TARIFF FRAMEWORK FOR PROCURMENT OF POWER BY DISTRIBUTION LICENSEES AND OTHERS FROM WIND POWER PROJECTS FOR THE STATE OF GUJARAT

August 2024

Gujarat Electricity Regulatory Commission

6th Floor, GIFT ONE, Road 5-C,
Zone 5, GIFT City, Gandhinagar-382355,
Gujarat, India.

Table of Contents

Abbreviations 5

1. INTRODUCTION 8

1.1. Background 8

1.2. The Electricity Act, 2003 9

1.3. Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 10

1.4. National Electricity Policy (NEP) 11

1.5. Tariff Policy 2016 12

1.6. Gujarat Renewable Energy Policy 2023 15

1.7. GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. 20

Renewable Purchase Obligation in Gujarat 20

1.8. Discussion Paper on Tariff framework for Wind Power Projects and other Commercial issues 21

1.9. Public Hearing 22

2. COMMENTS AND SUGGESTIONS ON PROPOSED TARIFF FRAMEWORK, AND COMMISSION'S VIEWS 23

2.1 Clause 3.1: Tariff Framework 23

2.2 Clause 3.2 (a): Control Period 26

2.3 Clause 3.2. (e): Eligibility Criteria 28

2.4 Clause 3.2 (e): Forecasting and Scheduling for Wind Power: 29

2.5 Clause 3.2 (f): Applicability of Merit Order Dispatch Principle 32

2.6 Clause 3.3: Transmission and Wheeling Charges 33

2.7 Clause 3.4 Metering Point & Interconnection Point 43

2.8 Clause 3.5: Pricing of Reactive Power 47

2.9 Clause 3.7 Banking Facility and Energy Accounting 49

2.10 Clause 3.8 Security Deposit & Delay in Commissioning of Wind Power Project 53

2.11 Clause 3.9 Exemptions from Demand Cut 56

2.12 Clause 3.10: Sharing of Clean Development Mechanism (CDM) Benefits 57

2.13 Clause 3.12: Procedure for Integration of Wind Power project with the grid 58

2.14 Clause 3.13: Commissioning of the Wind Power Project 59

3. TARIFF FRAMEWORK, GENERAL PRINCIPLES AND OTHER COMMERCIAL CONSIDERATIONS 61
3.1. Tariff Framework 61
Projects above threshold limit 61
3.2. General Principles 61
3.3. Transmission and Wheeling Charges 64
3.4. Metering Point & Interconnection Point 67
3.5. Pricing of Reactive Power 69
3.6. Operation and Maintenance of dedicated lines 70
3.7. Banking facility & Energy Accounting 70
3.8. Security Deposit 73
3.9. Sharing of Clean Development Mechanism (CDM) Benefits 75
3.10. Repowering of Wind Power Projects 75
3.11. Procedure for Integration of Wind Power project with the grid 75
3.12. Commissioning the Wind Power Project: 79
4. DETERMINATION OF TARIFF FOR WIND POWER PROJECTS BELOW THE THRESHOLD LIMIT OF ELIGIBILITY (below 10 MW) 81
4.1. Threshold limit for participating in Competitive Bidding Process 81
4.2. Benchmark Capital Cost 82
4.3. Operation & Maintenance Cost 83
4.4. Capacity Utilization Factor 84
4.5. Debt Equity Ratio 85
4.6. Interest on term loan and Loan tenure 85
4.7. Depreciation 86
4.8. Working Capital and Interest on Working Capital 86
4.9. Return on Equity 87
4.10. Discount Rate 88
4.11. Accelerated Depreciation 88
4.12. Computation of generic tariff for Wind Power projects below threshold limit (below 10 MW) for New Control Period 89
4.13. Applicability of the Order 91

List of Stakeholders communicated their views/comments/suggestions on the Discussion Paper 92

Annexure II 93

List of Stakeholders who attended the Public Hearing on 08.04.2024 and submitted their views/comments/suggestions on the subject matter. 93

Abbreviations

%	Percentage
ABT	Availability-Based Tariff
AC	Alternating Current
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
COD	Date of Commercial Operation
CUF	Capacity Utilization Factor
DISCOM	Distribution Companies
DRE	Distributed Renewal Energy
FY	Financial Year
GEDA	Gujarat Energy Development Agency
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Ltd.
GEOA	Green Energy Open Access
GoG	Government of Gujarat
GoI	Government of India
GUVNL	Gujarat Urja Vikas Nigam Limited
KV	Kilo Volt
kW	Kilo Watt
kWh	Kilo Watt hours
kVA	Kilo Volt Ampere
M	Meter
m/s	meter per second
MNRE	Ministry of New and Renewable Energy
MW	Mega Watt
NEP	National Electricity Policy
OA	Open Access
O&M	Operation and Maintenance
PPA	Power Purchase Agreement
PV	Photovoltaic
R&D	Research & Development

RE	Renewable Energy
REC	Renewable Energy Certificate
RPO	Renewable Purchase Obligation
Rs	Rupees
SECI	Solar Energy Corporation of India
SERC	State Electricity Regulatory Commission
SNA	State Nodal Agency
STU	State Transmission Utility
T&D	Transmission & Distribution
V	Volt
WTG	Wind Turbine Generator

Order No. 05 of 2024

In the matter of:

Tariff Framework for Procurement of Power by Distribution licensees and Others from Wind Power Projects for State of Gujarat.

Date of the Order: 31/08/2024

CORAM:

Anil Mukim, Chairman

Mehul M. Gandhi, Member

S. R. Pandey, Member

1. INTRODUCTION

1.1. Background

In exercise of the powers conferred under Sections 3 (1), 61 (h), 62 (1) (a), and 86 (1) (b)& (e) of the Electricity Act, 2003, National Electricity Policy, 2005, and Tariff Policy, 2016 and all other powers enabling it in this behalf, the Gujarat Electricity Regulatory Commission (GERC or Commission) presents this Order on Tariff framework for Procurement of Power by Distribution Licensees and Others from Wind Power Projects commissioned during the Control Period defined in this Order.

The Commission previously had issued Order No.02 of 2020 dated 30.04.2020 read with Order No 04 of 2020 dated 26.05.2020 on *"Tariff Framework for Procurement of Power by Distribution Licensees from Wind Power Projects and Others Commercial issues for the State of Gujarat"*. The said Orders provides that it shall be applicable to the project commissioned during the Control Period specified in the Order i.e. up to 31.03.2022. Therefore, in order to give effect to the provisions of Green Energy Open Access Rules 2022 notified by Ministry of Power, Government of India under the Electricity Act, 2003 as effective from 06.06.2022 and specifically when there was no tariff order of the Commission as on 06.06.2022 for tariff framework on Wind Power Project, the Commission decides to defined the control period of this tariff order to be made effective from 06.06.2022 in the discussion paper. The Wind Power Projects commissioned during the intervening period from 01.04.2022 to 05.06.2022 shall be governed by the provisions of Order No. 02 of 2020 dated 30.04.2020 read with Order No. 04 of 2020 dated 26.05.2020. Accordingly, the Control period of Order No. 2 of 2020 dated 30.04.2020 read with Order No. 04 of 2020 dated 26.05.2020, shall deemed to be extended up to 05.06.2022.

The Commission while framing the discussion paper considered the Policy & Regulatory provisions outlined in the Electricity Act, 2003 and Policies and Rules and Regulations framed under the Act, Gujarat Renewable Energy Policy 2023 as well Tariff based Competitive Bidding Guidelines for Wind Energy projects notified by Ministry of Power, Government of India.

1.2. The Electricity Act, 2003

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

Section 3 (1) of the Act requires the Central Government to formulate, inter alia, the National Electricity Policy in consultation with the Central Electricity Authority (CEA) and State Governments for inter-alia, development of the renewable sources of energy. The provision is reproduced as under:

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

Section 61 (h) of the Electricity Act, 2003 provides as under:

"61. Tariff Regulations. The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely**: -**

"…….

(h) the promotion of co-generation and generation of electricity from renewable sources of energy"

Section 62 (1) (a) of the Electricity Act, 2003 provides as under:

"62. Determination of Tariff. – *(1) The Appropriate Commission shall determine the tariff in accordance with the provisions of this Act for:*

- *(a) supply of electricity by a generating company to a distribution licensee:*

Provided that the Appropriate Commission may, in case of shortage of supply of electricity, fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an

agreement, entered into between a generating company and a licensee or between licensees, for a period not exceeding one year to ensure reasonable prices of electricity.

……"

Section 86 (1) (b) & 86 (1) (e) of the Electricity Act, 2003 states as under**:**

86. Functions of State Commission – (1) *The State Commission shall discharge the following functions, namely: -*

"----------

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

……..

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

1.3. Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022

The Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 were notified on 6th June 2022 with amendments dated 27th January 2023 & 13.05.2023 to facilitate use of Renewable Energy (RE) by the consumers and to further accelerate India's RE programs. The aforesaid Rule provides that the tariff for the supply of green energy by Distribution Licensee shall be determined separately by the Appropriate Commission based on the Average Pooled Power Purchase Cost of the renewable energy, cross-subsidy charges (if any), and service charges covering the prudent cost of the distribution licensee for providing the green energy.

The Rules provide that consumers who have contracted demand or sanctioned load of Hundred (100) kW or more, either through single connection or through multiple connections aggregating Hundred (100) kW or more located in same electricity division of distribution licensee, shall be eligible to source power through Green Energy Open Access. Further, there shall be no capacity restriction for setting up of RE projects for captive use with respect to consumers' contract demand/ sanctioned load.

The Rules recommends Banking facility for the RE projects set up for captive use and third party sale and specifies applicability of Open Access Charges, Cross Subsidy Charge, Additional Surcharge and treatment of un-utilized banked energy in case of OA transaction under third party sale and captive use.

The Rules provides that it shall come in force from the date of its Notification i.e. with effect from 06.06.2022.

1.4. National Electricity Policy (NEP)

Clause 5.2.20 of the NEP stipulates the need for fully exploiting the feasible potential of non-conventional energy sources, as reproduced below:

"5.2.20 Feasible potential of non-conventional energy resources, mainly small hydro, wind and bio-mass would also need to be exploited fully to create additional power generation capacity. With a view to increase the overall share of non-conventional energy sources in the electricity mix, efforts will be made to encourage private sector participation through suitable promotional measures."

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

"----------

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

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

5.12.1: Non-conventional sources of energy being the most environment-friendly, there is an urgent need to promote generation of electricity based on such sources of energy. For this purpose, efforts need to be made to reduce the capital cost of projects based on non-conventional and renewable sources of energy. Cost of energy can also be reduced by promoting competition within such projects. At the same time, adequate promotional measures would also have to be taken for development of technologies and a sustained growth of these sources. Progressively, the share of electricity from non-conventional sources would need to be increased as prescribed by State Electricity Regulatory Commissions. Such purchase by distribution companies shall be through competitive bidding process. Considering the fact that it will take some time before non-conventional technologies compete, in terms of cost, with conventional sources, the Commission may determine an appropriate differential in prices to promote these technologies.

1.5. Tariff Policy 2016

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

"----------

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

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

"----------

6.4 – Renewable sources of energy generation including co-generation from renewable energy sources

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

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

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

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

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

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

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

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

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

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

5) In order to promote renewable energy sources, any generating company proposing to establish a coal/lignite based thermal generating station after a specified date shall be required to establish

such renewable energy generating capacity or procure and supply renewable energy equivalent to such capacity, as may be prescribed by the Central Government from time to time after due consultation with stakeholders. The renewable energy produced by each generator may be bundled with its thermal generation for the purpose of sale. In case an obligated entity procures this renewable power, then the SERCs will consider the obligated entity to have met the Renewable Purchase Obligation (RPO) to the extent of power bought from such renewable energy generating stations.

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

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

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

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

1.6. Gujarat Renewable Energy Policy 2023

Government of Gujrat vide G.R. No. REN/e-file/20/2023/0476/B1 dated 4th October 2023 has notified Gujarat Renewable Energy Policy 2023. The Gujarat Renewable Energy Policy, 2023, aims to tap the renewable energy potential of State in a maximum possible manner. The policy

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

Some important provisions of this Policy are listed below:

- The Policy states that 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 the Policy and in accordance with the provisions of the Electricity Act 2003, as amended from time to time.

- 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 DlSCOMs. The AC capacity of the RE project shall be considered as the project installed capacity.

- 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.

- 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.

- For utilization of State transmission / distribution network for wheeling of power from RE projects located within the state or from outside the State for consumption at 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

- 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, 2003. 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.

- 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.

- GUVNL shall be implementing, facilitating and monitoring agency for this policy while GEDA shall act as the State Nodal Agency (SNA) for implementation of policy.

- The provisions related to Re-powering of Wind Power Project in the RE Policy, 2023 is as under:

  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 DlSCOM:

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 three (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 concern 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.

1.7. GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

The Commission has notified the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. While notifying the present tariff framework, the Commission has also considered the provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. The GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 stipulates various provisions related to grant of Open Access from Green Energy Generating Projects for consumption of green energy for captive use as well as purchase of green energy from third party generators including provisions related to energy banking facility, banking charges, energy settlement mechanism, applicability of various open access charges, etc.

Renewable Purchase Obligation in Gujarat

The Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources), (Third Amendment) Regulations, 2022 dated 08.04.2022 has specified the minimum renewable power purchase by the obligated entities for the FY 2017-18 to FY 2024-25 as shown in Table No. 1 below.

Table 1: Renewable Purchase Obligation in Gujarat for FY 2017-18 to FY 2024-25

Financial Year	Minimum Quantum of Purchase (in %) from Renewable Energy Sources (in terms of energy in kWh)				
	Wind	**Solar**	**Hydro Power Purchase Obligation (HPO)(%)**	**Others (Biomass, Bagasse, Hydro and MSW) (%)**	**Total (%)**
2017-18	7.75	1.75		0.50	10.00
2018-19	7.95	4.25		0.50	17.02
2019-20	8.05	5.50		0.75	14.30
2020-21	8.15	6.75		0.75	15.65
2021-22	8.25	8.00		0.75	17.00
2022-23	8.25	8.00		0.75	17.00

2023-24	8.40	9.50	0.05	0.75	18.70
2024-25	8.55	11.25	0.10	0.80	20.70

(Source: GERC (Procurement of Energy from Renewable Sources) (Third Amendment) Regulations, 2022)

As per the GERC' RPO Regulations, the obligated entities have the obligation to purchase electricity (in kWh) from specified RE sources. The said purchase shall be at a defined minimum percentage of the total consumption of its consumers including T&D losses during a year.

This Renewable Purchase Obligation applies to:

- distribution licensees; and
- any other captive and open-access users consuming electricity (i) generated from conventional captive generating plant having capacity of 5 MW and above for their own use and/or (ii) procured from conventional generation through open access and third-party sale.

The aforesaid Regulations also provides that the targets specified for Obligated Entities for FY 2024-25 shall be continued beyond for FY 2025-26 and onwards unless specified by the Commission separately.

Further, this Regulation recognises the certificates issued within the scope of Central Electricity Regulatory Commission's (CERC) Renewable Energy Certificate (REC) as the valid instruments for the discharge of the mandatory obligations set out in these Regulations for the obligated entities to purchase electricity from renewable energy sources termed as Renewable Energy Certificates (REC).

1.8. Discussion Paper on Tariff framework for Wind Power Projects and other Commercial issues

The Commission considered the MNRE Policy and Guidelines related to Wind Power Projects along with the MoP's Electricity (Promoting Renewable Energy through Green Energy Open Access) Rules 2022 & its subsequent amendments.

The Commission has considered the provisions of Gujarat Renewable Energy Policy 2023 notified by Government of Gujarat along with the competitive discovered tariffs for purchase of energy from Wind Projects during the control period of previous tariff order, while proposing the tariff framework for the next control period in the Discussion Paper.

Accordingly, the Discussion Paper was published by the Commission and Public Notices in this regard were issued on 02.03.2024 in English and Gujarati Daily Newspapers and also uploaded on the Commission's website *www.gercin.org* in downloadable format, for inviting comments/objections/suggestions from stakeholders by 04.04.2024.

A list of stakeholders communicated their views on the Discussion Paper is provided at **Annexure-I.**

1.9. Public Hearing

The Commission examined the objections / suggestions received on the discussion paper.

The Commission fixed the date for public hearing on the proposed Tariff framework for wind energy Projects on 05.04.2024 at the Commission's Office, Gandhinagar. A list of stakeholders participated in the public hearing and presented their objections/suggestions is provided at **Annexure-II.**

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

2. COMMENTS AND SUGGESTIONS ON PROPOSED TARIFF FRAMEWORK, AND COMMISSION'S VIEWS

2.1 Clause 3.1: Tariff Framework

2.1.1 Proposed in Discussion Paper

The Ministry of Power, Government of India has notified Competitive Bidding Guidelines for Procurement of Power from grid connected Wind Power Projects, initially on 08.12.2017 which were recently modified on 26.07.2023. The Commission has directed the distribution licensees to procure power from the Wind Power Projects at tariff discovered through competitive bidding process under Section 63 of the Act by following Competitive Bidding Process followed by SECI/MNRE etc.

In the discussion paper, the Commission had proposed following tariff framework for the Wind Power Projects that are above/ below the threshold limit specified in Competitive Bidding Guidelines published by the Ministry of Power, Government of India.

Projects above threshold limit

The distribution licensees shall continue to procure electricity from the prospective Wind Projects through competitive bidding under Section 63 of the Act or by following competitive bidding process followed by SECI/MNRE etc. Further, the distribution licensees may approach the Commission for adoption of the tariff discovered through such Competitive Bidding Process.

Projects below threshold limit

In case of tariff for Wind Power Projects below the threshold limit of eligibility (25 MW) for participating in Competitive Bidding, two options were proposed in the discussion paper as given below:

a) Tariff for Wind Power Projects falling below the threshold limit of eligibility, shall be considered as lowest of the weighted average tariff for Wind Energy, available as on 1st April, as discovered in the competitive bidding undertaken by GUVNL/Distribution Licensees and SECI during previous six months (October to March) or available as on 1st October, as discovered in the competitive bidding undertaken by GUVNL/Distribution Licensees and SECI during previous six months (April to September), depending on

commissioning date of Wind project capacity subject to adoption of discovered tariff by the Commission, and such tariff shall remain fixed for the 25 year.

b) Tariff for Wind power projects falling below the threshold limit of eligibility shall be determined by the Commission under Section (62) of the Act as proposed in Chapter 4 of the discussion paper.

The Commission would firm up its decision regarding suitable option for Tariff determination for Wind power projects falling below the threshold limit of eligibility after examining the comments/suggestions received from the stakeholders.

2.1.2 Suggestions/Objections of the Stakeholders

GUVNL suggested that the tariff for Wind Power Project capacity below threshold limit of eligibility should be in line with Gujarat RE Policy, 2023. Further, it is suggested to exclude SECI bids and only retain GUVNL bids for allowing tariff for wind capacity below threshold limit. GUVNL suggested to remove the word "depending upon commissioning date of wind project" as the same may create confusion in terms of adopted tariff since the commissioning period may vary based on bucket of capacity tendered through Competitive Bidding Process.

GUVNL further suggested that the tariff for Wind Power Projects below the threshold limit shall be specified as the simple average of tariff discovered, contracted under the competitive bidding process conducted by GUVNL and adopted by the commission preceding 6-month period i.e., either April to September or October to March, as the case maybe, 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. If the tariff is not available for preceding 6- month period; then available tariff of latest 6-month tariff shall be considered. Further, the threshold limit for Wind Power Projects may be reduced from 25 MW to 10 MW as per the revised Guidelines issued by the Ministry of Power, Govt. of India.

Indian Wind Energy Association suggested to specify highest of the tariff under following two options for Wind Power Project falling below threshold limit.

a. Simple Average Tariff for wind power project available as on 1st April, as discovered in the competitive bidding mechanism undertaken by GUVNL/Distribution Licensees of Gujarat during previous six months (October to March) or as available on 1st October, as discovered in the competitive bidding mechanism undertaken by GUVNL/Distribution Licensees of Gujarat during previous six months (April to September) depending on commissioning date of Wind Project Capacity subject to adoption of discovered tariff by the Commission and such tariff shall remain fixed for the 25 years.

b. Tariff for Wind Power Projects falling below the threshold limit of eligibility as determined by the Commission under Section 62 of the Act as proposed in Chapter 4 of the discussion paper.

TPL-D suggested that the existing methodology of determination of tariff as weighted average of lowest tariff discovered by GUVNL in previous six months be continued for the Wind Power Project below threshold limit

2.1.3 Analysis and Commission's Ruling

The Commission has carefully gone through the submissions made by the stakeholders and provisions outlined under the Gujarat Renewable Energy Policy 2023. The Commission noted that the threshold limit of Wind Power Project to participate in competitive bidding has been specified as 10 MW in the Tariff based competitive bidding guidelines for Wind Energy projects notified by MNRE on 26.07.2023. The Commission also has to keep in mind the tariff related provisions specified in the Electricity Act 2003 and the Tariff Policy 2016. After considering all the relevant aspects, the Commission decided to specify following tariff framework for Procurement of Power from Wind Energy Projects above/ below the threshold limit specified in Competitive Bidding Guidelines published by the Ministry of Power, Government of India.

Projects above threshold limit

As recommended in Clause 6.4 (2) of the Tariff Policy, the distribution licensees shall continue to procure electricity from the eligible Wind Power Projects through competitive bidding under Section 63 of the Act or by following Competitive Bidding Process followed by SECI/MNRE etc.

Further, the Distribution Licensees may approach the Commission for adoption of the tariff discovered through such Competitive Bidding Process.

Projects below threshold limit

The Commission noted that as per the revised Competitive Bidding Guidelines issued by the Ministry of Power, Govt. of India, the threshold limit for Wind Power Projects to participate in competitive bidding process is 10 MW. The Section 62 of the Electricity Act empower the Commission to determine the tariff for supply of electricity by a generating company to the distribution licensee. While doing so the Commission is guided by the terms and conditions specified by the Commission for determination of tariff under Section 61 of the Act. For Wind Power Projects below the threshold limit of 10 MW, the Commission deemed it more appropriate to determine the tariff under Section 62 of the Act.

Accordingly, the Commission has determined the generic tariff for such projects as discussed in the Chapter 4 of this Order**.**

2.2 Clause 3.2 (a): Control Period

2.2.1 Proposed in Discussion Paper

The Commission proposes that the control period of the tariff framework under this discussion paper shall be effective from 06.06.2022 up to 31.03.2027.

2.2.2 Suggestions/Objections of the Stakeholders

GUVNL submitted that the State Government has notified Gujarat Renewable Energy Policy, 2023 on 04.10.2023, in which control period of Gujarat Wind Policy, 2016 has extended up to 31.12.2023. Therefore, in order to have operational ease, it will be more prudent to start the control period of wind tariff order from 01.01.2024 with applicability for next 5 years. GUVNL suggested that the Control Period of the Commission's previous Order No. 02 of 2020 may be extended up to 31.12.2023**.**

Ganesha Wind Park Private Limited / OP Wind Energy Private limited and Opera Energy Private Limited submitted that the control period of the new tariff order should be effective

from 01.01.2024 to 31.03.2029 stating that the expired Wind Power Policy 2016 was extended up to 31.12.2023.

Indian Wind Energy Association (InWEA) submitted that the order should be made effective prospectively. The retrospective applicability of Order undermines the legal Principles and leading to investment uncertainty. InWEA further submitted that in the recent past also the Hon'ble Commission has extended the control period of the wind tariff order till the issuance of the new wind tariff order. ln the same line, the wind energy stakeholder, entered into contracts based on existing wind tariff order and policy. Retrospective regulations can disrupt these contractual arrangements, leading to disputes and undermining contractual stability.

TPL-D pointed out that the Commission in its Order No. 03 of 2020, has concluded that it is not appropriate to make any dispensation effective retrospectively as projects set up in the intervening period cannot be subjected to a dispensation that has been decided after a public process at a later date, Accordingly, the Commission had extended the then existing order till the date of issuance of the Order No. 03 of 2020. Further, the Gujarat Renewable Energy Policy 2023 has given saving to the existing projects set up under the earlier Policy.

Accordingly, TPL-D suggested to define the control period of the present order from date of its notification considering the complexities in terms of commercial aspects such as energy accounting and settlement, adjustment of banking units, open access charges. etc.

2.2.3 Analysis and Commission's Ruling

The Commission has gone through the suggestions received from the stakeholders. The Commission also noted that the Order No. 02 of 2020 dated 30.04.2020 for Wind Power Project having control period up to 31.03.2022 and thereafter, no extension in control period of said order is granted.

The Commission has noted that the Ministry of Power, Government of India has notified the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 on 6th June 2022 outlining the policy and regulatory provisions for promotion of renewable sources of energy through Open Access. Further, the MoP Rules are effective from the date of its

Notification, i.e. from 06.06.2022. The Commission also notes that the Wind Tariff dated 30.04.2020 was having control period only up to 31.03.2022 and there was no tariff order of the Commission as on 06.06.2022 and also specified in the discussion paper that the new Order shall be effective from 06.06.2022. Accordingly, the control period of previous tariff order dated 30.04.2020 deemed to be extended up to 05.06.2022.

Considering above aspects and to give effect to the provisions of Green Energy Open Access Rules 2022 notified by Ministry of Power, Govt. of India under the Electricity Act, 2003 and specifically when there was no tariff order of the Commission as on 06.06.2022 with regard to Wind Power Project tariff framework, the Commission found it more appropriate to adopt the policy and regulatory provisions outlined in MoP' Green Energy Open Access Rules, 2022 and defined the Control Period of new tariff order to be made effective from 06.06.2022 in the discussion paper also. Accordingly, the Commission decides to define the Control Period of this tariff framework effective from 06.06.2022 to 31.03.2027. The projects which are commissioned during aforesaid Control Period shall be governed by the provisions MoP's Green Energy Open Access Rules, 2022, read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and this Order of the Commission and eligible for the benefits stipulated in this Order. Further, Wind Power Projects commissioned during the Control Period of this Order shall be liable to pay applicable Open Access charges and provisions related to banking facility, energy accounting etc. and shall be governed by this Order read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

2.3 Clause 3.2. (e): Eligibility Criteria

2.3.1 Proposed in Discussion Paper

The Wind Power Projects using new Wind Turbine Generators installed and commissioned during the new control period as proposed in this discussion paper will be eligible to sell power to distribution licensees of Gujarat at the tariff proposed by the Commission and shall be eligible for wheeling of energy for Captive Use/ Third party sale under open access.

2.3.2 Suggestions/Objections of the Stakeholders

GUVNL suggested to provide that Wind Power Project using new WTGs signing PPA during the control period of this Order and commission the WTG as per the terms of PPA shall be eligible to sell power to DISCOMs and wheel power under Open Access. It is further suggested to clarify that DISCOM shall purchase power only through competitive bidding process and only wind project capacity below threshold limit can supply power to DISCOMs at a tariff proposed by GERC in the Order.

It also suggested to clarify that splitting of capacity in name of different Companies of the same promoters at the adjacent location may not be allowed for qualifying the project below threshold limit

2.3.3 Analysis and Commission's Ruling

The Commission finds merit in the submission of GUVNL in regard to project commissioning timelines for the Wind Power Projects supplying power to Distribution Licensee under the PPA. The Commission after examining the practical difficulties pointed out by GUVNL has decided to modify the eligibility criteria as given below:

"the Wind Power Projects using new plant and machineries for which PPA is sign during the control period of this tariff order and commissioned as per PPA terms and conditions shall be considered as eligible to sell power to distribution licensees of Gujarat at the tariff framework decide by the Commission in this Order. Similarly, the Wind Power Projects set up for captive use / third party sale and commissioned during the control period of this Order using new plant and machineries, shall be liable to pay applicable Open Access charges and provisions related to banking facility, energy accounting etc. and shall be governed by this Order read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

The Commission has already deliberated on the aspects of tariff framework for Wind projects below /above threshold limit of participation in bidding process in Clause 2.1 above.

2.4 Clause 3.2 (e): Forecasting and Scheduling for Wind Power:

2.4.1 Proposed in Discussion Paper

In case of ISTS connected Wind Projects (including Inter-State RE projects located in Gujarat & directly connected to ISTS network and supplying power to consumer in Gujarat / outside of Gujarat) energy accounting for deviation shall be as per the CERC Regulations, as under:

…… Provided further that if wind Generating Project is situated in the State of Gujarat and connected with Inter-State grid through State grid and selling power outside/ inside the State, the energy accounting for deviation settlement shall be carried out wherein the deviation charges shall be either (A) Reference Rate or (B) Normal Rate of Charges for deviation, whichever is higher, as per the provision of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024…….

……. Provided also that in case of wind Power projects set up for captive use/ third party sale, the minimum number of time blocks, which shall not be more than 12 time-blocks, for which the consumer shall not change the quantum of power consumed through Green Energy Open Access so as to avoid variations in demand to be met by the distribution licensee.

2.4.2 Suggestions/Objections of the Stakeholders

SLDC has made reference to Petition No. 2061/2022 filed with the Commission seeking for amendment in Notification No. 1 of 2019, GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019. SLDC requested to take cognizance of the said Petition.

SLDC further suggested certain changes with regard to energy accounting for deviation settlement as follow:

Provided further that if Wind Power Project is situated in the State of Gujarat and connected with State grid and selling power outside the State, the energy accounting for deviation settlement shall be carried out wherein the deviation charges shall be either (A) Reference Rare or (BJ Normal Rate of Charges, whichever is higher, for deviation for shortfall of energy and any surplus energy shall be considered as inadvertent energy, as per the provision of GERC (Terms and Conditions of Green Energy Open Access) Regulations, 2024 and GERC (Forecasting, Scheduling,

Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019 and approved procedure thereof.

GUVNL submitted that from the clause it is unclear that, up to how many blocks a consumer is allowed to modify in their requisitions. As per said clause, it should not exceed 12 blocks, but it is not clear whether consumers are allowed to modify just one block or more. Therefore, it is suggested to modify the same to avoid confusion.

TPL-D submitted that if the consumers are given the flexibility to alter the quantum of green power purchased through open access after twelve (12) time block, it will have adverse effect on DISCOMs considering substantial penetration of Wind Injecting Power. Considering above, TPL-D suggested following changes forecasting scheduling mechanism

- The consumers opting for sourcing Wind Power through captive/third party mode should be mandated to ensure that the drawl of power during peak hours does not exceed the drawl of power during off-peak hours.

- Alternatively, consumers using such wind power project should be mandated to provide advance schedule, 4 hours before DISCOM finalizes its schedule on day ahead basis, and for any deviation attributable to such consumers, implication is to be borne by these consumers only.

2.4.3 Analysis and Commission's Ruling

The Commission has gone through the submission of the stakeholders. The Commission is of the opinion that the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019 has provisions with regard to energy accounting and deviation settlement in respect of Wind/ Solar Power Projects.

The provision of the minimum number of time blocks, which shall not be more than 12 time-blocks, for which the consumer shall not change the quantum of power consumed through Green Energy Open Access are incorporated as per the provisions of MoP' Electricity

(Promoting Renewable Energy through Green Energy Open Access) Rules, 2022. Therefore, no change is required in this provision.

The Commission has also noted that SLDC has filed Petition No. 2061 of 2022 seeking amendment of the GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019. The Commission will look into the matter and take appropriate decision in this regard.

In view of above, the Commission decided to keep the Forecasting and Scheduling related provisions for Wind Power Projects as proposed in the discussion paper.

2.5 Clause 3.2 (f): Applicability of Merit Order Dispatch Principle

2.5.1 Proposed in Discussion Paper

The Commission proposes to continue the practice of considering the wind power plants irrespective of plant capacity as 'MUST RUN' power plants and shall not be subjected to 'Merit Order Despatch' principles.

2.5.2 Suggestions/Objections of the Stakeholders

GUVNL submitted that MoP, GoI Guidelines for Tariff Based Competitive Bidding Process for Procurement Power from Grid Connected Wind Power Projects dated 26.07.2023 allows for backing down /curtailment of Wind Generation subject to conditions of payment of compensation. Therefore, it is suggested to specifically mention that for WTGs supplying power to Distribution Companies, curtailment of wind generation can be made as per PPA terms & conditions in line with Guidelines dated 26.07.2023 notified by MoP, Government of India.

2.5.3 Analysis and Commission's Ruling

The Indian Electricity Grid Code 2023 as well as State Grid Code provides 'Must Run' Status to Renewables, irrespective of the plant capacity and hence, RE plant shall not be subjected to Merit Order Despatch Principle.

The Commission noted that the MoP's Competitive Bidding Guideline dated 28.07.2023 provides compensation mechanism for RE Generator in case of reduced off-take, non-despatch of power due to grid related exigencies. Therefore, in case of Wind Power Projects set up under Competitive bidding route for supply of power to Distribution Licensees, the provisions related to compensation mechanism for non/reduced off-take of power shall be governed by the approved bid documents/PPA.

2.6 Clause 3.3: Transmission and Wheeling Charges

2.6.1 Proposed in Discussion Paper

The Commission has proposed following norms for wheeling of power from wind Energy Projects for third party sale/captive use during the control period.

a) In case of injection of the electricity at 66 KV level or above and drawl of electricity up to 66 KV level, the transmission of energy from the injection point to drawl place shall be allowed by paying transmission charges and losses determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time and Tariff Regulations of the Commission.

b) In case of injection of energy at 66 KV level and drawl of energy below 66 KV voltage level in such case, wheeling of Power for third party sale from Wind Power Projects shall be allowed on payment of transmission charges, transmission losses on energy feed basis as measured at receiving Sub-Station of GETCO, wheeling charges and losses on the energy fed into grid, as determined by the Commission from time to time, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time.

c) In case point of injection and drawl at 11 KV or below levels lies within area of same DISCOM, the wheeling of energy from Wind Project shall be allowed upon payment of

Wheeling Charges and Wheeling Losses of energy fed to grid, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time.

d) The Commission decides to promote the third-party sale /consumption of Wind Energy by allowing 25% concession in the Cross Subsidy Surcharge and Additional Surcharge wherein the RE generator and consumer does not claim RE attribute and allow distribution licensee to avail the same for RPO compliance.

e) No concession in the Cross Subsidy Surcharge shall be allowed to the Wind Energy Generator who are selling power under third party sale and utilizing RE attribute for RPO compliance of the consumer. They shall be liable to pay 100% Cross Subsidy Surcharge and Additional Surcharge as determined by the Commission read with the provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

The provisions related to Cross Subsidy Surcharge and Additional Surcharge shall be governed as per the MoP's Rules and GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 as amended from time to time.

Wheeling of Power for Captive Use

a) In case of injection of energy is at or above 66 KV voltage level and drawl of such energy up to 66 KV voltage level in such case, the transmission of energy from the injection point to drawl place shall be allowed by paying transmission charges and transmission losses determined by the Commission from time to time, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time.

b) In case of injection at 66 KV and drawl below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall be allowed on payment of on payment of transmission charges and transmission losses on energy feed basis as measured at receiving Sub-Station of GETCO, wheeling charges and losses of the energy fed to the grid, determined by the Commission from time to time, as

applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and subsequent amendments in it from time to time.

c) In case point of injection and drawl at 11 KV or below levels lies within area of same DISCOM, the wheeling of energy from Wind Power Project shall be allowed upon payment of Wheeling Charges and Wheeling Losses of energy fed to grid, as applicable to green energy open access transaction as per GERC Green Energy Open Access Regulations, 2024 and amendments in it from time to time.

Provided further that the person consuming energy generated from Wind project for captive consumption shall require to provide the details of ownership in the captive generating plant and generation as well as consumption of energy from captive generating plant to the distribution licensee in whose area of supply, the captive consumer is situated, on annual basis, in accordance with the provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 to ensure that the necessary conditions stipulated in Electricity Rules, 2005 read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 is fulfilled by such captive generating plant and consumption by the captive users. Failure to fulfil the aforesaid conditions, such captive consumption shall loose the status of captive consumption and it shall be qualified as supply by third party by generator and the benefits granted to captive consumption shall be withdrawn for that Financial Year and it shall attract the applicability of the Cross Subsidy Surcharge and Additional Surcharge, if any, as applicable to third party green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time along with delayed payment surcharge thereon.

On receiving of documents/evidence from the captive consumer by the distribution licensee, the distribution licensee shall verify the same in compliance of provisions of Act, Rules and Regulations for captive status of the generator and consumption of energy from such plant and refer the matter to the Commission in case non-compliance of captive status by the generator/captive consumer and also claim the recovery of charges payable

by such consumer on account of not fulfilling of captive generating plant status by the generator or captive consumer.

The Commission shall verify the fact and take the final decision regarding continuation of the captive status of the plant and consumption of energy from such plant as captive consumption for the respective financial year.
The various provisions related to Captive Generating Plant (CGP) and consumption of energy from such plant as stipulated in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 shall be applicable for Wind Power Project.

Wheeling of power to more than one locations

Wind Project Developers, who desire to wheel electricity to more than one location for captive use/third-party sale, shall be allowed on payment of 5 Paise per unit on energy fed into the grid as measured at receiving end Sub-Station of GETCO to the concerned DISCOM in whose area power is consumed, in addition to above mentioned transmission charges & losses and Wheeling charges & losses, as applicable, as per the provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

2.6.2 Suggestions/Objections of the Stakeholders

GUVNL suggested to replace the words "up to 66KV level" by "at 66KV level and above" for better clarity of voltage levels. GUVNL suggested to modify the clause as given below:

"in case of injection of the electricity at 66 KV level or above and drawl of electricity at 66KV level and above, the transmission of energy from the injection point to drawl place shall be allowed by paying transmission charges and losses determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time and Tariff Regulations of the Commission".

GUVNL further pointed out that GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 provides for recovery of applicable Cross Subsidy Surcharge and Additional Surcharge from the open access user. Further, the Green Energy Open Access Rules, 2022 notified by Ministry of Power, Govt. of India also provides for recovery of applicable Cross Subsidy Surcharge and Additional Surcharge from the open access users. GUVNL requested not to provide any concession/exemption in levy of Cross Subsidy Surcharge & Additional surcharge on cross-subsidizing category of Wind open access users considering capacity restriction has already been removed and any under recovery in DISCOMS legitimate charges will result into burden on general body consumers.

SLDC requested to modify the clause 3.3 (a) and (b) pertaining to third party sale as given below:

3.3 (a) In case of injection of the electricity at 66 KV level or above and drawl of electricity at 66 KV level or above, the transmission of energy from the injection point to drawl place shall be allowed by paying transmission charges on sanctioned / allocated transmission capacity and losses as determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time and Tariff Regulations of the Commission.

3.3 (b) In case of injection at 66 KV and drawl below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall he allowed on payment of transmission charges applicable on sanctioned / allocated transmission capacity, transmission losses on energy feed basis, wheeling charges and losses on the energy fed into grid as measured at receiving Sub-Station of GETCO, as determined by the Commission from time to time as applicable green energy open access transaction as per GERC (Green Energy Open Access) Regulations,2024 and amendments in it from time to time read with Tariff Regulations of the Commission.

Similarly, following modification is requested in the clause (a) and (b) pertaining to Wheeling of Power for Captive use.

(a) In case of injection of the electricity at 66 KV level or above and drawl of electricity at 66 KV level or above, the transmission <lf energy from the injection point to drawl place shall

be allowed by paying transmission charges on sanctioned / allocated transmission capacity and losses as determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time and Tariff Regulations of the Commission.

(b) In case of injection at 66 KV and drawl below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall be allowed on payment of transmission charges applicable on sanctioned/allocated transmission capacity, transmission losses on energy feed basis, wheeling charges and losses on the energy fed into grid as measured at receiving Sub-Station of GETCO, as determined by the Commission from time to time as applicable to green energy open access transaction as per GERC Green Energy Open Access Regulations,2024 and amendments in it from time to time read with Tariff Regulations of the Commission

Indian Wind Energy Association requested to levy of transmission charges in Rs./kWh basis instead of Rs./MW/day basis. InWEA further requested for 50% exemption in wheeling charges and losses compared to to normal open access consumer. Similarly, InWEA requested to provide 50% exemption in CSS and AS for all types of third party Open Access.

TPL-D submitted that Transmission Charges and Losses as well as Wheeling Charges and Losses are essentially part of the Tariff determination for the respective Licensee. Accordingly, the applicability of same should be as per the respective Tariff Orders. Further, these arrangements being long term in nature, Transmission charges and Wheeling Charges both should be considered at par in terms of mechanism. Accordingly, both Transmission as well as Wheeling Charges are required to be considered in Rs./MW only.

TPL –D suggested to modify the clause 3.3 pertaining to third party sale and captive use as given below:

"Wheeling of Power for third party sale from Wind Power Projects shall be allowed and payment of transmission charges, transmission losses on energy feed basis as measured at receiving Sub-Station of GETCO, wheeling charges and losses on the energy fed into grid, as determined by the Commission from time to time in the respective tariff order".

Further, TPL oppose the Concessions given on Cross Subsidy Surcharge and submitted that Section 42 of the Electricity Act mandates the payment of cross surcharge in case of third part sale and additional surcharge in case of captive and third party sale, hence no concession shall be given on cross subsidy surcharge and additional surcharge.

2.6.3 Analysis and Commission's Ruling

The Commission has gone through the suggestion received from various stakeholders. The Commission also notes that State Government has notified Renewable Energy Policy, 2023. Further, the Commission also notes that Ministry of Power has notified Green Energy Open Access Rules, 2022. The Commission has notified Green Energy Open Access Regulations, 2024. The Commission considers that for the promotion of Green Energy projects, the benefits be granted in such a manner that it should not result in burden to the end consumer. The Commission has to strike balance between the captive / third party generator supplying/ using electricity in the license area of DISCOM and its impact on the business of the distribution licensees.

In view of this, the Commission do not find any merit for allowing concessional transmission / wheeling chargers and losses as it will burden other consumers. However, the Commission decides to allow concessional Cross Subsidy Surcharge and Additional Surcharge, if any, for a specific Open Access Transaction which result in benefit of both the RE generator and the distribution utility. Accordingly, the Commission decides to modify the relevant clause of this order as under:

Wheeling of power for Third Party Sale

a) In case of injection of the electricity at 66 KV level or above and drawl of electricity at 66 KV level or above, the transmission of energy from the injection point to drawl place shall be allowed by paying applicable transmission charges and losses on energy feed basis as

determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it read with tariff Regulations of the Commission as applicable from time to time.

b) In case of injection of electricity at 66 KV or above and drawl of electricity below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall he allowed on payment of applicable transmission charges & transmission losses on energy feed basis and wheeling charges & wheeling losses on the energy fed into grid as measured at receiving Sub-Station of GETCO, as determined by the Commission from time to time and applicable to green energy open access transaction as per GERC (Green Energy Open Access) Regulations 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

c) In case point of injection and drawl at a voltage level below 66 KV, lies within area of same DISCOM, the wheeling of energy from Wind Project shall be allowed upon payment of Wheeling Charges and Wheeling Losses of energy fed to grid, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

d) The Commission decides to promote the third-party sale /consumption of Wind Energy by allowing 25% concession in the Cross Subsidy Surcharge and Additional Surcharge wherein the RE generator and consumer does not claim RE attribute and allow distribution licensee to avail the same for RPO compliance.

No concession in the Cross Subsidy Surcharge shall be allowed to the Wind generator who are selling power under third party sale and utilizing RE attribute for RPO compliance of the consumer or the projects are registered under REC mechanism. They shall be liable

to pay 100% Cross Subsidy Surcharge and Additional Surcharge, if any, as determined by the Commission read with the provisions of GERC Green Energy Open Access Regulations.

e) The provisions related to Cross Subsidy Surcharge and Additional Surcharge shall be governed as per the MOP Rules and GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 as amended from time to time.

Wheeling of Power for Captive Use

a) In case of injection of the electricity at 66 KV level or above and drawl of electricity at 66 KV level or above, the transmission of energy from the injection point to drawl place shall be allowed by paying applicable transmission charges and losses on energy feed basis as determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it read with tariff Regulations of the Commission as applicable from time to time.

b) In case of injection of electricity at 66 KV or above and drawl of electricity below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall he allowed on payment of applicable transmission charges & transmission losses on energy feed basis and wheeling charges & wheeling losses on the energy fed into grid as measured at receiving Sub-Station of GETCO, as determined by the Commission from time to time and applicable to green energy open access transaction as per GERC (Green Energy Open Access) Regulations 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

c) In case point of injection and drawl at a voltage level below 66 KV, lies within area of same DISCOM, the wheeling of energy from Wind Project shall be allowed upon payment of Wheeling Charges and Wheeling Losses of energy fed to grid, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy

Open Access) Regulations, 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

Provided further that the person claiming the consumption of energy generated from Wind project for captive consumption shall require to provide the details of ownership in the captive generating plant and place of consumption at the time of registration of captive generating plant. Further, it is required to provide the details of Ownership in CGP and generation as well as consumption of energy from captive generating plant to the distribution licensee in whose area of supply, the captive consumer is situated, on annual basis, in accordance with the provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 to ensure that the necessary conditions stipulated in Electricity Rules, 2005 read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 is fulfilled by such captive generating plant and consumption by captive users. Failure to fulfil the aforesaid conditions, such consumption shall loose the status of captive consumption and it shall be qualified as supply by third party by generator and the benefits granted to captive consumption shall be withdrawn for that Financial Year and it shall attract the applicability of the Cross-Subsidy Surcharge and Additional Surcharge, if any, as applicable to third party green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and subsequent amendments in it from time to time along with delayed payment surcharge thereon.

On receiving of documents/evidence from the captive consumer by the distribution licensee, the distribution licensee shall verify the same in compliance of provisions of Act, Rules and Regulations for captive status of the generator and consumption of energy from such plant and refer the matter to the Commission in case non-compliance of captive status by the generator/captive consumer and also claim the recovery of charges payable by such consumer on account of not fulfilling of captive generating plant status by the generator or captive consumer.

The Commission shall verify the fact and take the final decision regarding continuation of the captive status of the plant and consumption of energy from such plant as captive consumption for the respective financial year.

The various provisions related to Captive Generating Plant (CGP) and consumption of energy from such plant as stipulated in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 shall be applicable for Wind Power Project.

Wheeling of power to more than one locations:

Wind power Project Developers, who desire to wheel electricity to more than one location for captive use/third-party sale, shall pay 5 paise per unit on energy fed in the grid as measured at receiving end sub-station of GETCO, to the concerned DISCOM in whose area power is consumed in addition to above mentioned transmission charges & losses and Wheeling charges & losses, as applicable.

2.7 Clause 3.4 Metering Point & Interconnection Point

2.7.1 Proposed in Discussion Paper

The Commission proposes following in discussion paper with regard to metering point and interconnection point:

- The Metering Point and Interconnection Point for the Wind Power Project shall be the point of connection at the GETCO substation where feasibility and connectivity is granted by GETCO.

- The Wind Power Projects shall have to provide four quadrant ABT compliant meters at the interface point which shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2014, as amended from time to time. GETCO/DISCOM to stipulate necessary specifications in this regard. The ABT meter shall be AMR compatible.

- For the purpose of commercial settlement and energy accounting, the metering point shall be at the receiving end sub-stations of GETCO. The electricity generated shall be metered and readings taken jointly by Wind Project developer with the representative of DISCOM and GETCO at the metering point, on monthly basis.

- Energy metering and communication facility shall be provided by the developer of Wind Power Projects in accordance with the following Regulations/Codes/Orders and their subsequent amendments:

  i. Central Electricity Authority (Installation and Operation of meters) Regulations 2014 and its subsequent amendments.
  ii. Gujarat Electricity Grid Code 2013 and its subsequent amendments.
  iii. GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and its subsequent amendments.
  iv. GERC Distribution Code 2004 and its subsequent amendments.
  v. GERC (Terms and Conditions for Green Energy Open Access), Regulations 2024. Provided that in case of Wind power project connected with Inter-State Transmission System (ISTS) network through state network, the provisions related to metering point and interconnection point shall be governed by the provisions of Intra-State generator provided in this Order. While in case of the Wind Projects directly connected to ISTS network shall be governed by the provisions of CERC Regulations.

For the purpose of energy accounting, all WTGs shall have to provide ABT compliant (four quadrant) meters and if the power is to be wheeled to consumers' premises, then ABT cum Tariff compatible meter is to be installed at the consumers' premises also. While in case of consumer seeking open access below 1 MW, installation of Special Energy Meter capable of energy recording on 15 Minutes Time Block basis at consumption end shall be allowed. GEDA, GETCO and DISCOMs shall ensure the energy accounting of Active and Reactive energy of the Wind Power Project for each consumer/customer. Energy Accounting shall be done by SLDC.

Provided that in case of Wind Project connected with Inter-State Transmission System (ISTS) network through State Network, the provisions related to metering point and interconnection point shall be governed by the provisions of Intra-State Generator provided in this Order. While in case of the Wind projects directly connected to ISTS Network shall be governed by the provisions of CERC Regulations.

2.7.2 Suggestions/Objections of the Stakeholders

SLDC submitted that Wind Power Projects shall have to provide four quadrant ABT compliant meters at both interface points (i.e. receiving and sending end) which shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2014, as amended from time to time. GETCO/DISCOM to stipulate necessary specifications in this regard. The ABT meter shall be compatible with SIDC AMR facility.

SLDC further submitted that for the purpose of commercial settlement and energy accounting, the metering point shall be at the receiving end sub-stations of GETCO. The electricity generated from the Wind Power Project shall be metered and readings taken jointly by Wind Energy Generator with the representative of DISCOM and GETCO at the metering point, on weekly basis.

Further, Wind Generators/GEDA/DISCOM/GETCO, as case may be, shall ensure that the Generator end and GETCO substation end data shall be available on every Tuesday for the previous week to SLDC through such AMR compatible meters. In case of non-availability of AMR, it will be responsibility of Wind Generators/GEDA/DISCOM/GETCO, as the case may be, to send ABT meter data in encrypted mode to SLDC with other mode of communication as per SLDC procedure and requirement.

Indian Wind Energy Association submitted that proposal of installation of Remote Terminal Unit (RTU) at the pooling substation and at individual WTG shall increase the Project cost and therefore provision for installation of RTU at pooling satiation should be sufficient.

2.7.3 Analysis and Commission's Ruling

As regard to the suggestions of IWEA, the Commission notes that the installation of RTU on each WTG is necessary for monitoring of injection of energy by the SLDC on a real time basis. The Commission finds merit in the submission of SLDC and hence accepts the suggestion received from SLDC for benefit of all stakeholders and decide to modify the provisions as under:

- Metering Point and Interconnection Point for the Wind Power Project shall be the point of connection at the GETCO substation where feasibility and connectivity is granted by GETCO. The Wind Project Developers shall provide energy metering and communication

facility in accordance with the (a) CEA (Installation and Operation of meters) (Amendment) Regulations 2014 and its subsequent amendments, (b) Gujarat Electricity Grid Code 2013 and its subsequent amendments (c) GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and its subsequent amendments, (d) GERC Distribution Code 2004 and its subsequent amendments and (e) GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and its subsequent amendments.

- Wind Power Projects shall have to provide four quadrant ABT compliant meters at both interface points (i.e. receiving and sending end) which shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2014, as amended from time to time. GETCO/DISCOM to stipulate necessary specifications in this regard. The ABT meter shall be compatible with SIDC AMR facility.

  Further, wind generators/GEDA/DISCOM/GETCO as case may be shall ensure that the Generator end and GETCO substation end data shall be available on every Tuesday for the previous week to SLDC through such AMR compatible meters. In case of non-availability of AMR, it will be responsibility of Wind Generators/GEDA/DISCOM/GETCO, as the case may be, to send ABT meter data in encrypted mode to SLDC with other mode of communication as per SLDC procedure and requirement.

- The Wind Project Developers shall also install Remote Terminal Unit (RTU) at the pooling station as well at individual WTG at their own cost for transferring the real time data to SLDC for its monitoring purpose, and in accordance with the GERC orders from time to time.

- State Load Dispatch Centre shall certify actual injected energy and energy drawn (if any) from local DISCOM on monthly basis. Energy metering and communication facility shall be provided by the developer of Wind Power Projects in accordance with the following Regulations/Codes/Orders and their subsequent amendments:

i. Central Electricity Authority (Installation and Operation of meters) Regulations 2014 and its subsequent amendments
ii. Gujarat Electricity Grid Code 2013 and its subsequent amendments
iii. GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and its subsequent amendments
iv. GERC distribution code 2004 and its subsequent amendment
v. GERC terms and conditions for Green Energy Open Access) Regulations 2024

For the purpose of energy accounting, all Wind Power Project Developer shall have to provide ABT compliant (four quadrant) meters and if the power is to be wheeled to consumers' premises, then ABT cum Tariff compatible meter is to be installed at the consumers' premises also. While in case of consumer seeking open access below 1 MW, installation of Special Energy Meter capable of energy recording on 15 Minute Time Block basis at consumption end shall be allowed. GEDA, GETCO and DISCOMs shall ensure the energy accounting of Active and Reactive energy from Wind project for each consumer/customer. Energy Accounting shall be done by SLDC.

Provided that in case of Wind project connected with Inter-State Transmission System (ISTS) network through state network, the provisions related to metering point and interconnection point shall be governed by the provisions of Intra-State generator provided in this Order. While in case of the Wind Projects directly connected to ISTS network shall be governed by the provisions of CERC Regulations.

2.8 Clause 3.5: Pricing of Reactive Power

2.8.1 Proposed in Discussion Paper

Reactive Power is required by the Wind Energy generators during initial start-up and station transformers also continuously require reactive power from the grid. Hence, in order to maintain grid stability, it is necessary to limit such reactive power consumption from the grid or injection into the grid by installation of suitable compensation devices.

In order to restrain the wind power projects from consuming more reactive power from the grid and to encourage them to install suitable compensation devices to limit such reactive power consumption, the Commission in the previous Order had levied reactive power charges. The reactive energy charges are applicable and leviable as per the provisions of GERC Grid Code read with Tariff Orders passed by the Commission. When Wind Turbine Generators supports to the grid as per provisions of Grid Code, in that condition, no reactive energy charges are applicable.

The pricing of reactive power for all prospective Wind Power Projects shall be same as decided by the Commission in the GETCO' Tariff Order read with the provisions of the GERC Grid Code from time to time.

2.8.2 Suggestions/Objections of the Stakeholders

InWEA requested to provide that reactive energy charges shall be applicable on net basis i.e. Reactive Energy import less Reactive Energy Export. Further, in case of third party open Access, the Reactive energy should be added in the consumer's bill instead of recovering from wind generator.

SLDC requested for modification of para 2 of the discussion paper by including the provision that "When Wind Turbine Generators supports to the grid as per provisions of Grid Code, in that condition, no reactive energy charges are applicable. To enable this change, SLDC suggest following steps to be undertaken:

a. *Relevant amendments in GEGC 2013, ABT order.*

b. *RE generator shall submit the scheme that how and up to what extent they will support grid by supplying or absorbing reactive power as per instruction of SLDC.*

c. *There is specific functionality required to adopt in WTG to absorb/supply reactive power. RE developer shall submit all relevant specification with data from OEM to justify its capacity for supporting grid.*

d. *As per SLDC information, when there is facility in WTG, to absorb reactive power required some amount of active power to perform this function. The commercial mechanism and relevant approval of such drawl has to be developed.*

e. *The RE generator shall make an arrangement for submitting data on weekly basis regularly to justified the grid support in terms of voltage versus VAR status.*

2.8.3 Analysis and Commission's Ruling

The Commission notes that the Reactive Power is required by Wind Energy Generators during initial start-up and station transformers also continuously require reactive power from the grid. Hence, in order to maintain grid stability, it is necessary to limit such reactive power consumption from the grid or injection into the grid by installation of suitable compensation devices.

In order to restrain the wind power projects from consuming more reactive power from the grid and to encourage them to install suitable compensation devices to limit such reactive power consumption, the levy of reactive charges is necessary.

The Commission is of view that the provisions related to pricing of Reactive Energy Charges as proposed in the discussion paper adequately covers the concerns of the Stakeholders and therefore there is no need to make any changes in this provision.

2.9 Clause 3.7 Banking Facility and Energy Accounting

2.9.1 Proposed in the Discussion Paper

The provisions related to Banking facility and charges, methodology for settlement of banked energy and treatment for un-utilised banked energy at the end of banking period etc., shall be governed by the MoP's Green Energy Open Access Rules, 2022 and GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and its subsequent amendments from time to time.

The banking facility shall be an optional facility provided to the consumers availing open access from Wind Power Project as provided under GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. In case consumer choose not to avail banking facility, the same shall be permitted on furnishing an undertaking as specified in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 in this regard.

Provided that in respect of Wind Power Project directly connected with ISTS network and supplying power to the consumer in the State either connected with ISTS network or Intra-State network of State, the provisions related to energy banking facility shall be governed as per the applicable CERC Regulations read with MoP' Rules.

Provided further that the applicable charges i.e. transmission charges and losses, wheeling charges and losses, Cross Subsidy Surcharge, Additional Surcharge, if any, etc. shall be applicable to the consumer which are availing Open Access by utilization of State Grid as per the provisions of this Order i.e., Transmission and /or Distribution network of the State with or without utilization of ISTS Network.

Provided also that Cross Subsidy Surcharge, Additional Surcharge, if any, etc. shall be applicable to the consumer which are availing Open Access from Wind Power Project utilizing ISTS Network only.

Energy Accounting

Energy Accounting related provision as provided below shall be applicable for captive use as well as third party open access transaction for Wind Power Projects:

Case-1 Wind Projects which are availing banking facility

The consumption of banked energy shall be permitted on billing cycle basis in a manner stipulated in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. The banking of energy shall be evaluated for energy accounting on 15/5-minute time block basis. The difference between the injected energy from Wind Project worked out at the receiving end sub-station of GETCO and available at consumption point and consumer's consumption in same 15 /5-minute time block basis shall be considered as banked energy.

(i). The permitted quantum of banked energy for the consumer availing open access from Wind project shall be at least 30% of total consumption of electricity from the distribution licensee by the consumer during the billing period as provided in the MoP Green Energy

Open Access Rules, 2022 read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

(ii). For net import of power, DISCOM shall charge applicable tariff of respective category to the Consumer including fixed/ demand charge, energy charges, peak charge, other charges/ penalty etc. as applicable to other Consumers.

(iii). The unutilized surplus banked energy shall be considered as lapsed at the end of billing cycle and entitled to get REC as per the provisions of MoP Green Energy Open Access Rules, 2022.

(iv). No carry forward of surplus banked energy, if any, available at the end of billing cycle shall be permitted.

(v). The consumer/project developer shall require to pay banking charges as specified in the Green Energy Open Access Rules notified by the Ministry of Power, Government of India read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and as amended from time to time.

(vi). The consumer/project developers not desire to utilize the Green Energy attributes (RE) for fulfilment of its RPO, the distribution licensee shall have considered such energy as fulfilment of different types of RPO of distribution licensee, based on such energy consumed by consumer.

The consumer who utilizes RE (Green Energy) component for fulfilment of its RPO, in such case, consumption of RE (Green Energy) shall be qualified as fulfilment of consumer's RPO.

Case -2 Wind Projects not availing Banking facility

The Energy accounting shall be based on a 15-minutes time block-basis and no banking charge shall be applicable.

i. For net import of energy, the DISCOM shall charge applicable tariff of respective category to the Consumer including fixed/ demand charge, energy charges, peak charge, time of

use charges, other charges/ penalty, etc. as applicable to other Consumers as per tariff orders of the Commission.

ii. Surplus Wind energy, after giving set-off on 15 minutes' time block basis, shall be considered as lapsed energy and not entitled for REC.

iii. Once the option for not availing the banking facility is exercised, the same shall not be allowed to change before completion of three years from the date of exercise of such option.

Case - 3 Projects registered under REC mechanism

(i). Wind Projects availing open access for captive use/third-party sale under REC mechanism shall be governed as per CERC REC Regulations.

(ii). Such projects shall be allowed to transmit / wheel the energy on payment of applicable transmission charges & losses, wheeling charges & losses and other charges as applicable to Green Energy Open Access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

(iii). The provisions related to banking facility and charges, energy accounting mechanism, treatment for surplus energy etc. shall be governed as per the GERC Green Energy Open Access Regulations as amended from time to time.

Cross Subsidy Surcharge and Additional Surcharge, if any, and open access charges shall be applicable as applicable to green energy open access transactions as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 as amended from time to time.

2.9.2 Suggestions/Objections of the Stakeholders

GUVNL proposed that DISCOM may be considered eligible for RPO for lapsed energy at the end of billing cycle and for which the consumer is not claiming REC apart from the energies for which consumers are not claiming REC/RPO.

Opera Energy, Ganesha Wind Park and OP Wind Energy Pvt. Ltd. Submitted that the banking of energy shall be evaluated on 15-minute time block basis. The reference to 5-minute time block may be removed to avoid ambiguity. They further submitted that Banking should be maximum up to 30% of total consumption. Otherwise it will give no benefit to consumers.

TPL-D submitted that banking facilities shall not be provided to the consumers and settlement should be done on prevailing time block basis only. Further, in case any surplus energy is generated during the time block, such energy shall be treated as inadvertent flow and no compensation shall be payable. Alternatively, if banking facility is to be provided, it is imperative that same shall be provided upon payment of entire cost of marginal power purchased to provide the banking facility else it amounts to socializing the cost on other consumers while privatizing the gains.

2.9.3 Analysis and Commission's Ruling

The Commission would like to clarify that the banking and energy accounting related provisions proposed in the discussion paper are in line with the MoP Green Energy Open Access Rules and GERC (Terms and Conditions for Green Energy Open Access) Regulations 2024 and quite clearly dealt in the GERC (Terms and Conditions for Green Energy Open Access) Regulations 2024.

In view of above, the Commission decided to keep the banking and energy accounting related provisions for new control period as proposed in the discussion paper without any modifications.

2.10 Clause 3.8 Security Deposit & Delay in Commissioning of Wind Power Project

2.10.1 Proposed in Discussion Paper

The objective of specifying tariff framework for procurement of wind power is to promote development of renewable energy in the state. A procedure of giving permission for the proposed wind projects, based on the load flow studies has been followed by the GETCO. Thus, the proposed evacuation system from the pooling station of wind projects forms part of the overall GETCO System. While timely completion of power evacuation system for such wind projects is essential, timely execution of WEG project is also equally important. Non-completion

of WEG projects leads to idling of transmission resources. The security deposit is furnished by the project developer in order to assure GETCO about the seriousness of the project. It is proposed that for the new control period.

The Wind Power Developer setting up project shall be required to provide Bank Guarantee @ 10 lakhs per MW to GETCO based on allotment of transmission capacity and in case the Developer fails to commission, the wind capacity within the time-period mentioned hereunder, GETCO shall encash the Bank Guarantee.

Table 24: Capacity and Commissioning Period for the Wind Projects

Sr. No.	Wind Capacity in MW	Period for commissioning the entire evacuation line along with bays and metering system
01.	1MW to 100 MW	12 months from the date of allotment of transmission capacity
02.	>100 MW to 200 MW	15 months from the date of allotment of transmission capacity
03.	>200 MW to 400 MW	18 months from the date of allotment of transmission capacity
04.	>400 MW to 1000 MW	24 months from the date of allotment of transmission capacity

The Wind Project Developer shall ensure and prove that the Evacuation System consist of Transmission and /or Distribution System shall be ready prior to SCOD or aforesaid timeframe, whichever is earlier. Failure to it, the project developer is not eligible to get any waiver in Liquidated Damages payable by it, in terms of Agreement/ PPA.

The Wind Power Project 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 table above, whichever is earlier, failing which, the 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.

The balance 90% capacity shall require to be commissioned within one year of charging of evacuation line or as per timeframe stipulated above, whichever is earlier, failing which STU shall cancel the connectivity and Open Access granted, 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 the Commission. 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.

If the Wind Project Developer (as Generator / Consumer/ Licensee) fails to Commission the entire allocated evacuation system along with bays and metering System within stipulated time-period due to unforeseen reasons, they may approach to the Commission seeking for extension of time period.

In case of Wind Project set up under competitive bidding route, in that case the aforesaid provision shall be governed by the provisions of approved bid documents /PPA.

2.10.2 Suggestions/Objections of the Stakeholders

GUVNL submitted that the DISCOMs and Generator enter into PPAs for procurement of power from the Wind Power Project for 25 years. The PPA includes the provisions for extension of time limit for Scheduled Commissioning Date on account of various force majeure event and delay in operationalization of transmission evacuation system. In view of this, GUVNL suggested that the delay in commissioning of the project shall be considered as per the provisions of the respective PPA / Agreement with concerned DISCOM. Therefore, in case of delay in commissioning of project, the developer shall first approach the concerned DISCOM for time extension as per the provisions of the PPA/ Agreement.

Juniper Green Beam Pvt. Limited suggested that as per Gujarat RE Policy, 2023, in case of project awarded through Competitive Bidding process for sale of power to DISCOM, the provisions related to Security Deposit and consequences for delay in commissioning of the project shall be governed as per the terms and conditions of the respective bid and PPA with DISCOM.

Opera Energy, Ganesha Wind Park & OP Wind Energy Pvt. Limited etc. requested the Commission to reduce the amount of BG from Rs. 10 lakhs/MW to Rs. 5 lakhs /MW.

Indian Wind Energy Association submitted that as per the Clause 10.2 (C) of procedure for grant of connectivity, the balance 90% of capacity is required to commission within 2 years, whereas the discussion paper provides for commissioning of balance 90% capacity within one year of charging of evacuation line. Therefore, it is requested to align the timeframe in the Order with the provisions of Grant of Connectivity.

2.10.3 Analysis and Commission's Ruling

The Commission clarify that in case of Wind Power project selling power to DISCOM under PPA, the delay in commissioning of the project shall be considered as per the provisions of the respective PPA / Agreement with concerned DISCOM. However, in respect of Wind Power Plant set up for third party sale / captive use, the consequences for delay in commissioning of projects shall be governed as provided in this Order.

The Commission decides that the Wind Power Developer setting up project shall be required to provide Bank Guarantee @ 10 lakhs per MW to GETCO based on allotment of transmission capacity.

2.11 Clause 3.9 Exemptions from Demand Cut

2.11.1 Proposed in Discussion Paper

The discussion paper propose exemption from demand cut to the extent of 50% of installed capacity of Wind Power Project in case of captive consumption and third-party sale within the State. The above exemptions provided by the State Government shall be applicable for the prospective period.

2.11.2 Suggestions/Objections of the Stakeholders

GUVNL submitted that this exemption is not provided by the State Government in Gujarat Renewable Energy Policy, 2023. Further, GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 also does not provide for exemption from demand cut. Accordingly, it is suggested to remove the provision of exemption from demand cut.

2.11.3 Analysis and Commission's Ruling

The Commission agree to the suggestion made by GUVNL and decided to remove the provision of exemption from demand cut to the extent of 50% of installed capacity of Wind Power Project in case of captive consumption and third-party sale within the State during new control period.

2.12 Clause 3.10: Sharing of Clean Development Mechanism (CDM) Benefits

2.12.1 Proposed in Discussion Paper

It is proposed that the sharing of CDM benefits or any other benefit such as carbon credit or any other benefits under Clean Development Mechanism or any other mechanism under any provision from any source providing such benefits to the Wind power project for which it shall qualify to receive such benefit on the energy generation from the wind based power generation project shall apply to the concerned authority to avail / receive the benefit for the project. The benefits which shall be receivable or received shall be shared with the procurer of power and / or licensee as under:

a) 100% of the gross proceeds on account of such CDM benefit or any other benefit under Clean Energy Mechanism from any source to be retained by the project Developer in the first year after the date of commercial operation of the generating station.

b) In the second year, the share of the Beneficiaries like power procurer/licensee shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, there after the proceeds shall be shared in equal proportion, by the Generating Company and the Beneficiaries like power procurer/licensee

c) In case of PPA signed under competitive bidding process, the sharing of benefits received by the wind power project shall be as per terms and conditions of bid documents read with the PPA.

d) In case of Wind Power Project set up under Open Access regime, the sharing of above benefits shall be in accordance with the Agreement between Power Producer and Consumer.

2.12.2 Suggestions/Objections of the Stakeholders

Indian Wind Energy Association requested to clarify that the sharing of CDM benefit, if any, shall be applicable only after the sale proceeds from CERs are received by Project Developer and not from date of commissioning. InWEA further requested the Commission to clarify that the sharing of CDM benefit shall be net off of transaction cost.

2.12.3 Analysis and Commission's Ruling

The Commission notes that the provisions related sharing of CDM benefits adequately addresses the concerns of the Stakeholder and therefore no need to make any changes in the provisions related to sharing CDM benefits proposed in the discussion paper.

2.13 Clause 3.12: Procedure for Integration of Wind Power project with the grid

2.13.1 Proposed in Discussion Paper

The Commission proposes that prior to Commissioning and Integration of Wind Projects to the grid the Wind Generators / Developers should adhere to following procedures and amendments made in it from time to time in this regard.

The Wind Generator/Developer shall submit a certificate signed by the authorised signatory not below the rank of CMD or CEO or MD or Full Time Director, to the SLDC, GEDA and concerned Distribution Licensees before declaration of SCOD, that the said Generating Station including main plant equipment's such as Wind Turbines, Auxiliary Systems, as case may, has complied with all relevant provisions of CEA Technical Standards for Connectivity, CEA Technical Standards for Communications, CEA (Measures relating to Safety and Electricity Supply) Regulations, 2010 and Gujarat Grid Code and also mention RLMM Certificate No. issued by the Competent Authority. In absence of such Certificate, no commissioning certificate shall be granted. Document submission to SLDC.

i. Document submission to SLDC

……"

2.13.2 Suggestions/Objections of the Stakeholders

SLDC requested certain modification in clause 3.12 - procedure for integration of Wind project to the grid propose in the discussion paper. SLDC requested for addition of two sub paras in clause 3.12 as given below:

"The GEDA, STU, transmission/ distribution licensees may verify the same with prudent check and ask to generating station for additional requirement, if any".

"GEDA shall ensure following compliance from the developer of wind pooling station/ generator, before carrying out testing, commissioning activities and issuing the Commissioning Certificate to the Wind Project and failure to it, the commissioning certificate, if any, issued, shall not be qualified as legal and valid".

Opera Energy, Ganesha Wind Park & OP Wind Energy Pvt. Limited etc. submitted that the project developer should be allowed to submit the documents to GEDA only. If required, GEDA can share the documents with SLDC/DISCOM/GETCO.

2.13.3 Analysis and Commission's Ruling

The Commission has noted the submission of the Stakeholders. The Commission agree to the modification proposed by SLDC to the extent of procedure for integration of Wind project to the grid and decides to make necessary modification in the Order.

As regard to other submission of Stakeholders in regard to submission of documents for allowing integration of Wind Power Projects with grid, the Commission is of the view that the Wind Power Project developers need to submit the documents to GEDA as well as SLDC and DISCOM/ STU/ GETCO for better coordination and record purpose.

2.14 Clause 3.13: Commissioning of the Wind Power Project

2.14.1 Proposed in discussion Paper

The discussion paper proposes that after following the procedure of integration of Wind Power Project with grid, the commissioning of Wind Project be followed. Commissioning with respect to the Wind Project shall be certified by the GEDA in presence of GETCO and / or Distribution Licensee representative. The GEDA should ensure that all equipment as per MNRE approved list of WTG manufacturers of rated capacity, ALMM Certificate issued for WTG by concerned Authority, if applicable, and as per Indian Standards on Renewable Energy notified by BIS has been installed and energy has flown into the grid and recorded in the energy meters installed at project site and witnessing of such generation of electricity by representative authorised by DISCOM and /or GETCO. The GEDA shall co-ordinate with DISCOMs and/or GETCO for fixing date of commissioning of plant. The representatives of GEDA, GETCO and/or Distribution Licensees shall sign on the commissioning of project by recording necessary details. Non-signing of documents of commissioning of Wind Projects by any of the representative of above entity, shall not qualify as valid 'commissioning' of the project. The commissioning certificate consists of the details of the Wind Turbine, ALMM Certificate, if applicable etc. Further, it shall also ensure that generation data from the Wind Project is also transferred in the real time basis through RTU to SLDC.

2.14.2 Suggestions/Objections of the Stakeholders

The SLDC & Opera Energy have suggested that the provisions related to grant of connectivity and Open Access to transmission/distribution network for Wind Generator may be stipulated as per the provision made in the Tariff Order for Wind-Solar Hybrid Projects.

2.14.3 Analysis and Commission's Ruling

The Commission has noted that the suggestion of the Stakeholders is also subject matter of a Petition filed by GETCO for adjudication, which is under consideration of the Commission.

3. TARIFF FRAMEWORK, GENERAL PRINCIPLES AND OTHER COMMERCIAL CONSIDERATIONS

3.1. Tariff Framework

Having considered all the comments from the stakeholders, the Commission hereby issues the final Tariff Framework for Wind Power Projects effective from 06.06.2022, as under:

Projects above threshold limit

As recommended in clause 6.4 (2) of the Tariff Policy, the distribution licensees shall continue to procure electricity from the eligible Wind Power Projects through competitive bidding under Section 63 of the Act or by following competitive bidding process followed by SECI/MNRE etc. Further, the distribution licensees may approach the Commission for adoption of the tariff discovered through such competitive bidding process

Projects below threshold limit

For Wind Power projects below the threshold limit of 10 MW for eligibility in participation in Competitive Bidding, the Commission has determined generic tariff for procurement of power by Distribution Licensee under Section 62 of the Act, as discussed in the later part of this Order.

3.2. General Principles

a) Control Period

The Commission has noted that the Ministry of Power notified the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 on 6th June 2022 outlining the policy and regulatory provisions for promotion of renewable sources of energy through Open Access. Further, the MoP Rules is effective from the date of its Notification, i.e., from 06.06.2022. The Commission also notes that the Wind Tariff Order dated 30.04.2020 read with amendments made in it, was having control period upto 31.03.2022 and there was no tariff order of the Commission as on 06.06.2022 and also specified in the discussion paper that the new Order shall be effective from 06.06.2022 2 i.e. from the effective date of MoP' Rules.

Considering above aspects and to give effect to the provisions of Green Energy Open Access Rules 2022 notified by Ministry of Power, Govt. of India under the Electricity Act, 2003, the

Commission found it more appropriate to adopt the policy and regulatory provisions outlined in MoP' Green Energy Open Access Rules, 2022 and defined the Control Period of new tariff order to be made effective from 06.06.2022 in the discussion paper also. Accordingly, the Commission decides to define the Control Period of this tariff framework effective from 06.06.2022 to 31.03.2027. The Wind Power Projects which are commissioned during aforesaid Control Period shall be governed by the provisions MoP' Green Energy Open Access Rules, 2022, read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and this Order of the Commission and eligible for the benefits stipulated in this Order. Further, Wind Power Projects commissioned during the Control Period of this Order shall be liable to pay applicable Open Access charges and provisions related to banking facility, energy accounting etc. and shall be governed by this Order read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

a) Plant and Machinery

The Wind Power Projects for which PPA is sign during the control period of this tariff order and commissioned using new plant and machinery as per PPA terms and conditions shall be considered as eligible to sell power to distribution licensees of Gujarat at the tariff proposed by the Commission. Similarly, the Wind Projects set up using new Plant and machineries for captive use / third party sale and commissioned during the control period of this order shall be eligible for wheeling of energy upon payment of applicable Open Access charges stipulated in this Order and provisions related to banking facility, energy accounting etc and shall be governed by this Order read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

b) Useful life of Plant

The Useful Life for the Wind Power Projects shall be considered as 25 years from their date of commissioning.

c) Tariff Period

The tariff period for the tariff framework approved by the Commission for Procurement of Wind Power Projects by the distribution licensees in the State shall be 25 years or Wind Power Project commission under Captive mode/Third party sale, shall be 25 years from the date of commissioning of the project.

d) Eligibility Criteria

The Wind Power projects using new plant and machineries for which PPA is sign during the control period of this tariff order and commissioned as per PPA terms and conditions shall be considered as eligible to sell power to distribution licensees of Gujarat as per at the tariff framework decided by the Commission. Similarly, the Wind Power Projects set up for captive use / third party sale using new Plants and Machineries and commissioned during the control period of this order shall be eligible for wheeling of energy upon payment of applicable Open Access charges stipulated in this Order and provisions related to banking facility, energy accounting etc. and shall be governed by this Order read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

e) Forecasting and Scheduling for Wind power

The Wind power Projects connected with State Grid shall require to follow the provisions a prescribed under the GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019 notified on 19.01.2019 and its amendments issued from time to time and GERC (Terms and Conditions of Green Energy Open Access), Regulations, 2024 as amended from time to time.

In case of ISTS connected Wind Power Projects (including Inter-State RE projects located in Gujarat & directly connected to ISTS network and supplying power to consumer in Gujarat / outside of Gujarat) energy accounting for deviation shall be as per the CERC Regulations.

Provided further that if Wind Generating Project is situated in the State of Gujarat and connected with Inter-State grid through State grid and selling power outside/ inside the State, the energy accounting for deviation settlement shall be carried out wherein the deviation charges shall be either (A) Reference Rate or (B) Normal Rate of Charges for deviation, whichever is higher, as

per the provision of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

Explanation: *Reference Charge Rate and Normal Rate of Charges shall have the meaning as defined in CERC DSM Regulations from time to time.*

Provided also that in case of Wind Power projects set up for captive consumption/ sale to third party, the minimum number of time blocks, which shall not be more than 12 time-blocks, for which the consumer shall not change the quantum of power consumed through Green Energy Open Access so as to avoid variations in demand to be met by the distribution licensee.

f) Applicability of Merit Order Dispatch Principle

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

3.3. Transmission and Wheeling Charges

Wheeling of power for Third Party Sale

a) In case of injection of the electricity at 66 KV level or above and drawl of electricity at 66 KV level or above, the transmission of energy from the injection point to drawl place shall be allowed by paying applicable transmission charges and losses on energy feed basis as determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it read with tariff Regulations of the Commission as applicable from time to time.

b) In case of injection of electricity at 66 KV or above and drawl of electricity below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall he allowed on payment of applicable transmission charges & transmission losses on energy feed basis and wheeling charges & wheeling losses on the energy fed into grid as measured at receiving Sub-Station of GETCO, as determined by the Commission from time to time and applicable to green energy open access transaction as

per GERC (Green Energy Open Access) Regulations 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

c) In case point of injection and drawl at a voltage level below 66 KV, lies within area of same DISCOM, the wheeling of energy from Wind Project shall be allowed upon payment of Wheeling Charges and Wheeling Losses of energy fed to grid, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

d) The Commission decides to promote the third-party sale /consumption of Wind Energy by allowing 25% concession in the Cross Subsidy Surcharge and Additional Surcharge wherein the RE generator and consumer does not claim RE attribute and allow distribution licensee to avail the same for RPO compliance

e) No concession in the Cross Subsidy Surcharge shall be allowed to the Wind r generator who are selling power under third party sale and utilizing RE attribute for RPO compliance of the consumer or the projects are registered under REC mechanism. They shall be liable to pay 100% Cross Subsidy Surcharge and Additional Surcharge, if any, as determined by the Commission read with the provisions of GERC Green Energy Open Access Regulations.

f) The provisions related to Cross Subsidy Surcharge and Additional Surcharge shall be governed as per the MOP Rules and GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 as amended from time to time.

Wheeling of Power for Captive Use

a) In case of injection of the electricity at 66 KV level or above and drawl of electricity at 66 KV level or above, the transmission of energy from the injection point to drawl place shall be allowed by paying applicable transmission charges and losses on energy feed basis as determined by the Commission from time to time, as applicable to Green Energy Open Access Transaction as per GERC (Terms and Conditions for Green Energy Open Access)

Regulations, 2024 and amendments in it read with tariff Regulations of the Commission as applicable from time to time.

b) In case of injection of electricity at 66 KV or above and drawl of electricity below 66 KV voltage level, wheeling of electricity generated from the Wind power Project to desired location(s) within the State shall he allowed on payment of applicable transmission charges & transmission losses on energy feed basis and wheeling charges & wheeling losses on the energy fed into grid as measured at receiving Sub-Station of GETCO, as determined by the Commission from time to time and applicable to green energy open access transaction as per GERC (Green Energy Open Access) Regulations 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

c) In case point of injection and drawl at a voltage level below 66 KV, lies within area of same DISCOM, the wheeling of energy from Wind Project shall be allowed upon payment of Wheeling Charges and Wheeling Losses of energy fed to grid, as applicable to green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it read with Tariff Regulations of the Commission as applicable from time to time.

Provided further that the person claiming the consumption of energy generated from Wind Project for captive consumption shall require to provide the details of ownership in the captive generating plant and place of consumption at the time of registration of captive generating plant. Further, it is required to provide the details of Ownership in CGP and generation as well as consumption of energy from captive generating plant to the distribution licensee in whose area of supply, the captive consumer is situated, on annual basis, in accordance with the provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 to ensure that the necessary conditions stipulated in Electricity Rules, 2005 read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 is fulfilled by such captive generating plant and consumption by captive users. Failure to fulfil the aforesaid conditions, such consumption shall loose the status of captive consumption and it shall be qualified as supply by third party by generator and the benefits granted to captive consumption shall be withdrawn

for that Financial Year and it shall attract the applicability of the Cross-Subsidy Surcharge and Additional Surcharge, if any, as applicable to third party green energy open access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and amendments in it from time to time along with delayed payment surcharge thereon.

On receiving of documents/evidence from the captive consumer by the distribution licensee, the distribution licensee shall verify the same in compliance of provisions of Act, Rules and Regulations for captive status of the generator and consumption of energy from such plant and refer the matter to the Commission in case non-compliance of captive status by the generator/captive consumer and also claim the recovery of charges payable by such consumer on account of not fulfilling of captive generating plant status by the generator or captive consumer.

The Commission shall verify the fact and take the final decision regarding continuation of the captive status of the plant and consumption of energy from such plant as captive consumption for the respective financial year.

The various provisions related to Captive Generating Plant (CGP) and consumption of energy from such plant as stipulated in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 shall be applicable for Wind Power Project.

Wheeling of power to more than one locations:

Wind power Project Developers, who desire to wheel electricity to more than one location for captive use/third-party sale, shall pay 5 paise per unit on energy fed in the grid as measured at receiving end sub-station of GETCO, to the concerned DISCOM in whose area power is consumed in addition to above mentioned transmission charges & losses and Wheeling charges & losses, as applicable.

3.4. Metering Point & Interconnection Point

- Metering Point and Interconnection Point for the Wind Power Project shall be the point of connection at the GETCO substation where feasibility and connectivity is granted by

GETCO. The Wind Project Developers shall provide energy metering and communication facility in accordance with the (a) CEA (Installation and Operation of meters) (Amendment) Regulations 2014 and its subsequent amendments, (b) Gujarat Electricity Grid Code 2013 and its subsequent amendments (c) GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and its subsequent amendments, (d) GERC Distribution Code 2004 and its subsequent amendments and (e) GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and its subsequent amendments.

- Wind Power Projects shall have to provide four quadrant ABT compliant meters at both interface points (i.e. receiving and sending end) which shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2014, as amended from time to time. GETCO/DISCOM to stipulate necessary specifications in this regard. The ABT meter shall be compatible with SLDC AMR facility.
  The electricity generated from the Wind Power Project shall be metered and readings taken jointly by Wind Project developer with the representative of DISCOM and GETCO at the metering point, on weekly basis.

- Further, Wind generators/GEDA/DISCOM/GETCO as case may be shall ensure that the Generator end and GETCO substation end data shall be available on every Tuesday for the previous week to SLDC through such AMR compatible meters. In case of non-availability of AMR, it will be responsibility of Wind generators/GEDA/DISCOM/GETCO. as case may be. to send ABT meter data in encrypted mode to SLDC with other mode of communication as per SLDC procedure and requirement.

- The Wind Project Developers shall also install Remote Terminal Unit (RTU) at the pooling station at their own cost for transferring the real time data to SLDC for its monitoring purpose, and in accordance with the GERC orders from time to time.

- State Load Dispatch Centre shall certify actual injected energy and energy drawn (if any) from local DISCOM on monthly basis. Energy metering and communication facility shall

be provided by the developer of Wind Power Projects in accordance with the following Regulations/Codes/Orders and their subsequent amendments:

i. Central Electricity Authority (Installation and Operation of meters) Regulations 2014 and its subsequent amendments.
ii. Gujarat Electricity Grid Code 2013 and its subsequent amendments.
iii. GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and its subsequent amendments.
iv. GERC Distribution Code 2004 and its subsequent amendments.
v. GERC (Terms and Conditions for Green Energy Open Access) Regulations 2024.

For the purpose of energy accounting, all Wind Power Project Developer shall have to provide ABT compliant (four quadrant) meters at both interface points (i.e. receiving and sending end) and if the power is to be wheeled to consumers' premises, then ABT cum Tariff compatible meter is to be installed at the consumers' premises also. While in case of consumer seeking open access below 1 MW, installation of Special Energy Meter capable of energy recording on 15 Minute Time Block basis at consumption end shall be allowed. GEDA, GETCO and DISCOMs shall ensure the energy accounting of Active and Reactive energy from Wind Power Project for each consumer/customer. Energy Accounting shall be done by SLDC.

Provided that in case of Wind power project connected with Inter-State Transmission System (ISTS) network through state network, the provisions related to metering point and interconnection point shall be governed by the provisions of Intra-State generator provided in this Order. While in case of the Wind Projects directly connected to ISTS network shall be governed by the provisions of CERC Regulations.

3.5. Pricing of Reactive Power

Reactive Power is required by the Wind generators during initial start-up and station transformers also continuously require reactive power from the grid. Hence, in order to maintain grid stability, it is necessary to limit such reactive power consumption from the grid by installation of suitable compensation devices. In order to restrain the Wind power projects from consuming more reactive power from the grid and to encourage them to install

suitable compensation devices to limit such reactive power consumption, the levy of reactive charges is necessary.

The pricing of reactive power for all prospective Wind power projects shall be same as decided by the Commission in the GETCO's Tariff Order from time to time read with GERC's Grid Code.

3.6. Operation and Maintenance of dedicated lines

The Operation and Maintenance of dedicated evacuation line including the bays shall be carried out at the cost of Developer of Wind Projects as per applicable technical standards and best practices.

3.7. Banking facility & Energy Accounting

The provisions related to Banking facility and charges, methodology for settlement of banked energy and treatment for un-utilised banked energy at the end of banking period etc., shall be governed by the MoP Green Energy Open Access Rules, 2022 and GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and its subsequent amendments from time to time.

The banking facility shall be an optional facility provided to the consumers availing open access from Wind Power Project as provided under GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. In case consumer choose not to avail banking facility, the same shall be permitted on furnishing an undertaking as specified in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 in this regard.

Provided that in respect of Wind Power Project directly connected with ISTS network and supplying power to the consumer in the State either connected with ISTS network or Intra-State network of State, the provisions related to energy banking facility shall be governed as per the applicable CERC Regulations read with MoP Rules.

Provided further that the applicable charges i.e. transmission charges and losses, wheeling charges and losses, Cross Subsidy Surcharge, Additional Surcharge, if any, etc. shall be applicable to the consumer which are availing Open Access by utilization of State Grid as per

the provisions of this Order I.e. Transmission and /or Distribution network of the State with or without utilization of ISTS Network.

Provided also that Cross Subsidy Surcharge, Additional Surcharge, if any, etc. shall be applicable to the consumer which are availing Open Access from Wind Power Project utilizing ISTS Network only.

Energy Accounting

Energy Accounting related provision as provided below shall be applicable for captive use as well as third party open access transaction for Wind Projects:

Case 1: **The Wind Projects which are availing banking facility**:

The consumption of banked energy shall be permitted on billing cycle basis in a manner stipulated in the GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024. The banking of energy shall be evaluated for energy accounting on 15/5-minute time block basis. The difference between the injected energy from Wind Project worked out at the receiving end sub-station of GETCO and available at consumption point and consumer's consumption in same 15 /5-minute time block basis shall be considered as banked energy.

i. The permitted quantum of banked energy for the consumer availing open access from Wind Power project shall be at least 30% of total consumption of electricity from the distribution licensee by the consumer during the billing period as provided in the MoP Green Energy Open Access Rules, 2022 read with GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

ii. For net import of power, DISCOM shall charge applicable tariff of respective category to the Consumer including fixed/ demand charge, energy charges, peak charge, other charges/ penalty etc. as applicable to other Consumers.

iii. The unutilized surplus banked energy shall be considered as lapsed at the end of billing cycle and entitled to get REC as per the provisions of MoP Green Energy Open Access Rules, 2022.

iv. No carry forward of surplus banked energy, if any, available at the end of billing cycle shall be permitted.

v. The consumer/project developer shall require to pay banking charges as specified in the Green Energy Open Access Rules notified by the Ministry of Power, Government of India read with provisions of GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 and as amended from time to time.

vi. The consumer/project developers not desire to utilize the Green Energy attributes (RE) for fulfilment of its RPO, the distribution licensee shall have considered such energy as fulfilment of different types of RPO of distribution licensee, based on such energy consumed by consumer.

vii. The consumer who utilizes RE (Green Energy) component for fulfilment of its RPO, in such case, consumption of RE (Green Energy) shall be qualified as fulfilment of consumer's RPO.

Case 2: For Wind Projects not availing banking facility:

The Energy accounting shall be based on a 15-minutes time block-basis and no banking charge shall be applicable.

i. For net import of energy, the DISCOM shall charge applicable tariff of respective category to the Consumer including fixed/ demand charge, energy charges, peak charge, time of use charges, other charges/ penalty, etc. as applicable to other Consumers as per tariff orders of the Commission.

ii. Surplus Wind energy, after giving set-off on 15 minutes' time block basis, shall be considered as lapsed energy and not entitled for REC.

iii. Once the option for not availing the banking facility is exercised, the same shall not be allowed to change before completion of three years from the date of exercise of such option.

Case 3: Project registered under REC Mechanism:

i. Wind Projects availing open access for captive use/third-party sale under REC mechanism shall be governed as per CERC REC Regulations.

ii. Such projects shall be allowed to transmit / wheel the energy on payment of applicable transmission charges & losses, wheeling charges & losses and other charges as applicable to Green Energy Open Access transaction as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024.

iii. The provisions related to banking facility and charges, energy accounting mechanism, treatment for surplus energy etc. shall be governed as per the GERC Green Energy Open Access Regulations as amended from time to time.

Cross Subsidy Surcharge and Additional Surcharge, if any, and open access charges shall be applicable as applicable to green energy open access transactions as per GERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024 as amended from time to time.

3.8. Security Deposit

The objective of specifying tariff framework for procurement of Wind power is to promote development of renewable energy in the state. A procedure of giving permission for the proposed Wind projects, based on the load flow studies has been followed by the GETCO. Thus, the proposed evacuation system from the pooling station of Wind projects forms part of the overall GETCO System. While timely completion of power evacuation system for such Wind projects is essential, timely execution of project is also equally important. Non-completion of Wind projects leads to idling of transmission resources. The security deposit is furnished by the project developer in order to assure GETCO about the seriousness of the project. It is proposed that for the new control period.

The Wind Power Project Developer shall be required to provide Bank Guarantee @ Rs. 10 lakhs per MW to GETCO based on allotment of transmission capacity and in case the Developer fails to commission the capacity within the time-period mentioned hereunder, GETCO shall encash the Bank Guarantee.

Sr. No.	RE capacity in MW	Period for commissioning the entire evacuation line along with bays and metering system
1.	1 MW to 100 MW	12 months from the date of allotment of transmission capacity
2.	> 100 MW TO 200 MW	15 months from the date of allotment of transmission capacity
3.	> 200 MW TO 400 MW	18 months from the date of allotment of transmission capacity

The Wind Project Developer shall ensure and prove that the Evacuation System consist of Transmission and /or Distribution System shall be ready prior to SCOD or aforesaid timeframe, whichever is earlier. Failure to it, the project developer is not eligible to get any waiver in Liquidated Damages payable by it, in terms of Agreement/ PPA.

The Wind Power Project 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 table above, whichever is earlier, failing which, the 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.

The balance 90% capacity shall require to be commissioned within one year of charging of evacuation line or as per timeframe stipulated above, whichever is earlier, failing which STU shall cancel the connectivity and Open Access granted, 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 the Commission. 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.

If the Wind Project Developer (as Generator / Consumer/ Licensee) fails to commission the entire allocated evacuation system along with bays and metering system within stipulated time-period due to unforeseen reasons, they may approach to the Commission seeking for extension of time period.

In case of Wind Project set up under competitive bidding route, in that case the aforesaid provision shall be governed by the provisions of approved bid documents /PPA.

3.9. Sharing of Clean Development Mechanism (CDM) Benefits

Sharing of CDM benefits or any other benefit such as carbon credit or any other benefits under Clean Development Mechanism or any other mechanism under any provision from any source providing such benefits to the Wind power project for which it shall qualify to receive such benefit on the energy generation from the Wind based power generation project shall apply to the concerned authority to avail / receive the benefit for the project. The benefits which shall be receivable or received shall be shared with the procurer of power and / or licensee as under:

1. 100% of the gross proceeds on account of such CDM benefit or any other benefit under Clean Energy Mechanism from any source to be retained by the project Developer in the first year after the date of commercial operation of the generating station.

2. In the second year, the share of the beneficiaries like power procurer/licensee shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the Generating Company and the Beneficiaries like power procurer/licensee."

3. In case of PPA signed under competitive bidding process, the sharing of benefits received by the Wind power project shall be as per terms and conditions of bid documents read with the PPA.

3.10. Repowering of Wind Power Projects

The provisions related to repowering of Wind Power Project shall governed by the notification of MNRE, Govt. of India and Gujarat RE Policy, 2023, as applicable from time to time.

3.11. Procedure for Integration of Wind Power project with the grid

The commissioning and integration of Wind Power Project shall be as per the following procedures and amendments made in it from time to time in this regard. The generating station based on Wind shall submit a certificate signed by the authorized signatory not below the rank of CMD or CEO or MD or Full Time Director, to the SLDC, GEDA and concerned Transmission /Distribution Licensees before declaration of COD that the said Generating Station including main plant equipment's such Wind Turbine Generator, Auxiliary systems, as the case may be, has

complied with all relevant provisions of CEA Technical Standards for Connectivity, CEA Technical Standards for Communications, CEA (Measures relating to Safety and Electricity Supply) Regulations, 2010 and Gujarat Grid Code and have availed ALMM Certificate, if applicable.

The GEDA, STU, Transmission/ Distribution Licensees shall verify the same with prudent check and ask to generating station for additional requirement, if any.

GEDA shall ensure following compliance from the developer of Wind Generator, before carrying out testing, commissioning activities and issuing the Commissioning Certificate to the Wind Power Project and failure to it, the commissioning certificate, if any, issued, shall not be qualified as legal and valid".

i. Document Submission to SLDC

The following documents shall be submitted to SLDC before the proposed date of commencement of first-time charging activities:

- Covering letter.
- Name of Pooling Station, Installed Capacity of the project, Name of connected Sub-station of GETCO/ Transmission Licensee.
- Proposed date of synchronization of Pooling Station with Intra-State grid.
- Details of Contact Person, Name, Designation, Mobile No, Email for day to day as well as commercial communication purpose.
- Details of first-time grid connection charge paid to SLDC through online mode.
- Name of DISCOM for allocation of power from the project / type of contract in detail.
- Copy of application to GEDA for granting registration of Wind Power Project, details of pooling Sub-station and specific details regarding under which Policy/Order/Regulation, the Wind capacity is installed.
- Approval obtained from various statutory agencies i.e. STU / Transmission Licensee/ GEDA/DISCOM /SLDC for installation and feasibility of Wind Farm Pooling Sub-station, as applicable.
- Parallel connectivity approval from STU/ Transmission Licensee / DISCOM, as applicable.

- Approved metering scheme, ABT meter details, Commissioning report/MOM, as applicable.
- Connectivity agreement with Transmission Licensee / Discom or Transmission and /or Wheeling Agreement, as applicable.
- Copy of PPA/Wheeling agreement/Agreement for Third Party Sale with beneficiary, if any.
- Registration Certificate of the Generating Unit or Station in the registry maintained by CEA on e-portal https://egen.cea.gov.in as per CEA standard applicability.
- Copy of Letter conveying Seven Digit ABT Meter Sr. No. for evacuation facility along with Duly notarized undertaking, as applicable.
- RTU commissioning report/MOM- for communication of real time data up to sub SLDC/SLDC & RTU payment receipt/REMC MOM, as applicable.
- Registration of renewable generators with SLDC through self/lead generator/QCA, as per approved procedure of Notification No. 1 of 2019 Dated 19.01.2019.
- Application for registration with details of registration charges/Consent from renewable generators (in case of QCA) /Undertaking from QCA (in case of QCA)/ Authorization to lead generator (in case of group generator).
- Details of Payment Security Mechanism provided by the Project Developer, as applicable.
- Static Data of Renewable Generator.
- Other supporting documents, as per requirement.
- Consent/Concurrence letter for "Generator Name" being lead generator by all Generators, if applicable in case.
- QCA appointment letter, as applicable.
- On commissioning of Generating plant, as per the certificate issued by GEDA and also signed by Discoms and / or Transmission Licensee/STU representatives, the details of plant with commissioning date, installed capacity of wind, DISCOM name for allocation of power, in tabular format with covering letter, to be submitted.
- C.O.D. letter of GEDA.

Static Details as well as Technical Details- Below mentioned technical details to be submitted

Table: Static Data for Wind Generating Station

Sr. No.	Particulars
1	Type
2	Manufacturer
3	Make
4	Model
5	Capacity
6	Commissioning date
7	Hub Height
8	Total Height
9	RPM Range
10	Rated Wind Speed
11	Performance Parameter
12	Rated Electrical power at rated wind speed
13	Cut in wind speed
14	Cut out wind speed
15	Survival speed (Max wind speed)
16	Ambient temp for out of operation
17	Ambient temp for in operation
18	Low Voltage ride through (LVRT)
19	High Voltage ride through (LVRT)
20	Lightning strength (KA & Coulombs)
21	Noise Power level (db)
22	Rotor
23	Hub type
24	Rotor Diameter
25	Number of blades
26	Area swept by blades
27	Rated Rotational speed
28	Rotational Direction
29	Coning Angle
30	Tilting Angle
31	Design Tip speed ratio
32	Blade Length
34	Diameter
35	Material
36	Twist Angle

37	Generator
38	Generator type
39	Generator number of poles
40	Generator speed
41	Winding type
42	Rated Generation Voltage
43	Rated Gen frequency
44	Gen Current
45	Rated temp of generator
46	Generator cooling
47	Generator Power Factor
48	KW/MW @rated wind speed
49	KW/MW @ peak continuous
50	Frequency controller
51	Transformer
52	Transformer Capacity
53	Transformer cooling type
54	Voltage
55	Winding configuration
56	Weight
57	Rotor Weight
58	Tower Weight
59	Nacelle Weight
60	Over speed protection
61	Design life
62	Design standard
63	Latitude
64	Longitude
65	CoD details
66	Distance above mean sea level

The commissioning of the project shall be allowed by GEDA, DISCOMs and/or STU / Transmission Licensee by verifying that such RE Generators has complied with the provisions of CEA's Connectivity Standard Regulations and obtained ALMM certificate, if applicable and it shall be recorded in Commissioning Certificate during the inspection and commissioning activities.

3.12. Commissioning the Wind Power Project:

After following the procedure of integration of Wind Power Project with grid, the commissioning of Wind Power Projects be followed. The "Commissioning" with respect to the Wind Project shall

be certified by GEDA in presence of representatives of Distribution Licensee and /or Transmission Licensee / STU.

GEDA should ensure that all equipment as per MNRE approved list of WTG manufacturers of rated capacity, ALMM Certificate issued for WTG by concerned Authority, if applicable, and as per Indian Standards on Renewable Energy notified by BIS has been installed and energy has flown into the grid and recorded in the energy meters installed at project site and witnessing of such generation of electricity by representative authorized by DISCOM and /or STU/ Transmission Licensee. The GEDA, DISCOM and / or Transmission Licensee/ STU should complete the necessary formalities for commissioning of plant within fifteen days from the date of receipt of application for commissioning of plant from the project developer/generator. The representatives of GEDA, Distribution Licensees and /or Transmission Licensee/STU shall sign on the commissioning of project by recording necessary details. Non-signing of documents of commissioning of Wind Projects by any of the representative of above entity, shall not qualify as valid 'commissioning' of the project. The commissioning certificate consists of the details of the Wind Turbine Generator, ALMM Certificate, if applicable etc. Further, it shall also ensure that generation data from the Wind Project is also transferred in the real time basis through RTU to SLDC.

4. DETERMINATION OF TARIFF FOR WIND POWER PROJECTS BELOW THE THRESHOLD LIMIT OF ELIGIBILITY (below 10 MW)

4.1. Threshold limit for participating in Competitive Bidding Process

4.1.1. Proposed in Discussion Paper

The Commission in the discussion paper has proposed a generic levelled tariff for procurement of electricity from the Wind power projects below the threshold limit of eligibility of 25 MW to participate in competitive bidding process. The proposed tariff was determined by the Commission as per section 62 of the Act for representative 1 MW capacity Wind Power Project based on benchmark financial and operational parameters and provisions under GERC MYT Regulations 2016.

4.1.2. Suggestions/Objections of the Stakeholders

GUVNL submitted that the MoP guidelines dated 26.07.2023 for competitive bidding process, sets threshold limit for (a) bid capacity of 10 MW and above for project connected with intra-state system and (b) bid capacity of 50 MW and above for project connected to inter-state system. Further, Gujarat RE Policy, 2023 allows the DISCOM to procure the power from small size wind project upto 10 MW capacity at pre-fixed levelized tariff. Therefore, in line with Gujarat RE Policy, 2023 and MoP Guidelines dated 26.07.2023, it is suggested to keep threshold capacity below 10 MW instead of 25 MW to eligible for pre-fixed levelized tariff.

4.1.3. Commission's Analysis and Ruling

The Commission observed that as per the revised Guidelines for Tariff Based Competitive Bidding Process for Procurement Power from Grid Connected Wind Power Projects notified by the Ministry of Power dated 26.07.2023 , the threshold limit of Wind power projects eligible to participate in competitive bidding has been defined as , (a) bid capacity of 10 MW and above for projects connected to Intra-State transmission system; and (b) bid capacity of 50 MW and above for projects connected to Inter-State Transmission System. Hence the Commission decided to determine the generic pre-fixed levelized tariff under Section 62 for procurement of electricity from the Wind power projects below 10 MW capacity.

4.2. Benchmark Capital Cost

4.2.1. Proposed in Discussion Paper

The Commission in the discussion paper has proposed a normative benchmark capital cost of Rs 6.40 Crores/MW for tariff determination purpose. The above cost is including evacuation cost up to the GETCO Sub-Station

4.2.2. Suggestions/Objections of the Stakeholders

Indian Wind Energy Association (InWEA) submitted that the proposed Benchmark Capital Cost of Rs. 640 Lakh / MW is on the lower side and not justified. It is further submitted that the capital cost of wind projects is closely linked to market variations and thus is prone to change over time. Seeing the past trend, the cost components have always shown an increasing trend. InWEA requested to consider the benchmark capital cost of Rs 7.90 Cr/MW as per Explanatory Memorandum on Draft CERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2024 for tariff determination purpose during the control period.

4.2.3. Commission's Analysis and Ruling

The Commission is of the opinion that capital cost of Wind Power Project depends on various factor such as location of the plant, size of the plant, technology etc. The Commission observed that the sample Wind Power Projects of which capital cost is covered in the explanatory Memorandum referred by the objector is too small (16 numbers of project) for considering it as representative benchmark capital cost of wind power project. The Commission noted that the objector had not submitted any documentary evidence to substantiate the claim for the proposed benchmark capital cost of Wind Power project.

The Commission observed that as per the present market trend, for harnessing wind potential at higher height, the Wind developers /generators prefer MW class WTG with higher hub height. The Commission also come across the recent quotation for supply, erection and commissioning of 4 MW Wind Power Project, wherein quoted price works out to Rs. 6.75 Crore / MW. Therefore, the Commission deems that the benchmark capital cost of Rs. 7.00 Crore/MW for Wind Power Project is adequate and reasonable considering the market trend. In view of above, the Commission has decided to fix normative benchmark capital cost of Rs. 7.00 Crore/MW for

determination of tariff for Wind Power Projects below threshold limit of eligibility to participate in bidding process for the control period of this order.

The capital cost is inclusive of the of all capital work including plant and machinery, civil work, cost of land, erection and commissioning, financing and interest during construction, and evacuation infrastructure up to inter-connection point.

4.3. Operation & Maintenance Cost

4.9.3. Proposed in Discussion Paper

The Commission in the discussion paper proposed the O&M cost as Rs 7.50 Lakh/MW for first year of operation with an annual escalation of 3.84% per annum for tariff determination purpose.

4.9.4. Suggestions/Objections of the Stakeholders

InWEA submitted that Commission in its Wind Tariff Order 2016, have considered the O&M Expenses as Rs. 9.9 Lakh / MW for first year with annual escalation of 5.72%. InWEA submitted that as per CERC Explanatory Memorandum on Draft RE Tariff Regulations 2024, the growth rate recorded in WPI and CPI during FY 2018-19 to FY 22-23 is around 5.89%. Considering the same, InWEA requested for fixing the O&M cost of Rs 13.82 lakh/MW for the first year with annual escalation at 5.89% per annum.

4.9.5. Commission's Analysis and Ruling

The Commission observed that most of the SERCs have specified Operation and Maintenance (O&M) Expenses for Wind Power Projects in RE Tariff Regulations / Tariff Orders in the range of Rs. 5.75 Lakh/MW to Rs. 12.55Lakh/MW. The O&M cost is depending on the location and size of the projects as well as prevalent market conditions.

The Commission feel that comparison of instant case with the regulatory regime / tariff order prevalent during the year 2016 is not appropriate. The Wind tariff order refer above was notified by the Commission in August 2016 prior to the notification of Competitive bidding

guidelines by the GoI. It may be noted that the tariff discovered under the competitive bidding conducted by GUVNL / SECI during the control period of Wind Tariff order 2016 (between 2017 to 2019) was in the range of Rs. 2.43 /kWh to Rs. 2.95/kWh as against tariff of Rs. 4.19/kWh determined by the Commission under the Wind tariff order notified in August 2016. Further, due to advancement of technology and economy of scale, the capital cost of Wind Power Project has been reduced substantially which is also evident from the tariff discovered through competitive bidding. Significant part of O & M expenses linked with capital cost of the project.

Considering above aspects, the Commission feel that the O&M cost of Rs. 7.00 Lacs per MW with O&M escalation rate of 3.84% is reasonable and covers the legitimate cost of O&M.

In view of above, the Commission decides to fix the O&M expense as Rs 7.00 lakh/MW during the first year of the control period with annual escalation at 3.84%.

4.4. Capacity Utilization Factor

4.4.1. Proposed in Discussion Paper

The Commission in the discussion paper has proposed normative Capacity Utilization Factor (CUF) of 35% for tariff determination purpose during the control period of this order.

4.4.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard.

4.4.3. Commission's Analysis and Ruling

The Commission observed that the Wind Power Density at preferred hub height will be a better indicator of CUF. The Wind Resource Atlas at 120 magl prepared by National Institute of Wind Energy (NIWE), MNRE shows most of unexplored potential areas in Gujrat falls under the CUF range of 32 to 35% and greater than 35%. The Commission noted that most of the wind projects commissioned in last control period have higher hub height with MW scale WTGs. The Commission believe that advancement in technology yield higher CUF due to higher hub height for which higher capital cost is allowed for determination of tariff.

In view of this, the Commission decides to fix the normative Capacity Utilization Factor (CUF) of 38% fixed for 25 years of project life for tariff determination purpose during the control period of this order.

4.5. Debt Equity Ratio

4.5.1. Proposed in Discussion Paper

The Commission in the discussion paper has proposed debt-equity ratio as 70:30 for the new control period based on the provisions under the Tariff Policy formulated by the Ministry of Power, Govt. of India and GERC Multi Year Tariff (MYT) Regulations, 2016 notified by the Commission.

4.5.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard.

4.5.3. Commission's Analysis and Ruling

The Commission decides to consider the debt-equity ratio of 70:30 for tariff determination purpose for the control period of this order.

4.6. Interest on term loan and Loan tenure

4.6.1. Proposed in Discussion Paper

The Commission in the discussion paper has proposed the normative interest rate on term loan as SBI MCLR rate plus 200 basis points which works out to 10.15 % for computation of interest on term loan and loan repayment period as 15 years for tariff determination purpose.

4.6.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard.

4.6.3. Commission's Analysis and Ruling

The Commission decides to consider the normative interest rate equal to 10.15 % for computation of interest on term loan. The Commission decides to fix the loan repayment period as 15 years for tariff determination purpose for the control period of this tariff order.

4.7. Depreciation

4.7.1. Proposed in Discussion Paper

The Commission in line with GERC Multi Year Tariff (MYT) Regulations, 2016 has proposed to consider depreciation at the rate of 4.67% per annum for the first 15 years, and 2% from 16th year to 25th year for tariff determination purpose for the new control period.

4.7.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments/suggestions from the stakeholders in this regard.

4.7.3. Commission's Analysis and Ruling

The Commission decides to fix the depreciation at the rate of 4.67% per annum for the first 15 years, and 2% from 16th year to 25th year for tariff determination purpose for the control period this Order.

4.8. Working Capital and Interest on Working Capital

4.8.1. Proposed in Discussion Paper

The Commission in the discussion paper has proposed to consider following component of working capital for determination of working capital requirement for Wind Power Project.

- O&M expenses for one month.
- Receivables of one month charges for sale of electricity.
- Maintenance spares at 1% of the capital cost escalated at 5% per annum

As per provisions in the GERC MYT Regulations, it is proposed to consider the interest on working capital equal to SBI MCLR plus 250 basis points, which works out as 10.65 %.

4.8.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard.

4.8.3. Commission's Analysis and Ruling

The Commission decides to fix following component of working capital for determination of working capital requirement for Wind Power Project.

- O&M expenses for one month.
- Receivables of one month charges for sale of electricity.
- Maintenance spares at 1% of the capital cost escalated at 5% per annum

The Commission decides to fix normative interest on working capital equal to 10.65% for tariff determination purpose for the control period this order.

4.9. Return on Equity

4.9.1. Proposed in Discussion Paper

GERC (Multi Year Tariff) Regulations, 2016 provides for Return of Equity at the rate 14% plus the applicable tax payment. The Commission follow the RoE norms as specified in MYT Regulations while determining generic tariff for conventional and renewable power projects. Accordingly, the Commission proposed to consider the RoE of 14% and applicability of MAT @ 17.47 % per annum for first 10 years and corporate tax @ 34.94% (IT Rate 30% + 12% Surcharge + 4% Cess) per annum for the next 15 years for tariff determination purpose in the discussion paper.

4.9.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard

4.9.3. Commission's Analysis and Ruling

The Commission notes that the GERC MYT Regulations 2024 notified by the Commission provides for RoE of 15.5% for determination of tariff for generating projects. Accordingly, the Commission decide to consider 15.5 % RoE for determination of tariff for Wind Power Projects below threshold limit. Further, the tax payment of MAT @ 17.47% per annum for first 10 years and Corporate Tax @ 34.94% per annum for the next 15 years has been considered separately for tariff determination purpose.

4.10. Discount Rate

4.10.1. Proposed in Discussion Paper

The Commission in the discussion paper proposed the discount rate equal to weighted average cost of capital (WACC). Considering the normative interest rate and normative Return of Equity, the discount rate of 9.32 % was proposed for levelized tariff calculations.

4.10.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard.

4.10.3. Commission's Analysis and Ruling

The Commission decides to consider the discount rate of 9.77% corresponding to the rate of Interest on Term Loan and RoE for levelized tariff calculations of Wind Power Project for the control period of this Order.

4.11. Accelerated Depreciation

4.11.1. Proposed in Discussion Paper

The Commission in the discussion paper for ascertaining the Income Tax benefit on account of accelerated or additional depreciation has proposed following methodology:

i. The assessment of benefit shall be based on normative Capital Cost, accelerated/ additional depreciation rate as per the relevant provisions of the Income Tax Act and the Corporate Income Tax rate;
ii. Capitalisation of Wind Power Projects for the full financial year;
iii. Per-unit benefit shall be derived on levelized basis at a discounting factor equivalent to the post-tax weighted average cost of capital.

As per provisions in the Income Tax act, the Wind Project Developer can avail 60% depreciation in the first year of commissioning. The Commission has considered above depreciation rate while calculating per unit AD benefit.

4.11.2. Suggestions/Objections of the Stakeholders

The Commission has not received any comments / suggestions from the stakeholders in this regard.

4.11.3. Commission's Analysis and Ruling

The Commission decides to ascertain the Income Tax benefit on account of accelerated or additional depreciation as proposed in the discussion paper.

4.12. Computation of generic tariff for Wind Power projects below threshold limit (below 10 MW) for New Control Period

The Commission has determined the generic tariff for Wind Power Projects below threshold limit of eligibility to participate in competitive bidding in the present Order after considering the various normative technical and financial parameters and after hearing all the stakeholders and considering their views/suggestions. The tariff is decided by the Commission in the present Order in terms of Section 62 read with 86 (1) (a), (e) of the Electricity Act, 2003 and the provisions specified under National Tariff Policy, 2016.

Benchmark Operational and Financial Parameters considered by the Commission for Wind Power Projects below threshold limit (below 10 MW) commissioned during the control period

Parameters	Value	Unit
Financial Parameters		
Capital Cost of Wind Power Project	700.00	Rs. Lacs /MW
Non - Depreciable Amount / Salvage value	10.00%	% of Capital Cost
Depreciable Amount (Cap Cost Less non-depreciable Cost)	630.00	Rs. Lacs
Debt Fraction	70.00%	%
Debt	490.00	Rs. Lacs
Equity	210.00	Rs. Lacs
TOTAL (Debt+Equity)	700.00	Rs. Lacs
Interest Rate on Term Loan	10.15	%

Parameters	Value	Unit
Repayment Period	15	years
Moratorium Period	0	years
Term loan period for principal payment	15	years
Depreciation for First 15 years (Straight Line Method)	4.67%	% p.a.
Depreciation for 16-25 years (Straight Line Method)	2.00%	% p.a.
Discount Rate	9.77%	%
O&M cost	7.0	Rs. Lacs / MW
O&M Cost Escalation	3.84	% p.a.
Return on Equity (1-10 years)	15.50%	%
Return on Equity (11-25 years)	15.50%	%
Minimum Alternative Tax (First 10 years)	17.47%	%
Corporate Tax (Last 15 years)	34.94%	%
Interest on working capital	10.65	%
Technical Parameters		
Capacity of the Wind Power Project	1	MW
Capacity Utilization Factor	38	%
Annual Generation	33.29	Lakh kWhs
Life of Plant and Machinery / Project Life	25	years

Tariff decided by the Commission for Wind Power Projects below threshold limit (below 10MW)	Value	Unit
Levelized tariff	**3.17**	**Rs./kWh**
AD benefit	**0.33**	**Rs./kWh**
Net tariff	**2.84**	**Rs./kWh**

The Wind Power Project developers may be eligible for getting Financial Assistance / Financial Incentive / Subsidy/ other benefits from the Central Government, if any. Such benefits as may be availed by the project developers needs to be factored in the above tariff determined by the Commission. In case project developer avails Financial Assistance / Financial Incentive / Subsidy/ other benefits from the Central Government / State Government, if any, the Commission shall re-determine the tariff for respective project developers by factoring the benefits availed by project developers.

The Wind Power Project below 10 MW commissioned during the control period of this Order are eligible to receive the tariff as decided above.

4.13. Applicability of the Order

The effective date of this Order is from 06.06.2022 to 31.03.2027. Accordingly, the tariff framework specified in this Order shall be applicable to Wind Power Projects commissioned on or after 06.06.2022. If any Transmission and/or Wheeling Agreement for the Wind Power Project executed after 05.06.2022 as per the provisions of previous Tariff Order No. 02 of 2020 dated 30.04.2020 read with Order No. 04 of 2020 dated 26.05.2020, the same shall be modified and aligned with the provisions of this Order.

Sd/-	**Sd/-**	**Sd/-**
[S. R. Pandey]	**[Mehul M. Gandhi]**	**[Anil Mukim]**
Member	**Member**	**Chairman**

Place: Gandhinagar

Date: 31/08/2024.

Annexure I

List of Stakeholders communicated their views/comments/suggestions on the Discussion Paper

Sr. No.	Name of Stakeholders
1	Ganesha Wind Park Pvt. Limited
2	OPWIND Energy Pvt. Limited
3	Gujarat Urja Vikas Nigam Limited
4	Juniper Green Beam Pvt. Limited
5	Opera Energy Pvt. Limited
6	Indian Wind Energy Association
7	State Load dispatch Centre - Gujarat
8	Torrent Power Limited

Annexure II

List of Stakeholders who attended the Public Hearing on 08.04.2024 and submitted their views/comments/suggestions on the subject matter.

Sr. No.	Name of Stakeholders
1	Ganesha Wind Park Pvt. Limited
2	OPWIND Energy Pvt. Limited
3	Gujarat Urja Vikas Nigam Limited
4	Juniper Green Beam Pvt. Limited
5	Opera Energy Pvt. Limited
6	Indian Wind Energy Association
7	State Load dispatch Centre - Gujarat
8	Gujarat Energy Development Agency

Tariff Calculations for Wind Power Plant below Threshold limit																								
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Net Energy sold (lakh kWhs)	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29
Costs																									
O&M	7.00	7.27	7.55	7.84	8.14	8.45	8.78	9.11	9.46	9.83	10.20	10.60	11.00	11.42	11.86	12.32	12.79	13.28	13.79	14.32	14.87	15.44	16.04	16.65	17.29
Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation (SLM)	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	48.08	44.76	41.45	38.13	34.81	31.50	28.18	24.87	21.55	18.24	1.24	0.97	0.69	0.41	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working capital	1.94	1.96	1.97	1.99	2.01	2.03	2.05	2.08	2.11	2.14	2.10	2.17	2.24	2.31	2.39	2.30	2.39	2.48	2.58	2.68	2.78	2.89	3.01	3.13	3.25
Return on Equity	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55
Tax on equity	5.69	5.69	5.69	5.69	5.69	5.69	5.69	5.69	5.69	5.69	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37
Total Cost (Rs lakh)	**127.92**	**124.89**	**121.87**	**118.86**	**115.86**	**112.88**	**109.91**	**106.96**	**104.03**	**101.11**	**90.14**	**90.32**	**90.52**	**90.74**	**90.98**	**72.54**	**73.10**	**73.69**	**74.29**	**74.92**	**75.58**	**76.26**	**76.97**	**77.70**	**78.47**
Tariff																									
Tariff (Rs/kWh)	3.84	3.75	3.66	3.57	3.48	3.39	3.30	3.21	3.13	3.04	2.71	2.71	2.72	2.73	2.73	2.18	2.20	2.21	2.23	2.25	2.27	2.29	2.31	2.33	2.36
Levelized Fixed Tariff Calculations																									
Discount Rate	9.77%																								
Levelized Tariff (Rs / kWh)	**3.17**																								