

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

PRESENT:

ThiruM.Chandrasekar Chairman
Dr.T.PrabhakaraRao Member
and
Thiru.K.Venkatasamy Member (Legal)

M.P. No.19 of 2018

Union of India
Represented through
Chief Electrical Traction Engineer
Southern Railway
7th Floor, NGO Annex
Park Town
Chennai – 600 003.

... Petitioner
(Thiru Vijay Anand,
Advocate for the Petitioner)

Vs.

1. Tamil Nadu Generation and Distribution Corporation
Represented through
The Chairman and Managing Director
(TANGEDCO & TANTRANSCO)
Tamil Nadu Electricity Board
NPKRR Maligai
No.144, Anna Salai
Chennai – 600 002.
2. The Chief Engineer / NCES
TANGEDCO
2nd Floor, Eastern Wing
NPKRR Maligai
No.144, Anna Salai
Chennai – 600 002.

... Respondents
(ThiruM.Gopinathan, Standing
Counsel for the Respondents)

Dates of hearing : 16-11-2018; 31-01-2019; 29-03-2019 and 15-10-2019

Date of Order : 25-02-2020

ORDER

Prayer of the Petitioner in M.P. No.19 of 2018:-

1. The prayer of the petitioner in M.P. No.19 of 2018 is to act in compliance of the Tamil Nadu Solar Energy Policy, 2012 of the Government of Tamil Nadu and the Commission's Order No.3 of 2013 dated 13-11-2013 which was effectuated in the Respondent's Circular in Memo No. CE/Commercial/EE/R&C/AEEI/F Solar NM/D.023/14, dated 17-02-2014 and thereby "grant connectivity and net metering to the petitioner for the implementation of 4 MWp Roof Top Solar Project for Southern Railway" in terms of the application in Southern Railway Letter No.M/E.162/Solar/REMCL, dated 07-03-2018 and also in future solar projects in Southern Railway in a time bound manner.

2. Brief Facts of the Case:-

The petition has been filed to extend the net metering facility for solar projects connected under HT II A and HT III Tariff category consumers in Tamil Nadu as per TNERC Order No.3 of 2013 dated 13-11-2013.

3. The Petitioner in his affidavit dated 10-08-2018 has submitted as follows:-

(i) The Southern Railway is availing power supply at 33 kV, 22 kV, 11 kV and LT single / three phase from TANGEDCO for Non-Traction purposes at various locations spread over the State of Tamil Nadu with a total Contracted Demand of 35500 kVA under HT category of IA, IIA, HT III and LT category

of LT 1A, LT IC, LTV. The Southern Railway during the year 2017-18 has consumed 101 million units from TANGEDCO and paid an amount of Rs.80.7 crores towards energy consumption to TANGEDCO.

- (ii) The Indian Railways consumed about 1.8% of country's total power generation for its traction and non-traction applications. In view of rising energy demand and uncertainty in power tariffs, Indian Railways identified the need for aggressive push towards alternate fuels in the Indian Railways.
- (iii) The Indian Railways will be the most preferred strategy for meeting rising transporting demand, in a sustainable and energy efficient way. Indian Railways has taken various initiatives towards energy efficiency and better resource management over the last decade.
- (iv) In the rail budget 2015-16, the target to achieve 1000 MW of installed capacity of solar photo voltaic as part of solar mission of Railways was announced.
- (v) In the Budget 2017, Finance Minister announced that 7000 Railway stations would be fed through solar power
- (vi) In recent years, the Indian Railways has taken significant strides to increase the share of renewable energy in its electricity mix, which includes solar and wind, to reduce energy costs as well as carbon emissions. In its vision 2020 document, the Indian Railways had out lined a plan to harness 10% of its energy through renewable sources

(vii) India has focused its low carbon initiatives on the development of Railways, water ways, Mass Rapid Transport Systems and other forms of public transport. As India transitions to a low carbon emissions pathway, the Indian Railways has set a goal of reduction in emissions intensity of 33% by 2030 from 2005 levels through industrial energy.

(viii) Indian Railway has committed itself to the cause of reducing carbon emission by adopting renewable energy on priority. Following actions are being taken / will be taken in this direction:

- Grid connected / off grid solar panel to be provided at Divisional Head Quarters, Zonal headquarters, maintenance depots, sheds and workshops.
- Solar plus wind hybrid power systems at stations, in addition to the existing power supply to harness the wind and solar energy to the fullest.
- Solar based water heating system at all Railway Station, Rest Houses, Running rooms, Hospital, base -kitchens & other Railway premises.
- Use of solar cooker in Railway Institutes, Training Schools, Rest Houses, Running Rooms, Base kitchen and other Railway premises.
- Policy initiatives & intervention taken to harness green energy resources and implementing energy conservation measures have yielded fruitful results.

(ix) A key version in this regard is to have a greater development of renewable energy for various requirements of the Railways.

(x) The participative policy document issued in December 2014, aimed at promoting Public-private Partnerships in the Railways also included non-conventional energy projects, in order to achieve this objective

(xi) Railway Board has sanctioned the following solar energy projects for Southern Railway involving huge expenditure.

(a) "Harnessing Solar Energy of 100 MWp on roof top of rooftop of Railway buildings with CFA/VGF from MNRE", out of which 4MWp allotted to Southern railway. The work is being executed by Southern Railway. Work has been entrusted to M/s. Azure Power Rooftop Four Pvt. Ltd, New Delhi and agreement signed on 26.10.2017.

(b) "Harnessing of Solar Energy for 50 MWp on roof top of Zonal Railways with CFA from MNRE" under PPA mode out of which, 4MWp allotted to Southern Railway. The work is being executed by Railway Energy Management Co. Ltd (REMCL). Tender has already been floated by REMCL

c) "Setting up of 10kW/5 kW Solar photovoltaic (PV) power plant on rooftops of D & E Category Railway stations under Indian Railway's Solar Mission", Southern Railway has been sanctioned with 50 Nos of 5kWp for E category stations and 10 Nos. of 10kWp for D Category stations. Northern Railway is the Nodal Railway for finalization of the tender.

(xii) The work referred in Sl No. (a) for implementation of 4MWp Solar roof top project under Harnessing of Solar Energy of 100MWp on roof top of Railway

Buildings under PPA mode has been awarded to M/s.Azure Power Roof Top Four (P) Ltd.

(xiii) PPA has been signed by Southern Railway with M/s.Azure Power roof top Four (P) Ltd., New Delhi on 26-10-2017.

(xiv) Above Solar project is proposed to be installed at 32 HT locations (in Tamil Nadu, Kerala & Karnataka) falling in HT III tariff category (in Tamil Nadu) with net metering facility. These HT locations are having adequate roof top spaces for installing Solar power panels and are of energy intensive such that solar energy generation can be utilized to the maximum.

(xv) As per the order No 3 of 2013 of TNERC, consumers falling under HT IIA, HT III, LT IA, LT IC, LT IIA, LTIIB & LT V Tariff categories are eligible for net metering facility as per the provision given below:

“2. Eligible Consumers for net metering

The categories of consumers eligible for net-metering have been prescribed under Clause 15 and 22.1 of the Tamil Nadu Solar Energy Policy, 2012. Such categories have not been defined in the Commission's regulations or orders. To give more clarity and for easy implementation, the categories of consumers covered under HT tariff II-A, HT tariff III, LT tariff I-A, LT tariff I-C, LT tariff II-A, LT tariff II-B (1) and LT tariff V as specified in the Commission's retail tariff order in force are considered to be the "Eligible Consumers" for the purpose of Net-metering. Both the existing and new Solar rooftop/Solar systems which comply with this order are eligible for Net-metering".

(xvi) On approaching TANGEDCO for extending net metering facility, for the above project, Chief Engineer/ NCES, TANGEDCO, 2nd Floor, Eastern Wing, NPKRR Maligai, No.144, Anna Salai, Chennai-600002 has advised that,

- Net metering facility will be facilitated only to eligible LT consumers and
- only parallel operation of solar system without net metering will be facilitated to HT consumers.

(xvii) TANGEDCO's response of not allowing net metering for HT III tariff category service connections is complete insubordination of TNERC's order. TNERC has given the order in the larger interest of the country's Green commitments to the international community and also in the context of sustained development with renewable energy sources. Not allowing the net-metering for Solar projects at HT supply points will lead to poor investment from developers which finally hamper the development of roof top solar panel arrangement and is a national loss.

(xviii) TANGEDCO (Technical Branch) has also issued office memorandum dated 17-02-2014, 18-03-2014, 11-12-2014 & 07-02-2015 containing working instructions/nomination of Nodal Officers for accepting Solar metering applications and extending net metering facility for HT IIA, HT III & LT IA, LT 1C, LT IIA, LT II - B(I) and LT V category consumers which are in line with TNERC orders.

(xix) In such case, refusing net metering facility for Solar projects under HT connections HT III category of Railway premises is against TANGEDCO's own policy directives issued during 2014-15.

(xx) The Government of India has fixed a target of 1,75,000 Mega Watt of renewable energy by 2022. The target fixed for Solar Power by Government of India is 1.00.000 MW and the targeted capacity for Tamil Nadu State is 8971 MW by 2022

(xxi) The Government of Tamil Nadu is committed to mitigate the climate change effects by bringing out policies conducive to promote renewable energy generation in the State. The Government intends to make renewable energy a people's movement. The State is blessed with various forms of renewable energy sources viz Wind, Solar, Biomass etc of the total renewable energy capacity of about 32,730 MW installed all over India, Tamil Nadu alone has about 10,625 MW as of March 2018 thus about 25.44% of the total capacity. For a key industry such as renewable energy, Tamil Nadu is the leader of the country.

(xxii) Today India is fast becoming one of the world's most attractive markets for Renewable Energy Investments. India's rise has been due to the effective policy and regulatory support for development of Renewable Energy Technologies (RETs).

(xxiii) Various policy measures such as Jawaharlal Nehru National Solar Mission (JNNSM) Feed-in-Tariff, Accelerated Depreciation (AD), Generation Based Incentives (GBI), Renewable Purchase Obligations (RPO) and Renewable Energy Certificates (RECs) have helped in the rapid growth of Renewable Energy deployment in the country.

(xxiv) Along with above demand and supply side measures to promote Renewable Energy growth in India, various States have come up with their State solar policies to provide enabling framework for growth of Renewable Energy in India. State Electricity Regulatory Commissions have also framed Regulations/Orders on Grid connectivity of solar energy in line with State solar policies and with the aim to promote Renewable Energy Sources.

(xxv) In Tamil Nadu, we now have the Tamil Nadu State Solar Policy, TNERC Order on LT Connectivity and Net-metering, the Chief Minister's Solar Powered Greenhouse Scheme and recently the Chief Minister's Solar Rooftop Capital Incentive Scheme. Through these schemes, Tamil Nadu is making rapid strides in

solar power. Extending Net metering facility to HT consumers under HT III and HT IIAs per the provisions of Tamil Nadu State Solar Policy and Tamil Nadu Electricity Regulatory Commission will lead to larger solar projects and so that the total targeted solar capacity of 8971MW by 2022 can be achieved.

(xxvi) The combined summary of CERC & SERCs regulations/tariff orders shows that the following 16 State Electricity Regulatory Commissions have already accepted for installing Grid connected Solar panels with net metering facility irrespective of Voltage levels i.e. all LT/HT consumers are eligible for Net metering facility. Respective DISCOMs have been following the orders of the ERCs in letter and spirit.

- (1) ASSAM
- (2) BIHAR
- (3) DELHI
- (4) HARYANA

- (5) HIMACHAL PRADESH
- (6) JAMMU & KASHMIR
- (7) JHARKHAND
- (8) KARNATAKA
- (9) MADYA PRADESH
- (10) MAHARASHTRA
- (11) MEGHALAYA
- (12) ODISHA
- (13) PUNJAB
- (14) RAJASTHAN
- (15) UTTAR PRADESH
- (16) GOA & UNION TERRITORIES

(xxvii) The Southern Railway has invested a huge amount for setting up these plants and is duly entitled for the return of the investment made in the project. In fact, the same is essential for further expansion/implementation of the solar projects. Parallel operation of solar system without net metering will lead to poor utilization of solar power plant and excess generation over the instantaneous load could not be exported to the grid and consequently it leads to monetary loss to Railways. Therefore, the projects in question deserve a proper determination of tariff with Net Metering facility in HT Service as per the Tamil Nadu State Solar Policy already in existence.

(xxviii) Parallel operation of solar system without net metering will lead to poor utilization of solar power panel and excess generation over the instantaneous load could not be exported to the grid and consequently it leads to monetary loss to Railways.

(xxix) Indian Railways's ambitious renewable energy push will not only lower energy bills for the Railways but will also advance India's climate goals, serve as a

role model for low carbon public transportation across the world and will participate in achieving States solar energy targets.

4. The Petitioner in his Amendment Petition dated 24-01-2019 has submitted that the Southern Railway has been allotted with 8 MW capacity solar roof top panels, which are to be commissioned before 31-03-2019. In both projects, the capacity of solar generation plants proposed is very much lower than that of the Contracted Maximum Demand of these stations. The railway service connections fall under HT III commercial category. In all the above cases, there is no projected export of power to the grid. During the day hours at these railway stations and DRM offices there are existing loads which will be fed partly by the provision of solar panels. However, since Government of India is focussing in provision of solar panels for utilization in all the Central Ministries, Southern Railway also will be planning for more solar panels in future where net-metering provision is required to be granted for Southern Railway as per TNERC Order No.3 of 2013.

5. The Respondents in their counter affidavit dated 29-03-2019 has submitted as follows:-

(i) The Tamil Nadu State Solar Policy has been announced by the Hon'ble Chief Minister of Tamil Nadu on 19-10-2012 vide G.O. No. 121, dated 19-10-2012. Clause 14 of the solar policy envisages establishment of 3000 MW of solar PV power plants by 2015 as detailed below:-

	Utility Scale (MW)	Solar Roof Tops (MW)	REC (MW)	Total (MW)
	(a)	(b)	(c)	(d)
2013	750	100	150	1000
2014	550	125	325	1000
2015	200	125	675	1000
Total	1500	350	1150	3000

(ii) Based on the policy directive, the Commission has issued order on “LT connectivity and net metering” issued vide Order No.3 of 2013, dated 13-11-2013. As per the above said order of the Commission, the following categories of consumers are eligible for availing net metering facility.

1	HT Tariff II- A	Govt. Educational Institutions, Govt. Hospitals, Water Supply and places of worship.
2	HT III	Commercial
3	LT I-A	Domestic
4	LT I-C	Bulk Supply, Railway colonies, Defence colonies
5	LT II-A	Public lighting, Water supply
6	LT II-B(1)	Govt. / Aided Educational Institutions, Govt. Hospitals etc.
7	LT V	Commercial

The approval for the implementation of net-metering facility to the eligible LT consumers is being carried out by the TANGEDCO.

(iii) In order to study the impact of net feed-in of solar energy in Distribution Licensee’s network, TANGEDCO have facilitated net metering facility only to eligible LT consumers.

(iv) The Distribution Licensee, TANGEDCO has already filed an amendment petition before this Commission with the following prayer in respect of revisions under revised accounting methodology proposed by TANGEDCO in the existing net metering scheme for the eligible LT consumers:

(a) Existing 5 categories of eligible LT consumers shall be covered under the proposed mechanism.

- (b) The bi-directional meter (net meter) shall be provided as per the procedure in vogue to measure the total grid consumption (import) from the grid and the excess solar generation fed into the grid after self-consumption (export).
- (c) Under the proposed mechanism, the value of grid consumption (import) shall be calculated at the appropriate tariff. The value of excess solar generation fed into the grid after self-consumption (export) as recorded in the net meter shall be calculated by TANGEDCO at the rate of 50% of the least of the solar tenders' rate during the latest previous financial year or 50% of the solar Preferential Tariff rate issued by TNERC corresponding to the financial year, whichever is less. Net billing which will be in value shall be the monetary value adjustment of import and export units in the respective billing cycle. Amount, if any, to be paid by TANGEDCO shall be adjusted against the import consumption bill amount in the respective billing cycle. If net bill is payable by consumer, then it shall be paid by him within the due date. However, in case when the surplus money value of solar units fed into the grid (export) exceeds total money value of grid consumption (import), the monetary value of surplus solar energy shall be carried over to the next billing cycle for adjustment against subsequent bills. No interest shall be claimed by the consumer for the amount carried over to the next billing cycle till the end of the settlement period and paid, if any, at the end of the financial year. Settlement period of 12 months will be from April to March of the financial year.
- (d) The maximum solar roof top capacity shall be restricted to 50 % of the Contracted Demand. Further if the solar capacity is added beyond 50% of the contracted demand of LT consumers, the quantum of export as recorded

in the net meter shall be considered for net billing only upto 50% of the contracted demand of the L T consumers.

- (e) The revisions in the existing net metering scheme proposed by TANGEDCO shall also be applicable to the existing LT net metering consumers.
- (f). The control period and settlement period shall be one year (Financial year).
- (g) It is proposed to install meters to all net metering consumers, at the solar generation end to measure the actual generation in addition to the net meter (bi-directional meter) and also to levy appropriate taxes, if any.

(v) In the meantime, the Government of Tamil Nadu has announced the Tamil Nadu Solar Energy Policy, 2019 on 04.02.2019. In the new policy, net feed-in of solar energy has been introduced for consumer scale solar power plants as follows:

"The solar energy is used for self-consumption with the surplus, if any, being exported to the grid. A bi-directional service connection energy meter will be installed by the distribution licensee to record the imported and exported energy. The imported energy is debited at the applicable consumer tariff while the exported energy is credited on the basis of a consumer solar energy tariff to be determined by TNERC. The consumer pays the difference between the debit and credit amounts. If the cumulative credit amount exceeds the debit amount during any billing cycle, the net credit is carried over to the next billing cycle. At the end of 12 month settlement period as may be determined by TNERC, the net credit, if any, the consumer has the option to receive payment of the net credit balance. Solar energy net feed-in will be available to all low tension (LT) electricity consumer categories subject to TNERC regulations as may be determined from time to time."

(vi) As per the above said new policy, net feed-in of solar energy will be available to LT category of consumers. The surplus energy exported after consumption will be adjusted in terms of monetary value instead of unit to unit as followed in the existing system. There is no explanation in the new policy about the HT consumers under consumer category and hence the intention of the petitioner to avail net metering now is not feasible of compliance.

(vii) TANGEDCO shall implement net feed-in mechanism for the consumer scale solar power plants as per the Solar Energy Policy, 2019 and as per the Commission's order to be issued.

(viii) The Commission may be pleased to pass an appropriate order for the implementation of net feed-in mechanism for the consumer scale solar power plants as per the Solar Energy Policy, 2019 and also be pleased to dismiss the Writ Petitions filed by Southern Railway in M.P. No. 19 of 2018.

6. The Petitioner in its Rejoinder dated 27-05-2019 has submitted as follows:-

(i) The respondents have misconstrued the prayer sought by the petitioner in the present petition and filed counter affidavit dated 24.03.2019 by totally suppressing the material facts and also by misrepresenting the facts and dates and events which are much important for deciding the issue on hand. The respondent has no say at all in the prayers sought as per the directions issued by the Commission by its order dated 13.11.2013 in Order No.03/2013.

(ii) As per para 2 eligible consumers for Net-metering as per Order No. 03/2013 dated 13.11.2013,

"the category of consumers covered under HT Tariff II-A, HT Tariff III as specified in the Commission's retail tariff order in force are considered to be the "Eligible Consumers" for the purpose of Net-metering. Both existing and new Solar rooftop/ Solar systems which comply with this order are eligible for net-metering".

The petitioner, based on the Solar Policy, 2012 has started implementation BY ERECTING Solar panels wherever feasible and as per the said policy approached the respondent authorities to provide net metering facility as per the directives of the Commission in its order No.3/2013 dated 13.11.2013.

(iii) The filing of amendment petition will not be a bar to implement the order of the Commission.

(iv) Based on the Commission's Order No.3/2013 dated 13-11-2013 an application was submitted for availing net metering facility by Southern Railway to NCES vide Letter No.M/E.162/Solar/REMCL dated 07-03-2018. NCES vide Letter No.CE/NCES/SE/Solar/EE/SCB/AEE3/F.M/s.Southern Railway/D 239/18, dated 26-03-2018 had refused to extend the facility of net-metering for all HT III consumers violating TNERC order in force. Hence, the Southern Railway was forced to represent TNERC vide petition in M.P. No.19 of 2018, with TANGEDCO and NCES as respondents.

(v) The respondents filed a counter affidavit dated 29-03-2019 praying to pass an order for implementation of net feed in mechanism for the consumer scale solar power plants as per the Solar Energy Policy, 2019 and also to dismiss the subject petition. The Respondents have misconstrued the petitioner's prayer and hence the petitioner is before this Commission for a direction to allow net metering for the already installed and existing solar panels not for the new one and the same is covered by the Tamil Nadu State Government Solar Policy, 2012 and also by the Order No.3 of 2013 of this Commission dated 13-11-2013.

(vi) Any executive instruction/order which runs counter to or is inconsistent with the earlier policies cannot be enforced, rather deserves to be quashed as having no force of law. The respondent, in order to escape from the clutches of law is now totally taking a divergent view in new policy which is totally against the public policy. The respondent cannot overrule its own policy decision and moreover, it is followed by other States in their Solar policy.

(vii) Para 18.0 Operative portion of Tamil Nadu Solar Energy Policy, 2019 reads as follows:-

"This policy shall come into effect on 04.02.2019 and shall remain valid until superseded or modified by another policy. The Government will review the implementation of this policy annually to evaluate the actual results against policy objectives. "

(viii) Para 2.0 Applicability of TNERC Order No.3 of 2019 dated 25.03.2019, on Rooftop Solar Generation reads as follows:-

“2.1 This order on new scheme of rooftop Solar generation, namely, Solar net feed-in consumer category is applicable to all new applicants from the eligible consumer category notified in para 3.0 of this order. The date of effect of this order is 25.03.2019, the date of passing of order by this commission in M.P No.9 of 2017.

2.2. The existing consumers under the net metering scheme shall continue to be governed by the provisions in the Order No. 3 of 2013 dated 13.11.2013.”

(ix) Implementation of this policy for an application submitted one year earlier i.e., on 07.03.2018 is a violation of TNERC orders & deviation from Tamil Nadu Solar Energy Policies and hence unjustified.

(x) The Commission may be pleased to pass an appropriate order with direction to the respondents for implementation of TNERC Order No.03 of 2013 in letter and spirit and thereby extend net metering facility for all requested locations, within Tamil Nadu under Solar Rooftop project for Eight (4+4) Mega Watts, which is being executed by Southern Railway, to avoid further loss and delay in this regard.

7. Findings of the Commission:-

1. The prayer of the Petitioner is to direct the respondent to act in compliance of the Tamil Nadu Solar Energy Policy 2012 of the Government of Tamil Nadu and the Commission's Order No.3 of 2013 dated 13.11.2013 which was effectuated in the Respondent's Circular in Memo No.CE/Commercial/EE/R&C/AEEI/F Solar NM/D.023/14 dated 17.02.2014 and thereby “grant connectivity and net metering to

the petitioner for the implementation of 4 MWp Rooftop Solar Project for Southern Railway” for service and solar capacities in Tamil Nadu given below in a time bound manner.

Sl. No.	Location	S.C. No.	Revised Capacity (kWp)
1	Chengalpattu Railway Station	28	50
2	Katpadi Railway Station	1008	50
3	Arakkonam Railway Station	1233	50
4	Tambaram Railway Station	77	50
5	Moore Market Complex	2191	1000
6	Chennai Central (BBQ SS)	2142	900
7	Royapuram Electric Loco Shed	1054	100
8	Chennai Egmore Railway Station	2148	250
9	Jolarpettai Railway Station	1	50
10	Tiruchirappallai Station	13	200
11	DRM office		200
12	Villupuram Railway Station	2	50
13	Madurai DRM office	52	200
14	Madurai Railway Station	71	100
15	Virudhunagar Railway Station	26	50
16	Tirunelveli Railway Station	45	50
17	Salem Railway Station	9	100
18	Erode Junction Railway Station	1	100
19	Erode DSL Loco Shed		100
20	Erode Electric Loco Shed		150
21	Coimbatore Railway Station	1	100
22	Nagercoil Railway Station	18	50

2. Before going into the merit of the case, let us discuss policies issued by the Tamil Nadu Government and TNERC orders passed in respect of Solar Roof Top Net Metering System.

3. The Tamil Nadu State Solar Policy was announced by Hon’ble Chief Minister of Tamil Nadu on 19.10.2012 vide G.O.No.121, dated 19.10.2012. Clause 14 of the solar policy envisaged establishment 3000 MW of solar PV power plants by 2015 as detailed below:

	Utility Scale (MW)	Solar Roof Tops (MW)	REC (MW)	Total (MW)
	(a)	(b)	(C)	(d)
2013	750	100	150	1000
2014	550	125	325	1000
2015	200	125	675	1000
Total	1500	350	1150	3000

4. Based on the policy directives, the Commission has issued Order on “LT connectivity and net metering” vide Order No.3 of 2013, dated 13.11.2013. As per the above said order of Commission, the following categories of consumers are eligible for availing net metering facility.

1.	HT Tariff II – A – Government, Educational Institution, Government Hospitals, Water Supply and places of worship.
2.	HT III – Commercial
3.	LT I-A – Domestic
4.	LT I-C- Bulk supply, Railway Colonies, Defence Colonies.
5.	LT II-A- Public lighting, Water supply
6.	LT II-B (1)- Government / Aided education, institutions, Government hospitals etc.
7.	LT V – Commercial

In order to study the impact of net feed in of solar energy in Distribution Licensee’s network, the respondent, TANGEDCO has facilitated net metering facility only to eligible LT consumers although HT-Tariff II-A and HT-III consumers are also eligible for net metering connectivity as per the above orders. Meanwhile, TANGEDCO has also filed a petition in M.P. No. 6 of 2017 with the following prayers, namely:-

- (i) to cover HT-IIB and LT-I B(2) under the net metering scheme;
- (ii) to provide net metering to measure input from the grid and the excess solar generation fed into the grid;
- (iii) to calculate the value of grid consumption at appropriate tariff and to calculate the excess generation fed into the grid at 50% of the latest solar tender rate or 50% of solar preferential tariff whichever is less;

- (iv) to restrict the solar roof top capacity to 50% of the contracted demand and in case solar capacity exceeds 50% of the contracted demand then to consider only 50% of the contracted demand for billing.
- (v) to relax 90% cap imposed during particular settlement period;
- (vi) to apply the revised scheme of the existing LT/HT networking scheme;
- (vii) to cover HT-IIA and HT-III consumers availing parallel operation without net metering under the new accounting methodology;
- (viii) to cover HT IIB and LT IIB(2) consumers under the new accounting methodology;
- (ix) to specify the control period and settlement period as one year (financial year)
- (x) to install net meters to all net metering consumers and to levy appropriate tax.

5. However, the TANGEDCO had withdrawn the above petition and submitted revised petition only for LT service connections for solar net metering in M.P. No. 9 of 2017. In the said M.P. No. 9 of 2017, the petitioner TANGEDCO has prayed to consider the revisions in the existing net metering policy under revised accounting methodology as mentioned in para 18 of the said petition.

6. Meantime Government of Tamil Nadu has announced the Tamil Nadu Solar Energy Policy 2019 on 04-02-2019. In the above order instead of unit to unit adjustment, generated energy / consumption will be adjusted on monetary basis.

7. As per the above said new policy, net feed-in of solar energy scheme will be available to all LT category of consumers. The surplus energy exported after consumption will be adjusted in terms of monetary value instead of unit to unit as followed in the existing system. There is no explanation in the new policy about the HT consumers under consumer category.

8. From the prayer of the petitioner it seems that the requirement of the solar roof top plant capacity varies from 50 kWp to 1000 kWp in various locations of Tamil Nadu which consists of both HT / LT service connections. Based on the

above discussion and records available it is observed that the CE / NCES / TANGEDCO has replied to M/s. Southern Railway vide letter dated 07.03.2018 that they can use Commission's order on LT connection and Net metering vide Order No.3 dated 13.11.2013 and for HT service connections M/s. Southern Railway can opt parallel operation with grid without net metering even though Order No.3 of 2013 dated 13.11.2013 of this Commission permitted them to go for HT net metering system. As they were not allowed to proceed with HT net metering system M/s. Southern Railway has filed the petition in M.P.No.19 of 2018 in this Commission on 10.08.2015 when Tamil Nadu Solar Energy Policy, 2012 and Commission's Order No.3 of 2013 dated 13.11.2013 were in force.

But Government of Tami Nadu has announced the Tamil Nadu Solar Energy Policy 2019 on 04.02.2019 in which there is no explanation about the HT consumer category. The petition filed by the petitioner was listed for hearings held on 16.11.2018 and 31.01.2019 itself i.e. before issue of New Solar Policy 2012 by Government of Tamil Nadu on 04.02.2019 and final hearing was held on 15.10.2019.

As M/s. Southern Railway has filed the petition before the Commission and hearings were also held before the issue of New Tamil Nadu Government Policy 2019 the Commission directs TANGEDCO to provide LT and HT metering connectivity to M/s. Southern Railway as per TNERC Order No.3 of 2013 dated 13.11.2013 for the above 4 MW only. All other future cases shall be as per the available orders of TNERC from time to time. If LT / HT net meters are not available with TANGEDCO, M/s. Southern Railway may be permitted to procure LT / HT net meters as per TANGEDCO specifications.

With the above direction, this petition is finally disposed of.

(Sd.....)
(K.Venkatasamy)
Member (Legal)

(Sd.....)
(Dr.T.PrabhakaraRao)
Member

(Sd.....)
(M.Chandrasekar)
Chairman

/True Copy /

Secretary
Tamil Nadu Electricity
Regulatory Commission