાહી કરવા આજ્ઞાનુસાર વિનંતી છે.

આપનો વિશ્વાસુ

BJPatel

અધિક સચિવશ્રી
ઉર્જા અને પેટ્રોકેમિકલ્સ વિભાગ

M.D.

Copy sent to:
GM (SPP)

Assistant Director (Legal) Friday, February 19, 2021 at 16:32:21 India Standard Time

Subject: Hearing Intimation in Petition No. 1936 of 2021 - in the matter of Petition under Section 86 and other applicable provisions of the Electricity Act, 2003 seeking incorporation of provisions of Solar Power policy - 2021 notified by the Government of Gu...

Date: Friday, 19 February 2021 at 3:54:33 PM India Standard Time

From: Wasim Ansari

To: gmipp.guvnl@gebmail.com, Parthik Joshi, Girija Dave

CC: eerc.mgvcl@gebmail.com, kdbarot@yahoo.com, pgvcl_corpoff@gebmail.com, eegerc.dgvcl@gebmail.com, eeraj.dgvcl@gebmail.com, chetanbundela@TORRENTPOWER.COM, lunapal@TORRENTPOWER.COM, JIGNESHLANGALIA@torrentpower.com, xenekpt@gmail.com, deepak.tyagi@ptcindia.com, info.sez@aspensez.com, Mahesh Mandwarya, Pranay Shah, Rakesh Inala, arvindkumar.rajput@giftgujarat.in, Anil Rabadia, P.J.Jani, nirav.shah@adani.com, Jignesh Makwana

Attachments: 1936 of 2021.pdf

Dear Sir/Medam,

Please find enclosed herewith a letter of hearing intimation in Petition No. 1936 of 2021, scheduled on 25.02.2021 at 11:30 A.M.

A hard copy of the same is already forwarded to your office by post.

Regards,

Wasim Ansari
Assist. Director (Legal)
GERC, Gandhinagar.

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION

GANDHINAGAR

PETITION NO. 1936 OF 2021

IN THE MATTER OF:

Petition under Section 86 and other applicable provisions of the Electricity Act 2003 seeking incorporation of provisions of Solar Power Policy-2021 notified by Government of Gujarat vide GR No: SLR-11/202020/77/B1 dated 29.12.2020appropriately in the Order dated 08.05.2020 for Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat and GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 as amended from time to time.

AND

IN THE MATTER OF:

Gujarat Urja Vikas Nigam Limited - Petitioner

Versus

Madhya Gujarat Vij Company Ltd (MGVCL)& Ors- Respondents

AFFIDAVIT FOR TAKING ON RECORD THE AMENDED MEMO OF PARTIES IN THE PETITION.

G.E.R.C.
Inward No. 1242
Date 6 MAR 2021

AD(Legal)/Ex(Legal)
Put in relevant files
06/03/2021

NOTARY
H. J. ZALA
AREA : BARODA
DIST. : (GUJ. STATE)
REGD. NO.:
2008
GOVT. OF INDIA

MOST RESPECTFULLY SHOWETH:

1. The above mentioned petition has been filed by the Petitioner, Gujarat Urja Vikas Nigam Limited (hereinafter referred to as `GUVNL') in pursuance to the directive issued by Government of Gujarat vide letter dated 31.12.2020 to seek approval of Hon'ble Commission for giving effect of provisions of the Solar Power Policy 2021.

2. It is respectfully submitted that in the above Petition, the Petitioner has arrayed Distribution Licensees in the State as party Respondents.

3. It is submitted that the matter was listed for admission hearing on 25.02.2021. In this regard, Hon'ble Commission vide daily order dated 02.03.2021, at para 4.4, has directed as under:

> *Since the subject matter of the Petition is also pertaining to the amendment in the Tariff Order No. 03 of 2020 dated 08.05.2020 and GERC (Net Metering) Regulations, 2016 which are applicable to all the licensees within the State it is necessary to hear STU, SLDC, GEDA in the present matter. We, therefore, decide and direct the Petitioner to amend the memo of parties in the present Petition by impleading State Transmission Utility, namely, Gujarat Energy Transmission Corporation Limited, State Load Despatch Centre and GEDA which is the Nodal Agency in the present matter by arraying them as Respondents in amended memo of parties and thereafter, file the same with the Commission and also serve*

the copy of the amended Petition to the aforesaid Respondents and thereafter, file an affidavit of service to the Commission.

4. In compliance to the above directive issued by Hon'ble Commission, the Petitioner is filing herewith the amended Memo of Parties arraying (i) Gujarat Energy Transmission Corporation Limited (GETCO), (ii) State Load Despatch Centre (SLDC) and Gujarat Energy Development Agency (GEDA) as Respondents to the Petition.

...TARY
J. ZALA
...CA: BARODA
...(GUJ. STATE)
REGD. NO.-6250/
2008
...T. OF INDIA

5. It is, therefore, respectfully prayed that this Hon'ble Commission may be pleased to:

(a) Take on record the amended memo of parties filed herewith

(b) Pass such further order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case.

PETITIONER

Place: Vadodara

Dated: 05th March, 2021

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION

GANDHINAGAR

PETITION NO. 1936 OF 2021

IN THE MATTER OF:

Petition under Section 86 and other applicable provisions of the Electricity Act 2003 seeking incorporation of provisions of Solar Power Policy-2021 notified by Government of Gujarat vide GR No: SLR-11/202020/77/B1 dated 29.12.2020appropriately in the Order dated 08.05.2020 for Tariff framework for procurement of power by Distribution Licensees and others from Solar energy projects and other commercial issues for the State of Gujarat and GERC (Net-Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 as amended from time to time.

AND

IN THE MATTER OF:

Gujarat Urja Vikas Nigam Limited & Ors - Petitioner

Versus

Madhya Gujarat Vij Company Ltd (MGVCL)& Ors - Respondents

Sr. No. 4838
Date : 5/3/2021

AFFIDAVIT

5-3-2021

I, Hetalkumar Patel son of Shri Hasmukhbhai Patel aged about 38 years resident of Vadodara do hereby solemnly affirm and state as under:

1. I am Junior Engineer of Gujarat Urja Vikas Nigam Limited, the Petitioner above named and I am well conversant with the facts of the case and hence authorised to swear this affidavit.
2. I have gone through the contents of the accompanying application and I say that the facts stated therein are based on the records of

H. J. ZALA AREA : BARODA DIST. : (GUJ. STATE) REGD. NO. 6250/ 2008 GOVT. OF INDIA NOTARY NOTARIAL

the Applicants, maintained in the normal course of business and believed by the deponent to be true.

DEPONENT

VERIFICATION:

I, the deponent above named do hereby verify that the contents of my above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Verified at Vadodara on this 05th day of March, 2021.

DEPONENT

My Commission Expires on 04/07/2023

NOTARY H. J. ZALA AREA : BARODA DIST. : (GUJ. STATE) REGD. NO. 6250/ 2008 GOVT. OF INDIA

Solemnly Affirmed/Declared
Sworn Before Me by.....H.H.Patel

H. J. ZALA
NOTARY(Govt. of INDIA)

AMENDED MEMO OF PARTIES

IN THE MATTER OF:

1. **Gujarat Urja Vikas Nigam Ltd.**
   Sardar Patel Vidyut Bhavan
   Race Course, Vadodara - **Petitioner**

Versus

Sr.No.	Name of Respondents	Respondent Number
1	**Madhya Gujarat Vij Company Ltd (MGVCL)** Corporate Office, Sardar Patel Vidyut Bhavan, Race Course, Vadodara- 390007	**Respondent - 1**
2	**Uttar Gujarat Vij Company Ltd (UGVCL)** Corporate Office, Visnagar Road, Mehsana	**Respondent - 2**
3	**Paschim Gujarat Vij Company Ltd (PGVCL)** Corporate Office, Nana Mava Road, Laxminagar, Rajkot	**Respondent - 3**
4	**Dakshin Gujarat Vij Company Ltd (DGVCL)** Corporate Office, Kapodra, Surat	**Respondent - 4**
5	**Torrent Power Ltd (Dist),** Electricity House, Lal Darwaja, Ahmedabad	**Respondent - 5**
6	**Torrent Power Ltd (Surat),** 3 "Torrent House", Station Road, Surat	**Respondent - 6**
7	**Torrent Power Ltd (Dist),** Plot No. Z/21, Phase-1, SEZ, At Dahej, Tal Vagra, Dist:Bharuch-392130	**Respondent - 7**
8	**Deendayal Port Trust (DPT),** Business Development Cell, P.O Box No. 50, Kandala, Dist: Kutchh	**Respondent - 8**
9	**Aspen Infrastructure Ltd.,** Survey No. 26, Village Pipaliya, Tal: Waghodia, Dist.- Vadodara	**Respondent - 9**
10	**Jubilant Infrastructure Ltd.,** Plot No. 5, Vilayat GIDC, Tal: Vagra, Dist: Bharuch	**Respondent - 10**

11	**GIFT Power Co. Ltd,** Office No. 1, 28th Floor, GIFT One Tower, Building 56A, Block No. 56, Road-5C, Zone-5, GIFT CITY, Gandhinagar- 382355.	**Respondent - 11**
12	**MPSEZ Utilities Pvt. Ltd. Mundra (Kutchh)** Adani House, Nr. Mithakhal Circle, Navrangpura,Ahmedabad	**Respondent - 12**
13	**Gujarat Energy Transmission Corporation (GETCO)** Corporate office, 9th Floor, Sardar Patel Vidyut Bhavan, Race Course, Vadodara - 390 007	**Respondent - 13**
14	**State Load Despatch Centre (SLDC),** 132kV Gotri Sub Station Compound, Near T.B. Hospital, Gotri Road, Vadodara 390021	**Respondent - 14**
15	**Gujarat Energy Development Agency (GEDA)** 4th floor, Block No. 11 & 12, Udyog Bhavan, Sector - 11, Gandhinagar - 382 017	**Respondent - 15**