

TAMIL NADU ELECTRICITY REGULATORY COMMISSION
(Constituted under section 82 (1) of the Electricity Act, 2003)
(Central Act 36 of 2003)

PRESENT:-

Thiru S.Akshayakumar	Chairman
Thiru G.Rajagopal	Member
and		
Dr.T.Prabhakara Rao	Member

P.P.A.P.No.4 of 2017

Pallavapuram Tambaram MSW Private Limited
(PTMPL)
Regd. Office: B-10, Essel House
Industrial Area
Lawrence Road
New Delhi – 110 035.

... Petitioner
(Thiru Kiran Kumar,
Party-in-Person)

Vs.

1. Tamil Nadu Generation and Distribution Company
(TANGEDCO)
NPKRR Maaligai,
144, Anna Salai, Chennai – 600 02.
2. Tamil Nadu Transmission Corporation Ltd.
(TANTRANSCO)
144, Anna Salai, Chennai – 600 002.
3. TNEB Limited
144, Anna Salai, Chennai – 600 002.
4. Pallavapuram Municipality
3rd Main Road, New Colony
Chromepet, Tamil Nadu.
5. Tambaram Municipality
Nagapattinam-Chennai Hwy, West Tambaram
Tambaram, Chennai, Tamil Nadu.
6. SLDC, Tamil Nadu
246, EVN Road, Erode, Tamil Nadu.

... Respondents

Date of hearing: 02-06-2017

Date of Order: 02-06-2017

The P.P.A.P.No.4 of 2017 came up for final hearing on 02-06-2017. The Commission upon perusal of the Petition and connected records and after hearing the submissions of the Petitioner hereby makes the following:

ORDER

1. Prayer of the Petitioner in P.P.A.P.No.4 of 2017:-

The prayer of the Petitioner in the above P.P.A.P.No.4 of 2017 is to-

- (i) Take the accompanying Tariff Petition for approval of power purchase from the 4.50 MW RDF based WtE plant of PTMPL on record and treat it as complete;
- (ii) approve the tariff of Rs.9.96/kWh for first year of operation of the plant including levelised fixed cost of Rs.6.46/kWh and variable cost (for first year of operation) of Rs.3.51/kWh in accordance with the tariff structure adopted by the Hon'ble CERC;
- (iii) grant exemption from Merit Order Dispatch Principles for the project.
- (iv) direct DISCOMs to consider the benefit of zero contract demand charges.
- (v) direct the DISCOMs to consider energy which may be drawn during shut down or start up after the CoD of the project be set off against the energy injected into the grid by the project.
- (vi) grant waiver on Cross Subsidy Surcharge on sale of power from the project in case of sale of power directly to third party.
- (vii) Condone any inadvertent omissions /errors / shortcomings and permit the Petitioner to add / change / modify / alter portion(s) of this filing and make further submissions as may be required at a later stage; and

(viii) pass such an order as the Hon'ble Commission deems fit and proper as per the facts and circumstances of the case.

2. Contentions of the Petitioner in P.P.A.P.No.4 of 2017:-

3.1. Pallavapuram Tambaram MSW Private Limited (PTMPL) is promoted by Essel Infraprojects Limited (EIL), having more than 9 years of EXISTENCE IN Infrastructure Industry. The group ventured in Infrastructure space in 2007 with an entry into the surface transport segment and today has presence in transport (roads), power transmission and distribution, urban infrastructure, environment engineering (municipal solid waste), renewable energy (solar & hydro), integrated utilities (power, water, solid waste management and cable & broadband).

3.2. Considering the growing need for waste management, the Pallavapuram and Tambaram Municipalities at Vengadamangalam decided to set up an integrated facility for conversion of un-segregated MSW to energy under PPP mode, on DBOT Basis.

3.3. For successful execution of project, 50 acre land has been purchased jointly by Pallavapuram and Tambaram Municipalities for waste processing and scientific disposal of MSW at Vengadamangalam village, Tambaram Taluk in Chengalpat district. Out of this 25 acres of land has been allotted to PTMPL for setting up integrated Waste to Energy plant. The site is located in the south-eastern direction at the distance of around 15 km. from Tambaram and around 21 Km from Pallavapuram. The Urban Local Bodies (ULBs) have also obtained No Objection

Certificate (NOC) from Indian Air Force PTMPL shall be applying for Consent to Establish under Water and Air Act from Pollution Control Board.

3.4. The Municipalities invited proposals from the private sector after floating the Request for Proposal vide No.ROC 5527/08-EI Call-2 dated 07/08/2012. PTMPL was awarded the Letter of Acceptance (LOA) vide No.ROC 5527.2008.E1, dated 30-11-2012 for developing an integrated MSW Processing facility and a Concession Agreement was executed on 18/01/2013 for implementation of Integrated Municipal Solid Waste Processing and Disposal Facility for Pallavapuram, Tambaram Municipalities with common facilities at Vengadamangalam on Design, Built, Operate and Transfer (DBOT) basis in PPP mode. The Petitioner provided a bank guarantee of Rs.2,00,00,000/- (Rupees Two Crores) to the Municipalities .

3.5. The unprocessed MSW emissions from open burning of MSW, leachate generation from MSW, and exposure of humans (particularly rag pickers that include women and children) to MSW, and spread of diseases from exposure to MSW has negative impact on public health, environmental, and society as a whole. The pollutants are potential sources of respiratory problems and spread of diseases like dengue.

3.6. The Petitioner has decided to set up incineration technology based Waste to Energy (WtE) power project to continuously process and dispose Refuse Derived Fuel (RDF) while generating 4.50 MW (Gross) of renewable power at its processing plant in Pallavapuram in the State of Tamil Nadu.

3.7. The Petitioner intends to use highly proven and dependable Incineration-based Zonta-Michaelis' Moved Bed Incinerator Technology which provides the cleanest and most efficient capability for managing waste processing and creating sustainable green energy. The primary advantages of the Zonta- Michaelis' technology include (i) soot free incineration (ii) destruction of all fractions and smell (iii) low energy consumption (iv) high environment standard.

3.8. As per Clause 9 of the Request for Proposal (RFP) issued by the Commissioner of Pallavaram Municipality, the PMC shall supply about 200 MTPD Municipal Solid Waste (MSW) to treatment facility. As per census 2011, waste generation per day was 173 TPD in Pallavapuram. The Petitioner would need to extend its service to neighbouring Urban Local Bodies (ULBs) with same scope of work in Pallavapuram and Tambaram Municipalities and procure additional 95 tonnes per day of un-segregated Municipal Solid Waste. Thus, the annual contracted quantity of waste (un-segregated MSW) would be 268 tonnes per day (173+95).

3.9. The technology intended to be used by the Petitioner is available for a minimum waste processing of 300 tonnes per day. Moreover, waste generation estimation of 268 tonnes per day is based on census 2011. The Petitioner believes that owing to the increased economic activity in and around the region, the quantum of waste generation may have also increased over the years/ expected to increase in the coming years. Accordingly, it is prudent to design the plant capacity capable of processing 300 tonnes per day un-segregated waste (MSW) which besides processing the contracted capacity of 268 tonnes per day on a daily basis shall also enable to handle annual increment in waste generation.

3.10. The proposed project is a "non-fossil fuel" based processing plant, and thus is a "Green Energy" initiative. The process uses Refuse Derived Fuel as a source of power and thus it is a Renewable Energy as per MNRE guidelines. Since the processing plant is based on RDF, the technology involved and the operational parameters are different from the other renewable energy plants as biomass based power generation plants. Also, unlike Biomass, no mixing of fossil fuel mixing is envisaged in this project.

3.11. The Hon'ble CERC has recognized these projects in its regulations as Renewable Energy Sources. As per clause 2 (v) of the CERC (Terms and Conditions for Tariff determination from renewable energy sources) Regulations, 2012 "Renewable energy sources" means renewable sources such as small hydro, wind, solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and other such sources as approved by MNRE.

3.12. The Commission has also recognized such Waste to Energy projects in its regulations as Renewable Sources. As per clause 2.1 (p) of the TNERC (The Power Procurement from New and Renewable Sources of Energy) Regulations, 2008.

"New and Renewable Sources" mean the non-conventional, renewable electricity generating sources such as mini / micro hydel, wind, solar, biomass and bagasse based co-generation. urban / municipal waste, or such other sources, as approved by the Government of India or Government of Tamil Nadu which are generally inexhaustible and can be replenished in a short period of time."

3.13. Section 86 (1) (e) of the Electricity Act, 2003 (EA 2003) empowers the State Electricity Regulatory Commissions to 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. The Regulatory Commissions are also required to specify, for the purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a Distribution Licensee.

3.14. Moreover, in the State of Tamil Nadu, the Commission issues year-wise RPO targets as summarized below, which obligates all the regulated entities, to procure Renewable Power from the renewable energy sources.

RPO Obligation in Tamil Nadu

Year-wise target	RPO Target (% of total energy purchased)		
	Solar	Non-solar	Total
FY 2015-16	0.5	9.0	9.5
FY 2016-17	2.5	9.0	11.5
FY 2017-18	5.0	9.0	14.0

3.15. The Ministry of Power vide its order dated 22-07-2016 notified long term RPO growth trajectory which is uniformly applicable for all States / Union Territories as specified below:-

Uniform RPO trajectory as notified by Ministry of Power

Year-wise target	RPO Target (% of total energy purchased)		
	Solar	Non-solar	Total
FY 2016-17	2.75	8.75	11.50
FY 2017-18	4.75	9.50	14.25
FY 2018-19	6.75	10.25	17.00

3.16. The RPO is set to increase steeply in coming years. The power generated from the proposed plant would help the obligated entities (Distribution Licensees or captive consumers) to meet the required RPO under the 'Non-Solar' category under Renewable Power Obligation (RPO) framework at tariff approved by the Commission.

3.17. The recent National Tariff Policy 2016, in clause 6.4 (1) mandates distribution companies to procure 100% of the power generated from Waste-to-Energy projects as mentioned below:-

"(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"

3.18. It is intended to sell power generated from the said project, to the Distribution Licensee in the State of Tamil Nadu.

3.19. Pursuant to the enactment of the Electricity Act, 2003, a generating company intending to sell power (including Renewable energy) to the Distribution Licensee is required to file an application for the determination of tariff to the appropriate Commission. As the Petitioner intends to sell power to the distribution utility of Tamil Nadu, the appropriate Commission in this case is the Tamil Nadu Electricity Regulatory Commission ("TNERC" or "Commission"). As per clause 7 of the said

regulations of CERC, the Commission shall determine project specific tariff, on case to case basis, for Municipal Solid Waste (MSW) projects.

3.20. The Hon'ble CERC, in the Draft Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2017, has not specified any generic norms for capital cost and O&M cost for waste to energy projects. On the contrary, it has proposed that norms for parameters such as capital cost and O&M cost of MSW and RDF based waste to energy projects shall be determined on project-to-project basis.

3.21. Further, over the past 4-5 years, the micro as well as macro-economic environment has witnessed a tectonic shift which has also been experienced in developing similar waste to energy plants in other parts of the country. Thus, it is imperative that with the evolution in technology and key cost drivers, the norms as well as financial parameters such as capital cost, O&M cost, auxiliary consumption, plant load factor etc. are considered on the project specific basis for such projects.

3.22. As per the provisions of the Tamil Nadu Electricity Regulatory Commission (Power Procurement from New and Renewable Sources of Energy) Regulations, 2008, the Commission shall follow the process mentioned below for the determination of tariff for the power from new and renewable sources based generators, namely;-

- (a) Initiating the process of fixing the tariff either suo-motu or on an application filed by the distribution licensee or by the generator
- (b) Inviting public response on the suo-motu proceedings or on the

application filed by the distribution licensee or by the generator.

- (c) < omitted >
- (d) issuing general/specific tariff order for purchase of power from new and renewable sources based generators.

3.23. TNERC has also, on 28.03.17, issued a Generic Tariff Order applicable for Municipal Solid Waste based Waste to Energy projects to be commissioned in the State of Tamil Nadu for a period of two years from 1st April, 2017. However, the norms for Refused Derived Fuel based Waste to Energy projects have not been stipulated in the above referenced Tariff Order.

3.24. The Hon'ble CERC, vide its notification dated 7th October, 2015, has determined single part tariff with two components viz. fixed cost levellised over the useful life of the project (20 years) and the variable cost for first year of operation of the project only i.e. FY 2015-16 with an escalation factor for each year of the life of the project. Accordingly, the CERC has determined a tariff of Rs.7.90/ kWh applicable for FY 2015-16 (i.e. levellised fixed cost of Rs.4.34/unit and variable cost FY 2015-16 of Rs.3.56/unit) for RDF based waste to energy projects.

3.25. The Hon'ble UPERC has also determined a tariff of Rs.7.50/kWh for Waste to energy projects in Uttar Pradesh. Further, it has approved additional incentive of Rs.0.50/kWh for better performing projects. The Hon'ble Karnataka Electricity Regulatory Commission appointed The Energy and Resources Institute (TERI), in September 2015, to prepare a concept note on "Power Generation of Municipal Solid

Waste". In its report, it was suggested that levelled tariff for Waste to Energy project based on incineration technology should be Rs.10.32 per kWh.

3.26. To honour the obligations under the Concession Agreement executed with the municipalities and in the interest of time, the Petition is being filed for determination of tariff for the project in the State of Tamil Nadu.

4. Findings of the Commission:-

4.1. The Petitioner has filed this petition in P.P.A.P.No.4 of 2017 mainly with the following prayers namely:-

- (i) to take the accompanying Tariff Petition for approval of power purchase from the 4.50 MW RDF based to energy plant of Pallavapuram Tambaram MSW Private Limited (PTMSW) on record and treat it as complete; and
- (ii) to approve the tariff of Rs.9.96/kWh for first year of operation of the plant including levelled fixed cost of Rs.6.46/kWh and variable cost (for first year of operation) of Rs.3.51/kWh in accordance with the tariff structure adopted by the Hon'ble CERC;

The other prayers are incidental to the above two prayers. The main issue before us is to decide whether the prayer of the Petitioner for fixing a separate project specific tariff for the Petitioner's plant could be considered as per the tariff structure adopted by the Hon'ble CERC.

4.2. Under section 86(1) (e) of the Electricity Act, 2003 (Central Act 36 of 2003), the State Electricity Regulatory Commissions are *inter alia* mandated to promote cogeneration and generation of electricity from renewable sources of electricity by

providing suitable measures for connectivity with the grid and sale of electricity to any person. Further, section 62 of the said Act empowers the Commission to determine the tariff for the supply of electricity by a generating company to a Distribution Licensee. In this case, the Petitioner has intended to sell the entire energy generated from its plant to the Distribution Licensee. Hence, the Commission has to fix the rate at which the electricity generated by the Petitioner plant has to be sold to the Distribution Licensee.

4.3. Undoubtedly, the energy generated by the Petitioner plant is a renewable energy. The power procurement from New and Renewable Sources of Energy Regulations, 2008 made by the Commission specifies the method and procedure for determination of tariff for the power from New and Renewable Sources based generators. In this connection, it may be stated that the Commission has issued comprehensive tariff order for Municipal Solid Waste (MSW) based power plants in Order No.3 of 2017 dated 28-03-2017. The said order has been issued by the Commission after taking into account the stipulations in the National Electricity Policy and the Tariff Policy of the Central Government and following the procedures specified in the New and Renewable Sources of Energy Regulations, 2008 mentioned above. The Commission while issuing the said order has examined the comments of the stakeholders and also considered the views of the State Advisory Committee meeting which was held on 20-03-2017. The orders issued by the Commission in the said order dated 28-03-2017 is applicable to the power generated by the Petitioner's power plant, also.

The said order takes effect and on and from the 1st April 2017 and will remain in

force for a period of two years from 01-04-2017 and the tariff period is 20 years.

Clause 6 and 7 of the order issued by the Commission in this regard is reproduced below:-

“6.0 Applicability of this Order:

6.1 This Order shall come into force from 01-04-2017. The tariff fixed in this Order shall be applicable to all Municipal Solid Waste (MSW) based power generating plants in the State of Tamil Nadu commissioned during the Control Period of this Order for sale of electricity to the distribution licensee.

6.2 This will apply to all MSW based power projects irrespective of the technology therein.

6.3 The open access charges and other terms and conditions specified in this Order shall be applicable to all the municipal solid waste projects irrespective of their date of commissioning.

6.4 In exercise of powers vested under Section 86(1)(a), (b) and (c) read with (e) and Section 62 (1) of the Electricity Act, 2003 and all other powers enabling it in this behalf, the Tamil Nadu Electricity Regulatory Commission determines the tariff and related dispensation for the purchase of power by the Distribution Licensees from municipal solid waste based power generating plants in the State.

7.0 Tariff Review Period/Control Period

7.1 Regulation 6 of the Power Procurement from New and Renewable Sources of Energy Regulations, 2008 of the Commission specifies that “The tariff as determined by the Commission shall remain in force for such period as specified by the Commission in such tariff orders and the control period may ordinarily be two years”

7.1.2. The Commission decides that the control period of this Order shall be two years from 01-04-2017 and the Tariff period is twenty years.”

4.4. The Petitioner mainly relies upon the provisions of the Regulations of the Central Electricity Regulatory Commission is for seeking a higher tariff in respect of the power generated by its power plant. It may be stated that a regulation issued by the CERC will be a guidance for the State Commission and it will not bind the State Commission and especially when there is a specific order issued by the State Commission in the matter, the orders issued by the State Commission alone will

prevail and the Petitioner cannot seek higher tariff claiming the same based on the provisions of the CERC Regulations. Nevertheless, the said order has been issued by the Commission after considering the provision of CERC draft regulation on the subject and the various tariff components fixed by other Commissions.

4.5. Further, the Petitioner intends to sell the power generated from the project to the Distribution Licensee in the State of Tamil Nadu. Inasmuch as the Commission has already issued a generic order fixing the tariff for procurement of power from the Municipal Solid Waste based power plants for procurement of power by the Distribution Licensee, the Commission cannot again issue a project specific tariff order and also compel the Distribution Licensee to purchase the same at a higher cost as claimed by the Petitioner. Therefore, we are unable to accede to the prayer of the Petitioner for fixation of project specific tariff for its power plants based on Municipal Solid Waste and also to approve the power purchase from 4.50 MW produced from their Municipal Solid Waste treatment plant by the Distribution Licensee. In view of the above findings, we are not examining other prayers put forth by the Petitioner. Accordingly the petition is not admitted.

5. Appeal:-

An appeal against this order shall lie before the Appellate Tribunal for Electricity under section 111 of the Electricity Act, 2003 within a period of 45 days from the date of receipt of a copy of this order by the aggrieved person.

(Sd)
(Dr.T.Prabhakara Rao)
Member

(Sd.....)
(G.Rajagopal)
Member

(Sd.....)
(S.Akshayakumar)
Chairman

/ True Copy /

Secretary
Tamil Nadu Electricity
Regulatory Commission