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**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION (GRID
INTERACTIVE ROOFTOP RENEWABLE ENERGY GENERATING SYSTEMS)
(FIRST AMENDMENT) REGULATIONS, 2023**

STATEMENT OF REASONS

Dated: 16 November, 2023

Introduction

The Maharashtra Electricity Regulatory Commission (“MERC” or “the Commission”) has notified the Maharashtra Electricity Regulatory Commission (Grid Interactive Rooftop Renewable Energy Generating System) Regulations, 2019 (‘the Principal Regulations’) on 30 December 2019. As per Section 86 (1) (a) of the Electricity Act, 2003 (“EA 2003” or “the Act”), the State Electricity Regulatory Commissions (SERCs or Commissions) have been assigned the function of promoting generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person.

The Commission proposed the Grid Interactive Rooftop Renewable Energy Generating System (First Amendment) Regulations, 2023 with the rationale for the various provisions proposed in the Draft (First Amendment) Regulations, 2023 elaborated in the Explanatory Memorandum (EM) published along with the Draft (First Amendment) Regulations, 2023.

Accordingly, the Draft (First Amendment) Regulations, 2023 and the associated Explanatory Memorandum were published on the Commission’s website www.merc.gov.in in downloadable format on 5 August 2023. A Public Notice was also published in daily newspapers Marathi (Maharashtra Times and Lokmat) and English (Indian Express and Times of India), inviting comments, objections and suggestions from all stakeholders to be submitted to the office of Commission on or before 25 August 2023, which was subsequently extended till 4 September 2023.

A total of 15 stakeholders have submitted their comments/suggestions/objections on the Draft MERC (First Amendment) Regulations, 2023. The list of stakeholders who offered their comments/suggestions/ objections on the Draft MERC (First Amendment) Regulations, 2023, which have been considered by the Commission while finalising the Regulations, is placed at **Annexure-I**.

The main comments/suggestions/objections and views expressed by the stakeholders through their written 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 in this Statement of Reasons (**SOR**). However, in case any suggestion is not specifically elaborated, it does not mean that the same has not been considered. Further, some stakeholders have suggested changes on Syntax/phrase/addition of word(s)/rewording related changes, etc., which have been suitably incorporated, wherever necessary.

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

Some comments and suggestions were not directly related to the Draft Regulations on which inputs were invited. While the Commission has summarised such comments and suggestions or objections briefly in this Statement of Reasons (SOR), specific rulings on the same have not been provided, as the same are outside the scope of these Regulations.

The SOR is organised in the following Chapters, along the same lines as the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating System) (First Amendment) Regulations, 2023, summarising the main issues raised during the public consultation process, and the Commission's analysis and decisions on them which underlie the Regulations as finally notified:

Chapter 1: The Electricity (Rights of Consumers) Rules, 2020 issued by MoP

Chapter 2: The Electricity (Rights of Consumers) (First Amendment) Rules, 2021 issued by MoP

Chapter 3: Additional Points.

1 The Electricity (Rights of Consumers) Rules, 2020

1.1 Substitution of Regulation 9.5 of the Principal Regulations:-

9.5 “The procedure for application for connectivity of a Renewable Energy Generating System with the Network of the Distribution Licensee and timelines for performing various activities are set out at **Annexure-1** of these Regulations:

Provided that in case of delay in performing any activity by Distribution Licensee, it shall compensate the concerned consumer at the rate of five hundred rupees per day of delay in performing the activity.”

1.1.1 Comments Received

BEST submitted that the charges for compensation for delay in giving connectivity should be in line with Annexure II 1 (ii) of MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021.

Shri Sachin More submitted that in case of delay in performing any activity by Distribution Licensee, it should compensate the concerned consumer at the rate of One thousand rupees per day of delay in performing the activity.

The Maharashtra State Electricity Distribution Company Limited (MSEDCL) requested for the removal of penalty amount until approved Capex and Opex schemes are implemented. MSEDCL added that existing provisions in the Supply Code Regulations are applicable in this matter.

1.1.2 Analysis and Commission’s Decision

The Commission notes that the compensation amount specified in the draft Amendment is as per the The Electricity Rights of Consumer, Rules, 2020, notified by the MoP.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station)(First Amendment) Regulations, 2023 in this regard.

2 The Electricity (Rights of Consumers) (First Amendment) Rules, 2021

2.1 Substitution of Regulation 2.1 (j) of the Principal Regulations - Definition of Eligible Consumer

“2.1 (j) “Eligible Consumer” means a consumer of electricity in the area of supply of the Distribution Licensee who uses or intends to use a Renewable Energy Generating System, installed on a roof-top or any other mounting structure in his premises, to meet all or part or no part of his own electricity requirement, and includes a Consumer catering to a common load such as a Housing Society:

Provided that such Generating System may be owned and/or operated by such Consumer, or by a Distribution Licensee or third party leasing such System to the Consumer:

Provided further that in case of Net Metering Arrangement, the capacity of Renewable Energy Generating System shall be limited to 1 MW or Contract Demand/Sanction Load of consumer, whichever is lower:

Provided also that for all other arrangements, the capacity of Renewable Energy Generating System shall be limited to Contract Demand/Sanctioned Load of consumer.”

2.1.1 Comments Received

Amplus Solar Energy Private Limited (Amplus) requested to clarify whether the eligibility of consumers for installation of Renewable Energy Generating Systems under Net Metering arrangement shall be construed as 1 MW AC or Contract Demand/ Sanctioned Load of consumer, whichever is lower, or as 1 MW DC or Contract Demand/ Sanctioned Load of consumer. Amplus also requested the Commission to consider roof-top projects operating under third party sale of power.

Shri Mayur Pandey submitted that the clause “The capacity of Renewable Energy Generating System shall be limited to 1 MW or Contract Demand (CD)/Sanctioned Load (SL) of consumer, whichever is lower” may cause conflicts as there are many consumers under ambit of CD billing but SL is also mentioned, which might be low.

Shri Sudhir Budhay submitted that the wording of the Regulation “Or intends to use a RE Generating System” very clearly specifies that it is applicable to all new consumers who intend to go for roof top solar. Hence, clear directive should be given to DISCOMs to make necessary changes immediately on fresh application forms, physical or online to accommodate new

applications with Net Metering / Net Billing option. The earlier procedure of accepting Net Metering / Net Billing options only after generation of 1st bill as a normal consumer needs to be changed in case of fresh application.

Aly India Renewable requested to incorporate provision of applying for new connection and also Net Metering connection in one go for the new connections planning to go for solar from day one. At present, consumers who are planning to install roof top solar have to compulsorily apply under normal category, wait for few months to get the 1st bill generated and then apply for Net metering / Net Billing connection. This is an added expenditure for normal meter and time loss for consumer.

The Navi Mumbai International Airport (NMIA) suggested to exempt airports including NMIA from the capacity limit of 1 MW on “renewable energy generation systems” for consumers availing Net Metering arrangement.

Department of Textiles, Government of Maharashtra requested to remove cap of 1 MW on Net metering for textile Industry.

MSEDCL submitted that the second and third provisos of the draft Amendment should be aligned with the capacity limit for Net Metering/Net Billing/Gross Metering stipulated by the MoP and the limit should be specified as five hundred kilowatt or up to the Contract Demand/Sanctioned Load, whichever is lower.

MSEDCL added that the criteria of Eligible Consumer having load up to 500 kW of rooftop RE Generation system also needs to be made applicable for any other applicable provisions related to rooftop RE generation systems.

2.1.2 Analysis and Commission’s Decision

It is clarified that for arriving at eligible capacity, the capacity of Renewable Energy Generating System shall be reckoned based on its output capacity in AC.

As regards the submission that Net Metering should be allowed for loads up to 500 kW in accordance with the MoP Rules, it is clarified that the Electricity (Rights of Consumers) Amendment Rules, 2021 notified on 28 June 2021 stipulate the said lower limit only in cases where the Commission’s Regulations do not provide for net-metering or net-billing, which is not the case in Maharashtra.

The Commission noted that suggestion for increasing/ removing upper limit of 1 MW Renewable generating System under net-metering arrangement. In this regard, it is necessary to understand how such limit is decided. The Working Group of the Forum of Regulators (FoR) in its Report of August-2013 had set out the following reasoning for suggesting a capacity limit of 1 MW for Roof-top Solar PV Net Metering arrangements in its draft Model Regulations:

“

The following provisions can be considered for developing the regulatory framework for net-metering based roof-top PV systems:

The maximum rated capacity for a roof-top project for interconnection with the grid at a specific grid voltage level shall be as per the provisions of the respective state supply/distribution code, read for the purpose of deciding the interconnection voltage by replacing the contracted demand with maximum rated capacity of the Solar roof-top system.

The maximum capacity of roof-top Solar system defined for grid connection in several states is 1 MW. The maximum permissible capacity under RPSSGP is 2 MW, where most projects have been ground-mounted small-scale projects. Considering the above, the maximum capacity limit for roof-top Solar system can be capped at 1 MW for a single metering point to qualify under net-metering.”

Accordingly, the FoR Model Regulations provided as follows:

“

...6.2 The maximum roof-top Solar system capacity to be installed at any eligible consumer premises shall be governed by the eligibility of interconnection with the grid for that eligible consumer;

Provided that the maximum installed capacity shall not exceed 1 MW;..”

In 2013, the Commission also dealt with such issue in Case No. 86 of 2013 seeking guidelines for connectivity of Solar Generators below 1 MW. In its Order dated 25 November 2013, considering the complexities involved, the Commission constituted a Working Committee. In its Report of July- 2014, while noting different practices in other States, to start with, the Committee recommended capacity limit of 1 MW as suggested by FOR in its Model.

During that point of time, rooftop Solar segment was in nascent stage. Further, it was the first time when bidirectional power flows on Distribution networks were envisaged. Hence, the Commission adopted the threshold system capacity limit of 1 MW in line with Model Regulations, while framing MERC (Net Metering for Roof-top Solar Photo Voltic Systems) Regulations, 2015.

Subsequent such Regulation, the Commission had received various Petitions such as Petition of Maharashtra Metro Rail Corporation Ltd. (MMRCL) (Case No.133 of 2016), Petition of Bharat Electronics Ltd (BEL) (Case No.160 of 2017) and Petition of Western Railway, Mumbai Central Division (Case No.112 of 2018) wherein Petitioners sought permission to install RE system with capacity more than 1 MW. In said matters the Commission has not provided any relaxation.

The Commission notes that Uttar Pradesh Electricity Regulatory Commission (UPERC) invoked the ‘Power to Relax’ Clause of its Solar Rooftop Regulations and allowed setting up of Solar PV systems (more than 1 MW) under net metering.

Cases where UPERC has allowed Solar PV systems above 1 MW

Sr.No.	Petitioner	Project Size Allowed	Sanctioned Load/ Contract demand of the Facility
1	Ordnance Factory, Kanpur	5.00 MW	22.00 MVA
2	Hindustan Aeronautics Ltd., Kanpur	2.90 MW	2.90 MW
3	Hindustan Aeronautics Ltd., Amethi	1.75 MW	5.00 MVA
4	Jhanshi Workshop, North-Central Railway	1.20 MW	2.945 MVA
5	L.B.S. International Airport, Varanasi	2.00 MW	2.00 MVA
6	Sukhir Agro, Shahjahanpur	3.40 MW	3.80 MW
7	Hindustan Aeronautics Ltd., Lucknow	4.00 MW	12.21 MW

From the above table it is clear that even though the project size is greater than 1MW, it is less than or equal to their sanction loads/ contract demand.

Further, stipulations in 2015 and 2019 Net Metering Regulations were aligned with targets specified in Maharashtra’s non-conventional Energy Policy, 2015 and 2020. Now India has a vision to achieve Net Zero Emissions by 2070. Further, it intends to increase renewables capacity to 500 GW by 2030 which includes the installation of 280 GW of solar power and 140 GW of wind power. In Order to translate vision into action, Ministry of Power vide its notification dated 22 July 2022 stipulated aggressive RPO targets. It is observed that certain establishments do have capacity (in terms of space availability and resources) to install higher capacity Renewable Generating Capacity in their premises. Hence, considering the suggestions and in order to encourage higher penetration of Renewable Energy, the Commission has decided to increase the capacity limit of 1 MW under net-metering arrangement to 5 MW.

Hence, the 2nd proviso to the definition of “Eligible Consumer” has been modified as under:

“Provided further that in case of Net Metering Arrangement, the capacity of Renewable Energy Generating System shall be limited to 5 MW or Contract Demand/Sanction Load of consumer, whichever is lower..”

It is clarified that the term ‘Contract Demand/ Sanctioned Load’ used in above provisions of the Regulation shall be used appropriately based on the parameter approved for the consumer. In case Contract Demand is approved, Sanctioned Demand is not applicable. But when contract demand is not approved separately, Sanctioned Demand shall be used.

The definition of Eligible Consumer in the Draft Amendment Regulations specifies that “Eligible Consumer” means a consumer of electricity in the area of supply of the Distribution Licensee who uses or intends to use a Renewable Energy Generating System. The Regulation does not specify that it is applicable to new consumers. The Eligible Consumer has to be an existing consumer, who intends to use a Renewable Energy Generating System. Hence, no modification is required in this clause.

2.2 Introduction of Regulation 2.1 (k)(a) after Regulation 2.1 (k) of the Principal Regulations—

Definition of Gross Metering Agreement

*“2.1(k)(a) **“Gross-Metering”** means a mechanism whereby the total renewable energy generated from Renewable Energy Generating system of an eligible consumer and the total energy consumed by the eligible consumer are accounted separately through appropriate metering arrangements and for the billing purpose, the total energy consumed by the eligible consumer is accounted at the approved grid tariff and total renewable energy generated is accounted at pre-determined tariff by the Commission.”*

2.2.1 Comments Received

BEST submitted that in Regulation 2.1 (k)(a), the total energy consumed should be accounted at approved retail supply tariff rather than as per approved grid tariff.

MSEDCL submitted that in Regulation 2.1 (k)(a), *“the ‘pre-determined tariff’ should be considered as ‘Generic Tariff’.*

2.2.2 Analysis and Commission’s Decision

It is clarified that the approved grid tariff is nothing but the approved retail supply tariff for the applicable consumer category. It is also clarified that the ‘pre-determined tariff’ is the approved generic tariff.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

2.3 Substitution of Regulation 2.1 (n) of the Principal Regulations:

*“2.1(n) **“Net Billing Arrangement”** means an arrangement under which surplus energy injected into the Grid by Renewable Energy Generating System is purchased by the Distribution Licensee and the Distribution Licensee raises the bills on the consumer for his consumption from the Grid at the approved grid tariff, after giving credit for energy injected into the Grid at pre-determined tariff.”*

2.3.1 Comments Received

Cleanmax submitted that the Commission should clarify/incorporate the proviso in the said Regulations that in the event of the consumer availing rooftop as well as Open Access, the same shall be allowed under Net Billing arrangement.

BEST submitted that the Distribution Licensee should raise the bill as per approved retail supply tariff and not as per approved grid tariff.

MSEDCL submitted that Commission should consider ‘Generic Tariff’ as the ‘Pre-determined tariff’ under this mechanism, as in case it is Average Pooled Power Cost (APPC), the aim of self-use will be defeated and it will be turned into a business by increasing Sanctioned Load and installing Roof Top Solar.

2.3.2 Analysis and Commission’s Decision

The provisions of Net Billing arrangement have been proposed in accordance with the MoP Rules. Request for allowing Open Access and Net Billing on simultaneous basis is appropriately dealt with in Second Amendment to Distribution Open Access Regulations.

As clarified earlier, the approved grid tariff is nothing but the approved retail supply tariff for the applicable consumer category, while the ‘pre-determined tariff’ is the approved generic tariff.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

2.4 Substitution of Regulation 3.1(c) and introduction of Regulation 3.1(d):-

“3.1 (c) Gross Metering arrangements.

“3.1 (d) Grid Connected Renewable Energy Generating Systems connected behind the Consumer’s meter, who have not opted for Net Metering Arrangement or Net Billing Arrangement or Gross Metering Arrangement.”

2.4.1 Comments

MSEDCL submitted that as per the Explanatory Memorandum published by the Commission, the intent of framing the draft Amendment Regulations is to align the Principal Regulations with the Electricity (Rights of Consumer) Rules, 2020 notified by the MoP. However, the MoP does not envisage any arrangement that would apply to grid connected RE generating system connected behind the consumer’s meter. MSEDCL requested the Commission to either:

- (a) Discontinue the applicability of the Regulations to ‘grid connected RE generating system connected behind the Consumer’s meter not opting for Net Metered Arrangement or Net Billing Arrangement or Gross Metering Arrangement’, which would be in line with the MoP Rules;

or,

- (b) If such Consumer is not an Obligated Entity, the quantum of electricity consumed by such consumer from the RE generating system should qualify towards meeting the RPO of Distribution Licensee. Additionally, it is requested that Stand-by charges should be made applicable for the ‘Behind the Consumer’s meter arrangement’ as MSEDCL has to supply them as per their demand.

2.4.2 Analysis and Commission’s Decision

The Commission clarifies that the provisions for ‘Behind the Meter’ arrangement were finalized after due consideration in the Principal Regulations, which are not proposed to be amended. The intent of the Principal Regulations was to bring about some kind of oversight on these connections. It is clarified that these installations do not fall under Net Metering or Net Billing or Gross Metering arrangement, and are hence, not addressed in the MoP Rules.

It is clarified that Standby Charges are not applicable for the Renewable Energy Generating Stations envisaged under Net Metering or Net Billing or Gross Metering arrangement, as per the MERC Principal Regulations.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

2.5 Introduction of Regulation 3.3 after Regulation 3.2 of Principal Regulations:-

“3.3 ‘Net Metering arrangement and/or Net Billing Arrangement’ referred together in Regulations 4 to 10 of the Principal Regulations shall be referred as ‘Net Metering arrangement and/or Net Billing Arrangement and/or Gross Metering Arrangement’ as applicable.”

2.5.1 Comments Received

MSEDCL submitted that in case applicability of ‘Behind the meter’ arrangement is retained; then the criteria for non-eligibility of consumers with respect to arrears should be also made applicable for ‘Behind the meter’ arrangement also. Accordingly, the amended Regulation 6.6 would read as under:

“6.6. Consumer with pending arrears with the Distribution Licensee shall not be eligible for Net Metering Arrangement or Net Billing Arrangement or Gross Metering Arrangement or Behind the Consumer’s Meter arrangement under these Regulations.”

Thus, MSEDCL requested the Commission to insert additional clause in the Regulations as under:

“In case of consumer who opted for any arrangement under these regulations, and in case consumer has pending arrears with the Distribution Licensee for more than 30 days period then consumer shall not be eligible for various benefits offered under these Regulations”.

On the other hand, MEDA submitted that the Net-metering or Gross metering may be allowed for all RE projects installed for Government Departments/Institutions/Corporations/ Government hospitals/Local Bodies with pending arrears. This will help to reduce future arrears, boost RE generation and help to meet RPO targets.

2.5.2 Analysis and Commission’s Decision

The Commission clarifies that the provisions for ‘Behind the Meter’ arrangement were finalized after due consideration in the Principal Regulations, which are not proposed to be amended. The intent of the Principal Regulations was to bring about some kind of oversight on these connections. The restriction sought by MSEDCL for such connections is not appropriate, considering the nature of these installations.

As regards imposing the restriction that consumers with arrears shall not be eligible for Net Metering Arrangement or Net Billing Arrangement or Gross Metering Arrangement, the Commission clarifies that such restriction is already in place for Net Metering and Net Billing (Cl. 6.6). However, there is no need to restrict Gross Metering, as arrears with the Licensee can

be recovered against payment being made by the Distribution Licensee for the energy injected into the grid at pre-determined tariff.

The Commission is of the view that consumers having arrears should first clear their dues with the Distribution Licensee, in order to become eligible for entering into Connection Agreements for Net Metering and Net Billing arrangements.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

2.6 Substitution of Regulation 8.11 of the Principal Regulations:-

“8.11 In case of Renewable Energy Generating System set up under Gross Metering Arrangement, an additional Check Meter for the Renewable Energy Generation Meter of appropriate class shall be installed by the Distribution Licensee.”

2.6.1 Comments received

TPC-D submitted that Commission should include the Guidelines regarding specifications of check meter and clarify who will bear the cost of check meter.

2.6.2 Analysis and Commission’s Decision

The Commission clarifies that the specifications of Check Meter shall be same as Renewable Energy Generation Meter and the cost of the Check Meter shall be borne by the Distribution Licensee.

2.7 Introduction of Proviso to Regulation 11.4(e) of the Principal Regulations—

“Provided that in case such credit amount is continuously increasing at the end of three consecutive financial years, then at the end of third financial year, 50% of the credit amount shall be paid in cash to the consumer and balance 50% shall be credited in electricity bill.”

2.7.1 Comments Received

Amplus submitted that to avoid ambiguity and unwanted litigations at a later stage, the Commission should provide a timeline for the disbursement of the accumulated credit amount by the Distribution Licensee to the consumers.

Aly India Renewable, Shri Sudhir Budhay, and BEST submitted that the mode of payment, viz., cheque, RTGS, etc., may be specified. In case of cheque, the same should be delivered at the consumer’s billing address. In case of RTGS, provision for bank details needs to be incorporated on DISCOM portal. Further, the time frame for payments may be specified as “within 30 days” or so as applicable for credit amount of the banked units. The effective date

for counting three consecutive financial years for all such credit also needs to be specified to avoid confusion in future.

Shri Sachin More submitted that in case such credit amount is continuously increasing at the end of any settlement period, then within 90 days from the said settlement period end, the said credit amount shall be paid in cash to the consumer or prosumer. If for any reason, the Distribution Company fails to pay the said credit amount in cash within 90 days, the said consumer or prosumer should be entitled to get interest at the prevailing SBI rate on the said credit amount for such delay.

2.7.2 Analysis and Commission's Decision

The Commission has noted the suggestions regarding the need for clarifying the mode of payment, timelines for payment, consequences of delay in payment, etc., and clarifies as under:

The 50% of the credit amount shall be paid through electronic transfer to the consumer within 60 days of the end of the third financial year. Similarly, the balance 50% amount shall be credited in the second electricity bill after the end of such third financial year. Further, in case of delay in payment of settlement amounts by Distribution Licensee beyond 60 days after the end of the 3rd year, interest shall be payable for the delay @ SBI 1-year MCLR plus 150 basis points.

As regards the clarification desired regarding the effective date for counting three consecutive financial years for all such credit, it is clarified that the three consecutive years could be any period of three years, and need not necessarily be the first 3 years, etc. For instance, the period of 3 years for accumulation of credit amount could be from the 3rd year to 5th year. It is however, mandatory that the period has to be consecutive 3 years, and the amount of credit has to be continuously increasing.

Accordingly, the 1st proviso to Regulation 11.4 (e) has been modified and a new 2nd proviso has been introduced as under:

“Provided that in case such credit amount is continuously increasing at the end of three consecutive financial years, then at the end of third financial year, 50% of the credit amount shall be paid in cash through electronic transfer to the consumer within 60 days of end of such third financial year and balance 50% shall be credited in the second electricity bill after the end of such third financial year:

Provided further that in case of delay in payment of the credit amount through electronic transfer and/or crediting of electricity bill beyond 60 days of end of such third financial year, the Distribution Licensee shall be required to pay simple interest on the

outstanding amount at the rate equal to the prevalent 1-year Marginal Cost of Lending Rate (MCLR) of State Bank of India plus 150 basis points to the Eligible Consumer.”

2.8 Introduction of Regulation 11 (A) after Regulation 11 of the Principal Regulations—

“11 (A) Net Billing – Energy Accounting and Settlement

11.1 (A) The accounting of electricity exported and imported by the Eligible Consumer shall become effective from the date of connectivity of the Renewable Energy Generating System with the distribution network.

11.2 (A) The Distribution Licensee shall undertake meter reading of both, the Renewable Energy Generation Meter and the Net Meter, for all Eligible Consumers, according to the regular metering cycle.

11.3 (A) For each Billing Period, the Distribution Licensee shall make the following information available on its bill to the Eligible Consumer:

- a) Quantum of Renewable Energy generation recorded in the Renewable Energy Generation Meter in the billing period, including opening and closing balance;*
- b) Quantum of electricity units consumed by the Consumer in the billing period, including opening and closing balance;*
- c) Quantum of energy injected and drawn by Prosumer into/from Grid of the Distribution Licensee;*
- d) Renewable Energy generation units used by the Distribution Licensee for RPO compliance.*

11.4 (A) The energy generated by the Renewable Energy Generating System shall be first used for self-consumption and surplus energy injected into the Grid or energy drawn from the Grid shall be billed as per following equation:

Energy Bill of consumer = Fixed Charges + other applicable charges and levies + (E_{DL} x T_{RST}) – (E_{RE} x T_{GC}) – Billing Credit;

Where:

- a) Fixed Charges means the Fixed/Demand Charges as applicable to the consumer category as per the applicable retail supply Tariff Order;*
- b) Other charges and levies mean any other charges such as municipal tax, cess, etc.;*
- c) E_{DL} means the energy drawn from the Grid by the Prosumer;*

d) T_{RST} means the applicable retail supply tariff of the concerned consumer category as per the applicable retail supply Tariff Order of the Commission;

e) E_{RE} means the energy injected into the Grid by the Prosumer;

f) T_{GC} means the Generic Tariff approved by the Commission for that year;

g) Billing Credit is credit available from previous months.

11.5 (A) *The Distribution Licensee shall accept the power as per the Useful Life of the Renewable Energy Generating System, unless the Eligible Consumer ceases to be a consumer of the Licensee or the Renewable Energy Generating System is abandoned earlier.*”

2.8.1 Comments Received

BEST submitted that in Regulation 11.4 (A), the prescribed formula is suitable for non-ToD consumers. However, for ToD consumers, revised formula needs to be specified considering the adjustments of excess injected units with non-peak ToD consumption. Further slot-wise ToD charges computation also needs to be specified. Terms such as E_{DL} , T_{RST} , E_{RE} , T_{GC} need to be re-defined accordingly.

2.8.2 Analysis and Commission’s Decision

The Commission is of the view that the formula specified is appropriate, as the ‘ T_{RST} ’, i.e., the Retail Supply Tariff encompasses the ToD tariff as applicable. The method of adjustment of the RE injected into the grid is clearly specified in the Regulations, and is on TOD basis only, for all categories, where TOD tariff is applicable.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

2.9 Substitution of Regulation 12 and 12.1 of the Principal Regulations:—

“12. Gross Metering – Energy Accounting and Settlement

12.1 *Gross Metering is the arrangement where the Renewable Energy Generating System is setup for selling entire generated power to Distribution Licensee under Power Purchase Agreement:*

Provided that if Renewable Energy Generating System is connected on the consumer side of the consumer meter, then the consumer shall have to replace the consumer meter with a Net Meter.”

2.9.1 Comments Received

Aly India Renewable and Shri Sudhir Budhay submitted that in case where consumer meter is replaced with net meter, procedure for calculation of actual consumption by consumer will be $\text{Total consumption} = \text{Actual import from Grid} + (\text{Generation} - \text{export})$. Since this Regulation applies to only Gross Metering arrangement, option of connecting on consumer side and installation of net meter should not be given. This may end up with commercial disputes as exact calculations of power consumed by consumer will be subject to calculations. It is better to install only Generation Meter connected to grid side of consumer meter. In such case generation meter will show generation reading and his existing meter will show his consumption. Further, absence of Net Meter will also make it easy for field staff to distinguish between Net Metering /Net Billing consumer and Gross Metering consumer.

2.9.2 Analysis and Commission's Decision

By way of intended provision, the Commission is providing flexibility to consumers for installation of RE systems on consumer side.

Under gross metering arrangement, it is envisaged that Prosumers installation (RE System + Load) will interact at single point of connection. If objection of Aly India Renewable and Shri Sudhir Budhay is considered, then it requires separate connections. In such case billing will also be separate. As per MoP Rules, transactions of energy and billing are expected to be in the same energy bill. Hence, the Commission clarifies that no modification is required as the Draft Regulations are as per MoP Rules.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

2.10 Clause 9 of Annexure-4 of the Principal Regulations:-

“9 Connection Costs

The Eligible Consumer shall bear all costs related to the setting up of the Renewable Energy Generating System, excluding the cost of the Renewable Energy Generation Meter”

2.10.1 Comments Received

MSEDCL submitted that as per Regulation 8.7 of the Principal Regulations, the Renewable Energy Generation Meter shall be procured by the Eligible Consumer at his own cost. Hence, MSEDCL requested the Commission to modify the Clause 9 as under:

“9. Connection Costs

*“The Eligible Consumer shall bear all costs related to the setting up of the Renewable Energy Generating System, **including** the cost of the Renewable Energy Generation Meter.”*”

2.10.2 Analysis and Commission’s Decision

MSEDCL’s submission is correct. The cost of the RE generation meter has to be borne by the consumer in accordance with Regulation 8.7 of the Principal Regulations. Hence, the Commission has modified Clause 9 of Annexure-4 as under:

“9. Connection Costs

*“The Eligible Consumer shall bear all costs related to the setting up of the Renewable Energy Generating System, **including** the cost of the Renewable Energy Generation Meter.”*”

2.11 Introduction of Annexure-7 after Annexure-6 of the Principal Regulations:-

Annexure 7 - Model Gross Metering Connection Agreement

2.11.1 “Clause 2 - Technical and Inter-connection Requirements”

2.2 The Eligible Consumer agrees that he shall install, prior to connection of the Renewable Energy Generating System to the Network of the Licensee, an isolation device (both automatic and in-built within inverter and external manual relays); and the Licensee shall have access to it if required for the repair and maintenance of the distribution Network.”

2.11.2 Comments Received

Shri Mayur Pandey submitted that Technical and Inter-connection Requirements aspect should be omitted specifically by the Commission, as the same may be misinterpreted and cause delay in progress as grid-tied inverters are tested for all such conditions to avoid accidents as per BIS / IEC / UL / CE, etc.

2.11.3 Analysis and Commission’s Decision

The Commission is of the view that this aspect, which has been elaborated in the Principal Regulations, is required to be retained.

The Commission has therefore, not made any modifications in the Principal Regulations in this regard.

2.11.4 “Clause 8”

8.4 The existing metering System shall be continued, and a separate Renewable Energy Generation Meter may be provided to measure Renewable Energy generation.”

2.11.5 Comments Received

Shri Sudhir Budhay submitted that since this is a Connection Agreement for Gross Metering arrangement, there is no question of giving option for installation of generation meter. Generation meter is most essential for settlement of generated units and hence the word “**may**” may be replaced by “**will**” as under.

2.11.6 Analysis and Commission’s Decision

The submission of the Respondent in this regard is correct. The Renewable Energy Generation Meter has to be provided, and Regulation 8.7 of the Principal Regulations specifies as under

“8.7 The Eligible Consumer shall procure, at his own cost, a Renewable Energy Generation Meter conforming to the applicable CEA Regulations at an appropriate location to measure the energy generated from the Renewable Energy Generating System.”

Further, Regulation 12.1 stipulates that if Renewable Generating System is connected on consumer side of meter, then existing meter needs to be replaced with net-meter. Hence, the Commission has modified Clause 8.4 of Annexure-7 as under:

“8.4 If Renewable Energy Generating System is connected on the consumer side of the consumer meter, then the consumer shall have to replace the consumer meter with a Net Meter, and a separate Renewable Energy Generation Meter shall be procured by the Eligible Consumer at his own cost, to measure Renewable Energy generation.”

2.11.7 “Clause 9 - Connection Cost”

The Eligible Consumer shall bear all costs related to the setting up of the Renewable Energy Generating System, excluding the cost of the Renewable Energy Generation Meter.”

2.11.8 Comments Received

MSEDCL submitted that as per Regulation 8.7 of Principal Regulations, the Renewable Energy Generation Meter shall be procured by the Eligible Consumer at his own cost. Hence, MSEDCL has requested to modify the proposed draft clause as under:

“9. Connection Costs

*“The Eligible Consumer shall bear all costs related to the setting up of the Renewable Energy Generating System, **including** the cost of the Renewable Energy Generation Meter.””*

2.11.9 Analysis and Commission's Decision

MSEDCL's submission is correct. The cost of the RE generation meter has to be borne by the consumer in accordance with Regulation 8.7 of the Principal Regulations. Hence, the Commission has modified Clause 9 of Annexure-7 as under:

“9. Connection Costs

The Eligible Consumer shall bear all costs related to the setting up of the Renewable Energy Generating System, including the cost of the Renewable Energy Generation Meter.”

3 Additional Points

3.1 Behind the Consumer Meter

3.1.1 Comments Received

Aly India Renewable and Shri Sudhir Budhay submitted that “Behind The Consumer Meter” should be installed with RE Generation Meter at the cost of Distribution Licensee and Distribution Licensee should be allowed to claim RPO on such generation.

3.1.2 Analysis and Commission’s Decision

The Commission noted the suggestion. It is pertinent to note that the Commission in Principle Regulations has categorically stated that the quantum of electricity consumed by the Eligible Consumer from the Renewable Energy Generating System under the Net Metering arrangement shall, if such Consumer is not an Obligated Entity, qualify towards meeting the RPO of the Distribution Licensee. If the said consumer is an obligated entity, then the said quantum will be considered for RPO of that particular entity. The same logic can be extended to behind meter installations. Hence, Regulation (14) has been modified as under:

“14 Renewable Purchase Obligation

14.1 The quantum of electricity consumed by the Eligible Consumer from the Renewable Energy Generating System under the Net Metering /Net Billing/Behind the Meter Arrangement shall qualify towards his compliance of RPO, if such Consumer is an Obligated Entity.

14.2 The quantum of electricity consumed by the Eligible Consumer from the Renewable Energy Generating System under the Net Metering /Net Billing/Behind the Meter Arrangement shall, if such Consumer is not an Obligated Entity, qualify towards meeting the RPO of the Distribution Licensee.

14.3 All surplus units of Renewable Energy purchased by the Distribution Licensee shall qualify towards meeting its RPO.

14.4 Under the Gross Metering Arrangement, the entire quantum of electricity recorded by the Generation Meter shall qualify towards meeting the RPO of the Distribution Licensee.”

3.2 Introduction of Virtual Net Metering and Group Net Metering

3.2.1 Comments Received

Aly India Renewable, Shri Sudhir Budhay, and Maharashtra Energy Development Agency (MEDA) submitted that the Commission should introduce Virtual Net Metering and Group Net Metering in the proposed amendment.

3.2.2 Analysis and Commission's Decision

Virtual Net Metering is an arrangement whereby **entire energy** generated from a **RE Project installed at consumer premise or any other location** is injected through RE generation meter and the energy exported is adjusted in either one or more than one electricity service connection(s) of **participating Consumer(s)** located within the same Distribution Licensee's area of supply.

The Commission is of the view that Virtual Net Metering is akin to Third Party or Captive Open Access, and such consumers should opt for Green Open Access under the MERC (Distribution Open Access) Regulations, against payment of all applicable charges. Hence, the Commission has not introduced Virtual Net Metering in the State of Maharashtra.

Group Net Metering is an arrangement whereby **surplus energy** is generated and injected from a RE system through Net Meter and the exported energy is adjusted in more than one **electricity service connection(s) of the same consumer** either at the same or different premise located within the same Distribution Licensee's area of supply. This arrangement allows consumer to install RE facility in any one of his premises, and the benefit may be spread to all his premises. In this case, ownership of participating connections belongs to same entity/proprietor/owner.

The Commission is of the view that Group Net Metering needs to be encouraged, in order to increase the penetration of such installations in the State, to benefit from cheaper RE generation. Consumers having more space in one premise can install RE generation in that premise and utilise the RE generated in any or all their premises. Hence, the Commission has introduced the relevant provisions for Group Net Metering in the Amendment Regulations, as under:

The definition of Group Net Metering has been introduced as under:

*“2.1 (k)(c) **“Group Net Metering”** means an arrangement whereby surplus energy is injected from a Renewable Energy Generating system through Net Meter and the exported energy is adjusted in more than one electricity service connection(s) of the same consumer either at the same or different premise located within the same Distribution Licensee's area of supply;”*

As the concept of Group Net Metering has been introduced in the present Amendment, some Eligible Consumers may wish to terminate their existing Connection Agreements, in order to

enter into a Group Net Metering Connection Agreement. Hence, the Commission has introduced a specific proviso to allow Eligible Consumers the option of early termination of existing Connection Agreements for this purpose, as under:

“10.5(a) The Eligible Consumer shall have the option of early termination of his Connection Agreement in order to enter into a new Connection Agreement for Group Net Metering in accordance with these Regulations.”

The clauses related to Commercial Settlement for Group Net Metering have been introduced as under:

“11.9 Group Net Metering – Energy Accounting and Settlement

- (a) Where the export of units during any billing period exceeds the import of units at the connection where Renewable Energy Project is located, such surplus units injected into the grid shall be adjusted against the energy consumed in the monthly bill of service connection(s) in a sequence indicated in a sequence indicated in the priority list along with sharing ratio provided by the Consumer;*
- (b) The sequence of priority for adjustment shall be deemed to have begun after adjustment of units at the service connection where the Renewable Energy Project is located;*
- (c) The priority list along with the share ratio for adjustment of the balance surplus energy against other electricity connection(s) may be revised by the Consumer once at the beginning of every financial year with an advance notice of two months;*
- (d) The electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) Shall be first compensated with the electricity generation in the similar time blocks in the same billing cycle of the Consumer where the Renewable Energy Project is located, and any surplus units injected shall be adjusted against the energy consumed in the monthly bill of service connection(s) in a sequence indicated in the priority list provided by the Consumer, as if the surplus generation/ Energy Credits occurred during the off peak time block for Time of Day (TOD) Consumers and normal time block for Non-tod Consumer;*
- (e) Where during any billing period, the export of units either in Non-TOD Tariff or tod Tariff exceeds the import of units by the electricity service connection(s), such surplus units injected by the Consumer shall be carried forward to the next billing period as energy credit;*

- (f) *For unadjusted net credited Units of electricity at the end of each financial year, the provisions of Clause 11.4 (c) will be applicable for the connection where Solar Project is located.*
- (g) *Applicability of Wheeling Charges and Wheeling losses for wheeling of surplus energy to other premises under Group Net Metering is exempted till installed capacity of rooftop solar in Maharashtra reaches 5000 MW.”*

In the above commercial settlement for Group Net Metering, the Commission has decided that though the Wires of the Licensee will be used and such transaction would normally be subjected to payment of wheeling/transmission charges, as a special dispensation and to encourage such installations, no wheeling/transmission charges or loses shall be levied on such transaction till installed capacity of rooftop solar in Maharashtra reaches 5000 MW.

On account of introduction of the Group Net Metering arrangement, the Format of the Model Application Form has to be revised, in order to facilitate providing the desired data regarding the multiple connections and the priority for adjustment of credit units. Hence, the Commission has substituted the **Annexure-2** of the Principal Regulations as under:

“Model Application Form for installation of Renewable Energy Generating System under Net Metering Arrangement or Net Billing Arrangement or Gross Metering Arrangement”

Name of Distribution Licensee [_____]

Name of Administrative Office [_____]

Application. No. _____

Date of Receipt _____

(To be filled by the Applicant in block letters)

1	<i>Applicant’s Full Name</i>	
2	<i>Address of the premises at which Renewable Energy Generating System is to be installed</i>	
3	<i>Address of the premises at which Renewable Energy is to be consumed (in sequence of priority)</i>	
	<i>Primary Connection</i>	
	<i>Connection No. 1...</i>	

	<i>Connection No. 2...</i>	
	<i>...</i>	
<i>3</i>	<i>Mobile Number</i>	
<i>4</i>	<i>E-mail ID</i>	
<i>5</i>	<i>Alternate Address for communication (if any)</i>	
<i>6</i>	<i>Category of existing electricity connection</i>	
	<i>Primary Connection</i>	
	<i>Connection No. 1...</i>	
	<i>Connection No. 2...</i>	
	<i>...</i>	
<i>7</i>	<i>Consumer Number</i>	
	<i>Primary Connection</i>	
	<i>Connection No. 1...</i>	
	<i>Connection No. 2...</i>	
	<i>...</i>	
<i>8</i>	<i>Sanctioned Load / Contract Demand (in kW /kVA/ HP)</i>	
	<i>Primary Connection</i>	
	<i>Connection No. 1...</i>	
	<i>Connection No. 2...</i>	
	<i>...</i>	
<i>9</i>	<i>Sharing Ratio (%)</i>	
	<i>Connection No. 1...</i>	
	<i>Connection No. 2...</i>	
	<i>...</i>	
<i>10</i>	<i>Voltage at which existing supply has been given (in volts)</i>	
	<i>Connection No. 1...</i>	
	<i>Connection No. 2...</i>	
	<i>...</i>	
<i>11</i>	<i>Proposed AC capacity of Renewable Energy Generating System to be installed (in kW)</i>	
<i>12</i>	<i>Voltage at the output of Renewable Energy inverter</i>	

	<i>(in volts)</i>	
13	<i>Details of Registration Fee paid: (System generated reference number only)</i>	

Date: _____

Signature of Applicant

List of documents attached with Application Form (To be uploaded – No physical copies)

1. Copy of the latest paid electricity bills of all the proposed connections.
2. General Power of Attorney in favour of signatory in case of Partnership Firms; certified true copy of the Resolution, authorizing the signatory to deal with the concerned Distribution Licensee, passed by the Board of Directors in case of Companies (as applicable).
3. Technical details of Renewable Energy Generating Station, Inverter and other equipment of System proposed to be installed.
4. Proof of payment of Registration Fee.

.....

ACKNOWLEDGEMENT (Web Enabled System Generated Receipt)

Received an Application from for connectivity/ installation of Renewable Energy Generating System of capacity of..... kW as per details below:

<i>Date of receipt</i>	<i>Applicant's Name</i>	<i>Application Number</i>	<i>Existing Consumer No.</i>	<i>Capacity of Renewable Energy Generating System</i>
			<i>Connection No. 1....</i>	
			<i>Connection No. 2....</i>	
			<i>...</i>	

Date:

(Signature and designation of authorized officer)”

Similarly, the Format of the Model Connection Agreement has to also be modified to reflect the commercial settlement of Group Net Metering connections. Hence, the Commission has introduced Clause 8.6 in **Annexure-3** of the Principal Regulations, as under:

“8.6 *In case of Group Net Metering, the energy generated by the Renewable Energy Generating Station shall be offset against the energy consumption of the consumer from the Distribution Licensee in the following manner:*

- (a) *Where the export of units during any billing period exceeds the import of units at the connection where Renewable Energy Project is located, such surplus units injected into the grid shall be adjusted against the energy consumed in the monthly bill of service connection(s) in a sequence indicated in the priority list provided by the Consumer;*
- (b) *The electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the similar time blocks in the same billing cycle of the Consumer where the Renewable Energy Project is located, and any surplus units injected shall be adjusted against the energy consumed in the monthly bill of service connection(s) in a sequence indicated in the priority list provided by the Consumer, as if the surplus generation/ Energy Credits occurred during the off peak time block for Time of Day (ToD) Consumers and normal time block for Non-ToD Consumer;*
- (c) *Where during any billing period, the export of units either in Non-ToD Tariff or ToD Tariff exceeds the import of units by the electricity service connection(s), such surplus units injected by the Consumer shall be carried forward to the next billing period as energy credit;*
- (d) *For unadjusted net credited Units of electricity at the end of each financial year, the provisions of Clause 11.4 (c) will be applicable for the connection where Solar Project is located.”*

3.3 Issue of re-cabling work and redesign to accommodate LT-side Generation meter and HT side Bi-directional Net Meter

3.3.1 Comments Received

ITC Limited requested for Automated Meter Reading facility for LT-side Generation Meters, allowing monthly billing and flexibility in meter locations; as this would reduce voltage drop, energy losses, and capital investment. ITC Limited submitted that in most of the consumer

premises, Main Meters are located at the entry point of the premises and Renewable Energy Generation Meter at the LT side will be installed inside the plant at least 500 meters apart based on cable routing. Running multi-run LT cables to and fro for such large distances leads to voltage drop, huge energy losses and high capital investment.

3.3.2 Analysis and Commission's Decision

The Commission notes that as per Regulation 8.9 of Principle Regulations, the Net Meter and the Renewable Energy Generation Meter shall be installed at such locations in the premises of the Eligible Consumer as would enable easy access to the Distribution Licensee for meter reading. Further, as per Regulation 8.2 all meters shall have Advanced Metering Infrastructure (AMI) facility with RS 485 (or higher) communication port.

Objector has presented a genuine difficulty with regards to location of Generation Meters. As per Regulation 8.9 of principle Regulation accessibility of meter is of prime importance. It is expected that prosumers will make its Generation Meter available for inspection and necessary recording of data to Distribution Licensee personnel. This clause is irrespective of location of Meter whether it is in plant or at entry point. This aspect is to be decided by Prosumer and Distribution Licensee.

As Regulation 8.2 categorically made AMI mandatory. Hence, if required, arrangement of remote display unit for providing reading based on AMI may be made available in Meter Room.

The Commission has therefore, not made any modifications in the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023 in this regard.

3.4 Removal of all charges other than Transmission Charges on projects using non-conventional sources of energy

3.4.1 Comments Received

The Department of Textile Industry submitted that the textile sector is highly competitive, and this sector is still recovering post the pandemic. Therefore, for this sector to grow in the State, price competitiveness needs to be maintained. So, all charges other than the transmission charges be removed on projects using non-conventional sources of energy.

3.4.2 Analysis and Commission's Decision

This aspect is not within the purview of the MERC (Grid Interactive Rooftop Renewable Energy Generating Station) Regulations, 2019, and has been discussed in the MERC (Distribution Open Access) Regulations, 2023.

3.5 Consideration of both conventional and non-conventional power to decide the load factor when any unit is simultaneously using both power sources

3.5.1 Comments Received

The Department of Textile Industry submitted that the Integrated and Sustainable Textile Policy mandates that the total capacity of solar power plant being established shall not exceed the Sanctioned Load/Contract Demand of conventional energy. It is requested to factor in both renewable and non-renewable energy for the calculation of Load Factor for the textile units.

3.5.2 Analysis and Commission's Decision

Load factor is computed for determining eligibility of the consumer for Load Factor Incentive (LFI). It is important to note that LFI is given to consumer who is maintaining steady load which helps the Discoms to plan its power procurement. Therefore, LFI can be given only on power supplied by the Distribution Licensee. Hence, energy generated from Renewable Energy System cannot be included in computation of Load Factor.

3.6 No clear guidelines by the Commission regarding unauthorized extension of solar capacity beyond the Sanctioned Load or within the Sanctioned Load

Credit for Surplus injection in the Grid

3.6.1 Comments Received

BEST submitted that there are no clear guidelines by the Commission regarding unauthorized extension of solar capacity beyond the Sanctioned Load or within the Sanctioned Load. It is possible that consumers may increase their solar generation capacity without informing the Distribution Licensee. It may cause the cumulative RE generating capacity to exceed the allowable capacity for a Distribution Transformer. Hence, the surplus injection should be restricted to 25% of the annual generation units recorded by the Solar Generation Meter (or such other limit the Commission may deem fit). The units injected above this limit should not be considered for giving credit.

3.6.2 Analysis and Commission's Decision

The Commission is of the view that it is for Distribution Licensee to ensure compliance with the provisions of the Rules and Regulations, and unauthorised enhancement of installed capacity of RE generation capacity needs to be dealt with appropriately, in accordance with the law. Further, BEST has not provided any details of incidences of oversizing Rooftop installations. Without any credible data, it is pre-mature to decide such issue.

Hence, the Commission has not made any modification to the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023.

3.7 Levy of Grid support charges

3.7.1 Comments Received

Prayas Energy submitted that it is unclear if Grid Support Surcharges will be levied on all existing as well as upcoming rooftop systems or only the new systems.

MSEDCL submitted that Grid Support Charges should be allowed at 100% of the charges worked out based on the Regulations for all installations and under Net Metering, slab-wise tariff to the consumers may be levied based on total consumption (i.e., generation as per RE Generation Meter + consumption as per consumer billing Meter). The Commission has assessed the need for Grid Support Charges in the MYT Order dated 30.03.2020. The situation has drastically changed since then, and Distribution Licensees are facing difficulties due to increased proliferation of solar rooftop PV systems in the distribution grid. The Commission decided not to impose charges on Rooftop Solar installations under Net Metering arrangement until the cumulative installed capacity reaches 2000 MW. MSEDCL, would like to apprise the Commission that more than 460 MW of Rooftop Solar systems have been deployed within the MSEDCL licence area as of January 2020. The Company has already lost revenue due to the MYT Order, which has been passed on to the balance consumers by way of additional tariff burden.

BEST also submitted that the Distribution Licensee should be permitted to deduct part of banked energy in terms of banking charges from this accumulated credit amount, as the Commission allowed Banking charges equivalent to wheeling loss for MSEDCL in its MYT Order in Case No. 322 of 2019 [Para 8.20.29].

3.7.2 Analysis and Commission's Decision

The Commission appreciates the concern of the stakeholder regarding levy of Grid Support Charges. At the same time, the Commission is of the view that levy of Grid Support Charges may work as a dampener and hinder the growth in penetration of Net Metering installations. Hence, after careful consideration, the Commission has decided that Grid Support Charges shall not be levied till installations under rooftop arrangement in the State reach 5000 MW.

BEST pointed out that banking charges in terms of units needs to be levied for offsetting some of the Wheeling Loss which the licensee incurs in supplying back the banked units to consumers. The Commission allowed such recovery for MSEDCL in its Order in Case No.322 of 2019 and Case No.226 of 2022. This recovery of banking charges is interim arrangement till exemption from Grid Support Charges continue. Presently, Mumbai Discoms are not charging banking charges on Rooftop installations. To bring parity, the Commission has introduced 2nd proviso to Regulation 11.5 of the Principal Regulations as under:

“Provided further that the Grid Support Charges shall not be levied till installations under rooftop arrangement in the State reach 5000 MW:

Provided also that till the Grid Support Charges as envisaged in the Regulations stay exempted, Distribution Licensees may approach the Commission with specific Petition for recovery of banking charges, and in case, the recovery of banking charges have already been approved by the Commission prior to notification of these Regulations, the same shall continue.”

3.8 Regarding Banking Facility and applicable charges

3.8.1 Comments Received

MSEDCL submitted that the Commission should withdraw banking facility as currently Deviation Settlement Mechanism (DSM) charges are more lenient towards RE generators. Solar energy prices have decreased, leading to a rise in surplus power. The variable cost of power at injection and drawal of banked energy differs significantly. The Distribution Licensee is ready to purchase over-injected units at specified rates, so monthly banking facilities need to be withdrawn.

3.8.2 Analysis and Commission’s Decision

The Commission is of the view that the Banking facility cannot be withdrawn, as it is essential, and has been allowed as per the MOP Rules and FOR Model Regulations, as elaborated in the Explanatory Memorandum.

Hence, the Commission has not made any modification to the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023.

3.9 Time Block-wise energy settlement

3.9.1 Comments Received

MSEDCL submitted that instead of making energy settlement as per the ToD time-block basis, it should be made on 15-minute time block basis. In view of above submission of withdrawing of monthly banking, after settlement of energy on 15- minute time block, excess energy injected may be lapsed on monthly basis. At present under the Net Metering arrangement, if the Eligible Consumer is within the ambit of ToD tariff, the electricity consumption in any time block, i.e., peak hours, off-peak hours, etc., shall be first compensated with the quantum of electricity injected in the same time block; any excess injection over and above the consumption in any other time block in a Billing Cycle shall be accounted as if the excess injection had occurred during off-peak hours.

3.9.2 Analysis and Commission's Decision

Net Metering and Net Billing arrangement, has inherent banking feature. The Commission in its DOA Regulations, 2016 and its successive amendment in 2019 has allowed TOD based settlement of RE based Open Access transactions.

In view of above to have consistency the Commission is of the view that the settlement of energy injected and drawn should continue on ToD basis, and there is no need to move towards a 15-minute settlement at this point in time.

Hence, the Commission has not made any modification to the Draft MERC (Grid Interactive Rooftop Renewable Energy Generating Station) (First Amendment) Regulations, 2023.

3.10 Common frameworks for HT and LT consumers

3.10.1 Comments Received

Prayas Energy submitted that with implementation of GEOA Rules, many LT consumers can use captive generation. Thus, in addition to onsite consumption, LT consumers also have choice for offsite generation of RE. Prayas added that separate frameworks of charges, application procedures, metering for consumers need to evolve based on their contract demand as well as based on whether they are opting for open access, captive, net billing and the duration of the contracts.

3.10.2 Analysis and Commission's Decision

Considering revision in modalities governing Net Metering, Net Billing and Gross Metering, the Commission has modified the Application Formats and Model Agreements. Accordingly, this aspect has been addressed.

Sd/-
(Surendra J. Biyani)
Member

Sd/-
(Anand M. Limaye)
Member

Sd/-
(Sanjay Kumar)
Chairperson

Annexure - I

Sl. No.	Name of Stakeholders
1	Mayur Pandey
2	Amplus Solar
3	Aly India Renewable
4	Shrivallabhai
5	ITC Ltd
6	Cleanmax
7	Shri Sudhir Budhay
8	Shri Sachin More
9	Department of Textiles Industries
10	Maharashtra Energy Development Agency (MEDA)
11	BEST
12	NMIA
13	TPC-D (Tata Power Company-Distribution)
14	Prayas Energy Limited
15	MSEDCL (Maharashtra State Electricity Distribution Company Limited)