

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

M.P.No.30 of 2016

Tamil Nadu Generation and Distribution Corporation Limited
Represented by Chief Engineer / Private Power Projects
144, Anna Salai, Chennai – 600 002.

... Petitioner
(Thiru M.Gopinathan,
Standing Counsel for TANGEDCO)

Vs.

Nil

... Respondent

Date of hearing: 09-12-2016

Date of Order: 29-12-2016

The M.P.No.30 of 2016 came up for final hearing on 09-12-2016. The Commission upon perusal of the Petition and after hearing the submissions of the Petitioner hereby makes the following:

ORDER

1. Prayer of the Petitioner in M.P.No.30 of 2016:

The prayer of the Petitioner in the above M.P.No.30 of 2016 is to grant permission to TANGEDCO for procurement of 500 MW solar power from the solar power developers through reverse bidding process with Rs.4.50 per unit arrived through bidding process against tender specification CE/NCES/OT.No.1/2016-17, as upper limit and to approve the tender specification evolved by the TANGEDCO in line with the draft guidelines for the grid connected solar PV power plants issued by the Central Government.

2. Facts of the Case:-

The Petitioner is filing this petition as per the draft guidelines issued by MNRE, Government of India for Tariff Based Competitive Bidding process for Grid Connected Solar PV Power Projects order dated 22-03-2016 seeking the approval of the Commission for procurement of 500 MW Solar Power through reverse bidding process with Rs.4.50 per unit as upper limit.

3. Contentions of the Petitioner in M.P.No.30 of 2016:-

3.1. The Tamil Nadu State Solar Energy Policy – 2012 had been announced on 20-10-2012. In the policy, it was proposed to establish solar PV power plants for a capacity of 3000 MW by the end of 2015 through Utility Scale Projects, Roof tops and REC Mechanism. In furtherance of the said policy, TANGEDCO floated tender for the procurement of 1000 MW of Solar Power. Letter of Intent was issued to 52 Nos. developers for the establishment of solar power plants for a combined capacity of 708 MW and a petition seeking approval of the Commission had been filed by TANGEDCO in P.P.A.P.No.1 of 2014.

3.2. The Commission vide order dated 15-09-2014 in I.A.No.1 of 2014 and P.P.A.P.No.1 of 2014 has dismissed the said petition on the ground that the prerequisite of transparent bidding process is not in accordance with the guidelines issued by the Central Government.

3.3. In the meantime, the Commission issued Comprehensive Tariff order on Solar Power vide Order No.7 of 2014 dated 12-09-2014, fixing the following tariff for procurement of power generated from Solar Photo Voltaic (SPV) plants under preferential tariff scheme:-

- (a) Rs.7.01 per unit without Accelerated Depreciation (AD) benefit.
- (b) Rs.6.28 per unit with AD benefit.

The above tariffs were made applicable for the plants commissioned upto 31-03-2016.

3.4. The Order No.7 of 2014 was implemented by the TANGEDCO under preferential tariff scheme and 86 developers for a combined total capacity of 1484 MW have entered into Energy Purchase Agreement with TANGEDCO. Out of which, 74 power plants to a combined total capacity of 1332 MW have been commissioned.

3.5. The Commission, vide its Notification dated 07-03-2016 has issued following amendment to the Renewable Energy Purchase Obligation Regulation, 2010:-

“(1) Every obligated entity shall purchase not less than defined minimum percentage of its consumption of energy from renewable energy sources under the Renewable Purchase Obligation (RPO) during a year as specified below:-

(1A) The following percentage of Renewable Purchase Obligation is fixed:

Sl. No.	Year	Minimum quantum of total renewable purchase obligation in percentage (in terms of energy in KWh)	Minimum quantum of solar renewable purchase obligation in percentage out of the total renewable purchase obligation mentioned in Column (3) (in terms of Energy in KWh)
(1)	(2)	(3)	(4)
1.	2015-16	9.50 %	0.50%
2.	2016-17	11.50 %	2.50%
3	2017-18	14.00 %	5.00%

The Renewable Purchase Obligations as specified for the year 2011-12 in sub-regulation (1) shall be applicable for the years 2012-13, 2013-14 and 2014-15 to the distribution licensee”.

3.6. In compliance with the above said RPO, the required capacity of the solar power plant as on date is as follows:-

Sl. No.	Year	Solar RPO Target	Total electricity units sold and expected to be sold to different category of consumers	Electricity units to be procured in proportionate to solar RPO	Total capacity of solar power generation required to meet out solar RPO	Expected capacity of solar power generation to be available	Capacity of solar power generation required to be added
1	2015-16	0.5%	95050 MU	475 MU			
2	2016-17	2.5%	99802 MU	2495 MU	1560 MW	Capacity as on date : 1358 MW	
3	2017-18	5%	104792 MU	5240 MU	3275 MW	1600 MW	1675 MW

There is short fall of 1675 MW in meeting out solar RPO of 5% for the year 2017-18.

3.7. M/s.NLC has executed PPA with TANGEDCO for the establishment of 130 MW solar power plant for selling the power to TANGEDCO under preferential tariff scheme at the tariff of Rs.5.10 per unit and they have executed another PPA with TANGEDCO for the establishment of 500 MW solar power plant for selling the power to TANGEDCO at the tariff of Rs.4.56 per unit, fixed by the Commission in its Order No.2 dated 28-03-2016. M/s.NHPC Limited has also executed PPA with TANGEDCO for the establishment of 50 MW solar power plant under preferential tariff scheme at the tariff of Rs.4.56 per unit fixed by the Commission in its Order No.2 dated 28-03-2016. Considering the above said upcoming projects, TANGEDCO requires approximately 995 MW (1675 MW – 680 MW) to meet its RPO requirement for the year 2017-18.

3.8. Meanwhile, the Commission has issued preferential tariff order vide Order No.2 of 2016 dated 28-03-2016 fixing tariff of Rs.5.10 per unit which is applicable for the solar projects commissioned on or after 01-04-2016.

3.9. In order to meet RPO targets, TANGEDCO has filed a petition in M.P.No.13 of 2016 before the Commission seeking permission for procurement upto 500 MW of solar power from the private developers through reverse bidding process with a bench mark rate of Rs.5.10 as fixed by the Commission in Order No.2 dated 28-03-2016 and to approve the tender specification evolved by the TANGEDCO in line with the draft guidelines issued by the Central Government and the Commission has accorded approval for the procurement of 500 MW of solar power under reverse bidding process through e-bidding and accords in principle approval for the draft tender document and draft PPA vide order dated 29-08-2016.

3.10. Further, the Commission in its order dated 29-08-2016 has issued the following directions to TANGEDCO:-

- (i) TANGEDCO shall publish the notice inviting tender in atleast two daily newspapers, in English and Tamil, having wide circulation and host in the website. Clarifications / revised bidding documents shall be uploaded in TANGEDCO's website after the pre bid meeting and minimum 15 days time granted for submission of bids. Model Power Purchase Agreement may also be amended based on inputs received from the parties and uploaded in TANGEDCO's website.
- (ii) Bidding shall be conducted in a transparent manner. Evaluation of the bids shall be undertaken with a proper committee in place before the bidding process.

- (iii) Notwithstanding the above, if the number of qualified bidders is less than two, the Petitioner shall seek approval from the Commission to continue with the bidding process.

The Commission further directs that TANGEDCO shall seek approval for procurement of solar power on the basis of tariffs determined in the bidding process.

3.11. Based on the approval of the Commission, tender has been floated for the procurement of 500 MW of solar power through e-bidding on 20-10-2016. TANGEDCO has convened pre bid meeting with the bidders on 03-11-2016. The techno commercial bids and price bids were opened on 18-11-2016 and 25-11-2016 respectively. 20 bidders participated in the e-tender for the establishment of solar power plants in Tamil Nadu for a combined capacity of 122 MW. Out of the 20 bidders, 2 bidders namely M/s.GRT & Sons and M/s.GRT Firm have quoted the lowest rate of Rs.4.50 per unit in respect of their proposed solar power plant of 10 MW each, against solar tender specification CE/NCES/OT.No.1/2016-17. The rate offered by the eligible bidders is more competitive and accepted by the TANGEDCO.

3.12. Out of the 500 MW capacity, only 20 MW capacity of solar power plants has been finalized in respect of tender specification of CE/NCES/OT.No.1/2016-17. Hence, TANGEDCO has proposed to float another tender of 500 MW capacity through reverse bidding process (e-bidding). To meet solar RPO of 5% for the year 2017-18 as fixed by the Commission and to avoid purchase of solar certificate in power exchange in case of failure of compliance of solar RPO, TANGEDCO is required to procure solar power of 500 MW from the solar power developers at a tariff other than average pooled cost.

3.13. In the State Advisory Committee Meeting held on 17-03-2016 where the issues relating to tariff fixation and wheeling in respect of renewable energy sources of power such as wind, solar, biomass and bagasse based co-generation plants, were discussed, wherein from TANGEDCO it was suggested that it may be appropriate to procure solar power through bidding route with a tariff to be fixed by the Commission as benchmark so that TANGEDCO could get power at lesser tariff. TANGEDCO therefore seeks permission for procurement of 500 MW solar power from the solar power developed through reverse bidding process with Rs.4.50 per unit arrived against Tender Specification CE/NCES/OT No.1/2016-17 as upper limit.

4. Findings of the Commission:-

4.1. This petition has been filed under section 86(1)(b) of the Electricity Act,2003, (Central Act 36 of 2003) seeking permission for procurement of 500 MW solar power by TANGEDCO from private developers through reverse bidding route by fixing the tariff of Rs.4.50 as upper limit which was arrived through reverse bidding process against tender specification CE/NCES/OT.No.1/2016-17 and to approve the tender specification evolved by the TANGEDCO in line with the draft guidelines for Tariff Based Competitive Bidding Process for Grid Connected Solar PV issued by the Ministry of New and Renewable Sources of Energy (MNRE), Government of India.

4.2. Having contracted the capacity of solar power required to meet the Renewable Purchase Obligation (RPO) for the years 2015-16 and 2016-17, the petitioner, TANGEDCO has submitted that there is a shortfall in solar power to the tune of 995 MW in meeting out the 5% solar purchase obligation fixed for the year 2017-18 at a projected consumption of 104792 MU for that year. TANGEDCO intends to purchase solar power for a capacity of 500 MW through the process of competitive

bidding like in other States that have adopted bidding route for procurement of solar power to comply with the RPO. TANGEDCO's proposal to procure power through reverse bidding is in accordance with their suggestion in the State Advisory Committee meeting held on 17.03.2016 for discussion on tariff related issues for renewable sources of power, that it would be appropriate to procure solar power through competitive bidding with the tariff to be fixed by the Commission serving as the benchmark so that the utility could get power at lesser tariff.

4.3. TANGEDCO had earlier floated tender for procurement of 500 MW of solar power tender in Solar Specification CE/NCES/OT No.1/2016-17 and out of 20 bidders namely M/s.GRT & Sons and M/s.GRT Firm have quoted the lowest rate of Rs.4.50 per unit in respect of their proposed solar power plant of 10 MW each. This is the rate that TANGEDCO has desired to fix as the upper limit to proceed with the reverse bidding for procurement of solar power for a capacity of 500 MW adopting the draft guidelines issued by the Ministry of New and Renewable Energy, Government of India, for Tariff Based Competitive Bidding Process for Grid Connected Solar PV Power Projects dated 22.03.2016.

4.4. Before going into the aspect of according approval for procurement of solar power through the reverse bidding route, the provisions in the Tamil Nadu Solar Energy Policy, 2012, the provisions in the draft guidelines issued by MNRE and the Commission's Regulations on Power Procurement/orders needs to be reviewed :-

4.4.1 It is observed that the draft Guidelines issued by MNRE for Tariff Based Competitive Bidding Process for Grid Connected Solar PV projects are under section 63 of the Electricity Act, 2003.

4.4.2 Para 7.4 of MNRE's draft guidelines on 'Bidding process' says that 'intimation shall be sent by the Procurer to the appropriate Regulatory Commission about initiation of the bidding process'.

4.4.3 Further as per para 9 of MNRE draft guidelines, deviation from the guidelines shall be only with the prior approval of MNRE.

4.4.4 As to the position on reverse bidding, MNRE's draft guidelines permit reverse bidding on benchmark VGF tariff or discounted tariff. Bidders can submit their bids by offering discount in tariff fixed by the procurer.

4.4.5 Regulation 4(3) of Commission's Power Procurement from New and Renewable Sources of Energy Regulations, 2008 is extracted below:

*"4(3) The Commission shall, by a general or specific order, determine the tariff for the purchase of power from each kind of new and renewable sources based generators by the distribution licensee.
Provided where the tariff has been determined by following transparent process of bidding in accordance with the guidelines issued by the Central Government, as provided under section 63 of the Act, the Commission shall adopt such tariff."*

4.4.6 Para 11.1.1 of the Commission's Order No.2 of 2016 dated 28.03.2016 says that it is open to the distribution licensee to procure solar power through competitive bidding route following the guidelines of Government of India if it can realize a more competitive rate than the one determined by the Commission and that for any procurement of solar power in excess of the solar RPO fixed by the Commission, the distribution licensee has to obtain specific approval from the Commission.

4.5. The actual consumption of energy in the licensee's area shall be known at the time of filing of the Annual Revenue Requirement. However, they have shown a

projected consumption for the year 2017-18 as 104792 MU. Therefore, the present prayer for the procurement of 500 MW is considered to be justifiable.

4.6. The MNRE's draft guidelines make it clear that an intimation to the Commission is adequate on the initiation of the bidding process for procurement of solar power by the procurer.

4.7. While so, the petitioner has filed this petition seeking approval of the Commission under section 86(1)(b) of the Electricity Act, 2003. Section 86(1)(b) of the Electricity Act, 2003 empowers the Commission to 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.

4.8. The Commission, under Section 86 (1) (e) of the Electricity Act, 2003 is mandated to promote generation of electricity from renewable sources of energy. The Tariff Policy 2016 emphasizes purchase of solar energy such that it reaches 8% of the total consumption of energy, excluding Hydro power, by March 2022. The Ministry of New and Renewable Sources of Energy, Government of India in letter dated 10.07.2015 has fixed a Solar RPO target of 8% to be achieved by 2019 requiring the Distribution companies to absorb additional solar power.

4.9. The approval sought by TANGEDCO for procurement of solar power for a quantum of 500 MW is to meet the solar renewable purchase obligation. The reverse bidding process with a ceiling price at the preferential tariff rate of Rs.4.50 per unit

may fetch power at optimum prices and is a better option for the licensee. In view of the above, the proposal of TANGEDCO to procure solar power through reverse bidding by fixing Rs.4.50 per unit which was arrived through reverse bidding process against Tender Specification CE/NCES/OT No.1/2016-17, as the upper limit, to meet the solar renewable purchase obligation is acceptable. The Commission therefore approves the solar power purchase for a quantum of 500 MW which shall be the upper limit and the petitioner is at liberty to restrict the purchase below the specified limit after a prudence check with respect to the energy consumption and reduction of energy generated from hydro sources.

4.10. As to the approval sought for the tender document evolved by TANGEDCO in line with the guidelines of MNRE, it may be observed that the guidelines of MNRE for Tariff Based Competitive Bidding for Grid Connected Solar PV power projects framed under section 63 are still at the draft stage, and the approval is for reverse bidding at tariff being a tariff of Rs.4.50 per unit as the upper limit which is less than the generic tariff fixed by the Commission. The Commission has already approved the tender document submitted by the Petitioner, for procurement of solar power 500 MW through reverse bidding fixing Rs.5.10 per unit as the upper limit subject to certain charges and directions while issuing orders in M.P.No.13 of 2016 dated 29-08-2016. It is observed that the bid document submitted with this petition contains certain modifications relating to reduction in payment of EMD relaxation in fixing the financial criteria etc. It is viewed that the modifications made are for the purpose of attracting maximum number of bidders. The above orders will equally apply to this case also. The Petitioner may ensure that the tender document to be issued in this case is generally in line with the tender document already approved by

the Commission in its order dated 29-08-2016 with such modifications as considered necessary to obtain competitive bid.

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