### **CENTRAL ELECTRICITY REGULATORY COMMISSION**

#### **NEW DELHI**

### Petition No. 2/TT/2018

Coram: Shri. P,K.Pujari, Chairperson Shri. A.K.Singhal, Member Dr. M.K.Iyer, Member

Date of Hearing : 19.07.2018

Date of Order: 9.10.2018

#### In the matter of:

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations 2014 for determination of Transmission Tariff from anticipated DOCO to 31-03-2019 for Transmission Asset "**ASSET- 1A**: LILO of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station, **ASSET- 1B**: New 400/220 kV pooling station at Tumkur (Pavagada) with 1 X 500 MVA 400/220 kV ICT and 1x 125 MVAR Bus reactor and along with associated bays & equipment, **ASSET- 2**: LILO of 400 kV D/C Bellary -Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada) pooling station along with associated bays & equipment, **ASSET - 3**: 2 X 500 MVA 400/220 kV ICTs along with associated bays & equipment and **ASSET-4**: Tumkur (Pavagada) pool-Hiryur 400 kV D/C line along with associated bays & equipment at both ends under Transmission System for Ultra mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I.

### And in the matter of:

Power Grid Corporation of India Limited "Saudamini", Plot No.2, Sector-29, Gurgaon -122 001

.....Petitioner

Vs

 Karnataka Power Transmission Corporation Ltd., (KPTCL), Kaveri Bhavan, Bangalore – 560 009



- Transmission Corporation of Andhra Pradesh Ltd., (APTRANSCO), Vidyut Soudha, Hyderabad– 500082,
- Kerala State Electricity Board (KSEB)
   Vaidyuthi Bhavanam
   Pattom, Thiruvananthapuram 695 004
- 4 Tamilnadu Electricity Board (TNEB) NPKRR Maaligai, 800, Anna Salai Chennai – 600 002
- 5 Electricity Department Government of Goa Vidyuti Bhawan, Panaji, Goa 403001
- 6 Electricity Department Govt of Pondicherry, Pondicherry - 605001
- Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)
   APEPDCL, P&T Colony, Seethmmadhara,
   VISHAKHAPATNAM, Andhra Pradesh,
- Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)
   Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road, KesavayanaGunta, TIRUPATI-517 501, Chittoor District, Andhra Pradesh
- 9 Central Power Distribution Company of Andhra Pradesh limited (APCPDCL)
   Corporate Office, Mint Compound, HYDERABAD – 500 063, Andhra Pradesh
- Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
   Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet, WARANGAL – 506 004, Andhra Pradesh
- Bangalore Electricity Supply Company Ltd., (BESCOM), Corporate Office, K.R.Circle
   BANGALORE – 560 001, Karanataka



- 12 Gulbarga Electricity Supply Company Ltd., (GESCOM) Station Main Road, GULBURGA, Karnataka
- 13 Hubli Electricity Supply Company Ltd., (HESCOM) Navanagar, PB Road , HUBLI, Karnataka
- 14 MESCOM Corporate Office, Paradigm Plaza, AB Shetty Circle MANGALORE – 575 001, Karnataka
- Chamundeswari Electricity Supply Corporation Ltd., (CESC) ,
   # 927,L J Avenue
   Ground Floor, New Kantharaj Urs Road
   Saraswatipuram, MYSORE 570 009, KARNATAKA
- 16 Transmission Corporation of Telangana Limited, VidhyutSudha, Khairatabad, Hyderabad, 500082
- Karnataka Solar Power Development Corporation Limited.,(KSPDCL)
   2nd Floor, South Block, Beeja Raja Seed Complex,
   Bellary Road, Hebbala, Bengaluru- 560024
   Karnataka

.....Respondents

Parties present : Shri S. Vallinayagam, Advocate, TANGEDCO Shri S. S. Raju, PGCIL Shri Rakesh Prasad, PGCIL Shri S. K. Venkatesan, PGCIL

## <u>ORDER</u>

The present petition has been filed by the petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff for ASSET-1A: LILO of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station, ASSET-1B: New 400/220 kV pooling station at Tumkur (Pavagada) with 1 X 500 MVA 400/220 kV ICT

and 1x 125MVAR Bus reactor and along with associated bays & Page 3 of 42

equipment, ASSET-2: LILO of 400 kV D/C Bellary -Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada) pooling station along with associated bays & equipment, ASSET-3: 2 X 500 MVA 400/220 kV ICTs along with associated bays & equipment and ASSET-4: Tumkur (Pavagada) pool-Hiryur 400 kV D/C line along with associated bays & equipment at both ends under Transmission System for Ultra mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I.

- 2. The petitioner has made the following prayer:
  - 1) Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition..
  - Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.
  - 3) Approve the Additional ROE as claimed in the Petition.
  - Allow the Petitioner to approach Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.
  - 5) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided under clause 25 of the Tariff regulations 2014.
  - 6) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure ( if any) in relation to the filing of petition.
  - 7) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
  - 8) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.

- 9) Allow the petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (negative) list at any time in future. Further any taxes and duties including cess, etc. imposed by any Statutory/Govt./Municipal Authorities shall be allowed to be recovered from the beneficiaries.
- Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.
- 11) Allow the petitioner to bill Tariff from anticipated COD and also the petitioner may be allowed to submit revised Certificate and tariff Forms (as per the Relevant Regulation) based on actual COD.
  and pass such other relief as Hon'ble Commission deems fit and appropriate under

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

- 3. The Investment Approval (IA) for implementation of "Transmission System for Ultra mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I" was accorded by the Board of Directors of the petitioner vide the Memorandum Ref: C/CP/Solar park Tumkur-I dated 08.04.2016, at an estimated cost of ₹ 810.48 Crores including IDC of ₹ 49.97 Crores, based on October 2015 price level.
- 4. MOP vide letter dated 08.01.2015 had intimated the petitioner for taking up of transmission system for evacuation of power from nine solar generating parks being set up in seven states along with pooling stations as ISTS schemes which includes Tumkur (PAVGADA) UMSPP on compressed time schedule basis. Further, in-principle approval from CEA for above mentioned scheme was obtained by the petitioner vide letter dated 22.12.2015. The petitioner has submitted the MoP letter and CEA letter along with the petition.

the Regulatory Approval Regulations, for execution of subject transmission system vide order dated 19.08.2016 in petition No 36/MP/2016 with IA. No 9/2016.

- 6. The scope of the scheme was discussed and agreed in 39<sup>th</sup> and 40<sup>th</sup> meeting of Standing Committee on Power System Planning in Southern Region held in December 2015 and November 2016 respectively. Further, the transmission scheme was also agreed in 29<sup>th</sup> Meeting of SRPC held on 05.03.2016.
- 7. The scope of work covered under "Transmission System for Ultra mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I" in Southern Region is as follows:

## Transmission Line

-Tumkur (Pavagada) pool -Hiryur 400 kV D/C line

-LILO of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station and LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada) pooling station.

## **Substation**

## a. 400 kV Tumkur (Pavagada) Pooling Station

400 kV (i. 10 numbers of Line bays, ii.3 numbers of Transformer bays, iii.1 number Bus reactor bay, iv. 1 number 125 MVAR Bus Reactor)

220 kV (i. 8 numbers of Line bays, ii. 3 numbers of Transformer bays, iii. 1 number Bus Coupler bay, iv. 1 number TBC bay)

## b. 400/220 kV Hiryur (POWERGRID) Substation Extn

400 kV (i. 2 numbers of Line bays)

## **Reactive Compensation**

1x125 MVAR 420 kV Bus reactors at 400 kV/220 kV Tumkur (Pavagada) Pooling Station

**8.** The details of the assets covered in the entire Project Scope of the transmission system and covered under instant petition are given below:

SI No	Asset No	Asset Name	Anticipated COD as filed in Petition	COD
1	Asset-1 (A) (a)	LILO of one circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station	01.10.2017	06.12.2017 (Actual)
2	Asset-1 (A)(b)	LILO of second circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station along with associated bays and equipments	01.10.2017	01.02.2018 (Actual)
3	Asset-1 (B)(a)	New 400/220 kV pooling station at Tumkur (Pavagada) with 1 X 500 MVA 400/220 KV ICT along with associated bays & equipment's	01.10.2017	06.12.2017 (Actual)
4	Asset-1 (B)(b)	1x 125MVAR 400 kV Bus reactor and along with associated bays & equipment's at 400/220 kV Tumkur (Pavagada) pooling station	01.10.2017	31.03.2018 (Actual)
5	Asset - 2	LILO of 400 kV D/C Bellary - Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada)pooling station along with associated bays & equipments	30.09.2017	31.03.2018 (Actual)
6	Asset – 3(A)	1 X 500 MVA 400/220KV ICT-I at 400/220KV Tumkur (Pavagada) pooling station along with associated bays & equipments	30.09.2017	14.02.2018 (Actual)
7	Asset – 3(B)	1 X 500 MVA 400/220 kV ICT-II at 400/220KV Tumkur (Pavagada) pooling station along with associated bays & equipment	30.09.2017	12.07.2018 (Actual)

8	Asset - 4	Tumkur (Pavagada) pool - Hiryur 400 kV D/C line along with associated bays & equipment at both ends	30.09.2017	30.09.2018 (Anticipated)
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- 9. The petitioner submitted that with the commissioning of instant assets covered under current petition, the entire Scope of the Project Transmission System for Ultra mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I shall be completed.
- 10. The petitioner vide affidavit dated 15.09.2018 has revised the anticipated COD of Asset-4 to 30.09.2018 and submitted that the COD letter, RLDC, CEA and CMD certificate and Auditor's certificate along with relevant tariff forms shall be submitted after actual commissioning of the asset. In view of these submissions, we are not considering the prayer of the petitioner to determine transmission tariff of Asset-4. The petitioner is directed to submit fresh petition after commissioning of the Asset-4.
- **11.** The petitioner has claimed the following transmission charges for the instant assets:-

Particulars	Asset-1(A)(a)		Asset-1(A)(b)	
	2017-18	2018-19	2017-18	2018-19
Depreciation	3.12	11.03	8.92	62.85
Interest on Loan	3.19	10.81	8.61	58.13
Return on Equity	3.50	12.45	9.89	69.71
Interest on Working Capital	0.22	0.77	1.76	11.36
O&MExpenses	0.11	0.36	22.23	137.78
Total	10.15	35.42	51.41	339.83



(₹ in Lakh)

Particulars	Asset-1(B)(a)		Asset-1(B)(b)	
	2017-18	2018-19	2017-18	2018-19
Depreciation	89.06	334.21	0.09	44.33
Interest on Loan	99.95	382.89	0.09	42.79
Return on Equity	113.21	451.36	0.12	54.71
Interest on Working Capital	12.26	43.80	0.02	6.69
O&M Expenses	108.50	350.43	0.18	68.71
Total	422.99	1562.69	0.51	217.23

## (₹ in Lakh)

Particulars	Asset-2		
	2017-18	2018-19	
Depreciation	3.67	1323.14	
Interest on Loan	3.32	1262.65	
Return on Equity	4.22	1656.12	
Interest on Working Capital	0.30	113.04	
O&M Expenses	1.02	393.22	
Total	12.54	4748.17	

## (₹ in Lakh)

Particulars	Asset-3(A)		Asset-3(B)	
	2017-18	2018-19	2018-19	
Depreciation	17.78	152.37	118.63	
Interest on Loan	17.30	142.16	120.67	
Return on Equity	20.39	174.83	136.29	
Interest on Working Capital	2.90	23.89	11.99	
O&M Expenses	32.34	261.11	84.15	
Total	90.71	754.36	471.73	

The details of the Interest on Working Capital claimed by the petitioner for 12. the instant assets are asunder:-

## (₹ in Lakh)

Particulars	Asset-	Asset-1(A)(a)		Asset-1(A)(b)	
	2017-18	2018-19	2017-18	2018-19	
Maintenance Spares	0.05	0.05	20.01	20.67	
O&M expenses	0.03	0.03	11.12	11.48	
Receivables	5.29	5.90	51.41	56.64	
Total	5.37	5.98	82.54	88.79	
Interest	0.22	0.77	1.76	11.37	
Rate of Interest	12.80%	12.80%	12.80%	12.80%	



### (₹ in Lakh)

Particulars	Asset-	Asset-1(B)(a)		-1(B)(b)
	2017-18	2018-19	2017-18	2018-19
Maintenance Spares	50.88	52.56	9.98	10.31
O&M expenses	28.27	29.20	5.54	5.73
Receivables	220.38	260.45	31.21	36.21
Total	299.53	342.21	46.73	52.25
Interest	12.18	43.80	0.02	6.69
Rate of Interest	12.80%	12.80%	12.80%	12.80%

### (₹ in Lakh)

Particulars	A	Asset-2		
	2017-18	2018-19		
Maintenance Spares	57.09	58.98		
O&M expenses	31.72	32.77		
Receivables	776.63	791.36		
Total	865.44	883.11		
Interest	0.30	113.04		
Rate of Interest	12.80%	12.80%		

## (₹ in Lakh)

Particulars	Asset-3(A)		Asset-3(B)
	2017-18	2018-19	2018-19
Maintenance Spares	37.91	39.17	17.52
O&M expenses	21.06	21.76	9.73
Receivables	118.13	125.73	109.13
Total	177.10	186.66	136.38
Interest	2.86	23.89	11.99
Rate of Interest	12.80%	12.80%	12.20%

13. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (the Act). No comments have been received from the public in response to the notices published by the petitioner. Tamil Nadu Generation and Distribution Corporation Ltd (TANGEDCO), has filed reply vide affidavit dated 15.05.2018. The

petitioner has filed its rejoinder to the reply vide affidavit dated 04.06.2018. The issues raised by TANGEDCO and the clarifications given by the petitioner are dealt in relevant paragraphs of the order.

- The hearing in this matter was held on 19.07.2018. This order has been issued after considering the petitioner's affidavits dated 22.12.2017, 23.11.2017, 20.04.2018, 18.05.2018, 04.06.2018, 13.07.2018, 10.09.2018, 15.09.2018 and 27.9.2018 and counterstatements filed by respondent TANGEDCO dated 15.05.2018 and 28.08.2018.
- **15.** Having heard the petitioner and having perused the material on record, we proceed to dispose of the petition.

#### Date of Commercial Operation ("COD")

As per Clause (3) of Regulation 4 of the 2014 Tariff Regulations, the 16. petitioner has submitted the COD of the assets covered under instant petition as tabulated at para 8 above. The petitioner has submitted RLDC trial run operation certificate dated 03.11.2017, 14.03.2018, 13.04.2018, 07.03.2018, 10.07.2018 and 23.07.2018, CMD certificate as required under grid code vide affidavits dated 20.4.2018 and 10.9.2018, CEA Certificate dated 06.09.2017, 18.10.2017, 04.01.2018, 29.01.2018, 06.02.2018 and 05.07.2018 under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010 and the COD declaration certificates dated 06.12.2017, 01.02.2018, 06.12.2017, 31.03.2018, 31.03.2018, 14.02.2018, and 12.07.2018 vide affidavit dated 20.04.2018 for Asset-1(A)(a), Asset-1(A)(b), Asset-1(B)(a), Asset-1(B)(b), Asset-2 and Asset-3(A) respectively and vide affidavit dated 10.09.2018 for Asset-3(B) in respect of the claim of commercial operation date.

17. As per the approval, the transmission scheme was scheduled to be commissioned in 32 months from the date of approval of Board of Directors, i.e. from 02.04.2016 matching with the generation schedule of the Solar Park being implemented by Karnataka Solar Power Development Corporation Limited. Accordingly, the commissioning schedule of instant Assets w.r.t Investment Approval comes to 02.12.2018 against this, the assets have been commissioned as below:

SI	Asset No	Asset Name	Actual COD
No	A3361 NU	ASSELMAINE	Actual COD
1	Asset-1 (A) (a)	LILO of one circuit of 400 kV D/C Gooty- Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station	06.12.2017
2	Asset-1 (A)(b)	LILO of second circuit of 400 kV D/C Gooty- Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station along with associated bays and equipment	01.02.2018
3	Asset-1 (B)(a)	New 400/220 kV pooling station at Tumkur (Pavagada) with 1 X 500MVA 400/220 kV ICT along with associated bays & equipment	06.12.2017
4	Asset-1 (B)(b)	1x 125 MVAR 400 kV Bus reactor and along with associated bays & equipment's at 400/220 kV Tumkur (Pavagada) pooling station	31.03.2018
5	Asset - 2	LILO of 400 kV D/C Bellary -Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada) pooling station along with associated bays & equipment	31.03.2018
6	Asset – 3(A)	1 X 500 MVA 400/220 kV ICT-I at 400/220 kV Tumkur (Pavagada) pooling station along with associated bays & equipment	14.02.2018



		1 X 500 MVA 400/220 kV ICT-II at 400/220
7	Asset – 3(B)	kV Tumkur (Pavagada) pooling station 12.07.2018
		along with associated bays & equipment

- 18. The petitioner has submitted that the instant assets have been commissioned earlier than the scheduled COD. The petitioner has submitted justification for early commissioning of the assets covered under the instant petition.
- 19. Taking into consideration the RLDC certificates, CEA certificates, CMD certificates and COD letters, we approve the Commercial Operation Dates of the assets indicated at para 17 above and these dates have been considered for the purpose of tariff computation.

## Capital Cost

- 20. The petitioner has claimed capital cost as per Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations.
- 21. The petitioner vide affidavit dated 18.05.2018 and 10.09.2018 has submitted the Auditor Certificates along with revised tariff forms for all the assets. The details of approved apportioned cost, capital cost as on COD and estimated additional capital expenditure incurred or projected to be incurred during 2017-18 and 2018-19 along with estimated completion cost for the assets covered in the petition are as under:

(₹ in Lakh)

Asset	Apportion ed	Cost as on COD	Estimated additional capital expenditure			Total Estimated
	Approved Cost		2017-18	2018-19	2019-20	Completion Cost
Asset-1 (A)(a)	372.16	162.62	49.35	0.00	0.00	211.97
Asset-1 (A)(b)	2346.39	1037.16	6.64	311.52	129.47	1484.79
Asset-1 (B)(a)	10895.17	5455.42	838.02	2297.47	543.10	9134.01
Asset-1 (B)(b)	1448.07	734.10	0.00	338.11	0.00	1072.21
Asset – 2	34803.85	26195.83	0.00	2521.09	953.90	29670.82
Asset – 3 (A)	4818.02	2668.02	65.16	357.54	299.17	3389.89
Asset – 3 (B)	4807.37	2871.91	0.00	914.04	150.00	3935.97
Total	59491.03	39125.06	959.17	6739.77	2075.64	48899.66

**22.** We have considered the submissions of the petitioner.

## **Cost under-Run/Variation**

23. As compared with apportioned approved cost of ₹ 59491.03 Lakh, the estimated completion cost of the instant Assets is ₹ 48899.66 lakh. The petitioner has indicated that there is cost under run of about ₹ 10591.37 lakh as compared with apportioned approved cost. The estimated completion costs of the individual assets are also within the apportioned approved cost of the respective assets. The petitioner has submitted that the reduction in cost is mainly because of early commissioning of the Assets.

### **Treatment of Grant Received**

**24.** TANGEDCO has submitted that the petitioner has not submitted the details of Ministry of New and Renewable Energy (MNRE) and Central Finance

Assistance (CFA) granted for the instant transmission system. TANGEDCO has requested the Commission to direct the Petitioner to furnish the details of action taken to follow up the issue with MNRE for release of funds. In response, the petitioner, vide affidavit dated 04.06.2018, has submitted that vide letter dated 28.02.2017, CFA for development of Solar Park and External Transmission System has been provided by the MNRE.

- 25. The petitioner vide affidavit dated 18.05.2018 further submitted that the petitioner has applied for grant under Phase I based on Capacity of 1000 MW @ ₹ 800,000 (Total ₹ 80 Cr). Out of this grant, 50 % of applied grant was released by MNRE through Solar Energy Corporation of India (SECI), i.e.₹ 40 Crore, which has been received as ₹ 28.00 Crore on 18.10.17 and ₹12.00 Crore on 31.01.18 towards Transmission System for Ultra mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I. Petitioner has submitted that the Balance 50% of approved grant for Phase-I was yet to be disbursed. The petitioner has adjusted the said grant received in the capital funding of individual assets as detailed below. However Cost certificate shall be revised at the time of truing up.
  - a) Asset-1A(a) :- ₹ 2.80 Lakh from COD to 31.03.2018
  - b) Asset-1B(a) :- ₹ 340.03 Lakh from COD to 31.03.2018
  - c) Asset-1B(b) :- ₹ 61.31 Lakh upto COD
  - d) Asset-2 :- ₹ 2099.68 Lakh upto COD and ₹ 260.11 during 2018-19
- 26. The petitioner vide affidavit dated 10.09.2018 further submitted that ₹182Lakh grant received from CFA has been adjusted in the capital cost of

Asset-3 (B) and ₹ 1054.07 Lakh grant received from CFA has been adjusted in the capital cost of Asset-4 as detailed below.

- a) Asset-3 (B) :- ₹182 Lakh upto COD
- b) Asset-4 :- ₹ 1054.07 Lakh upto COD
- **27.** As per proviso to clause (d) of Regulation 9(6) of the 2014 Tariff Regulations reproduced hereunder:-

...."provided that any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation."

Further, proviso (iii) of Regulation 19(1) of the 2014 Tariff Regulations provides as under:-

" any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio."

**28.** Thus, in line with the 2014 Tariff Regulations, all the grant received has been reduced from the allowable capital cost as on COD and allowable additional capital expenditure for the purpose of computation of tariff.

### <u>Time over-run</u>

**29.** As already mentioned at para 17 above, there is no time overrun in commissioning of any of the assets.

### Interest During Construction (IDC)

30. The petitioner has claimed IDC of ₹ 5.41 lakh, ₹ 35.25 lakh, ₹ 189.71 lakh, ₹ 18.03 lakh, ₹ 539.57 lakh, ₹ 99.57 lakh and ₹ 192.51 lakh in respect of Asset-1(A)(a), Asset-1(A)(b), Asset-1(B)(a), Asset-1(B)(b), Asset-2, Asset-3(A) and

Asset-3(B) respectively. The IDC on cash basis up to allowable dates has been worked out on the basis of the loan details given in Form-9C. It is submitted that petitioner has not made any default in the payment of interest. Therefore, the IDC being considered for tariff computation is minimum of worked out IDC and IDC claimed by the petitioner. Further, the petitioner has submitted the statement showing discharged of IDC liability as on COD and thereafter is as follows:

				(₹ in lakhs)
Asset	IDC as per certificate	IDC Discharged upto COD	IDC discharged in 2017-18	IDC discharged in 2018-19
Asset-1 (A)(a)	5.41	3.77	1.04	0.60
Asset-1 (A)(b)	35.25	0.43	5.75	29.07
Asset-1 (B)(a)	189.71	115.49	54.50	19.72
Asset-1 (B)(b)	18.03	13.62	0.00	4.41
Asset – 2	539.57	167.99	0.00	371.58
Asset – 3 (A)	99.57	12.78	20.75	66.04
Asset – 3 (B)	192.51	128.67	0.00	63.84

Accordingly, the IDC discharged up to COD is allowed on cash basis. The balance portion of IDC discharged after COD has been considered in additional capital expenditure in the paragraphs to follow.

## Incidental Expenditure During Construction (IEDC)

31. The petitioner has claimed IEDC of ₹ 4.44 lakh, ₹ 41.59 lakh, ₹ 290.80 lakh, ₹ 26.98 lakh, ₹ 1002.00 lakh, ₹ 106.97 lakh and ₹ 137.20 lakh in respect of Asset-1(A)(a), Asset-1(A)(b), Asset-1(B)(a), Asset-1(B)(b), Asset-2, Asset-3(A) and Asset-3(B) respectively. The petitioner has claimed IEDC as on COD, which is within the percentage of hard cost as indicated in the abstract

cost estimate. In the instant petition, 5% of hard cost is indicated as IEDC in the abstract cost estimate. Hence, no adjustment of IEDC is required in the case of instant assets. Further, the petitioner vide affidavit dated 18.05.2018 and 10.09.2018 has submitted that entire IEDC claimed in Auditor Certificate is on cash basis and is paid up to COD of the assets. Hence, the entire amount of IEDC has been allowed.

## Initial spares

**32.** The petitioner vide affidavit dated 18.05.2018 and 10.09.2018 and Auditor Certificates dated 02.03.2018 for Asset-1(B)(a) and dated 17.04.2018 for Asset-1(B)(b), Asset-2 and Asset-3(a) has claimed the Initial spares covered in the instant petition which is as follows:

					(₹ in I	akhs)
Asset	Plant & Machinery excl. IDC, II Land Ex	Cost EDC &	Initial sp claime		Ceiling limit (TL) as per Regulatio	Ceiling limit (SS) as per Regulatio
	T/L	S/S	T/L	S/S	ns (%)	ns (%)
Asset-1B(a)	0.00	5157.53	0.00	100.98 (1.96%)	1.00%	4.00%
Asset-1B(b)	0.00	1027.20	0.00	53.22 (5.18%)	1.00%	4.00%
Asset-2	25778.37	2350.88	255.23 (0.99%)	68.27 (2.90%)	1.00%	4.00%
Asset-3(A)	0.00	2820.12	0.00	113.00 (4.01%)	1.00%	4.00%

33. We have considered the submissions of the petitioner. The petitioner has not claimed any initial spares for Asset-1(A)(a), Asset-1(A)(b) and Asset-3(b). The initial spares claimed by the petitioner for Asset-1(B)(a) and Asset-2 are within ceiling limits as specified in the 2014 Tariff Regulations and the same have been allowed. The initial spares claimed by the petitioner for Asset-

1(B)(b) and Asset-3 are being restricted to 4% as per norms specified in Tariff Regulations, 2014. The detail of the excess Initial Spares claimed by the petitioner are as below:

#### 34.

				(*	₹in lakhs)
Particulars	Total Capital Cost (Plant and machinery cost excluding IDC, IEDC, Land cost and cost of Civil works) up to Cut- off date (a)	Initial Spares Claimed against Capital Cost Claimed (b)	Ceiling Limit as per Regulation, 2014 (C)	Initial Spares worked out (d)	Excess Initial Spares claimed (e)
Asset-1(B)(b) (Substation)	1027.20	53.22	4.00%	40.58	12.64
Asset-3(A) (Substation)	2820.12	113.00	4.00%	112.80	0.20

Accordingly, the excess initial spares claimed by the petitioner are being deducted from the capital cost as on COD.

**35.** Further, the petitioner was directed to submit year wise capitalization and discharge details of initial spares for the instant assets. In response, the petitioner vide affidavit dated 10.09.2018 has submitted the expenditure on initial spares included in the Auditor certificate as per cash basis, as below:

			(₹	in lakhs)
Asset No.	Total Initial Spare	Initial Spare	e discharge	d
	claimed	Up to	2017-18	2018-19
		COD		
Asset-1(B)(a)	100.98	44.00	2.27	54.71
Asset-1(B)(b)	53.22	38.13	0.00	15.09
Asset-2	323.50	244.01	0.00	79.49
Asset-3(A)	113.00	0.00	0.00	113.00



## Capital Cost allowed as on COD

**36.** Based on the above, the capital cost allowed as on COD under Regulation

					(₹ ir	n lakhs)
Particular	Capital Cost claimed as on COD (a)	Grant Received as on COD (b)	Un- discharg ed IDC as on COD (c)	Excess Initial Spare (d)	Un- discharged Initial Spare as on COD (e)	Capital Cost allowed as on COD [f= [a-(b+c+d+e)]
Asset-1(A)(a)	162.62	0.00	1.64	0.00	0.00	160.98
Asset-1(A)(b)	1037.16	0.00	34.82	0.00	0.00	1002.34
Asset-1(B)(a)	5455.42	0.00	74.22	0.00	56.98	5324.22
Asset-1(B)(b)	734.10	61.31	4.41	12.64	2.45	653.29
Asset-2	26195.83	2099.68	371.58	0.00	79.49	23645.08
Asset-3(A)	2668.02	0.00	86.78	0.20	112.80	2468.24
Asset-3(B)	2871.93	182.00	63.83	0.00	0.00	2626.10

9(2) of the 2014 Tariff Regulation is summarized as under:-

## Additional Capital Expenditure (ACE)

- **37.** The cut-off dates for the instant assets are 31.3.2020 and 31.03.2021.
- **38.** The petitioner has claimed ACE as per as per Clause (1) of Regulation 14 of the 2014 Tariff Regulations based on the cost certified by the Auditors. In addition, the petitioner has also claimed the ACE towards discharge of IDC liability for 2017-18 and 2018-19. The additional capital expenditure claimed by the petitioner for the instant assets for the period 2017-18 and 2018-19 is within the cut- off date and is on account of balance and retention payments and accordingly it is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations. The ACE claimed by the petitioner is summarized in the table below:-

		(₹ in lakhs)
Assets	2017-18	2018-19
Asset-1 (A)(a)	49.35	0.00
Asset-1 (A)(b)	6.64	311.52
Asset-1 (B)(a)	838.02	2297.47
Asset-1 (B)(b)	0.00	338.11
Asset – 2	0.00	2521.09
Asset – 3 (A)	65.16	357.54
Asset – 3 (B)	0.00	914.04

**39.** The un-discharged IDC as on COD has been allowed as additional capital expenditure during the year of discharge. Further, as per the information submitted by the petitioner vide affidavit dated 18.05.2018 and 10.09.2018, the grant received during 2017-18 and 2018-19 have been reduced from allowable additional capital expenditure of 2017-18 and 2018-19. Accordingly, the additional capital expenditure allowed has been summarized as under, which shall be reviewed at the time of true up:-

			(₹ i	n lakhs)
Assets	Particular	2017-18	2018-19	Total Add Cap allowed
	Additional Capitalization Claimed	49.35	0.00	49.35
	Less: Grant Received	2.80	0.00	2.80
Asset- 1(A)(a)	Add Cap Claimed after adjustment of Grant Received	46.55	0.00	46.55
ι(Α)(α)	Add : IDC Discharged	1.04	0.60	1.64
	Add : Initial Spare Discharged	0.00	0.00	0.00
	Total Add Cap allowed	47.59	0.60	48.19
	Additional Capitalization Claimed	6.64	311.52	318.16
	Less: Grant Received	0.00	0.00	0.00
Asset-	Add Cap Claimed after adjustment of Grant Received	6.64	311.52	318.16
1(A)(b)	Add : IDC Discharged	5.75	29.07	34.82
	Add : Initial Spare Discharged	0.00	0.00	0.00
	Total Add Cap allowed	12.39	340.59	352.98
Asset-	Additional Capitalization Claimed	838.02	2297.47	3135.49
1(B)(a)	Less: Grant Received	340.03	0.00	340.03





	Add Cap Claimed after adjustment of Grant Received	497.99	2297.47	2795.46
	Add : IDC Discharged	54.51	19.72	74.23
	Add : Initial Spare Discharged	2.27	54.71	56.98
	Total Add Cap allowed	554.77	2371.90	2926.67
	Additional Capitalization Claimed	0.00	338.11	338.11
	Less: Grant Received	0.00	0.00	0.00
Asset-	Add Cap Claimed after adjustment of Grant Received	0.00	338.11	338.11
1(B)(b)	Add : IDC Discharged	0.00	4.41	4.41
	Add : Initial Spare Discharged	0.00	2.45	2.45
	Total Add Cap allowed	0.00	344.97	344.97
	Additional Capitalization Claimed	0.00	2521.09	2521.09
	Less: Grant Received	0.00	260.11	260.11
Asset-2	Add Cap Claimed after adjustment of Grant Received	0.00	2260.98	2260.98
	Add : IDC Discharged	0.00	371.58	371.58
	Add : Initial Spare Discharged	0.00	79.49	79.49
	Total Add Cap allowed	0.00	2712.05	2712.05
	Additional Capitalization Claimed	65.16	357.54	422.70
	Less: Grant Received	0.00	0.00	0.00
Asset-	Add Cap Claimed after adjustment of Grant Received	65.16	357.54	422.70
3(A)	Add : IDC Discharged	20.75	66.03	86.78
	Add : Initial Spare Discharged	0.00	112.80	112.80
	Total Add Cap allowed	85.91	536.37	622.28
	Additional Capitalization Claimed	0.00	914.04	914.04
	Less: Grant Received	0.00	0.00	0.00
Asset-	Add Cap Claimed after adjustment of Grant Received	0.00	914.04	914.04
3(B)	Add : IDC Discharged	0.00	63.83	63.83
	Add : Initial Spare Discharged	0.00	0.00	0.00
	Total Add Cap allowed	0.00	977.87	977.87

The capital cost considered for the purpose of computation of tariff is as 40. follows:-

				(₹ in lakhs)
Asset	Capital cost allowed as	Add Cap for 2017-18	Add Cap for 2018-19	Total Estimated Completion Cost
	on COD			up to 31.3.2019
Asset-1(A)(a)	160.98	47.59	0.60	209.17
Asset-1(A)(b)	1002.34	12.39	340.59	1355.32
Asset-1(B)(a)	5324.22	554.77	2371.90	8250.89



Asset-1(B)(b)	653.29	0.00	344.97	998.26
Asset-2	23645.08	0.00	2712.05	26357.13
Asset-3(A)	2468.24	85.91	536.37	3090.52
Asset-3(B)	2626.10	0.00	977.87	3603.97

## **Debt-Equity Ratio**

**41.** The petitioner has claimed Debt : Equity ratio of 70:30 as on the date of commercial operation. Debt : Equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of Debt : Equity ratio in respect of the instant assets as on the date of commercial operation and as on 31.3.2019 are as under:-

				(₹ in lakhs)
	A	sset-1(A)(a	)	
Particular	Capital cost as on COD		Capital cost as c 31.3.2019	
	Amount	%	Amount	%
Debt	112.69	70.00%	146.42	70.00%
Equity	48.29	30.00%	62.75	30.00%
Total	160.98	100.00%	209.17	100.00%

#### (₹ in lakhs)

Asset-1(A)(b)					
Particular	Capital co		Capital cost as o 31.3.2019		
	Amount %		Amount	%	
Debt	701.64	70.00%	948.73	70.00%	
Equity	300.70	30.00%	406.59	30.00%	
Total	1002.34	100.00%	1355.32	100.00%	

Asset-1(B)(a)					
Particular	Capital co		Capital cost as on 31.3.2019		
	Amount %		Amount	%	
Debt	3,726.95	70.00%	5775.62	70.00%	
Equity	1,597.27	30.00%	2475.27	30.00%	
Total	Total 5324.22 100.00% 8250.89		8250.89	100.00%	



(₹ in lakhs)

Asset-1(B)(b)					
Particular	Capital co		Capital co		
		COD		2019	
	Amount	%	Amount	%	
Debt	457.30	70.00%	698.78	70.00%	
Equity	195.99	30.00%	299.48	30.00%	
Total	653.29	100.00%	998.26	100.00%	

Asset-2					
Particular	-	al cost as on Capital cost COD 31.3.201			
	Amount	%	Amount	%	
Debt	16,551.56	70.00%	18449.99	70.00%	
Equity	7,093.52	30.00%	7907.14	30.00%	
Total	23645.08	100.00%	26357.13	100.00%	

## (₹ in lakhs)

Asset-3(A)					
Particular	ar Capital cost as on Capital co COD 31.3.2				
	Amount	%	Amount	%	
Debt	1,727.77	70.00%	2163.36	70.00%	
Equity	740.47	30.00%	927.16	30.00%	
Total	2468.24	100.00%	3090.52	100.00%	

### (₹ in lakhs)

Asset-3(B)					
Particular	Capital c CC	ost as on DD	Capital cost as or 31.3.2019		
	Amount %		Amount	%	
Debt	1,838.27	70.00%	2522.78	70.00%	
Equity	787.83	30.00%	1081.19	30.00%	
Total	2626.10	100.00%	3603.97	100.00%	

## **Return on Equity**

**42.** This has been dealt with in line of Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations.

**43.** The petitioner has submitted that it is liable to pay income tax at MAT rate, the RoE has been calculated @ 19.610% after grossing up the RoE with MAT rate of 20.961% as provided under Regulation 25(2)(i) of the 2014 Tariff Regulations. As per Regulation 25(3) of the 2014 Tariff Regulations, the grossed up rate of RoE at the end of the financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the 2014-19 period on actual gross income of any financial year.

## Additional Return on Equity

**44.** The petitioner vide affidavit dated 3.9.2018 has claimed the additional RoE for the following Assets and the same is as follows:

Asset	Actual date of Completion		Qualifying Time line for Project	Scheduled completion	Additional ROE claimed
	Date	Months	Months)	(Months)	claimed
Asset-1A(a)	06.12.2017	20	38	32	No
Asset-1A(a)	01.02.2018	22	38	32	No
Asset-1B(a)	06.12.2017	20	30	32	Yes
Asset-1B(b)	31.03.2018	24	30	32	Yes
Asset-2	31.03.2018	24	38	32	Yes
Asset-3(a)	14.02.2018	22.5	30	32	Yes
Asset-3(a)	12.07.2018	27	30	32	Yes

**45.** The petitioner has submitted that in case of Asset-1(A)(a) and Asset-1(B)(b), the line length is less than 50 KM and as per regulation 24(2)(vi) of the Tariff



Regulations,2014 additional RoE is not applicable. The petitioner has also submitted SRPC certificate dated 30.08.2018 as per Regulation 24(2)(iii) of the tariff Regulations,2014.

**46.** We have considered the submission made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of RoE with the effective tax rate for the purpose of RoE. The SRPC has certified that the following elements covered in the instant petition fulfill the requirements of Regulation 24(2)(iii) of the 2014 Tariff Regulations:

S. No.	Name of Asset	Actual COD
1	First 500 MVA ICT at Tumkur (Pavgada) pooling station along with associated bays & equipments	6.12.2017
2	Second 500 MVA ICT at Tumkur (Pavgada) pooling station along with associated bays & equipments	14.2.2018
3	1x 125 MVAR 400 kV Bus reactor along with associated bays & equipments at 400/220KV Tumkur (Pavagada) pooling station	31.3.2018
4	LILO of 400KV D/C Bellary - Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada) pooling station along with associated bays & equipments at Tumkur	31.3.2018
5	Third 500 MVA ICT at Tumkur (Pavgada) pooling station along with associated bays & equipments	12.7.2018

47. The timeline specified in Appendix-II of the 2014 Tariff Regulations for grant of additional RoE of 0.5% in case of the instant assets is 38 months. The instant assets were put into commercial operation within the timeline of 38 Page 26 of 42
 A Order in Petition No. 2/TT/2018

months. Accordingly, we approve the grant of Additional RoE for Asset-1B(a), Asset-1B(b), Asset-2, Asset-3(a) and Asset-3(b) respectively.

**48.** Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the RoE allowed is as follows:-

(₹ in lakhs)

Particular	Asset-1(A) (a)	
	2017-18	2018-19
	(pro-rata)	
Opening Equity	48.29	62.57
Addition due to Additional Capitalization	14.28	0.18
Closing Equity	62.57	62.75
Average Equity	55.43	62.66
Return on Equity (Base Rate)	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%
Return on Equity (Pre-tax)	3.45	12.29

Particular	Asset-1(A)	Asset-1(A) (b)		
	2017-18 2018-19			
	(pro-rata)			
Opening Equity	300.70	304.42		
Addition due to Additional Capitalization	3.72	102.18		
Closing Equity	304.42	406.59		
Average Equity	302.56	355.51		
Return on Equity (Base Rate)	15.50%	15.50%		



MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%
Return on Equity (Pre-tax)	9.59	69.71

Particular	Asset-1(B) (a)	
	2017-18	2018-19
	(pro-rata)	
Opening Equity	1597.27	1763.70
Addition due to Additional Capitalization	166.43	711.57
Closing Equity	1763.70	2475.27
Average Equity	1680.48	2119.48
Return on Equity (Base Rate )	16.00%	16.00%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	20.243%	20.243%
Return on Equity (Pre-tax)	108.11	429.05

## (₹ in lakhs)

Particular	Asset-1(B) (b)	
	2017-18	2018-19
	(pro-rata)	
Opening Equity	195.99	195.99
Addition due to Additional Capitalization	0.00	103.49
Closing Equity	195.99	299.48
Average Equity	195.99	247.73
Return on Equity (Base Rate )	16.00%	16.00%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	20.243%	20.243%
Return on Equity (Pre-tax)	0.11	50.15

Particular	Asset-2	
	2017-18	2018-19
	(pro-rata)	
Opening Equity	7093.52	7093.52
Addition due to Additional Capitalization	0.00	813.62
Closing Equity	7093.52	7907.14
Average Equity	7093.52	7500.33
Return on Equity (Base Rate)	16.00%	16.00%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	20.243%	20.243%



Return on Equity (Pre-tax)	3.93	1518.29
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Particular	Asset-3(A)	
	2017-18	2018-19
	(pro-rata)	
Opening Equity	740.47	766.24
Addition due to Additional Capitalization	25.77	160.91
Closing Equity	766.24	927.16
Average Equity	753.36	846.70
Return on Equity (Base Rate)	16.00%	16.00%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	20.243%	20.243%
Return on Equity (Pre-tax)	19.22	171.40

(₹ in lakhs)

Particular	Asset-3(B)	
	2018-19 (pro-rata)	
Opening Equity	787.83	
Addition due to Additional Capitalization	293.36	
Closing Equity	1081.19	
Average Equity	934.51	
Return on Equity (Base Rate)	16.00%	
MAT rate for the Financial year 2013-14	20.961%	
Rate of Return on Equity (Pre-tax)	20.243%	
Return on Equity (Pre-tax)	136.31	

## Interest on loan

- **49.** This has been dealt with in line of Regulation 26 2014 Tariff Regulations.
- 50. IOL has been worked out as under:-

(i) Gross amount of loan, repayment of instalments and rate of interest on actual average loan have been considered as per the petition;

(ii) The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year; and

(iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

51. Based on above, details of Interest on Loan calculated are as follows:-

Particular	Asset-1(A)(a)	
	2017-18	2018-19
	(pro-rata)	
Gross Normative Loan	112.69	146.00
Cumulative Repayment upto previous Year	0.00	3.10
Net Loan-Opening	112.69	142.90
Addition due to Additional Capitalization	33.31	0.42
Repayment during the year	3.10	11.03
Net Loan-Closing	142.90	132.29
Average Loan	127.80	137.60
Weighted Average Rate of Interest on Loan	7.7471%	7.7449%
Interest on Loan	3.15	10.66

(₹ in lakhs)

Particular	Asset-1(A)(b)	
	2017-18	2018-19
	(pro-rata)	
Gross Normative Loan	701.64	710.31
Cumulative Repayment upto previous Year	0.00	8.65
Net Loan-Opening	701.64	701.66
Addition due to Additional Capitalization	8.67	238.41
Repayment during the year	8.65	62.85
Net Loan-Closing	701.66	877.23
Average Loan	701.65	789.45
Weighted Average Rate of Interest on Loan	7.3669%	7.3658%
Interest on Loan	8.36	58.15

(₹ in lakhs)		akhs)
Particular	Asset-1(B)(a)	
	2017-18	2018-19
	(pro-rata)	
Gross Normative Loan	3726.95	4115.29



Cumulative Repayment upto previous Year	0.00	87.49
Net Loan-Opening	3726.95	4027.80
Addition due to Additional Capitalization	388.34	1660.33
Repayment during the year	87.49	332.43
Net Loan-Closing	4027.80	5355.70
Average Loan	3877.38	4691.75
Weighted Average Rate of Interest on Loan	7.7438%	7.7407%
Interest on Loan	95.42	363.18

Particular	Asset-1(B)(b)	
	2017-18	2018-19
	(pro-rata)	
Gross Normative Loan	457.30	457.30
Cumulative Repayment upto previous Year	0.00	0.09
Net Loan-Opening	457.30	457.21
Addition due to Additional Capitalization	0.00	241.48
Repayment during the year	0.09	43.60
Net Loan-Closing	457.21	655.09
Average Loan	457.26	556.15
Weighted Average Rate of Interest on Loan	7.8213%	7.8214%
Interest on Loan	0.10	43.50

(₹ in lakhs)

Particular	Asset-2	
	2017-18	2018-19
	(pro-rata)	
Gross Normative Loan	16551.56	16551.56
Cumulative Repayment upto previous Year	0.00	3.42
Net Loan-Opening	16551.56	16548.13
Addition due to Additional Capitalization	0.00	1898.44
Repayment during the year	3.42	1321.05
Net Loan-Closing	16548.13	17125.52
Average Loan	16549.84	16836.83
Weighted Average Rate of Interest on Loan	7.7347%	7.7347%
Interest on Loan	3.51	1302.28

	(₹ in lakhs)	
Particular	Asset-3(A)	
	2017-18	2018-19
	(pro-rata)	
Gross Normative Loan	1727.77	1787.90

Cumulative Repayment upto previous Year	0.00	16.75
Net Loan-Opening	1727.77	1771.15
Addition due to Additional Capitalization	60.14	375.46
Repayment during the year	16.75	149.38
Net Loan-Closing	1771.15	1997.22
Average Loan	1749.46	1884.19
Weighted Average Rate of Interest on Loan	7.3935%	7.3992%
Interest on Loan	16.30	139.41

	(₹ in lakhs)
Particular	Asset-3(B)
	2018-19
	(pro-rata)
Gross Normative Loan	1838.27
Cumulative Repayment upto previous Year	0.00
Net Loan-Opening	1838.27
Addition due to Additional Capitalization	684.51
Repayment during the year	118.64
Net Loan-Closing	2404.13
Average Loan	2121.20
Weighted Average Rate of Interest on Loan	7.8921%
Interest on Loan	120.62

## **Depreciation**

- **52.** This has been dealt with in line of Regulation 27 of 2014 Tariff Regulations.
- 53. The instant transmission assets were put under commercial operation during 2017-18 and 2018-19. Accordingly, they will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.
- 54. Details of the depreciation allowed are as under:-



Particular	Asset-1(A)(a)	
	2017-18 2018-19	
	(pro-rata)	
Opening Gross Block	160.98	208.57
Additional Capital expenditure	47.59	0.60
Closing Gross Block	208.57	209.17
Average Gross Block	184.78	208.87
Rate of Depreciation	5.2800%	5.2800%
Depreciable Value	166.30	187.98
Remaining Depreciable Value	166.30	184.88
Depreciation	3.10	11.03

(₹ in lakhs)

Particular	Asset-1(A)(b)	
	2017-18	2018-19
	(pro-rata)	
Opening Gross Block	1002.34	1014.73
Additional Capital expenditure	12.39	340.59
Closing Gross Block	1014.73	1355.32
Average Gross Block	1008.54	1185.03
Rate of Depreciation	5.3060%	5.3034%
Depreciable Value	907.68	1066.52
Remaining Depreciable Value	907.68	1057.87
Depreciation	8.65	62.85

# (₹ in lakhs)

Particular	Asset-1(B)(a)	
	2017-18	2018-19
	(pro-rata)	
Opening Gross Block	5324.22	5878.99
Additional Capital expenditure	554.77	2371.90
Closing Gross Block	5878.99	8250.89
Average Gross Block	5601.61	7064.94
Rate of Depreciation	4.9146%	4.7054%
Depreciable Value	4698.09	5945.70
Remaining Depreciable Value	4698.09	5858.21
Depreciation	87.49	332.43

Particular	Asset-1(B)(b)	
	2017-18	2018-19
	(pro-rata)	

Opening Gross Block	653.29	653.29
Additional Capital expenditure	0.00	344.97
Closing Gross Block	653.29	998.26
Average Gross Block	653.29	825.78
Rate of Depreciation	5.2800%	5.2800%
Depreciable Value	587.96	743.20
Remaining Depreciable Value	587.96	743.10
Depreciation	0.09	43.60

Particular	Asset-2	
	2017-18	2018-19
	(pro-rata)	
Opening Gross Block	23645.08	23645.08
Additional Capital expenditure	0.00	2712.05
Closing Gross Block	23645.08	26357.13
Average Gross Block	23645.08	25001.11
Rate of Depreciation	5.2837%	5.2840%
Depreciable Value	21280.57	22500.99
Remaining Depreciable Value	21280.57	22497.57
Depreciation	3.42	1321.05

(₹ in lakhs)

Particular	Asset-3(A)	
	2017-18	2018-19
	(pro-rata)	
Opening Gross Block	2468.24	2554.15
Additional Capital expenditure	85.91	536.37
Closing Gross Block	2554.15	3090.52
Average Gross Block	2511.19	2822.33
Rate of Depreciation	5.2937%	5.2929%
Depreciable Value	2260.07	2540.10
Remaining Depreciable Value	2260.07	2523.34
Depreciation	16.75	149.38

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Particular	Asset-3(B)
	2018-19
	(pro-rata)
Opening Gross Block	2626.10
Additional Capital expenditure	977.87
Closing Gross Block	3603.97
Average Gross Block	3115.04



Rate of Depreciation	5.2860%
Depreciable Value	2803.53
Remaining Depreciable Value	2803.53
Depreciation	118.64

## **Operation and Maintenance Expenses (O&M Expenses)**

- **55.** The petitioner has claimed the O&M Expenses for 2014-19 period as per Regulation 29(4)(a) of the 2014 Tariff Regulations.
- 56. We have considered the submissions of the petitioner. The O&M Expenses have been worked out as per the norms specified in the 2014 Tariff Regulations. The O&M Expenses have been allowed as under:-

		(₹ in lakhs)
Assets	2017-18 (pro-rata)	2018-19
Asset-1(A)(a)	0.11	0.36
Asset-1(A)(b)	21.56	137.78
Asset-1(B)(a)	107.79	350.43
Asset-1(B)(b)	0.18	68.71
Asset-2	1.04	393.22
Asset-3(A)	31.85	261.11
Asset-3(B)		84.17
	N/A	(Pro-rata)

## Interest on Working Capital (IWC)

**57.** As per 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

## a) Maintenance spares:



Maintenance spares @ 15 % of Operation and Maintenance expenses specified in Regulation 28.

## b) O & M expenses:

O&M expenses have been considered for one month of the O&M expenses

## c) Receivables:

The receivables have been worked out on the basis of 2 months' of annual fixed cost as worked out above.

## d) Rate of interest on working capital:

As per Clause 28 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, SBI Base Rate (9.10%) as on 01.04.2017 Plus 350 Bps i.e. 12.60 % have been considered as the rate of interest on working capital for all the assets except Asset-3(B). Similarly, SBI Base Rate (8.70%) as on 01.04.2017 Plus 350 Bps i.e. 12.20 % have been considered as the rate of interest on working capital for Asset-3(B).

58. Accordingly, the interest on working capital is summarized as under:-

		(र in lakhs)
Particular	Asset-1(A)(a)	
	2017-18	2018-19
	(pro-rata)	
Maintenance Spares	0.05	0.05
O & M expenses	0.03	0.03
Receivables	5.26	5.85



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Total	5.34	5.93
Interest	0.21	0.75

Particular	Asset-1(A)(b)	
	2017-18	2018-19
	(pro-rata)	
Maintenance Spares	20.01	20.67
O & M expenses	11.11	11.48
Receivables	51.39	56.61
Total	82.51	88.76
Interest	1.68	11.18

# (₹ in lakhs)

Particular	Asset-1(B)(a)	
	2017-18	2018-19
	(pro-rata)	
Maintenance Spares	50.88	52.56
O & M expenses	28.26	29.20
Receivables	215.33	252.88
Total	294.47	334.64
Interest	11.79	42.16

# (₹ in lakhs)

Particular	Asset-1(B)(b)	
	2017-18	2018-19
	(pro-rata)	
Maintenance Spares	9.86	10.31
O & M expenses	5.48	5.73
Receivables	30.23	35.41
Total	45.56	51.44
Interest	0.02	6.48

Particular	Asset-2	
	2017-18	2018-19
	(pro-rata)	
Maintenance Spares	56.94	58.98
O & M expenses	31.63	32.77
Receivables	741.59	773.99
Total	830.17	865.74
Interest	0.29	109.08



	(₹ in lakhs)	
Particular	Asset-3(A)	
	2017-18	2018-19
	(pro-rata)	
Maintenance Spares	37.91	39.17
O & M expenses	21.06	21.76
Receivables	114.90	124.10
Total	173.87	185.03
Interest	2.76	23.31

Particular	Asset-3(B)	
	2018-19	
	(pro-rata)	
Maintenance Spares	17.52	
O & M expenses	9.73	
Receivables	109.12	
Total	136.37	
Interest	11.99	

## Annual Transmission charges

**59.** The annual transmission charges allowed for the instant assets are summarized hereunder:-

Particular	Asset-1(A)(a)	
	2017-18	2018-19
	(pro-rata)	
Depreciation	3.10	11.03
Interest on Loan	3.15	10.66
Return on Equity	3.45	12.29
Interest on Working Capital	0.21	0.75
O&MExpenses	0.11	0.36
Total	10.03	35.08

	(₹ in lakhs)	
Particular	Asset-1(A)(b)	
	2017-18	2018-19
	(pro-rata)	
Depreciation	8.65	62.85
Interest on Loan	8.36	58.15
Return on Equity	9.59	69.71
Interest on Working Capital	1.68	11.18
O&MExpenses	21.56	137.78
Total	49.84	339.67

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Particular	Asset-1(B)(a)	
	2017-18	2018-19
	(pro-rata)	
Depreciation	87.49	332.43
Interest on Loan	95.42	363.18
Return on Equity	108.11	429.05
Interest on Working Capital	11.79	42.16
O&MExpenses	107.79	350.43
Total	410.61	1517.25

(₹ in lakhs)

Particular	Asset-1(B)(b)	
	2017-18	2018-19
	(pro-rata)	
Depreciation	0.09	43.60
Interest on Loan	0.10	43.50
Return on Equity	0.11	50.15
Interest on Working Capital	0.02	6.48
O&MExpenses	0.18	68.71
Total	0.50	212.44

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Particular	Asset-2	
	2017-18	2018-19
	(pro-rata)	
Depreciation	3.42	1321.05
Interest on Loan	3.51	1302.28
Return on Equity	3.93	1518.29
Interest on Working Capital	0.29	109.08
O&MExpenses	1.04	393.22
Total	12.19	4643.92



	(₹ in lakhs) ticular Asset-3(A)	
Particular		
	2017-18	2018-19
	(pro-rata)	
Depreciation	16.75	149.38
Interest on Loan	16.30	139.41
Return on Equity	19.22	171.40
Interest on Working Capital	2.76	23.31
O&MExpenses	31.85	261.11
Total	86.89	744.62

	(₹ in lakhs)
Particular	Asset-3(B)
	2018-19
	(pro-rata)
Depreciation	118.64
Interest on Loan	120.62
Return on Equity	136.31
Interest on Working Capital	11.99
O&MExpenses	84.17
Total	471.74

### Filing fee and the publication expenses

**60.** The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

### License fee and RLDC Fees and Charges

**61.** The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. We are of the view that the petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

### Service Tax

**62.** The petitioner has sought to recover Service Tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We have considered the submission of the petitioner. Service tax is not levied on transmission. Further, service tax is subsumed by GST and hence petitioner's prayer is infructuous.

### **Goods and Services Tax**

**63.** The petitioner has prayed for reimbursement of tax, if any, on account of implementation of GST. GST is not levied on transmission service at present and we are of the view that petitioner's prayer is premature

### **Sharing of Transmission Charges**

**64.** The transmission charges shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations and shall be shared by the beneficiaries and long term transmission customers in Central

Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

**65.** This order disposes of Petition No. 2/TT/2018.

Sd/-

Sd/-

Sd/-

(Dr. M. K. lyer) Member (A. K. Singhal) Member (P. K. Pujari) Chairperson

