IN THE APPELLATE TRIBUNAL FOR ELECTRICITY

(Appellate Jurisdiction)

APPEAL NO.118 OF 2016

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APPEAL NO. 151 of 2016

Dated: 11th November, 2019

Present: Hon'ble Mrs. Justice Manjula Chellur, Chairperson
Hon'ble Mr. S.D. Dubey, Technical Member

IN THE MATTER OF :

APPEAL NO. 118 OF 2016

Welspun Renewables Energy Private Limited.
Having Registered Office at :
3rd Floor, Press Trust of India Building,
4, Parliament Street,
New Delhi-110 001. … Appellant

VERSUS

1. **Tamil Nadu Electricity Regulatory Commission**
Through Secretary
No.19-A, Rukmini Lakshmipathy Salai
(Marshalls Road),
Egmore, Chennai- 600 008.

2. **Tamil Nadu Generation and Distribution Corporation Ltd.**
Through CMD
NPKRR Malligai,
144, Anna Salai,
Chennai- 600 002. … Respondent(s)

APPEAL NO. 151 OF 2016

National Solar Energy Federation of India Limited.
702, Chiranjiv Tower,
43-Nehru Place,
New Delhi-110 001. … Appellant

VERSUS

1. **Tamil Nadu Electricity Regulatory Commission**
No.19-A, Rukmini Lakshmipathy Salai
(Marshalls Road),
Egmore, Chennai- 600 008.

2. **Tamil Nadu Generation and Distribution Corporation Ltd.**
Chief Engineer / NCES, 2nd Floor,
Eastern Wing, NPKRR, Maaligai,
144, Anna Salai,
Chennai- 600 002. … Respondent(s)

Counsel for the Appellant (s) : Mr. Hemant Sahai
Mr. Puja Priyadarshini
Mr. Aditya Kumar Singh
Mr. Nived V.

Counsel for the Respondent(s) : Mr. Sethu Ramalingam for R-1

Mr. G. Umapathy
Mr. S. Vallinayagam
Mr. S. Amali for R-2

J U D G M E N T

PER HON'BLE MR. S. D. DUBEY, TECHNICAL MEMBER

1. These Appeals, the Appeal No. 118 of 2016 by Welspun Renewables Energy Private Limited (**Welspun**) and the Appeal No. 151 of 2016 by the National Solar Energy Federation of India ("**NSEFI**") have been filed challenging the *suo-moto* Comprehensive Tariff Order on Solar Power dated 28.03.2016 passed by the Tamil Nadu Electricity Regulatory Commission ("**TNERC/ Commission**") in Order No. 2 of 2016 ("**Impugned Order**").

1.1 The Appellants are aggrieved by the Impugned Order in as much as the TNERC has:

(i) passed the Impugned order without hearing stakeholders before rejecting their submission in complete violation of Section 64 (3) of the Electricity Act, 2003;

(ii) passed the Impugned Order without recording any reasons for determining various components of the tariff;

(iii) Determined the tariff in complete derogation of its own power procurement regulation, financial and accounting principles;

(iv) Arbitrarily fixed the capital cost without analyzing its components in detail or recording sufficient reasons for its findings;

(v) Arbitrarily determined the elements of tariff in an ad hoc manner such as depreciation, spares, degradation of modules, auxiliary consumption and Return on Equity resulting in an unviable and opaque tariff; and

(vi) Failed to determine the tariff in a way that it ensures recovery of the guaranteed Return on Equity as stipulated in the Impugned Order itself.

1.2 Since, both the appeals have similar issues and have been heard together from time to time, the said appeals are decided by this common order.

2. Brief Facts of the Case:-

2.1 Appeal No. 118 of 2016 has been filed by the Appellant, M/s Welspun Renewables Energy Private Limited which is involved in Electricity generation from RE sources including solar & wind power projects. It has developed its own EPC capabilities.

2.2 Appeal No. 151 of 2016 has been filed by the Appellant, National Solar Energy Federation of India (NSEFI), is an umbrella organization representing Solar Energy Companies active along the whole photo voltaic value chain : project developers, manufacturers, engineering companies, financing institutions and other

stakeholders. It was founded in 2013 by Solar Energy Industry leaders with the vision to promote solar energy.

2.3 The Respondent No.1, Tamil Nadu Electricity Regulatory Commission (Respondent Commission/ State Commission) is the Electricity Regulatory Commission for the State of Tamil Nadu exercising jurisdiction and discharging functions in terms of the Electricity Act, 2003.

2.4 The Respondent No.2 is Tamil Nadu Generation & Distribution Company (**TANGEDCO)**, a generation & distribution company. It was formed on 1 November 2010 under section 131 of the Electricity Act of 2003, and is the successor to the erstwhile Tamil Nadu Electricity Board.

3. **Questions of Law:-**

(A) Appeal No. 118 of 2016:-

The Appellant has raised following questions of law:-

3.1 Whether the Commission has acted contrary to its own regulations viz. the Power Procurement from New and Renewable Sources of Energy Regulations, 2008 in as much as the Commission has mechanically followed the CERC draft tariff norms in passing the Impugned Order

without considering the state-specific financial and operational parameters?

3.2 In its capacity as the apex autonomous regulatory body for the State was it not the statutory duty of the Commission to consider the issues and concerns specific to the State while determining tariff for solar PV plants to be set up in the State?

3.3 Whether the Commission has acted in complete abdication of its statutory obligations and jurisdiction in passing the Impugned Order by mechanically following CERC for determining feed-in-tariff for solar PV plants to be set up in the State of Tamil Nadu?

3.4 Whether the Commission committed an error in law by failing to appreciate that considerations relevant for determination of preferential or feed-in-tariff are completely different from those for the competitive procurement of power?

3.5 Whether the Impugned Order passed by the Commission is bad in law for being non-speaking in nature?

(B) <u>Appeal No. 151 of 2016:-</u>

4. The Appellant has raised following questions of law:-

4.1 Whether the State Commission was correct in relying on draft order of CERC dated 23.12.2015 and in ignoring final order dated 23.03.2016 for fixing the Benchmark Capital Cost?

4.2 Whether the State Commission was correct in ignoring its own RE Regulations for specifying Control Periods?

4.3 Whether determination of tariff contrary to the principles laid down in the CERC (Terms & Conditions for Tariff Determination from Renewal Energy Sources) Regulations, 2012 is violative of Section 61 (a) of the Electricity Act, 2003 and Tariff Policy?

4.4 Whether the State Commission was justified in fixing the CUF of the Solar PV generators at 19% despite the fact that the State is in the zone having a CUF of about 17-18%?

4.5 Whether the State Commission has erred in fixing the ROE of the solar PV generators at 20% Pre-tax without linking it to minimum alternate tax ("MAT") and Income Tax ("IT")?

4.6 Whether such determination of tariff has resulted in less return on equity than 20% pre-tax as guaranteed under the impugned order?

4.7 Whether the Discount Factor has been applied arbitrarily by the State Commission?

4.8 Whether the State Commission was justified in fixing the uniform depreciation for entire 25 years of the Plant?

4.9 Whether the State Commission was correct in fixing the O&M cost at 1.4% of capital cost with an escalation of 5.72% annually whereas actual escalation is more than 7% in reality?

4.10 Whether the State Commission was correct in not taking into account the Auxiliary consumption for determination of tariff for solar PV plant?

4.11 Whether the State Commission erred in computing the average loan and, hence, Interest on Loan?

4.12 Whether the State Commission erred in ignoring various dictum of this Tribunal for inclusion of cost of Maintenance Spares to compute Interest on Working Capital?

4.13 Whether the State Commission was correct in not considering the cost of Interface Line (between pooling sub-station to nearest grid sub-station) and losses in Interface Line (Evacuation Line) from HT Switchyard of generator to nearest sub-station of licensee?

4.14 Whether the State Commission erred in Computation of Accelerated Depreciation Benefit?

5. We have heard learned counsel, Mr. Hemant Sahai, appearing for the Appellant, learned counsel Mr. Sethu Ramalingham and Mr. S. Vallinyagam for the Respondents at considerable length of time. On the basis of the pleadings and submissions available, the

following main issues emerge in these Appeals for our consideration:-

6. Main issues for Consideration:-

6.1 Appellants have challenged diverse components of the tariff determined by the Impugned Order, on grounds inter alia, that the aforesaid legal principles have not been adhered to by the TNERC as also on grounds that the components are not based on sound legal, regulatory and economic principles. Appellants have argued that the TNERC is essentially an economic regulator and is legally obliged to provide a tariff that is rational and not arbitrary, provides the necessary economic and financial incentives and that the construction of the tariff should be such that it ensures the financial returns that are promised to an investor by the concerned regulations. Appellants have relied on the diverse provisions of the Act, tariff policy as well as the TNERC RE Tariff regulations.

6.2 The Appellants have emphasised that there are three well established legal principles that apply to and run a common thread through the entire Impugned Order. Failure to adhere to either one or all of these principles results in vitiating the Impugned Order to that extent. These legal principles are :

a. A regulatory body such as an SERC, is bound by its own regulations; and

b. A judicial order, such as the Impugned Order, must provide reasons;

c. In addition, the Impugned Order also needs to be tested on the touchstone of the fundamental legal right of the affected parties to be effectively heard, i.e. audi alteram partem.

6.3 The Appellants have challenged the tariff determined by the Impugned Order under the following components/grounds :

a. **Capital Cost** is arbitrary and not justified. The components of capital cost impugned by the Appellant are as follows :

(i) Evacuation Cost;
(ii) Module Cost;
(iii) Forex Rates;
(iv) Specific elements not considered individually by TNERC:

(a) Land;
(b) Mounting Structures;
(c) Inverters;
(d) Pre-operative expenses;
(e) Other expenses.

b. The following financial components for determination of tariff have been incorrectly applied resulting in reducing the returns that the developer is legally entitled to. The financial components impugned by the Appellants are :

(i) Depreciation
(ii) Spares
(iii) Degradation of modules
(iv) Auxiliary consumption
(v) ROE
(vi) Discount Factor

7. Analysis of various issues / components and our findings

7.1 Capital Cost

Appellants have argued that the Impugned Order does not provide any analysis or reasons whatsoever for determining the capital cost and in fact the adoption of the capital cost figure is arbitrary and without any basis. The argument of the TNERC that the successive bids have shown a declining trend of tariffs is no reasoning at all to arrive at the capital cost figure of Rs 5.05 cr/Mw. Since the Impugned Order determined tariff under Sec 62, the principles specified under Sec 61 generally and specifically the principles enshrined in sub clauses (a) to (e) and (i) of Sec 61, should have been applied.

7.2 The TNERC Power Procurement from New and Renewable Sources of Energy Regulations, 2008 (hereinafter "TNERC RE tariff Regulations") have been framed under Sec 61. Sec 61(a) and (i), as well as the TNERC RE Tariff Regulations in Regulation 4(2) both provide that the TNERC shall be guided by the principles and methodologies specified by, inter alia, CERC and the Tariff Policy of the Government of India.

The aforesaid principles provide that the tariff must ensure that the cost of supply must be adequately compensated to the generator. Appellants argued that the capital cost determined by the Impugned Order does not follow the aforesaid statutory principles and does not adequately cover the capital cost and therefore, does not cover the cost of supply.

7.3 It is the case of the Appellants that various ERCs including CERC have contemporaneously determined tariff by recognizing and discussing individual components of capital cost. The Appellants have submitted that the Impugned Order does not discuss the following individual components of capital cost and does not discuss or provide any reasoning or justification whatsoever, while determining the capital cost.

(i) Evacuation Cost;
(ii) Module Cost;
(iii) Forex Rates;
(iv) Specific elements not considered individually by TNERC:

  (a) Land;
  (b) Mounting Structures;
  (c) Inverters;
  (d) Pre-operative expenses;
  (e) Other expenses.

7.4 The Appellants have submitted that TNERC arbitrarily determined the capital cost without evaluating the individual components and accordingly, the aggregate capital cost determined is erroneous, does

not reflect the actual cost of a project and in fact ensures under recovery of costs in perpetuity. In determining such capital cost arbitrarily, the TNERC ignored contemporaneous determination of solar tariffs by CERC which it was legally obliged to be guided by as well as ignored the determination process of other SERCs for the sake of comparison. The Impugned Order suffers from legal infirmities as it does not provide any reasoning and in fact is contrary to the TNERC's own regulations, i.e. the TNERC RE Tariff Regulations, read with the relevant provisions of the Act, CERC Regulations and Tariff Policy of the Government of India.

7.5 The Appellants have submitted that other SERCs as well as CERC have provided detailed analysis in respect of each component of capital cost and therefore, have arrived at the appropriate capital costs. Appellants further submit that while the Impugned Order refers to and relies upon the capital costs determined by other SERCs as well as the CERC, however, TNERC failed to justify the departures and deviations made by it compared to the capital costs determined by these other CERC as well as have completely ignored the cost determined by SERCs. Appellants further submit that the Impugned Order has determined a capital cost that is significantly lower than the capital costs determined contemporaneously by the CERC and other SERCs

and that such lower capital cost is without any justification or explanation whatsoever and is thus arbitrary, without reference to the actual costs, completely divergent from applicable regulations as well as other contemporaneous capital costs and therefore, do not reflect the cost of supply of electricity. Appellants have submitted the following comparable capital costs determined by other SERCs and CERC:

A. GERC has determined a capital cost of Rs. 6.15 Crores/MW.

B. RERC has determined a capital cost of Rs. 5.18Crores/MW. This lower capital cost is compensated in part due to the higher insolation resulting in higher generation for the same capital cost.

C. MERC has provided for a capital cost of Rs. 5.30 Crores/MW following the CERC Final Benchmark Capital Cost Order.

D. MPERC has provided for a capital cost of Rs. 5.30 Crores/MW following the CERC Final Benchmark Capital Cost Order.

E. KERC has provided for a capital cost of Rs. 6.00 Crores/MW.

7.6 ***Per contra***, TNERC has defended its position by stating that (i)TNERC is not bound by CERC regulations; (ii) It has independently determined its tariff including capital cost; (iii) TNERC has independently decided to adopt a cost of Rs 5.05 Cr/Mw which includes all components and degradation of modules.

Further, learned counsel for 2nd Respondent/TANGEDCO has taken a similar position that CERC regulations are not binding but merely guiding for the TNERC. It has further argued that the TNERC has taken into consideration all the components of capital cost and the generators cannot have any grievance on this count. It is further argued that the TNERC has considered appropriate financial and operational parameters. Being generic tariff, specific project related components cannot be considered. It is also asserted that the principles of Sec 61 of the Act have been adopted while determining the capital cost and tariff. The respondents have also generally invoked consumer interest to justify the capital cost and tariff.

Our Findings:-

7.7 On a detailed review of the Impugned Order, it is more than apparent that it is devoid of cogent or adequate reasoning to justify the conclusions as also being divergent from TNERC's own regulations. It is also pertinent that the Impugned Order has computed the tariff by ignoring comparable and contemporaneous capital cost/tariff determinations by other SERCs and the CERC. The divergence from its own regulations as well as from contemporaneous determination of capital costs/tariffs is significant and no reasons or justification have

been provided for the same. In fact, we find that there is not even any basic discussion justifying such divergence and/or departure.

7.8 The relevant extract of the Impugned Order with respect to capital cost determination is reproduced herein below:-

"9.2 Capital Investment

9.2.1 The capital cost is one of the most important parameters for tariff determination of power projects. The major components of a photovoltaic power plant are PV modules, inverters, control panels, switch yard, machineries, equipment etc. Apart from the above components, the total capital cost includes the cost of land, power evacuation lines and replacement of capital equipment if any during the life time.

9.2.2 Many stakeholders have sought an increase in the capital cost ranging from Rs.5.55.Crores/MW to Rs.6.10 Crores/MW citing high land cost, increased cost involved in civil works, mounting structures depending on soil conditions and labour cost in the State. Neyveli Lignite Corporation Ltd.(NLC) has stated that the proposed capital cost is low and that the reduction in cost of modules is off set by the increase of prices in other components and has requested to furnish the break up cost. ***The CERC issued a draft order No. 17/SM/2015 dated 23/12/2015 in the matter of Determination of Benchmark Capital cost norm for Solar PV power projects and Solar Thermal power projects for the financial year 2016-17. In this order, the CERC has determined Rs.5.0132 Crores per MW for Solar PV plant. This includes module costs, land cost, cost towards civil and structural works, cost of power conditioning unit, cost of evacuation of power and preliminary and pre-operative expenses including IDC. Module degradation of 0.6% has been accounted for in the capital cost. TANGEDCO has suggested to adopt the capital cost of Rs.5.0132 Crores/MW as proposed by CERC.*** *The stakeholders have expressed views that the reduction in prices of module cost is temporary and to consider the increase in exchange rate variation.* ***The Commission has observed that each bidding by different state utilities for solar energy finds a new low in terms of cost of energy.*** *Various stakeholders attribute various reasons for such low tariffs. Some of them have said that these prices are unsustainable. However, the fact remains that the prices for solar energy continue to fall and has reached as low as Rs.4.34 per unit as on date.(as per available information).* ***In view of this, the Commission is not inclined to alter the capital cost indicated in the consultative paper. The Commission decides to adopt a capital cost of Rs. 5.05 Crores per MW which includes all the components and degradation of modules."***

Notably, TNERC in the Impugned Order dated 28.03.2016 have erred in relying on draft order dated 23.12.2015 of CERC for specifying Capital Cost of Solar PV project and ignored actual capital cost determined in the CERC's final order on benchmark capital cost dated 23.03.2016 for FY 2016-2017. Needless to mention that Impugned Order is subsequent to final order of CERC, still TNERC ignored the same and conveniently went ahead with the figures of the draft order of CERC. CERC, in its order dated 23.03.2016 have observed that:

Analysis and Decision

As analysed in the previous sections, the Commission accepts the following changes to the parameters: a) Exchange rate to be taken as average over most recent six months b) Module prices to be taken as $0.48/W c) PCU cost to be taken as Rs.35 lakhs/MW d) Evacuation cost to include cost of SCADA/telemetry, and now taken as Rs. 44 lakhs/MW

Thus, the benchmark capital cost norm for Solar PV projects for FY 2016-17 shall be INR 530.02 lakhs/MW, with breakup as follows:

S.No.	*Particulars*	*Capital Cost norm proposed for FY 2016-17 (Rs. lakhs/MW), for Solar PV projects*	*% of Total Cost*
1	*PV Modules*	*328.39*	*61.96%*
2	*Land Cost*	*25*	*4.7%*
3	*Civil and General Works*	*35*	*6.6%*
4	*Mounting Structures*	*35*	*6.6%*
5	*Power Conditioning Unit*	*35*	*6.6%*
6	*Evacuation Cost up to Interconnection Point (Cables and Transformers)*	*44*	*8.3%*
7	*Preliminary and Pre-Operative Expenses including IDC and Contingency*	*27.63*	*5.21%*
	Total Capital Cost	***530.02***	***100%***

7.9 The argument advanced by the TNERC in the Impugned Order is that ***each bidding by different state utilities for solar energy finds a***

new low in terms of cost of energy. This, in our view does not qualify as a reason to adopt a cost without reference to the specific components of the capital cost. The Impugned Order is a tariff determination under Sec 62 of the Act. Therefore, the TNERC was required to analyze and evaluate the individual components of the capital cost, which it has failed to do. The conclusion that it had decided to adopt a capital cost of Rs. 5.05 Crores per MW which includes all the components and degradation of modules, is devoid of merit, does not fulfill the legal mandate of providing adequate reasoning and in any case is divergent from its own regulations which mandate that TNERC will be guided by the principles and methodologies specified by CERC and the Tariff Policy of the Government of India. The expression "guided by" as used in Sec 61 of the Act as well as Regulation 4(2) of the TNERC RE Tariff Regulations, cannot be read down to mean that the TNERC can ignore them. While the TNERC is indeed entitled to depart from the principles and methodologies specified by CERC, however, the TNERC is required to provide reasons for not following the same. The Impugned order does not provide any explanation and/or analysis to justify such departure. The issue becomes even more pertinent from the simple logic that contemporaneous determination of capital costs by other SERCs and CERC adopted more or less consistent numbers, however, TNERC

stands out in having adopted a significantly lower capital cost. Considering that the major component of capital cost is modules, the cost of modules cannot be divergent in different states. Therefore, we find that the capital cost determined by TNERC is arbitrary and not based on detailed analyses or supported by cogent data or reasoning.

7.10 Notably, the defence from the respondents is a generic and general rebuttal of the allegations. However, tangible and cogent material or justification has not been provided. In any event, the Impugned Order has to speak for itself and it is not permissible for the respondents to improve upon what is stated in the Impugned Order. Therefore, we are required to analyse the Impugned Order and evaluate whether it fulfills the legal principles enumerated hereinabove. We conclude that the Impugned Order does not fulfill the legal principles of providing adequate reasoning nor does it adhere to the TNERC regulations itself, which explicitly includes the principles and methodologies specified by CERC and the Tariff Policy of the Government of India, under which the Impugned Order has been passed.

Hon'ble Supreme Court in the case of "Mohinder Singh Gill v. Chief Election Commr.," (1978) 1 SCC 405 at page 417 held that a statutory functionary makes an order based on certain grounds, its validity must

be judged by the reasons so mentioned and cannot be supplemented by fresh reasons in the shape of affidavit or otherwise.

Relevant extract of this judgment is being reproduced herein below:

> ***8.*** *The second equally relevant matter is that when a statutory functionary makes an order based on certain grounds, its validity must be judged by the reasons so mentioned and cannot be supplemented by fresh reasons in the shape of affidavit or otherwise. Otherwise, an order bad in the beginning may, by the time it comes to court on account of a challenge, get validated by additional grounds later brought out. We may here draw attention to the observations of Bose, J. in Gordhandas Bhanji [Commr. of Police, Bombay v. Gordhandas Bhanji, AIR 1952 SC 16] :*
>
> *"Public orders, publicly made, in exercise of a statutory authority cannot be construed in the light of explanations subsequently given by the officer making the order of what he meant, or of what was in his mind, or what he intended to do. Public orders made by public authorities are meant to have public effect and are intended to affect the actings and conduct of those to whom they are addressed and must be construed objectively with reference to the language used in the order itself.*
>
> *Orders are not like old wine becoming better as they grow older."*

8. We now therefore analyse the specific components of the **capital cost** as below:

a) Module Cost:

The TNERC in the Impugned Order, while determining the capital cost has assumed, without providing any cogent argument or rationale, that the module prices are declining merely based on the fact that, the solar tariffs in the other states are declining. Appellants submit that such assumption made by the TNERC is incorrect and is not based on facts or any cogent analysis of any credible data.

Pertinently, the CERC Draft Benchmark Capital Cost Order also initially incorrectly assumed a drop in the module prices, however, this was subsequently rectified by CERC in its final order whereby it increased the module cost once it had the opportunity to examine the relevant data and conclude that the declining price trend was not a correct assumption. The relevant extract of the CERC **Draft** Benchmark Capital Cost Order is reproduced herein below:

"6. BENCHMARK CAPITAL COST NORM FOR SOLAR PV TECHNOLOGIES, FOR FY 2016-17

6.1 Module Prices

6.1.1 The chart below from Mercom Market Intelligence Report for the week of 16th November 2015 ***shows an 8.5% drop in module spot prices over the first ten months of 2015****. However, last few months show a steady trend, possibly due to year-end drawing close."*

…

6.1.5 Considering the data trends above, and factoring in expected price reductions over the next year, the Commission proposes the benchmark cost of modules to be considered as $0.465/W for FY 16-17."

"6.8 Summarizing the cost components:

S.No.	*Particulars*	*Capital Cost norm proposed for FY 2016-17 (Rs. Lakhs/MW), for Solar PV Projects*	*% of Total Cost*
1	*PV Modules*	*310.19*	*61.9%*

Realizing that its assumption of dropping module prices was incorrect, CERC provided a higher cost for modules in its final order. The relevant extract of CERC **Final** Benchmark Capital Cost Order is reproduced herein below:

"Analysis and Decision

Several stakeholders have pointed out that assuming a drop of 11% in module prices might be unjustified, as the module prices have stabilized over last few months. Module price trends, starting April 2015, are as below:

…

While the spot prices reflect short term market rates, for planned projects, it is a standard practice for developers to negotiate price and quantity ahead of time. However, given quality concerns and to ensure life of 25 years, we must consider Tier-1 module prices. Industry players such as Adani Power, Tata Solar, Welspun etc. have also suggested that module prices be considered at $0.48/W. ***Thereby, the Commission sets module prices at $0.48/W, assuming prices are expected to be fairly stable in the coming year****. Regarding the domestic content requirement, the Commission would like to clarify that the present exercise of benchmark capital cost is for generic tariff and not for project specific projects."*

"Analysis and Decision

As analysed in the previous sections, the Commission accepts the following changes to the parameters:

a) Exchange rate to be taken as average over most recent six months

b) Module prices to be taken as $0.48/W

c) PCU cost to be taken as Rs.35 lakhs/MW

d) Evacuation cost to include cost of SCADA/telemetry, and now taken as Rs. 44 lakhs/MW

Thus, the benchmark capital cost norm for Solar PV projects for FY 2016-17 shall be INR 530.02 lakhs/MW, with breakup as follows:

S. No.	*Particulars*	*Capital Cost norm proposes for FY 2016-17 (Rs. Lakhs/MW), for Solar PV projects*	*% of Total Cost*
1	*PV Modules*	*328.39*	*61.96%*
…	*…*	*…*	*…*
	Total Capital Cost	*530.02*	*100%*

"

8.1 Appellants further submit that the CERC has undertaken a detailed and scientific analysis based on data collected from reliable sources to arrive at the aforesaid conclusion. The TNERC on the other hand has not undertaken any such analysis which demonstrates a complete lack of reasoning or application of mind.

8.2 Appellants further submit that other SERCs have, in contemporaneous capital cost determinations, taken into consideration module costs

based on market trends, and have specifically provided for higher module costs in comparison to the module cost arbitrarily assumed by the Impugned Order. The Impugned Order has merely determined an all-inclusive capital cost in an ad-hoc manner without determining the components of the capital cost or recording any reasons for such findings.

8.3 Appellants have submitted the following comparative module costs determined by other SERCs in contemporaneous capital cost determinations.

A. GERC has provided a cost of Rs. 3.50 Crores/MW for Solar PV Modules.

B. RERC has provided a cost of Rs. 3.20 Crores/MW for Solar PV Modules.

C. MERC has followed the CERC Final Benchmark Capital Cost Order and has determined a similar capital cost. Hence, MERC too has provided a cost of Rs. 3.28 Crores/MW for Solar PV Modules.

D. MPERC too has followed the CERC Final Benchmark Capital Cost Order and has determined a similar capital cost. Hence, MERC too has provided a cost of Rs. 3.28 Crores/MW for Solar PV Modules.

E. KERC has provided a cost of Rs. 3.14 Crores/MW towards Solar PV Modules.

8.4 In contrast, TNERC has not given any separate component break up for solar module cost.

8.5 ***Per contra,*** the TNERC has defended its decision by reiterating its argument that the module costs were generally on a declining trend as evidenced by the tariffs discovered in bids in other states. Second Respondent/ TANGEDCO has reiterated its earlier general submissions and defended the TNERC's right to deviate from CERC regulations and take an independent view keeping in mind the consumer' interest.

Our Findings:-

8.6 An analysis of the Impugned Order leaves no doubt that the capital cost has been determined by TNERC on an ad hoc basis, without any analysis or discussion on the diverse components aggregating to such capital cost. It is meaningless to try and analyse the capital cost in terms of its components at this stage, simply because the Impugned Order does not even attempt to undertake such a granular analysis component wise. Therefore, in our view, the Impugned Order, while determining the capital cost fails to fulfil the fundamental legal principles of transparency and reasoning, as enumerated above and also being contrary to its own regulations which includes the principles and methodology adopted by the CERC and the Tariff Policy of the Government of India.

8.7 We also find that the assumption made by TNERC that the module costs were declining, is not substantiated by the facts as prevalent at the relevant time. It is also not clear as to why the TNERC chose to depart from the norms that were being adopted in contemporaneous capital cost and tariff determinations by CERC, especially when the TNERC itself referred to and relied on the same in the Impugned Order. The detailed analysis provided by the Appellants on comparable costs, appears to be valid. The assumptions made by CERC and the module cost adopted by CERC, therefore appears to be rational in the circumstances prevailing at the relevant time.

8.8 It is, therefore, held that TNERC ought to re determine the module cost in line with the CERC final order on Benchmark Capital Cost.

b) Exchange Rate:

8.9 Appellants submitted that TNERC in the Impugned Order has not recorded any findings with regard to the Foreign Exchange Rate Variation and its impact on the capital cost. In contrast to the same, it is noteworthy that, the CERC **Final** Benchmark Capital Cost Order has determined an exchange rate based on an analysis of average data of the previous 6 months period. However, TNERC in the Impugned Order, in an arbitrary manner has not recorded any findings at all on

this aspect. The relevant extract of the CERC **Final** Benchmark Capital Cost Order is reproduced herein below:

> *"Analysis and Decision*
> *Stakeholders have pointed out that Indian Rupee has been depreciating for the past several months. Several companies such as Suzlon, Tata Solar, Adani and Solar Power Developer Association have suggested that currency future market data from NSE be used for arriving at the exchange rate assumption for 2016-17.* ***While the Commission appreciates the currency risk in the current global scenario, the same cannot be ascertained in advance. Average exchange rate for the most recent six months can be considered.*** *For September 2015 to February 2016, the average exchange rate was 66.59 INR/USD, as per RBI website, which is closer to the prevalent exchange rate.* ***The Commission decides to use this exchange rate for the benchmark cost model****."*

8.10 Appellants further submit that TNERC has selectively chosen to follow CERC's order and wherever convenient has departed from the CERC order, to artificially reduce the costs/returns/revenues of the Appellants.

8.11 ***Per contra*****,** both the respondents have asserted that in fact the USD and INR exchange rate has improved to the benefit of INR.

Our Findings:-

8.12 We have examined the issue. The real issue is not whether the exchange rate has improved or not, rather whether the TNERC has factored for the impact of exchange rate variation, while determining the benchmark capital cost. Clearly the TNERC has not undertaken any analysis relating to exchange rate variation i.e. either to determine this variation or to analyse the impact of such exchange rate variation on the benchmark capital cost. Therefore, the Impugned Order is

vitiated on this count too. The capital cost should have specifically taken in to account the impact of exchange rate variation.

8.13 Considering above it is clear that TNERC has not gone into detail of individual elements of the Capital Cost and have blindly followed the draft order of CERC. In the absence of TNERC not going into individual elements of the Capital Cost, should have at least followed the CERC's final order on benchmark Capital Cost for discovering the fair module / capital cost and in turn, tariff.

9. Evacuation Cost:

9.1 The Appellants have submitted that TNERC has not considered cost of Interface line (evacuation line) from HT Switchyard of generator to the nearest subs-station of the licensee. TNERC has considered Capital Cost based on the CERC draft order on benchmark Capital Cost. The Appellants further submitted that the CERC has determined benchmark capital cost wherein evacuation cost was included upto the interconnection point. Appellants further submitted that the model PPA approved by the TNERC on 22.01.2015 for Solar PV projects, inter-alia, mandates that developer has to build the interface lines at its own cost as a part of the project.

In contrast, the Impugned Order has determined capital cost inclusive of "all the components" i.e. including evacuation costs upto the grid

sub-station. Therefore, the generators are not being compensated for the evacuation costs for the dedicated transmission line, beyond the pooling sub-station, i.e. at the sub-station at the generator's project end, upto the grid sub-station. This cost will depend on the distance of the project site from the grid sub-station, and therefore, cannot be absorbed by the generator.

9.2 To substantiate their argument, Appellants have pointed out the following :

CERC final order determining benchmark capital cost for FY 2016-17, dated 23.03.2016

> ***8. <u>Evacuation cost upto the Interconnection Point (Cables and Transformers)</u>***
>
> *……*
>
> *<u>Analysis and Decision</u>*
> *The following costs are included by the Commission under this heading: cost of transformers and all DC and AC cabling within the solar farm, including DC cabling between solar PV panels and inverters, junction boxes, AC cabling between inverter and pooling station, earthing; LT & HT switchgear, step-up transformer, breakers, isolators, protection relays, CT, PT, and metering.*
> *It is clarified that **<u>this cost component includes costs of evacuation only up to the interconnection point, as defined in the RE Tariff Regulations</u>**:*
>
> *"2.(n) 'Inter-connection Point' shall mean ……*
> ***i. <u>in relation to wind energy and Solar Photovoltaic Projects, inter-connection point shall be line isolator on outgoing feeder on HV side of the pooling sub-station;</u>** "*
>
> ***<u>While a few stakeholders have mentioned that the developers have to construct overhead transmission lines to the nearest grid sub-station, this cost is beyond the scope of RE Regulations, and may be considered on a project-to-project basis by the procurer.</u>***
>
> *The total cost for evacuation is hereby set to **Rs. 44 lakhs/MW**."*

9.3 As against the aforesaid principle and methodology adopted by the CERC, the Appellants submit that the Impugned Order mandates that the Energy Purchase Agreements (EPA) should be executed in the prescribed model form. The said mandated EPA stipulates that the developer shall construct the dedicated evacuation line from the pooling sub-station, i.e. the sub-station at the generator's project end, upto the grid sub-station at its own cost.

The relevant extract of the Impugned Order is reproduced herein below:

> *"11.5 Energy Purchase Agreement (EPA)*
> *11.5.1* ***The format for Energy Purchase Agreement (EPA) shall be evolved as specified in the Commission's "Power procurement from New and Renewable source of Energy Regulations 2008" and as amended from time to time****. The agreement shall be valid for 25 years. In their comments, TANGEDCO has reported that they may execute EPA with the solar power generators after finalizing power evacuation.* ***The distribution licensee shall convey its decision on purchase of power in line with this order within a month of receipt of the proposal from the generator for selling power****. In case of refusal to purchase power, valid reason in line with this order shall be communicated to the SPG by the distribution licensee. The EPA shall be executed within the reasonable time in line with this order. The agreement fees are governed by the Commission's Fees and Fines regulation."*

The relevant extract of the EPA is reproduced herein below:

> *2. Interfacing and Evacuation Facilities:*
> *(a) Evacuation facilities from the point of generation to the interconnection point including the required metering, protection arrangement, and related other equipments and the entire interface line shall be provided by the SPG at their/his cost as per the Commission's Intra State Open access Regulations, the Central Electricity Authority (Technical Standards for connectivity to the Grid) Regulations and the Tamil Nadu Electricity Grid Code, in force and as amended from time to time.*

9.4 Similarly, the relevant Regulation 3(3) of TNERC Power Procurement Regulations provides that the entire evacuation facilities from the point

of generation to the interconnection point along with the interface line would be provided by the generator. The relevant extract of Regulation 3(3) of the TNERC Power Procurement Regulations, 2008 is reproduced below :

> "*Evacuation facilities from the point of generation to the interconnection point including the required metering, protection arrangement and related other equipments* ***and the entire interface line*** *shall be provided by the generator as per the Commission's Intra State Open Access Regulations, Central Electricity Authority (Technical Standards for connectivity to the Grid) Regulations and Tamil Nadu Electricity Grid Code, in force.*"

The term "Interconnection Point" has been defined in Regulation 2(1)(f1) of the TNERC Power Procurement Regulations, as follows :

> *"(f1) "Inter connection point" means ……..*
> *(a) in relation to wind energy projects and solar photovoltaic projects, inter connection point shall be line isolator on outgoing feeder on HV side of the pooling sub-station;*
> *…*
> *(f2) "Interface line" means the electric line* ***between the interconnection point and the nearest point at which the electric line could technically be connected to the existing grid or distribution system****;"*

In light of the comparison drawn above, Appellants submitted that, it was imperative for TNERC to separately determine and expressly provide for evacuation cost beyond the pooling sub-station, i.e. the sub-station at the generator's project end, upto the grid sub-station.

9.5 Appellants further submitted that most of the other SERCs too provide for the evacuation cost from the pooling sub-station, i.e. the sub-station

at the generator's project end, upto the grid sub-station, separately, as given below:

A. GERC has separately provided for evacuation cost beyond the pooling sub-station of the generator upto the grid sub-station, of Rs. 0.15 Crores/MW.

B. RERC too has separately provided for evacuation cost beyond the pooling sub-station of the generator upto the grid sub-station, of Rs. 0.15 Crores/MW.

C. MERC has followed the CERC Final Benchmark Capital Cost Order and has adopted a similar capital cost. Hence, MERC too has explicitly adopted the CERC formulation for compensating the generator for the evacuation cost beyond the pooling sub-station upto the grid sub-station on a project to project basis.

D. MPERC too has followed the CERC Final Benchmark Capital Cost Order and has adopted a similar capital cost. Hence, MERC too has explicitly adopted the CERC formulation for compensating the generator for the evacuation cost beyond the pooling sub-station upto the grid sub-station on a project to project basis.

E. KERC in its order has provided a significant evacuation cost of Rs. 55 lakh/MW for FY 2016, Rs. 57.75 lakh/MW for FY 2017 and Rs. 60.64 lakh/MW for FY 2018, which compensates for the evacuation costs beyond the pooling sub-station upto the grid sub-station.

9.6 ***Per contra***, the Respondents have reiterated the earlier generic response and rebutted the allegations in general terms. Notably, no specific material or reasoning has been placed on record to justify that the capital cost includes adequate compensation for the evacuation facilities beyond the pooling sub- station upto the grid sub-station. The Respondents have merely reiterated and stated that the capital cost includes the cost of evacuation. The core issue raised by the Appellant that the cost of evacuation facilities from the pooling sub-station at the generator's end upto the grid sub-station has not been compensated, remains un answered nor has it been rebutted. Even to pointed queries by the bench, the only response forthcoming was that the capital cost includes all the evacuation cost, which can only mean that the cost for the evacuation facilities beyond the pooling sub-station too would be included in the capital cost.

Our Findings:-

9.7 We find that there is an infirmity in the Impugned Order in as much as while the obligation to build the evacuation system from the pooling sub-station at the generator's end upto the grid sub-station is cast upon the developer, however, there is no clear direction for compensating the generator for this cost. It also appears to be unreasonable to provide that this unpredictable cost should be borne

by the developer. From a plain reading of the relevant provisions of the EPA and the TNERC RE Tariff Regulations, it is clear that the capital cost only includes cost of evacuation facilities upto the pooling sub-station at the generators end and not beyond the interconnection point. Therefore, we are of the opinion that the TNERC must provide reasonable compensation for evacuation line from the pooling sub-station at the generator's end, upto the grid sub-station in line with the similar cost considered by CERC.

Financial Components

10. Depreciation:

10.1 Appellants submit that, TNERC in the Impugned Order has arbitrarily and without recording any reasons decided to adopt 90% of depreciation uniformly spread at the rate of 3.6% per annum over 25 years. The relevant extract of the Impugned Order is extracted herein below:

> *"9.11 Depreciation*
> *9.11.1 The CERC has adopted the normative depreciation rate of 5.83 % per annum for initial period of 12 years i.e. equivalent to the loan tenure and at the rate of 1.54% for the balance useful life of the project beyond the initial period of 12 years. Few stakeholders have requested to adopt the CERC formula. The Commission in its orders on Wind, Bio-mass and Bagasse based energy issued during the year 2012 has depreciated the value of plant and machinery to 90% of the initial value for the life period using the straight line method. This translates into a rate of 3.6% per annum. In the last tariff order on solar power, depreciation was calculated on 95% of the capital investment.* ***The Commission decides to adopt the depreciation rate of 3.6% per annum following the same method in this order also for the life period of 25 years.****"*

10.2 Appellants further submit that the methodology adopted by TNERC is erroneous as depreciation spread uniformly over a period of 25 years **is unheard of and completely against settled financial principles**. Appellants submit that, generally a front-loaded depreciation is allowed as the higher rate of depreciation in the beginning provides additional cash flows that can be utilized for debt servicing. This makes the projects more bankable and therefore, developers can negotiate more efficient and lower cost of debt. Debt servicing typically takes place over the first 10 to 15 years of commissioning of a project and therefore, greater cash flows are required in this initial period to assist in debt servicing. On the other hand, providing depreciation on a straight line method as in the Impugned Order, has the following adverse financial impact on the project:

a. Debt servicing is impacted, leading to higher cost of debt;
b. Reduction in RoE since the cash flow deficit to service debt during the initial term, will have to be met through equity or promoter contributions.

10.3 Appellants submit that the CERC's Tariff Order dated 29.04.2016 in Petition No. SM/03/2016 provides for depreciation in the following manner:

Depreciation rate for first 12 years x	5.83%=	69.96%
Depreciation rate 13th year onwards x	1.54% =	20.02%
Total Depreciation:		89.98%

10.4 Appellants submit that the logic behind allowing a front-loaded depreciation is to enable the generator to service its debt during the tenor of the loan. In fact this logic is explicitly recognized by CERC. The relevant extract of the CERC order dated 29.04.2016 in Petition No. SM/03/2016 is reproduced herein below:

> *41. Regulation 15 of the RE Tariff Regulations provides for computation of depreciation in the following manner:*
> *"(1) The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset.*
> ***(2) Depreciation per annum shall be based on 'Differential Depreciation Approach' over loan period beyond loan tenure over useful life computed on 'Straight Line Method'. The depreciation rate for the first 12 years of the Tariff Period shall be 5.83% per annum and the remaining depreciation shall be spread over the remaining useful life of the project from 13th year onwards.***
> *(3) Depreciation shall be chargeable from the first year of commercial operation. Provided that in case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis"."*

10.5 On this basis, Appellants contend that the methodology followed by TNERC in the Impugned Order on amortization of depreciation on a straight line basis over the life of the project, is against accepted and settled regulatory, economic and financial principles as it reduces cash flows in the initial term making debt servicing more onerous, the financial consequences of which have been enumerated above.

Further, it is pertinent to note that the TNERC RE Tariff Regulations are silent on this aspect of treatment of depreciation. Therefore, as per Regulation 4 of the TNERC RE Tariff Regulations, the TNERC was required to keep in mind the methodologies and principles prescribed by CERC as stated above.

10.6 Appellants further submit that the calculation provided by TNERC is erroneous as it does not even ensure recovery of 90% depreciation as promised in the Impugned Order itself. In this regard it is pertinent to refer to "ANNEXURE IA" to the Impugned Order. In this table, the depreciation has been provided as Rs. 17,27,100 per year multiplied by 25 years which is the term of the PPA, 17,27,100 x 25 = 4,31,77,500. (i.e. total depreciation given to developer). As per the Impugned Order, the total entitlement is 90% of Rs. 5.05 Crores (i.e. 90% of the capital cost) which comes to Rs. 4,54,50,000. Hence, Rs. 4,54,50,000 – Rs. 4,31,77,500 results in an under recovery of Rs. 22,72,500 i.e. an under recovery of 5% over the life of the project. Pertinently such under recovery has the following impacts:

(i) The cashflows are impacted resulting in higher working capital requirement leading to additional financing costs;

(ii) Under recovery of RoE against the guaranteed RoE of 20%; and

(iii) no carrying cost is provided for the aforesaid negative financial consequences.

10.7 Appellants have further submitted that all the other SERCs have provided for a front-loaded depreciation in consonance with regular market practice and the principles and methodologies of the CERC.

10.8 Appellants submitted that a comparison with the other SERCs is being undertaken since TNERC itself has, in its consultative paper, repeatedly referred to and relied upon the tariff determined by the different SERCs. However, it appears that this reference and reliance has been done selectively by TNERC. The relevant extracts of the consultative paper issued by TNERC are reproduced herein below:

"*9.2.3 The Commission in its earlier tariff order on Solar power issued on 12.9.2014 had fixed a capital cost of Rs.7 Crores/MW and Rs.12 Crores/MW for Solar Thermal power projects respectively. The capital cost adopted by other Commissions inclusive of CERC are tabulated below:*

Sl. No	*Agencies*	*Reference*	*Capital Cost*	
			Solar PV Rs. Crores/MW	*Solar Thermal Rs. Crores/MW*
1.	*CERC*	*Order dt.31003.2015*	*6.0585*	*12.00*
2.	*GERC*	*Order No.3 of 2015 dt. 17.08.2015*	*6.15*	*12.00*
3.	*RERC*	*Order dated 19-06-2015*	*5.968*	*11.823*
4.	*MERC*	*Draft order dt. 01.12.2015*	*6.0585*	*12.00*
5.	*CERC*	*Draft order on Benchmark capital cost of Solar PV and Solar Thermal dt. 23.12.2015*	*5.0132*	*12.00*

"9.12. Depreciation

9.12.1. The CERC has adopted the normative depreciation rate of 5.83 % per annum for initial period of 12 years i.e. equivalent to the loan tenure and the remaining depreciation to be spread over the remaining useful life of the project from the 13th year. GERC has considered a depreciation rate of 6% annually for the first 10 years and 2% for the remaining 15 years. MERC in

its draft order has proposed a depreciation rate as adopted by CERC. RERC has adopted a depreciation rate of 5.83% for the first 12 years and a rate of 1.54% for the period after the first 12 years. ***The Commission in its Orders on Wind, Bio-mass and Bagasse based energy issued during the year 2012 has depreciated the value of plant and machinery to 90% of the initial value for the life period using the straight line method which translates to 3.6% per annum****. The same method was adopted in the last order issued for solar power.* ***Depreciation was calculated on 95% of the capital investment in the last solar order****. The Commission proposes to adopt the same method in this Order for the life period of 25 years"*

10.9 ***Per contra***, the respondents have taken an identical defence that the TNERC has consistently followed the principle of providing depreciation on a straight line method and that this principle has not been challenged in the past.

10.10 There is no rebuttal to the Appellant's allegation that the aggregate depreciation provided is less than the 90% of capital cost, as provided in the Impugned Order.

Our Findings:-

10.11 In our considered view, there are two issues to be addressed:

(i) Firstly, the mere fact that the methodology of providing depreciation on a straight line method has been followed by TNERC in the past and has not been challenged, does not sanctify the methodology, if otherwise it is found to be incorrect on legal, regulatory and/or economic principles. We refer to the judgement of the Hon'ble Supreme Court in CSIR & Ors. versus Dr. Ajay Kumar Jain reported in (2000) 4 SCC 186, wherein the relevant finding is as follows :

> ***17.*** *Employment under the Quick Hire Scheme was on contract basis. The respondent was not governed by the CSIR Service Rules, 1994 for recruitment of scientific, technical and support staff as he would not be appointed under those Rules. An appointment under the Quick Hire Scheme cannot be equated with regular appointment as per the relevant Recruitment Rules of CSIR against a sanctioned post. To be eligible for regularisation, the respondent had to come within the relevant Rules. It is difficult to appreciate the directions issued by CAT in the circumstances of the case. A Pool Officer or a Scientist Fellow under the Quick Hire Scheme cannot continue to hold on to the job till superannuation. The respondent has referred to certain instances where scientists were appointed on permanent contractual posts by CSIR without following the selection procedure.* ***If something wrong has been done in violation of the rules, we cannot use that as an example to perpetuate an illegality.*** *In any case those cases are not before us and it is difficult for us to comment if there was violation of any rules regarding those scientists.* ***The respondent, however, cannot take advantage of an illegality, if there is any. Appointment as a Scientist Fellow under the Quick Hire Scheme cannot be understood to mean regular appointment under the relevant Recruitment Rules applicable to CSIR or to bodies under its control****. The term "appointment" has been only loosely used. It is mere placement as a Scientist Fellow and not appointment in the sense in which this term is used in service law. As noted above, a scheme has been framed for absorption in the Pool effective from 2-5-1997. If the respondent case is covered by that Scheme, he will certainly be entitled to be considered thereunder.*

In the present case, the mere fact that the practice of straight line depreciation has been followed by the TNERC in the past and that the same has not been challenged, does not sanctify such practice. Further, it is a settled legal principle that each assessment year of a tariff order gives rise to a fresh cause of action and can be challenged separately therefore the principles of *res judicata* do not apply in cases of tariff orders (Delhi Transco Ltd. Vs. DERC & Ors.: Judgment dated 13.01.2009 passed by APTEL in Appeal No. 133 of 2017).

In view of the above, we find that such practice is inconsistent with the regulations and economic principles adopted by CERC and other

SERCs, and deviation thereof by TNERC without any just reasons do not seem to be appropriate.

(ii) Secondly, as a matter of fact, whether depreciation upto 90% of the capital cost as ensured by TNERC has been allowed or not? From a simple calculation as provided by the Appellants, it is clear that this has not been achieved and only 85% of the capital cost is recoverable through the adopted rate of depreciation.

10.12 Hence, TNERC ought to have considered higher depreciation rate, to be specified during the initial loan tenure of solar power projects to ensure the adequate cash flow for loan re-payment. Considering the debt component of 70% and the loan tenure of 10 years as specified by TNERC in the Impugned Order, TNERC could have specified depreciation rate of 7% for first 10 years and 1.33% for remaining useful life of the project. Alternatively, the Commission ought to have adopted the depreciation rates as specified by CERC as indicated supra.

11. Cost of Maintenance Spares:

11.1 Appellants submit that the Impugned Order passed by the TNERC does not provide for maintenance spares as a part of working capital separately. Whereas, CERC has separately provided the cost of spares in its CERC (Terms & Conditions for Tariff determination from

Renewable Energy Sources) Regulations, 2012 ("**CERC Tariff Regulations, 2012**") separately at 15% of the Operation & Maintenance expenses, for calculation of Working Capital and its interest. The relevant extracts of CERC Tariff Regulations, 2012 are reproduced herein below:

> *"17. Interest on Working Capital*
> *(1) The Working Capital requirement in respect of wind energy projects, Small Hydro Power, Solar PV and Solar thermal power projects shall be computed in accordance with the following:*
> *Wind Energy / Small Hydro Power /Solar PV / Solar thermal*
> *a) Operation & Maintenance expenses for one month;*
> *b) Receivables equivalent to 2 (Two) months of energy charges for sale of electricity calculated on the normative CUF;*
> *c) Maintenance spare @ 15% of operation and maintenance expenses"*

This is further substantiated by the fact that CERC's Tariff Order dated 29.04.2016 in Petition No. SM/03/2016 (Suo-Moto) also notes that 15% of O&M Expenses is provided as maintenance spares.

TNERC Power Procurement Regulations, 2008 expressly provide that the TNERC would, as far as possible, be guided by the principles and methodologies specified by the CERC. Sec 61 of the Act, too, provides for the same.

11.2 Appellants further submit that, the other SERCs have either provided for spares separately or have in the alternative, allowed a higher capital cost to subsume the cost of spares. The cost of spares considered by the other SERCs for calculation of the Working Capital and its interest are as follows:

A. GERC has not allowed spares under a separate head however, GERC has allowed a higher capital cost of Rs. 6.15 Crores per MW.

B. RERC has allowed 15% of O&M cost as a separate component for spares.

C. MERC has provided for maintenance spares at 15% of the O&M expenses as a separate component.

D. MPERC has provided of maintenance spares at 15% of the O&M Expenses as a separate component. It is pertinent to note that while MPERC does not have any regulations in this regard, it has adopted the norms prescribed by the CERC. In the Impugned Order, TNERC despite having categorical norms that it shall be guided by the methodologies and principles prescribed by the CERC, has not provided for spares and in fact remains completely silent on these components.

E. Similar to GERC, KERC has not provided separately for spares, however, it has provided for a higher capital cost of Rs. 600 Lakhs/MW.

11.3 ***Per contra***, the respondents have taken an identical defence i.e. that the TNERC has not considered maintenance spares in its last tariff orders and the same has not been contested by any stakeholder in the past. No other defence or explanation has been provided. In any event, the Impugned Order has to speak for itself and cannot be improved upon in appeal.

Our Findings:-

11.4 Once again, we refer to our finding above, that the mere fact that a practice has been followed in the past, does not act as a bar to raising the issue at this stage. An incorrect practice by a regulatory authority cannot be sanctified merely be the fact that the same was not challenged earlier. In any case, each tariff order constitutes a fresh cause of action.

11.5 In the circumstances, we find merit in the contention of the Appellants. The Maintenance spares are an essential component for the efficient and continued operations of a solar generation plant, and the need for such spares cannot be dispensed with, especially without providing any cogent reasons and/or analyses that the same has been compensated in some other manner. Accordingly, we are of the opinion that the developers are entitled to receive compensation, as part of tariff, towards maintenance spares.

11.6 We direct TNERC to re compute the tariff by factoring costs for maintenance spares, by following the principles and methodology adopted by CERC in this regard.

12. Degradation of Modules:

12.1 The Appellants submitted that TNERC has erred in not considering the module degradation separately and it is specified that it is included in

the Capital cost of Rs. 505 Lakhs /MW. CERC has done the same mistake and considered module degradation at 0.5% per annum and around Rs.10 Lakhs added in the Capital Cost. Ideally, TNERC as well as CERC should consider the annual degradation for Solar PV by accounting for reducing the PLF every year instead of providing an additional Capex. Appellants submitted that technically the impact of degradation is reduction in PLF and, therefore, the methodology for calculating the effect of degradation should be revised by factoring the same as a reduction in PLF over the operating life of the plant instead providing additional Capex. Therefore, TNERC ought to have considered changing the Tariff calculation methodology for the Degradation.

12.2 In the said regard, Appellants further submitted that the tariff is computed by dividing Annual Fixed Charges with units generated. The Annual Fixed Charges for each of the 25 year period comprise of five components viz. Interest on Loan, Depreciation, Return on Equity, O&M Expenses and Interest on Working Capital. Out of these five, the first three are dependent on Capital Cost and not the last two i.e. O&M Expenses and Interest on Working Capital. Actual reduction in generation due to degradation should result in per unit increase in all these five tariff components. However, the notional compensation for

loss in generation by adding additional modules, and hence additional capital cost, would compensate only for first three components related to Capital Cost and not the last two components, leading to lower compensation than the required one for loss in generation.

12.3 Appellants referred this Tribunal's Judgment dated 17.04.2013 in Appeal No. 75 of 2012, wherein it directed GERC to capture degradation correctly in the levellisation formula by considering reducing generation. This Tribunal finally directed the GERC to determine the tariff with Annual Degradation so that the recovery of revenue is ensured. The relevant extract of the judgment is reproduced as under:

> *".....13. The sixth issue is regarding the consideration of 1% annual degradation of plant and formula used for levellised tariff.*
> *13.1 According to the Appellant, the State Commission has not considered degradation of plant as approved by the State Commission in the impugned order in computing the levelised tariff.*
> *13.2 According to learned counsel for the Respondent no. 2, the State Commission has already considered the generation that will be available from the Solar Power Developers after applying degradation factor.*
> *13.3 Learned Sr. counsel for the State Commission has informed that performance degradation has been taken into account by the State Commission while determining the year to year tariff and the same has also been given effect while determining the levellised tariff. The State Commission has also furnished calculation sheet indicating the gross generation after taking into account the performance degradation.*
> *13.4 We find from these calculations that the State Commission has taken into account the annual degradation of 1% while working out the gross in the tariff stream of 25 years. The State Commission has computed year-wise tariff from year wise expenses and net generation which has been discounted by taking annual discount rate. Levellised tariff has been determined by dividing the arithmetic summation of year wise tariff divided by the arithmetic summation of discount factor. Learned Senior counsel for the Appellant argued that with equated levellised tariff, the cash stream for 25 years is constant only if generation is assumed to be constant. But since*

the State Commission has allowed annual degradation @ 1%, the annual cash flows will also reduce each year by 1% as tariff is constant. The reduction in cash flows is solely due to reduction in generation. Hence the levellised tariff has to be computed with cash flows reducing in the same proportion as generation. The Appellant in the written submission gave illustration to explain their point.

13.5 We feel that the issue raised by the Appellant needs to be considered by the State Commission to examine if the levellising tariff allowed by the State Commission ensures recovery of the revenues permissible to the Developers during the life cycle of the plant at the energy sent out with degradation. Accordingly, the State Commission shall consider the submissions of the Appellant and decide the matter…..

…..

18. Summary of our findings

….

vi) Annual degradation of Solar Plant: We feel that the issue raised by the Appellant needs to be considered to examine if the levellising tariff allowed by the State Commission ensures recovery of the revenue permissible to the Developers in the life cycle of the solar plant at the energy sent out with degradation. Accordingly, the matter is remanded to the State Commission."

12.4 Appellants submitted that subsequent to APTEL's above referred judgment, GERC has passed an Order dated 07.07.2014 in Suo-Motu Proceedings in Order No. 1 of 2012, wherein GERC has calculated the levellised generic tariff with levellisation from revenue stream instead of earlier followed tariff stream. The relevant extract of the said Order is reproduced as under;

"[15.2] According to this formula, the annual tariff and discount rate works out based on the annual fixed charges. The above formula state that the tariff of every year and the discount factor is considered for determination of the tariff. While deciding the revenue, it is necessary to consider the annual fixed charge and generation approved by the Commission and discount rate considered by the Commission while determining the levellised tariff from the formula proposed by the Solar Energy Society which is revenue based. It is found that the tariff determined by the Commission with the formula of levelisation is different from the formula proposed by the petitioner and levelisation of tariff on revenue stream basis seems to be higher than the tariff determined by the Commission. Moreover, the revenue stream based levelised tariff seems to be valid as proposed by the petitioner in which the annual fixed charge with

consideration of degradation of the Solar Power Project be given effect. We also note that while determining the present value in case of levellised tariff determined by the Commission, the present value worked out is different from the tariff determined with the formula suggested by the Solar Energy Society of India and Others. It works out which is equal to Present Value without levelisation. We therefore, decide that the levelised tariff be determined with consideration of revenue based formula proposed by the Solar Energy Society and Others.

Based on the above, we decide to determine the levelised tariff by considering levelised fixed charges and levelised net generation separately."

12.5 The annual degradation is also not captured by the average performance (CUF of 19%) for the entire period 25 years, as that is the expected average of solar insolation in the State over this period and does not consider reduction in efficiency due to module degradation effect, which has been separately considered by CERC and other SERC. Therefore separate dispensation for degradation needs to be done.

12.6 ***Per contra***, both the respondents have taken an identical defence i.e. module degradation has been factored into the capital cost. This defence has been taken in the pleadings, however, during the course of oral arguments, no further explanation or analyses was offered. In any event, the Impugned Order cannot be improved upon at this stage.

Our Findings:-

12.7 We find that a one line statement in the Impugned Order, that the capital cost includes module degradation begs the question as to how

such degradation has been compensated and what value has been attributed to this degradation factor. It is pertinent to note that the Impugned Order generally, and on this count specifically, suffers from infirmities being arbitrary, unclear and un- reasoned.

12.8 In view of the above, we opine that the tariff determination must specifically factor for module degradation (which is bound to happen) while calculating the levelized tariff by considering reduction of generation in Annexure IA of the Impugned Order.

13. Auxiliary Consumption

13.1 Appellants submitted that TNERC in the Impugned Order has not provided for any auxiliary consumption. TNERC has selectively followed the CERC tariff order wherever convenient and has reduced the costs/tariff. Evidently, the only explanation/reasoning given by TNERC is the decline in tariffs in successive bids.

13.2 TNERC has not taken into account the Auxiliary consumption for determination of tariff. In a Solar PV plant generation takes place during day time and plant meets its auxiliary consumption out of such energy generation and supplies the net electricity available after meeting its auxiliary consumption into the grid. During night time there is no energy generation at Solar PV plant and during this period the plant draws its auxiliary power consumption from the grid for running

auxiliary viz. air-conditioning in inverter and control room, cleaning water softening and pumping system, security lighting and general office lights and fans. Therefore, many SERCs have provided Auxiliary Consumption at 0.25%. There was no justified reason provided by TNERC to depart from the same.

13.3 Appellants submit that GERC in its order has allowed an auxiliary consumption of 0.25%, recognizing that a Solar PV Plant consumes auxiliary power for air-conditioning in inverter and control rooms, cleaning water softening and pumping system, security night lighting and general office lights and fans. The relevant extracts of GERC's Order are reproduced herein below:

> *"2.2.6 Auxiliary Energy Consumption of Photovoltaic Power Plant*
> *A photovoltaic power plant consumes minimal energy for auxiliary purposes. Auxiliary power may be required for air-conditioning in inverter and control rooms, cleaning water softening and pumping system, security night lighting and general office lights and fans.*
> *The auxiliary consumption of the mega-watt scale photovoltaic power plant can be estimated at 0.25% of the total energy generation and that of kilo-watt scale photovoltaic plant is estimated to be NIL."*

13.4 While other SERCs and CERC have not provided for a separate compensation for auxiliary consumption, however, they have provided a significantly higher capital cost, thereby subsuming auxiliary consumption within the same. Appellants submit that the selective approach of the TNERC to adopt only those principles from CERC and other SERCs that result in reduction of tariff, while ignoring other components provided by CERC and other SERCs to

reimburse legitimate costs, is arbitrary and needs to be struck down. While selectively adopting and departing from the settled principles adopted by CERC and other SERCs, the TNERC does not provide any explanation or justification whatsoever.

13.5 ***Per contra,*** TNERC has submitted that CERC and various other State Commissions like MERC, KERC, RERC etc have not considered auxiliary consumption for solar PV Plant and it has further submitted that it has never considered auxiliary consumption in its previous tariff orders as well. The second Respondent/TANGEDCO has taken an identical defence that the TNERC has never considered auxiliary consumption in its previous tariff orders as well.

Our Findings:-

13.6 Having regard to the contentions of the Appellants and Respondents, we are of the opinion that there is no infirmity in the order passed by the TNERC as reliance cannot be placed on the principles adopted by one or two SERCs when the principles & methodology being adopted are that of CERC.

14. Return on Equity:

14.1 In case of Return on Equity, Appellants submitted that TNERC has erred in specifying normative Return on Equity as 20% (pre –tax)

without linking it to MAT and IT. In this context, Appellants contend that there are two distinct issues which the TNERC ought to have addressed:

i. In comparison with conventional power plant whether the post-tax rate of return on equity considered for solar PV project is Preferential in nature?

ii. Whether the proposed pre-tax return of 20%, derived through grossing up of Income Tax or MAT, adequate in case of generic solar PV Tariff Order?

14.2 Appellants also submitted that as per Section 61 (h) of EA 2003 and as per provisions under Tariff Policy, TNERC is guided by principle of promoting harnessing of renewable energy resource and should provide preferential tariff for this purpose. Under cost plus regime of tariff determination, the preferential tariff is determined by way of granting preferential returns or additional rate of return on equity vis-a-vis that allowed for the conventional generation projects. Such additional return on equity of 0.5% to 4% has been allowed by many State Commissions in the past vis-a-vis returns allowed for conventional generation projects which are typically 15.5% p.a. Accordingly, rate of return on equity for renewable energy projects for the purpose of determining tariff should be at least 16% post-tax and

higher depending on renewable energy resource/technology, stage of development and associated risk for project development and operations.

14.3 Appellants therefore submitted to align the ROE in line with the CERC benchmark i.e. pre-tax ROE (grossed up) and practice which is widely accepted by many other state Commissions. CERC for RE generators has considered a base rate of 16% post-tax for determination of pre-tax ROE of 20% for the first 10 years and 24% from 11th year onwards.

14.4 Therefore, TNERC should have specified ROE on pre-tax basis in line with CERC RE Tariff Regulations and norms stipulated by various other SERCs. Accordingly, State Commission should stipulate pre-tax ROE of 20% for the first 10 years and 24% from 11th year onwards for solar power projects.

14.5 Appellants submitted that the errors in the assumptions made while determining the levelized tariff in accordance with Annexure IA of the Impugned Order clearly demonstrate that the actual RoE delivered to the developers is significantly lower than the promised 20% pre-tax RoE. An analysis of the Annexure IA of the Impugned Order clearly concludes the following :

(i) accepting the assumptions of the TNERC on demurrer basis, using the levelized tariff determined by TNERC without any change whatsoever, and applying the actual cash flows by considering the straight line depreciation allowed by TNERC along with debt repayment, the actual RoE delivered by the same levelized tariff is a mere 13.74% against the promised 20%.

Appellants have submitted detailed calculation and analysis of the Annexure IA to demonstrate the aforesaid propositions. Pertinently, neither TNERC nor the Respondent No. 2 (TANGEDCO) have placed on record any data or calculations to counter this submission made by the Appellants or to substantiate their stand that the guaranteed pre-tax RoE of 20% is ensured by the tariff determined by the TNERC.

(ii) The TNERC Power Procurement Regulations, 2008 also expressly provide that the TNERC shall be guided by the National Tariff Policy in determining the tariff. The National Tariff Policy, 2016 provides that the central commission would notify, from time to time, the rate of return on equity for generation projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the State Electricity Regulatory

Commissions also. The relevant extracts of the National Tariff Policy, 2016 are extracted herein below for ready reference:

> *"a) Return on Investment*
> *Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector.*
> ***The Central Commission would notify, from time to time, the rate of return on equity for generation*** *and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital* ***which shall be followed by the SERCs also****. The rate of return notified by CERC for transmission may be adopted by the SERCs for distribution with appropriate modification taking into view the risks involved. For uniform approach in this matter, it would be desirable to arrive at a consensus through the Forum of Regulators.*
> *While allowing the total capital cost of the project, the Appropriate Commission would ensure that these are reasonable and to achieve this objective, requisite benchmarks on capital costs should be evolved by the Regulatory Commissions. The Central Commission may adopt either Return on Equity or Return on Capital approach whichever is considered better in the interest of the consumers."*

(iii) CERC in its Tariff Regulations, 2012 has provided for pre tax RoE as follows:

"16. Return on Equity
(1) The value base for the equity shall be 30% of the capital cost or actual equity (in case of project specific tariff determination) as determined under Regulation 13.
(2) The normative Return on Equity shall be:
a) 20% per annum for the first 10 years.
b) 24% per annum 11th years onwards."

The aforesaid RoE has been specified on pre tax basis and would roughly equate to 16% post tax RoE. In the above formulation, CERC has prescribed a differential RoE for the initial period of 10

years and a different RoE for the balance period since 20% RoE as above for the initial years is to compensate for the MAT payments i.e. income tax on book profits, whereas the 24% RoE in the latter term of the project is to compensate for the taxes payable on actual profits that will be higher than MAT, since the debt repayment would have been effected by that time.

(iv) TNERC in the Impugned Order has erroneously allowed RoE at 20% pre-tax uniformly spread over a period of 25 years, which results in a distorted RoE inconsistent with the National Tariff Policy (NTP) and the RoE prescribed by CERC pursuant to the NTP.

14.6 ***Per contra***, TNERC has submitted that it has considered the ROE of 20% (pretax) in the previous solar tariff order issued in 2014 and in all its other NCES orders. They further submitted that the Tariff Regulations provide for a ROE of 14% (post tax) for conventional power plants. Therefore ROE of 20% (pretax) adopted in the present solar tariff order is already higher than adopted for conventional power plants. They further submitted that there may not be any tax liability at all in respect of small solar power companies. The rates are different between domestic companies and foreign companies. They vehemently submitted that TNERC adopted ROE of 20% (pre-tax). A

similar issue came up before this Tribunal in Appeal No.197 of 2012 wherein the Tribunal vide Order dated 24.5.2016 upheld the ROE adopted by TNERC.

14.7 TNERC submitted that TNERC RE Tariff Regulations, do not provide for any specific percentage for RoE. Therefore, the Appellant cannot claim for infringement of any legal right. TNERC and TANGEDCO both have submitted that TNERC has been following the similar methodology in all its renewable energy tariff orders. TNERC has further submitted that the Appellants have been awarded tariff of Rs. 5.10 per unit in the Impugned Order against the then prevailing tariff of Rs. 4.34 per unit discovered through competitive bidding and the higher tariff has ensured that the Appellants have been provided recovery of cost of electricity in a reasonable manner. The issue here is not what the percentage quantum of RoE ought to be, as the same is settled in as much as the Impugned Order itself provides for a pre tax RoE of 20%. This is also in compliance with law, i.e. the prescription in the National Tariff Policy, which provides that the SERCs shall be bound by and shall follow the rate of return notified by the CERC from time to time.

Our Findings:-

14.8 The Appellants have contended that the detailed calculations and analyses of the levelized tariff determined as per Annexure IA of the Impugned Order, does not deliver the said 20% pre-tax RoE since the developer does not get the revenues that it is entitled to. Further, Appellants have contended that in fact, if the actual cash flows are taken into account using the generation and tariff determined in the Impugned Order, and also factor for debt repayment, then the pre tax RoE drops down to only 13.74%.

14.9 Learned counsel for the Appellants submitted that there has been no rebuttal of this assertion and calculation by the Respondents. During the course of hearings, the respondents were not able to provide any justification whatsoever nor did they even attempt to provide any clarification to defend their calculation, nor were they able to point out any error in the calculations and analyses advanced by the Appellants.

14.10 We have evaluated the analyses advanced by the Appellants. It is clear that the calculation of the levelized tariff in Appendix IA even on demurrer basis and assuming all the assumptions made by TNERC on generation, tariff and debt repayment, do not deliver the promised RoE of pre tax 20%. We are also in agreement with the Appellants that by applying the actual cash flows over the life of the project, calculated on

the basis of the generation assumed in Appendix IA at the tariff determined in the Impugned Order, in fact it delivers a RoE much lower than the promised pre tax 20%.

14.11 A similar issue had arisen in Appeal 75 of 2012 (Solar Energy Society of India Vs GERC and GUVNL). This Tribunal had in that matter remanded the matter with a direction that the levelized tariff must deliver the permissible revenues to the developers.

14.12 We are, therefore, of the considered opinion that there is a need to re determine the tariff to ensure that the levelized tariff ensures recovery of the revenues permissible to the developers during the life cycle of the plant at the energy sent out with degradation. The permissible revenues mean, inter alia, revenues that will deliver a pre tax RoE of 20% to the developers.

15. Miscellaneous / Residual issues

15.1 The Appellants have made further submissions in relation to certain residual components, i.e. :

i. CUF
ii. Discount Factor
iii. O&M Expenses

15.2 We find that the TNERC has exercised discretion on these issues correctly and we do not find any infirmity in the same.

15.3 TNERC has assumed a CUF of 19%, which is consistent with CERC and other SERCs. **Moreover, the same appears to be prudent in the context of the state of Tamil Nadu.**

15.4 Further, the TNERC has adopted a Post Tax WACC as discount factor while determining the levelized tariff in Appendix IA of the Impugned Order. We do not find any reason to interfere in this discretion.

15.5 Similarly, for O&M, we find that the TNERC has provided certain justification and reasoning while determining an O&M cost of 1.4% of capital cost, with an escalation of 5.72% from the second year, as well as a separate cost for insurance. We do not wish to interfere in these percentages determined by the TNERC and they shall continue to be applicable. Further, once the capital cost is redetermined pursuant to this Judgment & order, in absolute terms too, the O&M cost will improve for the developers. **Therefore, there is no reason for us to re look at these percentages for O&M cost.**

16. SUMMARY OF OUR FINDINGS

Based on our consideration and analysis in the foregoing paras, we summarise our findings as under:-

i) Capital Cost:

We conclude that the Impugned Order does not fulfill the legal principles of providing adequate reasoning nor does it adhere to the TNERC regulations itself, which explicitly includes the principles and methodologies specified by CERC and the Tariff Policy of the Government of India, under which the Impugned Order has been passed. Accordingly, we direct TNERC to follow the CERC's final order on benchmark Capital Cost for discovering the fair tariff.

ii) **Evacuation Cost:**

In line with the principles / methodology adopted by CERC and various SERCs, TNERC should consider compensation for evacuation (inter-face line cost) from the pooling sub-station at the generator's end, upto the grid sub-station, over and above the benchmark Capital Cost as considered by CERC.

iii) **Depreciation**

The State Commission has erroneously depreciated the value of the plant and machinery by adopting straight line method. It is against accepted and settled regulatory, economic and financial principles as it reduces cash flows in the initial term making debt servicing more onerous, the financial consequences of which have been enumerated above.

We, therefore direct the State Commission to re-compute depreciation by following methodologies and principles prescribed and followed by all other state electricity regulatory commissions and CERC i.e. differential depreciation approach.

We further direct the State Commission to ensure that aggregate depreciation provided is not less than the 90% of capital cost.

iv) Spares

Maintenance spares are an essential component for the efficient and continued operations of a solar generation plant, and the need for such spares cannot be dispensed with, especially without providing any cogent reasons and/or analyses that the same has been compensated in some other manner.

We direct TNERC to re compute the tariff by factoring costs for maintenance spares while calculating the working capital, by following the principles and methodology adopted by CERC in this regard.

v) Degradation of Modules

We direct the State Commission that the tariff determination must specifically factor for module degradation and reduction of generation while calculating the levelized tariff.

vi) Auxiliary Consumption

We hold that the TNERC has considered the Auxiliary Consumption in strict resonance with CERC principles and hence, no interference.

vii) Return on Equity

We observe that the calculation of the levelized tariff in Appendix IA even on demurrer basis and assuming all the assumptions made by TNERC on generation, tariff and debt repayment, do not deliver the entitled RoE of pre tax 20%. We are also in agreement with the Appellants that by applying the actual cash flows over the life of the project, calculated on the basis of the generation assumed in Appendix IA at the tariff determined in the Impugned Order, in fact delivers a RoE much lower than the envisaged pre tax 20%.

Therefore, we direct TNERC to re determine the tariff to ensure that the levelized tariff ensures recovery of the revenues permissible to the developers during the life cycle of the plant at the energy sent out with degradation. The permissible revenues mean, inter alia, revenues that will deliver a pre tax RoE of 20% to the developers.

viii) Miscellaneous / (CUF, Discount Factor, O&M Expenses) Issues

We find that the TNERC has rightly exercised discretion on these issues and we do not find any infirmity in the impugned order. Hence, interference of the Tribunal on the same is not called for.

ORDER

Having regard to the facts and circumstances of the case as stated supra, we are of the considered view that some of the issues raised in the present appeals being Appeal No. 118 of 2016 & 151 of 2016 have merit. Hence, the Appeals are partly allowed.

The impugned order dated 28.03.2016 in Order No.2 of 2016 passed by Tamil Nadu Electricity Regulatory Commission is hereby set aside to the extent of our findings under Para No.16, stated supra. The State Commission shall pass the consequential order within three months from the date of the present Judgment & Order as per the directions given above.

No order as to costs.

Pronounced in the Open Court on this **11th day of November, 2019.**

(S.D. Dubey)
Technical Member

(Justice Manjula Chellur)
Chairperson

REPORTABLE / ~~NON-REPORTABLE~~

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