

RAJASTHAN ELECTRICITY REGULATORY COMMISSION, JAIPUR

Petition No. 2118/2023

In the matter of the RERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) (First Amendment) Regulations, 2023

Coram:

**Dr. B.N. Sharma, Chairman
Sh. Hemant Kumar Jain, Member
Dr. Rajesh Sharma, Member**

Date of hearing 11.07.2023 & 12.07.2023

Date of Order: 04.09.2023

Memo on Statement of objects & reasons and consideration of Comments/ Suggestions, received from various stakeholders:

Background:

1. The Rajasthan Electricity Regulatory Commission (RERC or Commission), in the exercise of the powers conferred by Section 86(1) (e) Read with section 181 of the Electricity Act, 2003 (Act 36 of 2003) prepared the following Regulations (hereinafter referred to as 'the draft Regulations'), namely:

"Rajasthan Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) (First Amendment) Regulations, 2023"

2. These Draft Regulations along with the Explanatory Memorandum and Public Notices were placed on the website of the Commission for inviting public comments. Comments/suggestions were also invited from interested persons through Public Notices published in the following newspapers, on the dates indicated against each.

(1)	Dainik Bhaskar	:	03.05.2023
(2)	Rajasthan Patrika	:	03.05.2023
(3)	The Times of India	:	03.05.2023

3. The last date for submission of comments/suggestions by the interested persons/ public was 26.05.2023. There were Twenty Six (26) stakeholders who offered their comments/suggestions on the Draft Regulations and Explanatory Memorandum, which have been considered by the Commission while finalising the Regulations, is placed at **Annexure-I.**

4. Public Hearing in the matter took place on 11.07.2023 & 12.07.2023. The list of the stakeholder present during the hearing is placed at **Annexure-II.**

5. The main comments and views expressed by the stakeholders through their written submissions and during the hearing and the Commission's views thereon have been summarised 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 and the Commission's decisions on each suggestion in the Statement of Reasons. However, in case any suggestion is not specifically elaborated, it does not mean that the same has not been considered.

6. The comments/suggestions have been grouped depending on their nature and relevance.

7. Regulation 9: Project Specific Tariff :

Commission's Proposal:

Commission in the draft Regulations proposed that the following new provisos shall be added to the main sub-regulation 9.2 as under:

“Provided that the CUF norms specified for determining the project specific tariff for the projects covered under sub-regulation 9.1 shall be the minimum norm:

Provided further that the CUF norms for the projects whose tariff is to be determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government as envisaged

under Section 63 of the Act shall be as prescribed under the guidelines/bid documents, as applicable."

Comments received:

7.1 RVUN being the State Generating Company, is willing to go for competitive EPC bidding for setting up of Solar Power Project in RVUNL's MNRE 'approved Solar Park as per the provisions allowed in UMREPP scheme for installation of RE Projects. Since, the RE Projects installed by RVUNL cover specific purpose of supply of RE Power to Rajasthan DISCOMs (for bundling of power under existing thermal PPAs), therefore, for determinations of tariff of RE Power from such RE Projects by GENCO shall be covered under Clause 9 "Project Specific Tariff" of the RERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) (First Amendment) Regulations 2023.

7.2 The following new proviso may be added to the main sub-regulation 9.1 as under:

"L) RE Projects installed by State GENCO under Central/State RE Policies/Regulations for supply of RE power to Discoms or to fulfil Renewable Generating Obligation (RGO) on GENCOs."

7.3 A new proviso may be added providing that financial and operational norms as provided in these Regulations may not be considered as the ceiling norms for the renewable projects to be setup for supplying green energy for the production of green hydrogen and green ammonia as the scale of renewable energy required to be added for production of green ammonia is significantly high and the traditional norms may impede the development of this nascent sector.

Commission's views:

7.4 As regards the suggestion received for including the State GENCO under the Project Specific Tariff provision and other suggestion of adding a new proviso regarding ceiling norms for production of green hydrogen and green ammonia, it is stated that existing provision is adequate and no

further change is required. Therefore, the provision of the draft is retained as under:

“Provided that the CUF norms specified for determining the project specific tariff for the projects covered under sub-regulation 9.1 shall be the minimum norm:

Provided further that the CUF norms for the projects whose tariff is to be determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government as envisaged under Section 63 of the Act shall be as prescribed under the guidelines/bid documents, as applicable.”

8. Regulation 91: Other Charges –sub-regulation 91.4 Transmission & wheeling charges:

Commission's Proposal:

8.1 Commission in the draft Regulations proposed that:

- (1) *In the second and third proviso to the sub-regulation 91.4.1 (c), the date “31.03.2023” wherever appearing shall be substituted with the date “31.03.2024”.*
- (2) *Two new provisos shall be added below the existing proviso to sub-regulation 91.6 as under:*

“Provided further that cross subsidy surcharge and additional surcharge shall not be applicable in case power produced from a non-fossil fuel based Waste-to-Energy plant is supplied to the Open Access Consumer.

Provided also that the cross subsidy surcharge and additional surcharge shall not be applicable if green energy is utilised for production of green hydrogen and green ammonia.”

Comments received:

8.2 It is a positive step to remove Additional Surcharge and Cross Subsidy Surcharge, if energy supplied through open access from waste to energy as well as used for production of green hydrogen and green ammonia. As per the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022, the surcharge shall not be applicable for Green Energy Open Access Consumers, if fixed charges are being paid by such a consumer. Surcharge payable by Consumer seeking open access. Further, the surcharge determined by State Commission shall

not exceed 20% of the average cost of supply. In view of this for utilization of renewable energy by consumer, it should be kept within limit as specified by aforesaid MoP, GoI Rules, 2022. It is also suggested that pumped hydro storage projects may be exempted from levy of cross-subsidy surcharge and additional surcharge as well.

8.3 The time period of exemption of intra-state Transmission and wheeling charges for both the categories of projects Renewable Energy with storage and solar projects set up to supply power to EV charging stations may be kept in sync, i.e., 10 years. The increase in exemption for interstate transmission and wheeling charges for the RE with storage projects from seven to ten years will increase the adoption of renewable energy under the captive mode by the commercial and industrial sector.

8.4 Govt of Rajasthan through its draft Green Hydrogen Policy have provided for a waiver in intra-state transmission and wheeling charges for the green energy to be used for the production of green hydrogen in the State. The policy has also proposed for the exemption from cross subsidy surcharge and additional surcharge. It is requested that these proposal may also be added in the RE Tariff Regulations so as to avoid multiple amendments in the Regulations. Accordingly, the following New Provisos may be added to regulation 91.4.1(c):

"Provided also that there shall be an exemption of 100% in Intra-State transmission charges and wheeling charges for the Renewable Energy with Storage projects installed after the date of notification of these Regulations and before 31.12.2030 either set up as Captive Project or supplying power to third party under Open Access for the production of green hydrogen and green ammonia. This exemption shall be applicable for twenty five years of operation from the date of commissioning of the Project"

"Provided also that there shall be an exemption of additional surcharge and cross subsidy charges for the Renewable Energy with Storage projects installed after the date of notification of these Regulations and before 31.12.2030 either set up as Captive Project or supplying power to third party under Open Access for the production of green hydrogen and green ammonia. This exemption shall be applicable for twenty five operation from the date of years commissioning of the Project"

"Provided also that the above exemptions shall be applicable for renewable energy projects supplying power for the production of green hydrogen and green ammonia without any cap on project size."

8.5 The timeline provided in the proposed clause is very less considering commissioning of the new Renewable Energy with storage project and Solar Projects. Usually, the gestation period of a RE Project is 18 to 24 months, and it would be difficult for a developer to commission the project in such a timeline, i.e., before 31.03.2024 to avail the benefits. It is requested to extend the end date for waiver up to 31.03.2029.

8.6 Discoms submitted that extension of the period 1 year, i.e., from 31.03.2023 to 31.03.2024, will bring additional Solar Power Generators (with battery storage facility) & EV charging stations under the exemption of Intra-State Transmission charges and wheeling charges, which will lead to the revenue loss to the transmission utility and distribution utility. Thus exemption should not be extended beyond 31.03.2023. In case the same is extended for plants set up till 31.03.2024, the period of exception should be kept at least six years instead of seven years.

8.7 In order to align with provision as provided in the GEOA Rules providing upper cap of 50% on increasing the cross subsidy surcharge during 12 years from the date of operation of generating plants using RE, the following new provisos may be added to regulation 91.6:

"Provided that the cross subsidy surcharge for Green Energy Open Access Consumer purchasing green energy, from a generating plant using renewable energy sources, shall not be increased, during twelve years from the date of operating of the generating plant using renewable energy sources, by more than fifty percent of the surcharge fixed for the year in which open access is granted;"

Provided also that additional surcharges shall not be applicable in case electricity produced from off-shore wind projects which commissioned upto Dec 2032 and supplied to the Open Access Consumer.

Provided further that the additional surcharge shall not be applicable for Green Energy Open Access consumer, if fixed charges are being paid by such a consumer."

8.8 To promote green energy the proposed clause should also be extended to Solar third party sale Projects.

Commission's views:

8.9 As regards the suggestions for increasing the timeline for exemption, the Commission has appropriately modified the provision of the draft to allow exemption to all plants set up after 01.04.2020 till the total capacity eligible for exemption reaches 500 MW in the State and pumped storage plants have also been included for the purpose of exemption of intra-state transmission and wheeling charges.

8.10 Further, as regards the suggestions of adopting the provision of GEOA Rules 2022 notified by Gol regarding upper cap of 50% on cross subsidy surcharges and waiver of additional surcharges on payment of fixed charges, the Commission is of the view that appropriate view in this regard has to be taken separately based on the level of cross subsidisation and consumer mix of the State, as the same were also not part of the present draft. Accordingly, Commission has noted the same and will take an appropriate view separately.

8.11 In view of the above, the draft Regulation sub-regulation 91.4.1 (c) second, third and fourth proviso have been modified as under:

"Provided further that there shall be an exemption of 75% in Intra-State transmission charges and wheeling charges for the Renewable Energy with Storage projects including PSP installed after 01.04.2020 either set up as Captive Project or supplying power to third party under Open Access. This exemption shall be applicable for first seven years of operation from the date of commissioning of the Project:

Provided also that there shall be an exemption of 100% in Intra State transmission charges and wheeling charges for Solar Power Project set up after 01.04.2020 for supplying power to Electric Vehicle charging stations either under Captive route or through open access. This exemption shall be applicable for first ten years from the date of establishing of Electric Vehicle charging stations:

Provided also that the above exemptions shall be applicable for projects with individual plant capacity of maximum 25 MW and for the total capacity of 500 MW in the State."

Further, two new provisos to sub-regulation 91.6 shall be retained as proposed in the draft Regulations as under:

"Provided further that cross subsidy surcharge and additional surcharge shall not be applicable in case power produced from a non-fossil fuel based Waste-to-Energy plant is supplied to the Open Access Consumer.

Provided also that the cross subsidy surcharge and additional surcharge shall not be applicable if green energy is utilized for production of green hydrogen and green ammonia."

9. Regulation 92: Renewable Energy Based Captive Power Plants:

Commission's Proposal:

9.1 Commission in the draft Regulations proposed that the existing sub-regulation 92.2 shall be substituted with the following:

"92.2 The peak AC capacity of the renewable energy captive generating plant shall not exceed the AC capacity agreed by the Discoms. In case at any point of time, if the peak AC capacity exceeds the above agreed AC capacity, the corresponding excess generation shall lapse."

Comments received:

9.2 Changing the criteria from Capacity Utilisation Factor (CUF) to peak AC capacity has given the captive users more flexibility related to the designing of their renewable energy power plants. They will now be able to benefit from the maximum efficiency of the plant. This is a welcome amendment and shall motivate more consumers to switch a portion of their power consumption to green energy and reducing state DISCOM's dependence on power generated from fossil fuels.

9.3 Wind and solar RE plants have lesser PLF and in order to give more quantum of power, the plants are designed with higher capacity and evacuation is restricted to the connectivity approval and evacuation limit. The following Amendment is suggested in Reg. 92.2:

"The Peak AC capacity of the renewable energy captive generating plant shall not exceed the AC capacity agreed by the Discoms. However, Captive Generator may install the higher Capacity at Generating Station and it may be either Solar or Wind or Hybrid in order to give more quantum of power."

Illustration: If Peak AC capacity is 100 MW agreed by Discom then Captive Generator cannot inject more than 100 MW at any point of time during the day. However, Captive Generator may install more than 100 MW of capacity at Generating Station either Solar or Wind or Hybrid (Say 100 MW Solar + 100 MW Wind) in order to give maximum power to the consumer. This will help in grid load management.

9.4 The DC capacity may be higher having alignment with the proposed provision. However, clarity regarding the DC capacity will be helpful to design the system accordingly.

9.5 For a plant having 100 MW electrolyser capacity of green hydrogen, the energy requirement is 790 MW. CUF of solar and wind project varies between 25% to 35%. If 100 MW capacity RE plant is established, the same cannot provide energy as per requirement of green hydrogen plant. The requirement of AC capacity for a green hydrogen plant is approximately 2.8 to 3.5 times of the contract demand, i.e., 280 to 350 MW of RE capacity. It is, therefore, requested that this restriction of capacity should not be there for green hydrogen plants and in various other States even for the normal Open Access projects of Renewable Energy (RE), either there is no restriction and there is requirement of 150%.

9.6 Amendment is agreed upon the capacity limitation in terms of AC capacity. However, as per MNRE guidelines dated 5.11.2019 there should not be any restriction on installation of DC capacity. It is further requested that the clarification may be added for more clarity that the agreed AC capacity by the Discom shall be the arithmetic sum of the total inverter name plate capacity. Generator/Developer shall be free to decide the DC capacity, i.e., Arithmetic sum of total Solar PV Module name Plate Capacity for the Project.

9.7 There should not be any restriction on the capacity of the captive power plants as such restriction would hamper the capacity building in the State, besides this being against the provision of the Electricity Act, 2003.

9.8 There is no necessity to bring this amendment, as due to climate changes in the area, great variations are seen in heat wave, rain, cloud

forming, now the average generation is seen below the projected/ specified generation from the RE resources.

9.9 Sizing related provision for supplying green energy to be used for the production of green hydrogen in the State as per Govt of Rajasthan Green Hydrogen Policy may be added. It is suggested to add the following new proviso:

"Provided also that the peak power generation capacity of wind/solar/Hybrid plant (with or without storage facility) either set up as Captive Project or supplying power to third party under Open Access for the production of green hydrogen and green ammonia shall be allowed up to three times of the contracted capacity of power connection for the associated green hydrogen and green ammonia production unit."

9.10 Wind energy is wholly dependent on seasonal and daily variation in wind speed. The wind turbine starts operating at wind speeds of 4 to 5 m/s and reach maximum power output at around 15 m/s. At very high wind speeds (gale force) of 25 m/s, wind turbine shut down. Thus, it rarely generates more energy than the rated peak AC capacity of wind turbine. If we average out the monthly peak AC capacity of the wind machine then it will not be more than the monthly average peak in any month. It is requested to modify the proposed Regulation as under:

"92.2 The average peak AC capacity of the renewable energy captive generating plant shall not exceed the average AC capacity agreed by the Discoms. In case at any point of time, if the average peak AC capacity exceeds the above agreed AC capacity, the corresponding excess generation shall lapse."

9.11 Rajasthan Renewable Energy Policy of 2020 vide their clause no. 26 has specified that Capacity Utilisation Factor, that the minimum Capacity Utilisation Factor (CUF) for wind power plant as 21% for the districts Jaisalmer, Jodhpur and Barmer and 20% for the remaining districts. Further under the clause no. 92 - Renewable Energy based Captive Power Plants, it is mentioned that the maximum permissible energy that can be consumed and banked from a new renewable energy captive generating plant is limited to 5% above the minimum CUF as per clause, no. 26 (26% for the districts Jaisalmer, Jodhpur and Barmer and 25% for the

-remaining districts). In addition, the energy generated 'by the wind farm in excess of the above will be freely injected to DISCOM. This makes a captive/third party project unviable in the state of Rajasthan as the newly advanced technology of WEGs will offer a higher PLF with higher generation. The advanced technology machine provides higher generation in Rajasthan, Gujarat, Maharashtra, and other windy States in the country. In view of the above investor planning to develop wind farm will be in loss and these would be decline in the interest for captive/third party in the Rajasthan. An amendment is proposed to remove the restrictions imposed as maximum permissible energy for captive plants and also not to lapse the excess generation as per clause no. 92.2.

9.12 It may be clarified that how the peak capacity for hybrid RE power plants will be worked out.

9.13 Discoms submitted that Accounting of energy should principally be based on the minimum Capacity Utilization Factor (CUF) and not the peak AC capacity. If energy is accounted on the basis of peak capacity, the captive generator may alter the arrangement to increase the generation capacity to maximum even during hours when the solar penetration is not at its peak by adding additional solar capacity behind the meter. This will adversely affect the Discom as the additional units generated shall impact the banking limit of the Discoms as well as the captive generators drawl from the Discom. The Discom shall have to bear revenue loss on account of such an arrangement, which ultimately shall be reflected in increased tariffs for other categories of consumers. Thus, the Commission should retain the existing provision. Further, in the event proposed Amendment is dropped, the word 'new' may be deleted to remove any ambiguity and to make applicability of CUF to all renewable energy captive generating plants. Thus, according to the proposed amendment wherein the peak AC capacity shall be taken into consideration, the captive plant owner shall declare such peak AC capacity (say 50 MW) to the Discoms.

Commission's views:

9.14 Commission has considered the comments/suggestions received. Most of the objections received pertain to the existing CUF based regime which the Commission has already addressed while issuing the draft Regulations. Commission is also of the view there should be no restriction on DC capacity which can be higher than the AC capacity. Further, the AC capacity has been linked to the inverter capacity to make technology agnostic. Additionally, desired clarity has also been provided regarding the treatment of excess generation where the peak AC capacity exceeds the contracted AC capacity.

9.15 As regards the clarity on capacity it is stated that the peak AC capacity shall be the sum of inverter capacities on AC side.

9.16 Accordingly, the sub-regulation 92.2 of the draft Regulations has been modified as under:

"92.2 The peak AC capacity (inverter capacity on AC side) of the renewable energy captive generating plant shall not exceed the contracted AC capacity. In case during any time block, if the peak AC capacity exceeds the contracted AC capacity the corresponding excess generation of 15-Minute or 30-Minute block, as applicable shall lapse.

Explanation: There shall be no restriction on installed DC capacity."

10. Banking:

Commission's Proposal:

10.1 Commission in the draft Regulations proposed as under: -

Amendment in Regulation 93:

The existing regulation 93 shall be substituted with the following:

"93. Banking

93.1 The terms and conditions of Banking specified in these Regulations shall be applicable for both existing Renewable Energy based plants and new Renewable Energy based plants during the application of control period of these Regulations.

93.2 For availing the banking facility, the Renewable Energy based captive power plant shall install ABT compliant Special Energy Meters (SEMs), capable of energy accounting for each block of 15 minutes.

93.3 Banking of Energy subject to a maximum ceiling of 25 % of the energy injected by Renewable Energy Captive Generating Station during the month or 30% of the total monthly consumption of electricity from the distribution licensee by the consumer, whichever is higher, at consumption end shall be allowed only for captive consumption within the State:

Provided that no banking facility shall be allowed for Renewable Energy plants supplying power to third party under open access and for the Renewable Energy plant installed behind the meter:

Provided further that for availing Banking Facility, Renewable Energy Captive Generating Station will enter into Wheeling and Banking Agreement with Distribution Licensee.

93.4 Period of banking:

93.4.1 The banking shall be allowed on annual basis for the financial year.

93.5 Energy Accounting for Banking:

93.5.1 Notwithstanding anything contrary contained in any other Regulations time being in force the Energy Accounting shall be as under:

93.5.2 The banking as well as withdrawal of banked energy shall be subject to scheduling as required.

93.5.3 If in any time block, injected energy is more than the energy drawn, the excess energy shall be computed. The excess energy of each time block shall be cumulated till the end of the month and shall be set off against the cumulative drawal of the Discom's energy in the same month except drawal during peak hours determined by the Distribution Licensee after adjusting the banking charges.

93.5.4 If in any month, injected energy is more than the energy drawn, the excess injected energy subject to the maximum 25% of the energy injected by renewable energy captive generating station, shall be set off after adjusting the banking charges against the cumulative drawal of energy from Discoms in the next month except drawal during peak hours.

Illustration:

If in any month, 1000 units of energy have been injected and 400 units of energy are drawn, and the total monthly consumption of electricity from the Distribution licensee by the consumer is 1500 units. Then excess injected energy to be considered for the particular month shall be 600 unit of which 450 units (= higher of the 25% of 1000 units or 30% of 1500 units) shall be banked and remaining 150 units shall lapse and compensation shall be payable for the excess energy during the month.

If during the next month, 1000 units of energy have been injected and 400 units of energy are drawn and the total monthly consumption of the electricity from the distribution licensee by the consumer the is 800, the excess energy injected energy to be considered for that particular month shall be 600 units of which 250 units (=higher of the 25% of 1000 unit or 30% of 800) shall be banked and remaining 350 units shall lapse. The total banked energy will now be 700 (=450+250) units subject to adjustment of banking charges.

93.5.5 *Unutilized banked energy at the end of financial year shall lapse and the renewable energy captive generating plant shall be entitled to get Renewable Energy Certificates to the extent of the lapsed banked energy in accordance with rules/regulations framed by MoP/CERC.*

93.6 *Banking charges at the rate of 10% of banked energy would be payable in kind and shall be adjusted against the banked energy before withdrawal.*

Illustration: If 100 Units of energy have been banked by Captive Generator, Captive Generator will be able to draw 90 units of banked energy and 10 units will be deducted as banking charges."

Comments received:

10.2 Clause 93.4 may be amended such that the banking may be allowed on annual basis for the financial year and banking should be applicable for the period of 25 Year from COD of a Captive Project. The unutilized surplus Banked Energy should not lapse at the end of each Financial Year and it may be purchased by Distribution licensee at APPC rate. The Renewable Energy generating station/captive consumer/ Consumer should be entitled to get Renewable Energy Certificates (RECs) in accordance with rules/regulations framed by MoP/CERC to the extent of energy remains unutilized by Generator/captive consumer/ consumer

keep liability of RE Project. The Rationale is that the surplus banked energy should not be considered as lapsed as banking charges of 10% is applicable on the banked energy. Further, the illustration at clause 93.6 should be changed to replace the word “captive generator” by “captive consumer” as banked energy will be drawn by the captive consumer.

10.3 Draft Green Hydrogen Policy, 2023 has made a provision of banking of renewable power generated from solar/ wind energy plant established for green hydrogen generation plant shall be up to 2/3rd of the energy injected during 15 minutes time block basis at the consumption end. It is requested to amend the provision of banking of energy subject to a maximum ceiling of 2/3rd of the energy injected during 15 minutes time block basis at the consumption end for Green Hydrogen as well. It may also be clarified whether banking facility is available for consumers sourcing/intending to source energy from inter-state connected Renewable Energy Plants (located within or outside Rajasthan).

10.4 Neither the provision of First amendment to Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 nor the proposed amendment to the RERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) (First Amendment) Regulations, 2023 specify that how the RE generator would get settlement for lapsed energy. Therefore, it is requested to provide the methodology for settlement of lapsed energy and the rate at which lapsed energy get settled.

10.5 The banking charges should be 8% in line with the Model Regulations on Methodology for calculation of Open Access charges and Banking charges for Green Energy Open access consumers issued by FOR.

10.6 At regulation 93.6 the proposed banking charges are high. Looking to intermittency specifically for wind projects where the projects operate in the windy season only, 3-4 months in a year, the wind projects will face huge challenges with applicability of high banking charges. It is requested that the banking charges should be kept as 2% to promote the investment

in RE projects in the State of Rajasthan as other States Telangana and Chhattisgarh provide banking charges as 2%

10.7 Banking charges at the rate of 10% of banked energy as specified in the proposed Amendment are on higher side, as most of the other States like Chhattisgarh 2%, Uttar Pradesh 6%. Madhya Pradesh and Haryana have banking charges of 8% only. Therefore, Commission is requested to compute banking charges after evaluating the actual impact on DISCOMs power purchase cost on allowing banking by the DISCOMs.

10.8 Banking charges as per Circular of Ministry of Power issued in 2022 is 8% and in most of the States it is at 2% as on date. It is suggested that banking charges should be reduced to 2% or maximum of 5%.

10.9 Amendment proposed at 93.3 holds good for solar projects. However, in case of wind energy projects, the generation of around 60 to 66% is in four months of high wind season and therefore banking will be required for more quantum of energy and thus, the ceiling of 25% is insufficient.

10.10 For promotion of green hydrogen there should be no ceiling on energy injection as the consumer will be paying banking charges as per the Regulations. Govt of India has notified National Hydrogen Mission and Production Linked Incentive (PLI) scheme for green hydrogen production in Rajasthan where renewable energy resources rare in abundance.

10.11 Banking facility is extended to green energy-based power projects is due to the infirm nature of generation from such projects, which remains unaltered irrespective of nature of transaction, i.e, captive and third party. Hon'ble APTEL in its orders dated 18.3.2011 & 29.09.2021 has held that banking facility is essential for the RE sources. Third party projects should also be allowed to avail the banking facility. There is a need to balance the interest of stakeholders. The following are the suggestions:

- (1.) Drawal of banked energy to be allowed during peak hours and month subjected to payment of additional charges in kind. Such

charges should be over and above the banking charges. Similar approach is adopted by Hon'ble Chhattisgarh Electricity Regulatory Commission ("CSERC").

- (2.) The quantum of energy allowed to be banked should be at least 50% energy injected into the grid.
- (3.) Energy remained unutilized at the end of financial year to be deemed to be purchased by DISCOMs at APPC.

10.12 The illustration is not line with regulation 93.5.3. Further, generation of electricity from renewable sources should be promoted irrespective of location of Renewable Energy power plants as per S.86(1)(e) of the Electricity Act, 2003. There should not be any distinction between renewable energy power plants on the basis of location of power plant, i.e., whether it is installed behind the meter or distantly located. Providing banking facility to one type of power plant while depriving other is neither equitable nor justifiable. If Commission is not inclined to grant the facility of banking to a co-located or renewable energy plant located behind the meter, it should at least extend the facility of issuance of REC for the power injected by a co-located renewable energy power plant which is neither being paid nor banked to the extent allowable to a distant located renewable power plant.

10.13 The draft regulations 93.5.2 and 93.5.3 are contradictory to each other. As per the regulation 93.5.2 scheduling is required for banking of energy and withdrawal of banked power. However in the draft regulation 93.5.3, it is provided that the banked energy shall be set off against the cumulative drawl of Discom's energy in the same month, except drawl during peak hours. it is nowhere provided that the consumer has to give a schedule for the adjustment of banked power. There is an element of ambiguity about whether a consumer has to give a schedule for adjustment of banked power or not. Thus, this ambiguity may please be removed and specific directions be provided for the scheduling and

adjustment of banked power, if the Commission feels the need for the same.

10.14 At present, there are three Time of Day (TOD) slots, one is off peak hour (02:00 Hrs to 06:00 Hrs), second is peak hours (06:00 Hrs to 10:00 Hrs) and thirds normal hours (10:00 Hrs to 24:00 Hrs &. 00:00 hrs to 02:00 Hrs). The above mentioned regulation does not provide any clarity as to in which TOD slot adjustment of banked power would be done first against power drawn from Discom. Commission may provide specific sequence of adjustment of banked energy while finalizing the regulation.

10.15 If the Hon'ble Commission is not inclined to grant the facility of banking to a co-located or renewable energy plant located behind the meter, it should at least extend the facility of issuance of REC certificates for the power injected by a co- located renewable energy power plant which is neither being paid nor banked to the extent allowable to a distant located renewable power plant.

10.16 At Reg. 93.3 the Wheeling & Banking facility should be the free of cost/charges, & no such agreement be forced on the Renewable Energy (RE) Captive generating Station. At 93.4.1 agreed, but it would be advisable that a minimum period of 3 years for Banking is fixed. No such formula and percentage be fixed for banking to promote banking to avoid intermittency in RE generation.

10.17 It is submitted that Commission may consider extending the control period of the current Regulations by five (5) years to avail the benefits of the present Amendments.

10.18 It is submitted that at least capacity limit should be imposed on co-located captive renewable energy power plants which do not avail any incentive/benefit under any regulation/policy by the State Govt. To harness solar potential in the state, the restriction on the capacity of solar power plant upto the contract demand of a consumer should be removed. In the principal and in the draft regulation , no methodology is

provided how RE coming into the State through inter-state OA would be adjusted how the banked power would be adjusted and what would be treatment of unutilized banked power. It is requested that Commission should address these issues and provide a suitable provision for the same.

10.19 Banking of Energy may be allowed upto a maximum ceiling of 50 % instead of the proposed 25% to effectively manage the seasonal variation in generation especially in case of wind energy projects. Further, the banking facility may be provided to the renewable energy projects selling to third party under open access and for renewable energy projects installed behind the meter.

10.20 Restriction on drawl of banked energy during peak hours may be removed for which the banking charges may be levied at a slightly higher rate for the drawl during peak hours.

10.21 Banked energy is actually a renewable energy which otherwise has been consumed by an entity drawing from the grid and the amount for such energy has been paid by such entity and considering this energy as lapsed would tantamount to discrediting the renewable attribute of such energy. Thus, such unutilized energy at the end of the FY may be considered as deemed purchase by the Discom at APPC rate approved by the Commission. Reg 93.5 may be modified as follows:

"93.5.3. If in any time block, injected energy is more than the energy drawn, the excess energy shall be computed. The excess energy of each time block shall be cumulated till the end of the month and shall be set off against the cumulative drawl of the Discom's energy in the same month.

93.5.4. If in any month, injected energy is more than the energy drawn, the excess injected energy subject to the maximum 25% of the energy injected by renewable energy captive generating station, shall be set off after adjusting the banking charges against the cumulative drawl of energy from Discoms in the next month.

93.5.5 Unutilized banked energy at the end of financial year shall be deemed to purchased by the Discoms at the Average Pooled Purchase Cost (APPC) of the relevant Financial year approved by the Commission."

10.22 Govt of Rajasthan (GoR) through its Green Hydrogen Policy have provided for banking provisions for the Renewable Energy plant supplying

green energy to be used for the production of green hydrogen in the State and other suggestion made related to drawl of banked energy by the green hydrogen projects proposals may be added as provisos in the RE Tariff Regulations. The following new provisions be added in Reg 93:

"93.7 Banking of renewable power for production of green hydrogen and its derivatives

93.7.1 Banking of renewable power generated from solar/wind energy plant (with and without storage facility) established for green hydrogen generation plant shall be up to 2/3rd of the energy injected during 15 minute time block basis at the consumption end. The energy shall be allowed to be banked for a period of 30 days.

93.7.2 Banking charges shall be the cost differential between the average tariff of renewable energy bought out by the distribution licensee during the previous year and the average market clearing price in the Day Ahead Market (DAM) during the month in which the renewable energy has been banked.

93.7.3 Banked energy by the renewable energy generator supplying power for the production of green hydrogen and green ammonia during the off-peak period shall be allowed to be drawn during the peak as well as off peak period. Banked energy during the peak period shall be allowed to be drawn during the peak as well as off peak period as provided in the Retail Tariff Order.

Provided that the principles provided of in Regulation 93.5.3 and 93.5.4 shall be applicable for the banked energy by the renewable energy generator supplying power for the production of green hydrogen and green ammonia and include the drawl of banked energy during both peak and off-peak hours."

10.23 Amendment in Reg. 93.4 is a very welcome step. Rajasthan is blessed with diversified demographics and geographical advantages with varied natural resources availability along with vast stretches of open lands with all year sunshine, the entire terrain of Rajasthan is sunny, nearly every year. To reap in benefits of such natural resources and to achieve renewable targets, Rajasthan state must support power project developers and end industrial and commercial consumers with right set of regulatory interventions across states. Effective regulatory design and implementation will play a major role in addressing the several challenges wind energy sector. Banking facility can be a win -win proposal for developers, local DISCOM and end C&I customers alike. The Illustration provided under Reg. 93.5.4 may be modified for clarity for which the following illustration may be included in the final Regulations,

"Illustration:

"If in any month, 1000 units of energy have been injected and 200 units of energy are drawn on cumulative basis during the month in each- blocks, and the total monthly consumption of the electricity from the Distribution licensee by the consumer is 900 units. Then excess injected energy to be considered for the particular month shall be 800 units (1000-200) and shall be set off against the cumulative drawl of the Discom's energy in the same month except drawl during city peak hours determined by the Distribution by Licensee after adjusting the banking charges."

The remaining unutilized 100 units [800- 700(i.e. remaining of cumulative injected energy during the month -remaining of total % of consumption from Discom)] shall be carried be forwarded to next month within the banking energy limit (higher of the 25% of 1000 units or ked 30% of 900 units) and shall be banked to be utilized in the next month's consumption except peak hours."

If during the next month, 1000 units of energy have been injected and 400 units of energy are drawn and the total monthly consumption of the electricity from the distribution licensee by the consumer is 650 units, the excess energy injected energy to be considered for that particular month shall be 600 units (1000-400).

The units available to set off shall be 600 units and the remaining unutilized 350 units [(600- 250) (i.e. remaining of cumulative injected energy during the month - remaining of total consumption from Discom)] of which 250 units (higher of the 25% of 1000 unit or 30% of 650) shall be banked and carried forwarded to next month, and 100 units (350-250) shall lapse and shall be compensated and 250+ 100 (Banked during previous month shall be carry forward for the next month).

If during the next month, 1000 units of energy have been injected and 800 units of energy are drawn and the total monthly consumption of the electricity from the distribution licensee by the consumer is 1500 units, the excess energy injected energy to be considered for that particular month shall be 200 units (1000-800). The units available to set off shall be 200 which will be adjusted from the 700 units (1500-800) consumed and there after the previous month banked energy 350 units (250+100) will also be adjusted after adjusting the banking charges and there will be no energy carry forwarded for the next month."

10.24 With respect to eligibility for green energy open access many consumers will apply for Special Energy Meter. Requisition of meter for consumers availing green open access and banking should be in line with provision of Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2022. Accordingly, use of Smart meter should be allowed for the purpose of Green Energy Open Access and banking facility. Metering shall be governed by relevant regulation issued by CEA in this regard and direction issued by Commission from time to time.

10.25 Regarding amendment in regulation 93.3, the ceiling on drawl of the banked energy may be removed and the consumers should be permitted to draw up to 100% of the banked energy after adjustment of banking charges as specified by the commission. It is also requested that suitable provision may be included in the Regulations so that the energy banked during off-peak hours shall be permitted to draw during peak hours by paying additional charges as may be specified by Commission in addition to the banking charges.

10.26 RE is intermittent in nature, there is a mismatch between old demand and supply between RE Generators and open access consumers. Banking facility allows the unused power is bank with Discoms and use it later. Rajasthan is a windy state and has a huge potential of wind power projects. As wind power projects operate in windy season for the period of 3-4 months in a year, in such scenario the proposed mechanism is not viable for the wind projects. In order to promote more investments in the state of Rajasthan it is requested to remove Banking restriction/conditions banking facility may also be allowed to the Renewable Energy Plants supplying power to third party.

10.27 In order to promote new RE projects in captive as well as in third party banking transactions should be made flexible in all routes. it is requested as per para 10(d) of FOR Model Regulations. Banking restriction/conditions should be removed and also allow banking facility for Renewable Energy Plants supplying power to third party.

10.28 In Regulation 93.3 any type of ceiling should not be imposed and it will increase the mismatch of energy generation and consumption pattern. Specifically, it will be tough to survive for the solar energy consumers in the State. Also, there is no rationale has been provided by the Commission to consider these numbers, i.e., 25% and 30%, there is no reasoning has been provided in the draft document that why banking is not necessary for third party under open access consumers. The Commission is requested to extend the banking facility for third party also.

At regulation 93.6 the balance banked energy at the end of financial year should be considered as deemed purchase by the concerned DISCOM at some price either on some percentage of Average Pool Power Purchase (APPC) of last year or at some percentage of Generic Tariff of particular Renewable Energy Source, because anyway the concerned DISCOM is utilizing the same and issuance of REC will not serve the purpose. Also, it proposed that 10% banking charge is very high and need to be limited to 2-3%.

10.29 In order to utilize the generated RE power from RE Plant by the consumer to meet its 100% power demand, it is necessary to provide the banking facility for banking of excess generation and withdrawal of banked energy during non-generating hours. The consumer also require RE plant up to 3-4 times of their contract demand to meet their 100% power demand due to lower CUF of RE Plant. DISCOMs have to manage the grid and power availability when it provides banking facility to the consumer. For open access of the RE Power. Gujarat State in their RE Policy, allowed RE plant size beyond the contract demand and full banking facility with banking charges on total power consumed by the developer irrespective of the RE power generation. It is suggested that such provision may be also adopted in Rajasthan allowing full banking with cost based on impact of banking on Discoms, viable to both Discoms and consumers.

10.30 At regulation 93.5.5 the Banked energy should not be lapsed and should be carried forwarded in the next financial year.

10.31 At regulation 93.3, the wheeling and Banking facility should be free of cost/charges and no such agreement be forced on the RE captive generating station. It would be advisable that a minimum paired of 3 years for banking is fixed. No such formula & percentage be fixed for Banking as Rajasthan State is facing 'acute' situations due to poor Banking facility &

more & more incentive/ facility be allowed by RERC to promote Banking to avoid intermittency in RE generation.

10.32 The two paras as mentioned in Regulation 93.5.3 stand in contradiction to each other. The first para says that the monthly cumulative of excess energy shall be adjusted against the cumulative monthly drawl from Discom in the same month itself. However, the second para says that the adjustment shall be carried out in the next month. Also, no capping has been mentioned for the injected energy. Further, in the illustrated examples, adjustment of banked energy has not been carried out either in current month or next month. Commission is requested to clear out the ambiguity.

10.33 The condition of 30% of the total monthly consumption from Discom regarding quantum of energy liable for banking as mentioned in draft Regulation 93.3 is not mentioned in the second para of draft Regulation 93.5.3. The same be clarified.

10.34 The quantum of energy to be banked is not calculated on the 15 min time block basis but rather on the cumulative monthly basis. The provision of having banking of energy subject to a maximum ceiling of 25 % of the energy injected by Renewable Energy Captive Generating Station during the month or 30% of the total monthly consumption of electricity from the distribution licensee by the consumer, whichever is higher, shall have negative financial impact on the Discoms on account of higher quantum of energy to be banked. According to the proposed amendment, the Discom shall be liable to bank a larger quantum of energy as compared to the existing provisions. This essentially leads to the higher compensation paid out by the Discoms for banking of energy from captive generator. Discoms do not agree with the proposed amendment and suggest continuing with the existing should be continued.

10.35 At regulation 93.5.1 the unutilized banked energy at the end of financial year is being considered as a part of the RPO compliance by the

Discoms. However, as per the proposed amendment the unutilized energy at the end of FY shall be lapse and captive generating plants will be eligible for RE and may therefore result in the requirement for more power purchase from other renewable sources in order to full its RPO compliance. This may lead to a scenario where the Discoms might have to explore options for further tie-ups with renewable generators for such quantum of energy. This shall subsequently impact the power purchase expenses of the Discom, which in turn will increase the corresponding ARR of the Discom further, resulting in the need for tariff hike. This shall ultimately burden the other consumers of the Discom which is not desirable. Accordingly, the Discoms do not agree with the proposed amendment and suggest continuing with the existing Regulation.

Commission's views:

10.36 The Commission has considered the comments received from the stakeholders. Some of the stakeholders pointed out the ambiguities and requested for clarity. Further some stakeholder have pointed out that changes in illustration are also required. Commission in view of the above, has appropriately modified the provisions of the draft.

10.37 Stakeholders have requested for specifying the banking charges varying from 2% to 10%. The Commission, after considering the suggestions, deems it appropriate to specify the banking charges @ 8% in line with the FoR Model Regulations.

10.38 As regards, the suggestion of allowing drawl of banking during the peak hours on payment of additional banking charges, Commission is of the view that looking to the present demand profile during the peak and off peak hours over the various seasons, presently it would not be appropriate to allow such drawl during the peak hours.

10.39 As regard the issuance of RECs to the captive power plants, the same is to be governed by the Rule/Regulations issued by the MoP/ CERC.

10.40 As regards the suggestions of allowing smart meter for the purpose of the green energy open access, it is stated that the same will be governed by the CEA Regulations and guidelines /directions issued by the Commission from time to time.

10.41 As regards the clarification related to the banking facility to the consumers sourcing their power from the inter-state connected Renewable Energy plants (located within or outside Rajasthan), it is clarified that in such cases, the banking facility will be available only to the captive consumers where both the injection and drawl points are located within the State.

10.42 As regards the suggestions of the stakeholder to extend the control period of the present regulations to reap the benefits of the present amendments, Commission has noted the suggestions and will take a view in this respect separately.

10.43 As regards the limits on the banked energy the present regulations permit banking upto 25% of the energy injected during a 15-minute time block and considering the banking provision provided under GEOAR 2022 in this regard, Commission has appropriately modified the draft provisions.

10.44 Accordingly, the Regulation 93 of draft Regulations has been modified as under:

“93. **Banking**

93.1 *The terms and conditions of Banking specified in these Regulations shall be applicable for both existing Renewable Energy based plants and new Renewable Energy based plants during the application of control period of these Regulations.*

93.2 *For availing the banking facility, the Renewable Energy based captive power plant shall install ABT compliant Special Energy Meters (SEMs), capable of energy accounting for each block of 15 minutes.*

93.3 *Banking of Energy subject to a maximum ceiling of 25 % of the energy injected by Renewable Energy Captive Generating Station during the month or 30% of the total monthly*

consumption of electricity from the distribution licensee by the consumer, whichever is higher, at consumption end shall be allowed only for captive consumption within the State:

Provided that no banking facility shall be allowed for Renewable Energy plants supplying power to third party under open access and for the Renewable Energy plant installed behind the meter:

Provided further that for availing Banking Facility, Renewable Energy Captive Generating Station will enter into Wheeling and Banking Agreement with Distribution Licensee.

93.4 Period of banking:

93.4.1 The banking shall be allowed on annual basis for the financial year.

93.5 Energy Accounting for Banking:

93.5.1 Notwithstanding anything contrary contained in any other Regulations time being in force the Energy Accounting shall be as under:

93.5.2 The banking as well as withdrawal of banked energy shall be subject to scheduling as required.

93.5.3 In a month the energy injected after accounting for losses shall be set off against the energy drawn from the Discom in the same month except excess energy drawn during the peak hours in the month declared by Distribution Licensee from time to time. The excess energy, if any, shall be carried forward to next month subject to limits as per reg 93.3 above, after adjusting the banking charges.

Illustration:

If in any month, 1000 units of energy have been injected after accounting for losses and the total monthly consumption of electricity from the Distribution licensee by the consumer is 900 units out of which excess units consumed in peak hours are 100. Then excess injected energy to be considered for the particular month shall be 200 units (1000-(900-100)) and the same shall be carried forwarded to next month as it is within the banking energy limit (higher of the 25% of 1000 units or 30% of 900 units). The banked energy considered for next month will be $200 \times (1-8\%) = 184$ units. The Discom will raise the bill for excess 100 units of energy consumed during peak hours as per applicable tariff.

Explanation: The excess energy drawn during the peak hours in a month=(Total energy drawn during the peak hours in the month- Total energy injected during the peak hours in the month).

If during the next month, 1000 units of energy have been injected after accounting for losses and the total monthly consumption of the electricity from the Discom by the consumer is 750 units out of which excess units consumed in peak hours are 100, the excess energy injected to be considered for that particular month shall be 350 units (1000-(750-100)). Out of excess energy of 350 units, only 250 units (higher of the 25% of 1000 unit or 30% of 750) shall be banked and carried forwarded to next month, remaining 100 units (350-250) shall lapse. Accordingly, 230 (250 x (1- 8%)) +184 (Banked during previous month) equal to 414 units shall be carried forward to the next month. The Discom will raise the bill for excess 100 units of energy consumed during peak hours as per the applicable tariff.

If during the next month, 1000 units of energy have been injected after accounting for losses and the monthly consumption of the electricity from the Discom by the consumer is 1500 units out of which excess units consumed in peak hours are 200 units then the energy consumed during off peak hours in that particular month shall be (1000-(1500- 200) = -300 units. In this case the above excess drawn 300 units will be adjusted against previously banked 414 units and balance 114 units will be carried forward to the next month. The Discom will raise the bill for excess 200 units consumed during the peak hours as per the applicable tariff.

93.5.4 *Unutilized banked energy at the end of financial year shall lapse and the renewable energy captive generating plant shall be entitled to get Renewable Energy Certificates to the extent of the lapsed banked energy in accordance with rules/regulations framed by the MoP/CERC.*

93.6 *Banking charges at the rate of 8% of banked energy would be payable in kind and shall be adjusted against the banked energy before withdrawal.*

Illustration: If 100 Units of energy have been banked at the consumption end after accounting for losses, the Captive consumer will be able to draw 92 units of banked energy and 8 units will be deducted as banking charges."

Commission's Proposal:

10.45 Commission in the draft Regulations proposed the Insertion of new Regulations 94A,94B & 94C below the existing regulation 94 as follows:

“94A. Green Energy Tariff

- (1) Any consumer may elect to purchase green energy either up to a certain percentage of the consumption or its entire consumption and they may place a requisition for this with their distribution licensee, which shall procure such quantity of green energy and supply it and the consumer shall have the flexibility to give separate requisition for solar and non-solar;
- (2) The consumer may purchase on a voluntary basis, more renewable energy, than he is obligated to do and for ease of implementation, this may be in steps of Twenty-five per cent and going up to Hundred per cent;
- (3) The tariff for the green energy shall be determined separately by the Commission through a separate order, considering various cost components of the Distribution Licensee;
- (4) Any requisition for green energy from a distribution licensee shall be for a minimum period of one year;
- (5) The quantum of green energy shall be pre-specified for at least one year;
- (6) The green energy purchased from distribution licensee or from Renewable Energy sources other than distribution licensee in excess of Renewable Purchase Obligation of obligated entity shall be counted towards Renewable Purchase Obligation compliance of the distribution licensee;
- (7) The Accounting of renewable energy supplied at distribution licensee level shall be on a monthly basis.

94B. Green certificate

The distribution licensee shall give green certificate on yearly basis to the consumers for the green energy supplied by the licensee to consumer on his request beyond the renewable purchase obligation of the consumers.

94C. Rating

The Commission may introduce the concept of rating of the consumer of the distribution licensee, based on the percent of green energy purchased by such consumer.”

Comments received:

10.46 Charges may not be made applicable to promote the green energy.

10.47 State has a huge potential of RE generation and more & more RE Capacity be utilized by Consumers. Hence, these clauses will discourage Consumers to use RE capacity & hence proposed amendment may be dropped.

Commission's views:

10.48 There are certain consumers who wish to purchase RE voluntarily accordingly to facilitate such consumers and looking to the provisions of MoP GEOAR the Commission has retained the provisions proposed in the draft as under:

Insertion of new Regulations 94A,94B & 94C:

The following new Regulations 94A,94B & 94C shall be inserted below the existing regulation 94:

"94A. Green Energy Tariff

- (1) *Any consumer may elect to purchase green energy either up to a certain percentage of the consumption or its entire consumption and they may place a requisition for this with their distribution licensee, which shall procure such quantity of green energy and supply it and the consumer shall have the flexibility to give separate requisition for solar and non-solar;*
- (2) *The consumer may purchase on a voluntary basis, more renewable energy, than he is obligated to do and for ease of implementation, this may be in steps of Twenty-five per cent and going up to Hundred per cent;*
- (3) *The tariff for the green energy shall be determined separately by the Commission through a separate order, considering various cost components of the Distribution Licensee;*
- (4) *Any requisition for green energy from a distribution licensee shall be for a minimum period of one year;*
- (5) *The quantum of green energy shall be pre-specified for at least one year;*
- (6) *The green energy purchased from distribution licensee or from Renewable Energy sources other than distribution licensee in excess of Renewable Purchase Obligation of obligated entity shall be counted towards Renewable*

Purchase Obligation compliance of the distribution licensee;

- (7) *The Accounting of renewable energy supplied at distribution licensee level shall be on a monthly basis.*

94B. Green certificate

The distribution licensee shall give green certificate on yearly basis to the consumers for the green energy supplied by the licensee to consumer on his request beyond the renewable purchase obligation of the consumers.

94C. Rating

The Commission may introduce the concept of rating of the consumer of the distribution licensee, based on the percent of green energy purchased by such consumer."

Additional comments received:

11. It is observed that a number of additional comments/suggestions have been received on the provisions which were not the part of the draft proposal. As such these are not part of the present proceedings, thus, Commission has taken note of the same and will consider these separately in future Amendments and orders appropriately.

12. In the light of the foregoing discussions, the finalized Regulations duly authenticated, placed below, may be got published in the Official Gazette.

13. Copy of this memo, along with the finalized Regulations, may be sent electronically and/or by post to the State Government, CEA, concerned Utilities and other stakeholders.

(Dr. Rajesh Sharma)
Member

(Hemant Kumar Jain)
Member

(Dr. B. N. Sharma)
Chairman

Annexure-I

S.No	Particulars
1.	M/s Ultratech Cement Ltd.
2.	Sh. Rajendra Rathore, Leader of Opposition, Rajasthan Vidhansabha
3.	M/s Amplus Energy Solutions (P) Ltd.
4.	Sh. Balmukund Sanadhya
5.	M/s TSSDG India (P) Ltd
6.	Power and Energy Consultants India Pvt. Ltd.
7.	M/s IB Vogt Solar India (P) Ltd
8.	M/s Renew power Power Ltd
9.	Sh. Yewanti Kumar Bolia
10.	Ajmer Vidyut Vitran Nigam Ltd
11.	M/s Shree Cement Ltd
12.	Military Engineer Services
13.	Council of Energy, Environment & Water (CEEW)
14.	Sh. D. D. Agarwal
15.	Solar Power Developers Association
16.	Indian Wind Turbine Manufacturers Association('IWTMA')
17.	Rajasthan Solar Association('RSA')
18.	Indian Wind Energy Association('InWEA')
19.	M/s Kalptaru power Transmission Ltd('KPTL')
20.	Reliance Jio Infocom Ltd.
21.	Rajasthan Renewable Energy Corporation ('RREC')
22.	Rajasthan Vidhyut Utpadan Nigam Ltd('RVUNL')
23.	O2 Power Private Ltd.
24.	M/s Sun Sources Energy
25.	INOX Wind Energy Ltd.
26.	Jaipur Vidyut Vitran Nigam Ltd

Annexure-II

S.No	Particulars
1.	Sh. A. K. Gupta, Advisor Energy, GoR
2.	Sh.Y. K. Bolia, Stakeholder
3.	Sh. Vivek Ranjan, Representative for Amplus Energy
4.	Sh. Pawan Tanwar, Representative for RRECL
5.	Sh. Sunil Bansal, Representative for RSA.
6.	Ms. Harsha, Representative for CEEW
7.	Sh. A. P. Bindal, Representative for Ultratech Cement.
8.	Sh. Nitin Goyal, Representative for Ib vogt Solar
9.	Sh. Kulbhushan Kumar, Representative for ReNEW Power
10.	Sh. Amarjeet Singh, Representative for Shree Cement Ltd.
11.	Sh. Arun Gupta, Representative for MES
12.	Sh. Ankit Gupta, Representative for Solar Power Developer Association
13.	Sh. Shiva Krishna, Representative for InWTMA.
14.	Sh. Vikalp Vats, Representative for IWEA
15.	Sh. Ankit Sharma, Representative for RUVNL
16.	Sh. Sibasis Panda, Representative for O2 Power
17.	Sh. C. M. Jain, Representative for PEC
18.	Sh. D.D. Agarwal, Stakeholder
19.	Sh. B.M. Sanadhya, Stakeholder
20.	Sh. Sandeep Pathak, Advocate for Discoms

RAJASTHAN STATE ELECTRICITY REGULATORY COMMISSION

Notification September, 2023

No. RERC/Secy./Reg./..... - In exercise of the power conferred under the Sections 61 and Section 62 read with Section 86 and Section 181 of the Electricity Act, 2003 (No. 36 of 2003) and all other powers enabling it in this behalf, the Rajasthan Electricity Regulatory Commission hereby makes the following Regulations namely:

1. Short title, commencement and extent of application:

- (1) These Regulations may be called the Rajasthan Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) (First Amendment) Regulations, 2023.
- (2) These Regulations shall come into force from the date of their publication in the Official Gazette.

2. Amendment in Regulation 9:

The following new provisos shall be added to the main sub-regulation 9.2 as under:

"Provided that the CUF norms specified for determining the project specific tariff for the projects covered under sub-regulation 9.1 shall be the minimum norm:

Provided further that the CUF norms for the projects whose tariff is to be determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government as envisaged under Section 63 of the Act shall be as prescribed under the guidelines/bid documents, as applicable."

3. Amendment in Regulation 91:

- (1) The second, third and fourth proviso to the sub-regulation 91.4.1 (c) shall be substituted with the following:

"Provided further that there shall be an exemption of 75% in Intra-State transmission charges and wheeling charges for the Renewable Energy with Storage projects including PSP installed after 01.04.2020 either set up as Captive Project or supplying power to third party under Open Access. This exemption shall be applicable for first seven years of operation from the date of commissioning of the Project:

Provided also that there shall be an exemption of 100% in Intra

State transmission charges and wheeling charges for Solar Power Project set up after 01.04.2020 for supplying power to Electric Vehicle charging stations either under Captive route or through open access. This exemption shall be applicable for first ten years from the date of establishing of Electric Vehicle charging stations:

Provided also that the above exemptions shall be applicable for projects with individual plant capacity of maximum 25 MW and for the total capacity of 500 MW in the State."

(2) Two new provisos shall be added below the existing proviso to sub-regulation 91.6 as under:

"Provided further that cross subsidy surcharge and additional surcharge shall not be applicable in case power produced from a non-fossil fuel based Waste-to-Energy plant is supplied to the Open Access Consumer.

Provided also that the cross subsidy surcharge and additional surcharge shall not be applicable if green energy is utilized for production of green hydrogen and green ammonia."

4. Amendment in Regulation 92:

The existing sub-regulation 92.2 shall be substituted with the following:

"92.2 The peak AC capacity (inverter capacity on AC side) of the renewable energy captive generating plant shall not exceed the contracted AC capacity. In case during any time block, if the peak AC capacity exceeds the contracted AC capacity the corresponding excess generation of 15-Minute or 30-Minute block, as applicable shall lapse.

Explanation: There shall be no restriction on installed DC capacity."

5. Amendment in Regulation 93:

The existing regulation 93 shall be substituted with the following:

"93. Banking

93.1 The terms and conditions of Banking specified in these Regulations shall be applicable for both existing Renewable Energy based plants and new Renewable Energy based plants during the application of control period of these Regulations.

93.2 For availing the banking facility, the Renewable Energy based captive power plant shall install ABT compliant Special Energy Meters (SEMs), capable of energy accounting for each block of 15 minutes.

93.3 Banking of Energy subject to a maximum ceiling of 25 % of the energy injected by Renewable Energy Captive Generating Station during the month or 30% of the total monthly consumption of electricity from the distribution licensee by the consumer, whichever is higher, at consumption end shall be allowed only for captive consumption within the State:

Provided that no banking facility shall be allowed for Renewable Energy plants supplying power to third party under open access and for the Renewable Energy plant installed behind the meter:

Provided further that for availing Banking Facility, Renewable Energy Captive Generating Station will enter into Wheeling and Banking Agreement with Distribution Licensee.

93.4 Period of banking:

93.4.1 The banking shall be allowed on annual basis for the financial year.

93.5 Energy Accounting for Banking:

93.5.1 Notwithstanding anything contrary contained in any other Regulations time being in force the Energy Accounting shall be as under:

93.5.2 The banking as well as withdrawal of banked energy shall be subject to scheduling as required.

93.5.3 In a month the energy injected after accounting for losses shall be set off against the energy drawn from the Discom in the same month except excess energy drawn during the peak hours in the month declared by Distribution Licensee from time to time. The excess energy, if any, shall be carried forward to next month subject to limits as per reg 93.3 above, after adjusting the banking charges.

Illustration:

If in any month, 1000 units of energy have been injected after accounting for losses and the total monthly consumption of electricity from the Distribution licensee by the consumer is 900 units out of which excess units consumed in peak hours are 100. Then excess injected energy to be considered for the particular month shall be 200 units $(1000 - (900 - 100))$ and the same shall be carried forwarded to next month as it is within the banking energy limit (higher of the 25% of 1000 units or 30% of 900 units). The banked energy considered for next month will be $200 \times (1 - 8\%) = 184$ units. The Discom will raise the bill for excess 100 units of energy consumed during peak hours as per applicable tariff.

Explanation: The excess energy drawn during the peak hours in a month = (Total energy drawn during the peak hours in the month - Total energy injected during the peak hours in the month).

If during the next month, 1000 units of energy have been injected after accounting for losses and the total monthly consumption of the electricity from the Discom by the consumer is 750 units out of which excess units consumed in peak hours are 100, the excess energy injected to be considered for that particular month shall be 350 units $(1000 - (750 - 100))$. Out of excess energy of 350 units, only 250 units (higher of the 25% of 1000 unit or 30% of 750) shall be banked and carried forwarded to next month, remaining 100 units $(350 - 250)$ shall lapse. Accordingly, $230 (250 \times (1 - 8\%)) + 184$ (Banked during previous month) equal to 414 units shall be carried forward to the next month. The Discom will raise the bill for excess 100 units of energy consumed during peak hours as per the applicable tariff.

If during the next month, 1000 units of energy have been injected after accounting for losses and the monthly consumption of the electricity from the Discom by the consumer is 1500 units out of which excess units consumed in peak hours are 200 units then the energy consumed during off peak hours in that particular month shall be $(1000 - (1500 - 200)) = -300$ units. In this case the above excess drawn 300 units will be adjusted against previously banked 414 units and balance 114 units will

be carried forward to the next month. The Discom will raise the bill for excess 200 units consumed during the peak hours as per the applicable tariff.

93.5.4 Unutilized banked energy at the end of financial year shall lapse and the renewable energy captive generating plant shall be entitled to get Renewable Energy Certificates to the extent of the lapsed banked energy in accordance with rules/regulations framed by the MoP/CERC.

93.6 Banking charges at the rate of 8% of banked energy would be payable in kind and shall be adjusted against the banked energy before withdrawal.

Illustration: If 100 Units of energy have been banked at the consumption end after accounting for losses, the Captive consumer will be able to draw 92 units of banked energy and 8 units will be deducted as banking charges."

6. Insertion of new Regulations 94A,94B & 94C:

The following new Regulations 94A,94B & 94C shall be inserted below the existing regulation 94:

"94A. Green Energy Tariff

- (1) Any consumer may elect to purchase green energy either up to a certain percentage of the consumption or its entire consumption and they may place a requisition for this with their distribution licensee, which shall procure such quantity of green energy and supply it and the consumer shall have the flexibility to give separate requisition for solar and non-solar;
- (2) The consumer may purchase on a voluntary basis, more renewable energy, than he is obligated to do and for ease of implementation, this may be in steps of Twenty-five per cent and going up to Hundred per cent;
- (3) The tariff for the green energy shall be determined separately by the Commission through a separate order, considering various cost components of the Distribution Licensee;
- (4) Any requisition for green energy from a distribution

- licensee shall be for a minimum period of one year;
- (5) The quantum of green energy shall be pre-specified for at least one year;
 - (6) The green energy purchased from distribution licensee or from Renewable Energy sources other than distribution licensee in excess of Renewable Purchase Obligation of obligated entity shall be counted towards Renewable Purchase Obligation compliance of the distribution licensee;
 - (7) The Accounting of renewable energy supplied at distribution licensee level shall be on a monthly basis.

94B. Green certificate

The distribution licensee shall give green certificate on yearly basis to the consumers for the green energy supplied by the licensee to consumer on his request beyond the renewable purchase obligation of the consumers.

94C. Rating

The Commission may introduce the concept of rating of the consumer of the distribution licensee, based on the percent of green energy purchased by such consumer."

By Order of the Commission

Secretary