

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 11/TT/2018

Coram:

**Shri P. K. Pujari, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M. K. Iyer, Member**

Date of Order : 3rd of July, 2018

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations '2014 for determination of Transmission Tariff from DOCO to 31.3.2019 for **Asset-1**:SCADA/EMS systems for Main and backup SLDC of Chhattisgarh (CSPTCL), **Asset-2**:SCADA/EMS systems for Main and backup SLDC of Goa Electricity Department (GED), **Asset-3**:SCADA/ EMS system upgradation of Main and backup SLDCs and Sub-LDCs of Gujarat (GETCO), **Asset-4**: SCADA/EMS system up-gradation of Main and backup SLDCs and Sub-LDCs of Madhya Pradesh (MPPTCL), **Asset-5**: SCADA/EMS system upgradation of Main and backup SLDCs of Daman and Diu (DDED) and **Asset-6**:SCADA/EMS system upgradation of Main and backup SLDCs and Sub-LDCs of Dadar and Nagar Haveli (DNHED) under "Expansion/ Upgradation of SCADA/EMS system at SLDC of Western Region" for the period 2014-19 block.

And

In the matter of:

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

.....Petitioner

Vs

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur Jabalpur - 482 008

2. Madhya Pradesh Power Transmission Company Ltd.
Shakti Bhawan, Rampur
Jabalpur - 482 008



3. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road, Indore-452 008
4. Maharashtra State Electricity Distribution Co. Ltd.
Hongkong Bank Building, 3rd Floor
M.G. Road, Fort, Mumbai-400 001.
5. Maharashtra State Electricity Transmission Co. Ltd.
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
BandraKurla Complex, Bandra (East) Mumbai-400 051.
6. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara - 390 007
7. Gujarat Energy Transmission Corporation Limited
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara - 390 007
8. Electricity Department
Govt. Of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa - 403 001
9. Electricity Department
Administration Of Daman & Diu
Daman - 396 210
10. Electricity Department
Administration of Dadra Nagar Haveli
U.T., Silvassa - 396 230
11. Chhattisgarh State Electricity Board
P.O.Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013
12. Chhattisgarh State Power Transmission Co. Ltd.
Office Of The Executive Director (C&P)
State Load Despacth Building,
Dangania, Raipur – 492 013
13. Chhattisgarh State Power Distribution Co. Ltd.
P.O.Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013

.....Respondents



For petitioner : Shri Vivek Kumar Singh, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri S. S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL
Shri V.P. Rastogi, PGCIL

For respondents : Shri Ravin Dubey, Advocate, CSPTCL

ORDER

The Petitioner, Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”) has filed the present petition for determination of transmission tariff from the date of commercial operation to 31.3.2019 for Asset-1:SCADA/EMS systems for Main and backup SLDC of Chhattisgarh (CSPTCL), Asset-2: SCADA/EMS systems for Main and backup SLDC of Goa Electricity Department (GED), Asset-3:SCADA/ EMS system up-gradation of Main and backup SLDCs and Sub-LDCs of Gujarat (GETCO), Asset-4:SCADA/EMS system up-gradation of Main and backup SLDCs and Sub-LDCs of Madhya Pradesh (MPPTCL), Asset-5: SCADA/EMS system up-gradation of Main and backup SLDCs of Daman and Diu (DDED) and Asset-6: SCADA/EMS system up-gradation of Main and backup SLDCs and Sub-LDCs of Dadar and Nagar Haveli (DNHED) (hereinafter referred to as ‘transmission asset’) under “Expansion/ Up-gradation of SCADA/EMS system at SLDC of Western Region” (hereinafter referred to as the project) in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter "the 2014 Tariff Regulations").

2. The Investment Approval (IA) of the project was accorded by the Board of Directors of the Petitioner company vide Memorandum Ref.: C/CP/WR-SCADA dated 5.4.2013, at an estimated cost of Rs. 5362 lakh including IDC of Rs. 422 lakh, based on February, 2013



price level. As per the Investment Approval, the project was scheduled to be put into commercial operation within 27 months from the date of Investment Approval. Since, the date of approval of the Board of Directors is 28.3.2013, the schedule COD of the transmission system was 27.6.2015 against which the instant assets were put under commercial operation w.e.f. 1.10.2016. Therefore, there is a delay of 15 months in the commissioning of the assets.

3. The system requirement was discussed and agreed to by WRPC in the 12th, 16th and 18th WRPC meetings held on 16.1.2010, 12.2.2011 and 1.10.2011 respectively.

4. The scope of work covered under the transmission system is broadly as under:

(i) Installation of new SCADA/EMS platform equipped with Hardware & Software at

(a) SLDCs of MPPTCL (Madhya Pradesh), GETCO (Gujarat), CSPTCL (Chhattisgarh) and Goa Electricity Department.

(b) Backup SLDCs of MPPTCL, GETCO, CSPTCL, and Goa Electricity Department.

(ii) Installation of new SCADA systems at Electricity Departments of Daman & Diu and Dadar and Nagar Haveli.

(iii) Installation of new SCADA systems equipped with hardware and software at Sub-SLDCs of MPPTCL, GETCO and integration of the same with their respective Main and Back-up SLDCs.

(iv) Integration of RTUs/SAS to Main & Backup Control Centre on IEC 60870-5-101/104 protocol.

(v) Integration of Main and Backup Control Centers of SLDCs with Main and Backup WRLDC on ICCP Protocol.



(vi) Integration of Distribution Company (DISCOM) Control Centers with their respective Main and Backup SLDCs.

(vii) Auxiliary Power Supply System.

(viii) Installation of new Video Projection System at the control centers of Constituents.

(ix) Installation of new Video Conferencing System at the control centers of Constituents.

(x) Construction of Backup Control Center Building at MPPTCL, Bhopal.

5. The Petitioner has claimed the transmission charges for the instant assets as under:

(Rs.in lakh)

Asset-1			
Particulars	2016-17	2017-18	2018-19
Depreciation	22.54	53.43	58.17
Interest on Loan	19.95	43.94	43.66
Return on Equity	20.95	49.65	54.06
Interest on Working Capital	1.38	3.20	3.40
O & M Expenses	-	-	-
Total	64.82	150.22	159.29

(Rs.in lakh)

Asset-2			
Particulars	2016-17	2017-18	2018-19
Depreciation	20.96	49.34	53.76
Interest on Loan	17.24	37.93	37.72
Return on Equity	19.48	45.86	49.96
Interest on Working Capital	1.26	2.90	3.08
O & M Expenses	-	-	-
Total	58.94	136.03	144.52

(Rs.in lakh)

Asset-3			
Particulars	2016-17	2017-18	2018-19
Depreciation	37.08	88.43	97.73
Interest on Loan	33.32	74.24	75.03
Return on Equity	34.46	82.18	90.83



Interest on Working Capital	2.29	5.34	5.75
O & M Expenses	-	-	-
Total	107.15	250.19	269.34

(Rs. in lakh)

Asset-4			
Particulars	2016-17	2017-18	2018-19
Depreciation	35.82	83.00	93.76
Interest on Loan	31.61	68.17	70.60
Return on Equity	33.29	77.14	87.14
Interest on Working Capital	2.20	4.98	5.48
O & M Expenses	-	-	-
Total	102.92	233.29	256.98

(Rs.in lakh)

Asset-5			
Particulars	2016-17	2017-18	2018-19
Depreciation	10.37	24.63	27.37
Interest on Loan	9.25	20.43	20.78
Return on Equity	9.63	22.89	25.44
Interest on Working Capital	0.64	1.48	1.60
O & M Expenses	-	-	-
Total	29.89	69.43	75.19

(Rs. in lakh)

Asset-6			
Particulars	2016-17	2017-18	2018-19
Depreciation	15.86	38.33	43.57
Interest on Loan	14.57	32.69	34.04
Return on Equity	14.74	35.62	40.49
Interest on Working Capital	0.98	2.32	2.57
O & M Expenses	-	-	-
Total	46.15	108.96	120.67

6. The details of the "Interest on Working Capital" claimed by the Petitioner are as under:

(Rs. in lakh)

Asset-1			
Particulars	2016-17	2017-18	2018-19
O&M Expenses	-	-	-
Maintenance Spares	-	-	-
Receivables	21.61	25.04	26.55



Total Working Capital	21.61	25.04	26.55
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	1.38	3.20	3.40

(Rs.in lakh)

Asset-2			
Particulars	2016-17	2017-18	2018-19
O&M Expenses	-	-	-
Maintenance Spares	-	-	-
Receivables	19.65	22.67	24.09
Total Working Capital	19.65	22.67	24.09
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	1.26	2.90	3.08

(Rs.in lakh)

Asset-3			
Particulars	2016-17	2017-18	2018-19
O&M Expenses	-	-	-
Maintenance Spares	-	-	-
Receivables	35.72	41.70	44.89
Total Working Capital	35.72	41.70	44.89
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	2.29	5.34	5.75

(Rs.in lakh)

Asset-4			
Particulars	2016-17	2017-18	2018-19
O&M Expenses	-	-	-
Maintenance Spares	-	-	-
Receivables	34.31	38.88	42.83
Total Working Capital	34.31	38.88	42.83
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	2.20	4.98	5.48

(Rs.in lakh)

Asset-5			
Particulars	2016-17	2017-18	2018-19
O&M Expenses	-	-	-
Maintenance Spares	-	-	-
Receivables	9.96	11.57	12.53
Total Working Capital	9.96	11.57	12.53
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	0.64	1.48	1.60



(Rs.in lakh)

Asset-6			
Particulars	2016-17	2017-18	2018-19
O&M Expenses	-	-	-
Maintenance Spares	-	-	-
Receivables	9.96	11.57	12.53
Total Working Capital	9.96	11.57	12.53
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	0.98	2.32	2.57

7. The Petitioner has served the copy of the petition on the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as the Act). No comments or suggestions have been received from the general public in response to the notices published by the Petitioner under Section 64 of the Electricity Act. Madhya Pradesh Power Management Company Ltd. (MPPMCL) and Chhattisgarh State Power Transmission Co. Ltd (CSPTCL) have filed their replies vide affidavits dated 4.1.2018 and 11.4.2018 respectively. In response, the Petitioner has filed its rejoinders vide affidavits dated 5.3.2018 and 4.5.2018. The issues raised by MPPMCL and CSPTCL and the clarifications given by the Petitioner are addressed in the succeeding paragraphs of this order.

8. The Petitioner vide affidavit dated 28.3.2018 has placed on record the copy of Agreements signed with respective States. According to the Petitioner, as per the "Letter of Award" for the instant assets, the dismantled equipment of the existing system are to be taken back by the contractor after replacement and the value of assets/equipment's has already been factored in the price bid. Accordingly, the replaced asset's cost has been adjusted in the newly supplied/ commissioned assets. Therefore, no further details of the de-capitalization are required in the instant case. The Petitioner has submitted that the old



SCADA system for SLDCs of Madhya Pradesh, Chhattisgarh, Gujarat and Goa was covered under the Unified Load Despatch and Communication (ULDC) Scheme in Western Region and was put under commercial operation w.e.f. 1.2.2006.

9. The Commission vide orders dated 14.11.2013 and 11.6.2014 in Petition No 57/TT/2012 and Review Petition No. 3/RP/2014 respectively approved the fee and charges for the period 2009-14 for the assets retained by the Petitioner after formation of POSOCO in Western Region and the Commission in its order dated 14.6.2016 in Petition No. 11/TT/2015 approved the true-up fee and charges for 2009-14 tariff period.

10. The Petitioner, vide order dated 2.3.2017 in Petition No. 188/MP/2014, was directed to file fresh petition incorporating the input of accelerated depreciation of SCADA/EMS matching with COD of the new SCADA system. Accordingly, the Petitioner has filed the Petition No. 212/TT/2017 incorporating the input of accelerated depreciation of SCADA/EMS matching with COD of assets covered under instant Petition.

11. In the present petition, the Petitioner has filed affidavits dated 5.3.2018, 28.3.2018, 4.5.2018 and 30.5.2018 which have been considered in the present petition accordingly.

12. Having heard the representatives of the parties and after perusal of the records, we proceed to dispose of the petition.

Date of Commercial Operation (COD)

13. Clause (3) of Regulation 4 of the 2014 Tariff Regulations provides as under:

“4.Date of Commercial Operation: The date of commercial operation of generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:



* * * * *

(3) Date of commercial operation in relation to a transmission system shall mean the date of declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end.

*****”

14. As per the investment approval dated 28.3.2013, the scheduled COD of the transmission assets was 27.6.2015. According to the Petitioner, the actual date of the commercial operation of the instant assets was 1.10.2016.

15. We have considered the submission of the Petitioner. The Petitioner, vide affidavit dated 28.3.2018, has submitted that the CEA certificate and CMD certificate are not applicable for subject assets. With regard to non-applicability of Regulation 43 of the Central Electricity Authority (Measures Related to Safety and Electricity Supply) Regulations, 2010, the Commission in its order dated 29.11.2017 in Petition No. 113/TT/2016 had observed as under:

“9.....

As regards the petitioner’s contention regarding non-applicability of Regulation 43 of CEA Regulations, CEA may confirm whether the contention of petitioner regarding non-applicability of Regulation 43 is correct. A copy of this order may be served upon CEA by the petitioner. The reply of CEA shall be considered at the time of truing-up.”

In view of the above observation, the Petitioner is directed to comply with the above direction in the present petition also.

16. According to the Petitioner, the date of commercial operation of Assets 1 to 6 is 1.10.2016. In support of the commercial operation, the Petitioner has placed on record the copy of RLDC certificates dated 9.11.2016 and 22.3.2017 issued by WRLDC. Taking into considerations the submissions made by the Petitioner and WRLDC and RLDC certificates submitted by the Petitioner in support of trial operation, the date of commercial operation is



approved as on 1.10.2016.

Capital Cost

17. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provides as under:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

(2) The Capital Cost of a new project shall include the following:

(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) Capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD.

18. The Petitioner has placed on record the Auditor’s Certificates dated 13.6.2017 and 28.9.2017 mentioning the capital cost as on the date of commercial operation (COD) and estimated additional capital expenditure incurred or projected to be incurred for the instant assets. The details of capital cost as submitted by the Petitioner are as under:



(Rs.in lakh)

Asset	Apportioned Approved cost(FR)	Expenditure upto COD	Additional capital Expenditure 2016-17	Projected Additional capital Expenditure		Estimated completion cost
				2017-18	2018-19	
1	935.15	661.41	113.76	143.83	0	919.00
2	861.03	616.93	95.14	137.24	0	849.31
3	1368.82	1119.57	181.76	219.04	47.23	1567.60
4	1298.46	1119.97	118.62	175.78	133.68	1548.05
5	449.16	312.37	50.71	58	22.62	443.70
6	449.16	494.75	80.32	94.07	38.27	707.41
Total	5361.78	4325.00	640.31	827.96	241.8	6035.07

Cost over-run

19. Against the approved apportioned of Rs. 5361.78 lakh, the estimated completion cost of the instant transmission assets is Rs. 6035.07 lakh. There is cost over-run of Rs. 198.78 lakh, Rs. 249.59 lakh and Rs. 258.25 lakh in case of Asset-3, Asset-4 and Asset-6 respectively.

20. MPPMCL, vide its reply dated 4.1.2018 has submitted that the excess expenditure on various items shows casual approach of the Petitioner while finalizing various awards/contracts which has resulted in increase that is more than double of the estimated value which the Petitioner has now proposed to be transferred on the beneficiaries as extra financial burden. The Petitioner has not given appropriate details in support of such claims. According to MPPMCL, this needs prudence check and the Petitioner may be directed to place on record the documentary proofs about increase in estimated cost on completion. MPPMCL has further submitted that cost towards establishment has increased by 47.1% and 58.55% in case of Chhattisgarh and Goa respectively. Such sharp rise is totally unacceptable and should not be allowed. MPPMCL has further submitted that since the



additional IDC claimed in case of MP and DNH has also not been justified by the Petitioner, the same is liable to be rejected.

21. With regard to variation in apportioned approved cost as per FR and completion cost, the Petitioner vide its rejoinder dated 5.3.2018 has submitted that SCADA/EMS system of respective SLDCs is established in the premises of utilities of respective States and the completion cost of the assets has been changed as per the actual site requirements and layout of the premises of the utilities of respective States.

22. According to the Petitioner, Gujarat Energy Transmission Co. Ltd. (GETCO) vide its letter dated 30.5.2013 requested for a full-fledged Sub-SLDC at Gandhi Nagar instead of Back-up SLDC cum Sub-SLDC at Gandhi Nagar. In the said letter dated 30.5.2013, GETCO further requested for an additional RTU for 220 kV Karjan sub-station which resulted in increase in the cost of Asset-3 to the extent of Rs. 1.15 crore. The Petitioner has submitted that MPPMCL vide its letter dated 17.7.2013 requested for auxiliary supply for Sub-LDC Indore including 2 No. 40 kVA UPS, 2 No. VRLA batteries, I/P and O/P ACDB along with cables which resulted in increase in the cost of Asset-4 to the extent of Rs. 0.36 crore. Further, DNHED vide its letter dated 21.7.2013 requested the Petitioner to provide 20 additional RTUs which resulted in increase in the cost of Asset-6 to the extent of Rs.2.43 crore.

23. We have considered the submissions of the Petitioner and the Respondents. Against the total apportioned approved cost of Rs. 5361.78 lakh, the estimated completion cost is Rs. 6035.07 lakh. Therefore, there is cost over-run of Rs. 673.29 lakh (11.15%) against the estimated completion cost of the assets as compared to the FR cost. The



Petitioner has submitted Form-5 for item-wise cost variation between approved cost (FR) and actual cost as on COD/estimated completion cost. The Petitioner has not submitted copy of RCE for instant assets. Therefore, in the absence of the approved RCE, the completion capital cost has been restricted to original approved cost. Further, the reasons submitted by the Petitioner with regard to cost variation have not been considered in the instant petition. Accordingly, the Petitioner is directed to submit detailed justification and reasons for cost variation along with documentary evidence at the time of truing-up which will be considered as per law.

Time over-run

24. As per the Investment Approval dated 5.4.2013, the instant assets were scheduled to be commissioned within 27 months from the date of approval of Board of Directors dated 28.3.2013. Accordingly, the scheduled date of commercial operation of the instant assets was 27.6.2015 against which the instant assets were put into commercial operation on 1.10.2016 with a time over-run of 15 months and 4 days.

25. The Petitioner has submitted that the time over-run was due to delay in handing over of SLDC building of respective States. The Petitioner has submitted the details of handing over of SLDC building as under:

State	SLDC building handed over on	Delay caused (no. of months from Investment Approval)	Effective delay
Chhattisgarh	30.6.2015	27 months	15 months
Goa	17.2.2016	34 months	15 months
Gujarat	27.1.2016	33 months	15 months
Madhya Pradesh	15.8.2015	28 months	15 months
Daman and Diu	1.1.2015	21 months	15 months
Dadar and Nagar Haveli	23.3.2015	23 months	15 months



26. CSPTCL, vide its affidavit dated 11.4.2018 has requested to reject the contention of the Petitioner that the delay beyond the SCOD was beyond its control and accordingly, to disallow the increase in cost of the project, increase in IDC and IEDC. The Petitioner in its rejoinder dated 4.5.2018 has submitted that during 15th Project Review Meeting, CSPTCL informed that the Back-up SLDC building would be ready by 30.6.2015. However, the Back-up SLDC Bhilai was handed over in July 2015 i.e. after 27 months from the date of approval of Board of Directors which resulted in time over-run in the case of Asset-1, which was beyond the control of the Petitioner. After handing over the respective SLDC building, the Petitioner put the assets into commercial operation on 1.10.2016 i.e. within approximately 18 months and 9 days as against planned time period of 27 months.

27. We have considered the submission of the Petitioner and CSPTCL. According to the Petitioner, subject assets could not be put into commercial operation due to delay in handing over of respective SLDC building for up-gradation/expansion of SCADA/EMS systems for main and backup SLDC. It is noted that SLDC building was handed over on 9.10.2015, 17.2.2016, 27.1.2016, 15.8.2015, 1.1.2015 and 23.3.2015 for Chhattisgarh, Goa, Gujarat, Madhya Pradesh, Daman & Diu and Dadar & Nagar Haveli respectively and same has been recorded in various PRM minutes submitted by the Petitioner. We are of the view that the Petitioner could not have put into commercial operation of the instant assets unless the SLDCs of respective States have handed over their respective buildings to the Petitioner on time. Therefore, the delay of 15 months and 4 days in COD of the instant assets is condoned.

Interest During Construction (IDC)

28. The Petitioner has also submitted the details of IDC discharged up to COD and the



“IDC to be discharged” after COD i.e. in 2016-17 and 2017-18. The IDC has been worked out based on the available information such as dates of draws, loan amounts, rates of interest, interest payment dates till COD/ post COD, etc. as per the statement of IDC calculation submitted by the Petitioner. It is noticed that the Petitioner has availed loan from SBI vide draws on various dates. However, the applicable rate of interest has not been furnished by the Petitioner regarding these draws. Therefore, rate of interest applicable for SBI loan for the period subsequent to the COD (8.90%) as reflected in Form 9(c) of the petition has been considered. However, the Petitioner is directed to furnish the information regarding rate of interest applicable to the SBI loan at the time of truing up.

29. The IDC upto the date of interest payment till COD (IDC discharged) has been worked out for inclusion in capital cost on cash basis as on COD. “Balance IDC” as on COD, is not being capitalized because the balance accrued IDC as on COD is yet to be discharged” by the Petitioner. The same has been considered on projected basis, subject to the total IDC as worked out. As the time over-run has been condoned for all the assets, no deduction has been made in IDC on account of delay. Accordingly, the following IDC has been worked out for each asset as against the IDC claimed by the Petitioner. The IDC considered for determination of capital cost for the purpose of tariff is restricted upto the approved capital cost as observed in para 23 of this order.

(Rs. in lakh)

Asset	IDC as per certificate	IDC worked out till COD	IDC Discharged upto COD	IDC Discharged in 2016-17	IDC to be discharged in 2017-18
1	33.77	33.76	27.78	0.00	5.98
2	2.34	2.34	0.00	0.00	2.34
3	104.71	81.11	54.29	22.22	4.59
4	120.74	92.69	55.95	34.26	2.48
5	29.21	23.99	14.74	8.49	0.75
6	46.27	16.13	11.23	1.22	3.68
Total	337.04	250.02	163.99	66.19	19.82



Incidental Expenditure During Construction (IEDC)

30. The Petitioner, vide affidavit dated 30.5.2018, has submitted the details of IEDC during the period of delay in COD of all the assets (i.e. from scheduled COD to actual COD) as under:

(Rs. in lakh)

Asset	IEDC		
	Up to SCOD (28.6.2015)	From SCOD to actual COD (28.6.2015-1.10.2016)	Total
1	1.43	165.91	167.34
2	1.24	150.94	152.18
3	25.35	12.58	37.93
4	21.60	18.95	40.54
5	7.07	3.51	10.58
6	11.20	5.56	16.76
Total	67.89	357.45	425.33

31. It is observed that the IEDC claimed by the Petitioner for each asset except Asset-1 and Asset-2, is within the limit of 10.75% of the hard cost as per the original investment approval. Accordingly, IEDC in case of Asset-1 and Asset-2 over and above 10.75% of the hard cost is disallowed. No deduction in claimed IEDC has been made in case of other assets. IEDC allowed is as under:

(Rs. in lakh)

Asset	Total
1	77.17
2	74.69
3	37.93
4	40.54
5	10.58
6	16.76
Total	257.67

Initial spares

32. The Petitioner has not claimed initial spares in the instant petition. The details of the capital cost admitted as on COD for the purpose of computation of tariff, considering the IEDC and IDC is given below:



(Rs.in lakh)						
Asset	1	2	3	4	5	6
Capital cost claimed as on COD (1)	661.40	616.93	1119.57	1119.97	312.37	494.75
Less: IDC included in (1) above	33.77	2.34	104.71	120.74	29.21	46.27
Less: IEDC included in (1) above	167.34	152.18	37.93	40.54	10.58	16.76
Add: IDC allowed as on COD	27.78	-	54.29	55.95	14.74	11.23
Add: IEDC allowed as on COD	77.17	74.69	37.93	40.54	10.58	16.76
Capital cost allowed on COD	565.25	537.10	1,069.15	1,055.18	297.90	459.71

Additional Capital Expenditure

33. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

"(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- (v) Change in law or compliance of any existing law:

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff."

34. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines "cut-off" date as under:

"cut-off date" means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of the year, the



cut-off date shall be 31st March of the year closing after three years of the year of commercial operation”.

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;”

35. The cut-off date in the case of instant assets is 31.3.2019.

36. The Petitioner has claimed the additional capital expenditure in Form 7 under Regulation 14(1) of 2014 Tariff Regulations as under:

(Rs.in lakh)

Asset	Additional capital Expenditure			Discharge of IDC			Total		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
1	113.76	143.83	0.00	0.00	5.99	0.00	113.76	149.82	0.00
2	95.14	137.24	0.00	0.00	2.34	0.00	95.14	139.58	0.00
3	181.76	219.04	47.23	22.22	27.81	0.00	203.98	246.85	47.23
4	118.62	175.78	133.68	34.26	30.46	0.00	152.88	206.24	133.68
5	50.71	58.00	22.62	8.49	5.98	0.00	59.20	63.98	22.62
6	80.32	94.07	38.27	1.22	33.19	0.00	81.54	127.26	38.27

37. We have considered the submission made by the Petitioner. The additional capitalization incurred and projected to be incurred for instant assets is on account of Balance and Retention Payments and is within cut-off date and is covered under Regulation 14(1) (i) of the 2014 Tariff Regulations. The actual discharge on account of IDC has been allowed based on the IDC worked out. Therefore, the additional capital expenditure incurred after COD is approved as under:

(Rs. in lakh)

Asset	Additional capital expenditure			Discharge of IDC			Total		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
1	113.76	143.83	0.00	0.00	5.98	0.00	113.76	149.81	0.00
2	95.14	137.24	0.00	0.00	2.34	0.00	95.14	139.58	0.00
3	181.76	219.04	47.23	22.22	4.59	0.00	203.98	223.63	47.23



4	118.62	175.78	133.68	34.26	2.48	0.00	152.88	178.26	133.68
5	50.71	58.00	22.62	8.49	0.75	0.00	59.20	58.75	22.62
6	80.32	94.07	38.27	1.22	0.00	0.00	81.54	94.07	38.27

Capital Cost

38. Based on the capital cost as on COD and the additional capital expenditure including discharge on account of IDC, the capital cost considered for the purpose of tariff calculation is as under:

Asset	Cost on COD	Apportioned approved cost	Additional capital expenditure for 2016-17	Projected Additional capital expenditure for		Estimated completion cost as on 31.3.2019
				2017-18	2018-19	
1	919.00	565.25	113.76	149.81	-	828.81
2	849.31	537.10	95.14	139.58	-	771.82
3	1368.82	1,069.15	203.98	95.69	-	1,368.82
4	1298.46	1,055.18	152.88	90.40	-	1,298.46
5	443.70	297.90	59.20	58.75	22.62	438.47
6	449.16	449.16	-	-	-	449.16

39. It is observed that the capital cost as on 31.3.2019 in case of Asset-3, Asset-4 and Asset-6 is more than the apportioned approved cost. Therefore, the capital cost of the above assets as on 31.3.2019 is restricted to the approved cost as observed in para 23 of this order.

Debt- Equity ratio

40. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as under:

“(1) For a project declared under commercial operation on or after 1.4.2014, the debt- equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:



ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. 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.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation”

The Petitioner has claimed Debt:Equity ratio of 70:30 as on the date of commercial operation. The 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:

(Rs. in lakh)

Asset-1			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	395.67	580.17
Equity	30.00	169.57	248.64
Total	100.00	565.25	828.81
Asset-2			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	375.97	540.27
Equity	30.00	161.13	231.55
Total	100.00	537.10	771.82
Asset-3			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	748.41	958.18
Equity	30.00	320.75	410.65
Total	100.00	1069.15	1368.82
Asset-4			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	738.63	908.92
Equity	30.00	316.55	389.54
Total	100.00	1055.18	1298.46



Asset-5			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	208.53	306.93
Equity	30.00	89.37	131.54
Total	100.00	297.90	438.47
Asset-6			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	314.41	314.41
Equity	30.00	134.75	134.75
Total	100.00	449.16	449.16

Return on Equity (ROE)

41. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

(i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced



by 1% for the period for which the deficiency continues:

(vi) additional RoE shall not be admissible for transmission line having length of less than 50kilometers.”

“25. Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

“(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non- transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

42. The Petitioner has submitted that RoE has been calculated at the rate of 19.61% after grossing up the RoE with MAT rate of 20.96% as per the above Regulations. The Petitioner has further submitted that as per Regulation 25(2)(i) of the 2014 Tariff Regulations, the grossed up RoE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. The Petitioner has submitted that any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis. The Petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax



including interest received from IT authorities shall be recoverable/ adjustable after completion of income tax assessment of the financial year.

43. We have considered the submissions of 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 return on equity. It further provides that in case the 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 for the assets covered in the instant petition is as under:

(Rs.in lakh)

Asset-1			
Particulars	2016-17	2017-18	2018-19
Opening Equity	169.57	203.70	248.64
Addition due to Additional Capitalisation	34.13	44.94	0.00
Closing Equity	203.70	248.64	248.64
Average Equity	186.64	226.17	248.64
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	18.25	44.35	48.76

(Rs.in lakh)

Asset-2			
Particulars	2016-17	2017-18	2018-19
Opening Equity	161.13	189.67	231.55
Addition due to Additional Capitalisation	28.54	41.87	0.00
Closing Equity	189.67	231.55	231.55
Average Equity	175.40	210.61	231.55
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	17.15	41.30	45.41



(Rs.in lakh)

Asset-3			
Particulars	2016-17	2017-18	2018-19
Opening Equity	320.75	381.94	410.65
Addition due to Additional Capitalisation	61.19	28.71	0.00
Closing Equity	381.94	410.65	410.65
Average Equity	351.34	396.29	410.65
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	34.35	77.71	80.53

(Rs.in lakh)

Asset-4			
Particulars	2016-17	2017-18	2018-19
Opening Equity	316.55	362.42	389.54
Addition due to Additional Capitalisation	45.86	27.12	0.00
Closing Equity	362.42	389.54	389.54
Average Equity	339.49	375.98	389.54
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	33.20	73.73	76.39

(Rs.in lakh)

Asset-5			
Particulars	2016-17	2017-18	2018-19
Opening Equity	89.37	107.13	124.76
Addition due to Additional Capitalisation	17.76	17.63	6.79
Closing Equity	107.13	124.76	131.54
Average Equity	98.25	115.94	128.15
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	9.61	22.74	25.13

(Rs.in lakh)

Asset-6			
Particulars	2016-17	2017-18	2018-19
Opening Equity	134.75	134.75	134.75
Addition due to Additional Capitalisation	0.00	0.00	0.00
Closing Equity	134.75	134.75	134.75
Average Equity	134.75	134.75	134.75
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%



Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	13.18	26.42	26.42

Interest on Loan (IOL)

44. Regulation 26 of the 2014 Tariff Regulations provides as under:

“(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalisation of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.”

45. The Petitioner’s entitlement to IOL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:

(i) Gross amount of loan, repayment of installments and rate of interest and weighted average rate of interest on actual average loan have been considered as per Form 9C given in the affidavit dated 21.7.2017;



(ii) The normative repayment for the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for that period;

(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 IOL.

46. Detailed calculations in support of the weighted average rates of interest have been given in Annexure to this order.

47. Based on the above, IOL has been calculated as under:

(Rs. in lakh)

Asset-1			
Particular	2016-17	2017-18	2018-19
Gross Normative Loan	395.67	475.30	580.17
Cumulative Repayment up to Previous year	0.00	19.64	67.36
Net Loan-Opening	395.67	455.67	512.81
Addition due to Additional Capitalization	79.63	104.86	0.00
Repayment during the year	19.64	47.72	52.46
Net Loan-Closing	455.67	512.81	460.35
Average Loan	425.67	484.24	486.58
Weighted Average Rate of Interest on Loan	8.1880%	8.1127%	8.1106%
Interest	17.38	39.29	39.46

(Rs.in lakh)

Asset-2			
Particular	2016-17	2017-18	2018-19
Gross Normative Loan	375.97	442.57	540.27
Cumulative Repayment up to Previous year	0.00	18.45	62.89
Net Loan-Opening	375.97	424.11	477.38
Addition due to Additional Capitalization	66.60	97.71	0.00
Repayment during the year	18.45	44.44	48.86
Net Loan-Closing	424.11	477.38	428.53
Average Loan	400.04	450.75	452.95
Weighted Average Rate of Interest on Loan	7.6127%	7.5850%	7.5850%
Interest	15.19	34.19	34.36



(Rs.in lakh)

Asset-3			
Particular	2016-17	2017-18	2018-19
Gross Normative Loan	748.41	891.19	958.17
Cumulative Repayment up to Previous year	0.00	36.97	120.58
Net Loan-Opening	748.41	854.23	837.59
Addition due to Additional Capitalization	142.79	66.98	0.00
Repayment during the year	36.97	83.62	86.65
Net Loan-Closing	854.23	837.59	750.94
Average Loan	801.32	845.91	794.27
Weighted Average Rate of Interest on Loan	8.3138%	8.2810%	8.2777%
Interest	33.22	70.05	65.75

(Rs.in lakh)

Asset-4			
Particular	2016-17	2017-18	2018-19
Gross Normative Loan	738.63	845.64	908.92
Cumulative Repayment up to Previous year	0.00	35.72	115.05
Net Loan-Opening	738.63	809.92	793.87
Addition due to Additional Capitalization	107.02	63.28	0.00
Repayment during the year	35.72	79.33	82.19
Net Loan-Closing	809.92	793.87	711.68
Average Loan	774.28	801.90	752.78
Weighted Average Rate of Interest on Loan	8.1641%	8.1106%	8.1037%
Interest	31.52	65.04	61.00

(Rs.in lakh)

Asset-5			
Particular	2016-17	2017-18	2018-19
Gross Normative Loan	208.53	249.97	291.10
Cumulative Repayment up to Previous year	0.00	10.34	34.80
Net Loan-Opening	208.53	239.63	256.30
Addition due to Additional Capitalization	41.44	41.13	15.83
Repayment during the year	10.34	24.46	27.04
Net Loan-Closing	239.63	256.30	245.09
Average Loan	224.08	247.97	250.69
Weighted Average Rate of Interest on Loan	8.2606%	8.1833%	8.1829%
Interest	9.23	20.29	20.51



(Rs.in lakh)

Asset-6			
Particular	2016-17	2017-18	2018-19
Gross Normative Loan	314.41	314.41	314.41
Cumulative Repayment up to Previous year	0.00	14.18	42.61
Net Loan-Opening	314.41	300.24	271.80
Addition due to Additional Capitalization	0.00	0.00	0.00
Repayment during the year	14.18	28.43	28.43
Net Loan-Closing	300.24	271.80	243.37
Average Loan	307.32	286.02	257.59
Weighted Average Rate of Interest on Loan	8.5023%	8.4084%	8.3870%
Interest	13.03	24.05	21.60

Depreciation

48. Regulation 27 of the 2014 Tariff Regulations provides as under:

"27. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis

(3) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing



after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(4) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

49. The instant transmission assets were put under commercial operation during 2016-17. Accordingly, it 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-III to the 2014 Tariff Regulations.

50. Based on the above, the depreciation has been worked as under:

(Rs. in lakh)

Asset-1			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	565.25	679.01	828.81
Addition Capital Expenditure	113.76	149.81	0.00
Closing Gross Block	679.01	828.81	828.81
Average Gross Block	622.13	753.91	828.81
Rate of Depreciation	6.33%	6.33%	6.33%
Depreciable Value	559.91	678.52	745.93
Remaining Depreciable Value	559.91	658.88	678.57
Depreciation	19.64	47.72	52.46

(Rs.in lakh)

Asset-2			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	537.10	632.24	771.82
Addition Capital Expenditure	95.14	139.58	0.00
Closing Gross Block	632.24	771.82	771.82
Average Gross Block	584.67	702.03	771.82
Rate of Depreciation	6.33%	6.33%	6.33%
Depreciable Value	526.20	631.83	694.64
Remaining Depreciable Value	526.20	613.37	631.75
Depreciation	18.45	44.44	48.86

(Rs.in lakh)

Asset-3			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	1069.15	1273.13	1368.82
Addition Capital Expenditure	203.98	95.69	0.00



Closing Gross Block	1273.13	1368.82	1368.82
Average Gross Block	1171.14	1320.98	1368.82
Rate of Depreciation	6.33%	6.33%	6.33%
Depreciable Value	1054.03	1188.88	1231.94
Remaining Depreciable Value	1054.03	1151.91	1111.35
Depreciation	36.97	83.62	86.65

(Rs.in lakh)

Asset-4			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	1055.18	1208.06	1298.46
Addition Capital Expenditure	152.88	90.40	0.00
Closing Gross Block	1208.06	1298.46	1298.46
Average Gross Block	1131.62	1253.26	1298.46
Rate of Depreciation	6.33%	6.33%	6.33%
Depreciable Value	1018.46	1127.93	1168.61
Remaining Depreciable Value	1018.46	1092.22	1053.57
Depreciation	35.72	79.33	82.19

(Rs.in lakh)

Asset-5			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	297.90	357.10	415.85
Addition Capital Expenditure	59.20	58.75	22.62
Closing Gross Block	357.10	415.85	438.47
Average Gross Block	327.50	386.48	427.16
Rate of Depreciation	6.33%	6.33%	6.33%
Depreciable Value	294.75	347.83	384.45
Remaining Depreciable Value	294.75	337.49	349.65
Depreciation	10.34	24.46	27.04

(Rs.in lakh)

Asset-6			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	449.16	449.16	449.16
Addition Capital Expenditure	0.00	0.00	0.00
Closing Gross Block	449.16	449.16	449.16
Average Gross Block	449.16	449.16	449.16
Rate of Depreciation	6.33%	6.33%	6.33%
Depreciable Value	404.24	404.24	404.24
Remaining Depreciable Value	404.24	390.07	361.64
Depreciation	14.18	28.43	28.43

Operation and Maintenance Expenses (O&M Expenses)

51. The O & M Expenses charges of SCADA/EMS system established under ULDC



Scheme for all the constituents shall be responsibility of the respective SLDCs in line with WRULDC project. Therefore, O & M Expenses have not been considered for subject assets.

Interest on Working Capital (IWC)

52. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:

“28. Interest on Working Capital

(1) The working capital shall cover:

(c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:

(i) Receivables equivalent to two months of fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29;and

(iii) Operation and maintenance expenses for onemonth”

“(5) “Bank Rate” means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being ineffect plus 350 basis points;”

53. The Petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the Petitioner’s entitlement to interest thereon are discussed as under:

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission



charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

O & M Expenses have been considered for one month as a component of working capital. The petitioner has claimed O & M Expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

54. Accordingly, the interest on working capital as determined is as under:-

(Rs. in lakh)

Asset-1			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	--	--	--
O & M expenses	--	--	--
Receivables	18.88	22.37	23.96
Total	18.88	22.37	23.96
Interest	1.20	2.86	3.07



(Rs.in lakh)

Asset-2			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	--	--	--
O & M expenses	--	--	--
Receivables	17.35	20.42	21.90
Total	17.35	20.42	21.90
Interest	1.11	2.61	2.80

(Rs.in lakh)

Asset-3			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	--	--	--
O & M expenses	--	--	--
Receivables	35.70	39.40	39.67
Total	35.70	39.40	39.67
Interest	2.28	5.04	5.08

(Rs.in lakh)

Asset-4			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	--	--	--
O & M expenses	--	--	--
Receivables	34.30	37.14	37.40
Total	34.30	37.14	37.40
Interest	2.19	4.75	4.79

(Rs.in lakh)

Asset-5			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	--		
O & M expenses	--		
Receivables	9.96	11.49	12.38
Total	9.96	11.49	12.38
Interest	0.64	1.47	1.58

(Rs.in lakh)

Asset-6			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	--	--	--
O & M expenses	--	--	--
Receivables	13.79	13.44	13.02
Total	13.79	13.44	13.02
Interest	0.88	1.72	1.67



Transmission Charges

55. The transmission charges allowed for the instant transmission assets are summarized as under:

(Rs in lakh)

Asset-1			
Particulars	2016-17	2017-18	2018-19
Depreciation	19.64	47.72	52.46
Interest on Loan	17.38	39.29	39.46
Return on Equity	18.25	44.35	48.76
Interest on Working Capital	1.20	2.86	3.07
O & M Expenses	-	-	-
Total	56.47	134.22	143.75

(Rs.in lakh)

Asset-2			
Particulars	2016-17	2017-18	2018-19
Depreciation	18.45	44.44	48.86
Interest on Loan	15.19	34.19	34.36
Return on Equity	17.15	41.30	45.41
Interest on Working Capital	1.11	2.61	2.80
O & M Expenses	-	-	-
Total	51.90	122.54	131.42

(Rs.in lakh)

Asset-3			
Particulars	2016-17	2017-18	2018-19
Depreciation	36.97	83.62	86.65
Interest on Loan	33.22	70.05	65.75
Return on Equity	34.35	77.71	80.53
Interest on Working Capital	2.28	5.04	5.08
O & M Expenses	-	-	-
Total	106.82	236.42	238.00

(Rs.in lakh)

Asset-4			
Particulars	2016-17	2017-18	2018-19
Depreciation	35.72	79.33	82.19
Interest on Loan	31.52	65.04	61.00
Return on Equity	33.20	73.73	76.39
Interest on Working Capital	2.19	4.75	4.79
O & M Expenses	-	-	-
Total	102.62	222.85	224.37



(Rs.in lakh)

Asset-5			
Particulars	2016-17	2017-18	2018-19
Depreciation	10.34	24.46	27.04
Interest on Loan	9.23	20.29	20.51
Return on Equity	9.61	22.74	25.13
Interest on Working Capital	0.64	1.47	1.58
O & M Expenses	-	-	-
Total	29.81	68.96	74.27

(Rs.in lakh)

Asset-6			
Particulars	2016-17	2017-18	2018-19
Depreciation	14.18	28.43	28.43
Interest on Loan	13.03	24.05	21.60
Return on Equity	13.18	26.42	26.42
Interest on Working Capital	0.88	1.72	1.67
O & M Expenses	-	-	-
Total	41.26	80.63	78.13

Filing Fee and the Publication Expenses

56. 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.

Licence Fee and RLDC Fees and Charges

57. The Petitioner has requested to allow the Petitioner to bill and recover Licence fee and RLDC fees and charges, separately from the respondents. 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

58. 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 has become infructuous.

Goods and Services Tax

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

Sharing of Transmission Charges

60. The transmission charges shall be recovered from the respective States in accordance with Regulation 43 of the 2014 Tariff Regulations.

61. This order disposes of Petition No.11/TT/2018.

Sd/-
(Dr. M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN.**

(₹in lakh)

Summary	2016-17	2017-18	2018-19
Asset-1			
Gross Opening Loan	458.80	538.43	542.62
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	458.80	538.43	542.62
Add: Draw(s) during the Year	79.63	4.19	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	538.43	542.62	542.62
Average Net Loan	498.62	540.53	542.62
Rate of Interest on Loan (%)	8.1880%	8.1127%	8.1106%
Interest on Loan	40.83	43.85	44.01
Asset-2			
Gross Opening Loan	430.21	496.81	498.45
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	430.21	496.81	498.45
Add: Draw(s) during the Year	66.60	1.64	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	496.81	498.45	498.45
Average Net Loan	463.51	497.63	498.45
Rate of Interest on Loan (%)	7.6127%	7.5850%	7.5850%
Interest on Loan	35.29	37.75	37.81
Asset-3			
Gross Opening Loan	748.68	891.46	910.93
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	748.68	891.46	910.93
Add: Draw(s) during the Year	142.78	19.47	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	891.46	910.93	910.93
Average Net Loan	820.07	901.20	910.93
Rate of Interest on Loan (%)	8.3138%	8.2810%	8.2777%
Interest on Loan	68.18	74.63	75.40
Asset-4			
Gross Opening Loan	738.67	845.68	867.00
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	738.67	845.68	867.00
Add: Draw(s) during the Year	107.01	21.32	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	845.68	867.00	867.00



Average Net Loan	792.18	856.34	867.00
Rate of Interest on Loan (%)	8.1641%	8.1106%	8.1037%
Interest on Loan	64.67	69.45	70.26
Asset-5			
Gross Opening Loan	208.53	249.97	254.16
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	208.53	249.97	254.16
Add: Draw(s) during the Year	41.44	4.19	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	249.97	254.16	254.16
Average Net Loan	229.25	252.07	254.16
Rate of Interest on Loan (%)	8.2606%	8.1833%	8.1829%
Interest on Loan	18.94	20.63	20.80
Asset-6			
Gross Opening Loan	322.24	379.31	402.54
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	322.24	379.31	402.54
Add: Draw(s) during the Year	57.07	23.23	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	379.31	402.54	402.54
Average Net Loan	350.78	390.93	402.54
Rate of Interest on Loan (%)	8.5023%	8.4084%	8.3870%
Interest on Loan	29.82	32.87	33.76

