

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 101/TT/2018

Coram:

**Shri P.K. Pujari, Chairperson
Dr. M.K. Iyer, Member**

Date of Hearing: 20.09.2018

Date of Order : 10.12.2018

In the matter of:

Approval under Regulation-86 of CERC (Conduct of Business) Regulations'1999 and Regulation-6 of CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of (i) Truing up Transmission tariff for 2009-14 tariff block and (ii) Transmission tariff for 2014-19 tariff block for the assets of "Transmission System associated with Krishnapatnam UMPP - PART B covered in CERC order dated 24.11.2015 in petition no. 299/TT/2013 and CERC order dated 29.02.2016 in petition no. 96/TT/2014.

And in the matter of:

POWER GRID CORPORATION OF INDIA LTD.
„SAUDAMINI“, PLOT NO-2,
SECTOR-29, GURGAON -122001(HARYANA).

Versus

1. KARNATAKA POWER TRANSMISSION CORPORATION LTD., (KPTCL),
KAVERI BHAVAN, BANGALORE – 560 009
2. TRANSMISSION CORPORATION OF ANDHRA PRADESH LTD.,
(APTRANSCO), VIDYUT SOUDHA, HYDERABAD – 500 082
3. KERALA STATE ELECTRICITY BOARD (KSEB)
VAIDYUTHI BHAVANAM, PATTOM,
THIRUVANANTHAPURAM – 695 004
4. TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD



(FORMERLY TAMILNADU ELECTRICITY BOARD -TNEB)
NPKRR MAALIGAI, 800, ANNA SALAI
CHENNAI – 600 002

5. ELECTRICITY DEPARTMENT
GOVT OF PONDICHERRY,
PONDICHERRY - 605001
6. EASTERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH
LIMITED (APEPDCL)
APEPDCL, P&T COLONY,
SEETHMMADHARA, VISHAKHAPATNAM
ANDHRA PRADESH,
7. SOUTHERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH
LIMITED (APSPDCL)
SRINIVASASA KALYANA MANDAPAM BACKSIDE,
TIRUCHANOUR ROAD, KESAVAYANA GUNTA,
TIRUPATI-517 501,
CHITTOOR DISTRICT, ANDHRA PRADESH
8. CENTRAL POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH
LIMITED (APCPDCL)
CORPORATE OFFICE, MINT COMPOUND,
HYDERABAD – 500 063
ANDHRA PRADESH
9. NORTHERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH
LIMITED (APNPDCL),
OPP. NIT PETROL PUMP
CHAITANYAPURI, KAZIPET,
WARANGAL – 506 004
ANDHRA PRADESH
10. BANGALORE ELECTRICITY SUPPLY COMPANY LTD., (BESCOM),
CORPORATE OFFICE, K.R.CIRCLE
BANGALORE – 560 001
KARNATAKA
11. GULBARGA ELECTRICITY SUPPLY COMPANY LTD., (GESCOM)
STATION MAIN ROAD, GULBURGA
KARNATAKA
12. HUBLI ELECTRICITY SUPPLY COMPANY LTD., (HESCOM)
NAVANAGAR, PB ROAD, HUBLI, KARNATAKA



13. MESCOM CORPORATE OFFICE,
PARADIGM PLAZA, AB SHETTY CIRCLE
MANGALORE – 575 001
KARNATAKA
14. CHAMUNDESWARI ELECTRICITY SUPPLY CORPORATION LTD., (CESC)
927,L J AVENUE
GROUND FLOOR, NEW KANTHARAJ URS ROAD
SARASWATIPURAM, MYSORE – 570 009
KARNATAKA
15. MADHYA PRADESH POWER MANAGEMENT COMPANY LTD.
SHAKTI BHAWAN, RAMPUR
JABALPUR - 482 008
16. MADHYA PRADESH POWER TRANSMISSION COMPANY LTD.
SHAKTI BHAWAN, RAMPUR
JABALPUR - 482 008
17. MADHYAPRADESH AUDYOGIK KENDRA
VIKAS NIGAM (INDORE) LTD.
3/54, PRESS COMPLEX, AGRA-BOMBAY ROAD, INDORE-452 008
18. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.
HONGKONG BANK BUILDING, 3RD FLOOR
M.G. ROAD, FORT, MUMBAI-400 001.
19. MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.
PRAKASHGANGA, 6th FLOOR, PLOT NO. C-19, E-BLOCK,
BANDRA KURLA COMPLEX, BANDRA (EAST) MUMBAI-400 051.
20. GUJARAT URJA VIKAS NIGAM LTD.
SARDAR PATEL VIDYUT BHAWAN,
RACE COURSE ROAD, VADODARA - 390 007
21. GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
SARDAR PATEL VIDYUT BHAWAN,
RACE COURSE ROAD, VADODARA - 390 007



22. ELECTRICITY DEPARTMENT
GOVT. OF GOA, VIDYUT BHAWAN, PANAJI,
NEAR MANDVI HOTEL, GOA - 403 001
23. ELECTRICITY DEPARTMENT
ADMINISTRATION OF DAMAN & DIU,
DAMAN - 396 210
24. ELECTRICITY DEPARTMENT
ADMINISTRATION OF DADRA NAGAR HAVELI
U.T., SILVASSA - 396 230
25. CHHATTISGARH STATE ELECTRICITY BOARD
P.O.SUNDER NAGAR, DANGANIA, RAIPUR
CHHATTISGARH-492 013
26. CHHATTISGARH STATE POWER TRANSMISSION CO. LTD.
OFFICE OF THE EXECUTIVE DIRECTOR (C&P)
STATE LOAD DESPACTH BUILDING,
DANGANIA, RAIPUR – 492 013
27. CHHATTISGARH STATE POWER DISTRIBUTION CO. LTD.
P.O.SUNDER NAGAR, DANGANIA, RAIPUR
CHHATTISGARH-492 013

.....RESPONDENTS

Present Parties: Shri S.K Niranjan, PGCIL
 Shri S. K. Venkatesan, PGCIL
 Shri S. S. Raju, PGCIL
 Shri B. Dash, PGCIL
 Shri Amit Yadav, PGCIL

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure and tariff for assets (07Nos) for the period from COD to 31.03.2014 and capital expenditure & tariff for 2014-19 period.



The details of the project and the assets covered in the instant petition are given below:-

i) Project Details

Project	Transmission System associated with Krishnapatnam UMPP - PART B.
Investment Approval	<p>The investment approval of the project was accorded by the board of directors of POWERGRID vide the Memorandum ref. C/CP/KUMPP-B dated 9.2.2012 at an estimated cost of ₹1927.16 crore including an IDC of ₹ 88.13 Crore (based on 4th quarter 2011 price level).</p> <p>The Revised Cost Estimates of the project was accorded by the board of directors of POWERGRID vide the Memorandum No. C/CP/RCE-KUMPP-B dated 11.03.2016 at an estimated cost of ₹ 1940.58 crore including an IDC of ₹ 47.01 Crore (based on August 2015 price level).</p>
Scheduled COD of the project	As per investment approval, the project was scheduled to be commissioned within 32 months from the date of approval by the Board. Hence the Scheduled COD was 01.11.2014 .
Actual COD of the Project	The instant project was partially commissioned during 2009-14 period and remaining part of the project has been commissioned during 2014-19 period. The instant petition covers only the assets commissioned during 2009-14 tariff period.



ii) Scope of the project

The scope of project as per RCE is as follows:-

Transmission Lines:

- i) Raichur-Sholapur 765 kV S/C line
- ii) Sholapur-Pune 765 kV S/C line
- iii) LILO of Parli-Pune 400 kV D/C and Pune-Aurangabad 400 kV D/C line at Pune (GIS) S/S (including Multi Circuit)
- iv) LILO of existing Raichur-Gooty 400 kV Quad D/C line at Raichur (New) S/S.

Sub-stations:

- i) Establishment of new 765/400 kV S/S at Raichur with 2x1500 MVA ICTs.
- ii) Establishment of new 765/400 kV S/S at Sholapur with 2x1500 MVA ICTs
- iii) Establishment of new 765/400 kV substation at Pune (GIS) with 2x1500 MVA ICTs.

Reactive Compensation

A. Line Reactors

- i) 1x240 MVAR switchable line reactors at each end of Raichur –Sholapur 765 kV S/C and Sholapur-Pune 765 kV S/C lines.
- ii) 4x50 MVAR 400 kV line reactors at Pune(GIS) substation for LILO of Parli-Pune and Pune Aurangabad 400 kV D/C line at Pune (GIS) substation.

B. Bus Reactor

- i) 1x240 MVAR bus reactors each at Raichur-Sholapur & Pune substations.



iii) Assets covered in the petition

Details of the assets covered in the instant petition along with COD, previous petition and date of order are as below:-

Name of Asset	COD	Petition No. and date of order
Asset-A: 765 kV S/C Raichur-Sholapur line along with bay extensions at Raichur S/S with ICT 1 & Switchable Line Reactor at Raichur and Bays for Raichur Sholapur 765 kV S/C TL at 765/400 kV Sholapur S/S along with 240 MVAR switchable Line Reactor	01.01.2014	299/TT/2014 (24.11.2015)
Asset-B: 765/400kV, 1500 MVA ICT-2 and 765kV, 4*80 MVAR bus Reactors at 765/400 kV Raichur S/S	01.02.2014	
Asset-C: LILO of 400kV Quad Raichur-Gooty TL along with the associated bay equipments at 765/400 kV Raichur Substation	01.01.2014	
Asset-D: 765/400kv Sholapur SS along with 240 MVAR Bus Reactor and associated bays	01.01.2014	
*Asset-E: 765/400kv Sholapur SS along with 1x1500 MVA ICT-1 and its associated bays	01.01.2014	
*Asset-F: 765/400kv Sholapur SS along with 1x1500 MVA ICT-2 and its associated bays	01.01.2014	
Asset G: 240 MVAR, 765kV Line reactor for 765kV S/C Solapur- Pune TL charged as Bus reactor at Solapur SS.	01.03.2014	96/TT/2014 (29.02.2016)

*Petitioner during hearing held on 24.05.2018 requested permission to claim combine tariff for Asset-E and Asset-F. Petitioner vide affidavit dated 26.06.2018 has submitted the tariff forms for Combined Asset-E and F. The capital cost claimed in Auditor Certificates for both assets are clubbed for the purpose tariff computation.

2. The petitioner has made the following prayers:-

- (i) Approve the Trued up Transmission Tariff for the tariff block 2009-14 block for the assets covered under this petition. The adjustment billing shall be raised.
- (ii) Admit the capital cost as on 31.03.2014 as claimed in the Petition and approve the Additional Capitalization incurred during 2009-14 period and projected to be incurred during the tariff block 2014-19 as claimed in the petition.
- (iii) Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition.
- (iv) 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.

- (v) 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.
 - (vi) Allow the petitioner to recover FERV on the foreign loans deployed as provided under clause 50 of the Tariff Regulations, 2014.
 - (vii) 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.
 - (viii) 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.
 - (ix) 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.
 - (x) 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.
 - (xi) Allow the Petitioner to bill and recover Service tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from 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.
3. Accordingly the instant petition covers True up of Capital Cost & tariff for 2009-14 period under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") and Capital cost & Tariff for 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from 1.4.2014 to 31.3.2019 for Combined Assets.
4. The respondents are distribution licensees and power departments, who are



procuring transmission service from the petitioner, mainly beneficiaries of Southern and Western Region.

5. 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 Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. MPPTCL has filed reply via affidavit dated 12.04.2018 to the petition. The petitioner has submitted the rejoinder vide affidavit dated 04.05.2018. The hearing in this matter was held on 24.05.2018 & 20.09.2018. The petitioner was directed to file certain information vide ROP dated 24.5.2018 and 20.9.2018. In response, the petitioner has submitted the information vide affidavits dated 26.06.2018 and 15.10.2018. Having heard the representatives of the petitioner on the aforesaid dates and perused the material on record, we proceed to dispose of the petition.

6. Capital cost allowed in previous petition

a) The capital cost allowed as on 31.03.2014 in the above said order(s) is given below:-

(₹ In lakh)

Asset	Capital Cost as on COD	Add Cap 2013-14	Total Cost as on 31.03.2014
Asset A	37735.43	1902.96	39638.39
Asset B	4986.30	900.61	5886.91
Asset C	1461.07	750.90	2211.97
Asset D	2870.69	673.09	3543.78
Asset-E	4780.84	487.88	5268.72
Asset-F	4905.58	561.54	5467.12
Asset-G	1233.54	185.49	1419.03

b) The tariff allowed in the above referred order for the instant assets for the period



from their respective COD to 31.3.2014 in terms of the provisions of the 2009 Tariff Regulations are as under:-

(₹ in lakh)

Particulars	2013-14						
	Asset-A	Asset-B	Asset-C	Asset-D	Asset-E	Asset-F	Asset-G
Depreciation	486.04	47.84	24.44	39.92	60.22	66.42	5.36
Interest on Loan	149.85	13.97	10.93	13.12	16.99	17.99	1.78
Return on Equity	568.99	53.31	27.01	47.17	73.90	76.28	6.50
Interest on Working Capital	36.05	4.83	5.02	3.49	5.52	5.73	0.72
O & M Expenses	165.76	41.45	66.98	22.91	39.27	39.27	7.64
Total	1406.70	161.40	134.38	126.62	195.90	205.69	22.00

Time over Run.

- The project was scheduled to be commissioned within 32 months from the date of investment approval i.e. 09.02.2011. The scheduled commissioning date works out to be 01.11.2014 (SCOD). The actual COD of all the assets as discussed above are within scheduled commissioning date. Thus there is **NO Time Over-run** in the commissioning of these instant assets.

TRUING UP OF ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2009-14

- The truing up of tariff for the 2009-14 tariff period for the assets has been determined as discussed below.

Capital Cost

- The capital cost for the period from COD to 31.03.2014 has been dealt as per Clause (1) of Regulation 7 of the 2009 Tariff Regulations. Petitioner had submitted the Capital Cost incurred for the instant assets, vide Auditor Certificates dated 17.07.2017 for Asset-B, 27.07.2017- for Asset A and Asset-C and 07.11.2017 for



Asset-D to Asset-G. Details of Apportioned Approved Cost (FR), Apportioned Approved Cost (RCE) and Auditor certified capital cost are summarized below:

(₹ in lakh)

Name of Asset	Apportioned Approved Cost (FR)	Apportioned Approved Cost (RCE)	Actual Capital Cost as on DOCO	Add Cap for 2013-14	Total cost incurred as on 31.03.2014
Asset A	55385.00	49748.00	37998.91	1902.96	39901.87
Asset B		8381.00	4989.72	900.61	5890.33
Asset C	4088.00	2975.00	1473.37	750.90	2224.27
Asset D	4084.45	5101.15	2886.41	673.09	3559.50
Combined Asset-E & F	12059.52	12921.12	9810.82	1049.42	10860.24
Asset-G	2606.85	2780.62	1237.53	183.16	1420.69
Total	78223.82	81906.89	58396.76	5460.14	63856.90

10. The claimed capital cost as on 31.03.2014 is within the limit of the RCE apportioned approved cost of all the individual asset. Thus, there is no cost over-run in any of the instant assets.

11. Treatment of IDC

- i) As per the petition, the IDC amount mentioned in Auditor certificate of concerned assets are on accrual basis. The claimed IDC consist of foreign and domestic loan. The petitioner vide ROP dated 24.05.2018 was directed to submit the computation of IDC for the IBRD-V loan. The petitioner vide affidavit dated 26.06.2018 has provided the information which is not sufficient to work out the IDC on foreign loan. However, the petitioner vide affidavit dated 05.11.2018 has submitted the asset wise allocated IDC on foreign loan (including Guarantee Fees). Therefore, in the absence of IDC computation, the asset wise allocated IDC as provided by the petitioner vide affidavit dated 05.11.2018 has been considered.



- ii) In case of domestic loan the IDC has been worked out based on the loan amount as mentioned in Form 13 and the drawl date and interest rate as submitted by the petitioner. The asset wise IDC claimed and allowed are summarized below.

Asset	IDC Claimed as per the Auditor's Certificates	Dis-Allowed IDC due to computation difference	IDC allowed (Accrual)	IDC Allowed (cash basis)	Un-discharged liability of allowed IDC	Discharge of IDC liability allowed as Add. Cap.	
						2013-14	2014-15
a	b	c	d=(b-c)	e	f=(d-e)	g	h
Asset-A	900.67	3.51	897.16	776.80	120.36	53.58	66.78
Asset-B	119.69	0.09	119.60	118.24	1.36	0.00	1.36
Asset-C	37.56	0.35	37.21	30.68	6.53	2.07	4.46
Asset D	31.02	0.00	31.02	26.67	4.35	4.35	0.00
Asset E & F	112.05	0.00	112.05	97.27	14.78	14.78	0.00
Asset G	32.43	0.00	32.43	29.69	2.74	0.00	2.74
Total	1233.42	3.95	1229.47	1079.35	150.12	74.78	75.34

12. FERV

The petitioner has infused foreign loan (i.e. IBRD V) while funding the capital cost of the instant project. The auditor certificate does not mention the amount of FERV included in the claimed capital cost. The petitioner has not mentioned the amount of FERV neither in Form 5B nor in Form 9A. In the absence of the details of FERV, it is difficult to verify the FERV amount included in the capital cost. However, the petitioner vide affidavit dated 05.11.2018 has submitted that the annual FERV during construction phase is considered as part of capital cost, the exchange rate as on DOCO forms the basis for determination of FERV, post DOCO. The asset wise details of foreign loan deployed and its exchange rate as submitted by the petitioner is shown below.



Particulars		Asset A	Asset B	Asset C	Asset D	Asset E	Asset F	Asset G
IBRD-V	USD	398.910	55.172	15.44	32.374	54.688	55.352	13.390
Exchange rate as per IDC statement (₹)		61.98	60.179	61.98	61.98	61.98	61.98	60.179
Exchange rate as on COD as per Form 13 (₹)		62.41	63.12	62.41	62.41	62.41	62.41	62.65

13. Treatment of Incidental Expenditure During Construction (IEDC)

- i) The IEDC claimed as per Auditor Certificate of concerned asset are summarized below:-

(₹ In lakhs)	
Assets	IEDC claimed
Asset A	1884.87
Asset B	367.84
Asset C	90.56
Asset D	74.08
Combined Asset-E and F	292.93
Asset-G	54.74

- ii) The percentage of 5.00% on Hard Cost indicated in the Abstract Cost Estimate submitted as per Investment approval has been considered as the allowable limit of the IEDC. The amount of IEDC claimed is within the percentage of the Hard Cost indicated in the Abstract Cost Estimate as on COD in respect of the instant assets. The claimed IEDC has been considered for the purpose of tariff calculation.

14. Treatment of Initial Spares

- i) Initial spare are considered as per Regulation 8 of the 2009 tariff Regulations.
- ii) The petitioner vide auditor certificate dated 07.11.2017 has claimed initial spares for sub-station only in respect of Asset-E amounting Rs. 200.15 lakh. Subsequently Petitioner vide affidavit dated 26.06.2018 had submitted combined tariff forms for Asset E & F and submitted the information of year-wise payment made against initial spares.



Payment up to DOCO	31.03.14	31.03.2015	31.03.2016	Total Paid
41.53	49.44	79.31	29.87	200.15

- iii) The petitioner during the hearing held on 24.5.2018 and 20.09.2018, has submitted that Asset E and F, i.e. ITC-I and II at Solapur were put into commercial operation on the same day, 1.1.2014 and requested permission to claim combined tariff for the two ICTs at Solapur.
- iv) The respondent MPPMCL vide reply dated 12.04.2018 has requested that the petitioner has claimed initial spares jointly for all the assets which is not as per practice in vogue and requested that the same may be allowed asset wise. The PGCIL vide rejoinder dated 04.05.2018 has submitted that Commission may allow the initial spares in all the assets under subject petition as per Regulation 13, chapter 4 of the 2014 Tariff Regulation.
- v) We have considered the submission of petitioner and respondent. All the assets covered in the instant petition were commissioned during 2009 tariff period. Petitioner initially filed separate tariff forms for Asset E & F. Subsequently the petitioner has prayed for combining tariff for Asset E & F due to the same Commissioning date. Commission has considered the prayer of the petitioner and allowed combining the tariff forms and accordingly the petitioner has filed the combined tariff forms for these two assets. However, the petitioner has not revised the Auditor certificate for the Asset E & F. Initially submitted Auditor certificate dated 07.11.2017 clearly mentions that the initial spare of Rs. 200.15 lakh is only pertaining to Asset E and No initial spare has been capitalised for Asset F. Hence the initial spare has been worked at asset level based on the capitalised initial spare as certified by the Auditor. The worked out initial spare in terms of 2009 Tariff Regulation is shown below:-



(₹ in lakh)

Asset	Cost as on Cut-off date	Initial spares claimed	Ceiling Limit as per 2009 Tariff Regulations	Initial Spares worked out as per CERC norms	Excess Initial Spares
Asset-E	6276.85	200.15	2.50%	155.81	44.34

- vi) The petitioner has not clarified when the initial spare has been capitalized. Therefore, considering the discharge particulars as submitted by the petitioner, the excess initial spare of ₹ 44.34 lakh has been reduced from the claimed Additional capital expenditure of 2014-15 (₹ 14.47 lakh) and 2015-16 (₹ 29.87 lakh).

15. Capital cost as on COD

The capital cost as on COD considered for tariff has been worked out as under:-

(₹ in lakh)

Asset	Capital cost as on COD claimed by Petitioner	IDC Dis-allowed from the petitioner claim	Un-discharge IDC liability	Capital Cost as on COD considered for tariff calculation
1	2	3	4	5= (2-3-4-5)
Asset-A	37998.91	3.51	120.36	37875.04
Asset-B	4989.72	0.09	1.36	4988.27
Asset-C	1473.37	0.35	6.53	1466.49
Asset D	2886.41	0.00	4.35	2882.06
Asset-E &F	9810.82	0.00	14.78	9796.04
Asset-G	1237.53	0.00	2.74	1234.79
Total	58396.76	3.95	150.12	58242.69

16. Additional Capital Expenditure

- i) Additional Capital Expenditure is considered as per Regulation 9 of the 2009 tariff Regulations.
- ii) The cut-off date for all the assets is 31.03.2017.
- iii) In addition to the add cap claimed in Auditor Certificate, the petitioner has claimed the IDC liability as ACE during the year in which it is discharged. The regulation wise ACE claimed in Form 9 has been summarized below:-



(₹ in lakh)

Particulars	Reg.	2013-14					
		Asset A	Asset B	Asset C	Asset-D	Asset-E & F	Asset-G
1. Discharge of un-discharge liabilities on Hard cost	9(1)(i)	1316.78	900.61	750.90	495.81	1049.42	183.16
2. Add cap towards works deferred for execution	9(1)(ii)	586.18	0.00	0.00	177.28	0.00	0.00
3. Total add-cap as per Auditor Certificate (excluding IDC liability) (1+2)		1902.96	900.61	750.90	673.09	1049.42	183.16
Discharge of IDC Liability	9(1)(i)	53.58	0.00	2.07	4.35	14.78	0.00
ACE Claimed in Form 9		1956.54	900.61	752.97	677.44	1064.20	183.16

iv) The ACE allowed for the instant assets are summarized below.

(₹ in lakh)

Particulars	Reg.	2013-14					
		Asset A	Asset B	Asset C	Asset-D	Asset- E & F	Asset-G
Discharge of un-discharge liabilities on Hard cost	9(1)(i)	1316.78	900.61	750.90	495.81	1049.42	183.16
Add cap towards works deferred for execution	9(1)(ii)	568.16	0.00	0.00	172.28	0.00	0.00
Discharge of IDC Liability	9(1)(i)	53.58	0.00	2.07	4.35	14.78	0.00
ACE Allowed		1956.54	900.61	752.97	677.44	1064.20	183.16

17. Summary of allowed Capital Cost from COD to 31.3.2014

(₹ in lakh)

Asset	Capital cost allowed as on COD	ACE for the year 2013-14	Capital Cost as on 31.03.2014
1	2	3	4= (2+3)
Asset-A	37875.04	1956.54	39831.58
Asset-B	4988.27	900.61	5888.88
Asset-C	1466.49	752.97	2219.46
Asset D	2882.06	677.44	3559.50
Combined Asset-E & F	9796.04	1064.20	10860.24
Asset G	1234.79	183.16	1417.95
Total	58242.69	5534.92	63777.61



18. Debt: Equity Ratio

- i) Debt: Equity Ratio is considered as per Regulation 12 of the 2009 tariff Regulations.
- ii) The petitioner has claimed true-up annual fixed charge based on debt- equity ratio of 70:30 admitted as on COD in previous orders. The details of debt: equity ratio of the instant assets as on COD is given below:-

(₹ in lakh)

	Asset-A	Asset-B	Asset-C	Asset-D	Combined Asset-E& F	Asset-G
Debt%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
Equity%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Loan	26512.53	3491.79	1026.56	2017.47	6857.23	864.36
Equity	11362.51	1496.48	439.93	864.59	2938.81	370.43
Total	37875.04	4988.27	1466.49	2882.06	9796.04	1234.79

- iii) The debt-equity ratio for the additional capital expenditure is considered as 70:30.
- iv) The overall debt equity ratio as on 31.3.2014 for the Assets is as under:-

(₹ in lakh)

	Asset-A	Asset-B	Asset-C	Asset-D	Asset-E& F	Asset-G
Debt%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
Equity%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Loan	27882.11	4122.22	1553.64	2491.68	7602.17	992.58
Equity	11949.47	1766.66	665.82	1067.82	3258.07	425.37
Total	39831.58	5888.88	2219.46	3559.50	10860.24	1417.95

19. Return on Equity (“ROE”)

- i) The petitioner has submitted the MAT rate applicable during the various years. RoE has been worked out by considering year wise MAT rate submitted by the petitioner in accordance with Regulation 15 of the 2009 Tariff Regulations.

Year	MAT Rate	Grossed up ROE (Base rate/(1-t))
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610



- ii) The trued up ROE allowed for the instant transmission assets under Regulation 15 of the 2009 Tariff Regulations is as follows

(₹ in lakh)						
Return on Equity	Asset-A 2013-14	Asset-B 2013-14	Asset-C 2013-14	Asset-D 2013-14	Combined Asset- E&F 2013-14	Asset-G 2013-14
Opening Equity	11362.51	1496.48	439.93	864.59	2938.81	370.43
Addition due to Additional Capitalization	586.96	270.18	225.88	203.23	319.26	54.95
Closing Equity	11949.47	1766.66	665.82	1067.82	3258.07	425.37
Average Equity	11655.99	1631.57	552.87	966.20	3098.44	397.90
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.9610%	20.9610%	20.9610%	20.9610%	20.9610%	20.9610%
Rate of Return on Equity (Pre Tax)	19.611%	19.611%	19.611%	19.611%	19.611%	19.611%
Return on Equity (Pre Tax)	571.46	53.33	27.11	47.37	151.91	6.50

20. Interest on Loan (“IOL”)

- i) The petitioner has claimed the IOL based on WAROI computed as per actual interest rates for each year during the 2009-14 period. We have considered the submissions of the petitioner and accordingly calculated the IOL
- ii) In the calculations, the IoL has been worked out as detailed below:-
- Gross amount of loan, repayment of installments and rate of interest weighted average rate of interest on actual average loan have been considered as per the petition.
 - The Normative repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period.
- iii) The weighted average rate of interest has been considered as per Form 13 of respective assets and the IOL has been worked out and allowed as under:-

(₹ in lakh)

Interest on loan	Asset-A 2013-14	Asset-B 2013-14	Asset-C 2013-14	Asset-D 2013-14	Combined Asset E&F 2013-14	Asset-G 2013-14
Gross Normative Loan	26512.53	3491.79	1026.56	2017.47	6857.23	864.36
Cumulative Repayment up to Previous Year	0.00	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	26512.53	3491.79	1026.56	2017.47	6857.23	864.36
Addition due to Additional Capitalization	1369.58	630.43	527.09	474.21	744.94	128.21
Repayment during the year	488.18	47.86	24.53	40.09	128.16	5.36
Net Loan-Closing	27393.93	4074.36	1529.11	2451.59	7474.01	987.22
Average Loan	26953.23	3783.07	1277.84	2234.53	7165.62	925.79
Weighted Average Rate of Interest on Loan	2.21%	2.21%	3.42%	2.36%	1.98%	2.30%
Interest on Loan	149.24	13.96	10.92	13.18	35.46	1.77

21. Depreciation

- i) The depreciation is considered in accordance with Regulation 17 of the 2009 Tariff Regulations.
- ii) The actual COD of the instant assets is during 2013-14. The depreciation for the period 2009-14 has been worked out based on straight line method at the rates specified in Appendix III to the 2009 Tariff Regulations. :-

(₹ in lakh)

Particulars	Asset-A 2013-14	Asset-B 2013-14	Asset-C 2013-14	Asset-D 2013-14	Asset E&F 2013-14	Asset-G 2013-14
Opening gross block	37875.04	4988.27	1466.49	2882.06	9796.04	1234.79
Addition during 2009-14	1956.54	900.61	752.97	677.44	1064.20	183.16
Closing Gross Block	39831.58	5888.88	2219.46	3559.50	10860.24	1417.95
Average Gross Block	38853.31	5438.58	1842.98	3220.78	10328.14	1326.37
Rate of Depreciation	5.0259%	5.2800%	5.3241%	4.9791%	4.9634%	4.8526%
Depreciable Value	34090.97	4894.72	1658.68	2898.70	9095.36	1193.73
Remaining Depreciable Value	34090.97	4894.72	1658.68	2898.70	9095.36	1193.73
Depreciation	488.18	47.86	24.53	40.09	128.16	5.36

22. Operation & Maintenance Expenses (“O&M Expenses”)

The O&M Expenses claimed by the petitioner at the time of true-up for the assets



covered under the instant petition are allowed as under:-

(₹ in lakh)						
Particulars	Asset-A 2013-14	Asset-B 2013-14	Asset-C 2013-14	Asset-D 2013-14	Combined Asset E&F 2013-14	Asset-G 2013-14
O & M Expenses	165.77	41.46	66.99	22.91	78.56	7.64

23. Interest on working capital (“IWC”)

i) Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

- a) **Maintenance Expenses** : 15% of Operation and Maintenance expenses
- b) **O & M Expenses** one month of the allowed O&M Expenses
- c) **Receivables** 2 months' of annual transmission charges
- d) **Rate of Interest on Working Capital**

As per the 2009 Tariff Regulations rate of interest on working capital has been considered as 13.20% (i.e. SBI base rate 9.70 plus 350 basis points) for computing IWC for all the assets.

ii) The trued up Interest on working capital is given below:

(₹ in lakh)						
Interest on Working Capital	Asset-A 2013-14	Asset-B 2013-14	Asset-C 2013-14	Asset-D 2013-14	Asset E&F 2013-14	Asset-G 2013-14
Maintenance Spares	99.46	37.31	40.19	13.75	47.14	1.15
O & M expenses	55.26	20.73	22.33	7.64	26.19	0.64
Receivables	940.54	161.44	89.71	84.70	270.29	3.67
Total	1,095.25	219.48	152.24	106.09	343.61	5.45
Rate of Interest	36.14	4.83	5.02	3.50	11.34	0.72



ANNUAL FIXED COST FOR 2009-14 TARIFF PERIOD

24. The trued up annual fixed cost for the Asset for the tariff period 2009-14 is summarized below:-

(₹ in lakh)

Annual Fixed Cost	Asset-A 2013-14	Asset-B 2013-14	Asset-C 2013-14	Asset-D 2013-14	Combined Asset E& F 2013-14	Asset-G 2013-14
Depreciation	488.18	47.86	24.53	40.09	128.16	5.36
Interest on Loan	149.24	13.96	10.92	13.18	35.46	1.77
Return on Equity	571.46	53.33	27.11	47.37	151.91	6.50
Interest on Working Capital	36.10	4.83	5.02	3.50	11.34	0.72
O & M Expenses	165.77	41.46	66.99	22.91	78.56	7.64
Total	1410.80	161.44	134.57	127.06	405.43	22.00

DETERMINATION OF ANNUAL FIXED COST FOR 2014-19

25. The tariff for the instant transmission assets up to 2009-14 tariff period has been trued-up based on the actual COD of individual elements. To avoid multiplicity of petitions and granting multiple tariffs for the assets covered under the single project/transmission system for 2014-19 tariff period, the Commission, vide Regulation 6 of the 2014 Tariff Regulations, has brought in the concept of a single consolidated petition wherein a single petition is required to be filed by a petitioner in case of all the assets which have been put under commercial operation prior to 31.3.2014, so that a single tariff can be granted for all the assets covered under such a single project/transmission system. To determine a single transmission tariff for different assets, as per the 2014 Tariff Regulations, the concept of effective date of commercial operation and weighted average life has also been stipulated in Regulation 27 of the 2014 Tariff Regulations. The consolidation of individual assets for single tariff has been done by adding up the admitted capital cost as on 31.3.2014 of individual assets. The AFC for the consolidated cost has been allowed as given below:-

- (a) **Return on Equity:** The admitted gross normative equity as on 31.3.2014 of individual assets are added to arrive at the gross equity as on 1.4.2014 for the combined assets/project as whole.
- (b) **Interest on Loan:** The admitted gross normative loan and cumulative repayment of loan as on 31.3.2014 of individual assets are added to get the gross normative loan and cumulative re-payment of loan as on 1.4.2014 for the combined assets/project as whole.
- (c) **Depreciation:** The admitted gross capital cost and cumulative depreciation as on 31.3.2014 of individual assets are added to get the gross capital cost and cumulative depreciation as on 1.4.2014 for the combined assets. Lapsed life of the combined assets as on 1.4.2014 has been worked out by the concept of Effective COD and Weighted Average life as provided in Regulation 27 of 2014 Tariff Regulations, as detailed in the depreciation paragraph given below.
- (d) **Interest on Working capital:** Since, the normative working capital is derived from the O&M Expenses and Receivables; it is being worked out accordingly.
- (e) **O&M Expenses:** The entitled O&M Expenses as per 2014 Tariff Regulations of individual assets are worked out and added together to consider as O&M Expenses of the consolidated assets.

26. Though the instant assets are consolidated into one combined asset and single tariff is allowed, the petitioner has to maintain the identity of the individual assets. In future tariff petitions, the petitioner has to provide the details of individual assets like description, actual COD, effective COD, cut-off date, admitted capital cost,



O&M Expenses claimed, etc. The petitioner is directed to make all future claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup.

27. The closing balance as on 31.03.2014 of individual assets consolidated to arrive the opening balance of the project as a whole as given under:-

(₹ in lakh)

Particulars as on 31-03-2014	Asset A	Asset B	Asset C	Asset D	Combined Asset E & F	Asset G	Combined Asset as on 01.04.2014
Admitted Capital Cost	39831.58	5888.88	2219.46	3559.50	10860.24	1417.95	63777.61
Cumulative Depreciation	488.18	47.86	24.53	40.09	128.16	5.36	734.18
Debt %	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.00%
Gross Equity	11949.47	1766.66	665.82	1067.82	3258.07	425.37	19133.21
Gross Loan	27882.11	4122.22	1553.64	2491.68	7602.17	992.58	44644.40
Cumulative Re-payment of Loan	488.18	47.86	24.53	40.09	128.16	5.36	734.18

28. The petitioner has claimed the transmission charges for combined asset for the 2014-19 tariff period as under

(₹ in lakh)

Combined Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3451.55	3767.80	3891.64	3959.88	3981.87
Interest on Loan	1368.41	1689.25	1717.00	1636.35	1485.06
Return on equity	4037.31	4418.03	4568.19	4647.42	4671.91
Interest on Working	289.09	315.35	325.21	329.78	330.48
O & M Expenses	1542.44	1596.79	1646.59	1701.37	1757.73
Total	10688.80	11787.22	12148.63	12274.80	12227.05

29. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	231.37	239.07	246.99	255.21	263.66
O & M expenses	128.54	132.82	137.22	141.78	146.48
Receivables	1781.47	1964.04	2024.77	2045.80	2037.84
Total	2141.38	2335.93	2408.98	2442.79	2447.98
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	289.09	315.35	325.21	329.78	330.48

30. Capital Cost

- i) The admissibility of capital cost during the period 2014-19 are dealt in accordance with Clause (1) & (3) (a) and (b) of Regulation 9 and Regulation 14 of the 2014 Tariff Regulations specify as follows:-
- ii) The capital cost allowed as on 31.3.2014, for the instant assets are clubbed together and the combined capital cost of the all the assets as on 31.3.2014 has been considered as an Opening admitted capital cost as on 1.4.2014 in accordance with clause 9(3) of 2014 Tariff Regulation.
- iii) The petitioner, vide aforesaid Auditor Certificate(s) has claimed capital cost of individual assets which includes the additional capitalization for the 2014-19. The summary of approved apportioned cost, Capital cost admitted as on 01.04.2014 and additional capital expenditure claimed during 2014-19 period and the capital cost as on 31.03.2019 of all the assets are shown below.

(₹ in lakh)

Asset	Apportio ned Approved Cost (FR)	Apportio ned Approved Cost (RCE)	Allowed cost as on 31.03.14	Add cap Claimed			Projected Add cap for FY 2017-18	Total estimated cost
				2014-15	2015-16	2016-17		
A	55385.00	49748.00	39831.58	3919.17	2137.85	1484.79	832.69	48276.37
B		8381.00	5888.88	1753.86	386.60	349.56	0.00	8380.35
C	4088.00	2975.00	2219.46	750.17	0.00	0.00	0.00	2974.44
D	4084.45	5101.15	3559.50	1088.59	249.62	0.00	0.00	4897.71
E & F	12059.52	12921.12	10860.24	1225.63	675.58	26.26	0.00	12787.71
G	2606.85	2780.62	1417.95	881.59	130.42	0.00	0.00	2432.70
Total	78223.82	81906.89	63777.61	9619.01	3580.07	1860.61	832.69	79749.28

- iv) In addition the petitioner has also claimed the discharge of IDC liability as



additional capital expenditure.

- v) The capital cost mentioned in Auditor certificate are derived as per books of account but the liability details are not mentioned in the certificate. It creates difficulties in reconciliation with the cost and liability given in Form 4A. Therefore liability amount mentioned in tariff forms are relied upon to determine the allowable cost. The petitioner is directed to submit the asset wise Auditor certificate by clearly mentioning the liability amount and whether the certified cost is inclusive of liability or exclusive of liability at the time of true up of 2014-19 petitions.

31. Cost over-run

The capital cost claimed up to 31.3.2019 are within the limit of the RCE apportioned approved cost of concerned asset. Hence, there is no cost over-run for any of the assets covered in the instant petition.

32. Additional Capital Expenditure

- i. The additional capital expenditure has been dealt in accordance with Clause 1 & 2 of Regulation 14 of 2014 Tariff Regulations. The cut-off date for all the assets is 31.03.2017. The petitioner has claimed the Additional capital expenditure in Form 7 towards discharge of liability and addition into Gross Block. The claimed ACE are before cut off date for all the assets except for Asset A.
- ii. In case of Asset A, the petitioner in Form 7 has claimed the entire ACE amounting of Rs. 832.69 lakh under Regulation 14(3)(v) for the year 2017-18.



Regulation 14(3)(v) is meant for any liability for the works executed prior to the cut off date but discharged after cut off date. According to the flow of liability as submitted by the petitioner in Form 4A the entitled liability as on cut off date is only Rs. 367.39 lakh. Therefore, only the liability as on cut off date (i.e. Rs. 367.39 lakh) has been allowed as additional capital expenditure for 2017-18. Further, the petitioner in Form 4A has shown Rs. 465.30 lakh as addition to Gross Block for the year 2017-18 and the same amount has been claimed under Regulation 14(3)(v). Since the Regulation 14(3)(v) can be used only for the liability as on cut-off date the addition into gross block after cut off date cannot be considered under this Regulation. The petitioner has also not specified the reason for fresh capitalization after cut off date. In the absence of the justification for claiming addition into gross block after cut off date and not mentioning relevant regulation for such fresh capitalisation, the claimed ACE of Rs. 465.30 lakh for 2017-18 has been not considered for tariff.

iii. Treatment of IDC liability.

As discussed in the IDC portion pertaining to the 2009-14 period, the admitted IDC liability of Asset A, B, C and G has been considered as ACE for 2014-15.

iv. Excess Initial Spares

The petitioner has claimed initial spare only for Asset-E. As discussed in above para 13, the allowable initial spare has been worked out in terms of 2009 Tariff Regulation and the excess initial spare of ₹ 44.34 lakh has been reduced from the claimed Additional capital expenditure of 2014-15 (₹ 14.47 lakh) and 2015-16 (₹ 29.87 lakh).



v. Based on the above, the allowed ACE are summarized below:-.

Asset-A		(₹ in lakh)			
Particulars	Regulation	2014-15	2015-16	2016-17	2017-18
Discharge of liabilities on Hard cost	14(1)(i)	1519.78	1358.95	126.72	0.00
Works deferred for execution (addition into gross block)	14(1)(ii)	2399.40	778.90	1358.06	0.00
Discharge of IDC Liability	14(1)(i)	66.78	0.00	0.00	0.00
liability for the works executed prior to the cut off date but discharged after cut off date	14(3)(v)	0.00	0.00	0.00	367.39
Total add-cap allowed		3985.95	2137.85	1484.78	367.39

Asset-B		(₹ in lakh)		
Particulars	Regulation	2014-15	2015-16	2016-17
Discharge of liabilities on Hard cost	14(1)(i)	1753.86	386.60	349.46
Discharge of IDC Liability	14(1)(i)	1.36	0.00	0.00
Total add-cap allowed		1755.22	386.60	349.46

Asset-C		(₹ in lakh)
Particulars	Regulation	2014-15
Discharge of liabilities on Hard cost	14(1)(i)	750.17
Discharge of IDC Liability	14(1)(i)	4.46
Total add-cap allowed		754.63

Asset-D		(₹ in lakh)	
Particulars	Regulation	2014-15	2015-16
Works deferred for execution (addition into gross block)	14(1)(ii)	1088.59	249.62
Total add-cap allowed		1088.59	249.62

Combined Asset-E & F		(₹ in lakh)		
Particulars	Regulation	2014-15	2015-16	2016-17
Discharge of liabilities on Hard cost	14(1)(i)	807.22	87.83	0.00
Works deferred for execution (addition into gross block)	14(1)(ii)	418.41	587.75	26.26
Total add-cap		1225.63	675.58	26.26
Less: Excess Initial Spare		14.47	29.87	0.00
Total add-cap allowed		1211.16	645.71	26.26

Asset-G		(₹ in lakh)	
Particulars	Regulation	2014-15	2015-16
Discharge of liabilities on Hard cost	14(1)(i)	881.59	23.48
Works deferred for execution (addition into gross block)	14(1)(ii)	0.00	106.94
Discharge of IDC Liability	14(1)(i)	2.74	0.00
Total add-cap allowed		884.33	130.42



33. Capital Cost summary

(₹ in lakh)

Asset	Capital cost allowed as on 01.04.2014	ACE for the year 2014-15	ACE for the year 2015-16	ACE for the year 2016-17	ACE for the year 2017-18	Capital Cost allowed as on 31.03.2019
1	2	3	4	5	6	7= (2+3+4+5+6)
Asset-A	39831.58	3985.96	2137.85	1484.78	367.39	47807.56
Asset-B	5888.88	1755.22	386.60	349.56	0.00	8380.26
Asset-C	2219.46	754.63	0.00	0.00	0.00	2974.09
Asset-D	3559.50	1088.59	249.62	0.00	0.00	4897.71
Combined Asset-E&F	10860.24	1211.16	645.71	26.26	0.00	12743.37
Asset-G	1417.95	884.33	130.42	0.00	0.00	2432.70
Total for Combined Asset	63777.61	9679.88	3550.20	1860.60	367.39	79235.68

34. Debt: Equity Ratio

- i) The debt equity ratio has been considered in accordance with clause 19 (1), (3) and (5) of 2014 Tariff Regulation. Accordingly the debt-equity ratio allowed by Commission for individual assets for determination of tariff for the period ending 31.03.2014 has been consolidated and considered as opening debt equity ratio of the project as on 01.04.2014.
- ii) The debt equity ratio of 70:30 has been considered for the Additional capital expenditure allowed during 2014-19 in accordance to clause 19(3) of 2014 Tariff Regulation except for the financial year 2015-16. For financial year 2015-16, the debt equity ratio claimed is 72.81:27.19. The actual Equity claimed is less than 30%, the same has been considered for the purpose of tariff calculation.
- iii) The details of the debt: equity as on 1.4.2014 and 31.03.2019 for the project as whole is considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Particulars	01.04.2014	31.03.2019
Debt%	70.00%	70.13%
Equity%	30.00%	29.87%
Loan (in lakh)	44644.40	55564.86
Equity (in lakh)	19133.21	23670.82
Total	63777.61	79235.68

35. Return on Equity ("ROE")

- i) The petitioner has claimed ROE at the rate of 19.61% for the 2014-19 period after grossing up the ROE of 20.961% with MAT rate as per the above said Regulation. 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.
- ii) The ROE has been worked out in accordance with Regulations 24 and 25 of the 2014 Tariff Regulations. The rate of pre-tax return on equity for all the financial year during 2014-19 period has been determined by grossing up the base rate of 15.50% with effective tax rate of 20.961%. This rate of pre-tax return on equity is subject to true up based on the effective tax rate of respective financial year applicable to the petitioner company. Accordingly, the RoE allowed is as follows:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	19133.21	22037.17	23002.42	23560.60	23670.82
Addition due to ACE	2903.96	965.25	558.18	110.22	0.00
Closing Equity	22037.17	23002.42	23560.60	23670.82	23670.82
Average Equity	20585.19	22519.79	23281.51	23615.71	23670.82
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT Rate	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.611%	19.611%	19.611%	19.611%	19.611%
Return on Equity (Pre Tax)	4036.96	4416.36	4565.74	4631.28	4642.08



36. Interest on Loan (“IOL”)

i) We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations as detailed below:-

(a) It is observed that the actual loan portfolio of individual assets as considered for the true up purpose has been added together for the balance as on 1.4.2014. The loan portfolio as submitted by the petitioner has been considered for determining WAROI.

(b) Now, the gross amount of loan, repayment of installments and rate of interest on actual loans as mentioned in Form 9C have been considered which is subject to true up.

(c) The yearly normative repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year.

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

iii) The details of weighted average rate of interest are placed at Annexure and the IOL has been worked out and allowed as follows:-

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	44644.40	51420.32	54005.27	55307.69	55564.86
Cum.Repayment up to previous year	734.18	4185.25	7951.31	11840.43	15785.50
Net Loan-Opening	43910.22	47235.06	46053.96	43467.26	39779.36
Additions during the year	6775.92	2584.95	1302.42	257.17	0.00
Repayment during the year	3451.07	3766.06	3889.11	3945.08	3954.77
Net Loan-Closing	47235.06	46053.96	43467.26	39779.36	35824.59
Average Loan	45572.64	46644.51	44760.61	41623.31	37801.97
Rate of Interest (%)	3.0000%	3.6200%	3.8300%	3.9100%	3.8900%
Interest	1367.18	1688.53	1714.33	1627.47	1470.50

37. Depreciation

- i) The depreciation is dealt in accordance with the Regulation 27 of 2014 Tariff Regulation.
- ii) As discussed in above paragraphs, the lapsed life of the combined assets as on 1.4.2014 has been worked out by the concept of Effective COD and Weighted Average life as provided in Regulation 27 of 2014 Tariff Regulations.
- iii) **Effective Date of Commercial Operation (E-COD) of the project**

The Effective Date of Commercial Operation (E-COD) for the combined assets has been worked out based on the admitted capital cost of individual assets as on 31.3.2014 and the actual COD of individual Assets, as shown below:-

Asset No.	Actual DOCO	Admitted Capital Cost as on 31-03-2014	Weight of the cost	No. of days from last COD	Weighted days	Effective COD (Latest COD - Total Weighted days)
Asset A	1-Jan-14	39831.58	62.45%	59.00	36.85	05-01-2014
Asset B	1-Feb-14	5888.88	9.23%	28.00	2.59	
Asset C	1-Jan-14	2219.46	3.48%	59.00	2.05	
Asset D	1-Jan-14	3559.50	5.58%	59.00	3.29	
Asset E & F	1-Jan-14	10860.24	17.03%	59.00	10.05	
Asset G	1-Mar-14	1417.95	2.22%	0.00	0.00	
Combined Asset		63777.61	100.00%		54.83	

However, the above determined effective COD is applicable only for the asset commissioned during the 2009-14 tariff period. Since the part of the project scope are commissioned after 01.04.2014, the petitioner is directed to submit a combined petition at the time of truing-up for the period 2014-19 for all the assets covered under the scope of the project (i.e. instant assets and assets commissioned during 2014-19). Accordingly, the effective COD for the project as whole shall be re-determined at the time of truing-up of 2014-19 period.

- iv) **Weighted Average Life (WAL) of the project.**

The combined asset, have multiple elements (i.e. Land, Building, Transmission line,



Substation and PLCC) and each element may have different span of life. Therefore, in 2014 Tariff Regulations, the concept of Weighted Average Life (WAL) has been introduced which has been used as the useful life of the project as whole. The WAL has been determined based on the admitted capital cost of individual elements of assets as on 31-03-2014 and their respective life as stipulated in 2014- 19 Tariff Regulations. The element wise life as it was defined in Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in 2014 Regulation for the individual assets has been considered for determination of WAL for the project as whole. Accordingly, the WAL of the combined assets has been worked out as 28 years as under:-

Determination of Weighted Average Life of the Project Assets commissioned during 2009-14 tariff period									
Particulars	Admitted Capital Cost as on 01-04-2014						Combined Cost (a)	Life as per 2014 Reg.	Weight (a) x (b)
	Asset A	Asset B	Asset C	Asset D	Asset E & F	Asset G			
Freehold Land	1061.44	0.00	0.00	0.00	222.19	0.00	1283.63	0	0.00
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25	0.00
Building	2582.24	0.00	0.00	554.66	1145.94	307.30	4590.14	25	114753.43
Trans. Line	23319.33	0.00	1121.71	0.00	0.00	0.00	24441.05	35	855436.63
Sub Station Equip	12744.89	5888.88	1008.22	3004.84	9492.11	1110.65	33249.59	25	831239.83
PLCC	123.68	0.00	89.53	0.00	0.00	0.00	213.20	15	3198.04
Total	39831.58	5888.88	2219.46	3559.50	10860.24	1417.95	63777.61	28	1804627.94
Weighted Average life								28	Years

v) **Lapsed Life of the project as on 01.04.2014:** The E-COD as determined above shall be used only to determine the lapsed life as on 01.04.2014 for the combined assets. The lapsed life as on 01.04.2014 refers the number of completed years as on 01.04.2014 starting from E-COD). The lapsed life (in completed years) of the instant project as on 1.4.2014 has been worked out as 0 years.

vi) **Remaining useful life of the project:** The remaining useful life of the project as on 1.4.2014 has been worked out as 28 years. (i.e. Weighted Average life minus lapsed life as on 01.04.2014) The usage of weighted average life of the project as

determined above has been applied prospectively for determination of depreciation. (i.e. 01.04.2014 onwards) and no retrospective adjustment of depreciation in previous tariff period is required since the depreciation considered for the individual assets up to 31.03.2014 are added together to arrive the cumulative depreciation of the project as on 01.04.2014. The Cumulative Depreciation of the project as on 1.4.2014 has been computed as ₹ 734.18 lakh.

vii) The capital cost, E-COD, WAL and lapsed life for the combined assets as determined in above paragraphs are considered for computation of depreciation for the period 2014-19. The lapsed life of the project as on 01.04.2014 is 0 years hence, the 12 years from the effective date of commercial operation is completing beyond the tariff period 2014-19. Hence, the depreciation for entire tariff period (i.e. 2014-19) has been worked out based on Straight Line Method and at rates specified in Appendix-II to 2014 Tariff Regulations.

viii) The details of the depreciation allowed for the project as whole are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	63777.61	73457.49	77007.69	78868.29	79235.68
Additional Capitalization	9679.88	3550.20	1860.60	367.39	0.00
Closing Gross block	73457.49	77007.69	78868.29	79235.68	79235.68
Average gross block	68617.55	75232.59	77937.99	79051.99	79235.68
Rate of Depreciation (%)	5.03%	5.01%	4.99%	4.99%	4.99%
Depreciable Value	60427.36	66170.96	68535.31	71146.79	69669.48
Remaining Depreciable	59693.17	61985.71	60583.99	59306.36	53883.97
Depreciation	3451.07	3766.06	3889.11	3945.08	3954.77

38. Operation & Maintenance Expenses (“O&M Expenses”)

i) The O&M Expenses claimed by the petitioner are as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses claimed for combined asset	1542.44	1596.79	1646.59	1701.37	1757.73

ii) The petitioner has submitted that O&M Expenses for the period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the Petitioner Company is due during the period 2014-19 and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

iii) We have considered the submissions made by the petitioner. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

iv) The details of O&M Expenses allowed for the instant assets are given hereunder:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	1458.01	1506.56	1556.46	1608.25	1661.52

39. Interest on Working Capital (“IWC”)

i) 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 (10.00%) as on 01.04.2014 Plus 350 Bps i.e. 13.50 % have been considered as the rate of interest on working capital.
- ii) The interest on working capital allowed is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	218.70	225.98	233.47	241.24	249.23
O & M Expenses	121.50	125.55	129.71	134.02	138.46
Receivables	1766.27	1947.99	2007.62	2022.63	2008.73
Total	2106.47	2299.52	2370.79	2397.89	2396.42
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	284.37	310.44	320.06	323.72	323.52

40. Annual Fixed Cost

The detailed computation of the various components of the annual fixed cost for the transmission asset for the tariff period 2014-19 is summarized below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3451.07	3766.06	3889.11	3945.08	3954.77
Interest on Loan	1367.18	1688.53	1714.33	1627.47	1470.50
Return on Equity	4036.96	4416.36	4565.74	4631.28	4642.08
Interest on Working Capital	284.37	310.44	320.06	323.72	323.52
O & M Expenses	1458.01	1506.56	1556.46	1608.25	1661.52
Annual Fixed Cost	10597.59	11687.94	12045.70	12135.79	12052.39

41. Filing Fee and Publication Expenses

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. BRPL



has submitted that filing fee and other expenses may not be allowed. The petitioner is 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.

42. Licence Fee and RLDC Fees and Charges

The petitioner has requested to allow the petitioner to bill and recover License 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.

43. Service Tax

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.

44. Goods and Services Tax

The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. The petitioner has submitted that the Commission should allow to recover GST from the beneficiaries, if imposed on transmission charges under the proposed GST when implemented by Government of India. GST is not levied on transmission service at present and we are of the view that petitioner's prayer is premature.



45. Sharing of Transmission Charges

The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.

. This order disposes of Petition No.101/TT/2018.

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(Dr. M. K. Iyer)
Member

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(P.K. Pujari)
Chairperson





Order in Petition No. 134/TT/2017