

TAMIL NADU ELECTRICITY REGULATORY COMMISSION

Order of the Commission dated this the 25th Day of April 2023

PRESENT:

ThiruM.Chandrasekar	Chairman
ThiruK.Venkatesan	Member
	and	
ThiruB.Mohan	Member (Legal)

M.P. No.11 of 2023

Tamil Nadu Generation and Distribution
Corporation Limited
Represented by the Chief Engineer /
Non-Conventional Energy Sources
144, Anna Salai
Chennai – 600 002.

... Petitioner
ThiruN.Kumanan and
ThiruA.P.Venkatachalapathy,
Standing Counsel for TANGEDCO

This Miscellaneous Petition stands preferred by the Petitioner TANGEDCO
with a prayer to pass an order for the following:

To in-principally approve the working procedure as stated in 9.2
above for the Implementation of Green Energy Tariff and issuance
of "Green energy Certificate" (GEC) by TANGEDCO for the HT
Consumers who wish to avail "Green Energy Certificate".

This petition coming up for hearing on 11-04-2023 in the presence of Tvl. N.Kumanan and A.P.Venkatachalapathy, Standing Counsel for the Petitioner and on consideration of the submission made by the Counsel for the Petitioner, this Commission passes the following:

ORDER

1. Contentions of the Petitioner:-

1.1. The Government of India has executed, "Paris Agreement COP 26" wherein the country has committed to reduce the emissions intensity of its GDP by 45% by 2030 from 2005 levels and achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030. With this commitment, the Government of India has set a target of 100 GW of Solar power, 60 GW of Wind power, 10 GW from bio-power and 5 GW from small Hydro power.

1.2. The Commission in its Order No.07 of 2022 in T.P.No.1 of 2022 dated 09.09.2022 has stated that

"the new tariff clause 8.1.1.13 of this Petition for supply under HT Tariff I, II, III of renewable energy with necessary RE certificate by specific request from Consumers can be charged 150% of approved tariff for kind consideration. The Commission accepts the proposal for introduction of Renewable energy based 'Green tariff' for HT services. But the proposal of TANGEDCO for charging this category with 150% seems to be very high. Presently, other States viz., Telangana, Andhra Pradesh are charging

Re.0.66 and Re.0.50 extra for Green energy and Maharashtra charges Rs.12.25 for Green energy tariff. Hence, the Commission considers that it would be fair to levy 10% extra over the respective tariff under HT category. The Commission directs the Licensee to evolve a procedure for sale of such green power to the needy consumers with RE certificate and obtain the approval from the Commission for the procedure to be adopted."

1.3. The Board of TANGEDCO in its 111th Board meeting held on 08.02.2023 has approved for the implementation of Green Energy Certificate in TANGEDCO for the HT Consumers who wish to avail "Green Energy Certificate", to approve the Green Energy Tariff as proposed by the Commission in its Order No.07 of 2022 in T.P.No.1 of 2022 dated 09.09.2022, working procedure for effective implementation and to file a petition before the Commission.

1.4. The highlights of the Green energy Certificate in this regard,

- a) The Green Energy Certificate being totally voluntary will give choice to the consumers to opt for Green energy.
- b) The Renewable Purchase Obligation (RPO) will not be affected by this "Green Energy Certificate" since this certificate cannot be used for RPO obligation of the obligated entity.
- c) "Green Energy Certificate" promotes generation as well as consumption of RE which paves way to 100% use of Renewable sources in future.

1.5. The Renewable Energy Certificate's(REC) are issued by the State Nodal Agency in accordance with the procedures prescribed and are traded only in the Power Exchanges approved by Central Electricity Regulatory Commission (CERC) through closed bidding process, it doesn't involve the actual renewable power flow through the system for buyer whereas "Green Energy Certificate" issued by TANGEDCO after realisation of actual Renewable power from renewable sources like solar, wind, hydro power stating that 100% of their power requirement has been met through Green energy. Green Energy Certificate is certainly not REC Mechanism.

1.6. The "Green Energy Certificate" promotes generation as well as consumption of RE whereas "Renewable Energy Certificate" promotes only generation side of Renewable Energy.

1.7. The DISCOMs shall notify by establishing a online portal to the HT Consumers under Tariff (Industries, Educational Institutions, Misc., categories) I, II and III who wish to avail Green Energy Certificate.

1.8. The working procedure is evolved based on the minutes of the meeting held on 01.11.2022, at TANGEDCO, Chennai-2 regarding Green Energy Tariff Applicability to HT Consumers as per the Commission's Order No.07 of 2022 in T.P.No.1 of 2022 dated 09.09.2022.

1.9. A separate portal shall be developed by the IT wing for the HT Consumers under Tariff I,II and III category (non-obligated entities) who wish to avail Green Energy Certificate and has to apply online through TANGEDCO Portal.

1.10. The applications shall be processed on "First come First serve" basis.

1.11. The applicants shall apply through online along with quantity(MU) of Renewable energy to be purchased, along with a time period of requirement. The application once submitted shall be treated as final and no revision in the same is allowed.

1.12. The Chief Engineer / NCES shall scrutinize the application and quantity(MU) to be approved based on the RE quantum available with TANGEDCO less the RPO obligation of the OA consumers and shall issue "Green Energy Certificate" monthly after billing of "Green Energy Tariff" for the approved quantity.

1.13. The Green energy accounted during last year(2021-2022) from all Renewable energy sources viz., Wind, Solar, hydro, biomass and cogen etc., after deducting the RPO quantum of the captive consumer required for their RPO obligation (For 21-22 21%) is the base quantity upto which the request for Green Energy Certificate is to be accepted from the HT Consumer.

1.14. The certificate of 'Green energy' will be issued after due Audit.

1.15. The Tamil Nadu has a huge RE potential and having installed capacity of 17,225.11 MW as on 01.04.2022 which can be beneficially utilized for additional revenue generation.

1.16. The Renewable Energy capacity as on 28.02.2023 is as follows:-

Sl. No.	Renewable Energy Sources	Installed Capacity (MW)
* 1	Wind	9952.155
**2	Solar	6473.675
***3	Biomass	164.844
***4	Co-Generation (Bagasse)	523.800
5	Small hydro	122.700
	Total – Renewable Energy	17237.174

* Wind -8704.965 MW (STU) & 1247.190 MW (CTU)

** Solar Grid connected (STU)-5937.611, Roof top - 386.064,CTU-150MW

*** Excluding Biomass permanently dismantled - 97.75MW and Bagasse (co-gen) permanently dismantled - 198.1MW.

1.17. The tentative working and revenue projection of TANGEDCO is enumerated herewith:-

(a) Renewable Energy generation under Energy Purchase Agreement during the year 2021-2022 is as follows:-

Solar	-	5770	MU	
Wind	-	3538	MU	
Hydro	-	5514	MU	
Biomass	-	2	MU	
Bagasse	-	347	MU	
Total	-	15171	MU	(A)

(b)	The captive generation of all RE Sources viz (Solar, Wind, Bagasse and Biomass) -	(B)	-	9599.09 MU
(c)	The RPO obligation of the captive generators (24.61% for FY 22-23 of the total consumption (23882.66MU))	(C)	-	5877.52 MU
(d)	The RE quantity available for GEC	(A+B+C)	-	18892.57 MU
(e)	The Industrial Consumption during 21-22	(D)	-	12562.00 MU
(f)	The expected max revenue potential	(E)	-	12,562*0.675 = 847.935Crores

1.18. Based on the above, TANGEDCO has the RE quantity of 18892.57 MU and if the 50% of the industrial consumers opt for Green Energy Certificate, the projected revenue to TANGEDCO would be 423.965 Crores.

2. Findings of the Commission:-

2.1. The present petition filed by TANGEDCO seeks to effectuate Green Tariff as a significant milestone in promotion of Green Energy. It may be recalled that the Commission in its Order No. 07 of 2022 dated 09-09-2022, conceding the proposal of the TANGEDCO for introduction of Renewable energy based 'Green tariff' for HT services decided to permit charging of tariff at 10% over the respective tariff under HT category for the purpose. Further, the Commission directed the Licensee to evolve a procedure for sale of such green power to the willing consumers with an award of RE certificate and obtain the approval

beforehand from the Commission for the procedures to be adopted. This petition has been preferred accordingly.

2.2. Following factors are relevant to be discussed in this context:

Nations across the world are signatories to the U.N convention on climate change and ambitious tasks are set up by the GoI to reduce the carbon emission so as to ensure cleaner atmosphere. The Government of Tamil Nadu also followed suit with issuance of policies on generation of renewable power such as solar in the year 2012 and 2019. The Government of India fixed a target of 175 GW of Renewable Power for the period ended 2022 and it was almost accomplished with generation up to 172GW. Now there is Herculean task ahead with 500GW of energy as the next target to be achieved by end of this decade. As these targets are set for a sacrosanct purpose of clean environment and hence there is an imminent necessity to surge ahead so as not to be left far behind in the race for promotion of renewable energy. Consistent regulatory impetus is required in tandem to keep pace with growing requirement of meeting the future targets. It is in this context, the commission in line with the Renewable Energy Targets set by the Government of India and policies issued by the GoTN, has framed Regulations on Procurement from New and Renewable Sources, Regulation on Grid Interactive Solar PV Energy Generating System and has been issuing comprehensive Tariff Orders governing generation and procurement of such power. The said orders have dealt with all issues apart from the tariff such as concessions in the matter of Transmission and Wheeling Charges, Cross

subsidy surcharge, System and Scheduling Operation Charges, CDM Benefits, etc. The Commission has also issued Renewable Purchase Obligation Regulations to promote the new and renewable power and to enable all obligated entities to either generate or buy power or in the alternative obtain Renewable Energy Certificate thereby making the participation of all entities in the promotion of green energy mandatory. The present order seeks to expand the regime on New and Renewable Sources by introducing the concept of Green Energy Tariff to leverage the Green Energy potential of Tamil Nadu which has an installed capacity of green power over 17000MW.

2.3. Green Tariff is not to be confused with the preferential tariff applicable to new and renewable sources which is prevalent already. This is an exclusive voluntary scheme opted by consumers that in turn helps to harness the New and Renewable Sources to the greater extent possible and give an enhanced thrust to promote green energy on a larger scale. On such voluntary basis, the consumer may purchase more renewable energy than he is obligated under RPO regulation, to the extent of his entire consumption. The Distribution Licensee shall certify that the energy used by the consumer is green in nature. This certificate shall not be used as RE Certificate for trading in the market.

2.4. The objective of the Green Tariff can be said to be three fold: (i) promoting New and Renewable Power on a large scale to fulfill the object of section 86(1)

(e) , (ii) to improve the revenue of the licensee by permitting them to carry out this as a separate business so as to achieve the object under section 61(b) of the Electricity Act, 2003 and (iii) to facilitate consumers who are unable to install Renewable power plant or procure RE power from open market, but still willing to buy and use green power voluntarily for a noble cause and carbon credit.

2.5. Coming to the implementation of the Green tariff, the following are prescribed:

(1) Under the scheme, all consumers except agriculture and temporary supply shall be eligible for opting to procure renewable power from the Distribution Licensee on payment of Green Energy Tariff which will be 10% over and above the tariff in force as applicable to the relevant category.

(2) The consumer can procure green energy to his full consumption to the limit of Sanctioned demand and have the flexibility to give separate requisition for solar and non-solar subject to the availability of such quantum of green power with the Distribution Licensee.

(3) The Licensee shall maintain the dynamic data relating to RE generation from all sources, consumption by all categories of consumers, prosumers, RPO obligations and Green tariff consumers. The cumulative quantum of green power for which the Green Tariff certificate is issued shall not in any case exceed the total generation of the green power of the Licensee.

- (4) Any requisition by a consumer for green energy from a distribution licensee shall be for a minimum period of one year;
- (5) The approximate quantum of green energy required shall be pre-specified for at least one year.
- (6) The billing and accounting of renewable energy supplied shall be on a monthly basis;
- (7) The statistical data of RE generation/ augmentation / sale/ earnings shall be maintained by the Licensee. The earning of the Green Energy shall be accounted separately by the Licensee which shall form part of revenue component incorporated in ARR.
- (8) Issue of Green Energy Certificate shall be either on monthly basis or yearly basis as opted by the consumer. The contents of the certificate shall include the total power consumption, green power consumption and percentage of green power consumption out of total consumption. Such certificate shall be without prejudice to the certificates issue under the REC scheme.
- (9) The structure of the working procedure given in the petition by TANGEDCO is approved in principle subject to fulfillment of above conditions. If any further improvement is contemplated in the procedure in due course for better and hassle free implementation of this ambitious scheme, the same can also be proposed and got approved by the Commission. However, the implementation need not wait. Pending On line processing as proposed in the petition, allied application modeling, software programming etc., the TANGEDCO shall kick start

the scheme right away by manual processing of the applications on hand. The On Line process can follow subsequently to keep course.

2.6. Consolidating the above, the following orders are issued:

- (1) The structure of working procedure for implementation of Green Energy Tariff and issuance of Green Energy Certificate by the TANGEDCO is approved in principle subject to the conditions stated supra.
- (2) The licensee shall encourage the consumers in letter and spirit who opt to procure Green power. The licensee shall designate consumers who opt to procure green power to meet 100% of their consumption as “Green Consumers” in recognition of their noble contribution to society, by mitigating carbon emission.
- (3) TANGEDCO shall provide the facility of requesting for Green Power Tariff through its Web Portal within a month from the date of this order. However, the applications on hand and applications likely to be received before implementation of on line web portal processing shall be processed manually and disposed without delay, preferably within a fortnight.
- (4) The Green Tariff and its implementation shall take effect from the date of this order.

(Sd.....)
Member (Legal)

(Sd.....)
Member

(Sd.....)
Chairman

/True Copy /

**Secretary
Tamil Nadu Electricity
Regulatory Commission**