RAJASTHAN ELECTRICITY REGULATORY COMMISSION, JAIPUR

Petition No. RERC/2056/2022

Petition filed under section 181, 86 (1) (b), 61 & 66 of the Electricity Act, 2003 read with RERC (Renewable Energy Obligation) (Seventh Amendment) Regulation, 2021 inter alia Rajasthan Urja Vikas Nigam Limited seeking approval for procurement of 105.4 MW power from Biomass Plants in the Rajasthan State under "Policy for Promoting Generation of Electricity from Biomass, 2010" for meeting the RPO requirements of the state.

Coram:

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

Petitioner : Rajasthan Urja Vikas Nigam Ltd (RUVNL).

Respondent : 1. M/s Gee Tee Green Power LLP (GTGPL),

2. M/s Chattargarh Renewable Energy Private Limited (CREPL) [Formerly M/s Universal Biomass Energy Private Limited (UBEPL)],

3. M/s KTA Power Private Limited (KPPL),

4. M/s Sardarshahar Agri Energy Private Limited (SAEPL) (Formerly SAEL Limited),

5. M/s Jasrasar Green Energy Private Limited (JGEPL) (Formerly SAEL Limited),

6. M/s Nano Green Power Pvt Ltd (NGPL),

7. M/s TNA Renewable Energy Private Limited (TREPL),

8. M/s VCA Power Private Limited (VPPL).

Date(s) of Hearing: 01.12.2022, 10.01.2023, 15.05.2023, 28.06.2023, 03.08.2023

Present : Sh. Harish Chandra Sharma, Advocate for Petitioner.

Sh. Jeetam Kumar Saini,Advocate for Petitioner.

Ms. Susan Mathew, Advocate for Respondents (GTGPL, CREPL, KPPL, SAEPL, JGEPL, TREPL & VPPL).

Sh. Arvinder Singh, Advocate for Respondent (NGPL)

Order date : **24.11.2023.**

ORDER

1. Rajasthan Urja Vikas Nigam Ltd. (hereinafter referred as Petitioner) has filed this petition on dated 23.10.2022 under section 181, 86 (1) (b), 61 & 66 of the Electricity Act, 2003 read with RERC (Renewable Energy Obligation) (Seventh Amendment) Regulation, 2021 inter alia Rajasthan Urja Vikas Nigam Limited seeking approval for procurement of 105.4 MW power from Biomass Plants in the Rajasthan State under "*Policy for Promoting Generation of Electricity from Biomass, 2010*" for meeting the RPO requirements of the state.

2. Petitioner, Rajasthan Urja Vikas Nigam Limited (RUVNL) is a company incorporated under the Companies Act, 2013, where the Petitioner is authorised by the Rajasthan Discoms to sign and execute agreements and to procure power on behalf of three power distribution companies of Rajasthan State viz Jaipur Vidyut Vitran Nigam Limited, Ajmer Vidyut Vitran Nigam Limited and Jodhpur Vidyut Vitran Nigam Limited (herein after referred to as "Discoms").

3. The matter was initially listed on 01.12.2022. Counsel appearing for Petitioner requested for filing the amended cause title to amend the necessary party and also requested to permit them to place additional documents on the record before the Commission. Counsel appearing for Respondents (UBEPL) & (SAEL) submitted that they have submitted their reply along with amended PPAs. Commission granted time to the Petitioner for filing the amended cause title and also permitted the Petitioner to place on record additional documents as requested.

4. Respondents (NGPL, CREPL, SAEPL & JGEPL) have submitted their reply on dated 30.11.2022. Petitioner (RUVNL) has filed amended petition on dated 07.12.2022.

5. Further, the matter was heard on 10.01.2023.During course of hearing the Commission allowed the amended cause title filed by the Petitioner. The Commission also directed those Respondents to file their replies who have not submitted their reply.

6. Respondents (CREPL, KPPL, SAEPL, JGEPL, VPPL, TREPL) have filed their replies on dated 02.02.2023 and Respondent (GTGPL) has filed their reply on dated 15.02.2023.

7. Commission heard the matter on 15.05.2023 and directed the Petitioner to submit their written submissions in respect of the 'Necessity' and 'Reasonability of the cost'. Commission also directed the Respondents to submit their written submissions in respect of the Estimated time frame for completion for each of the plant according to their own calculation and Carbon emissions from the power plants and handling of the same.

8. As directed vide Record of Proceeding on dated 15.05.2023, Respondent (CREPL) filed their reply to the Commission (on behalf of the CREPL, KPPL, SAEPL, JGEPL, TREPL and VPPL), on 30.05.2023. Petitioner also filed their replies on 02.06.2023.

9. The matter was again listed on 28.06.2023 where Commission directed the Respondents to make up with the deficiency and submit the time frame for completion in respect of each Respondent separately. Further, Commission granted last opportunity to Respondent No. GTGPL and NGPL to file their written submissions on estimated time frame for completion for each of the plant according to their own calculation and Carbon emissions from the power plants and handling of the same. Commission also directed the Petitioner to file their written submission in respect of the power plants in a very succinct and clear terms on necessity of these power plants and reasonability of the cost of power purchase in view of competitive market prices especially in light of Rajasthan

Electricity Regulatory Commission (Renewable Purchase Obligation) Regulations, 2023, read with SOR dated 13.06.2023.

10. Accordingly, Respondents GTGPL, NGPL and CREPL filed their reply to the Commission on dated 06.07.2023, 03.07.2023 and 10.07.2023 respectively. Petitioner also filed their written submission to the Commission vide letters dated 20.07.2023, as directed vide Record of Proceeding on dated 28.06.2023.

11. The matter was finally heard on dated 03.08.2023.

Petitioner's submission:

12. The Petitioner in its petition, written submissions and during the course of hearing(s) submitted as under:

12.1 In order to promote generation of power from non-conventional energy sources, Government of Rajasthan has promulgated "Policy for Promoting Generation of Electricity from Biomass, 2010" and the policy came in effect from 26.02.2010 and will remain in force until superseded or modified by another Policy. As per the Policy 2010, RRECL -the a nodal agency for the power project based on bio mass sources after its in principle clearance of the project proposals meeting the requirements put up for single window clearance before the State Level Empowered Committee (SLEC) constituted under the chairmanship of Chief Secretary, GoR.

12.2 The proposal approved by SLEC was also approved by the Board of Directors, RUVNL with a view that although the tariff of biomass-based power projects is comparatively high but being an eco-friendly project and generated employment opportunities in the State and proposed capacity will help them to achieve RPO without exceeding it, this power project should be promoted.

12.3 Pursuant to the approval by the SLEC and requirements of meeting the Biomass RPO targets, PPAs were signed with following parties for setting-up of Biomass power projects in the State and supply of energy to Rajasthan Discoms at the tariff to be determined by the Commission for the year of the

commissioning of the projects as per provisions/regulations issued by the Commission.

S.No.	Name	Date of signing PPA	Capacity (MW)
1.	Gee Tee Green Power LLP	12.11.2021	8
2.	Universal Biomass Energy Pvt. Ltd.	12.11.2021	14.9
3.	KTA Powers Pvt. Ltd.	25.03.2022	14.9
4.	SAEL Limited	17.12.2021	14.9
5.	SAEL Limited	17.12.2021	14.9
6.	TNA Renewable Energy Pvt. Ltd.	10.02.2022	14.9
7.	VCA Power Pvt. Ltd.	10.02.2022	14.9
8.	Nano Green Power Pvt. Ltd.	13.07.2022	8
	Total		**105.4**

12.4 In exercise of the power conferred under the Sections 86(1)(b) and 181 of the Electricity Act, 2003 and all other powers enabling it in this behalf, Commission has issued the Rajasthan Electricity Regulatory Commission (Renewable Energy Obligation) (Seventh Amendment) Regulations, 2021.

12.5 There has been shortfall of around 3939 MUs in compliance of the biomass obligation fixed by the commission from FY 2011-12 to FY 2021-22 and the Commission vide order dated 14.11.2017 & 23.12.2021 has directed to make all out efforts to meet their total RPO backlog accumulated till date along with the respective year targets.

12.6 Further, the Central Government has not issued any guidelines for procurement of biomass power through competitive bidding.

12.7 Petitioner vide letter dated 22.11.2021 intimated the Commission for the executed PPA with the Biomass based power plants, wherein the petitioner vide letter dated 08.12.2021 was informed that a suitable petition may be filed for the approval of the PPAs furnishing the information under the regulation 7 of the RERC (Power Purchase and Procurement Process of Distribution Licensee) Regulations, 2004 which is reproduced as under:

> "7 Power purchase arrangements or agreements
> *Any new power purchase arrangement or agreement and amendments to existing Power Purchase Agreement (PPA) entered*

into by distribution licencee(s), shall be subject to the Commission scrutiny (after execution) under section 86 of the Act, in respect of:

(a) Necessity.
(b) Reasonability of cost.
(c) Promoting efficiency, economy & equitability & competition.
(d) Conformity with regulations for investment approval.
(e) Conformity with requirements of quality, continuity and reliability of supply.
(f) (Conformity with safety and environmental standards.
(g) Conformity with criterion of power purchase as laid down by the Commission.
(h) Conformity with policy directives of the State Government and National Power policies."

12.8 In its amended petition on dated 07.12.2022 the petitioner submitted that some of the PPAs are amended which leads to a compulsory change of the cause title and submitted the details of new amended PPAs as follows:

S.No.	Original PPA's Date	PPA's Parties	Amended PPA's Date	Amended PPA's Parties
1.	12.11.2021	M/s Universal Biomass Enrgy Pvt Ltd	24.02.2022	M/s Chattargarh Renewable Energy Pvt Ltd & RUVNL & Ors.
2.	17.12.2021	M/s SAEL Ltd & RUVNL & ORS	24.02.2022	M/s Sardarshahar Agri Energy Pvt Ltd
3.	17.12.2021	M/s SAEL Ltd & RUVNL & ORS	24.02.2022	M/s Jasrasar Green Power Energy Pvt LTD. & RUVNL & Ors.

12.9 Petitioner also made the additional submissions regarding necessity and reasonability of the cost as directed by the Commission vide ROPs dated 15.05.2023 and 28.06.2023 as under:

A. Necessity:

i. Bio-mass Power Project is highly beneficial for a better green environment and also encourages efficient and economically favourable utilization of the agricultural waste. These projects contribute several social and economic benefits thereby serving the large public interest.

ii. Further, the RERC RPO Regulations also requires the Discom to purchase a certain percentage of Renewable Energy, as stipulated in the said regulations, from Biomass Energy Sources. However, the Discoms could not be able to fulfil its Renewable Purchase obligation through Biomass energy sources and there has been always a shortfall

in previous years and considering the additional benefits of Round-the-Clock power generation to meet the demand of the Discoms, deferral of Capex of Transmission system & Transmission losses etc. PPAs were signed with the developers in FY 2021-22 for purchase of biomass power from the projects approved by State Level Empowered Committee (SLEC), therefore in order to fulfil the Renewable Purchase obligation for Biomass by the Distribution Companies, as specified by this commission, it is requested to consider the PPAs of Biomass Power Plants.

iii. There are certain additional benefits of Biomass Power Plants to the overall economy of Rajasthan State such as:-

a. additional income to farmers by selling waste(Agri-residue),eliminating considerable amount of pollution by using biomass which otherwise would have burnt by farmers in their fields,
b. providing much needed employment to local people, Round-the-clock Power generation which is absent in case of Solar/Wind power plants,
c. Distribution Energy Generation supporting the Gird balance and also reducing Transmission losses as this energy is consumed in the plant vicinity etc.
d. There is huge health risk if biomass utilization is not taking place and the rural development and employment generation that a Biomass power generation creates is unparalleled to any other segment.

B. Reasonability of the cost:

i. At present, there are no guidelines for procurement of Biomass power through competitive bidding and no bidding has been conducted by any RE Implementing Agency. Commission has specified the norms for determination of tariff for purchase of power from Biomass based power plants by distribution Licensees. The Price

of power to be sold by the Biomass Power Producer to the Discoms and other charges shall be as determined by the Hon'ble Commission time to time.

ii. Further, the Commission takes into consideration all the parameters within the limit so that a reasonable tariff is determined. Hence reasonability of tariff is ascertained by the Commission itself while determining tariff for biomass power plants. However, tariff of biomass power plants can't be compared with other RE sources such as solar & wind as the generated power by biomass power plant is firm in nature and Round the Clock available.

iii. The existing PPAs under approval of the Commission were signed in the year FY 2021-22 in compliance to the RERC order dated 14th November 2017 & 23rd December 2021 for compliance of the RPO and to meet the shortfall of previous years and RERC (Renewable Energy Obligation) (Fifth Amendment) Regulations, 2019 dated 11.01.2019.

iv. RERC (Renewable Purchase Obligation) Regulations, 2023 (hereinafter the 'RERC RPO Regulations 2023')have been issued on 13.06.2023 after a period of more than one year from signing of the PPAs, categorically specify 'HPO', 'Wind' & 'Others RPO' for FY 2024-25 to FY 2029-30. With the enforcement of the RERC RPO Regulations 2023 from FY 2024-25, the power from these plants is considerable towards the fulfilment of 'Other RPO'.

12.10 With the above submissions, the Petitioner in its Petition and amended petition mainly prayed that:

(i) Allow the amended application of the petitioner and the same be taken on record and further amended cause title along with amended PPA's as integral part of earlier PPAs.

(ii) For seeking approval of the quantum, i.e., 105.4 MW to be purchased from biomass power projects to be set-up in the state and

supplying power to the Discoms at the tariff determined by RERC as per prevailing regulations and for the approval of PPA's.

(iii) Any other appropriate order or direction which may be consider just an proper in the facts and circumstances of the present case may also kindly be passed in favour of the petitioner.

Respondent's Submissions:

13. The Respondents in their written submissions and submissions made during the course of hearing(s) submitted as under:

13.1 M/s Nano Green Power Pvt Ltd submitted that**:**

13.1.1 They have executed a PPA dated 13.07.2022 with the petitioner on behalf of Discoms for purchase of entire 100% electrical energy.

13.1.2 The provisions of the Electricity Act, 2003 mandates the SERCs to promote cogeneration and generation of electricity from renewable energy sources by providing suitable measures, which is in line with the National Electricity Policy and the National Tariff Policy.

13.1.3 Commission has framed the RERC (Renewable Energy Obligation) Regulations 2007 which require the Distribution Licensees of the State of Rajasthan to enter into PPA with Renewable Energy Power Generators to fulfil its RPO. Initially, the RPO was categorised under the two categories, i.e. Solar and Non-Solar. However, later the Commission has categorically made the purchase of Biomass Energy mandatory to fulfil the RPO by specifying a percentage which was never fulfilled by the Distribution Licensees till date. Though the Commission every year has been increasing the percentage of RPO from Biomass, there has been shortfall each year due to shortage in Biomass projects in the State of Rajasthan.

13.1.4 Further, every year there is a shortfall in achieving the required target of RPO from Biomass. The company has entered into PPA with the Distribution Licensees for selling 8 MW energy from Biomass Power Plant, which will cater the need of the Petitioner and therefore, it is in the interest of the Distribution

Licensees as well as the company that the PPA executed by the parties be approved by the Commission, in order to facilitate the Distribution Licensees to fulfil the mandates specified under the RPO Regulations.

13.2 Reply filed by M/s Chattargarh Renewable Energy Private Limited ('CREPL') [Formerly M/s Universal Biomass Energy Private Limited ('UBEPL')]:

13.2.1 The Respondent has executed a PPA with the Rajasthan Discoms through the Petitioner on 12th November 2021 for setting up a 14.9 MW capacity of Biomass Power Plant based on Rankine's cycle on Air cooled Grate Boiler in Bikaner.

13.2.2 Due to revision in the policy decisions of the Universal Biomass, it was decided to execute this project under the wholly owned subsidiary of M/s. Chattargarh Renewable Energy Pvt. Ltd. ('CREP'L) and subsequently, the Universal Biomass requested the RRECL to this effect. RRECL, vide letter dated 10.02.2022 issued by Director Technical the decision of RRECL to consider the request of the Universal Biomass was conveyed to Director (PT), RUVNL for signing the amended PPA.

13.2.3 In pursuance to the above letter, an amended PPA was signed on 24.02.2022 amongst Universal Biomass Energy Pvt. Ltd, Chattarhgarh Renewable Energy Pvt. Ltd and Rajasthan Urja Vikas Nigam Ltd whereby the name of Power Producer was amended from Universal Biomass Energy Pvt. Ltd to Chattargarh Renewable Energy Pvt. Ltd.

13.2.4 National Tariff Policy also provides the measures for promotion of Non-Conventional Energy sources and provides relaxations for the licensees while procuring the power from the Renewable sources.

13.2.5 Commission under the RERC (Power Purchase & Procurement Process for distribution licensee) (1st Amendment) Regulations, 2006 for the first time specified Renewable Energy Purchase Obligation for Distribution Licensees which mandates the Distribution Licensees to enter into PPA with renewable energy generators for fulfilling the RPO. Further, the Commission under the provisions of the Electricity Act, 2003 framed the RERC (Renewable

Energy Obligation) (Seventh Amendment) Regulations, 2021 which provide the percentage of energy consumption from various sources including Biomass for the year 2021-2022 to 2023-2024.

13.2.6 RERC RPO Regulations also require the Discoms to purchase a certain percentage of Renewable Energy, as stipulated in the said regulations, from Biomass Energy Sources. However, the Discoms could never fulfil its Renewable Purchase obligation through Biomass energy sources and there has been always a shortfall. Since FY 2017-2018 the Discoms never fulfilled the renewable purchase obligation. For the year 2021-2022, 2022--2023 and 2023-2024 the Renewable Purchase Obligation for Biomass is 0.90%, 1.00% and 1.10% respectively and therefore, in order to fulfil the Renewable Purchase Obligation for Biomass by the Distribution Companies, as specified by this Commission, it is necessary to approve the PPAs of Biomass Power plants including that of the answering respondents.

13.2.7 Biomass Power plant of the Respondent fulfils all the criteria prescribed under Regulation 7 of the RERC (Power purchase and procurement process of Distribution Licensee) Regulations, 2004 and therefore it is in the interest of justice as well as in the interest of both the parties.

13.2.8 The Petition may be allowed and the PPA entered into with the respondent dated 12.11.2021 as amended vide PPA dated 24.02.2022 assigned in favour of Chattargarh Renewable Energy Pvt., Ltd be approved.

13.3 M/s Sardarshahar Agri Energy Private Limited (SAEPL) (Formerly SAEL Limited) & M/s Jasrasar Green Energy Private Limited (JGEPL) (Formerly SAEL Limited) submitted that:

13.3.1 Two separate PPAs have been executed with the Rajasthan Discoms the Petitioner both dated 17.12.2021 for setting up a 14.90 MW capacity of Biomass Power Plant in Village-Malsar, Tehsil-Sardarshahar, District- Churu, Rajasthan and 14.90 MW capacity of Biomass Power Plant at Village- Jasrasar North, Tehsil-Nokh, District-Bikaner, Rajasthan, to produce the grid quality

energy and sell the entire 100% electrical energy so produced for commercial purpose through grid.

13.3.2 The three Discoms, Jaipur Vidyut Vitran Nigam Limited, Ajmer Vidyut Vitran Nigam Ltd and Jodhpur Vidyut Vitran Nigam Ltd vide both the PPAs have agreed to purchase the power so generated in the ratio of 40.27: 27.14: 32.59 respectively.

13.3.3 Due to revision in the policy decision of the answering respondent it was decided to execute 14.90 MW capacity of biomass at village-Malsar wholly owned subsidiary of M/s Sardar Sahar Agri Energy Pvt ltd. Similarly, for 14.90 MW capacity at village Jasarasar, the change of name in PPA was agreed from M/s SAEL ltd to its wholly owned subsidiary M/s Jasarasar Green Power Energy Pvt Ltd.

13.3.4 In pursuance to the letters dated 10.02.2022 issued by RRECL, amended PPAs were signed on 24.02.2022 regarding change in the name of Power Producers as M/s. Sardarshahar Agri Energy Pvt. Ltd and M/s. Jasrasar Green Power Energy Private Ltd respectively.

13.3.5 Both the above projects of the SAEL were registered with RRECL under Clause 10.7 of the Biomass Policy, 2010, which was communicated vide letter dated 1.01.2021. As per the Biomass Policy, 2010, Biomass Project up to 20 MW capacity shall be eligible project under the said policy. The Projects of the answering respondent are of the capacity of 14.9 MW/project.

13.4 Chattargarh Renewable Energy Private Limited (CREPL), KTA Powers Private Limited (KPPL), Sardarshahar Agri Energy Private Limited (SAEPL), Jasrasar Green Power Energy Private Limited (JGEPL), VCA Power Private Limited (VPPL), TNA Renewable Energy Private Limited (TREPL) on dated 02.02.2023 and Gee Tee Green Power Ltd (GTGPL) submitted that:

13.4.1 In exercise of powers conferred under Section 61 and 62 r/w. Sections. 86 and 181 of the Electricity Act, 2003 and all other provisions enabling it in this behalf Commission has framed the RERC (Terms and Conditions for Determination of Tariff for Renewable Energy Sources)

Regulations, 2020" (hereinafter referred to as the RERC RE Tariff Regulations, 2020) which came into force retrospectively with effect from 1.04.2020. Commission vide the RERC RE Tariff Regulations of 2020, has determined the Tariff applicable for Biomass Power project based on Rankine Cycle Technology.

13.4.2 Above projects of the answering respondents were registered with RRECL. Further, RRECL accorded SLEC approval on 27.01.2022 for setting up the projects of the answering respondents under Clause 10.7 of the Biomass Policy, 2010, Biomass Projects upto 20 MW capacity shall be eligible project under the said policy. The Biomass Policy, 2010 provides for a time frame for completion of different activities. Clause 15.2 of the Biomass policy reads as follows:

> *"15.2 Power Producer shall commission the Biomass Power Project within 36 months from the date of approval of the Project. Provided that extension in time schedule may be granted by the SLEC on case to case basis after depositing penalty amount as under:-*
> *....."*

13.4.3 A bare perusal of the above demonstrates that time is the essence and any delay in the implementation of the project will have a serious financial implication upon the answering respondent.

13.4.4 The Bio-mass Power Project of the Respondents are highly beneficial for a better green environment and has great importance in the wake of the Indian Government banning Agro waste firing to address the present air pollution problem prevailing in India especially in Delhi and States close to Delhi. Therefore, it is all the more important to promote generation of electric power from these Agro biomass waste such as rice straw/Mustard Straw etc power. The Biomass Power projects including that of the answering respondent would not only supply environmentally clean electricity but would also encourage efficient and economically favourable utilization of agricultural waste. These projects contribute several social and economic benefits thereby serve the larger public interest.

13.4.5 Section 86 (1) (h) of the Electricity Act, 2003 casts a duty upon the State Commission that the Commission shall "promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee".

13.4.6 The National Tariff Policy also has provided measures for promotion of Non-Conventional Energy sources and provides relaxations for the licensees while procuring the power from the Renewable sources.

13.4.7 The Commission under the RERC (Power Purchase & Procurement Process for distribution licensee) (1st Amendment) Regulations, 2006 for the first time specified RPO for Distribution Licensees which mandates the Distribution Licensees to enter into PPA with renewable energy generators for fulfilling the RPO.

13.4.8 The RERC RPO Regulations also require the Discoms to purchase a certain percentage of Renewable Energy, as stipulated in the said regulations, from Biomass Energy Sources. However, the Discoms could never fulfil its Renewable Purchase obligation through Biomass energy sources and there has been always a shortfall such that since FY 2017-2018 the Discoms never fulfilled the RPO. For the years 2021-2022, 2022-2023 and 2023-2024 the RPO for Biomass is 0.90%, 1.00% and 1.10% respectively and therefore, in order to fulfil the RPO for Biomass by the Distribution Companies, as specified by this Commission, it is necessary to approve the PPAs of Biomass Power plants including that of the respondents. It is pertinent to mention here that Commission while framing the RERC (Power Purchase and Procurement Process of Distribution Licensee) (Fifth Amendment) Regulations, 2019 has taken note of the fact that there is scarcity of Biomass power in the State of Rajasthan and therefore, there is a shortfall in meeting the Biomass RPO.

13.4.9 The Biomass Power plants of the answering respondents fulfil all the criteria prescribed under regulation 7 of the RERC (Power purchase and procurement process of Distribution Licensee) Regulations, 2004 as amended from time to time.

13.4.10 It is pertinent to point out certain additional benefits of Biomass Power Plants to overall economy of Rajasthan State such as additional income to farmers by selling waste (Agri-residue), eliminating considerable amount of pollution by using biomass which otherwise would have burnt by farmers in their fields, providing much needed employment to local people, Round-the-Clock Power generation which is absent in case of solar/wind power plants, Distributed Energy Generation supporting the Grid balance and also reducing transmission losses as this energy is consumed in the plant vicinity etc. There is a huge health risk if Biomass utilization does not take place and the rural development and employment generation that a Biomass power generation creates is unparalleled to any other segment. Honourable Prime Minister Slogan of '*Ann data to Urja Daata*' sums the focus and use of Biomass very aptly.

14. In their additional submission Chattargarh Renewable Energy Private Limited (CREPL) on behalf of KTA Powers Private Limited (KPPL), Sardarshahar Agri Energy Private Limited (SAEPL), Jasrasar Green Power Energy Private Limited (JGEPL), VCA Power Private Limited (VPPL), TNA Renewable Energy Private Limited (TREPL) on dated 30.05.2023 and M/s Gee Tee Green Power LLP and M/s Nano Green Power Pvt Ltd on dated 03.07.2023 & 06.07.2023 as per the direction by the Commission vide record of proceeding dated 15.05.2023 submitted as under:

14.1 As regard query of the Commission during the proceedings dated 15.05.2023 it is the submission of the Respondents that the estimated time frame for completion for each of the plant according to their own calculation, submitted that all the Six (06) projects shall be commissioned as per the timeline stated in the project approval letters issued by SLEC (State Level Empowered Committee).

14.2 As regards the Carbon emissions from the power plants and handling of the same, the project of the respondents will be carbon-neutral, which is supported by the report of EIA. As per EIA (US Energy Information Administration) - Biomass and biofuels made from biomass are alternative energy sources to fossil fuels—coal, petroleum, and natural gas. Burning either fossil fuels or biomass releases carbon dioxide (CO_2), a greenhouse gas. However, the plants that are the source of biomass for energy capture almost the same amount of CO_2 through photosynthesis while growing as is released when biomass is burned, which can make biomass a carbon-neutral energy source.

15. It is also submitted by the Respondents that for the flue gas treatment, all the projects will be equipped with the following:

i. Fly ash fabric filter (Bag Filter)
ii. Fly Ash Extraction System up till and including screw conveyor.

15.1 It is further submitted that the flue gas system will be designed in line with flue gas emission standards set by Central Pollution Control Board (CPCB) and IFC EHS Guidelines for thermal power plants.

Commission's view:

16. The Commission has considered the submissions, reply and oral arguments made on behalf of the Petitioner as well as the Respondents.

17. The Petitioner in its petition has mainly prayed for:

i. Allow the amended application of the petitioner and the same be taken on record and further amended cause title alongwith amended PPA's as integral part of earlier PPAs.

ii. For seeking approval of the quantum i.e. 105.4 MW to be purchased from biomass power projects to be set-up in the state and supplying power to the Discoms at the tariff determined by RERC as per prevailing regulations and for the approval of PPA's.

iii. Any other appropriate order or direction which may be considered just and proper in the facts and circumstances of the present case may also kindly be passed in favour of the petitioner.

18. During the course of hearing the Commission allowed the application for amendment in the Petition and has taken on record the amended PPAs.

19. Petitioner in its petition and additional submissions has mainly submitted that there has been shortfall of around 3939 MUs in compliance of the biomass obligation fixed by the Commission from FY 2011-12 to FY 2021-22 and Commission vide order dated 14.11.2017 & 23.12.2021 has directed them to make all out efforts to meet their total RPO backlog accumulated till date along with the respective year targets. It is their further submission that the proposal approved by SLEC was approved by the Board of Directors, RUVNL with a view that although the tariff of biomass-based power projects is comparatively high but being an eco-friendly project and generated employment opportunities in the state and proposed capacity will help to achieve RPO without exceeding it, this power project should be promoted.

20. Respondents on the other hand have mainly submitted that National Tariff Policy has provided measures for promotion of Non-Conventional Energy sources and provides relaxations for the licensees while procuring the power from the Renewable sources. Commission under the RERC (Power Purchase & Procurement Process for distribution licensee) (1st Amendment) Regulations, 2006 had for the first time specified Renewable Energy Purchase Obligation for Distribution Licensees which mandates the Distribution Licensees to enter into PPA with renewable energy generators for fulfilling the Renewable Purchase Obligations. Commission has also specified the RERC (Renewable Energy Obligation) (Seventh Amendment) Regulations, 2021 provides the percentage of energy consumption from various sources including Bio-mass for the year 2021-2022 to 2023-2024. It is further submitted by them that RERC RPO Regulations also require the Discoms to purchase a certain percentage of Renewable Energy, as stipulated in the said regulations, from Biomass Energy Sources. However, the Discoms could never

fulfilled its RPO through Biomass energy sources and there has been always a shortfall. Since FY 2017-2018 the Discoms never fulfilled the renewable purchase obligation. For the year 2021-2022, 2022-2023 and 2023-2024 the Renewable Purchase Obligation for Biomass is 0.90%, 1.00% and 1.10% respectively. Further, after more than one year of signing PPAs Commission vide its RERC RPO Regulations 2023 has specified HPO, wind & Other RPO for FY 2024-25 to FY 2029-30 and power from these plants is permissible towards the fulfilment of other RPO. To fulfil the RPO for Biomass by the Discoms, it is necessary to approve the PPAs of Biomass Power Plants.

21. It is further noted that the latest RPO compliance status of the Discoms received from RREC on 29.08.2023 is as follows:

FY	Wind (%)		Biomass (%)		Solar(%)		HPO(%)		Total(%)	
	Tgt.	Ach.	Tgt.	Ach.	Tgt.	Ach.	Tgt.	Ach.	Tgt.	Ach.
2018-19	8.00	7.40	0.60	0.48	4.75	4.38	-	-	13.35	12.26
2019-20	8.30	7.24	0.70	0.53	6.00	5.97	-	-	15.00	13.75
2020-21	8.6	6.28	0.8	0.53	7.25	6.03	-	-	16.65	12.84
2021-22	8.9	6.68	0.9	0.46	8.5	7.11	0.18	0.00	18.48	14.25
2022-23	9.10	5.59	1.0	0.42	9.50	7.46	0.35	0.00	19.95	13.47
2023-24	9.40	7.55	1.1	0.39	10.50	8.41	0.66	0.00	21.66	16.34

It is observed from the above there is a shortfall in meeting the RPO targets by the Discoms especially in respect of Biomass power.

22. Further, Commission has also issued the RERC RPO Regulations 2023 wherein RPO Targets for the Discoms have been specified as follows:

S.No.	Year	Wind RPO	HPO	Other RPO	Total RPO
1	2024-25	2.46%	1.08%	26.37%	29.91%
2	2025-26	3.36%	1.48%	28.17%	33.01%
3	2026-27	4.29%	1.80%	29.86%	35.95%
4	2027-28	5.23%	2.15%	31.43%	38.81%
5	2028-29	6.16%	2.51%	32.69%	41.36%
6	2029-30	6.94%	2.82%	33.57%	43.33%

It is observed from above that though, like wind power, there is no biomass specific RPO, however, Biomass power will be covered under the 'Other RPO'.

23. The RERC RE Tariff Regulations 2020 at regulation 8 provide for determination of Generic Tariff in accordance with the Regulations. The regulation 8 reads as under:

> *"8.* ***Generic Tariff***
> *8.1 The generic tariff shall be determined by the Commission on annual basis in accordance with these Regulations for the following types of renewable energy projects:*
> *a) Biomass power project with Rankine cycle technology;*
> *b) Biogas based power project; and*
> *c) Biomass gasifier-based power project. Provided that the generic tariff determined for the year, in which a RE project is commissioned, shall be applicable for such RE Projects of same type and shall remain valid for the tariff period."*

24. It is noted that the Commission has issued the RERC (Power purchase & Procurement Process of Distribution Licensee) Regulations, 2004 to regulate the power procurement of the Distribution Licensee. The said Regulations at regulation 7 provide for power purchase or agreements, which reads as under:

> "7 Power purchase arrangements or agreements
> *Any new power purchase arrangement or agreement and amendments to existing Power Purchase Agreement (PPA) entered into by distribution licencee(s), shall be subject to the Commission scrutiny (after execution) under section 86 of the Act, in respect of:*
> *(a) Necessity.*
> *(b) Reasonability of cost.*
> *(c) Promoting efficiency, economy & equitability & competition.*
> *(d) Conformity with regulations for investment approval.*
> *(e) Conformity with requirements of quality, continuity and reliability of supply.*
> *(f) Conformity with safety and environmental standards.*
> *(g) Conformity with criterion of power purchase as laid down by the Commission.*
> *(h) Conformity with policy directives of the State Government and National Power policies."*

25. It is also noted from the submissions of the Petitioners that at present no competitive bidding guidelines have been specified by the Ministry of Power u/s 63 of the Electricity Act,2003 for procurement of power from Biomass power plants by the Distribution Licensee.

26. It is also observed from the submissions of Petitioners and Respondents that Discoms are required to procure the power generated by the Biomass

to fulfil their past Biomass RPO targets and also to meet their 'other RPO' targets specified by the Commission under the RERC RPO Regulations 2023.

27. In addition, certain additional advantages have also been stated such as additional income to the farmers, employment generation, grid balancing and reduction of losses. It is also argued that Biomass power projects will provide Round-the-Clock stable power to the Petitioner. Further, from the submissions of the Respondents regarding handling of the emissions, it is also noticed that projects of the Respondents will be carbon neutral and all plants will be equipped by a system for the treatment of flue gases which will be designed in line with emission standards set by Central Pollution Control Board ('CPCB') and IFC EHS Guidelines for thermal power plants.

28. We observe from the foregoing that there appears a necessity for the Discoms to purchase power from Biomass power plants which in our view will help them to fulfil their past backlog of RPO as well as future RPO targets and will provide stable power to them in an environmentally benign manner.

29. Further, as regards the reasonability of cost, as per the submissions of the Respondents the price of power to be sold by their plants to the Discoms and other charges shall be determined by the Commission considering the parameters of the Regulations. It follows from the above as regards the tariff of the sale of power by their plants to the Discoms, the Respondents are principally in agreement with generic tariff determined based on the parameters contained in the RERC RE Tariff Regulations 2020 also and considering these they have entered into agreements with the petitioner and signed the PPAs.

30. In view of the above discussions considering that Biomass is being considered in 'Other RPO' and there is shortfall in compliance of RPO for Biomass for previous years and Discoms have already signed the PPAs for procurement of power from Respondents' Biomass power plants, Commission deems it proper to approve the proposal of Discoms to procure 105.4 MW power from Respondents' power plants subject to the condition

that all PPAs shall be for the useful life of the plants as per the RERC RE Tariff Regulations 2020 as amended from time to time with respective power producers.

31. We order accordingly.

(Dr. Rajesh Sharma)	(Hemant Kumar Jain)	(Dr. B.N. Sharma)
Member	Member	Chairman