Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400005.
Tel. 022 22163964/65/69 Fax 22163976
Email: mercindia@merc.gov.in
Website: www.merc.gov.in

Case No. 134 of 2020

Case filed by the Tata Power Company Limited (Distribution) seeking approval for levying "Green Power Tariff" to supply Renewable Energy to consumers opting for 100% green energy for meeting their entire demand.

Coram
I.M.Bohari, Member
Mukesh Khullar, Member

ORDER

Date: 22 March, 2021

1. The Tata Power Company Limited (Distribution) (**TPC-D**) has filed this Petition being Case No.134 of 2020 on 23 June, 2020 seeking approval for "**Green Power Tariff**" for supply of Renewable Energy (**RE**) to consumers for meeting their requirement of utilizing 100% green energy for their entire demand. Petition has been filed under Section 86 (1) (k) of the Electricity Act, 2003 **(EA, 2003**) read with Regulation 92 and 94 of Maharashtra Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 and all the enabling powers including the inherent powers and expansive regulatory authority vested upon the Commission.

2. **TPC's main prayers are as under:**

   a) *Approve the procurement of additional Renewable Energy to meet the 100% Green Energy requirement of consumers,*

   b) *To approve issuance of a monthly certificate to the consumers certifying 100% green energy sale*

   c) *Approve the "Green Energy Tariff" as proposed above or as deem fit by the Hon'ble Commission towards processing the 100% Green Energy Requirement*

   d) *Allow treatment of this RE power under RPO of Tata Power-D in case the consumers do not wish to use the green attributes for meeting its RPO obligations.*

3. **TPC-D in its Petition has stated as follows:**

3.1 There is a growing demand from consumers for a rapid transition to a zero-carbon economy. Over 175 of the world's most influential companies have already made this commitment through the global corporate leadership initiative, RE100. This is driving up demand for renewable electricity and creating a shift in demand patterns away from fossil fuels across the global power system. Google & Autodesk are just a few of the companies that have already achieved their goal and are now powered by 100% RE.

3.2 Government of India is also promoting RE in a big way and has kept an aggressive target of 175 GW of RE by 2022. Indian corporates are also playing key role in achieving the aggressive target of the Government as corporate citizens and other resultant advantage of being zero carbon companies.

3.3 In this context, some of the corporate consumers of TPC-D are also stressing to become zero carbon company and eyeing for the elite club of those companies having zero carbon emission like Google. Some of the corporate consumers have already initiated the process by opting to receive RE under Open Access mechanism as approved by the Commission.

3.4 However, many corporate do not wish to go through this process of sourcing RE because either they are not eligible to avail open access under the current Regulatory framework or they do not have the resources, expertise and the bandwidth required for carrying out this activity. In view of this, these consumers have approached TPC-D to meet their requirement of 100% green energy through the energy sourced from TPC-D.

3.5 Section 61(h) of the EA, 2003 has specified the promotion of generation of RE Further, Section 86(e) of the EA, 2003 specifies the function of State Commission, which includes promotion of generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person.

3.6 Provision of such type of service provided by a Distribution Licensee is already in place in the state of Karnataka, where Karnataka Electricity Regulatory Commission (**KERC**) has already approved Green Power Tariff for the Distribution Licensee (BESCOM) since FY 2011-12 in the respective tariff orders.

3.7 Further, Green Power Tariff will have the following advantages:

a. Green Power Tariff being totally voluntary in nature will give choice to the Consumers to opt for green energy.

b. The extra charges for procurement of RE being charged from the specific consumers would not increase the cost to be borne by other consumers.

c. This will reduce hesitation of the Distribution Licensees in going for high cost of power purchase from RE sources as it will not impact on general tariff, leading to growth in power generation from RE sources.

3.8 TPC-D, in order to meet the energy demand of its consumers, has tied up power on long term as well as short term basis with various generators which include conventional fuel-based generators, hydro generators and renewable sources like solar and wind. Considering the current tie ups for FY 2020-21 around 28% of power procured by TPC-D is through Renewable generating sources (including Hydro). Hence, to meet the requirement of the consumers seeking 100% green energy, TPC-D in the Petition has proposed as follows:

a. Permission to procure additional renewable power to meet the demand of consumers, over and above its RPO requirements.

b. Such procurement will form part of the power purchase requirement of TPC-D and may be utilized to meet its RPO requirement as well in case of shortfall.

c. TPC-D will issue a monthly certificate to the consumer stating that 100% of their power requirement has been met through green energy.

d. The above proposal would be voluntary in nature and will provide a choice to the consumer to opt for green energy.

e. For the efforts required to enable this requirement of 100% green energy, TPC-D proposes levy of "Green Power Tariff" from such consumers.

f. The additional revenue on account of Green Power Tariff shall be accounted as other business income of TPC-D, which will reduce the overall ARR of it as specified in the MYT Regulations, 2019.

3.9 Further, based on the methodology adopted by KERC forming part of the BESCOM (Distribution Licensee) Tariff Orders, TPC - D has computed the Green Power Tariff to be paid by the consumers on the basis of projected power purchase cost for FY 2020-21 to FY 2024-25. The details of the same are as below:

Sr No	Particulars	Amount
1	Average cost of RE from FY21to FY 25 (Rs/kWh)	3.80
2	Average Variable cost of non RE from FY21to FY 25 (Rs/kWh)	3.31
3	Difference (Rs/kWh)	0.49
4	Transmission Loss	3.18%
5	Distribution Loss	1.02%
6	Grossed up Cost (Rs/kWh)	0.51
7	Other Administrative Cost (Rs/kWh)	0.05
8	Green Power Charges (Rs/kWh)	0.56

3.10 The Green Power Tariff recovered from these consumers for supply of 100% RE will increase the other business income of the distribution business. As per Section 51 of the EA, 2003, a proportion of the revenues derived from such business shall, as may be specified by the concerned State Commission, be utilized for reducing its charges for wheeling. Therefore, these services will further subsidize the Annual Revenue Requirement (**ARR**) of the distribution business and normal tariff of the consumers may also get proportionately subsidized.

3.11 In view of the above, TPC-D is seeking in-principle approval for levying Green Power Tariff to the consumers opting for 100% RE Power from TPC-D

4. Subsequent to the filing of the Petition by TPC-D, the Commission scrutinized the Petition and sought certain clarifications. In reply, TPC-D vide its letter dated 7 October, 2020 has submitted as follows:

   a. It has received the request for seeking green power from the customers only after December 2019. After the receipt of the first request, TPC-D was in the process of evaluating the option and shaping the proposal and hence could not include the same during MYT petition filing.

   b. The Commission approves the tariff for new consumers based on the composite power procurement costs and other costs without determining the same based on the incremental power procurement costs for that incremental consumer. The incremental consumer is charged the same tariff applicable for that consumer category as applicable to the first consumer in the same consumer category. Similarly, Green Power Tariff shall be determined based on average power purchase cost difference of RE & Non-RE power as proposed in Petition (similar way as KERC has approved from BESCOM). Based on the experience, data & market evolution the changes in the Green Power Tariff proposal shall be proposed during MTR.

   c. Additionally, the Distribution Licensee is required to provide the Green certification, bill consumer (changes in software for additional line item), and maintain the records, make efforts for procuring additional RE power. Additional administrative cost will be involved for these activities. Hence, normative administrative charge is also proposed.

5. After due verification of the Petition, the Commission found the Petition was complete including the requisite information, formats and documents. Accordingly, the Commission admitted the Petition on 31 December, 2020 for public hearing. Also, as this issue of determination of Green Tariff is not specific to TPC-D but could also be applicable to other Distribution Licensees in the State, TPC-D was directed to implead other Distribution Licensees in the state and serve copy of its Petition on them.

6. In accordance with Section 64 of the EA, 2003, the Commission directed TPC-D to publish its Petition in the prescribed abridged form and manner, to ensure adequate public participation. TPC-D was further directed to reply expeditiously to the suggestions and objections received. Accordingly, TPC-D published a notice for its Green Power Tariff Petition in two daily English newspapers, viz ‘The Indian Express’ & ‘The Financial

Express' and in two daily Marathi newspapers, viz 'Samna' & 'Loksatta' on 3 January, 2021.

7. The copies of the Petition were made available for inspection/purchase at TPC-D's office and on its website (https://www.tatapower.com/corporate/regulatory/regulatory-mumbai.aspx). The Public Notice and Petition including reply to data gaps were also made available on the website of the Commission (www.merc.gov.in) in downloadable format. The Public Notice specified that the suggestions and objections, in English or Marathi, may be filed with proof of service on TPC-D, latest by 23 January, 2021 and E- Public hearing would be held on 27 January, 2021 through video conference. List of persons who participated in E-Public Hearing held on 27 January 2021 is placed at Annexure A.

8. The Commission has ensured that the due process contemplated under law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all concerned to file their say.

9. **Suggestions and Objections:**

Pursuant to the Public Notice issued by the Commission, the Commission is in receipt of suggestions and objections from the 6 Distribution Licensees. The summary of the common issues raised by these Distribution Licensees and the individual issues along with the replies from TPC-D is provided as under:

A. Methodology Proposed in the Petition:

BEST's Submission:-

i. In order to formulate the methodology for calculation of green power tariff, it is necessary to decide upon the methodology for calculation of Green Power Tariff, whether to include the cost of a) RECs, b) Green Energy from GTAM, c) Green Energy from Short Term or Medium Term or Long Term PPA, d) Fixed cost of existing Thermal Power tied up, e) Various Statutory Charges, f) Administrative Charges, etc.

ii. It is necessary to frame the standard methodology for calculation of Green Power Tariff and the common procedure to follow by all the Distribution Licensees to meet the 100 % green power demanded by their consumers.

AEML-D's submission: -

iii. The Distribution Licensee will have to enter into separate contract for buying RE power specifically to meet the energy requirement of such consumers and, on the basis of such procurement, a certificate can be issued to such consumers by the distribution licensee confirming the same.

iv. To that extent the power purchase from conventional sources will get avoided. As more consumers opt for 100% green power, the Distribution Licensees will have to back down their conventional sources of power. As the power generated from conventional sources with PPA will reduce, per unit fixed cost of these plants will increase. This increase will go on multiplying as more and more consumers opt for 100% green power. The additional impact of fixed cost will be borne by other consumers of the Distribution Licensee who do not opt for green power.

v. In order to avoid the impact of stranded fixed cost of conventional power on other consumers, AEML-D submitted that the tariff charged for 100% green power should also build in the per unit fixed cost of conventional source(s). The weighted average per unit fixed from all conventional sources in Licensee’s portfolio should be added to the per unit cost of power purchase from RE sources and thereafter per unit cost of power purchase from Non-RE (variable component only) should be deducted from the total. The difference should be grossed up by transmission and distribution loss and a nominal administrative charge should be added to derive the Green Power Tariff, as submitted by TPC-D. Hence the method proposed by TPC-D could be adopted with the above modification to avoid the possibility of fixed cost of power purchase being stranded.

MSEDCL’s submission: -

vi. MSEDCL agrees to the principle that the consumers who opt for Green Energy should bear the additional power purchase cost of RE sources over and above the normal tariff. Common consumers of MSEDCL should not get burdened with the additional cost of such RE purchase. In view of the above, it would be important to devise a methodology that ensures such additional cost of RE purchase does not get passed on to the common consumers.

vii. However, there is a balancing cost for RE purchase such as thermal power back down, payment of fixed charges to the conventional generators, etc. MSEDCL further submits that balancing cost between for RE purchase cost may increase throughout the control period for the period FY 20-21 to FY 24-25, although RE power purchase cost may reduce as the discovered RE Tariff , especially the solar power cost is reducing drastically. Therefore, in order to avoid the burden getting passed on to common consumers, a methodology has to be worked out so that balancing cost also to be recovered through additional cost of RE purchase.

KRC Deemed Distribution Licensees submission (MBPPL, GEPL and KRC Infrastructure) :-

viii. Similar requests are being made by the consumers in KRC Deemed Distribution Licensees’ area also. However, KRC Deemed Distribution Licensees are working on a strategy to procure most of its power requirement through green sources. Such kind of discriminatory treatment to consumers at the cost of premium without scheduling actual green energy in the name of consumers may set a wrong precedent. MBPPL submits that the Petition has been filed without detailed impact of such proposal on overall power purchase mechanism and its impact on the standardized tariff structures.

TPC-D's reply:-

ix. For Green Power Tariff, the methodology suggested by the TPC-D in this Petition is similar to that approved by KERC for BESCOM. This mechanism will be voluntary in nature and will provide a choice to the consumer to opt for green energy.

x. Further TPC-D has ready tie ups with RE generators. The Distribution Licensee is not required to have tie up with specific RE generator for a specific consumer. It will be supplied to these consumers from the available RE sources of energy portfolio of the TPC-D from different sources. The Distribution Licensee will be arranging the additional RE power only if the requirement of RE power is more than the existing tied up capacity of renewable power. Hence, it would be a common energy supply.

xi. Further, based on the experience gained, data collected & market evolution during the next couple of years, the computation of Green Tariff proposal may be appropriately adjusted during the MTR depending upon the Commission's directions.

xii. TPC-D insists that there should be standard methodology for calculation of Green Power Tariff and the common procedure to be followed by all the Distribution Licensees to meet the 100 % green power demanded by its consumers. So that there will not be any discriminatory treatment to any Distribution Licensee or consumers.

B. Revenue from the Green Tariff to be considered in "Income from other business".

AEML-D's Submission: -

i. If any additional Green Tariff is approved to a Distribution Licensee, the revenue recovery from the same represents tariff revenue only and it cannot be considered Non-Tariff or Other Business Income. Other Business income, as per EA, 2003 is the income realized from optimal utilization of distribution (or transmission) assets and consequently the MYT Regulations allow 1/3rd portion of the same to be retained by the Licensee. However, in the case of green energy procurement, the Distribution Licensee is not engaged in optimum utilization of assets and it is merely carrying out electricity distribution and supply business.

Hence, revenue, if any, generated, should be passed on in entirety in the retail supply ARR.

MSEDCL's Submission: -

ii. TPC-D has proposed to charge Green Power Tariff along with administrative cost and losses. Hence, it is nothing but sale of power and cannot be termed as other business income. In fact, the term Green Power Tariff itself says it's a Tariff and not income from use of assets which can be termed as other business. Therefore, the entire revenue from such sale should be considered as a part of revenue from sale of power only and should be utilized to lower the overall tariffs of consumers. There should not be any special treatment to the revenue from such Green Power Tariff. However, Distribution Licensee should keep a separate account for it so as to understand the quantum of the sales.

KRC Deemed Distribution Licensees submission (MBPPL, GEPL and KRC Infrastructure) :-

iii. Procurement of power for distribution in the designated license area is the main business of the Distribution Licensee. Therefore, in line with sourcing of power from any other source, allocation of attributes from green energy source or from any other form of sources and income from such allocation shall not be categorized under "income from other business".

TPC-D's Reply: -

iv. Proposed arrangement is not only related to power procurement from the RE sources or scheduling and management of renewable portfolio but also the cost allocation to the specific consumers. In case, TPC-D has 100% renewable power portfolio then there could not have been this proposal however due to shortage of renewable power and infirm nature of RE source of energy there is a need for professional and expert management of power portfolio in order to meet the objective of the proposal. There is no margin component considered in the computation of green power tariff, therefore, there may not be a clear profit to be earned from this activity.

v. Proposed Green Power Tariff for providing 100% RE power is over and above the approved Tariff of the Commission, hence TPC-D has considered it as an Other Business Income, and treatment for the same is proposed as per the MYT Regulations, 2019. This is in the interest of other consumers to reduce the tariff of consumers. The Commission may give the appropriate direction for the same.

vi. Apprehension of entire cost to be borne by the consumer and only 2/3rd revenue to be shared with the consumers are misplaced. ARR of the distribution business including power purchase cost and the additional revenue and cost incurred on account of Green Power Tariff will be subject to true up by the Commission.

C. Additional RE power to be considered for RPO fulfilment in case not opted by the consumers.

BEST's Submission: -

i. The Commission is requested to decide the treatment of 100% of green power under RPO regime.

AEML-D's submission: -

ii. The energy purchased for consumers who were supplied 100% Renewable Energy should be deducted from the total energy purchased and net energy purchase should be used for RPO calculations as per the RPO-REC Regulations, 2019. However, AEML-D supports the proposal of TPC-D that in case the consumers do not wish to use the green attributes, the renewable energy so purchased should be allowed towards meeting the RPO of the Distribution Licensee.

MSEDCL's Submission:-

iii. Additional procurement of Green Power if made for a consumer should form part of the power purchase requirement of Distribution Licensee and should be utilized to meet its RPO requirement in case consumers do not utilize the green attributes for meeting its RPO obligations. However, based on actual power purchase and rates of RE purchase, there should be a provision for annual reconciliation of the Green Tariff whether it is upwards or downwards.

KRC Deemed Distribution Licensees submission (MBPPL, GEPL and KRC Infrastructure):-

iv. In case consumers do not wish to avail such mechanism, TPC-D has requested to treat the RE procured under RPO of TPC-D. This statement is contrary to earlier submissions wherein it is mentioned that additional green energy shall be procured to sustain green energy requirements of specific group of consumers. Therefore, such additional procurement shall be dealt with as per relevant provisions of the MYT Regulations, 2019.

TPC-D's Reply:-

v. Green power will be supplied to the consumers from the available renewable sources of energy portfolio of the TPC-D from different sources TPC-D will be arranging the additional RE power only if the requirement of RE power is more than the existing tied up capacity of renewable power. As the existing tied up capacity is being used for RPO compliance, it will be appropriate to give the same treatment for the additional RE power purchased for the consumers opting for 100% RE Power consumption.

D. Withdrawal of green energy requirement may lead to additional cost to other consumers and tariff of RE Power on RTC basis is on higher side than that from infirm sources.

BEST Submission: -

i. In case consumers are demanding 100 % green power and require supply on 24 X 7 basis then Distribution Licensee has to tie up RE Power on RTC basis, commitment from consumer to continue to procure green power is required. If the consumer withdraws the requirement of 100 % green power in future or opts for open access, the additional cost incurred by Distribution Licensee to meet 100 % green power of the particular consumer will have to be shared by all consumers of Distribution Licensee till the duration of PPA is over, moreover the tariff of RE Power on RTC basis is on higher side than that from infirm sources like Solar and Wind.

TPC-D's reply:-

ii. TPC–D stated that such a situation is prevalent currently also wherein a consumer, above a threshold demand, is free to opt for open access on the distribution system based on the tariff economics. The Distribution Licensee has an obligation to plan for its power procurement considering such scenarios. With the requirement of RE increasing due to gradual increase in RPO as per applicable regulations, the "stranding" of RE capacity seems remote.

iii. The cost of RE on RTC basis is quite comparable to the cost of conventional short-term power and hence, it may replace such procurement, if required.

E. Clarification for the proposed mechanism different from REC mechanism in force.

KRC Deemed Distribution Licensees' submission (MBPPL, GEPL and KRC Infrastructure):-

i. Through the proposed mechanism, TPC-D shall be levying at the approved tariff for sourcing "Non-Green" energy whereas it shall be levying some premium to provide certification towards procurement of green energy from TPC-D. KRC Deemed Distribution Licensees are seeking clarification that how the proposed mechanism is different that Renewable Energy Certificate (REC) mechanism which clearly interprets that a parallel network can be drawn between proposed mechanism of TPC-D and the well-established REC mechanism.

TPC-D's reply:-

ii. Under the proposed arrangement, TPC-D will promote the generation as well as consumption of RE whereas REC promotes the generation side of RE.

iii. An Obligated Entity may meet its RPO target by way of its own generation or procurement of power from another RE Project or by making a purchase from a Licensee or by purchase of RECs or by a combination of these options. RECs are issued by the Nodal Agency in accordance with the procedures prescribed and are traded only in the Power Exchanges approved by Central Electricity Regulatory Commission (**CERC**) through closed bidding process, it doesn't involve the actual renewable power flow through the system for buyer. Whereas, through this petition TPC-D will be arranging the actual renewable power 24x7 with combination of solar, wind and hydro power and will issue the certificate to the consumers stating that 100% of their power requirement has been met through green energy. This is certainly not REC mechanism.

F. Scheme Applicability may be restricted to EHV and HV consumers

BEST's Submission:-

i. It is requested to determine the Green Power Tariff for only HT Consumers and eligible open access consumers similar to other States.

MSEDCL's Submission:-

ii. The proposed Scheme should be limited to EHT & HT Consumers in the industrial and commercial category with contract demand 1 MVA and above so that power planning would be easy.

KRC Deemed Distribution Licensees submission (MBPPL, GEPL and KRC Infrastructure):-

iii. BESCOM has also proposed green tariffs only for the consumers having contract demand above 1 MVA i.e. consumers who are eligible to seek open access.

TPC-D's reply:

iv. TPC-D has proposed this mechanism on voluntary basis for the consumers, who will approach the Tata Power-D for their requirement of 100% RE and not only limited to EHT and HT consumers. In this regard, it is pertinent to mention that there are consumers having less than 1 MVA contracted load and they also want to show their commitment towards a greener environment and would like to become a zero-carbon company. Therefore, it has been proposed that all the consumers should get access of this 100% green energy consumption commitment as per their option irrespective of their status whether they are eligible for open access mechanism or not.

G. Revision in Tariff Structure may lead to confusion.

KRC Deemed Distribution Licensees submission (MBPPL, GEPL and KRC Infrastructure):-

i. KRC Deemed Distribution Licensees submitted their reservations over introduction of such revision in charge structures within the very first financial year of control period after MYT Order has been passed by the Commission. Further such revisions in tariff structures may lead to confusion among consumers particularly among large corporate which have presence in areas across all Discoms in the State.

TPC-D Reply:-

ii. TPC-D has proposed this mechanism on voluntary basis for the consumers, who will approach the TPC-D for their requirement of 100% RE power consumption. Hence, there is no possibility of any confusion.

10. **At the time of E Public hearing through video conferencing held on 27 January, 2021:**

a. TPC-D reiterated its submission as made out in the Petition and stated that it has submitted its rejoinder on the comments and objections received.

b. MSEDCL, AEML-D and BEST supported the Petition of TPC-D and reiterated their submission made in the Petition. These Licensees have highlighted the major issues of non-consideration of stranded fixed cost in the methodology for computation of green power tariff and treatment of revenue from green power tariff to be considered in the ARR of supply business and not to be separately accounted as under head of income from other business. They requested the Commission to devise uniform methodology applicable for all Distribution Licensees.

c. TPC-D while addressing the comment of considering fixed cost of conventional power sources in the computation stated that the consumers are going to pay additional charge over and above the normal tariff which has already factored the fixed cost of conventional power. Also addressing the comment of considering the revenue from green tariff under income from other business, it has stated that it was not explicitly prayed in the Petition and the Commission may take view on the same.

Commission’s Analysis and Ruling

11. The Commission notes that TPC-D through present petition is trying to address concerns of some consumers who desire to source all their power requirement through RE only. TPC-D has proposed to enable the same with levy of “Green Power Tariff" in addition to normal category wise tariff approved for such consumers to recover the cost towards procuring such additional RE energy.

12. Considering generic nature of the issue which would be applicable to all consumers in Maharashtra, the Commission has directed TPC-D to implead all Distribution Licensees in the State. Also, considering determination of charges involved in the matter, public consultation process as envisaged under Section 64 of the EA, 2003 has been adopted in the matter.

13. The Commission has noted various comments and objections received in written form as well as verbally during the E-public hearing and replies provided by TPC-D. The Commission further notes that all the Distribution Licensees supported the proposal of TPC-D and stressed on need to adopt uniform methodology.

14. Based on public consultation process, the Commission notes that following major issues need to be addressed in the present matter:

    a. Levy of Green Power Tariff
    b. Methodology for Computation of Green Power Tariff
    c. Whether revenue from the Green Power Tariff to be considered as ‘Income from other business’?
    d. Whether additional RE power to be considered for RPO fulfilment in case not opted by the consumers?
    e. Applicability of the Scheme to the sets of consumers

15. Considering the submissions made by the parties and pleadings made at the time of E-hearing, the Commission deals with the above issues in the subsequent paragraphs as follows:

16. **Issue A:- Levy of Green Power Tariff:**

16.1 TPC-D has stated that some consumers have approached it for possibility of supplying all their power requirement through RE only. Other Distribution Licensees have also confirmed that similar request has been received by them. Considering such generic consumer demand, the Commission is addressing the same through this Order.

16.2 The Commission notes that proposed proposal is completely voluntary, providing option to consumer to meet its demand only through RE. Such option would help to increase awareness amongst the consumers about use of renewable energy and support national goal of integrating more and more renewable energy. It will also help in promoting RE sources, which is one of the mandates of the Commission under the EA, 2003. Therefore, the Commission is inclined to allow proposal of providing option to consumers for meeting their demand only from RE.

16.3 However, Distribution Licensees would have to incur additional expenses for arranging RE for such consumers. Such additional expenses including the fixed cost liability (if any) needs to be recovered from same set of consumers without burdening other consumers. Hence, the Commission is in principle inclined to allow levy of Green Power Tariff on the consumers opting for 100% renewable energy for meeting their consumption. Computation of Green Power Tariff and other related matters are dealt with in subsequent paragraphs.

17. **Issue B: Methodology for Computation of Green Power Tariff**

17.1 TPC-D has proposed the computation of Green Power Tariff based on the methodology approved by the KERC in its Tariff Orders wherein difference of per unit cost between non-conventional and conventional power sources is considered as additional cost grossed up with transmission and distribution loss to be levied to the consumers availing green power which would be over and above the normal tariff. Based on the said methodology, TPC-D has submitted following computation of Green Power Tariff:

Sr No	Particulars	Amount
1	Average cost of RE from FY21to FY 25 (Rs/kWh)	3.80
2	Average Variable cost of non RE from FY21toFY25(Rs/kWh)	3.31
3	Difference (Rs/kWh)	0.49
4	Transmission Loss	3.18%
5	Distribution Loss	1.02%
6	Grossed up Cost (Rs/kWh)	0.51
7	Other Administrative Cost (Rs/kWh)	0.05
8	Green Power Charges (Rs/kWh)	0.56

It is important to note that in above computation TPC-D has added Administrative Cost of Rs.0.05/kWh for recovering expenses related to arranging/procuring for such renewable energy.

17.2 AEML-D has suggested to add impact of per unit fixed cost in above computation as once the consumer opts for RE, the contracted conventional power to that extent becomes stranded. Such stranded cost needs to be recovered from the same set of consumers opting for 100% RE power. MSEDCL has suggested that with increasing number of consumers opting for RE, cost towards grid balancing would also increase and the same needs to be borne by such consumers only.

17.3 In this regard, the Commission is of the opinion that computing cost of Green Power Tariff based on average cost of RE sources is correct approach. This is because, although Distribution Licensees would be procuring additional RE power for meeting demand of consumers who are opting for 100% RE power and cost of such RE power would be relatively lower than the earlier contracted RE sources, benefit of the same cannot be restricted only to selected consumers but needs to be passed on to all consumers (including such consumers opting for 100% RE power) by including such lower cost of fresh RE procurement in total basket of RE procurement and thereby reducing the base tariff applicable to all consumers. As consumer opting for 100% RE power would be paying normal tariff also, it will automatically get benefit of such lower rate of RE tariff.

17.4 It is also important to note that due to higher tariff of RE sources in the earlier years, Distribution Licensees who are having substantial quantum of already contracted RE sources would always have average power purchase cost of RE sources higher than conventional sources of energy. Only under such circumstances, formula proposed by TPC-D i.e. difference between cost of non-conventional and conventional (only variable tariff) sources of energy, can be made applicable. However, there are Distribution Licensees in the Maharashtra who have recently contracted substantial amount of RE energy through competitive bidding and hence their average cost of renewable energy sources could be lower than that of conventional sources of energy (e.g. in case of AEML-D, average cost of RE sources is Rs. 3.53/kWh and that of conventional sources of energy is Rs. 4.02/kWh). Applying the principle proposed by TPC-D in such case would lead to reduction in tariff for consumer opting for 100% power from RE sources. This is not desirable as benefit of relatively lower cost of RE sources has already been incorporated in the base tariff determined through MYT Orders and benefit of the same is being availed by all consumers including consumer who would opt for 100% RE energy. Also, in case of some of the Distribution Licensees, Green Tariff worked out based on formula proposed by TPC-D is coming to as high as Rs. 1.55/kWh, which is equal to the cost of REC.

17.5 Above anomaly in Licensee specific Green Tariff can be overcome by arriving at uniform rate of Green Tariff based on pooled cost of RE sources for all the Distribution Licensees in the State. Although, rate of green tariff would be uniform across all distribution licensees, base rate of tariff as per MYT Order of the respective Distribution Licensee would be different and hence overall consumer would be paying licensee specific tariff plus the green tariff. Any efficiency/in-efficiency in procurement of incremental RE power would be factored in base tariff being determined through MYT Order.

17.6 TPC-D in its proposal has also suggested for grossing up of rate with transmission and distribution losses. In this regard, the Commission is of the opinion that as consumer is already paying the base tariff which includes impact of transmission and distribution loss, additional grossing up of green tariff with distribution and transmission losses would not be appropriate. Also, amount of energy consumed by consumer remains the same and only source of such energy is being changed to 100% RE sources. Thus, quantum of energy flow remains unchanged and hence impact on distribution and transmission losses would not be significant. Therefore, the Commission is not grossing-up green tariff with transmission and distribution losses. Similarly, addition of administrative cost is also not considered as power procurement and billing to consumer is normal activity of any Distribution Licensee which it has to undertake irrespective of consumer opting for 100% of RE power or otherwise. Further, as explained in subsequent part of this Order, Distribution Licensee would be eligible for use of such RE power towards meetings its RPO. This would be an additional benefit to Distribution Licensees.

17.7 As regards suggestion of AEML-D to include cost towards stranded asset which would be created due to consumer opting for 100% RE power and MSEDCL's suggestion to include cost of grid balancing, the Commission is of the opinion that this is the first time that it is providing option to consumers for sourcing 100% power requirement through RE sources and hence it would be premature to conclude that such option would create stranded asset or increase grid balancing expenses. The Commission can review situation at the time of MTR proceeding and based on quantum of consumers opting for 100% RE power, the Commission can take appropriate decision at that point of time. Also, most of the Distribution Licensees in the State are reporting shortfall in RPO targets. Such energy procured for meeting 100% RE power requirement of such consumers would help them to reduce RPO shortfall to that extent. Hence, levy of any charges towards stranded asset or grid balancing on consumers opting for 100% RE power is not appropriate at this point of time and hence not considered by the Commission.

17.8 Based on the above discussion and considering difficulties in stipulating Discom wise green tariff, the Commission by using its inherent regulatory powers rules that Green Power Tariff which would be uniform for all Distribution Licensees in the State is to be computed as difference between pooled power purchase cost of non-conventional and conventional sources of energy (only variable cost) for all Distribution Licensees in the State. While doing so, instead of computing year wise different tariff, uniform number for MYT control period is computed for providing certainty in rate. However, this approach may be reviewed at the time of MTR proceedings. Accordingly, computation of green power tariff is tabulated below:

Total	RE power Procurement for MYT Period			Non-RE power procurement (only variable) for MYT Period			Diff Bet RE & Non-RE power
	MU	Rs. Cr	Rs/kWh	MU	Rs. Cr	Rs/kWh	Rs/kWh
MSEDCL	141772	57440	4.05	586029	146412	2.50	1.55
AEML-D	13295	4691	3.53	38206	15367	4.02	-0.49
BEST Undertaking	2949	940	3.19	22534	7938	3.58	-0.34
TPC-D	3927	1491	3.80	22377	8069	3.61	0.19
MBPPL	58	17	2.88	348	161	4.19	-1.31
GEPL	41	12	2.88	248	101	4.08	-1.20
KRC	35	10	2.89	190	76	4.02	-1.14
Total	162077	64600	3.99	669968	178125	2.66	1.33

17.9 Thus, as per methodology explained above Rs. 1.33/kWh could be Green Power Tariff. However, as this concept is being introduced for the first time and also considering the fact that Distribution Licensee would be able to use such power consumed by consumers towards fulfilment of its RPO target, certain benefit of the same needs to be passed on to concerned consumers. Hence, the Commission decides to levy only 50% of charge determined above i.e. 0.66/kWh as Green Power Tariff to the consumer opting for meeting its 100% of power requirement through RE sources. Such Green Power Tariff would be in addition to regular tariff approved in MYT Order.

17.10 All electricity consumers in the State have the option to source 100% RE power by additionally paying above stated Green Power Tariff. Distribution Licensee shall issue monthly certificate to such consumers stating that all power requirement of such consumer has been sourced through RE sources.

17.11 The commission will undertake review of Green Power Tariff during MTR proceedings.

18. **Issue C: Whether revenue from the Green Power Tariff to be considered as 'Income from other business'?**

18.1 The Commission notes the objections placed by Distribution Licensees namely, BEST, AEML, MSEDCL and KRC Deemed Distribution Licensees for considering revenue from Green Power Tariff as Other Business income. In the objection it is stated that in the case of green energy procurement, TPC-D is not engaged in optimum utilization of assets but just carrying out energy distribution and supply business. Therefore, revenue from the green tariff shall be part of supply business ARR and not as *"Income from Other Business".*

18.2 TPC-D in its reply has stated that the proposed arrangement is not only related to power procurement from the RE sources or scheduling and management of renewable portfolio but also the cost allocation to the specific consumers. There is no margin component considered in the computation of green power tariff, therefore, there may not be a clear profit to be earned from this activity. ARR of the distribution business including power purchase cost and the additional revenue and cost incurred on account of green power tariff will be subject to true up by the Commission.

18.3 The Commission notes the provisions in the MYT Regulations, 2019 for "Income from Other Business" as follows:

> "*78 Incomes from Other Business*
>
> *Where the Distribution Wires Business of the* ***Distribution Licensee has engaged in any Other Business under Section 51 of the Act for optimum utilization of its assets,*** *an amount equal to* ***two-thirds of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from*** *the Aggregate Revenue*

*Requirement in determining the **Wheeling Charges** of Distribution Wires Business:*
………..” *(emphasis added)*

18.4 The Commission notes that TPC-D in the present Petition has proposed to provide the RE power firstly from its tied-up sources and if required TPC-D has proposed to procure additional power for fulfilling the demand. Therefore TPC-D is using its current power portfolio for scheduling and dispatching the demand for fulfilment of Green Power. And just like other consumers, TPC-D is billing the consumer with the tariff of the respective category with additional green power tariff charges. Thus, TPC-D as a Distribution Licensee is carrying out distribution of energy to its various consumers by procuring power from various sources optimising the cost of supply.

18.5 Further TPC-D's contention that it has to maintain separate cost allocation for those consumers cannot be termed as primary function of the Distribution Licensee which is to energy supply and distribution. TPC-D is carrying out energy distribution and supply business and not optimizing its assets to other business as defined in the above Regulations. Therefore, revenue from the green tariff shall be part of regular income of supply business ARR, thereby allowing all revenue earned to be used for reduction in ARR of supply business only. The amount collected under the scheme shall be separately maintained and the details of the same shall be furnished to the Commission at the time of tariff petition.

19. **Issue D: Whether additional RE power to be considered for RPO fulfilment in case not opted by the consumers?**

19.1 The Commission notes that KRC deemed distribution licencees have objected for use of such RE power by Distribution Licensees towards its RPO requirement on the ground that additional green energy shall be procured to sustain green energy requirements of specific group of consumers and therefore shall be dealt with as per relevant provisions of the MYT Regulations, 2019. AEML-D, MSEDCL and BEST supported the TPC- D proposal of considering such RE power towards RPO targets.

19.2 TPC-D in reply has stated that under the proposed mechanism, the Distribution Licensee is not required to have tie up with specific RE generator for a specific consumer. It will be supplying to such consumers from the available portfolio of RE sources and will be arranging the additional RE power only if the existing tied up capacity is not sufficient. As the existing tied up capacity is being used for RPO compliance, it will be appropriate to give the same treatment for the additional RE power purchased for meeting consumer demand for 100% RE Power consumption.

19.3 The Commission notes that vide its RPO-REC Regulations, 2019, it has set out an increasing trajectory for fulfilment of RPO compliance by the obligated entities. For complying with the same, it necessitates Distribution Lionesses to tie up various RE sources and as the trajectory is increasing, Distribution Licensees would require additional purchase of RE power. In view of that if the consumer is not an obligated entity under RPO Regulations, it would be appropriate to count that energy towards RPO fulfilment of Distribution Licensee which will reduce the additional cost of the utility for purchasing the same and ultimately benefit its consumers.

19.4 Further the Commission notes that BEST has pointed out the additional burden on the remaining consumers if the consumer withdraws from the scheme of Green Energy and opts for open access. In this regard, the Commission is of the opinion that possibility of consumer opting for OA at any point of time is not a new phenomenon and Distribution Licensee are managing their power purchase portfolios accordingly. Similarly, if consumer opting for 100% RE power opts for Open Access, then Distribution Licensee would be able to manage RE power contracted for such consumer by supplying the same to other consumers or backing down other power sources.

20. **Issue E: Applicability of Green power tariff**

20.1 MSEDCL submitted that the scheme shall be limited to EHT & HT Consumers in the industrial and commercial category with contract demand 1 MVA and above so that power planning would be easy. BEST has also submitted that the applicability of scheme should be restricted to HT Consumers and to eligible open access consumers. KRC Deemed Distribution Licensees have submitted that the applicability should be limited to the eligible open access consumers.

20.2 While replying to the objections, TPC-D has stated that such facility should be made available to HT as well as LT consumers. It has further stated that it received requisition from 15 consumers (8 HT and 7 LT) and hence has approached the Commission for determining Green Power Tariff.

20.3 Considering the requirement from both HT and LT consumers and also to promote use of green energy, it would not be proper to limit the applicability restricted to EHT/ HT consumers fulfilling open access criteria. Further, as these consumers would be billed as any other normal consumer for its consumption recorded in meter, the Commission does not find any reason for not extending such option to LT consumers also.

20.4 Therefore, option of procuring 100% of power requirement through RE sources would be available to all consumers (EHT, HT and LT) on payment of Green Power tariff approved above. Commission may take review the same at the time of Mid Term Review (MTR) Petition.

21. Hence following Order.

ORDER

1. **Case No 134 of 2020 is allowed.**

2. **Green Power Tariff of Rs 0.66/ kWh, which is over and above the normal tariff of the respective category as per Tariff Orders, be levied to the consumers opting for meeting their demand by 100% green energy.**

3. **Revenue earned through Green Power Tariff shall be treated as non-tariff income of Supply Business and thereby be fully accounted for reduction in ARR of supply business.**

4. **All consumers (Extra High Voltage, High Voltage and Low Voltage) shall be eligible for opting 100% RE power on payment of Green Power Tariff.**

5. **The Commission may take overview of the scheme at the time of MTR Proceedings.**

Sd/-	**Sd/-**
(Mukesh Khullar)	**(I.M. Bohari)**
Member	**Member**

(Abhijit Deshpande)
Secretary

Annexure I:- List of persons attended Public Hearing

Sr No.	Name & Address of the Entities
1	Shri Chougule N.S, BEST
2	Smt Kavita Gharat MSEDCL
3	Shri Vivek Mishra from AEML-D
4	Shri Prashant Kumar, TPC-D

Annexure -II : List of Persons / Companies submitted suggestions/ objections in writing

Sr. No.	Name of Person
1	Maharashtra State Electricity Distribution Company Limited
2	Adani Electricity Mumbai Limited (Distribution)
3	Brihanmumbai Electric Supply and transport Limited
4	Mindspace business parks Pvt limited
5	Gigaplex Estate Pvt Ltd
6	KRC Infrastructure and Projects Pvt Ltd