### CENTRAL ELECTRICITY REGULATORY COMMISSION

#### **NEW DELHI**

#### **Petition No. 255/TT/2018**

Coram:

Shri P.K.Pujari, Chairperson Dr M. K. Iyer, Member Shri I.S.Jha, Member

Date of Order: 4<sup>th</sup> October, 2019

#### In the matter of:

Approval under regulation-86 of CERC (Conduct of Business) Regulations 1999 and CERC (Terms and Conditions of Tariff) Regulations 2014 for determination of Transmission Tariff from DOCO to 31.03.2019 for **Asset-I**: 400/220 kV 500MVA ICT-I at Mandola s/s (COD: 28.3.2016), **Asset-II**: 400/220 kV 500MVA ICT-II at Mandola s/s (COD: 16.10.2016), **Asset-III**: 400/220 kV 500MVA ICT-III at Mandola s/s (COD: 10.4.2016), **Asset-IV**: 400/220 kV 500MVA ICT-IV at Mandola s/s (COD: 8.5.2016), **Asset-V**: 400/220 kV 500MVA ICT-I at Ballabhgarh s/s (COD: 28.3.2016) and **Asset-V**: 400/220 kV 500MVA ICT-II at Ballabhgarh s/s (COD: 16.9.2016) under NRSS-XXXII in Northern Region.

#### And in the matter of:

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

.....Petitioner

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- Rajasthan Rajya Vidyut Prasaran Nigam Ltd. Vidyut Bhawan, Vidyut Marg, Jaipur-302005
- Ajmer Vidyut Vitran Nigam Ltd.
   132 kV, GSS RVPNL Sub- Station Building, Caligiri Road, Malviya Nagar, Jaipur-302017



- Jaipur Vidyut Vitran Nigam Ltd.
   132 kV, GSS RVPNL Sub- Station Building,
   Caligiri Road, Malviya Nagar,
   Jaipur-302017
- Jodhpur Vidyut Vitran Nigam Ltd.
   132 kV, GSS RVPNL Sub- Station Building, Caligiri Road, Malviya Nagar, Jaipur-302017
- Himachal Pradesh State Electricity Board Vidyut Bhawan, Kumar House Complex Building II Shimla-171 004
- Punjab State Power Corporation Ltd. Thermal Shed TIA, Near 22 Phatak, Patiala - 147 001
- 7. Haryana Power Purchase Centre 2<sup>nd</sup> Floor, Shakti Bhawan, Sector-6 Panchkula-134 109
- 8. Power Development Deptt. Govt. Of Jammu & Kashmir Mini Secretariat, Jammu
- Uttar Pradesh Power Corporation Ltd.
   10<sup>th</sup> Floor, Shakti Bhawan Extn,
   14, Ashok Marg, Lucknow 226 001 (UP)
- 10. Delhi Transco Ltd Shakti Sadan, Kotla Road (Near ITO), New Delhi-110 002
- 11. BSES Yamuna Power Ltd. (BYPL), Shakti Kiran Bldg., Karkardooma, Delhi-110 092
- 12. BSES Rajdhani Power Ltd. (BRPL) BSES Bhawan, Nehru Place, New Delhi



- North Delhi Power Ltd.
   Power Trading & Load Dispatch Group,
   Cement Building, Adjacent To 66/11 kV Pitampura-3,
   Grid Building, Pitampura, New Delhi-110034.
- 14. Chandigarh Administration Sector-9, Chandigarh
- 15. Uttarakhand Power Corporation Ltd. Urja Bhawan, Kanwali Road Dehradun.
- 16. North Central Railway Allahabad.
- 17. New Delhi Municipal Council Palika Kendra, Sansad Marg, New Delhi-110002

.....Respondents

## **Parties present:**

For Petitioner: Shri Ved Prakash Rastogi, PGCIL

Shri S.S. Raju, PGCIL

Shri S.K. Venkatesh, PGCIL

Shri B.Dash, PGCIL

SMT Anshul Garg, PGCIL Shri Zafrul Hasan, PGCIL

Shri R.B.Sharma, Advocate, BRPL Shri Mohit Mudgal, Advocate, BRPL

#### ORDER

1. The present petition has been filed by the Petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff for **Asset-I**: 400/220 kV 500 MVA ICT-I at Mandola sub-station (COD: 28.3.2016), **Asset-II**: 400/220 kV 500 MVA ICT-II at Mandola sub-station (COD: 16.10.2016), **Asset-III**: 400/220 kV 500 MVA ICT-III at Mandola sub-station (COD: 10.4.2016), **Asset-IV**: 400/220 kV 500

MVA ICT-IV at Mandola sub-station (COD: 8.5.2016), **Asset-V**: 400/220 kV 500 MVA ICT-I at Ballabhgarh sub-station (COD: 28.3.2016) and **Asset-VI**: 400/220 kV 500 MVA ICT-II at Ballabhgarh sub-station (COD: 16.9.2016) under NRSS-XXXII in Northern Region" (hereinafter referred to as "transmission system") for 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

- 2. The Petitioner has made the following prayers:-
- i. Approve the Tariff for the tariff block 2014-19 for the assets covered under the petition.
- ii. Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred/projected to be incurred.
- iii. 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.
- iv. 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 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure in relation to the filing of petition.
- v. Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
- vi. 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.
- vii. 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.
- viii. Allow provisional tariff in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations,



2014.

- ix. Allow reimbursement of tax if any on account of the proposed implementation of GST.
- x. Allow the petitioner to bill tariff from actual DOCO and also the petitioner may be allowed to submit revised Management Certificate and tariff Forms (as per the Relevant Regulation) based on actual DOCO.
- xi. Exempt the petitioner from submitting the petition filing fee.
- xii. Condone the delay of 42 days in filing the instant petition.
- xiii. Exempt the petitioner from republishing the instant petition in local and regional newspapers
  - and pass such other relief as the Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."
  - 3. The Investment Approval for implementation of "NRSS-XXXII" in Northern Region was accorded by the Board of Directors of the petitioner in 298<sup>th</sup> meeting held on 5.2.2014 for Rs 90808 lakh including IDC of Rs 5276 lakh based on December, 2013 price level vide Memorandum No. C/CP/NRSS XXXII dated 05.05.2016. Subsequently Revised Cost Estimate (RCE) of the project was approved by Board of Directors of the Petitioner vide the Memorandum No. C/CP/NRSS-XXXII dated 31.3.2017 with an estimated cost of Rs 96997 lakh including IDC of Rs 5656 lakh based on December, 2016 price level. As per the investment approval, the transmission asset was scheduled to be commissioned within 28 months from the date of investment approval, i.e. by 05.06.2016.
  - 4. The broad scope of work covered under "Northern Region System Strengthening Scheme –XXXII" is as follows:

### **Transmission Line**

(i) 400 kV Panchkula – Patiala D/C line (with 10 km on multi-circuits towers in forest area near Panchkula for accommodating 220 kV D/C line for power supply to Chandigarh).

- (ii) 400 kV Lucknow Kanpur (new) D/C Line
- (iii) LILO of 400 kV D/C Dadri Malerkotla line at Kaithal sub-station
- (iv) LILO of both circuits of RAPP Kankroli 400 kV D/C line at Chittorgarh 400/220 kV substation of RRVPNL.

#### **Substation**

- (i) Augmentation of transformation capacity at 400/220 kV Ballabhgarh Substation by replacing existing 4X315 MVA ICTs with 4X500 MVA ICTs (Existing 4X315 MVA ICTs shall be kept as regional spares/ used elsewhere after refurbishment)
- (ii) Augmentation of transformation capacity at 400/220 kV Mandola Substation by replacing 4X315 MVA ICTs with 4X500 MVA ICTs. (Existing 315 MVA ICTs shall be maintained as regional spares/ used elsewhere after refurbishment)
- (iii) Provision of 7X105 MVA, 400/220 kV ICT at Parbati Pooling Station along with associated bays and two nos. of 220 kV line bays.
- (iv) Augmentation of transformation capacity by 500 MVA ICT (4<sup>th</sup>) at 400/220 kV Gurgaon Substation.

### **Reactive Compensation**

SI.No.	Transmission Line	From Bus Reactor (MVAR)	To Bus Reactor (MVAR)
1	400 kV D/C Panchkula – Patiala	-	-
2	400 kV D/C Lucknow (PG) – Kanpur (New) (PG)	-	-
3	LILO Dadri – Malerkotla line at Kaithal S/S (PG)		
	Existing		
	Dadri-Malerkotla 400kV S/C	-	63 (to be gainfully used elsewhere)
	After LILO		
	Dadri – Kaithal 400kV S/C line	-	50MVAR (New)

	Kaithal – Malerkotla 400 kV S/C line	-	-
4	LILO of both circuits of RAPP – Kankroli 400 kV D/C line at Chandigarh		
	Existing		
	RAPP – Kankroli 400 kV D/C line	-	50MVAR (to be used at Kanpur end of Allahabad – Kanpur under NRSS- XXX)
	RAPP – Chithorgarh 400 kV D/C Line	-	-
	Chithorgarh–Kankroli	-	-

- 5. The scope of the scheme was discussed and agreed in 31<sup>st</sup> Standing Committee Meetings (SCM), 28<sup>th</sup> NRPC (Northern Regional Power Committee), 32<sup>nd</sup> SCM and 29<sup>th</sup> NRPC meeting dated 2.1.2013, 25.4.2013, 31.8.2013 & 12.9.2013 respectively.
- 6. The commissioning status of assets, submitted by the Petitioner is as below:-

SI. No.	Asset	COD claimed (Actual)
1	Asset-I:400/220 kV 500 MVA ICT-I at Mandola s/s	28.3.2016
2	Asset-II: 400/220 kV 500 MVA ICT-II at Mandola s/s	16.10.2016
3	Asset-III: 400/220 kV 500 MVA ICT-III at Mandola s/s	10.4.2016
4	Asset-IV: 400/220 kV 500 MVA ICT-IV at Mandola s/s	8.5.2016
5	Asset-V: 400/220 kV 500 MVA ICT-I at Ballabhgarh s/s	28.3.2016
6	Asset-VI: 400/220 kV 500 MVA ICT-II at Ballabhgarh s/s	16.9.2016

- 7. The tariff for the instant assets was claimed by the Petitioner in petition No. 200/TT/2016. The Petitioner, in the said petition, had stated that the ICTs have been installed after replacing the old ICTs. Accordingly, tariff was not granted for the instant assets and the Commission directed the petitioner to file fresh petition along with the details of de-capitalization after putting the ICTs into service and ensuring utilization of the replaced ICTs. Vide Order dated 31.10.2017 in petition No 200/TT/2016, Commission observed that:
  - The Commission is of the consistent view that the assets that have completed their service life should be removed from the capital cost of the existing transmission project and that in case of shifting of assets from transmissions system to another, the asset should be de-capitalised in the transmission system from where it is shifted and capitalised in the transmission system where it is installed. Accordingly, the petitioner is required to submit the details of de-capitalisation and capitalisation and the petition/transmission system under which tariff was allowed initially, in case of shifting. However, the petitioner has not submitted these details. We are of the view that allowing tariff for the four ICTs at Mandola Sub-station and two ICTs at Ballabhgarh without de-capitalisation of the existing ICTs would tantamount to servicing two assets. Therefore, we are not inclined to allow tariff for Assets-II to V, Asset-VII and VIII at this stage. The tariff for the said assets would be allowed only after de-capitalisation of replaced ICTs and associated cost of bays and adjustment of cumulative depreciation etc. Accordingly, tariff for Assets-I and VI is allowed in this order. Further, the AFC granted for Assets-II to V, Asset-VII and Asset-VIII vide order dated 22.12.2016 under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations is withdrawn. The petitioner is directed to file a separate petition claiming tariff for the ICTs at Mandola and Ballabhgarh Sub-stations along with the details of de-capitalisation within three months of issue of this order after putting the ICTs into service and ensuring utilisation of the replaced ICTs."

In compliance of the Commission's directions in Petition No.200/TT/2016, the petitioner has filed the present petition.

8. The details of the Annual Fixed Charges claimed by the petitioner are as under:-

	Asset-I			•
Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	0.47	55.44	71.32	75.01
Interest on Loan	0.51	58.97	71.25	69.23
Return on Equity	0.52	61.77	79.46	83.58
Interest on working capital	0.03	4.06	5.11	5.24
O & M Expenses	0.00	0.00	0.00	0.00
Total	1.53	180.24	227.14	233.06

## (Rs in lakh)

Asset-II						
Particulars	2016-17	2017-18	2018-19			
Depreciation	29.56	72.10	76.60			
Interest on Loan	31.42	72.63	71.41			
Return on Equity	32.93	80.33	85.34			
Interest on working capital	2.05	4.91	5.09			
O & M Expenses	0.00	0.00	0.00			
Tota	I 95.96	229.97	238.44			

# (Rs in lakh)

Asset-III						
Particulars	2016-17	2017-18	2018-19			
	(pro-rata)					
Depreciation	57.54	72.25	74.80			
Interest on Loan	61.18	71.96	68.65			
Return on Equity	64.11	80.51	83.35			
Interest on working capital	3.99	4.90	4.94			
O & M Expenses	0.00	0.00	0.00			
Tot	al 186.82	229.62	231.74			

Asset-IV						
Particulars		2016-17	2017-18	2018-19		
Depreciation		<b>(pro-rata)</b> 50.23	70.61	74.87		
Interest on Loan		53.49	70.73	69.37		
Return on Equity		55.96	78.68	83.42		
Interest on working capital		3.48	4.80	4.96		
O & M Expenses		0.00	0.00	0.00		
To	otal	163.16	224.82	232.62		

Asset-V						
Particulars	2015-16	2016-17	2017-18	2018-19		
	(pro-rata)					
Depreciation	0.53	58.46	71.52	75.21		
Interest on Loan	0.58	61.82	70.80	68.78		
Return on Equity	0.59	65.13	79.68	83.80		
Interest on working capital	0.04	4.27	5.11	5.24		
O & M Expenses	0.00	0.00	0.00	0.00		
Total	1.74	189.68	227.11	233.03		

(Rs in lakh)

Asset-VI						
Particulars	2016-17	2017-18	2018-19			
Depreciation	32.23	69.42	75.63			
Interest on Loan	33.67	68.64	69.43			
Return on Equity	35.91	77.34	84.26			
Interest on working capital	2.22	4.70	5.00			
O & M Expenses	0.00	0.00	0.00			
Total	104.03	220.10	234.32			

9. The details of the interest on working capital claimed by the Petitioner are as under:-

(Rs in lakh)

Asset-I						
Particulars	2015-16	2016-17	2017-18	2018-19		
O & M Expenses	0.00	0.00	0.00	0.00		
Maintenance Spares	0.00	0.00	0.00	0.00		
Receivables	23.64	30.04	37.86	38.84		
Total	23.64	30.04	37.86	38.84		
Rate of Interest	13.50%	13.50%	13.50%	13.50%		
Interest on W.C	3.19	4.06	5.11	5.24		
Interest(pro-rata)	0.03	4.06	5.11	5.24		

Asset-II						
Particulars	2016-17	2017-18	2018-19			
O & M Expenses	0.00	0.00	0.00			
Maintenance Spares	0.00	0.00	0.00			
Receivables	34.79	38.33	39.74			
Total	34.79	38.33	39.74			
Rate of Interest	12.80%	12.80%	12.80%			
Interest on W.C	4.45	4.91	5.09			
Interest(pro-rata)	2.05	4.91	5.09			

Asset-III						
Particulars	2016-17	2017-18	2018-19			
O & M Expenses	0.00	0.00	0.00			
Maintenance Spares	0.00	0.00	0.00			
Receivables	31.94	38.27	38.62			
Total	31.94	38.27	38.62			
Rate of Interest	12.80%	12.80%	12.80%			
Interest on W.C	4.09	4.90	4.94			
Interest(pro-rata)	3.99	4.90	4.94			

# (Rs in lakh)

Asset-IV							
Particulars	2016-17	2017-18	2018-19				
O & M Expenses	0.00	0.00	0.00				
Maintenance Spares	0.00	0.00	0.00				
Receivables	30.29	37.47	38.77				
Total	30.29	37.47	38.77				
Rate of Interest	12.80%	12.80%	12.80%				
Interest on W.C	3.88	4.80	4.96				
Interest(pro-rata)	3.48	4.80	4.96				

# (Rs in lakh)

Asset-V							
Particulars	2015-16	2016-17	2017-18	2018-19			
O & M Expenses	0.00	0.00	0.00	0.00			
Maintenance Spares	0.00	0.00	0.00	0.00			
Receivables	26.94	31.61	37.85	38.84			
Total	26.94	31.61	37.85	38.84			
Rate of Interest	13.50%	13.50%	13.50%	13.50%			
Interest on W.C	3.64	4.27	5.11	5.24			
Interest(pro-rata)	0.04	4.27	5.11	5.24			

Asset-VI						
Particulars	2016-17	2017-18	2018-19			
O & M Expenses	0.00	0.00	0.00			
Maintenance Spares	0.00	0.00	0.00			
Receivables	32.01	36.68	39.05			
Total	32.01	36.68	39.05			
Rate of Interest	12.80%	12.80%	12.80%			
Interest on W.C	4.10	4.70	5.00			
Interest(pro-rata)	2.22	4.70	5.00			

- 10. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. The Respondent No. 12, BRPL, has submitted reply dated 30.11.2018. Having heard the representatives of the petitioner present at the hearing and having perused the material on record, we proceed to dispose of the petition.
- 11. This order has been issued after considering the main petition and petitioner's affidavit dated 13.4.2018, 1.8.2018, 10.12.2018, 4.1.2019, 15.2.2019 & 15.3.2019, BRPL reply dated 30.11.2018 and petitioner's rejoinder dated 10.12.2018.

#### **Date of Commercial Operation (COD):**

12. In support of the actual COD of the Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI the petitioner has submitted CEA Energization Certificates dated 23.3.2016, 10.10.2016, 5.4.2016, 3.5.2016, 26.2.2016 and 2.9.2016 respectively, RLDC charging certificates dated 21.4.2016, 20.10.2016, 25.4.2016, 18.5.2016, 4.4.2016 and 26.9.2016 respectively and CMD certificates as required under Grid Code. Taking into consideration the CEA Energization Certificates, RLDC charging Certificates and CMD Certificates, the COD of the Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI is approved as 28.3.2016, 16.10.2016, 10.4.2016, 8.5.2016, 28.3.2016 & 16.9.2016 respectively. The tariff is worked out from COD to 31.3.2019.

#### **Capital Cost**

- 13. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provide 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 13 of these regulations;
    - f. Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations; 39
    - 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.
- 14. The petitioner has submitted Auditor Certificates dated 9.8.2016 for Asset-I, Asset-III, Asset-IV and Asset-V, Auditor certificate dated 27.1.2017 for Asset-II and



Auditor certificate dated 16.11.2016 for Asset-VI based on actual COD. The details of approved apportioned cost (FR), apportioned cost as per RCE, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred during 2015-16, 2016-17, 2017-18 and 2018-19 are given under:-

(Rs in lakh)

Asset	Apportioned	Revised		Estimated expenditure			е	Total
		apportioned approved cost	Capital cost as on COD	2015-16	2016-17	2017-18	2018-19	estimated completio n cost
Asset-I	2149.68	1513.53	837.93	0.00	442.78	140.00	0.00	1420.71
Asset-II	2149.68	1538.53	1191.02	-	114.90	144.79	0.00	1450.71
Asset-III	2149.68	1508.53	933.74	-	386.41	96.60	0.00	1416.75
Asset-IV	2149.68	1508.53	881.71	-	375.36	160.87	0.00	1417.94
Asset-V	2195.34	1511.41	943.28	0.00	341.19	140.00	0.00	1424.47
Asset-VI	2195.34	1516.34	1074.24	-	131.18	226.90	0.00	1432.32
Total	12989.40	9096.87	5861.92	0.00	1791.82	909.16	0.00	8562.90

### **Cost Variation**

15. The Respondent, BRPL, has submitted that the apportioned approved cost were very high which were scaled down by the petitioner in its revised cost estimates. We have considered the submissions of the petitioner vide affidavit dated 10.12.2018. The apportioned approved cost as per FR for Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI taken together is Rs 12989.40 lakh and that as per RCE is Rs 9096.87 lakh against which the estimated completion cost is Rs 8562.90 lakh. Further, it is observed that asset-wise too, the completion cost of each asset is within the respective approved cost of FR & RCE. Hence, there is no cost overrun in commissioning of the Assets covered in the instant petition.

#### Time over-run

16. As per the investment approval dated 14.2.2014, the Assets under subject project were scheduled to be commissioned within 28 months from the date of investment approval. Accordingly, the scheduled date of commercial operation works out to 14.6.2016. However, the instant Assets were put into commercial operation as per the details given below:-

SI. No.	Asset	Scheduled COD	COD (Actual)	Time overrun
1	Asset-I:400/220 kV 500 MVA ICT-I at Mandola s/s	05.6.2016	28.3.2016	Nil
2	Asset-II: 400/220 kV 500 MVA ICT-II at Mandola s/s	05.6.2016	16.10.2016	4 months & 11 days (133 days)
3	Asset-III: 400/220 kV 500 MVA ICT-III at Mandola s/s	05.6.2016	10.4.2016	Nil
4	Asset-IV: 400/220 kV 500 MVA ICT-IV at Mandola s/s	05.6.2016	8.5.2016	Nil
5	Asset-V: 400/220 kV 500MVA ICT-I at Ballabhgarh s/s	05.6.2016	28.3.2016	Nil
6	Asset-VI: 400/220 kV 500MVA ICT-II at Ballabhgarh s/s	05.6.2016	16.9.2016	3 months & 11 days (103 days)

#### Reasons for time over-run:

17. The petitioner has submitted the following reasons for time overrun in commissioning of the assets:

#### a) Asset-II:

Petitioner has submitted that the augmentation of ICT-II at Mandola required shutdown of existing 315 MVA transformer. The time overrun of 133 days is on account of delay in permission required by the petitioner for shutdown of ICT which was not granted by NRLDC. After several persuasions and deliberations with NRLDC and Delhi Transco Ltd (DTL) system at various platforms in different time

intervals, the permission by NRLDC was finally accorded on 22.9.2016. All the communications in this regard are tabulated below.

Date	Description
18.5.2016	The shutdown request was submitted to NRLDC for replacement work at Mandola
20.5.2016	Denial of shutdown request by NRLDC/DTL due to high load demands in Delhi
30.6.2016	Email from PGCIL Mandola to CPCC requesting for Shutdown of 315 MVA ICT-II from 11.7.2016 to 20.7.2016 for replacement purpose
12.7.2016	Email communication from PGCIL Mandola, mentioning denial of request dated 30.6.2016 and request for shutdown windows from 2.8.2016 to 14.8.2016.
13.7.2016	Communication from CPCC, stating that request to be taken up in OCC meeting for approval
8.8.2016	Again, NRLDC had approved conditional shutdown date w.e.f 22 <sup>nd</sup> August 2016 for 2 <sup>nd</sup> ICT, subject to charging of 2 <sup>nd</sup> ICT at Ballabhgarh s/s. The shutdown was also denied and deferred up to 26.9.2016.
8.8.2016	Email communication from PGCIL Mandola, mentioning approval of shutdown in 125 <sup>th</sup> OCC meeting in August, seeking shutdown from 22.08.2016 to 02.09.2016
22.9.2016	Finally NRLDC had approved and allowed shutdown for 2 <sup>nd</sup> ICT w.e.f 27 <sup>th</sup> September to 10 <sup>th</sup> October 2016.
	Accordingly, shutdown was availed and 2 <sup>nd</sup> ICT at Mandola S/s was charged and finally commissioned on 16.10.2016

#### b) Asset-VI:

Petitioner has submitted that the augmentation of ICT-II at Ballabhgarh required shutdown of existing 315 MVA transformer. The time overrun of 103 days is on account of delay in permission required by the petitioner for shutdown of ICT which was not granted by NRLDC. After several persuasions and deliberations with NRLDC & DTL system at various platforms in different time intervals, the permission by NRLDC was finally accorded on 9.8.2016. All the communications in this regard are tabulated below:

Date	Description
22.5.2016, 125 <sup>th</sup> OCC meeting	In between the planned shutdown period, the towers in 400 kV Jhatikara- Bamnauli line (which is also feeding the load of Delhi-NCR) collapsed due to thunder storm and were out of service since 22 <sup>nd</sup> May 2016. 400 kV Bamnauli s/s is connected to grid through 400 kV Jhatikara-Bamnauli D/C and 400 kV Ballabhgarh-Bamnauli D/C line and as the Jhatikara- Bamnauli link is out of service, it is not possible to undertake ICT-II at Ballabhgarh under shutdown for replacement to meet out the load requirements.
12.6.2016	On 12 Jun 2016, 400kV Jhatikara- Bamnauli -2 was revived through ERS (Emergency Restoration System). The incident was already discussed in 125 <sup>th</sup> OCC meeting, dated: 17.8.2016.
12.7.2016	NRLDC confirmed that due to rise in power demand, DTL was already not in a position to give shutdown consent of any feeder which feeds Delhi, the shutdown of any ICT could be allowed. Telephonic conversations with M/s DTL suggested that the shutdown was not possible before August 2016.
24.7.2016	The shutdown approval was accorded from 2.8.2016 to 14.8.2016. The same shutdown was also denied and deferred up to 9 <sup>th</sup> August 2016.
	Delay from 8.7.2016 to 8.8.2016 was due to non-availability of shutdown. Finally, shutdown was approved from 9.8.2016 and the subject work completed on 14.9.2016 and the asset commissioned on 16.9.2016.

- 18. Respondent No.1, BRPL, vide affidavit dated 30.11.2018 has submitted that, the requests for shutdown are dealt in the Operation Committee meeting of RPC for which no documents have been filed by the petitioner. Moreover, the sub-station premises are with the Petitioner, and the Petitioner is aware of the loading position at both of these places and now the problem depicted are only an excuse for time overrun and it is entirely attributable to the slackness in the project management for which Petitioner is solely responsible and accordingly, time overrun may not be allowed and IDC and the IEDC during the period of time overrun may not be permitted.
- 19. In response, Petitioner vide its rejoinder dated 11.12.2018 has submitted that detailed justification has been furnished in main petition wherein all the relevant

documents in support of non-grant of shutdown have been appended. Accordingly, the delay may be condoned.

#### **Analysis/Conclusion:**

20. We have considered the submissions made by the Petitioner and Respondent BRPL. The time over-run of 133 days and 103 days in commissioning of Asset-II & Asset-VI respectively is mainly because of non-grant of shut down permissions by NRLDC. The time overrun analysis of Assets-II & Asset-VI is as follows:

#### a) Asset-II:

21. The Petitioner communicated to NRLDC on 18.5.2016 regarding replacement work at Mandola and tentative ICT shutdown from 23.5.2016 to 8.6.2016 on continuous basis. Subsequently, vide email dated 20.5.2016, NRLDC intimated Petitioner that, DTL had informed that due to high load demands in Delhi on 19.5.2016, the shutdown of any ICT at Mandola under such condition could not be allowed. Subsequently, after waiting for nearly one month, petitioner again requested NRLDC on 30.6.2016 for shut down of 315 MVA 400/200kV ICT-II from 11.7.2016 to 20.7.2016 on continuous basis and in response, NRLDC vide email dated 13.7.2016, requested petitioner to take up the matter in OCC for approval. Further, from email dated 8.8.2016 submitted by petitioner, it is observed that, in the 125<sup>th</sup> meeting of OCC dated 14.7.2016, the approval for availability of shutdown was agreed to be given in the month of August and accordingly, petitioner vide email dated 8.8.2016 approached NRLDC to seek shutdown from 22.8.2016 to 2.9.2016 and finally, shutdown was availed from 27.9.2016 to 10.10.2016 as per approval of NRLDC and the asset was commissioned on 16.10.2016. Thus, considering the above facts, we

are of the view that, petitioner had already completed (before schedule date of 13.6.2016) the work of, letter of award, supplies, Civil Works & Erection and subsequently, before testing and commissioning requested NRLDC on 18.5.2016 for first time for shut down approval. However, approval was denied due to high load demand in Delhi and subsequently, from time to time, the petitioner approached NRLDC and finally Asset-II was commissioned on 16.10.2016. In our opinion, the timely application/request for shutdown and subsequent coordination are important for obtaining shutdown. In the instant case the petitioner first attempted obtaining the shutdown on 18.5.2016 and actually availed the shutdown from 27.9.2016. Therefore, the time period from 18.5.2016 to 27.9.2016 133 days in obtaining the shutdown was beyond the control of petitioner. Therefore, the time overrun of 133 days (05.6.2016 to 16.10.2016) in commissioning of Asset-II is condoned.

#### b) Asset-VI:

22. Petitioner, in the 125th OCC meeting held on 22.5.2016 and through various emails dated, 12.6.2016, 12.7.2016 and 24.7.2016, urged NRLDC for timely approval for shutdown. On perusal of the PERT chart submitted by the petitioner vide affidavit dated 15.2.2019, it is seen that Testing and Commissioning of the subject asset was scheduled from 11.5.2016. However, the petitioner could actually avail the shutdown from 9.8.2016 and the works were completed on 14.9.2016 and the asset was commissioned on 16.9.2016. Therefore, the time period from 11.5.2016 to 9.8.2016 (91 days) in obtaining the shutdown was beyond the control of petitioner and is condoned. In the instant case there is a total time overrun of 103 days (05.6.2016 to 16.9.2016). Therefore, the time overrun of 12 days is not being condoned.

## **Interest during Construction (IDC)**

23. The petitioner has claimed asset wise Interest during Construction (IDC) and has submitted the Auditor's certificate in support of the same. The petitioner has submitted IDC computation statement which also shows the discharge details of IDC given below:-

Asset	IDC As per Auditor certificate	IDC Discharged up to COD	IDC Discharged in 2016-17	IDC Discharged in2017-18
Asset-I	24.53	5.88	18.65	0.00
Asset-II	35.93	0.23	10.05	25.65
Asset-III	18.40	0.00	18.40	0.00
Asset-IV	19.58	0.00	19.40	0.18
Asset-V	24.15	10.68	13.47	0.00
Asset-VI	17.81	0.25	9.23	8.33

- 24. The Petitioner has submitted the statement showing IDC discharged up to COD, wherein the loan wise drawl date has also been mentioned. For the purpose of determining IDC, the loan wise drawl date as provided by the petitioner has been assumed as date of infusion of debt fund for the concerned loan. IDC has been worked out and allowed as on COD on cash basis for the assets. The balance IDC discharged after COD has been considered as part of add-cap. The allowable IDC has been worked out based on the available information and relying on loan amount as per tariff form 9C.
- 25. Further the loan portfolio as mentioned in IDC statement and as mentioned in Form 9C are not matching. Hence, for the purpose of determination of allowable IDC, the loan amount as mentioned in Form 9C has been considered.

26. The petitioner is directed to submit the detailed IDC statement by rectifying the above mentioned deviation, at the time of true up of 2014-19. Based on the available information, IDC has been worked out and allowed as shown below:-

(Rs in lakh) Asset IDC as per IDC **IDC IDC** Undischarged **Auditor** Disallowed admissible **IDC** liability allowed certificate due to time as on COD as on COD on cash overrun not basis condoned as on Asset-I 24.53 0.00 24.53 5.88 18.65 Asset-II 35.93 0.00 35.93 0.23 35.70 0.00 18.40 0.00 Asset-III 18.40 18.40 Asset-IV 0.00 19.58 0.00 19.58 19.58 Asset-V 24.15 0.00 24.15 10.68 13.47

17.56

0.25

18.21

0.65

### **Incidental Expenditure During Construction (IEDC)**

27. The petitioner has claimed IEDC of (-) Rs8.82 lakh, Rs 7.08 lakh, (-) Rs 6.64 Lakh, (-)Rs 6.63 Lakh, (-) Rs8.68 lakh and Rs 14.53 Lakh for Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI respectively and has submitted that the entire IEDC claimed has been discharged as on COD. The claimed IEDC as on COD is within the percentage on hard cost as indicated in the abstract cost estimate. In the instant petition, 5.00% of hard cost is indicated as IEDC in the abstract cost estimate. Therefore, IEDC of (-) Rs8.82 lakh, Rs 7.08 lakh, (-) Rs 6.64 Lakh, (-) Rs 6.63 Lakh, (-) Rs8.68 lakh and Rs 14.53 Lakh is being considered for determination of tariff in respect of Assets-I, Asset-II, Asset-III, Asset-IV, Asset-V & Asset-VI, respectively.

#### **Initial spares**

Asset-VI

17.81

28. This has been dealt in line with Regulation 13(d) of the 2014 Tariff

Regulations. The petitioner has claimed initial spares pertaining to substation (brown field) for the instant assets. Further, Petitioner has submitted the details of year-wise discharge of initial spare in the petition. The spares claimed are within the ceiling limit of the 2014 Tariff Regulations. Thus, no initial spares have been reduced from the capital cost as on COD as shown below:-

(Rs in Lakh)

			(110 III Eakii)			
	Substation (Brown Field)					
Asset	Plant & Machinery Cost (Excluding IDC/IEDC, Land cost & Cost of Civil Works)	Initial Spares Claimed	Initial spares allowed			
Asset-I	1405.00	18.23	18.23			
Asset-II	1407.70	18.23	18.23			
Asset-III	1404.99	18.23	18.23			
Asset-IV	1404.99	18.23	18.23			
Asset-V	1409.00	18.68	18.68			
Asset-VI	1399.98	18.68	18.68			

#### **De-capitalization of Replaced ICTs:**

29. As mentioned earlier in this Order, the Commission vide order dated 31.10.2017 in petition no. 200/TT/2016 had directed the petitioner to file fresh petition along with the details of de-capitalization after putting the ICTs into service and ensuring utilisation of the replaced ICTs. The Petitioner has submitted that all 4 no. ICTs at Mandola sub-station and 2 no. ICTs at Ballabhgarh sub-station of 500 MVA capacity each were commissioned by replacing existing 315 MVA ICTs. These replaced ICTs of 315 MVA were originally covered in true up petition no. 133/TT/2015 under Rihand Transmission System. After replacement, all 315 MVA ICTs are proposed to be utilized as mentioned below:-

SI. No.	Asset	New Project/ Petition No.		
1	315 MVA ICT-I at Mandola s/s in lieu of Asset-I	Kept as Regional Spares		
2	315 MVA ICT-II at Mandola s/s in lieu of Asset-II	Being diverted to Rourkela S/s under ERSS XVII. Commissioning is awaited.		
3	315 MVA ICT-III at Mandola s/s in lieu of Asset-III	Kept as Regional Spares		
4	315 MVA ICT-IV at Mandola s/s in lieu of Asset-IV	Being diverted to Rourkela S/s under ERSS XVII. Commissioning is awaited.		
5	315 MVA ICT-I at Ballabhgarh s/s in lieu of Asset-V	Diverted to Agra S/s under NRSS XXXIV.		
6	315 MVA ICT-II at Ballabhgarh s/s in lieu of Asset-VI	Kept as Regional Spares		

30. The Petitioner has submitted, in the petition, the details of capitalisation and de-capitalisation of the ICTs being replaced. The following is observed from the submission.

SI. No.	Asset	Year of capitalization of the Asset	Date of de- capitalization
1	Replaced 315 MVA ICT-I at Mandola s/s	22.11.1990	08.03.2016
2	Replaced 315 MVA ICT- II at Mandola s/s	31.07.1991	29.09.2016
3	Replaced 315 MVA ICT- III at Mandola s/s	31.10.1991	29.03.2016
4	Replaced 315 MVA ICT-IV at Mandola s/s	28.02.1992	22.04.2016
5	Replaced 315 MVA ICT-I at Ballabhgarh s/s	26.09.1988	12.02.2016
6	Replaced 315 MVA ICT- II at Ballabhgarh s/s	31.03.1989	08.08.2016

31. Further the petitioner has submitted that after de-cap & add-cap adjustment

tariff impact is very less and since the tariff for all 315 MVA ICTs are being continued in petition no 133/TT/2015 under Rihand Transmission System and same shall be trued up at the end of 2014-19 tariff block/ beginning of tariff block 2019-24, the Petitioner has prayed to allow for truing up of replaced ICTs (315 MVA ICT-II & IV at Mandola and 315 MVA ICT-I at Ballabhgarh) on account of the de-capitalization from Rihand Transmission System and re-capitalization in the new projects at the end of tariff block 2014-19. Further, the Petitioner has prayed that, in the meanwhile, tariff of the assets (500 MVA ICTs at Mandola sub-station and Ballabgarh sub-station) covered under the instant petition may be allowed as claimed in the instant petition.

- 32. The Petitioner has also submitted that 3 no. ICTs (315 MVA ICT-I & ICT-III at Mandola sub-station & 315 MVA ICT-II at Ballabhgarh sub-station) are being kept as a regional spares as discussed in 31<sup>st</sup> SCM of NR and 28<sup>th</sup> NRPC meetings. These spare 315 MVA ICTs shall be useful for the region as a whole, therefore, the Petitioner has prayed not to de-capitalize the 315 MVA ICTs replaced against 500 MVA ICTs at Mandola sub-station and Ballabhgarh sub-station (Asset-I, Asset-III & Asset-VI) and allow the transmission tariff for respective assets as claimed in the instant petition. Responding to the reply dated 30.11.2018 of Respondent No. 12, BRPL, Petitioner has also prayed to allow the carrying cost between the date of decapitalization and date of re-capitalization at the time up of truing-up as the same was done for proper utilization of the system with due concurrence in RPC with the beneficiaries.
- 33. We have examined the matter, in case of shifting of assets from one transmission project to another transmission project, we are of the view that the replaced asset should be de-capitalized in the books of the account of the transmission system from where it is transferred and should be capitalized in the

books of accounts of the transmission system where it is shifted. Further, we have observed that the petitioner has been procuring regional spare ICTs/reactors and is using these spares for replacement of ICTs/reactors against any failure. Petitioner, in the recent past, was directed to identify the cases where such regional spare ICTs/reactors have been used and was also asked to submit the usage policy of regional spare ICTs/reactors and treatment of tariff after consultation at RPC level. The petitioner was also directed to submit list of regional spares already available versus requirement of such spares, category wise. Petitioner had, accordingly, submitted the required details.

34. Referring to the information of decapitalization indicated at para 30 above, we observe that all the 315 MVA ICTs were capitalized between September 1988 and February 1992 and the same have been decapitalized between February 2016 and September 2016. We are of the opinion that, ideally, the 6 no. 315 MVA ICTs should be considered as decapitalized with effect from the dates of commercial operation of the 6 no. 500 MVA ICTs. Further, the data submitted by the Petitioner makes it amply clear that the entire loan corresponding to the 315 MVA ICTs has been paid back and that 90% depreciation too has been recovered. Thus, these ICTs have, more or less, completed their lives as defined under the Tariff Regulations. Considering these facts, we are of the conscious view that although the Petitioner is free to divert these used ICTs to any Region and to utilize them as regional spares, they shall not be eligible for recovery of tariff any more from their respective dates of de-capitalisation. For the 315 MVA ICTs with residual life as on the date of de-capitalisation, Petitioner may put them to use as per requirement, considering Net Value of the Assets. In such situation, Petitioner is directed to discontinue the recovery of tariff against these 315 MVA ICTs as and when the depreciation is fully recovered. Compliance in this

regard should be submitted while filing the truing-up petition for 2014-19 period for Rihand Transmission System, tariff for which (315 MVA ICTs) was earlier allowed in petition no 133/TT/2015. As such, we do not intend to allow carrying costs between the date of de-capitalization and date of re-capitalization.

#### Capital cost as on COD

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

(Rs in lakh)

Asset	Capital Cost claimed as on COD (A)	IDC Disallowed due to time overrun not condoned (B)	Undischar- ged IDC liability (C)	Excess IDC Disallowed	Undischa rged Initial Spares as on COD (D)	IEDC Disallowed due to time overrun not condoned (B)	Capital Cost as on COD considere d for tariff calculation (E)=A-B- C-D
Asset-I	837.93	0.00	18.65	0.12	14.64	0.00	804.52
Asset-II	1191.02	0.00	35.70	0.31	0.21	0.00	1154.80
Asset-III	933.74	0.00	18.40	0.11	14.64	0.00	900.59
Asset-IV	881.71	0.00	19.58	0.00	14.64	0.00	847.49
Asset-V	943.28	0.00	13.47	0.03	15.00	0.00	914.78
Asset-VI	1074.24	0.81	17.56	0.00	15.00	0.76	1040.11

### Additional Capital Expenditure (ACE)

36. The cut-off date for the all the instant assets is 31.3.2019 as per Clause (13) of Regulation 3 of the 2014 Tariff Regulations. The claim of additional capital expenditure has been dealt in accordance with Regulation 14. The ACE has been claimed as per Auditor certificate submitted in the petition on projected basis as per following details:-

(Rs in lakh)

Asset	Estimate	d Expenditu	Total Additional capital expenditure claimed by petitioner as on	
	2016-17	2017-18	2018-19	31.3.2019
Asset-I	442.78	140.00	0.00	582.78
Asset-II	114.90	144.79	0.00	295.60
Asset-III	386.41	96.60	0.00	516.05
Asset-IV	375.36	160.87	0.00	570.45
Asset-V	341.19	140.00	0.00	509.66
Asset-VI	131.18	226.90	0.00	390.64
Total	1791.82	909.16	0.00	2865.18

37. The petitioner vide affidavit dated 04.01.2019 has submitted revised information regarding capital expenditure and has claimed additional capital expenditure incurred/projected to be incurred on account of Balance and Retention Payments. The entitled un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge.

## Capital cost as on 31.3.2019

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

(Rs in lakh)

Asset	Capital Cost Allowed as on COD	ACE allowed for 2016-17	ACE allowed for 2017-18	ACE allowed for 2018-19	Total Estimate Completion Cost as on 31.3.2019
Asset-I	804.52	476.07	140.00	0.00	1420.59
Asset-II	1154.80	125.16	170.44	0.00	1450.40
Asset-III	900.59	419.45	96.60	0.00	1416.64

Asset-IV	847.49	409.40	161.05	0.00	1417.94
Asset-V	914.78	355.65	154.01	0.00	1424.44
Asset-VI	1040.11	141.40	249.24	0.00	1430.75

## **Debt-Equity Ratio**

39. Debt:Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations. The financial package up to COD as submitted in form 6 has been considered to determine the debt equity Ratio. The capital cost allowed as on the date of commercial operation arrived at as above and additional capitalization allowed have been considered in the debt-equity ratio of 70:30. The debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:-

(Rs in lakh)

Asset-I					
Particular	Capital cos	st as on COD	Capital cost	as on 31.3.2019	
	Amount	%	Amount	%	
Debt	563.16	70.00	994.41	70.00	
Equity	241.36	30.00	426.18	30.00	
Total	804.52	100.00	1420.59	100.00	

Asset-II					
Particular	Capital cos	st as on COD	Capital cost as	on 31.3.2019	
	Amount	%	Amount	%	
Debt	808.36	70.00	1015.28	70.00	
Equity	346.43	30.00	435.11	30.00	
Total	1154.79	100.00	1450.39	100.00	

		Asset-	III	(NS III Idkii)	
Particular	Capital cost as on COD		Capital cost as on 31.3.2019		
	Amount	%	Amount	%	
Debt	630.41	70.00	991.65	70.00	
Equity	270.18	30.00	424.99	30.00	
Total	900.59	100.00	1416.64	100.00	

(Rs in lakh)

Asset-IV (					
Particular	Capital cos	st as on COD	Capital cost as on 31.3.2019		
	Amount	%	Amount	%	
Debt	593.24	70.00	992.56	70.00	
Equity	254.24	30.00	425.38	30.00	
Total	847.49	100.00	1417.94	100.00	

Asset-V						
Particular	Capital cos	st as on COD	Capital cost a	l cost as on 31.3.2019		
	Amount	%	Amount	%		
Debt	640.34	70.00	997.10	70.00		
Equity	274.44	30.00	427.34	30.00		
Total	914.78	100.00	1424.44	100.00		

Asset-VI					
Particular	Capital co	st as on COD	Capital cost	l cost as on 31.3.2019	
	Amount	%	Amount	%	
Debt	728.08	70.00	1001.53	70.00	
Equity	312.03	30.00	429.22	30.00	
Total	1040.11	100.00	1430.75	100.00	

## **Return on Equity**

- 40. The petitioner has submitted that RoE has been calculated at the rate of 19.610% 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.
- 41. We have considered the submissions made by the petitioner and Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations.

# 42. Accordingly, the RoE allowed is as follows:-

(Rs in lakh)

			(					
Asset-I								
Particulars	2015-16	2016-17	2017-18	2018-19				
Opening Equity	241.36	241.36	384.18	426.18				
Addition due to Additional capitalisation	0.00	142.82	42.00	0.00				
Closing Equity	241.36	384.18	426.18	426.18				
Average Equity	241.36	312.77	405.18	426.18				
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%				
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%				
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%				
Return on Equity (Pre-tax)	0.52	61.33	79.46	83.57				

(Rs in lakh)

Asset-II							
Particulars	2016-17	2017-18	2018-19				
Opening Equity	364.43	383.98	435.11				
Addition due to Additional Capitalisation	37.55	51.13	0.00				
Closing Equity	383.98	435.11	435.11				
Average Equity	365.21	409.55	435.11				
Return on Equity (Base Rate)	15.50%	15.50%	15.50%				
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%				
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%				
Return on Equity (Pre-tax)	32.77	80.31	85.33				

Asset-III						
Particulars	2016-17	2017-18	2018-19			
Opening Equity	270.18	396.01	424.99			
Addition due to Additional Capitalisation	125.84	28.98	0.00			
Closing Equity	396.01	424.99	424.99			
Average Equity	333.09	410.50	424.99			
Return on Equity (Base Rate)	15.50%	15.50%	15.50%			
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%			
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%			
Return on Equity (Pre-tax)	63.71	80.50	83.34			

Asset-IV							
Particulars	2016-17	2017-18	2018-19				
	(D.						
Opening Equity	254.24	377.06	425.38				
Addition due to Additional Capitalisation	122.82	48.32	0.00				
Closing Equity	377.06	425.38	425.38				
Average Equity	315.65	401.22	425.38				
Return on Equity (Base Rate)	15.50%	15.50%	15.50%				
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%				
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%				
Return on Equity (Pre-tax)	55.63	78.68	83.42				

Asset-V				
Particulars	2015-16	2016-17	2017-18	2018-19
Opening Equity	274.44	274.44	381.13	427.34
Addition due to Additional	0.00	106.70	46.20	0.00
Closing Equity	274.44	381.13	427.34	427.34
Average Equity	274.44	327.79	404.24	427.34
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	0.59	64.28	79.27	83.80

Asset-VI							
Particulars	2016-17	2017-18	2018-19				
Opening Equity	312.03	354.45	429.22				
Addition due to Additional Capitalisation	42.42	74.77	0.00				
Closing Equity	354.45	429.22	429.22				
Average Equity	333.24	391.84	429.22				
Return on Equity (Base Rate)	15.50%	15.50%	15.50%				
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%				
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%				
Return on Equity (Pre-tax)	35.27	76.84	84.17				

### Interest on loan (IOL)

- 43. The IOL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:
  - a) The Gross Normative loan has been considered as per the Loan amount determined based on the debt equity ratio applied on the allowed capital cost.
  - The depreciation of every year has been considered as Normative repayment of loan of concerned year;
  - c) The weighted average rate of interest on actual loan portfolio has been worked out by considering the Gross amount of loan, repayment & rate of interest as mentioned in the petition, which has been applied on the normative average loan during the year to arrive at the interest on loan.
- 44. The petitioner has submitted that the IOL has been claimed on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, needs to be claimed/ adjusted over the tariff block 2014-19. We have calculated IoL on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up. The IOL is allowed considering all the loans submitted in Form-9C. The petitioner is directed to reconcile the total Gross Loan for the calculation of weighted average Rate of Interest and for the calculation of IDC, which would be reviewed at the time of truing-up.
- 45. Based on above, details of IOL calculated are as follows:-

Asset-I				
Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	563.16	563.16	896.41	994.41
Cumulative Repayment upto previous	0.00	0.46	55.51	126.82
Net Loan-Opening	563.16	562.70	840.90	867.59
Addition due to Additional Capitalization	0.00	333.25	98.00	0.00
Repayment during the year	0.46	55.05	71.31	75.01
Net Loan-Closing	562.70	840.90	867.59	792.58
Average Loan	562.93	701.80	854.25	830.09
Weighted Average Rate of Interest on	8.3433%	8.3433%	8.3433%	8.3433%
Interest on Loan	0.51	58.55	71.27	69.26

(Rs in lakh)

Asset-II					
Particulars	2016-17 (Pro-rata)	2017-18	2018-19		
Gross Normative Loan	808.36	895.97	1015.28		
Cumulative Repayment upto previous Year	0.00	29.41	101.49		
Net Loan-Opening	808.36	866.56	913.79		
Addition due to Additional Capitalization	87.61	119.31	0.00		
Repayment during the year	29.41	72.08	76.58		
Net Loan-Closing	866.56	913.79	837.21		
Average Loan	837.46	890.17	875.50		
Weighted Average Rate of Interest on Loan	8.1609%	8.1580%	8.1560%		
Interest on Loan	31.27	72.62	71.41		

Asset-III					
Particulars	2016-17 (Pro-rata)	2017-18	2018-19		
Gross Normative Loan	630.41	924.03	991.65		
Cumulative Repayment upto previous Year	0.00	57.18	129.43		
Net Loan-Opening	630.41	866.85	862.22		
Addition due to Additional Capitalization	293.62	67.62	0.00		
Repayment during the year	57.18	72.25	74.80		
Net Loan-Closing	866.85	862.22	787.42		
Average Loan	748.63	864.53	824.82		
Weighted Average Rate of Interest on Loan	8.3264%	8.3264%	8.3264%		
Interest on Loan	60.80	71.98	68.68		

Asset-IV					
Particulars	2016-17	2017-18	2018-19		
	(Pro-rata)				
Gross Normative Loan	593.24	879.82	992.56		
Cumulative Repayment upto previous Year	0.00	49.92	120.54		
Net Loan-Opening	593.24	829.90	872.02		
Addition due to Additional Capitalization	286.58	112.74	0.00		
Repayment during the year	49.92	70.62	74.87		
Net Loan-Closing	829.90	872.02	797.15		
Average Loan	711.57	850.96	834.58		
Weighted Average Rate of Interest on Loan	8.3150%	8.3150%	8.3150%		
Interest on Loan	53.17	70.76	69.40		

## (Rs in lakh)

			7.10	III Iakiij	
Asset-V					
Particulars	2015-16	2016-17	2017-18	2018-19	
	(pro-rata)				
Gross Normative Loan	640.34	640.34	889.30	997.10	
Cumulative Repayment upto previous	0.00	0.53	58.22	129.36	
Net Loan-Opening	640.34	639.81	831.08	867.74	
Addition due to Additional Capitalization	0.00	248.96	107.81	0.00	
Repayment during the year	0.53	57.69	71.14	75.21	
Net Loan-Closing	639.81	831.08	867.74	792.53	
Average Loan	640.08	735.45	849.41	830.13	
Weighted Average Rate of Interest on	8.2959%	8.2959%	8.2959%	8.2959%	
Interest on Loan	0.58	61.01	70.47	68.87	

Asset-VI					
Particulars	2016-17 (Pro-rata)	2017-18	2018-19		
Gross Normative Loan	728.08	827.06	1001.53		
Cumulative Repayment upto previous Year	0.00	31.66	100.62		
Net Loan-Opening	728.08	795.40	900.91		
Addition due to Additional Capitalization	98.98	174.47	0.00		
Repayment during the year	31.66	68.96	75.54		
Net Loan-Closing	795.40	901.43	825.84		
Average Loan	761.74	847.92	863.37		
Weighted Average Rate of Interest on Loan	8.0442%	8.0436%	8.0433%		
Interest on Loan	33.07	68.20	69.44		

## **Depreciation**

46. Depreciation has been dealt with in line of Regulation 27 of 2014 Tariff Regulations. The instant transmission Asset was put under commercial operation during 2015-16 2016-17. Accordingly, it will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations. Details of the depreciation allowed are as under:-

(Rsin lakh)

Asset-I							
Particulars	2015-16	2016-17	2017-18	2018-19			
Opening Gross Block	804.52	804.52	1280.59	1420.59			
Additional Capital	0.00	476.07	140.00	0.00			
Closing Gross Block	804.52	1280.59	1420.59	1420.59			
Average Gross Block	804.52	1042.55	1350.59	1420.59			
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%			
Depreciable Value	724.07	938.30	1215.53	1278.53			
Remaining	724.07	937.83	1160.02	1151.71			
Depreciation	0.46	55.05	71.31	75.01			

Asset-II						
Particulars	2016-17	2016-17 2017-18				
Opening Gross Block	1154.80	1279.96	1450.40			
Additional Capital expenditure	125.16	170.44	0.00			
·						
Closing Gross Block	1279.96	1450.40	1450.40			
Average Gross Block	1217.38	1365.18	1450.40			
Rate of Depreciation	5.2800%	5.2800%	5.2800%			
Depreciable Value	1116.02	1192.71	245.66			
Remaining Depreciable Value	1116.02	1163.30	144.17			
Depreciation	29.41	72.08	76.58			

Asset-III						
Particulars	2016-17	2018-19				
Opening Gross Block	900.59	1320.04	1416.64			
Additional Capital expenditure	419.45	96.60	0.00			
Closing Gross Block	1320.04	1416.64	1416.64			
Average Gross Block	1110.31	1368.34	1416.64			
Rate of Depreciation	5.2800%	5.2800%	5.2800%			
Depreciable Value	854.00	897.47	609.73			
Remaining Depreciable Value	854.00	840.29	480.30			
Depreciation	57.18	72.25	74.80			

(Rs in lakh)

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Asset-IV					
Particulars	2016-17	2017-18	2018-19		
		10000	=		
Opening Gross Block	847.49	1256.89	1417.94		
Additional Capital expenditure	409.40	161.05	0.00		
Closing Gross Block	1256.89	1417.94	1417.94		
Average Gross Block	1052.19	1337.42	1417.94		
Rate of Depreciation	5.2800%	5.2800%	5.2800%		
Depreciable Value	835.21	907.69	625.16		
Remaining Depreciable Value	835.21	857.76	504.62		
Depreciation	49.92	70.62	74.87		

Asset-V						
Particulars	2015-16	2016-17	2017-18	2018-19		
	211-2	244-2	10=0.10	112111		
Opening Gross Block	914.78	914.78	1270.43	1424.44		
Additional Capital	0.00	355.65	154.01	0.00		
Closing Gross Block	914.78	1270.43	1424.44	1424.44		
Average Gross Block	914.78	1092.60	1347.43	1424.44		
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%		
Depreciable Value	823.30	983.34	1212.69	1282.00		
Remaining	823.30	982.82	1154.47	1152.63		
Depreciation	0.53	57.69	71.14	75.21		

Asset-VI					
Particulars	2016-17	2017-18	2018-19		
Opening Gross Block	1040.11	1181.51	1430.75		
Additional Capital expenditure	1181.51	249.24	0.00		
Closing Gross Block	1182.35	1430.75	1430.75		
Average Gross Block	1110.81	1306.13	1430.75		
Rate of Depreciation	5.2800%	5.2800%	5.2800%		
Depreciable Value	1048.26	1160.42	303.05		
Remaining Depreciable Value	1048.26	1128.76	202.43		
Depreciation	31.66	68.96	75.54		

## Operation and Maintenance Expenses (O&M Expenses):-

47. Petitioner has not claimed any O&M Expenses for Assets-I, Asset-III, Asset-III, Asset-IV, Asset-V & Asset-VI as being augmentation of ICT, the existing bays are being utilized. 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. BRPL has submitted that any increase in the employee cost due to wage revision must be taken care by increasing the productivity levels of the Petitioner company and the beneficiaries should not be burdened over and above the provisions in the 2014 Tariff Regulations. We have considered the submissions of the petitioner. 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)

48. As per the 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 the 2014 Tariff Regulations, SBI Base Rate as on 01.01.2015 (10) Plus 350 Bps i.e 13.50% for Asset-I & Asset-V, SBI Base rate as on 01.04.2016 (9.30) Plus 350 bps i.e 12.80% for Asset-II, Asset-III, Asset-IV & Asset-VI have been considered as the rate of interest on working capital for the asset.

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

(Rs in lakh)

Asset-I						
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19		
O & M Expenses	0.00	0.00	0.00	0.00		
Maintenance Spares	0.00	0.00	0.00	0.00		
Receivables	23.32	29.83	37.86	38.85		
Total	23.32	29.83	37.86	38.85		
Rate of Interest	13.50%	13.50%	13.50%	13.50%		
Interest	0.03	4.03	5.11	5.24		

Asset-II						
Particulars	2016-17 (pro-rata)	2017-18	2018-19			
O & M Expenses	0.00	0.00	0.00			
Maintenance Spares	0.00	0.00	0.00			
Receivables	34.78	38.32	39.73			
Total	34.78	38.32	39.73			
Rate of Interest	12.80%	12.80%	12.80%			
Interest	2.04	4.90	5.09			

# (Rs in lakh)

	Asset-III		
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	31.72	38.27	38.63
Total	31.72	38.27	38.63
Rate of Interest	12.80%	12.80%	12.80%
Interest	3.96	4.90	4.94

# (Rs in lakh)

	Asset-IV		
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	30.08	37.47	38.77
Total	30.08	37.47	38.77
Rate of Interest	12.80%	12.80%	12.80%
Interest	3.46	4.80	4.96

Asset-V					
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19	
O & M Expenses	0.00	0.00	0.00	0.00	
Maintenance Spares	0.00	0.00	0.00	0.00	
Receivables	26.47	31.20	37.66	38.85	
Total	26.47	31.20	37.66	38.85	
Rate of Interest	13.50%	13.50%	13.50%	13.50%	
Interest	0.04	4.21	5.08	5.25	

	Asset-VI		
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	31.55	36.45	39.03
Total	31.55	36.45	39.03
Rate of Interest	12.80%	12.80%	12.80%
Interest	2.18	4.67	5.00

# **Annual Fixed Charges**

50. In view of the above, the annual transmission charges being allowed for the instant assets are summarized hereunder:-

(Rs in lakh)

Asset-I					
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19	
Depreciation	0.46	55.05	71.31	75.01	
Interest on Loan	0.51	58.55	71.27	69.26	
Return on Equity	0.52	61.33	79.46	83.57	
Interest on working capital	0.03	4.03	5.11	5.24	
O & M Expenses	0.00	0.00	0.00	0.00	
Total	1.53	178.96	227.15	233.08	

Asset-II						
Particulars	2016-17 (pro-rata)	2017-18	2018-19			
Depreciation	29.41	72.08	76.58			
Interest on Loan	31.27	72.62	71.41			
Return on Equity	32.77	80.31	85.33			
Interest on working capital	2.04	4.90	5.09			
O & M Expenses	0.00	0.00	0.00			
Total	95.48	229.92	238.40			

			,			
Asset-III						
Particulars	2016-17 (pro-rata)	2017-18	2018-19			
Depreciation	57.18	72.25	74.80			
Interest on Loan	60.80	71.98	68.68			
Return on Equity	63.71	80.50	83.34			
Interest on working capital	3.96	4.90	4.94			
O & M Expenses	0.00	0.00	0.00			
Total	185.65	229.63	231.76			

(Rs in lakh)

	(KS III Iakii)						
Asset-IV Asset-IV							
Particulars	2016-17 (pro-rata)	2017-18	2018-19				
Depreciation	49.92	70.62	74.87				
Interest on Loan	53.17	70.76	69.40				
Return on Equity	55.63	78.68	83.42				
Interest on working capital	3.46	4.80	4.96				
O & M Expenses	0.00	0.00	0.00				
Tota	al 162.18	224.85	232.64				

(Re in lakh)

	(RS IN IAKN)			in)		
Asset-V						
Particulars	2015-16	2016-17	2017-18	2018-19		
	(pro-rata)					
Depreciation	0.53	57.69	71.14	75.21		
Interest on Loan	0.58	61.01	70.47	68.87		
Return on Equity	0.59	64.28	79.27	83.80		
Interest on working capital	0.04	4.21	5.08	5.25		
O & M Expenses	0.00	0.00	0.00	0.00		
Total	1.74	187.19	225.97	233.12		

	(1.to in lain)					
Asset-VI						
Particulars	2016-17 (pro-rata)	2017-18	2018-19			
Depreciation	31.66	68.96	75.54			
Interest on Loan	33.07	68.20	69.44			
Return on Equity	35.27	76.84	84.17			
Interest on working capital	2.18	4.66	5.00			
O & M Expenses	0.00	0.00	0.00			
Total	102.18	218.67	234.13			



#### Filing Fee and Publication Expenses

51. 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 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.

#### **License Fee and RLDC Fees and Charges**

52. 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 license fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

#### **Goods and Services Tax**

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

#### **Sharing of Transmission Charges**

54. Respondent, M/s BRPL vide affidavit dated 30.11.2018 has submitted that the petitioner has not furnished the Transmission Service Agreement (TSA) and as per Regulation 3(63) of the 2014 Tariff Regulations, the petitioner is required to submit

that as per clause 8 of Model TSA, signing of TSA is not mandatory. Further petitioner vide affidavit dated 10.12.2018 has submitted complete copy of TSA signed between the Petitioner and BRPL on 19.8.2011 along with Schedule-II uploaded on petitioner's website. The petitioner has also submitted that the tariff for the instant assets should be shared by the beneficiaries as per Regulation 43 of the 2014 Tariff Regulations.

55. The Commission has already dealt with the issue of TSA raised by BRPL at Para 17 & 18 of its order dated 19.9.2018 in Petition No.206/TT/2017, wherein it has been held that the petitioner has entered into a TSA with BRPL and has complied with the requirement of TSA under the provisions of 2010 Sharing Regulations.. The relevant portion of Para 18 of the order dated 19.9.2018 is produced below:-

"18.....

The petitioner has submitted that the DICs are intimated about the COD of the new ISTS and are included in the Scheduled II of the TSA. The petitioner has submitted that the TSA is posted on the petitioner's website and has also submitted a copy of the same. It is observed that the petitioner has entered into a TSA as required under the provisions of 2010 Sharing Regulations and has complied with the requirement of the TSA by including the new ISTS in Schedule-II of the TSA."

56. Accordingly, the transmission charges for all the assets allowed in this order shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations. 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.

57. This order disposes of Petition No. 255/TT/2018.

Sd/- Sd/- Sd/
(I.S.Jha) (Dr. M. K. Iyer) (P. K. Pujari)

(Member) (Member) (Chairperson)