

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 39/TT/2017**

**Coram:**

**Shri Gireesh B. Pradhan, Chairperson  
Shri A. K. Singhal, Member  
Shri A. S. Bakshi, Member  
Dr. M. K. Iyer, Member**

**Date of Order : 29.11.2017**

**In the matter of:**

Petition for determination of transmission tariff from anticipated COD to 31.3.2019 for (i) Wardha-Nizamabad 765 kV D/C line along with associated bays, (ii) Nizamabad-Dichpalli 400 D/C line along with associated bays, (iii) Establishment of 765/400 kV GIS at Nizamabad with 2X1500 MVA transformers, 1X240 MVAR transformers, 1X240 MVAR bus reactors, 2X240 MVAR switchable line reactors along with associated bays, (iv) extension of 765/400 kV Wardha Sub-station with 2X240 MVAR switchable line reactors along with associated bays and (v) Extension of Dichpalli 400 kV Sub-station of TSTRANSCO under "Wardha-Hyderabad 765 kV link" in Southern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

**And in the matter of:**

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

**.....Petitioner**

**Vs**

1. Karnataka Power Transmission Corporation Ltd.  
Kaveri Bhawan, K. G. Road  
Bangalore—560 009.
2. Transmission Corporation of Andhra Pradesh Ltd.  
Vidyut Soudha, Khairatabad,  
Hyderabad-500 082.



3. Kerala State Electricity Boards,  
Vydyuthi Bhavanam,  
Pattom,Thiruvananthapuram-695 004.
4. Tamil Nadu Electricity Board (TNEB)  
NPKRR Maaligai, 800, Anna Salai,  
Cennai-600 002.
5. Electricity Department  
Government of Goa  
Vidyuti Bhawan, Panaji  
Goa-403 001.
6. Electricity Department,  
Government of Pondicherry,  
Pondicherry -605 001.
7. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)  
APEPDCL, P&T Colony,  
Seethmmadhara, VISHAKHAPATNAM  
Andhra Pradesh.
8. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta,  
Tirupati-517 501, Chittoor District, Andhra Pradesh.
9. Central Power Distribution Company of Andhra Pradesh Limited (APCPDCL)  
Corporate Office, Mint Compound,  
Hyderabad-500 063.
10. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)  
NIT Petrol Pump  
Chaitanyapuri, Kazipet, WARANGAL – 506 004  
Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd. (BESCOM)  
Corporate Office, K. R. Circle,  
Bangalore-560 009.
12. Gulbarga Electricity Supply Company Ltd. (GESCOM)  
Station Main Road, Gulbarga, Karnataka.



13. Hubli Electricity Supply Company Ltd. (HESCOM),  
P.B. Road, Nava Nagar Hubli,  
Karnataka.
14. Mangalore Electricity Supply Company Ltd. (MESCOM)  
Paradingm Plaza, A.B. Shetty Circle,  
Mangalore-575 001.
15. Chamundeshwari Electricity Supply Corp. Ltd.  
(CESC),  
Corporate Office, 927, L. J. Avenue, Ground Floor  
New Kantharaj Urs Road,  
Saraswathi Puram, Mysore-570 009.
16. Vizag Transmission Limited,  
Saudamini, Plot No.2,  
Sector-29, Gurgaon- 122001
17. Transmission Corporation of Telangana Limited,  
Vidhyut Sudha, Khairatabad,  
Hyderabad, 500082

.....**Respondents**

**For Petitioner** : Shri S.K. Venkatesan, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri B. Dash, PGCIL  
Shri Jasbir Singh, PGCIL

**For Respondents** : None

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff for (i) Wardha-Nizamabad 765 kV D/C line along with associated bays, (ii) Nizamabad-Dichpalli 400 kV D/C line along with associated bays, (iii) Establishment of 765/400 kV GIS at Nizamabad with 2x1500 MVA transformers, 1x240 MVAR Bus Reactor, 2x240 MVAR Switchable Line Reactors along with associated bays, (iv) Extension of 765/400 kV Wardha Sub-station with 2x240



MVAr Switchable Line Reactors along with associated bays and (v) Extension of Dichpalli 400 kV Sub-station of TSTRANSCO (hereinafter referred to as "assets") under "Wardha-Hyderabad 765 kV Link" (hereinafter referred to as "the scheme") in Southern Region for the 2014-19 tariff period in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

2. The scope of the scheme was discussed and agreed in the 34<sup>th</sup>, 35<sup>th</sup>, 36<sup>th</sup> and 37<sup>th</sup> Standing Committee meeting of Southern Region constituents held on 16.4.2012, 4.1.2013, 4.9.2013 and 31.7.2014 respectively, which further has been discussed and ratified by SRPC in the 22<sup>nd</sup>, 23<sup>rd</sup>, 24<sup>th</sup>, 26<sup>th</sup> and 30<sup>th</sup> SRPC meetings held on 18.5.2013, 26.10.2013, 15.3.2014, 20.12.2014 and 27.8.2016.

3. The Investment Approval for the transmission project was accorded by the Board of Directors of the petitioner on 29.1.2015 vide Memorandum No. C/CP/ Wardha-Hyderabad dated 3.2.2015, at an estimated cost of ₹366202 lakh including an IDC of ₹28326 lakh based on October, 2014 price level. The project was scheduled to be commissioned within 40 months from the date of investment approval. Therefore, the scheduled date of commissioning of the transmission system was 29.5.2018 against which the instant asset was anticipated to be put under commercial operation w.e.f. 1.3.2017. The petitioner had initially claimed approval of the transmission charges from the anticipated date of commercial operation (COD) for instant assets. Further, vide affidavit dated 15.5.2017, the petitioner has submitted the actual COD of the instant asset as 24.4.2017, along with revised tariff forms and other information.



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

### **Transmission Line**

- a) Wardha-Hyderabad (Maheshwaram) 765 kV D/C line with anchoring at Nizamabad 765/400 kV Sub-station.
- b) Nizamabad-Dichpalli 400 kV D/C line.

### **Sub-station**

#### **a) Establishment of 765/400 kV GIS station at Nizamabad with 2x1500 MVA, transformers**

- (i) 4 nos. 765 kV bays at Nizamabad for anchoring of Wardha-Hyderabad (Maheshwaram) 765 kV D/C line.
- (ii) 2 number 765 kV transformer bays for 2x1500 MVA transformers.
- (iii) 1 number 765 kV reactor bay for 1x240 MVAr Bus Reactor.
- (iv) 2 number 400 kV transformer bays for 2x1500 MVA transformers.
- (v) 2 number 400 kV line bays for terminating Nizamabad-Dichpalli 400 kV D/C line.

#### **b) Extension of Hyderabad (Maheshwaram) 765/400 kV Sub-station**

- (i) 2 nos. 765 kV bays for terminating Wardha-Hyderabad (Maheshwaram) 765 kV D/C line with anchoring at Nizamabad.

#### **c) Extension of Wardha 765/400 kV Sub-station**

- (ii) 2 nos. 765 kV bays for terminating Wardha-Hyderabad (Maheshwaram) 765 kV D/C line with anchoring at Nizamabad.

#### **d) Extension of Dichpalli 400 kV Sub-station of APTRANSCO**

- (iii) 2 nos. 400 kV bays for terminating Nizamabad-Dichpalli 400 kV D/C line.

### **Reactive Compensation**

#### **Bus Reactors**

- 1 no. 240 MVAr 765 kV Bus Reactor at Nizamabad 765/400 kV Sub-station.

#### **Line Reactors (765 kV)**

- 1 no. 240 MVAr switchable line reactor each at Hyderabad (Maheshwaram) for both circuits of Nizamabad-Hyderabad (Maheshwaram) 765 kV D/C line.



- 1 no. 240 MVAR switchable line reactor each at Nizamabad for both circuits of Nizamabad-Hyderabad (Maheshwaram) 765 kV D/C line.
- 1 no. 240 MVAR switchable line reactor each at Wardha for both circuits of Wardha-Nizamabad 765 kV D/C line.
- 1 no. 240 MVAR switchable line reactor each at Nizamabad for both circuits of Wardha-Nizamabad 765 kV D/C line.

5. The details of the assets covered in the instant transmission petition are as follows:-

Srl. No.	Name of Asset	Schedule Commissioning as per IA	Actual COD
1	(i)Wardha-Nizamabad 765 kV D/C line along with associated bays (289.04 km),  (ii)Nizamabad-Dichpalli 400 kV D/C line along with associated bays (4.43 km),  (iii) Establishment of 765/400 kV GIS at Nizamabad with 2x1500 MVA transformers, 1x240 MVAR Bus Reactor, 2x240 MVAR Switchable Line Reactors along with associated bays,  (iv) Extension of 765/400 kV Wardha Sub-station with 2x240 MVAR Switchable Line Reactors along with associated bays and  (v) Extension of Dichpalli 400 kV Sub-station of TSTRANSCO	29.5.2018	24.4.2017 (vide affidavit dated 15.5.2017)

6. Annual Fixed Cost was granted for the instant transmission asset vide order dated 12.6.2017 under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations, for inclusion in the PoC charges.

7. The petitioner has claimed transmission charges for the instant asset as under:-



(₹ in lakh)		
Particulars	2017-18 (pro-rata)	2018-19
Depreciation	8481.01	10147.86
Interest on Loan	8828.89	9875.49
Return on Equity	9857.38	11818.54
Interest on working capital	676.76	787.43
O & M Expenses	1616.21	1783.85
<b>Total</b>	<b>29460.25</b>	<b>34413.17</b>

8. The details of the “Interest on Working Capital” claimed by the petitioner for the instant assets are as under:-

(₹ in lakh)		
Particulars	2017-18 (pro-rata)	2018-19
Maintenance Spares	258.98	267.58
O & M Expenses	143.88	148.65
Receivables	5245.15	5735.53
<b>Total</b>	<b>5648.01</b>	<b>6151.76</b>
Rate of Interest	12.80%	12.80%
<b>Interest</b>	<b>677.76</b>	<b>787.43</b>

9. The petitioner has served 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 (“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. None of the respondents have filed any reply to the petition.

10. Having heard the petitioner and perused the material on record, we proceed to dispose of the petition.

### **Commercial Operation Date (“COD”)**

11. Clause (3) of Regulation 4 of the 2014 Tariff Regulations provides as follows:-



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

xxx

(3) Date of commercial operation in relation to a transmission system shall mean the date 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:

xxx

xxx”

12. The petitioner has initially claimed tariff of the instant assets on the basis of the anticipated date of commercial operation. The petitioner vide affidavit dated 15.5.2017 has submitted that the actual date of commercial operation was 24.4.2017 and in support thereof the petitioner has submitted RLDC charging certificate dated 19.4.2017, 27.4.2017 and 5.7.2017 and CEA clearance certificate dated 10.3.2017 for 400 kV Nizamabad-Dichpalli transmission line, CEA certificate dated 8.3.2017 for 765 kV Hyderabad-Wardha transmission line and CEA certificate dated 10.3.2017, 30.9.2016 and 29.3.2017 for 765/400 kV Nizamabad-GIS Sub-station under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010 and the petitioner has also submitted CMD certificate vide affidavit dated 28.7.2017 as required under the Grid Code.

13. It is observed from the single line diagram enclosed at Annexure-I, that the power is flowing from Raipur (Chhattisgarh) through 765 kV Wardha Sub-station, through 765 kV D/C Wardha-Nizamabad line. The power is flowing from 765 kV Nizamabad Sub-station through Nizamabad-Dichpalli line through downstream system of STU network. The power is also flowing through switchyard of Ramagundam TPS through Hyderabad. Therefore, the assets covered in the instant petition are put to use.





14. Taking into consideration the submissions made by the petitioner, the RLDC certificate and CEA certificate submitted by the petitioner, the date of commercial operation of the instant asset is approved as 24.4.2017.

### **Capital Cost**

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

“(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 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."



16. The petitioner vide affidavit dated 21.7.2017 has submitted Auditor Certificate dated 14.7.2017. The details of apportioned approved cost and estimated additional capital expenditure projected to be incurred during 2016-17, 2017-18, 2018-19 and 2019-20 along with estimated completion cost for the instant asset covered in the petition and considered for the purpose of computation of tariff are as under:-

(₹ in lakh)					
Apportioned Approved Cost	Cost incurred up to actual COD	Estimated additional capital expenditure			Total estimated completion cost
		2017-18 (pro-rata)	2018-19	2019-20	
220912.72	164283.98	22440.92	15772.57	1466.20	203963.67

17. Against the approved apportioned cost of ₹220912.72, the estimated completion cost as per the Auditor certificate is ₹203963.67. Therefore, there is no cost over-run. However, it has been observed that the cost of the following items has exceeded the approved cost (as per form 5-B):-

(₹ in lakh)				
Srl. No.	Items	As per FR	As per completion cost	Reason
1	Preliminary Investigation, right of way, forest clearance, PTCC, general civil works	2092.51	7354.17	As per actual site conditions and based on MoP guidelines and Demand note recd from District/ Revenue/Forest Authorities
2	Conductor and Earth wire accessories	36470.85	30577.68+640.33	As per actual site conditions and awarded rates recd thru Competitive Bidding
3	OPGW	58.70	490.57	-Do-
4	Land cost	701.62	834.87	As per actual encountered during execution
5	Colony	1017.0	1085.77	-Do-
6	800 kV GIS Equipments	21795.02	21819.63	As per awarded rates recd thru Competitive Bidding
7	Bus bar/Conductor/	847.22	1066.25	-Do-



	Insulator			
8	Outdoor lighting/ Auxillary and Earthing	1748.46	3434.65	-Do-
9	Dichpalli Extension	1253.62	1805.76	As per MoU
10	Spares	1036.88	-	
11	Custom Duty	-	5772.47	Actual paid

18. The petitioner has submitted that the cost variation is due to actual site condition, awarded cost, as per MOU etc. As regards the substantial increase in compensation, the petitioner has submitted that it is due to the higher compensation paid as per guidelines issued by Ministry of Power. Similarly, there is substantial increase in cost of outdoor lightning/Auxiliary and Earthing and cost of Dichpalli Extension. We are of the view that the increase in cost has to be examined in detail. Accordingly, the petitioner is directed to submit the detailed note on the extension of the project (if any), details of the different packages, justification for the increase in cost of above items along with supporting documents and reasons for going ahead with high cost packages, at the time of truing up.

19. As per Investment Approval, the commissioning scheduled of the project was 40 months from the date of Investment Approval. The Investment Approval was accorded on 29.1.2015 and the schedule date of commercial operation was 29.5.2018 against which subject asset was put under commercial operation on 24.4.2017. Hence, there is no time over-run. The petitioner has submitted that the early commissioning of the instant asset was discussed in 26<sup>th</sup> SRPC wherein KSEB (vide their letter dated 8.12.2014) had suggested early commissioning for the enhancement of inter-regional transmission capacity. The same issue was taken up in the Joint Study meeting held on



14.3.2016 to 17.3.2016 at SRPC office, Bangalore involving officials from CEA, petitioner, SRPC, SRLDC, APTRANSCO, KPTCL, TSTRANSCO, TANTRANSCO and KSEBL. The petitioner has submitted that accordingly, the instant assets were commissioned before the scheduled COD for enhancing the inter-regional transmission capacity and sought approval of COD as 24.4.2017. As the early COD of the instant assets was approved by SRPC and it enhances the transmission utility, the COD of the instant assets is approved as 24.4.2017.

**Interest During Construction (IDC)**

20. The petitioner has claimed Interest During Construction (IDC) of ₹7289.69 lakh for instant asset as per Auditors Certificate dated 14.7.2017. The loan details submitted in Form-9C for period 2014-19 and date of drawl submitted in IDC statement has been considered for the purpose of calculating IDC for the instant assets. It is observed that the petitioner has infused some loan before the date of investment approval. However, IDC has been allowed only from the date of investment approval. Accordingly, the IDC allowed for instant assets has been summarised as under:-

(₹ in lakh)				
Total IDC (As per Auditor's Certificate)	Entitled IDC as on COD	IDC disallowed due to computational difference	IDC allowed on cash basis as on COD	Un-discharged portion of entitled IDC as on COD
a	b	c= a-b	d	e=b-d
7289.69	7254.73	34.96	3052.24	4202.49

**Incidental Expenditure During Construction (IEDC)**

21. The petitioner has claimed Incidental Expenditure During Construction (IEDC) of ₹3297.98 lakh for instant assets as per Auditors Certificate dated 14.7.2017. The

incidental expenditure incurred and paid during construction as on COD is within the percentage on Hard Cost as indicated in the Abstract Cost Estimate. Accordingly, the petitioner's IEDC claim of ₹3297.98 is allowed.

### **Initial Spares**

22. Regulation 13(d) of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

#### **“13. Initial Spares**

Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

(d) Transmission system

- (i) Transmission line-1.00%
- (ii) Transmission Sub-station (Green Field)-4.00%
- (iii) Transmission Sub-station (Brown Field)-6.00%
- (iv) Series Compensation devices and HVDC Station-4.00%
- (v) Gas Insulated Sub-station (GIS)-5.00%
- (vi) Communication system-3.5%

Provided that:

(i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

(ii) -----

(iii) Once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:

(iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the breakup of head wise IDC & IEDC in its tariff application.”

23. The petitioner has claimed initial spares amounting to ₹185.29 lakh, ₹2749.48 lakh and ₹637.47 lakh corresponding to AIS Sub-station, GIS Sub-station and transmission



line in respect of instant asset. Initial spares claimed by the petitioner are within the ceiling limit of 6.00%, 5.00% and 1.00% of capital cost as specified in the 2014 Tariff Regulations and thus have been allowed and considered for the purpose of tariff in this order.

24. The details of initial spares allowed are given below:-

(₹ in lakh)

Element	Cost of plant & machinery as on cut-off date	Initial spares claimed	Ceiling limits as per 2014 Tariff Regulation	Initial spares worked out	Total excess initial spares	Initial spares allowed
Sub-station (AIS)	8461.03	185.29	6.00%	528.24	-	185.29
Sub-station (GIS)	54991.50	2749.48	5.00%	2749.48	-	2749.48
Transmission line	119186.03	637.47	1.00%	1197.46	-	637.47

### **Capital cost allowed as on COD**

25. Based on the above, the capital cost allowed as on COD under Regulation 9(2) of the 2014 Tariff Regulation is summarized as under:-

(₹ in lakh)

Capital cost as on COD claimed by the petitioner as per Auditor certificate	Disallowed IDC due to computational difference	Undischarged IDC worked out as on COD	IEDC disallowed on COD.	Excess initial spare	Capital cost as on COD considered for tariff calculation
1	2	3	4	5	6= (1-2-3-4-5)
164283.99	34.96	4202.49	0.00	0.00	<b>160046.54</b>

### **Additional Capital Expenditure**

26. 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 recognised 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; 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.

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

“cut-off date” means 31<sup>st</sup> 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 31<sup>st</sup> March of the year closing after three years of the year of commercial operation”.

28. The “cut-off date” in the case of instant transmission asset is 31.3.2020.

29. The petitioner has claimed additional capital expenditure as per Auditor Certificate and has claimed the discharge of IDC liability as additional capital expenditure in Form 7 for tariff purpose. The petitioner has claimed both these costs as additional capital expenditure in Form 7 under Regulation 14(1)(ii). Based on these information, the capital cost claimed are summarized as under:-

(₹ in lakh)			
<b>Additional capital expenditure claimed</b>			
Sl. No.	Particulars	2017-18	2018-19
1	Regulation 14(1)(ii) – balance and retention payments (matching with Auditor certificate)	22440.93	15772.57



2	Regulation 14(1)(i) - Discharge of IDC liability out of undischarged IDC as on COD	4217.92	0.00
3	Total add-cap claimed as per Form-7.	26658.85	15772.57

30. Since the Auditor certificate does not show the flow of liability and the addition of gross block after COD, the petitioner is directed to submit the revised Auditor certificate clearly mentioning the capitalized cost as on COD and after COD on accrual basis and flow of undischarged liabilities.

31. The additional capital expenditure approved for the period from COD to 31.3.2019 is as follows:-

(₹ in lakh)

<b>Additional capital expenditure allowed</b>			
Sl. No.	Particulars	2017-18	2018-19
1	Regulation 14(1)(i) - Discharge of IDC liability out of undischarged IDC as on COD	4202.49	0.00
2	Regulation 14(1)(ii) – balance and retention payments (matching with Auditor certificate)	22440.93	15572.57
3	Total add-cap claimed as per Form-7.	26643.42	15572.57

The additional capital expenditure allowed shall be reviewed at the time of truing up based on the submission of required information by the petitioner.

**Capital cost as on COD and 31.3.2019**

32. Accordingly, capital costs considered for the purpose of tariff calculation is as follows:-

(₹ in lakh)

Capital cost as on COD considered for tariff calculation	Additional Capital Expenditure		Total admitted cost as on 31.03.2019
	2017-18	2018-19	
160046.54	26643.42	15772.57	202462.53



## Debt- Equity ratio

33. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(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 maybe 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.”

34. The capital cost on the date of commercial operation arrived at as above and additional capitalization allowed have been considered in the normative debt-equity ratio of 70:30. The details of debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:-

Particulars	Capital cost as on tariff COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	112032.58	70.00	141723.77	70.00
Equity	48013.96	30.00	60738.76	30.00
<b>Total</b>	<b>160046.54</b>	<b>100.00</b>	<b>202462.53</b>	<b>100.00</b>

(₹ in lakh)



## **Return on Equity (RoE)**

35. 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 50 kilometers.

**“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.”

36. The petitioner has further submitted that the assets covered in the instant petition were put into commercial operation within the time line specified in the 2014 Tariff Regulations and has prayed for grant of additional RoE of 0.5%. The petitioner has further submitted that SRPC has also certified that the total time taken for completion of instant assets is 26 month and 23 days, which is within the time specified in the 2014 Tariff Regulations.

37. The petitioner has further submitted that RoE has been calculated at the rate of 20.243% after grossing up the RoE with MAT rate of 20.961% as per the above Regulations. The petitioner has further submitted that the grossed up RoE is subject to truing up based on the effective tax rate of respective financial year applicable to the petitioner company.

38. We have considered the submission made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of RoE with the effective tax rate for the purpose of RoE. The SRPC has certified that the following



elements covered in the instant petition fulfil the requirements of Regulation 24(2)(iii) of the 2014 Tariff Regulations:-

<b>S. No.</b>	<b>Name of Asset</b>	<b>Actual COD</b>
(i)	765 kV Wardha-Nizamabad D/C line along with 3x80 MVAR switchable line reactors in each circuit at both ends	24.4.2017
(ii)	765/400 kV GIS Sub-station at Nizamabad with 2x1500 MVA transformers at Nizamabad	24.4.2017
(iii)	1x240 MVA 765 KV bus reactor at Nizamabad 765/400 kV GIS Sub-station	24.4.2017
(iv)	400 kV Nizamabad- Dichpalli D/C line along with bays extension at Dichpalli and Nizamabad	24.4.2017

39. The timeline specified in Appendix-II of the 2014 Tariff Regulations for grant of additional RoE of 0.5% in case of the instant assets is 40 months. The instant assets were put into commercial operation in 26 months and 23 days which is within the timeline of 40 months. Accordingly, the Wardha-Nizamabad Transmission Line is eligible for grant of 0.5% of RoE. The petitioner has also claimed additional RoE of 0.5% for Nizamabad-Dichpalli Transmission Line of 4.43 km, GIS, transformers, Bus Reactors, Line Reactors alongwith associated bays at Nizamabad and extension of Wardha and Dichpalli Sub-stations. The petitioner has submitted RPC approval dated 24.5.2017 for the 765 kV Wardha-Nizamabad D/C line alongwith 3X80 MVAR Switchable line reactors, 765/400 kV GIS Sub-station at Nizamabad with 2X1500 MVA ICTs and 240 MVAR Bus Reactor at Nizamabad and 400 kV Nizamabad-Dichpalli D/C line. As per Regulation 24(2)(iii) additional RoE is allowed. As regards bay extensions in existing sub-stations, the Commission in order dated 10.11.2015 in Review petition 04/RP/2015 held that they are also part of the transmission project and hence qualify for grant of additional RoE of 0.5%. The relevant portion of the said order is extracted



below. Therefore, hence additional RoE of 0.5% is allowed for the bays extensions at Wardha and Dichpalli Sub-stations.

“9. We have considered the submissions of the review petitioner. We are of the view that bay extension is part of the scheme consisting of transmission line and the bay. Project has been defined as the “transmission system” which means “a line or group of lines with or without associated sub-station and includes equipment associated with the transmission system and sub-stations”. Where a scheme has been approved consisting of a transmission line and bay extension in an existing sub-station, it will be considered as a project. If both the elements have been commissioned within the timeline given in the Appendix-II to the 2009 Tariff Regulations, then it will be eligible for additional RoE. The bay extension cannot be seen in isolation. Similar approach has been adopted by the Commission in Petition No. 34/TT/2011 and 46/TT/2013. In the instant case, the entire project including the bay extension has been commissioned within the time line specified in the Appendix-II to the 2009 Tariff Regulations and accordingly we are of the view that the instant asset is eligible for additional RoE.”

40. Accordingly, the RoE allowed for the assets covered in the instant petition is as follows:-

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)	2018-19
Opening Equity	48013.96	56006.98
Addition due to Additional Capitalization	7993.02	4731.77
Closing Equity	56006.98	60738.76
Average Equity	52010.47	58372.87
Return on Equity (Base Rate )	16.00%	16.00%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	20.243%	20.243%
Return on Equity (Pre Tax)	<b>9865.04</b>	<b>11816.42</b>

### **Interest on Loan (IoL)**

41. Regulation 26 of the 2014 Tariff Regulations are 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



decapitalization 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 decapitalisation 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.”

42. 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 instalments and rate of interest have been considered as per the petition to workout weighted average rate of interest on actual average loan, which is applied on the normative average loan during the year to arrive at the interest on loan;

(ii) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the asset and shall be equal to the annual depreciation allowed.

43. Detailed calculations in support of IoL have been calculated as given at Annexure II.

44. The details of IoL calculated are as under:-



Particulars	(₹ in lakh)	
	2017-18 (pro-rata)	2018-19
Gross Normative Loan	112032.58	130682.97
Cumulative Repayment upto Previous Year	0.00	8487.59
Net Loan-Opening	112032.58	122195.38
Addition due to Additional Capitalisation	18650.39	11040.80
Repayment during the year	8487.59	10146.02
Net Loan-Closing	122195.38	123090.15
Average Loan	117113.98	122642.76
Weighted Average Rate of Interest on Loan	8.0517%	8.0503%
<b>Interest on Loan</b>	<b>8835.46</b>	<b>9873.06</b>

## **Depreciation**

45. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as follows:-

### **"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) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:



Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) 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.

(6) 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.”

46. The petitioner has claimed actual depreciation as a component of annual fixed charges. In our calculations, depreciation has been calculated in accordance with Regulation 27 of the 2014 Tariff Regulations extracted above.

47. The instant transmission asset was put under commercial operation on 24.4.2017. Accordingly, it will complete 12 years beyond the tariff period 2014-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

48. The details of the depreciation worked out are as under:-





(₹ in lakh)

Particulars	2017-18 (pro-rata)	2018-19
Gross Block as on COD	160046.54	186689.95
Addition during 2014-19 due to Projected Additional Capitalisation	26643.41	15772.57
Gross Block as on 31 <sup>st</sup> March	186689.95	202462.52
Average Gross Block	173368.25	194576.24
Rate of Depreciation	5.2249%	5.2144%
Depreciable Value	155191.35	174278.54
Remaining Depreciable Value	155191.35	165790.95
<b>Depreciation</b>	<b>8487.59</b>	<b>10146.02</b>

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

49. Regulation 29(4) (a) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system based on the type of bays , GIS bays and sub-conductors. Norms specified in respect of the elements covered in the instant petition are as under:-

(₹ in lakh)

Element	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Asset-I (COD-24.4.2017)</b>					
D/C bundled conductor with four or more sub-conductors	1.062	1.097	1.13	1.171	1.210
D/C twin or triple conductors	0.707	0.731	0.76	0.780	0.806
400 kV bays	60.30	62.30	64.37	66.51	68.71
400 kV GIS bays	51.54	53.25	55.02	56.84	58.73
765 kV bays	84.42	87.22	90.12	93.11	96.20

50. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the allowable O&M Expenses for the instant transmission asset are as under:-

(₹ in lakh)

Element	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Asset-I (COD-24.4.2017)</b>					
11 Nos.765 kV bays	0	0	0	959.67	1058.20
2 Nos. 400 kV bays	0	0	0	124.63	137.42
4 Nos. 400 kV GIS bays	0	0	0	213.03	234.92
765 kV Wardha-Nizamabad D/C with 6	0	0	0	317.13	349.74



conductors T/L line (289.04 km)					
400 kV Nizamabad-Dichpalli D/C Twin conductors T/L line (4.43 km)	0	0	0	3.23	3.57
<b>Total</b>	0	0	0	1617.69	1783.85

51. The petitioner has claimed O&M Expenses of ₹1617.69 lakh and ₹1783.85 lakh for the years 2017-18 and 2018-19. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees is due during 2014-19 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.

52. 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, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

### **Interest on Working Capital (IWC)**

53. 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 one month”

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later.

“(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 in effect plus 350 basis points;”

54. 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 hereunder:-

**(i) Receivables**

Receivables as a component of working capital will be equivalent to two months of annual 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.

**(iv) Rate of interest on working capital**



As per Proviso 3 of regulation 28 of the 2014 Tariff Regulations, SBI base rate of 9.30% as on 1.4.2017 plus 350 bps i.e. 12.80% has been considered for the asset, as the rate of interest on working capital.

55. Accordingly, the IWC as determined is as under:-

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)	2018-19
Maintenance Spares	258.97	267.58
O & M expenses	143.87	148.65
Receivables	5244.31	5734.44
<b>Total</b>	<b>5647.15</b>	<b>6150.67</b>
Interest Rate	12.80%	12.80%
<b>Interest</b>	<b>677.29</b>	<b>787.29</b>

### Transmission charges

56. The transmission charges allowed for the instant transmission asset are summarized as under:-

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)	2018-19
Depreciation	8487.59	10146.02
Interest on Loan	8835.46	9873.06
Return on Equity	9865.04	11816.42
Interest on Working Capital	677.29	787.29
O & M Expenses	1617.69	1783.85
<b>Total</b>	<b>29483.07</b>	<b>34406.64</b>

57. The petitioner has submitted that the claim for transmission charges and other charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess and charges or any other kind of impositions etc. The same if imposed shall be borne and additionally paid by the respondents. The petitioner is entitled to FERV as provided under Regulation 50 of the 2014 Tariff Regulations and the petitioner can make other claims as per the 2014 Tariff Regulations.



### **Filing Fee and the Publication Expenses**

58. 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**

59. 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.

### **Sharing of Transmission Charges**

60. Transmission Charges shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges & Losses) Regulations, 2010 as amended time to time.

61. This order disposes of Petition No. 39/TT/2017.

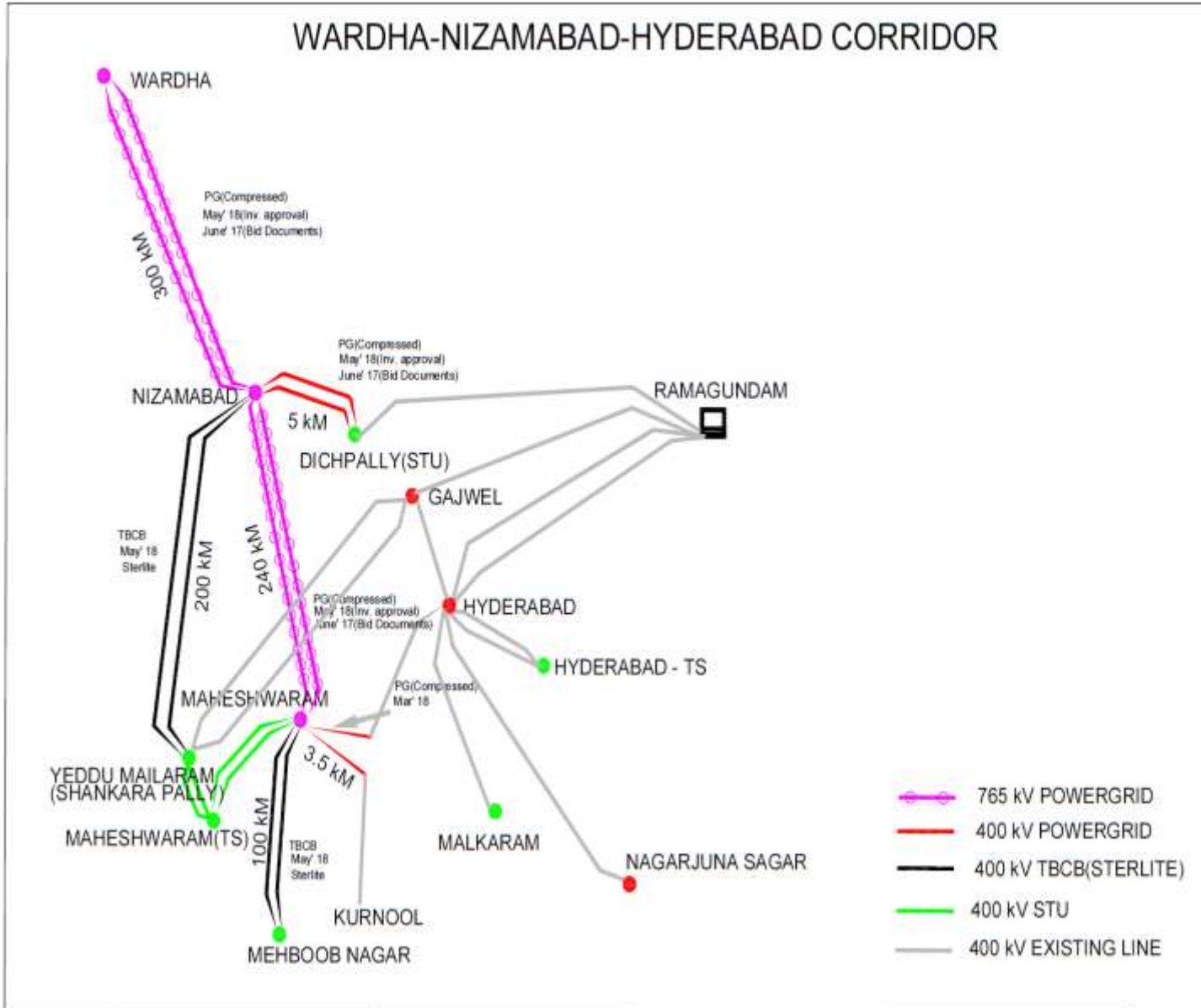
sd/-  
**(M.K. Iyer)**  
**Member**

sd/-  
**(A.S. Bakshi)**  
**Member**

sd/-  
**(A.K. Singhal)**  
**Member**

sd/-  
**(Gireesh B Pradhan)**  
**Chairperson**





**ANNEXTURE-II**

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>			
			<b>(₹ in lakh)</b>
	<b>Details of Loan</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>Bond XLVII</b>		
	Gross loan opening	403.00	<b>403.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	403.00	403.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	33.58
	Net Loan-Closing	403.00	369.42
	Average Loan	403.00	386.21
	Rate of Interest	8.93%	8.93%
	Interest	35.99	34.49
	Rep Schedule	12 annual instalments from 21.10.2018	
<b>2</b>	<b>Bond XLVIII</b>		
	Gross loan opening	9.00	<b>9.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	9.00	9.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	9.00	9.00
	Average Loan	9.00	9.00
	Rate of Interest	8.20%	8.20%
	Interest	0.74	0.74
	Rep Schedule	4 equal instalments on 23.1.2020, 23.1.2022, 23.1.2025 and 23.1.2030	
<b>3</b>	<b>Bond L</b>		
	Gross loan opening	6552.00	6552.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	6552.00	6552.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	6552.00	6552.00
	Average Loan	6552.00	6552.00
	Rate of Interest	8.40%	8.40%
	Interest	550.37	550.37
	Rep Schedule	12 annual instalments from 27.5.2019	
<b>4</b>	<b>Bond LI</b>		
	Gross loan opening	8360.81	8360.81
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	8360.81	8360.81
	Additions during the year	0.00	0.00

	Repayment during the year	0.00	0.00
	Net Loan-Closing	8360.81	8360.81
	Average Loan	8360.81	8360.81
	Rate of Interest	8.40%	8.40%
	Interest	702.31	702.31
	Rep Schedule	12 annual instalments from 14.9.2019	
<b>5</b>	<b>Bond LII</b>		
	Gross loan opening	980.00	<b>980.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	980.00	980.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	980.00	980.00
	Average Loan	980.00	980.00
	Rate of Interest	8.32%	8.32%
	Interest	81.54	81.54
	Rep Schedule	12 annual instalments from 23.12.2020, 23.12.2025, 23.12.2030	
<b>6</b>	<b>Bond LIII</b>		
	Gross loan opening	13880.00	13880.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	13880.00	13880.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	13880.00	13880.00
	Average Loan	13880.00	13880.00
	Rate of Interest	8.13%	8.13%
	Interest	1128.44	1128.44
	Rep Schedule	12 annual instalments from 25.4.2020	
<b>7</b>	<b>Bond LIV</b>		
	Gross loan opening	12099.24	12099.24
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	12099.24	12099.24
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	12099.24	12099.24
	Average Loan	12099.24	12099.24
	Rate of Interest	7.97%	7.97%
	Interest	964.31	964.31
	Rep Schedule	12 annual instalment from 15.7.2021, 15.7.2026, 15.7.2031	
<b>8</b>	<b>Bond LV</b>		





	Gross loan opening	16635.00	16635.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	16635.00	16635.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	16635.00	16635.00
	Average Loan	16635.00	16635.00
	Rate of Interest	7.55%	7.55%
	Interest	1255.94	1255.94
	Rep Schedule	21.9.2031 Bullet payment	
9	<b>Bond LVI</b>		
	Gross loan opening	6076.00	6076.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	6076.00	6076.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	6076.00	6076.00
	Average Loan	6076.00	6076.00
	Rate of Interest	7.36%	7.36%
	Interest	447.19	447.19
	Rep Schedule	18.10.2026 Bullet payment	
10	<b>Bond LVII</b>		
	Gross loan opening	2032.00	2032.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2032.00	2032.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2032.00	2032.00
	Average Loan	2032.00	2032.00
	Rate of Interest	7.20%	7.20%
	Interest	146.30	146.30
	Rep Schedule	21.12.2021 Bullet payment	
11	<b>Bond LVIII</b>		
	Gross loan opening	20576.77	20576.77
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	20576.77	20576.77
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	20576.77	20576.77
	Average Loan	20576.77	20576.77
	Rate of Interest	7.89%	7.89%
	Interest	1623.51	1623.51
	Rep Schedule	9.3.2027 Bullet payment	
12	<b>SBI Loan 2013-14</b>		
	Gross loan opening	15085.09	15085.09
	Cumulative Repayment upto DOCO/previous year	0.00	0.00



	Net Loan-Opening	15085.09	15085.09
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	15085.09	15085.09
	Average Loan	15085.09	15085.09
	Rate of Interest	8.90%	8.90%
	Interest	1342.57	1342.57
	Rep Schedule	NA	
13	<b>SBI Loan 2017-18</b>		
	Gross loan opening	1722.59	1722.59
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1722.59	1722.59
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1722.59	1722.59
	Average Loan	1722.59	1722.59
	Rate of Interest	7.95%	7.95%
	Interest	136.95	136.95
	Rep Schedule	NA	
14	<b>HDFC</b>		
	Gross loan opening	7634.75	10587.29
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	7634.75	10587.29
	Additions during the year	2952.54	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	10587.29	10587.29
	Average Loan	9111.02	10587.29
	Rate of Interest	7.95%	7.95%
	Interest	724.33	841.69
	Rep Schedule	NA	
	<b>Total Loan</b>		
	Gross loan opening	112046.25	114998.79
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	112046.25	114998.79
	Additions during the year	2952.54	0.00
	Repayment during the year	0.00	33.58
	Net Loan-Closing	114998.79	114965.21
	Average Loan	113522.52	114982.00
	Rate of Interest	8.0517%	8.0503%
	<b>Interest</b>	9140.48	9256.35

