



**Delhi Electricity Regulatory Commission**  
**Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi – 110017.**

F.11(2091)/DERC/2023-24/7723

**Petition No. 15/2023**

**In the matter of:**    **Petition under Section 62 read with Section 86(1)(b) of the Electricity Act, 2003 seeking approval of project specific tariff for generation and sale of electricity from 17 MW integrated waste to energy power plant project based on Refuse Derived Fuel to be implemented by the Petitioner.**

**Timarpur Okhla Waste Management Company Ltd.**

**...Petitioner**

**Versus**

**BSES Yamuna Power Ltd & Ors.**

**...Respondents**

**Coram:**

**Hon'ble Justice (Retd.) Jayant Nath, Chairperson**

**Appearance:**

1. **Mr. Hemant Sahai, Advocate, TOWMCL**
2. **Ms. Molshree Bhatnagar, Advocate, TOWMCL**
3. **Ms. Parichita Chowdhury, Advocate, TOWMCL**
4. **Mr. Buddy A. Ranganadhan, Advocate BRPL & BYPL**
5. **Mr. Rahul Kinra, Advocate, BRPL & BYPL**
6. **Mr. Aditya Ajay, Advocate, BRPL & BYPL**
7. **Mr. Anand Srivastava, Advocate, TPDDL**
8. **Ms. Priya Goyal, Advocate, TPDDL**

**ORDER**

(Date of Order: 09.07.2024)

1. The instant Petition has been filed by Timarpur Okhla Waste Management Company Ltd. (TOWMCL) seeking approval of project specific tariff for generation and sale of electricity from 17 MW integrated Waste to Energy (WtE) Power Plant Project based on the Refuse Derived Fuel to be implemented by the Petitioner. The Petitioner has made the following prayers for issuing appropriate order(s)/ direction(s);
  - a. to allow the present Petition and determine the project specific tariff for the 17 MW Waste to Energy Project being implemented by the Petitioner – M/s Timarpur Okhla Waste Management Company Limited;
  - b. to allow *in-principle* approval of the Capital Cost of INR 399 Crore to be incurred by the Petitioner for establishing 17 MW Waste to Energy Project;
  - c. To allow the financial parameters enclosed along with the present Petition in terms of the Tariff form, in terms of the RE Tariff Regulations notified by the Hon'ble CERC and adopted in its entirety by this Commission; and;
  - d. To allocate the power generated from 17 MW Waste to Energy Project amongst the Distribution Licensees of the State of NCT of Delhi and, consequently, direct such Distribution Licensees to enter into PPA(s) with the

Petitioner for the purpose of generation and supply from the 17 MW Waste to Energy Project.

**Petitioner's Submissions**

2. The Petitioner has submitted the following:
  - i. National Tariff Policy (NTP) 2016 has been issued by the Ministry of Power, Government of India. The sub clause (ii) of Clause 6.4 (1) thereof provides that Distribution Licensee(s) shall compulsorily procure 100% power produced from all the WtE plants in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Electricity Act 2003. Therefore, the Commission has the jurisdiction to determine the project specific tariff for the Petitioner's MSW Project of 17 MW capacity.
  - ii. The Petitioner, a Company incorporated under the Companies Act, 1956 is engaged in the activity of generation of electricity from Refuse Derived Fuel (RDF) derived as a by-product from the processing of Municipal Solid Waste (MSW). The Petitioner will set up a 1000 Ton Per Day of MSW processing plant at Okhla Disposal Area, New Delhi.
  - iii. The Respondent Nos. 1-5 are the Distribution Licensees in the National Capital Territory of Delhi and are undertaking the procurement of electricity from the generating stations and distribution and retail supply of electricity within their respective areas of license /authorization.
  - iv. Under the directions of the Hon'ble Supreme Court vide order dated 15.05.2007, the "Ministry of New and Renewable Energy" ("MNRE") had taken up 5 pilot projects under the Programme on "Energy Recovery from Municipal Solid Waste" to be developed under PPP model for processing of MSW and generation of electricity from the Projects. These pilot projects are namely:
    - (a) 11 MW Project at Hyderabad;
    - (b) 10 MW Project at Ghazipur;
    - (c) 16 MW Project at Okhla;
    - (d) 10 MW Project at Pune;
    - (e) 8 MW Project at Bengaluru.
  - v. Subsequently, for selection of Developer for the purpose of development, implementation and generation of 16 MW electricity from the integrated MSW processing facility (1950 TPD) at Okhla, Timarpur, New Delhi operating on RDF (Timarpur WtE Project), the Commission had approved the bidding process (RFQ, RFP) and the draft Power Purchase Agreement (PPA) as issued by Central Government and amendments thereto vide its order dated 31.03.2008 in Petition No. 37 of 2007 for Tariff Based Bidding.

- vi. Upon selection of the Petitioner as the Developer, the following agreements which were part of the RFQ documents approved by the Commission were formalized by the Petitioner for the Timarpur WtE Project:
- (a) Concession Agreement with Municipal Corporation of Delhi (MCD) for supply of 1550 TPD MSW.
  - (b) Land Lease Agreement with New Delhi Municipal Council (NDMC).
  - (c) Supply of Treated Sewage /Effluent water from Okhla STP agreement with Delhi Jal Board.
- vii. In light of the above, the Petitioner had entered into a Power Purchase Agreement (PPA) dated 20.01.2010 with BSES Rajdhani Power Limited (BRPL) pursuant to a single stage, three envelope tariff based International Competitive Bidding process initiated by the MCD and, at present, comprises the following facilities:
- a. MSW receiving and pre-processing Facility with design capacity of 1950 TPD of MSW (Remaining 400 TPD CA is with the NDMC),
  - b. Power Plant using combustion technology for steam production and Power Generation using Steam Turbine – Generator, and
  - c. Balance of plant and other auxiliary facilities required for the project.
- viii. Thereafter, for generating high calorific value and enhanced quantity of RDF, detailed pre-processing of MSW was contemplated and the power generating capacity of the plant was increased from 16 MW to 23 MW.
- ix. The Petitioner initially developed 16 MW Project at Okhla and the same is India's first commercial WtE plant developed to generate 16 MW of clean and renewable energy by using 1950 Tons of MSW. It was commissioned in 2012. With technological upgradation of existing processing facilities to improve the quality of fuel fed to the boilers and other operational improvements, the power generation capacity was increased from 16 MW to 23 MW. While the existing WtE plant is already capable of processing up to 1950 TPD of MSW, the MCD has offered /nominated to supply additional 1000 TPD of MSW for processing at the Petitioner's Okhla Plant. As such, the Petitioner has proposed to install additional facilities to process additional 1000 TPD of MSW increasing the total power generation capacity from 23 MW to 40 MW.
- x. With the technological upgradation and the recent proposal for supply of additional 1000 TPD of MSW by MCD, the Petitioner has proposed to expand its existing facilities to generate an additional power of 17 MW from its plant located in Okhla, New Delhi with a total land area of 15 acres and has,

therefore, proposed to install following facilities within the existing area available in the Plant:

- a. MSW processing facilities will be augmented to handle 2950 TPD of MSW for conversion into RDF.
  - b. Additional Boilers (2 Nos.) and Steam Turbine Generator of 17 MW capacity will be installed.
  - c. Balance of Plant & Auxiliary facilities will also be augmented to cater to increased requirements of Power Plant expansion.
- xi. In this regard the MCD, vide its Letter dated 15.02.2023 informed /nominated the Petitioner that since the Plant has been granted Environmental Clearance (EC) by the Ministry of Environment, Forest and Climate Change, by way of the letter dated 09.01.2023, required for the expansion of the WtE plant upto 40 MW in an area of 30444 sqm., the Petitioner can proceed with the necessary development of the facility required for expansion of project without any delay.
- xii. In terms of the above, the Petitioner proceeded to commence the preparation of a Detailed Project Report (DPR) for the expansion of 17 MW Capacity project.
- xiii. The Commission has adopted the CERC Regulations 2012 titled "Terms and conditions for Tariff Determination from Renewable Energy Sources" (RE Tariff Regulations), as amended from time to time, vide its Order dated 19.05.2016 for the purposes of specifying terms and conditions for tariff determination under Renewable Energy Sources in respect of MSW. Therefore, under the present regulatory framework governing WtE plants located within the jurisdiction of the Commission, the tariff would be decided as per the said RE Tariff Regulations.
- xiv. **Capital Cost:** The actual executed capital cost of the Timarpur WtE Project is INR 399 Crores (2347.76 Lacs per MW) Crores for the additional 17 MW capacity. The background to the development of the Project and the reasons for its specific Capital Cost is as under:
- a. The primary objective of the WtE Project is to effectively deal with the municipal solid waste in a manner that it is environment friendly, as the same improves hygiene, sanitation conditions and serves the larger public interest. The electricity generation and sale of electricity is focused to fund and finance the project without causing burden on the State Exchequer. The electricity tariff cannot be compared to a conventional generation and supply of electricity which is based on economic pricing of electricity as goods. The electricity pricing in WtE Projects also includes a significant part of cost for environmental protection besides generation of electricity. Such Projects are not sustainable at the tariff which are

applicable to the conventional power projects. The Capital cost of WtE projects is necessarily to be incurred with reference to the object of achieving the desired positive effect on environment.

- b. Subsequent to award of Project, it was during design and engineering stage that significant changes were advised by MCD, Delhi Pollution Control Board (DPCC), Central Pollution Control Board (CPCB) /MNRE, National Green Tribunal (NGT). As a result, the contours for environmentally compliant norms of Timarpur WtE Project had undergone change from the earlier design and, as such, the Technical specifications of the plant equipment were required to be changed. This has resulted in the considerable increase of the capital cost of the Project.
- c. The Petitioner has submitted that as per Municipal Solid Waste Rules, 2016 (MSW Rules):
  - i. It has been made mandatory to segregate the waste at source with Processing of Waste into usable products to the extent possible.
  - ii. De-centralized facilities for composting of bio-degradable waste are to be created.
  - iii. Only inert material which cannot be recycled or converted into compost or RDF /energy is to be sent to the landfills.
- d. The Petitioner submits that the MSW having level of moisture content and composition is also heterogeneous in terms of the content and size and as such involved segregation of material into following components:
  - i. Inert material for disposal of landfills;
  - ii. Recyclable including metals for sale;
  - iii. Fine compostable material converted into stable compost for sale; and
  - iv. RDF for use in Boilers of Power Plant
- e. The Petitioner has proposed the following configuration for expansion of its WtE plant:
  - i. Segregation Facility, which was installed when plant was first established, had inherent problems and was not successful in handling mixed wet waste. The old equipment has already been replaced by the improved processing facility.
  - ii. MSW pit has already been extended to provide adequate residence time to allow biological drying of MSW. Facilities for manual and mechanical segregation and size reduction have been installed to improve the quality of fuel available for the boilers.
  - iii. For expansion project, when additional 1000 TPD of MSW will be available, Boiler Feed Storage Pit will be extended further to provide

adequate storage for total MSW received and processed MSW for boiler feed.

- iv. Parallel system of Power Plant equipment is proposed to be installed with 17 MW generation capacity along with augmentation of MSW storage, handling and processing facilities.
- xv. As per Regulation 62 of the RE Tariff Regulations, this Commission shall determine only project specific capital cost considering the prevailing market trends.

**Plant Load Factor**

- xvi. Regulation 63 of the RE Tariff Regulations provides that the Plant Load Factor (PLF) for MSW based power projects and RDF based power projects will be as under:

Sl. No.	Plant Load factor	MSW	RDF
a.	During stabilisation period	65%	65%
b.	During the remaining period of the first year (after stabilizing period)	65%	65%
c.	2 <sup>nd</sup> year onwards	75%	80%

- xvii. Further, the stabilisation period shall not be more than 6 months from the date of commercial operation of the project. Therefore, the Petitioner reserves the right to approach the Commission, subsequently either by way of a fresh petition or through a true-up proceeding, to seek for any amendment/ revision/ modification in the tariff based on the stabilisation data.
- xviii. The Commission is requested to consider the following for the purpose of determining the Tariff under the present Petition:
- a) **Auxiliary Consumption:** The Auxiliary Consumption for determination of tariff shall be considered as 15% as per Regulation 64 of the RE Tariff Regulations.
- b) **Station Heat Rate:** Regulation 65 of RE Tariff Regulations provides that the Station Heat Rate for determination of Tariff shall be considered as 4200 kcal/kWh.
- c) **Operation and Maintenance (O&M) Expenses:** The Commission may decide O&M expenses based on the prevailing market trends, as is also provided under Regulation 66 of the RE Tariff Regulations.
- d) **Gross Calorific Value (GCV) :** Regulation 67 of the RE Tariff Regulations provides that the GCV of RDF for the purpose of determination of tariff shall be at 2500kcal/kg. Further, the GCV of MSW shall be determined by the Commission on case-to-case basis while determining the project specific tariff.

e) **Fuel Cost:** As per Regulation 68 of the RE Tariff Regulations, the Fuel Cost shall be considered as nil for MSW.

xix. In view of above tariff components and parameters, the assumptions and estimations taken by the Petitioner, the Petitioner herein has worked out the finances for the Project based on the abovementioned parameters as laid down in the RE Tariff Regulations issued by CERC.

3. That on 30.05.2023, the matter was listed for hearing wherein Mr. Buddy A Ranganadhan appeared on behalf of Respondent No. 1 & 2 i.e. BYPL and BRPL respectively and Mr. Anand Srivastava on behalf of Respondent No. 3 i.e. TPDDL. During the hearing, the Respondents No. 1 & 2 had submitted that there are certain issues with respect to the expansion and auxiliary capacities. Respondent No. 3 has submitted that there is a difficulty in filing the reply in the absence of the formal PPA.

**Common Reply filed by Respondent No. 1 and 2 i.e. BYPL and BRPL**

4. Respondents No. 1 & 2 filed its common Reply on 05.06.2023 wherein it is submitted that:

i. Capital cost of the project as claimed in the present Petition is much more than that for similar projects. A table comparing the prices of cost per MW of various similar Projects is as under:

Particulars	TOWMCL expansion (Currently proposed)	DMSL	Municipal Waste based Plant, Narela (Yet to be commissioned)	SDMC Tehkhand
Capital Cost (Rs. Cr./MW)	23.47	16.375	21.57	16.30

ii. Cost claimed by the Petitioner in the present Petition is disproportionate to the capacity being installed. Costliest power from Municipal Solid Waste Plant that is currently operating Rs. 7.03/kWh having a capital cost of Rs. 360Crore for 24MW i.e. Rs. 15Crore per MW. Accordingly, even if the costliest power from such plant is considered, for an additional capacity of 17 MW, the capital cost that has previously been allowed is Rs. 255Crore. In the present case, TOWMCL is seeking capital cost of Rs. 399Crore. Allowing such disproportionate capital expenditure without the corresponding benefit would cause prejudice to the consumers of the State of NCT of Delhi. A comparative chart of levilized tariff of the Municipal Solid Waste is provided as under:

Particulars	TOWMCL Expansion (currently proposed)	DMSL	Municipal Waste based plant, Narela (Yet to be commissioned)	SDMC Tehkhand	TOWMCL (23MW)
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Levelized Tariff (Rs./kWh)	9	7.03	7.38	5.13	6.43
	Tariff proposed to be determined under Section 62 of Electricity Act.		Tariff determined under Section 63 of Electricity Act.		Tariff determined u/S 63 of the Electricity Act, Tariff for BRPL is Rs. 2.92/kWh.

- iii. The Commission vide its Order dated 22.06.2021 passed in Petition No. 27 of 2020, has already taken a view as regards installation of additional capacity of 7MW that the tariff applicable would be same as what was discovered through competitive bidding process, there is no occasion for TOWMCL to now seek determination of tariff under Section 62 for the additional capacity of 17MW.
- iv. Initially, TOWMCL's Project of 16MW was given to Jindal Urban Infrastructure Ltd. (JUIL) at levelized tariff of Rs. 2.89/kWh through competitive bidding. Presently, as stated above, additional capacity of 7MW has been installed without any financial impact on account of:
  - (a) Improvement in plant performance because of operational efficiency and improved MSW, segregation.
  - (b) Improvement in quality/calorific value of waste (due to lifestyle changes), improvement in source segregation thereby improving RDF quality.
  - (c) Improvement in Collection and Transportation system by Municipal Corporation of Delhi by using compactor as against open tipper and, thereby, reducing the moisture.
- v. Most of the projects similar to TOWMCL's Project in the NCT of Delhi are developed by means of competitive bidding. Recently, two bidding processes have been conducted in which JUIL was the successful bidder. In the said bids, the prices discovered through the bidding were much lower than the prices proposed in the present Petition for determination of tariff. Considering the above facts, it is proposed that a competitive bidding should be carried out for the installation of additional facilities instead of allowing the present Petition and allow the TOWMCL to make undue profit at the expense of the Consumers of the State of NCT of Delhi.
- vi. MCD is a necessary party in the present Petition and accordingly, TOWMCL may be directed to implead MCD as a necessary party.

**Reply filed by Respondent No. 3 (TPDDL)**

- 5. Respondent No. 3 filed its Reply on 06.06.2023 wherein it is submitted that:
  - i. The Petitioner has requested the Commission for determination of separate tariff for additional capacity of 17MW. Since, the project is being separately



commissioned by the Petitioner, it is necessary that a fresh bidding process may be executed to achieve a competitive tariff.

- ii. While the current tariff for the existing capacity of the Petitioner is 5.74/kWh, the petitioner has sought levelized tariff as around Rs 9/kWh for the additional capacity, without providing any reasons for the steep escalation.
- iii. Due to the lack of competitive bidding, the tariff sought by the Petitioner is much higher than not only its existing capacity but also compared to similar projects. The tariff of the other WTE Plants operating in Delhi is given below:

S.No.	Name of Plant	Project Status	Installed Capacity (MW)	Current Tariff (Rs./kWh)
1.	TOWMCL	Already Commissioned	23	5.74
2.	TWEPL	Already commissioned	25	4.30
3.	Narela – Bawana	Yet to be Commissioned	28 to 36	7.38

- iv. The levelized tariff of Rs. 9/kWh sought by the Petitioner is much higher than other WTE plants operating in Delhi. Even the newly assigned WTE project i.e. the Narela-Bawana Project has much lower tariff than as sought by the Petitioner.
- v. Further, there ought to be efficiency built in the present capacity as it is an extension of an already existing facility. However, the Petitioner has failed to provide any information on whether the benefit of such efficiency is being passed on to the consumer.
- vi. The Petitioner has neither annexed a draft PPA nor made any averments regarding the alleged PPA. No PPA has been negotiated between the Petitioner and TPDDL for additional capacity. PPA being a bilateral agreement, from which the rights and liabilities of a party shall arise, it is of utmost importance that the PPA is negotiated between all parties and TPDDL is not being made to sign on a dotted line.
- vii. TPDDL and the Petitioner have executed a PPA dated 19.11.2015 for the project capacity (23MW) of Petitioner's WTE Plant. The said PPA was entered into pursuant to a competitive bidding process initiated by TPDDL wherein the Petitioner was identified as the Selected Bidder for sale and supply of the Contracted Energy.
- viii. The above PPA cannot be made applicable to the additional capacity for the reason that the Petitioner has sought fresh determination of tariff and the said PPA was entered into by way of competitive bidding process.

- ix. The above-mentioned PPA was executed between the parties pursuant to Order for adoption of tariff under Section 63 of the Electricity Act, 2003 whereas the instant Petition has been filed u/S 62 of the Electricity Act, 2003. Keeping in view the earlier Petitions filed by the Petitioner, the present procurement should also be done by way of competitive bidding under Section 63 of the Act read with the Guidelines for determination of tariff by bidding process for procurement of Power by Distribution Licensees.
- x. The Government has provided various schemes for setting up and expansion of WtE Plants. The Petitioner has failed to disclose whether any benefit is being drawn by the Petitioner under any such scheme and if any benefit is being drawn, then whether such benefit is being passed on to the various beneficiaries and the consumers.

**Rejoinder by the Petitioner to the Reply filed by the Respondent No. 1 & 2 on 30.06.2023**

**Rejoinder by the Petitioner to the Reply filed by TPDDL on 30.06.2023**

- 6. The Petitioner has filed Rejoinder before the Commission on 30.06.2023 to the Reply filed by Respondent No. 1 & 2 especially dealing with the following issues raised in its Reply dated 06.06.2023:
  - a. Maintainability of the present Petition and applicability of Competitive Bidding Guidelines under Section 63 of the Electricity Act, 2003.
  - b. Capital cost of the project is higher than that of other similarly placed projects.
  - c. Approval of Detailed Project Report.
  - d. Impleadment of MCD to the present proceedings.

**Additional Affidavit dated 06.06.2023 filed by the Petitioner**

- 7. The Petitioner has filed Additional Affidavit on 06.06.2023 in pursuance of the hearing dated 30.05.2023 before the Commission wherein the following has been submitted:
  - a. A copy of the Draft Power Purchase Agreement which is based on certain previously executed agreements by the Delhi DISCOMs has been filed vide a Memo dated 01.06.2023. The same has been filed for the purpose of discussion and negotiation(s) between the Petitioner and Delhi DISCOMs, subject to approval of the Commission.
  - b. The peculiar facts and circumstances, due to which the MCD has required that the Petitioner installs additional BTG in parallel to the existing capacity at the Project site are:
    - i. In Delhi, presently, there are only three landfill sites, namely, Okhla, Bhalswa and Ghazipur. However due to mass urbanization and rapid growth in population the dumping grounds are growing taller than the prescribed standards by 2 meters to 15 meters every year. The height of Ghazipur landfill site has reached as high as 65 meters which is just eight meters less than the

height of the national monument Qutub Minar. There is a scarcity of land to be used for landfill sites, not only in Delhi, but all over India. It is the need of the hour to adopt alternative ways to manage and treat the waste.

- ii. Delhi is the largest generator of MSW in the country; Total Solid Waste generation in Delhi is approximately 11000 TPD. Delhi has 4 Waste to Energy Plants (WTE plants) with combined capacity 8050 TPD at 4 different locations in Delhi namely Okhla, Tehkhand, Ghazipur and Bawana and the remaining quantum of waste generated is still going into the landfill. At present, Petitioner can deal with nearly one-Sixth of the daily generation of MSW. With the proposed enhanced capacity quantum of MSW going into the landfills will decrease by 1000 TPD. Following timelines for remediation of legacy waste at three dumpsites in Delhi were earlier submitted to Hon'ble NGT on 21.10.2021 by the erstwhile 3 DMCs:

Dumpsite	Timeline for 100% remediation
Ghazipur	September 2024
Bhalswa	June 2023
Okhla	March 2023

- iii. The Petitioner aids the Government of Delhi in the extremely important role and statutory function of municipal solid waste disposal in Delhi. Owing to the filling up and over-accumulation of landfills in Delhi, the WTE Projects plays an extremely important role in the long term MSW disposal plan of Delhi.
- c. It is further also important to mention that MCD has undertaken studies and analysis to come to a conclusion that the Petitioner must expand the capacity at its existing Project site. A major concern was '*availability of suitable Land*'. In this regard, it is important to point out that, alternative site analysis for the Expansion of the Waste to Energy Plant – considering the Alternate Sites at Bhalsawa SLF, Tehkhand SLF and the existing Okhla WtE Plant was prepared. The same demonstrated that since the suitable adequate land was available at the site for expansion of the project, no additional land would be required for the same. Further, the source of water was only 0.5 km away. Hence, transportation of water would be easy, as well as the infrastructural facilities for expansion of the project was available. Hence, the cost of the Expansion Project would be less, and the MSW of South Delhi would be at an approx. distance of 1- 30 Km.
- d. Importance of the proposed expansion can also be seen from the fact that only upon EAC recommendation, that MoEF and CC have issued Environmental Clearance on 09.01.2023 for the enhanced capacity.

- e. Notably, the complete new capital expenditure is as under:
  - (a) Boiler(s) – 02 Nos. and its auxiliaries
  - (b) Turbine – 01 No. and its auxiliaries
  - (c) Generator – 01 No. and its auxiliaries
  - (d) FGCS (Flue Gas Cleaning System) and its auxiliaries – 2 Nos. (1 each for Boiler)
  - (e) ACC (Air Cooled Condenser) and its auxiliaries – 1 No. (Suitable for 1 Turbine)
  - (f) Power Evacuation & Auxiliary Power Distribution System
  - (g) Civil work for Foundation(s) of Boiler & FGCS
  - (h) Civil work for Turbo generator & ACC Decks
  - (i) Civil work for Power House (TG Building)
  - (j) Civil work for Switchyard & Transformers Foundations
  - (k) Civil work for Chimney(s) of 2 Boiler(s)
  - (l) Pipe & Cable Racks, Trenches, Trestles, Connecting Platforms, Staircases, Miscellaneous
- f. The following assets will also be augmented and shared between the new capacity and already existing capacity:
  - (a) MSW Receiving – Weigh bridge, Scanners, Ramp, Truck, Reception Hall
  - (b) MSW Storage – Enclosed Pit
  - (c) MSW Handling Equipment – Grab Crane(s), MRF (Material Recovery Facility /MSW Pre-processing /RDF /Compost Plant)
  - (d) LTP (Leachate Treatment Plant)
  - (e) WTP (Water Treatment Plant)
  - (f) AHP (Ash Handling Plant)
  - (g) CWP (Cooling Water Plant)
  - (h) Utility (Compressed Air Plant, HVAC Plant, Fire Hydrant Plant)
  - (i) Internal Roads, Drains, Rainwater Harvesting Pits & Boundary Walls
  - (j) Office & Miscellaneous establishments
- g. As opposed to the contention raised by the three Delhi DISCOMs, namely, BYPL, BRPL and TPDDL, there have been multiple examples of generating station(s), where one Unit is supplying power where the tariff is determined under Section 62 of the Electricity Act, 2003 of the Electricity Act, 2003 and while the other Unit is supplying power where the tariff is adopted under Section 63 of the Electricity Act, 2003. Therefore, to contest the present petition merely on the ground as to how the new Unit can be under Section 62 of the Electricity Act, 2003 while the existing Unit is supplying power under Section 63 of the Electricity Act, 2003, is wholly mistaken.
- h. Moreover, even under the Bidding Document(s) which are being relied upon by the three Delhi DISCOMs, the concession between NDMC and the Petitioner, and subsequent PPA between BSES and the Petitioner was only

limited to the extent of supply of power upto 60 MUs and not beyond. Therefore, any argument otherwise is not only unsustainable in contract nor under law.

- i. Further, treatment of Municipal Waste and conversion of energy from therein is an essential and urgent need for MCD, and therefore, in the interests of the time sensitive activities that are to be undertaken, the in-principle approval of the Project cost as claimed under the present Petition be allowed.

**TPDDL Reply dated 10.07.2023 to the Additional Affidavit**

8. The Respondent No 3 has submitted that:

**i. Stay on the expansion of the capacity of the WTE Plant from 23 MW to 40 MW has been imposed by the Hon'ble Supreme Court**

Various interlocutory applications are pending before the Hon'ble Supreme Court seeking stay on the expansion of the capacity of the Waste to Energy Plant at Okhla from 23 MW to 40 MW. On the last date of hearing, i.e., 05.04.2023 in Civil Appeal No. 13120 of 2017 in the matter of Ravinder Chanana & Ors. Vs. State of Delhi, the Hon'ble Supreme Court was pleased to hold that any steps which are taken by the concessioner towards implementing the permission for enhancement of the capacity from 23 MW to 40 MW shall be subject to the final result of the appeal and shall not create any equities.

Draft PPA has been submitted without due negotiations and consultations between the parties and, therefore, the Petitioner may be directed to enter into negotiations with the Respondent and submit the PPA after considering and incorporating the suggestions and inputs by the Distribution Companies.

**ii. WTE Plant are highly technical and polluting in nature**

- a. The Petitioner has claimed that MCD has undertaken studies and analysis to come to conclusion that the Petitioner must expand the capacity of the existing project site. No such study, as alleged to have been undertaken by the MCD, has been annexed by the Petitioner. WTE Plants are placed on fifth number in the order of priority in the Suggestive/Indicative "The National Action Plan for Municipal Solid Waste Management" prepared by the Central Pollution Control Board (Action Plan) in compliance with the Order dated 05.02.2015 passed by the Hon'ble National Green Tribunal in the matter of OA No. 199 of 2014, Almitra H. Patel & Amp;Anr. Vs Union of India & Ors.
- b. As acknowledged in the above mentioned Action Plan, a WTE Plant is highly technical and polluting in nature. Therefore, it is imperative that the

first four management policies are adopted before resorting to WTE Plants. Thus, the Petitioner must show the mentioned studies by MCD, which indicate that a WTE Plant is required, and the first four policies are not available for the present case.

**iii. Availability of alternative land**

- a. The Petitioner has further alleged that no alternative suitable land was available for the Project. The Petitioner has stated that the land for the WTE project can only be allocated by MCD in terms of the Rules and Regulations, including Delhi Master Plan.
- b. The issue in the present matter does not relate to availability of alternative land for shifting the existing WTE Plant of the Petitioner, as has been alleged by the Petitioner. The Petitioner has annexed documents wherein requests have been made to shift the existing project; however, approval is being sought for the new WTE Plant. The issue is that no competitive bidding has taken place for development of the new plant. Most of the projects similar to the Petitioner's new Plant are developed by means of competitive bidding. However, no such exercise has been carried out for the present project.

**iv. No rationale has been provided for high tariff**

- a. The capital cost of the Project as claimed in the present Petition is much more than that for similarly placed projects. Cost claimed by the Petitioner is disproportionate to the capacity being installed. The Petitioner in the Additional Affidavit has claimed the new Plant shall use the common logistics and support infrastructure from the existing WTE Plant.
- b. If, as stated, the common infrastructure is being utilised, then the cost of the project should be much lesser than setting up a new project. However, in the present case, the cost of the new project is invariably high even when compared to plants established from scratch. No justification has been provided in this regard.
- c. Further, the Petitioner has also completely failed to indicate if any subsidy/scheme for setting up and expansion of WTE Plants has been opted which would reduce the cost of the Plant. Clause 7.4 of the State Policy and Solid Waste Management Strategy for Delhi states that the Urban Local Bodies need to design a financial mechanism for funding the waste management activities and identify economic instruments for them.

- d. the Petitioner has completely failed to justify or present supporting documents for such high costs. Therefore, the Respondent submits that such high costs should not be passed on to the beneficiaries and the citizens of Delhi without any rationale.
  - e. Shifting such unvariably high cost on account of WTE plants on the distribution companies in Delhi will cause additional pressure on not only the Distribution Companies but also on their Consumers.
- v. **Petitioner has not provided any justification for expenditure and procurement process.**
- a. The Petitioner has not provided any details or justification regarding the expenditure and procurement process.
  - b. The DPR annexed with the Petition is not approved by the competent authority and it does not provide the relevant details for the said expenditure for the Plant and the means of procurement. The DPR, under the head of Project Cost Estimates and Means of Finance, merely states that the Project cost Estimates are based on offers received for the equipment. However, the details of the offer are not provided. There is no basis provided for arriving at the cost as alleged by the Petitioner.
  - c. Petitioner has not provided any details for any bids whether domestic or international called out, to keep the expenditure and, accordingly, keep the tariff competitive. The details of the requisite approvals required from GNCTD have also not been provided. It is not clear whether the GNCTD has been informed about the expenditure or setting up of the Plant or if any bids were/ are called out of GNCTD in this regard.
  - d. No justification has been given for such a high tariff. No technical or financial details have been provided. Accordingly, the TPDDL reserves its right to provide further Reply as and when the Petitioner submits the requisite technical and financial inputs along with the justifications.

**Reply dated 10.07.2023 by BRPL & BYPL to the Additional Affidavit**

- 9. BRPL & BYPL have filed a common Reply to the Additional Affidavit filed on 12.07.2023 and submitted that:
  - a. The Commission, by Order dated 14.08.2007 in Petition No. 37 of 2007, *inter-alia* approved the Petitioner's deviation from Standard Bid Document considering

only minimum anticipated capacity of 13MW (ex-Bus) and not the maximum capacity. Accordingly, any additional capacity being installed in the Project falls within the ambit of the bidding documents that were issued during the competitive bidding process under Section 63 of Electricity Act, 2003.

- b. Also, by Order dated 22.06.2021 in Petition No. 27 of 2020, the Commission has already allowed installation of additional capacity in the past. In the said Order the Commission recognized the fact, "*...tariff of the project for which the said EPA has been executed, was discovered through competitive bidding route and adopted by the Commission vide order dated 20.01.2011 in Petition No. 18/2010. Since the tariff of the station is not determined by the Commission based on the operating and financial parameters, therefore, there is no requirement of specifying Normative Auxiliary Consumers for the Station by the Commission.*"
- c. As such the Commission has already taken a view as regards installation of additional capacity of 7 MW that the tariff applicable would be same as what was discovered through competitive bidding process, there is no occasion for the Petitioner to now seek determination of tariff under Section 62 for the additional capacity of 17MW.
- d. Petitioner has suppressed material fact that Hon'ble Supreme Court by Order dated 05.04.2023 in Civil Appeal No. 13120 of 2017 titled as "Ravinder Chanana & Ors. Vs. The State of Delhi" has directed that the enhancement of the project's capacity from 23MW to 40 MW, as proposed by the Petitioner is subject to the outcome of the Civil appeal. Implementation of the enhancement of the capacity "*shall not create any equities*" and is subject to final outcome of the Civil Appeal No. 13210 of 2017 and leave and/or clarification of the Hon'ble Supreme Court in the said Civil Appeal. The Petitioner ought to have placed the same on record before the Commission as all the proceedings before the Commission would be subject to the outcome of the Civil Appeal pending before the Hon'ble Supreme Court, including any PPA that may be signed with the Petitioner.

**Additional Affidavit dated 29.05.2024 by BRPL and BYPL Respondent No. 2 and 3**

- 10. In the Additional Affidavit dated 29.05.2024 filed by BSES, it has been stated that vide its Reply dated 12.07.2023 to the Additional Affidavit that was filed by the Petitioner, the Respondents No 1 & 2 had objected to the prayer of the Petitioner for determination of the Tariff of the proposed expansion of the Project by additional capacity of 17MW under Section 62 of the Electricity Act 2003. That, upon reconsideration, the BRPL & BYPL are not objecting to determination of the tariff



under Section 62 for the proposed additional capacity. However, the Petitioner has to take requisite necessary clearances and comply with the environmental laws for the plant. The Commission may adjudicate in terms of the applicable provisions of laws. However, the aforesaid is subject to the outcome of the pending Civil Appeal No 13120 of 2017 titled Ravinder Chanana & Ors. Vs. The State of Delhi.

11. **At the outset, we may first deal with some of the objections raised by the Respondent:**

**Re: Maintainability of the present Petition and applicability of Competitive Bidding Guidelines under Section 63 of the Electricity Act, 2003**

- i. There is no basis for the BSES to contend that the expansion as envisaged at present by the Petitioner will automatically come under the ambit of Section 63, merely because the tariff for the existing capacity was arrived upon after a competitive bidding process.
- ii. The Petitioner aids the Government of Delhi in the extremely important role and statutory function of municipal solid waste (MSW) disposal in Delhi. Owing to the filling up and over-accumulation of landfills in Delhi, the WTE Projects play an extremely important role in the long term MSW disposal plan of Delhi. It is submitted that Waste to Energy facilitates generating power in the form of electricity or steam. The Petitioner's Timarpur Okhla Waste to Energy plant is currently capable of producing 23 MW of uninterrupted power. In addition to it, Waste to Energy plants typically reduce waste volume by 90%, as a result of which, fewer and smaller landfills are needed to process ash, and the same protects a valuable natural resource ie. land.
- iii. The MCD has also undertaken studies and analysis, and the DISCOMs of Delhi are privy to such information. The MCD has come to a conclusion that the Petitioner must expand the capacity at its existing Project site. The importance of such expansion is relevant from the various letters issued by MCD, which the Petitioner has placed on record by way of the present Petition, the Memo dated 01.06.2023, as well as the Additional Affidavit dated 06.06.2023. It is apposite to highlight that MCD has repeatedly confirmed in diverse fora that there is no additional or alternative land available, for setting up WTE Plant in Delhi, and in addition to the above, it is pertinent to note that no alternative site is available, as confirmed by MCD for building the WTE plant.
- iv. The tariff for the additional capacity expansion as being envisaged, has to be determined in terms of the National Tariff Policy, 2016, which clearly states that the tariff for WTE projects is to be determined under Section 62 of the Electricity Act, 2003 by the Appropriate Commission. Hence, the plea of BSES or other

DISCOMS of Delhi that the Commission does not have power to determine the tariff for the expansion capacity of the Petitioner's project is erroneous. This is also clear from Section 62 of the Electricity Act.

- v. The land for any WTE project can only be allocated by the MCD in terms of Rules and Regulations, including Delhi Master Plan. Furthermore, it is obvious that if there is any existing Plant at a site, then no other Developer can install /build second project at the same site. There is certain amount of infrastructure that cannot be duplicated such as waste handling and segregation, feeding the waste into the plant, as well as allocation of quantum of waste between the two units. This common infrastructure cannot be duplicated at site for lack of available space and potential for continuing disputes between the two Developers if the second unit were to be built by another Developer. In addition to the above, safety concerns are also there while setting up a plant i.e., Boiler Drum is required to be placed at least 150 meters away from the residential area. Further, there can only be one chimney at a project site, no additional chimney can be installed at the same site for other plant on account of high emissions implications.
- vi. Therefore, two independent plants being operated by separate operators, cannot be set up together at the same site. Most importantly, no Environmental Clearance is likely to be provided to the Developer as well for installing two independent chimneys/WTE plant. In any event, the Petitioner has been granted the Environmental Clearance dated 09.01.2023 for the expansion of the present Project.
- vii. Importance of this expansion can also be seen from the fact that only upon EAC recommendation, that MoEF & CC have issued Environmental Clearance on 09.01.2023 for the enhanced capacity. It is respectfully submitted that unlike other generation projects, which are established from scratch, for the present case, expansion could have been the only logical recourse due to '*land constraint*' and '*use of common logistics and support infrastructure*'.
- viii. There have been multiple examples of generating station(s), where one unit is supplying power where the tariff is determined under Section 62 and while the other unit is supplying power where the tariff is adopted under Section 63 of the Electricity Act 2003. Therefore, to contest the present petition merely on the ground as to how the new Unit can come under Section 62 while the existing Unit is supplying power under Section 63, is wholly mistaken. It is relevant to note that two Units can operate at the same site under Sections 62 and 63 simultaneously. In fact, there are several instances of thermal plants where even aggregate capacity from a Unit is segregated between Sections 62 and 63 projects. Therefore, the contention of BSES that the Petitioner in the past while

expanding its earlier capacity from 16 MW to 23 MW considered the tariff determined by way of the bid route and did not seek for any determination, and therefore, the same has to be adopted by the Petitioner now, is wholly erroneous. BSES is wrongly contending that capacity expansion is a Developer's prerogative and that the Developer cannot seek for project specific tariff determination.

- ix. Commission has the jurisdiction to determine project/ unit specific tariff as sought by the Petitioner in the present Petition. In addition to the above, under National Tariff Policy, 2016, also envisages determination of the tariff under Section 62 of the Electricity Act 2003.
- x. There is no other option with MCD to seek for such expansion of the project from the Petitioner, which shall be under Section 62 of the Electricity Act 2003, since it is impractical and impossible, to call for bids for a project where the project would be utilising common logistics and support infrastructure of the existing project. It is only in this peculiar scenario that the Petitioner has been granted the Environmental Clearance for setting up the expanded capacity.

**RE: Capital cost of the project is higher than that of other similarly placed projects.**

- xi. BSES have contended that the tariff quoted by the Petitioner i.e., levelized tariff as around INR 9/kWh for the additional capacity is without any reasons or basis. BSES have contended that the costliest power from MSW plant that is currently operating is INR 7.03 / kWh having a capital cost of INR 360 crores for 24 MW i.e., INR 15 Crores per MW. Accordingly, even if the costliest power from such plant is considered, for an additional capacity of 17 MW, the capital cost that has previously been allowed is INR 255 Crores.
- xii. on account of the technological upgradation and the recent proposal for supply of additional 1000 TPD of MSW by the MCD, the Petitioner has proposed to expand its existing facilities to generate an additional power of 17 MW from its plant located in OKHLA, New Delhi with a total land area of 15 acres and has therefore proposed to install following facilities within the existing area available in the plant:
  - a. MSW processing facilities will be augmented to handle 2950 TPD of MSW for conversion into RDF.
  - b. Additional Boilers (2 Nos.) and Steam Turbine Generator of 17 MW capacity will be installed.
  - c. Balance of Plant & Auxiliary facilities will also be augmented to cater to increased requirements of Power Plant expansion.
- xiii. It is submitted that Respondent BSES has failed to take note of the fact that the current tariff of INR 5.74/kWh was adopted by the Commission. Accordingly, the

Petitioner has quoted a levelized tariff before the Commission based on prevailing market trends for Integrated MSW & RDF project and has even provided all necessary information with respect to the additional expenditure to be incurred by the Petitioner with respect to the installation of the additional capacity in the present project of the Petitioner. The contentions made by BSES to the contrary are without any basis and liable to be rejected.

- xiv. The Petitioner at V of the Petition has categorically highlighted tariff components and parameters taken into consideration by the Petitioner qua the expenditure i.e., Capital Cost, to be incurred by the Petitioner for installing the additional capacity in the present project. Thus, in backdrop of the aforesaid submissions the Petitioner has sought for the levelized tariff at the rate of INR 9/kWh.
- xv. The Petitioner in its additional affidavit dated 06.06.2023, has duly indicated the components qua which the capital expenditure is required to be incurred by the Petitioner for expansion of the Project. Accordingly, the present contention of BSES is required to be rejected out rightly.
- xvi. Treatment of Municipal Waste and conversion of energy therefrom is an essential and urgent need for MCD and is in the interest of Public/city. Therefore, in the interests of the time sensitive activities that are to be undertaken, the in-principle approval of the Project cost as claimed under the present Petition is allowed.

**RE: Approval of Detailed Project Report.**

**RE: Impleadment of MCD to the present proceedings.**

- xvii. BSES have contended that the DPR placed on record by the Petitioner is required to be approved by the competent authority. It is submitted that the said DPR has been enclosed along with the Petition for necessary adoption /approval by the Commission.
- xviii. BSES have also contended that it is important to implead MCD as a party to the present Petition. The same is not objected to.

**RE: Tariff as quoted/sought by the Petitioner is comparatively higher than the similarly placed generators**

With regard to the issue of comparatively higher price, the Petitioner has quoted the levelized tariff as around Rs. 9/kWh for the additional capacity after taking due consideration of the necessary financial implications and also considering the escalated price of the raw materials/equipment which are essential for the smooth and proper functioning of the proper functioning of the project.

The current tariff of Rs. 5.74/kWh was adopted by the Commission. The Petitioner has sought the levelized tariff at the rate of Rs. 9/kWh based on the prevailing market trends for integrated MSW & RDF and has provided information with respect to the additional expenditure to be incurred by the Petitioner with respect to the installation of the additional capacity at Para V of the Petition under the heading of submissions of tariff components.

**RE: Petitioner has not submitted any draft PPA which is ought to be entered into between Petitioner and Distribution Licensees**

A copy of Draft PPA has already been placed on record vide Memo dated 01.06.2024 for procurement of Power/Energy on Long Term Basis from TOWMCL. Further, the said Draft PPA has been prepared on the basis of existing EPAs / PPAs executed between the similarly placed WTE generators and Delhi DISCOMs, under Section 62 of the Electricity Act, 2003. In addition to the above, the Draft PPA, is being submitted by the Petitioner only for reference and scrutiny of the Commission. The Petitioner herein reserves its right to negotiate any / all terms contained in the Draft PPA, subsequently with the Delhi DISCOMs, at appropriate time.

**RE: Previous tariff for the Petitioner's plant was adopted under Section 63 of the Electricity Act, 2003 however, the Petitioner is seeking determination of tariff in the present Petition.**

With regard to the issue raised that the Petitioner is required to provide rationale for opting project specific tariff instead of competitive bidding, it is submitted that the MCD has repeatedly confirmed that there is no additional or alternative land available for setting up WtE Plant in Delhi. It is in this background that the MCD has awarded capacity expansion to the Petitioner as per Letter dated 15.02.2023. Furthermore, the tariff for such capacity has to be determined in terms of the National Tariff Policy, 2016, which clearly states that the tariff for WTE projects is to be determined under Section 62 of the Electricity Act, 2003 by the Appropriate Commission. Also, there have been multiple examples of generating station(s), where one unit is supplying power where the tariff is determined under Section 62 of the Electricity Act, 2003 and while the other unit is supplying power where the tariff is adopted under Section 63 of the Electricity Act, 2003. It is relevant to note that two units can operate at the same site under Section 62 and 63 of the Electricity Act, 2003 simultaneously. The Commission has the jurisdiction to determine the tariff under Section 62 of the Electricity Act, 2003. This is also clear from the National Tariff Policy, 2016.

## **Commission Analysis**

12. The instant petition has been filed by M/s Timarpur Okhla Waste Management Company Ltd. for approval of projects specific tariff for generation and sale of electricity from the 17 MW integrated waste to power plant project based on Refuse Derived Fuel (RDF) to be established by the Petitioner under Section 62 read with Section 83 of the Electricity Act, 2003 along with applicable regulations.
13. The contention of the Petitioner is that Municipal Corporation of Delhi (MCD) vide letter dated 15.02.2023 intimated the Petitioner that Govt. of India, Ministry of Environment, Forest and Climate change has granted environmental clearance vide letter dated 09.01.2023 for the expansion of waste to energy plant upto 40 MW at old NDMC composed plant, behind CRRI, Okhla New Delhi by M/s Timarpur Okhla Waste Management Company Ltd. In the aforesaid letter, MCD requested the Petitioner to proceed with the necessary development of the facility required for expansion of project without any delay. Thereafter the Petitioner proceeded to commence the preparation of Detail Project Report (DPR) for the expansion of 17 MW project.
14. With regard to prayer (a) of the Petition for determining the project specific tariff for the 17 MW WtE project being implemented by the Petitioner, the Petitioner contended that the Commission, in exercise the power vested in the Electricity Act, 2003 for the purpose of specifying terms and conditions for tariff determination of renewal energy sources in respect of Municipal Solid Waste (MSW), adopts the CERC (Terms and Conditions of Tariff Determination from Renewable Energy Sources) Regulations, 2012 as amended from time to time. Hence, under present regulatory framework governing waste to energy plants located within the jurisdiction of the Commission, the tariff would be decided as per CERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2020 (RE Tariff Regulations). Therefore, Commission may determine the tariff based on prevailing market trends for Integrated MSW & RDF project.
15. Further the Petitioner in support of its argument, urged that the Commission had, vide Order dated 27.07.2016 in Petition No. 27 of 2016 filed by Delhi MSW Solution Ltd. (DMSL), has approved the levelized generation tariff in respect of MSWT project Bawana alongwith execution of PPA by the DISCOM of Delhi with the Petitioner.
16. Respondent No. 1 and 2, BRPL & BYPL, after reconsideration and vide Affidavit dated 29.05.2024 had submitted that they are not objecting to determination of tariff under section 62 for the proposed additional capacity. However, the Respondent, TPDDL, vide its Reply dated 06.06.2023 has contended that the earlier PPA dated 19.11.2015 was executed between the parties pursuant to Order for

adoption of tariff under Section 63 of the Electricity Act, 2003 whereas the instant Petition has been filed u/s 62 of the Electricity Act, 2003 and the present procurement should also be done by way of competitive bidding under Section 63 of the Act read with the Guidelines for determination of tariff by bidding process for procurement of Power by Distribution Licensees.

17. In this regard, the National Tariff Policy, 2016 notified by the Central Government in exercise of power conferred under Section 3 (3) of the Electricity Act, 2003 has been perused. The Clause 6.4 Sub-clause(1)(ii) and Sub- clause (2) stipulates as follows:

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

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

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

18. Also, the Electricity Act, 2003 provides that while determining the tariff for generation, transmission and distribution shall follow the principle enunciated under Section 61 which reads as follows:

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

***(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;***

*(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;*

*(c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;*

*(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;*

*(e) the principles rewarding efficiency in performance;*

*(f) multi year tariff principles;*

*(g) that the tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner specified by the Appropriate Commission;]*

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

***(i) the National Electricity Policy and tariff policy."***

19. Further Section 86 (1)(b) & (1)(e) of the Electricity Act, 2003 stipulates as follows:

*(1) The State Commission shall discharge the following functions, namely: -*

*(a)...*

*(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the*

generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

(c)...

(d)...

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

.."

20. Further, the Hon'ble Supreme Court of India on 11.04.2017 in Energy Watchdog vs. Central Electricity Regulatory Commission *inter alia* held that:

"..... the revised tariff policy are statutory documents being issued under Section 3 of the Act and have the force of law."

21. **Considering the above, it is held that the Petition filed under Section 62 read with 86(1)(b) of the Electricity Act, 2003 is maintainable.**

22. With regard to prayer (b) & (c) of the Petition for allowing *In-principle* approval of revised Capital cost of INR 361.82 Crore (INR 399 Crore was claimed in main Petition) to be incurred by the Petitioner for establishing 17 MW WtE Project and to consider financial parameters for the project in line with RE Tariff Regulations notified by the Hon'ble CERC, it is observed that the Petitioner has filed its petition with CAPEX of INR 399 Cr. with levelised tariff of Rs. 9/-.

23. Commission vide its Interim Order dated 18/04/2024 directed that the Officers of the parties may have a meeting with the officers of DERC. In line with the said Order dated 18/04/2024, officers of the Commission conducted meeting with TOWMCL on 2/05/2024 and deliberated on the key issues like High CAPEX for the extension project, Board Approval, Technical parameters and specification of Project, details of financing, etc.

24. Further, Commission vide its Interim Order dated 30/05/2024 again directed that the Officers of the parties may have a meeting with the officers of DERC. In line with the said Order, the Officers of the Commission conducted meeting with TOWMCL on 4/06/2024 and deliberated on the common infrastructure between existing and upcoming project, etc.

25. TOWMCL vide its email dated 5/06/2024 submitted the Reply. Submissions made by TOWMCL in the Petition and additional submissions have been scrutinized and major findings are as follows:

- a. Higher cost of Power evacuation,
- b. Higher IDC, and
- c. Non-consideration of Debt Service Reserve Account as part of Project Cost



Based on the above findings, Commission vide its Letter dated 10/06/2024 directed TOWMCL to file revised DPR and Capital cost. TOWMCL submitted additional affidavit dated 13/06/2024 with revised DPR and Capital Cost.

26. TOWMCL, in its Additional Affidavit dated 13.06.2024, has projected tariff @Rs. 8.19 /kWh based on financial parameters of CERC (*Terms and Conditions for Tariff determination from Renewable Energy Sources*) Regulations, 2020 and certain assumptions submitting that the estimated project cost of expanded capacity will reduce from 399.12 to 361.82 Cr. on account of reworking of DSRA proposed evacuation infrastructure & consequent reduction in IDC.

27. The submissions have been analysed component wise as under:

**a) Adoption of CERC Norms**

- i. The Commission vide its Order dated 19/05/2016 had adopted *Central Electricity Regulatory Commission (CERC) (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012* as amended from time to time w.r.t specifying terms and conditions for Tariff determination from renewable energy sources in respect of Municipal Solid Waste (MSW) till further orders.
- ii. CERC issued *CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024* dated 12/06/2024, the same has been considered for computation of Tariff.

**b) Capital Cost**

The Petitioner has revised the Project cost to INR 361.81 Crore from earlier claim of INR 399 Crore. It may be noted that TOWMCL have not approached GoNCTD or Government for Viability Gap Funding (VGF) or any grant for the project. As per Clause 62 of *CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024*, normative Capital cost for a new RDF based MSW power project is INR 22 Crore/MW. Considering the same, cost of a new project works out to be Rs. 374 Crore. The Commission has considered Rs. 361.81 Crore submitted by TOWMCL as CAPEX for this Project provisionally which is sharing certain common infrastructure facilities with the existing WtE project and for Tariff determination thereof.

**c) Debt: Equity Ratio**

The Petitioner considered Debt: Equity ratio as 70:30 for the project, which is in line with the Clause 13 of *CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024*, and the same has been considered.

**d) Interest on Loan**

As per Clause 14(2)(b) of CERC (*Terms and Conditions for Tariff determination from Renewable Energy Sources*) Regulations, 2024, normative Interest rate is defined as:

*"For the purpose of computation of tariff, the normative interest rate of two hundred (200) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months shall be considered"*

As per norms, the applicable interest rate will be 10.65%. However, Petitioner has adopted long-term Interest Rate before COD as 11.00% and Long-term Interest Rate after COD as 10.50% in DPR. Since, the Petitioner claimed lower interest rate than the normative interest rate as per the Regulation, the Commission considered 10.50% as interest rate, post COD. Further, as per Clause 14(1) of CERC (*Terms and Conditions for Tariff determination from Renewable Energy Sources*) Regulations, 2024, the repayment period is of 15 years. The same has been considered.

**e) Operations and Maintenance Expenses**

As per Clause 65 & 19(2) of CERC (*Terms and Conditions for Tariff determination from Renewable Energy Sources*) Regulations, 2024, Normative O&M Expenses for the plant is considered as 8.5% of the Capital Cost of RDF based MSW power project with escalation of 5.25% per annum. However, Petitioner considered Normative O&M Expenses as 6% of the Capital Cost of Project. The same i.e., normative O&M Expenses as 6% of the Capital Cost of Project with escalation of 5.25% per annum has been considered.

**f) Depreciation**

As per Clause 15 of CERC (*Terms and Conditions for Tariff determination from Renewable Energy Sources*) Regulations, 2024, depreciation rate is defined as:

*"(1) The value base for the purpose of depreciation shall be the capital cost of the project admitted by the Commission. The salvage value of the project shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the project:*

*...*

*(2) Depreciation rate of 4.67% per annum shall be considered for the first 15 years and remaining depreciation shall be evenly spread during remaining Useful Life of the project."*

The same has been considered.

**g) Working Capital Requirement**

As per Clause 17 (1) of CERC (*Terms and Conditions for Tariff determination from Renewable Energy Sources*) Regulations, 2024, Working Capital requirement of project is:

- “a) Operation and Maintenance expense for one month;
- b) Receivables equivalent to 45 days of tariff for sale of electricity calculated on the normative Capacity Utilisation Factor or Plant Load Factor, as the case may be; and
- c) Maintenance of spares equivalent to 15% of Operation and Maintenance expenses.”

The same has been considered by the Petitioner and the same has been considered.

**h) Interest on Working Capital**

As per Clause 17(4) of CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, Interest on Working Capital is defined as:

“Interest on Working Capital shall be at interest rate equivalent to the normative interest rate of three hundred and twenty-five (325) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months.”

As per norms, the applicable interest rate will be 12.15%. However, Petitioner has adopted Interest on Working Capital as 11.00% in DPR. Since, the Petitioner claimed lower Interest on Working Capital than the normative Interest on Working Capital, the Commission considered 11.00% as Interest on Working Capital.

**i) Return on Equity**

As per Clause 16 (2) of CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, Return on Equity is:

“The normative Return on Equity for renewable energy projects other than small hydro projects shall be 14%, and that for the small hydro projects shall be 15%. The normative Return on Equity shall be grossed up by the latest available notified Minimum Alternate Tax (MAT) rate for the first 20 years of the Tariff Period and by the latest available notified Corporate Tax rate for the remaining Tariff Period.”

Currently applicable Minimum Alternate Tax (MAT) rate is 17.47% (Cr. 13). Based on the Minimum Alternate Tax (MAT), effective ROE of 16.96% has been considered.

**j) Plant Load Factor (PLF)**

As per Clause 63 of CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, PLF for plant is:

“Plant load factor for determining tariff for Municipal Solid Waste based power projects and refuse derived fuel based power projects shall be:

Sl. No.	Plant load factor	RDF
1	During stabilisation period	65%
2	During the remaining period of the first year (after stabilization period)	65%
3	2nd year onwards	80%

..”

The same has been considered for determination of Tariff.

**k) Plant Life**

As per Clause 2 (hh) of CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, useful life of Municipal Solid Waste based power project/ Refuse derived fuel based power project is 20 years. The same is being considered.

**l) Fuel Cost**

Petitioner has submitted that MCD has offered / nominated to supply additional 1000 TPD of Municipal Solid Waste (MSW) for processing at the Petitioner’ Plant and therefore considered fuel cost as nil. Further, as per Clause 66 of CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, no Fuel Cost shall be considered for the determination of tariffs for RDF power projects. The same has been considered.

28. Summary of the financial parameters is as follows:

Particulars	Considered by TOWMCL	As per CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024*	As per Commission
Capital Cost	INR 361.81 Crore (INR 21.28 Crore/MW)	INR 374 Crore (INR 22 Crore/MW)	INR 361.81 Crore (INR 21.28 Crore/MW)
Debt: Equity Ratio	70:30	70:30	70:30
Interest on Loan	10.50%	10.65%	10.50%
O&M Expenses	6%	8.5%	6%
Depreciation for first 15 years	4.67%	4.67%	4.67%
Interest on Working Capital	11.00%	12.15%	11.00%
Return on Equity	16.96%	16.96%	16.96%
Plant Life	25 years	20 years	20 years

Note: \* for new RDF based MSW power project

29. In view of above, the Commission observes and allows the following:

- a) Financial parameters considered for computation of tariff as summarized in para 28 of this Order;
- b) The provisional levelized tariff of Rs. 8.19/kWh considered for the Project and the same will be trued-up based on the actual cost incurred on the Project and applicable regulations at the time of commissioning of the Project;
- c) TOWMCL is directed to approach MNRE/GoNCTD for providing VGF funding or any other financial support so as to reduce the Capital cost of the Project and also to pass on consequential impact to the consumers;
- d) The Petitioner shall resort to Competitive Bidding Process for award of major Equipment/Works /Services and shall approach the Commission at least three months prior to the commissioning of the project for finalisation of final capital cost and tariff thereof;
- e) With respect prayer (d) regarding allocation of Power from the Project among the DISCOMs, it is directed that the power from the project is provisionally allocated in the ratio of Sanctioned Load of DISCOMs as in FY 2023-24, which is as follows:

<b>Distribution Licensee</b>	<b>Sanctioned Load in FY 2023-24 (MW)</b>	<b>% age</b>	<b>MW allocation from 17 MW project</b>
BRPL	10318	44.01%	7.48
BYPL	5437	23.19%	3.94
TPDDL	6797	28.99%	4.93
NDMC	893	3.81%	0.65

However, final allocation may be revised based on the Sanctioned Load of the DISCOMs at the time of commissioning of Project.

- f) The Petitioner to negotiate the terms of PPA with the DISCOMs and the same shall be considered separately for approval on filing of the Petition by the DISCOMs.
- g) The above is subject to the outcome of Supreme Court Civil Appeal No. 13120 of 2017 titled as "Ravinder Chanana & Ors vs. The State of Delhi in view of the Hon'ble Supreme Court Order dated 05.04.2023.

30. Ordered Accordingly.

**Sd/-**  
**(Justice (Retd.) Jayant Nath)**  
**Chairperson**