

**Government of Gujarat  
Energy and Petrochemicals Department  
G.R. No. REN/e-file/20/2023/0476/B1  
Sachivalaya, Gandhinagar  
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**1. PREAMBLE**

Government of India has pledged for transition to clean energy in power sector through nationwide targets with commitment towards Nationally Determined Contribution of 50% of cumulative electric power installed capacity from non-fossil fuel-based energy resources by the year 2030. Government of Gujarat is playing a pivotal role in this energy transition. State has successfully demonstrated its commitment towards clean energy with installed Renewable Capacity of 21.6 GW at present in which the addition of about 11 GW has taken place during last 4 years.

Taking cognizance of the generational shift occurring in electricity sector, the need for expediting efforts for de-carbonization and in an endeavor to embrace renewable energy more effusively, Government of Gujarat is notifying this Renewable Energy Policy-2023 for further encouraging setting up of renewable generation projects based on Wind, Solar and Wind-Solar Hybrid technologies. This Renewable Energy Policy-2023 is formulated for providing the simplified framework for ease of developing renewable projects in the State by attracting investments in Renewable Sector. The policy aims to facilitate substantial augmentation of Renewable Energy capacity by 2030 in line with national target of 50% of cumulative electric power installed capacity from non-fossil fuel-based energy resources by the year 2030 with investments of around Rs. 5 lakh crores by utilizing approximately 4,00,000 acres of land. Further, the State is blessed with 1600 kilometers of long coast line which has a good potential for development of offshore wind energy. The offshore wind energy being clean and more reliable energy source will help to reduce carbon footprint and build a clean environment. State is taking necessary steps to harness full potential of offshore wind.

With proven technologies, Wind & Solar projects have already achieved economies of scale. The focus of Government of Gujarat is to now leverage the State's potential of 36 GW of solar capacity and 143 GW wind capacity for augmenting renewable capacity. Simultaneously, the objective is also to encourage better resource utilization for

enabling cost effective and reliable power supply to consumers through large scale adoption of renewable energy and to ensure a smooth transition to clean energy regime by deriving synergistic value streams through wind-solar hybrid projects. The policy is aimed to ensure energy security and support economic development of the State which will not only negate State's carbon footprints but also contribute to the society through supply of renewable power to consumers in other States.

## **2. VISION**

- To tap the renewable energy potential of State in a maximum possible manner.
- To attract participation from Industries, MSMEs, Organizations, and Consumers etc. for augmenting clean energy sources in the State.
- To achieve the State's Sustainable Development Goals by rapid transition to clean energy sources.
- To make available quality, reliable and cost competitive renewable power to consumers with conducive policy framework.
- To achieve 50% of cumulative electric power installed capacity from non-fossil fuel-based energy resources by the year 2030.

## **3. OBJECTIVE**

The objectives of "**Gujarat Renewable Energy Policy—2023**" are as below:

- a) To tap the RE potential available in the state
- b) Increase the share of RE and ensure energy security to reduce dependency on fossil fuels.
- c) To supply day time power to Agricultural Consumers.
- d) To reduce the carbon footprint and hedging the energy cost
- e) Promote decentralized RE generation
- f) Promote investment, employment & skill enhancement and local manufacturing, Start-Ups, etc. in the RE sector;
- g) Encourage research and development and deployment of innovative technologies, pilot projects, etc. in the RE sector;
- h) Promote energy efficiency by creating energy awareness

## **4. Title**

This policy shall be known as the "**Gujarat Renewable Energy Policy—2023**".

## **5. Abbreviations and definitions**

1. "ABT" means Availability Based Tariff
2. "ACT" means Electricity Act, 2003, including amendment thereto
3. "ALDC" means Area Load Dispatch Centre
4. "ALMM" means List of Approved Models and Manufacturers of Solar Photovoltaic Modules
5. "APPC" means Average Pooled Power Purchase Cost
6. "Captive Generating Plant" means Generating plants meeting the qualification criteria as specified in the Electricity Rules, 2005 as amended from time to time.
7. "CEA" means Central Electricity Authority
8. "CERC" means Central Electricity Regulatory Commission
9. "CTU" means Central Transmission Utility
10. "CUF" means Capacity Utilization Factor
11. "Project Developer / RE Project Developer" shall mean an entity that makes investment for setting up solar or wind or wind-solar hybrid power project for the purpose of generation of electricity. Provided further that in case of wind Power Projects and also Wind-Solar Hybrid Power Projects wherein the development of project is being undertaken by an entity with requisite infrastructure in terms of land, internal roads, pooling sub-station, dedicated transmission line upto grid sub-station etc. and thereafter the project is transferred by such entity to another entity(ies), the RE project developer in such cases for the period upto transfer of project, shall mean the transferor entity and after the transfer of project shall mean the transferee entity who owns and operates the project for end use of energy generated from such project or part(s) thereof. Commissioning of projects connected with the State Grid will be undertaken on execution of Wheeling Agreement / Power Purchase Agreement with DISCOM or consumer(s)."
12. "DISCOM" means Distribution Company
13. "DPR" means Detailed Project Report
14. "EPD" means Energy & Petrochemicals Department – Government of Gujarat.
15. "EV" means Electric Vehicle
16. "GEDA" means Gujarat Energy Development Agency
17. "GERC" means Gujarat Electricity Regulatory Commission
18. "GETCO" means Gujarat Energy Transmission Corporation
19. "GoG" means Government of Gujarat
20. "GPCL" means Gujarat Power Corporation Limited
21. "Gross metering" is a mechanism in which the entire energy generated by the solar rooftop system is exported to the DISCOMs at the rate specified in the agreement to be executed with DISCOMs.

22. "GUVNL" means Gujarat Urja Vikas Nigam Limited
23. "GW" means Giga-Watt
24. "Hybrid Type-A Projects:" means conversion of existing or under-construction wind or solar power plants into hybrid projects by addition of solar or wind capacity, as the case may be.
25. "Hybrid Type-B Projects" means new wind-solar hybrid power generation projects that are not registered with GEDA or for which evacuation permission has not been granted by GETCO/ STU until the date of issuance of this policy.
26. "kVA" means Kilo-Volt-Amp
27. "kW" means Kilo-Watt
28. "MNRE" means Ministry of New and Renewable Energy, Government of India
29. "MoEF" means Ministry of Environment, Forest and Climate Change, Government of India
30. "MoP" means Ministry of Power, Government of India
31. "MVA" means Mega-Volt-Amp
32. "MW" means Mega-Watt
33. "Net Import" means net energy consumed from DISCOMs by the consumer after giving set off of the Rooftop RE generation against consumption recorded in the consumer meter during the settlement period.
34. "NIWE" means National Institute of Wind Energy
35. "Obligated Entities" means entities obligated to fulfill the Renewable Power Purchase Obligation (RPO) as prescribed by GERC
36. "PPA" means Power Purchase Agreement
37. "PPP" means Public Private Partnership
38. "RE Attributes" means Environmental Attributes of the renewable energy used for meeting RPO by the obligated entity or for the generation of REC.
39. "RE Project" for the purpose of this policy, the Renewable Energy Projects shall include solar project or wind project or wind-solar hybrid projects.
40. "Reactive charges" means the charges as determined by GERC from time to time for drawl of reactive power.
41. "REC mechanism" means Renewable Energy Certificate mechanism specified by CERC and amended from time to time.
42. "RFP" means Request for Proposal
43. "RLMM" means Revised List of Models and Manufacturers of wind turbines
44. "Royalty" means the charges determined by respective authority for utilization of water bodies for setting up floating solar project
45. "RPO" means Renewable Purchase Obligation
46. "RTU" means Remote Terminal Unit
47. "Settlement Period" means in respect of consumer opting for banking facility, the

period in which RE generation is to be Net-off against consumer's consumption which shall be on billing cycle basis. In respect of consumers not opting for banking facility and consumption from projects registered under the REC mechanism, the settlement period shall be 15 on minute time block basis.

48. "SLDC" means State Load Dispatch Centre
49. "SNA" means State Nodal Agency
50. "SOP" means Standard Operating Procedure
51. "STU" means State Transmission Utility

## **6. Operative Period**

This policy will come into effect from the date of notification and shall remain in operation up to 30-Sept-2028 or till notification of the new policy, whichever is earlier.

The 'Gujarat Solar Power Policy 2021' notified vide G.R. dated December 29, 2020, 'Gujarat Wind Power Policy 2016' notified vide G.R. dated August 02, 2016, and 'Gujarat Wind Solar Hybrid Power Policy 2018' notified vide G.R. dated June 20, 2018 and their subsequent amendments shall stand superseded.

Renewable Energy Projects that are installed and commissioned during the operative period will be eligible for the benefits and incentives outlined in this policy. Further, the projects commissioned after 19th June-2023 under Wind Solar Hybrid Policy-2018 and before the issuance of this Policy shall be eligible for the benefits under this Policy. These benefits will be applicable for a period of 25 years from the date of commissioning or the lifespan of the RE project, as defined by GERC/MoP/MNRE, whichever is earlier.

## **7. Policy Scope**

All ground mounted solar, roof top solar, floating solar, canal top solar, wind, rooftop wind and wind-solar hybrid projects shall be covered under this policy. The provisions of this policy shall not be applicable to RE projects set up for the purpose of supply of power to the units producing Green Hydrogen and Green Ammonia which will be covered under a separate policy for Green Hydrogen / Green Ammonia sector to be notified by Government of Gujarat.

## **8. Eligibility**

8.1 Any individual, company, body corporate, association, or body of individuals,

whether incorporated or not, or artificial juridical person, will be eligible for setting up the RE projects under the policy.

- 8.2 The RE projects can be set up under this policy for captive use and / or for selling electricity to any other third party whether registered under the REC mechanism or not, or selling electricity to distribution licensees, subject to the provisions of this Policy and in accordance with the provisions of the Electricity Act 2003, as amended from time to time.
- 8.3 There shall be no capacity restriction for setting up of RE projects for captive use or for selling electricity to third party consumer with respect to the consumer's contracted demand/ sanctioned load (kW/kVA/MVA) with DISCOMs. The AC capacity of the RE project shall be considered as the project installed capacity.

## **9. Solar**

### **9.1 Ground Mount solar:**

- 9.1.1 Solar projects can be setup in a solar park, or outside the solar park, on government revenue land, or on private land. Government land or land available with the State Nodal Agency shall be made available to the RE developers as per Clause No. 28 of this Policy.
- 9.1.2 The Distribution Licensees may procure from solar power projects in accordance with the Clause No. 16 of this Policy.
- 9.1.3 Wheeling of power for captive use or third party sale shall be allowed on payment of charges as per Clause No.15 and energy settlement will be as per Clause No. 14 of this policy.

### **9.2 Rooftop Solar:**

- 9.2.1 Solar projects can be installed by consumers on rooftops or within premises under a net metering arrangement or under a gross metering arrangement, as per applicable GERC regulation from time to time. Incentives under existing central / state government schemes, as the case may be, can be availed by consumers as per the provisions of the respective scheme.
- 9.2.2 For projects set up under gross metering arrangement and selling power to

Distribution Licensees, the applicable tariff will be equal to the simple average of the tariff discovered and contracted under the competitive bidding process conducted by GUVNL in the preceding 6 months, i.e., either April to September or October to March, as the case may be, plus 20 paisa /unit, which shall be applicable for signing of PPAs in the subsequent 6-month period and such tariff shall remain fixed for the 25 year term of the PPA.

### **9.3 Floating/canal-based solar:**

9.3.1 The state has several water reservoirs and canals that can be utilized for setting up floating/canal- based solar projects. Such projects avoid the requirement for land and also reduce evaporation in water bodies.

9.3.2 Floating or canal-based solar projects are to be implemented in consultation with Narmada, Water Resources, Water Supply, Kalpsar Department, or such other government authority having control over canals, rivers, streams, etc. Such a Government Authority shall identify potential suitable sites or locations for setting up the project.

9.3.3 The Distribution Licensees may procure power from floating or canal-based solar projects in accordance with Clause No. 16. For floating or canal based projects, where the Distribution Licensees are purchasing power, the Distribution Licensees shall pay amount equivalent to the concessional rate for government waste land as royalty to the Irrigation Dept., Narmada Water Resources, Water Supply, Kalpsar Dept., or any such authority for the utilization of water bodies, as the case may be. In the case of floating solar project set up for captive use or third-party sale, the royalty shall be paid by the procurer as decided by the respective authority.

## **10. Wind**

10.1 Wind projects can be setup in a wind park or outside the wind park, on government revenue land, or on private land. Government land or land available with the State Nodal Agency shall be made available to the RE developers as per Clause No. 28 of this Policy.

10.2 Small scale Wind projects can be installed by consumers on rooftops or within premises under a net metering arrangement to offset their own consumption or under a gross metering arrangement and sell the entire generation to

DISCOM, as per the applicable regulations of GERC. The RE developer may avail incentives / benefits under the Central or State Government Scheme, as available.

10.3 The Distribution Licensees may procure from wind power projects in accordance with the Clause No. 16 of this Policy.

10.4 Wheeling of energy for captive use or third party sale shall be allowed on payment of the transmission and wheeling charges as per Clause No. 15. The settlement of wheeled energy will be as per Clause No. 14 of this policy.

## **11. Wind-Solar Hybrid**

11.1 Solar and wind energy generations being complementary to each other, 'hybridization' of two technologies would help in minimizing the variability apart from optimally utilizing available infrastructure, including land and transmission systems.

11.2 Capacity of one resource (solar or wind) in the hybrid projects shall be as per the National Wind-solar Hybrid Policy notified by MNRE vide letter no. F. No. 238/78/2017-Wind dated 14th May 2018 for Wind Solar Hybrid Projects and its amendment from time to time.

11.3 For the purpose of simplicity, wind-solar hybrid power generation plants are divided into two categories:

11.3.1. **Type-A Projects:** This category includes the conversion of existing or under-construction standalone wind or solar power plants into hybrid projects. Wind or solar capacity under construction shall be considered based on the registration certificate issued by GEDA or evacuation permission granted by GETCO / STU to the solar or wind RE developers as the case may be, before the issuance of this policy. The installed wind or solar capacity shall be considered based capacity of power purchase agreement (PPA) or wheeling agreement.

Only AC integration shall be permitted. The integration of wind and solar components of a wind-solar hybrid project shall be allowed at the plant end or at the pooling / sending station depending upon the feasibility issued by DISCOM / GETCO in accordance with the connectivity regulations of GERC / CERC, Safety regulations issued by CEA and all other applicable regulations /



standards / code. Provided further that a separate set of main and back up ABT Compliant metering systems for the purpose of apportioning of energy shall be installed at the generating terminal / turbine output of each WTG with necessary communication facility to the GEDA / GETCO System and the energy accounting shall be undertaken accordingly. Further suitable control equipment shall be deployed for controlling the power output of the hybrid project.

**11.3.2. Hybridization of Type A projects:** Existing wind power or solar power RE Developers willing to install solar PV plants or wind turbine generators, respectively, at the existing location to avail benefits under this policy shall be allowed to do so with the following conditions:

- a) The total power injection (combined wind and solar) into the grid after hybridization shall not be more than the transmission capacity or grid connectivity allowed or sanctioned by GETCO / STU for this purpose. In the event that addition or augmentation of the existing evacuation system is required as per the system study undertaken by GETCO / STU due to the addition of wind or solar capacity, RE developers shall undertake such addition or augmentation in the system up to the receiving end sub-station of GETCO / STU at their own cost. However, the primary focus of this policy is to optimize the utilization of existing transmission infrastructure, technologies and design approaches towards minimum augmentation are encouraged.
- b) The solar and wind power generated from the hybrid project shall be measured separately at the pooling/sending-end sub-station and energy injection at the receiving end sub-station of GETCO / STU shall be worked out on an apportioned basis as per the common meter reading at the receiving end sub-station up to the receiving end sub-station of GETCO/ STU.
- c) The RE developers shall approach GETCO/ STU to determine the transmission capacity available to evacuate the additional wind or solar power or any augmentation that may be required. GETCO / STU shall provide the relevant data with regards to the transmission capacity utilization on its existing network.

**11.3.3. Type-B Projects:** This includes new wind-solar hybrid power generation

projects that are not registered with GEDA or for which evacuation permission has not been granted by GETCO/ STU until the date of issuance of this policy.

Further, in the absence of a common RPO and tariff, only AC integration will be allowed. The integration of wind and solar components of a wind-solar hybrid project shall be allowed at the plant end or at the pooling / sending station depending upon the feasibility issued by DISCOM / GETCO in accordance with the connectivity regulations of GERC / CERC, Safety regulations issued by CEA and all other applicable regulations / standards / code. Provided further that a separate set of main and back up ABT Compliant metering systems for the purpose of apportioning of energy shall be installed at the generating terminal / turbine output of each WTG with necessary communication facility to the GEDA / GETCO System and the energy accounting shall be undertaken accordingly. Further suitable control equipment shall be deployed for controlling the power output of the hybrid project.

DC integration shall be contingent on the availability of DC metering standards, which may evolve over time.

Under all circumstances, the RE developer shall lay a dedicated line for the evacuation of power from the pooling/sending-end sub-station of the hybrid project to the receiving-end sub-station of GETCO / STU as per the system study undertaken by GETCO/ STU. Energy injection from wind and solar capacity at the receiving end of the GETCO / STU sub-station shall be worked out separately on the basis of the meter reading of the common meter installed at the receiving end of the sub-station and appropriately apportioned as per the respective meter readings of the wind and solar meters.

- 11.4 Wheeling of energy for captive use or for third party sale shall be allowed on payment of charges as per Clause No.15 and energy settlement will be as per Clause No. 14 of this policy.
- 11.5 The Distribution Licensees may procure from wind-solar hybrid power projects in accordance with the Clause No. 16 of this Policy.

## **12. Renewable Energy Parks**

- 12.1 In order to minimize the cost of common infrastructure and optimize the evacuation infrastructure along with fulfilling the objectives of this Policy, it is

also desirable to promote the development of RE parks, which include solar parks, wind parks, and hybrid parks (i.e., solar-wind).

12.2 **Park Size:** The minimum capacity of RE park shall be 50 MW, and the maximum park capacity shall be in accordance with the guidelines or schemes of MNRE as issued from time to time.

12.3 The Government of Gujarat may designate the Renewable Energy Park developer on a nomination basis, which may be Gujarat Power Corporation Limited or any other state government agency. The Guidelines issued by Central Government from time to time for development of Solar Parks shall be applicable to all Park Developers.

### **13. Projects under REC mechanism**

13.1 RE projects may be setup under the REC mechanism for captive use / third party sale in accordance with the CERC regulations as amended from time to time.

13.2 Wheeling of power under REC mechanism shall be allowed on payment of charges as per Clause No. 15 and energy settlement will be as per Clause No: 14 of this policy.

### **14. Energy Settlement and Banking**

14.1 Energy accounting and banking for all renewable energy projects, including rooftop projects, shall be as per the regulations framed by GERC from time to time in accordance with the Green Energy Open Access Rules 2022 notified by the Ministry of Power, Govt of India. In case of the consumers availing energy banking facility, the settlement of renewable energy against consumer's consumption shall be carried out on billing cycle basis upon payment of applicable banking charges as determined by GERC from time to time. No banking charges shall be applicable on solar power consumed by Residential consumers.

14.2 In case the consumer is not availing energy banking facility and consumption is from RE projects registered under REC mechanism, the energy settlement shall be carried out on 15 minute time block basis and no banking charges will be applicable.

- 14.3 Energy banking facility on billing cycle basis shall be allowed upon payment of applicable banking charges, which shall be determined by GERC from time to time in a cost reflective manner taking in to account the cost implications for DISCOMs in providing the banking facility. Banking facility will be allowed to the extent of capacity to absorb RE power in the state's grid and RE Project will not have any right to claim any compensation from utilities. However the SLDC / Distribution companies / Transmission companies will make efforts for enhancing the load management capacity by upgrading / modernization of their infrastructure. The banking charges shall be determined on monthly/quarterly basis as per the details / information of the previous month/quarter.
- 14.4 MoP, GoI guidelines related to energy storage obligations as amended from time to time will be applicable to the captive and third party consumers.
- 14.5 For net import of power from DISCOMs i.e. energy consumption after providing set off of renewable energy, DISCOM will charge the tariff applicable to respective category of the consumer which shall include fixed or demand charges, energy charges, peak hour charges, other charges or penalties, etc. as applicable to other consumers.
- 14.6 Power generated from the RE project shall be utilized within applicable energy settlement period. Any energy that remains unutilized at the end of settlement period shall be treated as inadvertent flow and no payment shall be made by the DISCOM for such energy.
- 14.7 Peak hour charges as per the GERC tariff schedule shall be levied on the entire peak hours energy consumption as recorded in the consumer meter i.e. including banked energy.

## **15. Grid Charges**

- 15.1 For utilization of State transmission / distribution network for wheeling of power from RE projects located within the state or from outside the state to consumer end, transmission and wheeling charges and losses as determined by GERC shall be levied as applicable to normal open access consumer depending on the location of the RE plant and the point of consumption.
- 15.2 For utilization of State transmission network for transmission of power from RE generation plant to consumption end, the open access /sanction / allocation of transmission capacity shall be secured by RE generator or consumer for the

quantum of power (MW) to be transferred by making requisite application before State Transmission Utility in accordance with the extant regulations / procedures.

- 15.3 In case of Hybrid projects set up for Captive use or third party sale, the RE Developer/consumer shall be required to seek sanction / allocation of transmission capacity at least for the installed capacity of the wind or solar capacity, whichever is higher. The transmission losses shall be applicable on energy feed-in basis as applicable to any other wind or solar project. However RE developer / consumer may seek higher sanction / allocation of transmission capacity if required.
- 15.4 In case, the Solar and Wind capacity of wind-solar hybrid project is not connected at single location, the required sanction / allocation of transmission capacity shall be equivalent to total installed capacity of wind and solar at both the locations and transmission charges shall be levied accordingly.
- 15.5 Injection of RE power in excess of sanctioned / allocated transmission capacity in 15 minutes time block shall be considered as inadvertent flow of power and no payment / set off will be given by GETCO/ Distribution Licensees.
- 15.6 The Pricing for drawl of Reactive Power shall be as decided by GERC in the GETCO / STU Tariff Orders from time to time.
- 15.7 Wheeling of energy for Captive use /Third party sale at more than one location from one project shall be allowed upon payment of 5 paise per unit of energy fed in the grid as measured at receiving end sub- station of GETCO/STU to the concerned DISCOM in whose area power is consumed in addition to above mentioned transmission charges and losses, as applicable.
- 15.8 Cross-subsidy surcharge and additional surcharge shall not be applicable for consumption from RE projects fulfilling the criteria of captive power projects as per Electricity Rules 2005. The RE projects not fulfilling the criteria of captive power projects shall be considered as third party sale projects and Cross-subsidy surcharge and Additional surcharge shall be levied as determined by GERC from time to time for consumption from third party RE projects.
- 15.9 If the RE projects are setup for captive use or third-party sale and if they are not utilizing the RE attribute of the project for meeting their own RPO or are not

registered under the REC mechanism, the RE attribute of such projects shall be accounted for in DISCOM's RPO.

## **16. Purchase of power by DISCOMs**

### **For RE projects covered under competitive bidding process as per MNRE Guidelines:**

16.1 DISCOM may purchase power from RE projects from time to time to economize overall power purchase costs for the benefit of consumers by following the competitive bidding process in accordance with the guidelines notified by the Government of India from time to time under Section 63 of the Electricity Act. The terms and conditions for the supply of power shall be governed by the provisions of respective Power Purchase Agreement signed between the RE project and DISCOM.

16.2 In the case of Type-A hybrid projects, the purchase of power from existing wind or solar capacity as the case may be, shall be in accordance with the respective PPAs with DISCOMs, and purchase of power from additional or new wind or solar capacity shall be at the tariff discovered through competitive bidding undertaken by DISCOMs separately for purchase of wind and / or solar power.

### **16.3 For RE Projects exempted from competitive bidding process as per MNRE guidelines:**

#### **16.3.1 Purchase from Solar Power Projects:**

DISCOMs may procure power from distributed solar projects up to 4 MW capacity at a pre-fixed levelized tariff as per the mechanism decided by GERC i.e. simple average of tariffs discovered and contracted under the competitive bidding process conducted by GUVNL for solar projects in the preceding 6-month period, i.e., either April to September or October to March, as the case may be, plus 20 paisa/unit, which shall be applicable for the signing of PPAs in subsequent 6-month period and such tariff shall remain fixed for the 25 year term of the PPA.

Further, in case generic tariff is determined by GERC for solar project and such tariff is lower than tariff as stated in above para, lower tariff will be applicable for purchase of solar power from such project and the same shall be fixed for entire term of PPA.

### **16.3.2 Purchase from wind power projects:**

DISCOMs may procure power from small size wind power projects up to 10 MW capacity at a pre-fixed levelized tariff equal to the simple average of tariff discovered and contracted under the competitive bidding process conducted by GUVNL for wind projects in the preceding 6-month period, i.e., either April to September or October to March, as the case may be, which shall be applicable for the signing of PPAs in subsequent 6-month period and such tariff shall remain fixed for the 25 year term of the PPA.

Further, in case generic tariff is determined by GERC for wind project and such tariff is lower than tariff as stated in above para, lower tariff will be applicable for purchase of wind power from such project and the same shall be fixed for entire term of PPA.

16.3.3 For projects covered under Clause No. 16.3.1 and 16.3.2, if the tariff is not available for preceding 6- month period, then available tariff of latest 6-month tariff shall be considered.

16.3.4 Purchase of power from the RE project setup under the specific scheme / guideline of State or Central Government, as the case may be, will be governed as per the terms and conditions of respective scheme / guidelines. Further, the tariff for such projects shall be as approved by GERC.

### **17. Security Deposit**

17.1 In case of purchase of power by DISCOM under Power Purchase Agreement, the RE developer shall be required to provide Bank Guarantee towards Security Deposit as per the terms and conditions of the respective bid documents, government schemes, or MNRE guidelines, as the case may be.

17.2 In the case of purchase of power by DISCOM from RE projects not falling under Clause No. 17.1 above, the RE developers shall be required to provide Bank Guarantee towards Security Deposit @ Rs. 5 lakh per MW at the time of signing the PPA with DISCOM.

17.3 The Bank Guarantee towards Security Deposit shall be refunded if the RE project achieve commercial operation within the time period mentioned in the

power purchase agreement. In case the RE project fails to achieve commercial operation as agreed in the power purchase agreement, the Bank Guarantee shall be forfeited and consequences as per the respective PPA shall be applicable.

- 17.4 In cases where RE projects are set up for captive use or third-party sale, the project developer shall submit Bank Guarantee towards security deposit in accordance with the connectivity procedure approved by GERC to STU / DISCOM, as the case may be, for ensuring timely completion of the evacuation facility for RE project. In case the RE developer fails to commission the entire evacuation line along with bays and the metering system within the time period mentioned hereunder, STU or DISCOM, as the case may be, shall encash the bank guarantee.

<b>RE Capacity(MW)</b>	<b>Period of Commissioning of the entire Evacuation line along with bays and metering system</b>
1MW to 100MW	12 months from date of allotment of transmission capacity
> 100MW to 200MW	15 months from date of allotment of transmission capacity
> 200MW to 400MW	18 months from date of allotment of transmission capacity
>400MW to 1000MW	24 months from date of allotment of transmission capacity
>1000 MW	30 months from date of allotment of transmission capacity

- 17.5 The RE Developer shall commission the project for at least 10% of the allotted capacity within one month of charging the evacuation line or as per timeframe stipulated in clause 17.4 here above, whichever is earlier, failing which, the RE Developer shall be liable to pay long-term transmission charges for 10% of the allotted capacity until such 10% of the allotted capacity is commissioned. Balance 90% capacity shall require to be commissioned within one year of charging of evacuation line or as per timeframe stipulated in clause 17.4 here above, whichever is earlier, failing which STU shall cancel the capacity allotment to the extent of capacity not commissioned and the RE developer shall have no claim on such capacity and pay relinquishment charges as determined by GERC. Further, STU shall include such cancelled capacity in the list of spare available capacity for RE integration to be published on their website for prospective consumers.

- 17.6 Clause No. 17.5 shall not be applicable to RE developers who are awarded projects through a competitive bidding process.



## **18. Electricity Duty**

Electricity Duty shall be governed in accordance with the provisions of the Gujarat Electricity Duty Act 1958 and its amendments from time to time.

## **19. Greening of supply chain**

To enable consumers to voluntarily shift towards renewable energy, DISCOM shall supply 100% renewable energy upon requisition for RE power made by such consumers at a Green Power Supply Tariff, as determined by GERC from time to time.

## **20. Grid connectivity and evacuation facilities**

20.1 Grid stability and security are of prime importance. Since the infirm nature of renewable energy may endanger grid security, adequate protection measures are necessary.

20.2 Grid integration shall be in accordance with the Central Electricity Authority's (Technical Standards for Connectivity to the Grid) Regulations, 2019 and amendments thereto from time to time.

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

<b>Project Capacity(C)</b>	<b>Interconnection Specification</b>
1kW<C<6kW	230V,1 Phase
6kW<C<100kW	400V,3 Phase
100kW<C<4MW	11kV,3 Phase
C>4MW	66/132/220/400kV,3 Phase

20.4 Evacuation facility within RE Park (solar / wind /Wind-solar hybrid projects)

20.4.1 The developer of RE Park shall establish a dedicated line for evacuation of power up to the STU orCTU sub-station and install RTUs, etc. at their own cost.

(i) RE projects / RE park connected with STU / DISCOM network:

Such RE project or RE park developer shall lay a dedicated line for evacuation of power up to sub-stationsof STU as per the system study undertaken by STU or DISCOM where injection of power into the state grid is feasible. From there

onwards, STU / DISCOM shall ensure transmission / distribution system and connectivity as the case may be for wheeling of power.

The connectivity shall be granted to RE project developers by STU in accordance with the connectivity procedure approved by GERC as amended from time to time, from a published list of sub-stations where spare capacity for connectivity is available. The list of sub-stations where spare capacity is available shall be updated by STU at a regular time intervals.

(ii) RE project developer/RE park developer connected with CTU network:

Such RE projects or RE park developers shall lay dedicated lines for evacuation of power up to the CTU substation or CTU interface, as per the system study undertaken by CTU. From there onwards, CTU may ensure a transmission system and connectivity with the inter-state network wherever power is to be exported out of the state.

20.5 Evacuation facility for outside RE Park ( solar / wind / hybrid) and connected with STU / DISCOM grid: To optimize costs and resources, common dedicated transmission line shall be encouraged for clusters of adjoining RE projects with appropriate metering at their respective ends of the project, as well as a common meter at the receiving end at the STU substation. Energy injection from each RE project at the receiving end shall be worked out by SLDC/ALDC on the basis of the meter reading of the common meter and appropriately apportioned as per the sending end meter reading of individual RE project.

20.6 The start-up, stand-by and auxiliary power requirement from the grid shall be governed by relevant GERC regulations and orders as applicable from time to time.

20.7 For projects connected with STU / DISCOM network, the connectivity charges shall be paid to STU / DISCOM in accordance with the provisions of respective scheme and GERC Regulations.

## **21. Metering**

21.1 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.

21.2 The metering point and interconnection point shall be the point of connection

at the CTU/ STU substation / DISCOM network, as the case may be, where connectivity is granted by CTU / STU/ DISCOM for injection of power from RE project.

- 21.3 Interface metering shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations 2014 and amendments thereto, as stipulated by CTU / STU / DISCOM, as the case may be.
- 21.4 The RE developers shall also have to install Remote Terminal Unit (RTU) and communication system at the RE project for transferring the real time data to concerned Load Dispatch Centre for monitoring purpose.
- 21.5 For the purpose of energy accounting, the ABT compliant meter, check meter and standby meter shall be installed at the metering point, as per the provisions of applicable order / regulations / codes from time to time. Further, for the purpose of energy accounting, each renewable energy project shall have to install ABT compliant meters.

## **22. ISTS connected renewable energy projects**

ISTS-connected renewable energy projects shall be governed in accordance with the applicable regulations, orders and guidelines as notified by the Central Government and/or CERC from time to time.

## **23. Forecasting and scheduling**

- 23.1 Forecasting and scheduling of renewable energy projects shall be governed by GERC regulations and orders as issued from time to time.
- 23.2 Interstate projects shall be governed by CERC regulations, as applicable.

## **24. Operation and maintenance**

The operation and maintenance of a dedicated evacuation line shall be carried out at the cost of the RE projects as per applicable technical standards and best practices.

## **25. Facilitation for implementation of policy**

- 25.1 GUVNL shall be the implementing, facilitating, coordinating and monitoring agency

for this Policy.

- 25.2 GEDA shall act as the State Nodal Agency (SNA) for the following functions:
- a. Registration of Projects
  - b. Accreditation and recommending Renewable Energy Projects for registering with the Central Agency under REC mechanism
  - c. Certifying the commissioning of Renewable Energy Projects
  - d. Submit a monthly progress report of the activities mentioned above to the GUVNL/EPD.
  - e. Any other functions assigned.
- 25.3 The modalities, procedures, terms, and conditions, etc. for the registration of projects shall be formulated by the SNA. The SNA shall facilitate the RE Developers by developing a 'Single Window Web- System' for RE project. The RE Developers shall be required to upload the requisite documents on this web-portal. The registration completion and approval thereof shall be issued automatically through online- mode and made available on the web-portal itself. To enable a faster registration process, smooth functioning and adequate assistance to the RE Developers, the SNA shall prescribe Standard Operating Procedure (SOP) or guidelines and web-portal service helpdesk, etc. The single window web-system shall be integrated with all the functionalities such as registration, approval, allocation of the renewable energy projects etc.
- 25.4 The SNA shall take quarterly progress reports of RE projects from project developer. The SNA shall review and monitor the project progress, address queries and problems of RE developers, provide necessary guidance and clarifications, conduct inspections (if required), etc., and thereby endeavor to assist the RE Developers in fast-tracking the implementation of projects.
- 25.5 The State Transmission Utility (GETCO) shall facilitate the RE Developers by making public disclosure of RE integration capacity available district-wise / substation-wise on its website and updating it regularly to enable the RE Developers identify potential sites. The connectivity with the STU network shall be governed as per the connectivity procedures approved by GERC, as amended from time to time.
- 25.6 A committee under the chairmanship of the Principal Secretary (Energy & Petrochemicals Dept. – Government of Gujarat) shall facilitate the resolution of policy-level issues, grievances, and concerns (if any) of projects, removing difficulties, etc. under this Policy, to ensure smooth implementation of the Policy.

## **26. Plant and machinery**

- 26.1 Only new plant and machinery shall be eligible for installation under this Policy.
- 26.2 Solar PV modules and wind turbines that are approved by the Ministry of New and Renewable Energy, Government of India, under RLMM or ALMM, as applicable, shall be eligible. The guideline of Ministry of New and Renewable Energy, Government of India and its amendment from time to time for the same shall be applicable.
- 26.3 The solar PV cells and modules shall be compliant with the BIS standards.

## **27. Prototype Projects**

- 27.1 Considering the benefits of technological advancements in wind turbines in respect of higher hub heights, higher capacity etc., the policy aims to facilitate WTG manufacturers and RE developers to install prototype WTGs.
- 27.2 Installation of prototype WTGs shall be permissible to carry out type-testing for a type-certificate from internationally accredited certifying agencies in accordance with the guidelines and procedures for installation of prototype wind turbine models notified by MNRE from time to time. Registration will be done by SNA. SNA shall issue commissioning certificate or grid synchronization report as per the applicable guidelines and procedures as notified by MNRE, NIWE, or any other such authority from time to time.
- 27.3 The prototype WTGs shall have to ensure due compliance and adherence to applicable guidelines, procedures, orders and regulations as notified by MNRE, NIWE, CEA, GERC, or any other authority from time to time.
- 27.4 The components or items procured or imported for the manufacturing of prototype WTGs shall have to be new and unused. Second-hand components and machines shall not be allowed. The components or items procured or imported for the manufacturing of prototype WTGs shall be eligible for customs and excise duty exemption as per the notifications of the Customs and Excise Departments from time to time.
- 27.5 The prototype WTGs shall be owned by the concerned wind turbine manufacturer and shall not be sold to any party until the model is included in

the Revised List of Models and Manufacturers of Wind Turbines (RLMM).

- 27.6 Energy generated from such prototype WTGs shall be considered as inadvertent energy until the RE developer executes a commercial arrangement for the said prototype WTG after the model gets listed in RLMM.

## **28. Land**

- 28.1 The RE project may be setup on private land, or government waste land allotted by the Revenue Department / state nodal agency. Revenue department will allocate government waste Land for development of RE projects in consultation with the Energy and Petrochemicals department GoG.
- 28.2 State Government may allocate government waste land at concessional rates to RE projects supplying power to the distribution licensee for the consumers of Gujarat.
- 28.3 The allocation of government waste land for wind / wind and solar hybrid projects shall be made based on optimum utilization of the entire land parcel.

## **29. Repowering of wind projects**

- 29.1 With an objective to re-energize the old, small-sized and inefficient wind turbines and replace with bigger and more efficient wind turbines with better technology (improved rotor diameters, larger blades, taller towers and pole lengths, increased hub heights, etc.) so as to optimally utilize the existing land and infrastructure, the repowering of wind turbine generators shall have to be done by the RE developers on or before the completion of 25 years from the date of commissioning of the project or extended term of the agreement.
- 29.2 The repowering of wind turbine generators shall have to be done by the RE developers within six months from the date of issuance of this policy whose wind turbine generators have either completed the 25 years or about to complete the 25 years from the date of commissioning of the project. The developer whose agreements with GETCO and DISCOM are either extended or expired within one year from the date of issuance of this policy shall be eligible for the repowering.
- 29.3 If the Wind Project developer fails to repower its wind turbine generator at the expiry of the project's life/ term of agreement / extended terms of agreement,

as the case may be, such RE developer shall have to decommission the wind power project and surrender the connectivity, and if the WTG is set up on leased land, they shall also have to surrender their leasehold rights to Government.

- 29.4 The life of the repowered project shall be 25 years or the actual life of the turbines, whichever is earlier.
- 29.5 RE developer shall be allowed for full/ partial repowering without any ceiling limit during the operation period.
- 29.6 The repowering of projects shall have to be done under intimation to the beneficiary and with the prior consent of the SNA.
- 29.7 After completion of repowering RE Developer is required to inform SNA for certification of repowering. Date certified by SNA shall be considered as date of Repowering.
- 29.8 Repowering of Wind Projects selling power to DISCOM:
- i. In case Wind project is selling power to DISCOM under the PPA (under a preferential tariff, REC mechanism, or competitive bidding route), then such wind power generator shall continue to supply generation from the existing capacity prior to repowering as per the terms and conditions of the existing PPA.
  - ii. The generation corresponding to the existing capacity prior to repowering shall be equivalent to the average generation during the last three years prior to the repowering of the wind project, excluding the year in which repowering was undertaken.
  - iii. The additional generation capacity due to repowering may be procured by DISCOM as per Clause No. 16 of this policy, taking into account the RPO requirement and tariff discovered through the competitive bidding process, as may be decided from time to time. However, it will not be binding for the DISCOM to purchase additional power as a result of repowering of wind project and RE developer shall have option to sell power or use for self-consumption.
- 29.9 Repowering of Wind Projects setup under wheeling arrangement:
- i. The consumption of existing wind generation quantum shall be governed by the existing wheeling and transmission agreement.

- ii. Existing generation quantum shall be determined based on average generation in the previous 3 financial years prior to repowering, excluding the year in which repowering was undertaken. The wheeling of additional generation over and above the existing generation quantum will be governed as per the provisions of this policy.
- iii. The Wheeling Agreement shall have to be modified or amended to give effect of the same.
- iv. If the incremental capacity post-repowering is offered to concerned DISCOM, the same may be procured by DISCOM in accordance with Clause No. 16 of this policy.

29.10 For existing wind projects completing 25 years of life from the date of CoD, the extensions in connectivity by STU and land lease extensions by GEDA shall be granted only upon repowering of the existing wind turbine generators. Additional wind capacity due to repowering will be governed by Clause No. 29.6 and 29.7, as applicable.

29.11 The dismantling and de-commissioning of existing RE projects, land acquisition, augmentation of the transmission system up to the GETCO / STU sub-station, renewal of leases, renewal of consents, etc. shall be at the cost, risk, and responsibility of the RE developer.

29.12 The wind projects undergoing repowering shall be exempted from the obligations under the existing PPA for non-availability of generation during the period of execution of such repowering, subject to a maximum period of four months. Similarly, in the case of repowering by wind power project set up under wheeling arrangement, the wind project shall be allowed to purchase power from the grid during the period of execution of repowering upon payment of tariff to concerned DISCOM as applicable to respective consumer category.

29.13 The 'Gujarat Repowering of Wind Projects Policy 2018' notified vide G.R. dated May 21, 2018 stand superseded.

### **30. Sharing of Carbon Credit benefits**

30.1 RE projects are eligible for Carbon credits which include CERs, VERs, Gold Standards, or any other standards adopted at the national or international level for the issuance of carbon credits for renewable energy projects.



30.2 For all the projects installed through the competitive bidding process, carbon credits can be availed of and retained by the RE developer. Further, for the projects for which tariff is determined by GERC, the sharing of carbon credit benefits shall be as per tariff order of GERC.

30.3 Rooftop solar/wind projects that are implemented under the scheme of the central or state government, as the case may be, shall have to pass the benefit of carbon credits to the DISCOM.

### **31. Regulations**

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

### **32. Mid-term review**

32.1 The State Government may undertake a mid-term review of this policy in view of any technological breakthrough or to remove any difficulty and/or inconsistency with the Electricity Act 2003, as amended from time to time.

32.2 However, the projects that have already obtained the registration shall continue to be eligible for benefits as prescribed in this policy.

### **33. Solar Projects registered under Gujarat Solar Policy 2021:**

Solar power projects which are registered with GEDA before notification of this policy, shall have option to avail the benefits of Solar Power Policy 2021 by commissioning registered solar project within six months from the notification of this policy or to govern as per the provisions of this policy.

### **34. Wind Projects registered under Gujarat Wind Policy 2016:**

Wind power projects which are registered with GEDA as per provisions of Gujarat Wind Policy 2016 as amended and extended from time to time, before notification of this policy, but not commissioned until effective date of this policy shall be eligible to avail the benefits under the Wind Power Policy-2016 if the registered projects are commissioned by 31/12/2023. All the projects commissioned after 31/12/2023 will be governed as per the Gujarat Renewable Energy Policy-2023.

### **35. Power to remove difficulties:**

- 35.1 If any difficulty arises in giving effect to this policy, the state government may issue clarification or interpretation to remove such difficulties, either on its own motion or based on representations from stakeholders.
- 35.2 The Energy and Petrochemicals Department shall amend, review, relax, or interpret any of the provisions under this policy as and when required. If any difficulty arises in giving effect to any provision of this policy, the Energy and Petrochemicals Department shall issue clarifications and interpretations to such provisions of the policy as may appear to be necessary and expedient for removing the difficulties, either on its own or after hearing those parties who have represented a change in any provision.

### **36. Power to interpret**

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

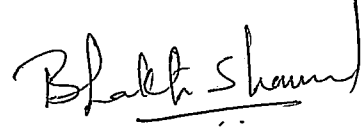
### **37. References**

- MoP G.S.R. 418(E), Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 Dated 6 June 2022 and its amendments
- MNRE F. No. 238/78/2017-Wind, Guidelines for Tariff Based Competitive Bidding Process for procurement of power from Grid Connected Wind Solar Hybrid Projects Dated 14 Oct 2020 and its amendments
- MoP No. 23/27/2017-R&R.—Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects Dated 3 Aug 2017 and its amendments
- MoP No. 23/54/2017-R&R, Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Wind Power Projects Dated 8 December 2017 and its amendment
- MNRE F.No. 283/54/2018-GRID Solar – Part (1), List 1 (Manufacturers and models of solar PV modules) of ALMM order,2019 – Reg, as updated from time to time
- MNRE Wind Turbine Models included in the RLMM after the declaration of new procedure (i.e. 01 November 2018) and as updated from time to time.

Detailed guidelines for the implementation of this Policy will be issued separately by EPD.

This issues with the concurrence of the Finance Department on the Department's file of even number.

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



(Bhakti Shama)

**Joint Secretary to Government  
Energy & Petrochemicals Department**

**Copy FWCs to:**

- 1) \*The Principal Secretary to Hon. Governor of Gujarat, Raj Bhavan, Gandhinagar.
- 2) The Addl. Chief Secretary to Hon. Chief Minister, Sachivalaya, Gandhinagar.
- 3) The P.S. to Hon. Minister (Fin. and E&P), Sachivalaya, Gandhinagar.
- 4) The Secretary, Ministry of Power, Government of India, Shram Shakti Bhavan, New Delhi.
- 5) The Secretary, Ministry of New & Renewable Energy, CGO Complex, New Delhi.
- 6) The Secretary, Central Electricity Regulatory Commission, New Delhi.
- 7) The Chairman, Central Electricity Authority, New Delhi
- 8) The Addl. Secretary to Chief Secretary, Sachivalaya, Gandhinagar.
- 9) The Addl. Chief Secretary, Finance Department, Sachivalaya, Gandhinagar
- 10) \*The Secretary, GERC, Gift City, Gandhinagar.
- 11) \*The Registrar, Gujarat High Court, Ahmedabad.
- 12) \*The Secretary, Vigilance Commission, Gandhinagar.
- 13) The Principal Secretary, Climate Change Department, Sachivalaya, Gandhinagar.
- 14) \*The Secretary, Gujarat Legislature Secretariat, Sachivalaya, Gandhinagar.
- 15) The Resident Commissioner, Gujarat State, New Delhi
- 16) The Account General, Ahmedabad/ Rajkot.
- 17) All Departments of Secretariat, Sachivalaya, Gandhinagar.
- 18) The Chairman, Power Finance Corpo. Ltd, New Delhi
- 19) The Managing Director, Gujarat Urja Vikas Nigam Ltd, Vadodara
- 20) The Managing Director, Gujarat Power Corporation Ltd, Gandhinagar.
- 21) The Director, Gujarat Energy Development Agency, Gandhinagar.
- 22) The Managing Director, Uttar Gujarat Vij Company Ltd, Mehsana.
- 23) The Managing Director, Madhya Gujarat Vij Company Ltd, Vadodara.

- 24) The Managing Director, Dakshin Gujarat Vij Company Ltd, Surat.
  - 25) The Managing Director, Paschim Gujarat Vij Company Ltd, Rajkot.
  - 26) The Managing Director, Gujarat State Electricity Corpo. Ltd, Vadodara.
  - 27) The Managing Director, Gujarat Energy Transmission Corpo. Ltd, Vadodara.
  - 28) The Chief Electrical Inspector & Collector of Electricity Duty, Gandhinagar.
  - 29) The Director, Torrent Power Ltd, Samanvay, 600, Tapovan, Ambavadi, Ahmedabad
- \*By Letter.