

# GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)

## DRAFT GUJARAT ELECTRICITY REGULATORY COMMISSION (NET METERING ROOFTOP SOLAR PV GRID INTERACTIVE SYSTEMS) (THIRD AMENDMENT) REGULATIONS, 2021

### DRAFT NOTIFICATION NO. \_\_\_\_ OF 2021

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 publication, 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) (Third Amendment) Regulations, 2021.
- (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) The definition clause Regulation 2.1 (i) of the Principal Regulations shall be substituted as under:  
“Contracted load” or “Sanctioned load” or “Contracted demand” means the maximum demand in kW, kVA or HP, agreed to be supplied by the

Distribution Licensee and indicated in the agreement executed between the Distribution Licensee and the Consumer and the expression “load” shall be construed accordingly;

- (b) In the definition 2.1 (l) “Eligible Consumer” the words “or Third Party Sale” shall be inserted after the word “given that such system is self owned”.
- (c) Addition of New Definition clause “Gross Meter” and “Gross Metering” in Regulation 2.1 of the Principal Regulations:

The following new definition clauses shall stand inserted in Regulation 2.1 after existing Regulation 2.1(m) of the Principal Regulations as Regulation 2.1 (ma) and (mb):

(ma) “Gross Meter” means unidirectional energy meter installed at the point at which the electricity generated by solar energy system of the eligible consumer injects in to the grid of Distribution Licensee.

(mb) “Gross Metering” means an arrangement for measurement of energy in a system under which Rooftop PV Solar System installed at eligible consumer premises delivers total electricity generated to the Distribution Licensee.

- (d) The following new definition clause shall stand inserted in Regulation 2.1 after existing Regulation 2.1(s) of the Principal Regulations as Regulation 2.1 (sa):  

(sa) “prosumer” means a person who consumes electricity from the grid and can also inject electricity into the grid for Distribution Licensee, using same point of supply;

4) **Amendment in Regulation 3.1 (Scope and Application) of the Principal Regulation:**

The words “or from solar power plant set up by third party” shall be added after the words “who are receiving electricity from its own generating source” and at the end of the said regulations, i.e. after the words “situated in Distribution Licensee area”, the sentence “or prosumer who consumes electricity from the

grid and injects electricity from its Solar Power System into the grid for supply to Distribution Licensee using same point of supply” shall be added.

In Regulation 3.2 (b) the words “or other premises except Residential” shall be added at the end of the sentence after the words i.e. “in the consumer premises”.

5) **Amendment in Regulation 4 (General Principles) of the Principal Regulation:**

The word “/gross metering” shall be added in first para of the Regulation 4 of Principal Regulations after words “The Distribution Licensee shall provide the net metering” and the word “/prosumer” shall be added between the words “arrangement to the eligible consumer” and the words “who intends to install grid connected Rooftop Solar PV system”.

In first proviso of Regulation 4 the word “/prosumer” shall be added between the word “consumer” and “is eligible to install the grid connected Rooftop Solar PV System”.

6) **Amendment in Regulation 5 (Capacity Targets for Distribution Licensee) of the Principal Regulation:**

The word “/gross metering arrangement” shall be added in first para of the Regulation 5 of Principal Regulations after words “The Distribution Licensee shall provide the net metering arrangement” and the word “/prosumers” shall be added after the word “Eligible consumers”.

- 7) Amendment in Regulation 6 titled “Eligible Consumer and individual project capacity” shall be substituted by the title “Eligible Consumer/Prosumer and individual project capacity”.
- 8) **Amendment in Regulation 6.1 (Eligible Consumer and Individual project capacity” of the Principal Regulations:**

The Regulation 6.1 (ii) shall be amended by inserting the word “or possess on rental basis” between the words “be in legal possession” and the word “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.”

The Regulation 6.1 (iv) shall be substituted by following provisions

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

The following new clauses shall be added after Principal Regulation 6.1 (iv) of the Principal Regulations as Regulation 6.1 (v) and 6.1 (vi).

6.1 (v) Inject all the electricity generated from the Rooftop Solar PV system into the grid as sale to the licensee at the tariff rate determined by the Commission.

6.1 (vi) 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 Solar Power Systems (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 or fulfilment of Renewable Purchase Obligation subject to provisions of the Electricity Act, 2003, as amended from time to time.

9) **Amendment in Regulation 6.2 of the Principal Regulations read with First Amendment and Second Amendment:**

The first para of Regulation 6.2 of the Principal Regulations as well as the amended Regulations (First Amendment) and (Second Amendment) shall stand amended and substituted by following clauses:

- (a) Roof top Solar PV system shall be permitted for net metering for loads up to 10 kW and for gross metering for loads above ten kW.
- (b) The installed capacity shall not be less than 1 kW and shall not exceed 1 MW;

Provided 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.

(c) **Capacity of Solar Power Plant set up by the eligible consumers:**

After considering clause (a) and (b) above, the capacity of Solar Power Plant set up by the eligible consumers allowed as under:

- (i) Solar Projects set up by residential consumers on their rooftop / premises shall be allowed irrespective of consumer sanctioned load. Incentives under existing schemes can be availed by consumers as per the provisions of the scheme.
- (ii) No capacity restrictions shall be applicable for the captive consumers and project set up under Third Party Sale.

- (iii) For the projects setup under REC Mechanism for captive use / third party sale under REC Mechanism, installation of solar projects shall be allowed up to sanctioned load / contracted demand.
  - (iv) The Consumers shall be allowed to set up projects to fulfill their RPO requirements regardless of their sanctioned load / contracted demand.
- 10) **Amendment in title of Table and at Sr. No. (iv) provided in Regulation 8(2) of the Principal Regulations are amended as under:**

Sr. No.	Connected load of eligible consumer/prosumer	Connectivity level
(iv)	Above 100 kW/kVA	11 KV, 3 Phase, 50 Hz.

- 11) **Amendment in Regulation 9 of the Principal Regulations and (Second Amendment):**

Regulation 9 “Energy Accounting and Settlement” of the Principal Regulations and (Second Amendment) shall be substituted by following regulations:

**9. Energy Accounting and Settlement**

- (a) Any energy injected prior to commissioning of the solar project shall be deemed as inadvertent power. The consumer/prosumer of Solar PV owner is not eligible to receive any monetary compensation for such inadvertent power.
- (b) For each billing period, the licensee shall show the (i) quantum of electricity injected by Eligible Consumer from Solar PV system in the grid, (ii) electricity supplied by the Distribution Licensee, (iii) net billed electricity for payment by

the consumer and (iv) net exported energy after adjustment against the consumption separately.

- (c) In case of Prosumer set up the Solar Rooftop projects ~~set-up~~ under Gross Metering provision, the electricity generated and supplied from such Solar Rooftop Project to the Distribution Licensee shall be shown separately in the bill issued by the Distribution Licensee for payment of such electricity to the Prosumer at the rate determined by the Commission as decided in Petition No. 1802/2019. The electricity supplied by the Distribution Licensee to such Prosumer shall be stated separately in the bill by the licensee or each billing period for payment as per tariff rate applicable to such consumer as may be decided by the Commission.
- (d) The Solar Rooftop power projects commissioned under the provisions of earlier notification of Net Metering Regulations notified by the Commission, the energy accounting of such projects shall be governed by the provisions of Net Metering Regulations under which they were commissioned. However, in case of any additional/reduction in Solar Capacity or Contracted / Sanctioned load, the earlier set-up Solar Rooftop project arrangement shall be considered different and distinct and a fresh agreement under existing Regulations shall be signed for additional capacity.
- (e) In case of the energy supplied by the Rooftop Solar Power Project set up on premises having ownership or legal possession under gross metering mechanism by Residential Consumer and Government consumers shall be purchased by the Distribution Licensee at the rate determined by the Commission in its tariff order for solar power projects set up under development of Small Scale Distributed Solar Projects, 2019 vide Order dated 08.08.2019 in Petition No. 1802/2019. Draft Agreement is provided at Annexure IV.

## **9.1 For Residential and Government Consumers**

- 9.1.1 Solar Projects set up by residential consumers on their own rooftop / premises shall be allowed irrespective of consumer sanctioned load subject to limitation

of capacity provided in these Regulations. Incentives under existing schemes can be availed by consumers as per the provisions of these Regulations.

- 9.1.2 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 or other premises (Third Party Sale) for which the developer and consumer shall enter into a lease agreement and/or power sale agreement.
- 9.1.3 In case of Residential Consumers, the Energy Accounting shall be carried out on Billing Cycle basis.
- (i) In the event the electricity injected from the Rooftop Projects set up under Net Metering provisions exceeds the electricity consumed during the billing period, surplus energy generated from the solar project after set off on billing cycle basis shall be purchased by respective Distribution licensee at the following rates.
- (a) 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.
- (b) 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. The same shall remain fixed for the entire term of the arrangement.



Such rates shall be declared by GUVNL on six monthly basis and shall be applicable under the agreement to be executed by Distribution licensee with the consumer.

- 9.1.4 Excess drawl by consumer from the grid, if any, after giving set off in case of Solar Project set up under Net Metering mechanism shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.
- 9.1.5 No Banking charges shall be applicable on solar power consumed by Residential Consumers.
- 9.1.6 The electricity supplied by the Distribution Licensee to Prosumer shall be billed separately at the applicable tariff as determined by the Commission from time to time of respective category of Prosumer for each billing period for payment.

## **9.2 For the projects set up under captive use:**

- 9.2.1 This section of the Regulations shall refer to industrial, commercial, Government institutions and other consumers setting up projects under Captive use.
- 9.2.2 The captive use of electricity for self-consumption within the same premises or at different premises by the consumer must having ownership of SPS shall be as specified in the Electricity Rules, 2005 and amendments made in it from time to time.
- 9.2.3 No capacity restrictions shall be applicable under this category subject to consideration of the limit provided for Rooftop projects in Regulations 6.2 of these Regulations.
- 9.2.4 Installation of solar projects with collective ownership of more than one consumer investing / holding of equity amount collectively shall be as specified

in the Electricity Rules, 2005 and amendments made in it from time to time. In such cases of collective ownership, the energy generated shall be consumed by each of the consumer/owner of plant as specified in the Electricity Rules, 2005 and amendments made in it from time to time.

9.2.5 The ownership in Captive Solar Generating plant and consumption of energy on annual basis (financial year basis) from it shall have to be proved as per the provision of Electricity Rules, 2005 by the members/persons of the Captive Solar Generating plant by submitting the necessary data/documents as per the relevant law for proving ownership during the financial year by the members/persons of CGP and also consumption of energy by the members/persons in proportion to their ownership in the CGP as per the provisions of Electricity Rules, 2005 to the (i) Chief Electrical Inspector and (ii) the Distribution Licensee in whose area of supply the consumption of such energy take place. In case of failure to prove the Captive Generating Plant status by the owners on annual (Financial Year) basis, the energy supplied from such plant shall be considered as supply by the third party sale and it shall attract Cross Subsidy Surcharge and Additional Surcharge as decided in these Regulations.

9.2.6 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 Distribution Licensee at rates specified under these Regulations.

9.2.7 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 between 7:00 hours to 18:00 hours shall be consumed by the consumer

during the specified period of 7:00 hours to 18:00 hours in the same billing cycle.

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

9.2.9 The surplus energy, not consumed during the above mentioned period by the consumer after set-off shall be compensated by Distribution licensees following Surplus Injection Compensation (SIC) rates.

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.

9.2.10 Excess drawl of electricity by the consumer from the grid, if any, after giving set off shall be charged by the Distribution Licensee at the applicable tariff of the respective category of consumer as determined by the Commission from time to time.

9.2.11 Banking charges of Rs.1.50 / unit shall be applicable on solar energy consumed in the case of Demand Based Consumers shall be applicable. In case of MSME manufacturing 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.

9.2.12 Projects set up for captive use shall have the option to switch over from captive use to Distribution licensee sale once in their life-time and upon such switch over, the applicable tariff under agreement to be signed with Distribution licensee 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.

### **9.3 PROJECTS UNDER THIRD PARTY SALE**

9.3.1 This section of the regulations shall refer to industrial, commercial, Government institutions and other consumers, setting up projects under third party sale.

9.3.2 The sale of electricity by the owner of Solar Power Systems/Projects (SPSs) to separate consumers shall be considered as Third-Party Sale. Developers can also install solar rooftop 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.

9.3.3 Installation of solar rooftop projects by a developer for third party sale to the consumer of Distribution Licensee shall be permitted with consideration of capacity ceiling provided under Regulation 6.2 for third party sale.

9.3.4 In case of solar rooftop 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 Distribution licensee at rates specified under these Regulations.

- 9.3.5 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 between 07:00 hours to 18:00 hours shall be consumed by the consumer during the specified period in the same billing cycle.
- 9.3.6 The surplus energy, not consumed by the consumer during the above mentioned set-off period shall be compensated by Distribution Licensees 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.
- 9.3.7 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.
- 9.3.8 Banking charges of Rs 1.50 / unit shall be applicable on solar energy consumed in case of Demand Based Consumers shall be applicable. In case of MSME units and other than LT Demand Based Consumers, Banking Charge of Rs.1.10 per unit shall be applicable on Solar Energy Consumed shall be applicable. Banking Charges shall not be applicable to government buildings.

#### **9.4 PROJECT UNDER REC MECHANISM**

- 9.4.1 Developers/Consumers/Prosumer may set up solar rooftop 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.
- 9.4.2 In case of projects to be set up for captive / third party sale under REC Mechanism, installation of solar projects up to sanctioned load / contracted demand shall be allowed subject to the provision of Regulation 6.2 and other provision of these Regulations.
- 9.4.3 The energy accounting for the projects set up under REC Mechanism shall be carried out on 15-minute time block basis.
- 9.4.4 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 Distribution Licensees 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.
- 9.4.5 Excess drawl by consumer from the grid, if any, after giving set-off shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.
- 9.4.6 In case Distribution licensee agrees to purchase the electricity component of power from a project under REC Mechanism, the applicable tariff payable by Distribution Licensees 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.

9.4.7 No banking charges shall be applicable.

9.4.8 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 the Commission from time to time.

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

## **9.5 SOLAR PROJECTS FOR RPO COMPLIANCE**

9.5.1 Consumers shall be allowed to set up projects to fulfill their RPO requirements regardless of their contracted demand subject to the provision of Regulation 6.2 and other provision of these Regulations. For such projects the energy accounting shall be done on a 15 minutes time block basis.

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

9.5.3 The surplus energy injected into the Grid shall be compensated by Distribution Licensee 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.

9.5.4 Excess drawl by consumer from the grid, if any, after giving set off shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.

9.5.5 No banking charges shall be applicable.

## **12. Amendment in Regulation-12 Applicability of other charges:**

An amendment in Regulation 12.1 shall be made by adding the word “captive use” between the words “Eligible Consumer’s premises” and “shall be exempted from transmission charge, transmission loss .....”

The following new Regulation 12.2 on Wheeling and Transmission of electricity and Regulation 12.3 on Cross Subsidy Surcharge and Additional Surcharge shall be added/inserted after principal regulation 12.1:

### **12.2. WHEELING & TRANSMISSION OF ELECTRICITY:**

12.2.1 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.

12.2.2 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.

### **12.3 CROSS SUBSIDY SURCHARGE AND ADDITIONAL SURCHARGE**

- 12.3.1 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 the Commission from time to time.

### **13. Metering Arrangement**

The following new Regulation 13.7 on Metering Arrangement shall be added after principal regulations after regulation 13.6:

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

### **14. Penalty or Compensation:**

The following new Regulation 16.1 on Un-authorized installation of additional Solar Modules or replacement of Solar Module without approval of Distribution Licensee attract inserted after Regulation 16.

- 16.1 In case of replacement of damaged/non-working old Solar modules with new one, the capacity of the Solar Power Plant shall not exceed the original approved installed capacity of the Solar Power Project for which Agreement for Sale/Purchase signed between the Solar Project Developer / Distribution licensee or Consumer/Prosumer. For replacement/enhancement of capacity of solar power

project, approval of the distribution licensee is required and the distribution licensee shall decide such application within 30 days, failing which it will be considered as deemed approval. If any capacity is found in excess of original approved installed capacity through replacement/enhancement without permission of the licensee, it shall be qualified as ‘Un-authorized Capacity Addition’ and it shall attract Penalty. The addition of Solar Modules after Commissioning of Solar Power Plant by consumer/Solar Power Generator will also be considered as ‘Un-authorized Capacity Addition’. The Distribution Licensee shall levy the Penalty considering ‘Un-authorized Capacity Addition’ and utilization of generation at twice the applicable tariff for such Solar Developer/Consumer for the period of such extension/replacement of capacity and equipments of solar power plant to the extent of such excess capacity will also be liable to be removed.

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

Date: 29/06/2021.

Place: Gandhinagar.

**In Annexure-I (ABBREVIATIONS)**

**The Abbreviation SPS – SOLAR POWER SYSTEM inserted between SPV – Solar Photo Voltaic and TVM-Tri-Vector Meter**

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

The Distribution Licensee shall consider the relevant/applicable clauses of this Model Agreement and remove other clauses which are not applicable while executing any agreement with consumers/prosumers.

**Net Metering/Gross-Metering Inter Connection agreement**

This Agreement is made and entered into at (location)\_\_\_\_\_ on this (date) \_\_\_\_\_ day of (month)\_\_\_\_\_ year \_\_\_\_\_ between the Consumer/Prosumer/Solar Power System (SPS) developer under third party sale, 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/Prosumer/SPS developer under third party sale) 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 or sale to consumers under third party sale or sale to Distribution Licensee within the same premises or other premises.

WHEREAS, the Gujarat Energy Development Agency (GEDA)/ Gujarat Urja Vikas Nigam Limited through letter dated \_\_\_\_\_ has registered for developing and setting up \_\_\_ kW own Rooftop Solar PV System for his/her/its own use, third party sale or sale to licensee under Gujarat Solar Power Policy – 2021 read with Order No. 03 of 2020 dated 08.05.2020 and Order

dated \_\_\_\_\_ in Petition No. 1936 of 2021 at his/her/its premises in legal possession or premises at rental basis including rooftop or terrace.

And whereas, the Distribution Licensee agrees to provide grid connectivity to the Consumer/Prosumer/SPS developer under third party sale 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/Prosumer/SPS developer under third party sale which includes-

1. Government of Gujarat Solar Power Policy 2015
2. Government of Gujarat Solar Power Policy 2021
3. Electricity (Rights of Consumers) Rules, 2020
4. Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010.
5. Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 as amended from time to time.
6. Central Electricity Authority (Installation and Operation of Meters) Regulation 2006.
7. Gujarat Electricity Regulatory Commission (Electricity Supply Code & Related Matters) Regulations, 2015,
8. Gujarat Electricity Regulatory Commission Distribution Code, 2004 and amendments thereto,
9. Instruction, Directions and Circulars issued by Chief Electrical Inspector from time to time.
10. 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/Prosumer/SPS developer under third party sale shall own the Rooftop Solar PV System set up on its own premises or premises in his legal possession, on lease or rental basis.
- 1.2 Consumer needs to consume electricity generated from the Solar Power System set up in the same premises where Rooftop Solar PV System is set up or other places than the consumption premises. Provided that in case of Residential, the place of generation of electricity and consumption shall always be same.
- 1.3 Consumer/Prosumer/SPS developer under third party sale shall ensure capacity of Rooftop Solar not to exceed than the limit specified in this Regulations. If it is violated than provisions of unauthorized use provision applicable and consumer / prosumer/ SPS developer shall be penalized as per the provisions of these Regulations.
- 1.4 Consumer/Prosumer/SPS developer under third party sale 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, 2021 for being integrated into grid/distribution system.
- 1.5 Prosumer shall inject the electricity generated from Solar Power System into the grid to supply/sale to the Distribution Licensee.

## **2. Technical and Interconnection Requirements**

- 2.1 Consumer/Solar Project Developer under third party sale agrees that his/it 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 Prosumer agrees that his/it Rooftop Solar PV System and Gross Metering System will conform to the standards and requirements specified in the Electricity Rules, Policy, Supply Code and Regulations notified by the Commission as amended from time to time.

- 2.2 Consumer/Solar Power System Developer under third party sale/Prosumer agrees that he/she/it 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/ Solar Power System Developer under third party sale/Prosumer agrees that in case of non-availability of grid, Rooftop Solar Photovoltaic System will disconnect/isolate automatically and his/her/it 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/ Solar Power System Developer under third party sale/Prosumer agrees that licensee will specify the interface/inter connection point and metering point.
- 2.6 Consumer/ Solar Power System Developer under third party sale/Prosumer 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/ Solar Power System Developer under third party sale/Prosumer 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/ Solar Power System Developer under third party sale/Prosumer 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/ Solar Power System Developer under third party sale/Prosumer 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, SPS and disconnecting means of the Rooftop Solar Photovoltaic Systems, 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/ Solar Power System Developer under third party sale/Prosumer 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/Solar Power System Developer under third party sale/Prosumer 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 set up by the project developer under third party sale or owned and operated by (i) Residential Consumers, (ii) Projects set up under Captive or Third Party, (iii) Projects set up under RPO or REC mechanism toward 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 Consumers, 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, Government Institutions and other consumers-

(i) Projects set up under Captive or Third Party Sale:

Bi-directional meter shall be installed of same accuracy class as installed before setting up of Rooftop Solar PV System.

(ii) Projects set up under RPO or REC Mechanism:

ABT compliant meter having 15 minute integration shall be installed.

Provided that separate generation meter shall be installed in all projects irrespective of arraignment i.e. net metering or gross metering.

## **7. Commercial Settlement**

All commercial settlements under this agreement shall be as per GERC (Net Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 amended from time to time and Order No. 3 of 2020 dated 8.05.2020 and Suo-Motu Order No. 6 of 2020 dated 5.08.2020 of the Gujarat Electricity Regulatory Commission and any subsequent orders in this regard.

In case of the energy injected from Solar Power System set up by the prosumer sale to Distribution Licensee under gross metering arrangement shall be purchased by the

Distribution Licensee at the rate mechanism decided and specified by the Commission in its Order dated 8.08.2019 in Petition No. 1802 of 2019, pertaining to tariff for the Solar Power Projects set-up under Distributed Solar Power Project under Solar Power Policy 2015. The same is reproduced below:

*“ Applicable Tariff*

*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 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 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. However, the above mechanism of applicable tariff shall be subject to approval of GERC. The obligated entities shall take one time approval of GERC. The Rs. 0.20 per unit addition in tariff is allowed for Rs. 0.12 per unit for saving in transmission loss as power will be injected in distribution grid and Rs. 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.”*

The commercial settlement will be as follows:

**7.1 GROSS METERING ARRANGEMENT:**

The gross solar energy generated and registered in the Solar Generation meter during billing cycle shall be compensated by the Distribution Licensee at the rate determined by the Commission in its Tariff Order for Solar Power Projects set up under development of Small Scale Distributed Solar Projects 2019 vide Order dated 8.08.2019 in Petition No. 1802 of 2019.

## **7.2 For Residential and Government Consumers:**

- (i) In case of Residential Consumers, the Energy Accounting shall be carried out on Billing Cycle basis.
- (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 following rates:
- (iii) In case of self-owned systems and SURYA Gujarat scheme consumers:
  - (a) 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.
  - (b) 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 Distribution Licensees.

## **7.3 For the projects set up under Captive use:**

- (i) 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 meaning thereby, 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.

- (ii) 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 meaning thereby, the generated solar energy during a 7:00 hours to 18:00 hours billing cycle shall be consumed by the consumer during the specified period, of 7:00 hours to 18:00 hours in the same billing cycle.
- (iii) The energy accounting for all other LT consumers i.e., other than demand based LT consumers shall be on billing cycle basis.
- (iv) 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.
- (v) The surplus energy, not consumed by the consumer during the above mentioned after set off period shall be compensated by Distribution Licensees at 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.
- (vi) Excess drawl by consumer from the grid, if any, after giving set off shall be charged by the Distribution Licensee at the applicable tariff of the respective category of consumer as determined by the Commission from time to time.
- (vii) In case of projects set up for captive use, no cross-subsidy surcharge and additional surcharge shall be applicable.
- (viii) Banking charges of Rs.1.50/ unit shall be applicable 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.
- (ix) Transmission and wheeling charges as per (viii) for third party sale

#### **7.4 For the projects set up under third party sale:**

- (i) 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 meaning thereby, 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 Distribution licensee at rates specified under this policy.

- (ii) 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 meaning thereby, the generated solar energy during 7:00 hours to 18:00 hours of a billing cycle shall be consumed by the consumer during the specified period of 7:00 hours to 18:00 hours in the same billing cycle. The surplus energy after the billing cycle shall be purchased by the Distribution licensee at rates specified under this policy.
- (iii) The surplus solar energy purchased by Distribution Company from captive / third party solar projects shall be considered for fulfilling RPO of Distribution Company.
- (iv) The surplus energy injected into the Grid during the above mentioned set-off period shall be compensated by Distribution Licensees 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.
- (v) Excess drawl of electricity by consumer from the grid, if any, after giving set off shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.
- (vi) No Cross subsidy surcharge and additional surcharge shall be applicable in case of captive consumption. But, in case of third party sale projects, both these charges shall be applicable. These surcharges shall be similar to normal open access consumers as determined by the Commission from time to time.
- (vii) Banking charges of Rs 1.50 / unit shall be applicable 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 Charge of Rs.1.10 per unit on Solar Energy Consumed shall be applicable. Banking Charges shall not be applicable to government buildings.

- (viii) Transmission and wheeling charges and losses as determined by the Commission shall be levied as applicable depending on the location of the plant and the point of consumption, if the open access on transmission and/or distribution network availed by the consumer/rooftop solar generators.

**7.5 For the projects set up under REC mechanism:**

- (i) 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.
- (ii) 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 subject to the provision of Regulation 6.2 and other provision of these Regulations.
- (iii) The energy accounting for the projects set up under REC Mechanism shall be carried out on 15-minute time block basis.
- (iv) 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 Distribution Licensees 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.
- (v) Excess drawl by consumer from the grid, if any, after giving set off shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.
- (vi) In case Distribution Licensee agrees to purchase the electricity component of power from a project under REC Mechanism, the applicable tariff payable by

Distribution Licensees 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.

- (vii) No banking charges shall be applicable.
- (viii) 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 the Commission from time to time.
- (ix) Transmission and wheeling charges and losses as determined by the Commission shall be levied as applicable depending on the location of the plant and the point of consumption.

#### **7.6 For the projects set up for RPO compliance:**

- (i) 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.
- (ii) The surplus solar energy purchased by Distribution Company from captive / third party solar projects shall be considered for fulfilling RPO of such Distribution Licensee.
- (iii) The surplus energy injected into the Grid shall be compensated by Distribution licensee 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.



- (iv) Excess drawl by consumer from the grid, if any, after giving set off shall be charged by Distribution Licensee at applicable tariff of respective category of consumer as determined by the Commission from time to time.
- (v) 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 the Commission from time to time
- (vi) No banking charges shall be applicable.
- (vii) Transmission and wheeling charges and losses as determined by the Commission shall be levied as applicable depending on the location of the plant and the point of consumption, if the open access on transmission and/or distribution network availed by the consumer/rooftop solar generators.

## **8. Connection Costs**

8.1 The Consumer/ Solar Power System Developer under third party sale/Prosumer shall bear all costs related to setting up of Rooftop Solar Photovoltaic System including metering and inter-connection. The Consumer/Solar Power System Developer under third party sale/Prosumer 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/Solar Power System Developer under third party sale/Prosumer 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/Solar Power System Developer under third party sale/Prosumer shall make available to Distribution Licensee 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 dispute between the Parties is 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/ Solar Power System Developer under third party sale/Prosumer can terminate agreement at any time by giving Distribution Licensee 90 days prior notice.

12.2 Distribution Licensee shall have right to terminate Agreement with 30 days prior written notice, if Consumer/ Solar Power System Developer under third party sale/Prosumer commits breach of any of the terms of this Agreement and does not remedy the breach.

12.3 Consumer/ Solar Power System Developer under third party sale/Prosumer 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:

<p>In respect of the (Name of Distribution Licensee):</p> <p>* Additional C.E.(R&amp;C) _____ Gujarat Vij Company Limited/Equivalent Authority,</p>	<p>In respect of the Consumer/ Solar Power System Developer under third party sale/Prosumer</p> <p>(_____)</p>
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Authorised person by the Distribution Licensee ...

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.

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