

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 200/TT/2016

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri A.K. Singhal, Member

Shri A.S. Bakshi, Member

Dr. M.K. Iyer, Member

Date of Order: 31.10.2017

In the matter of:

Approval of transmission tariff for **Asset-I:** LILO of 400 kV S/C Dadri-Malerkotla line at Kaithal alongwith associated bays and 400 kV, 50 MVAR Line Reactor, **Asset-II:** 400/220 kV 500 MVA ICT-I at Mandola Sub-station, **Asset-III:** 400/220 kV 500 MVA ICT-III at Mandola Sub-station, **Asset-IV:** 400/220 kV 500 MVA ICT-IV at Mandola Sub-station, **Asset-V:** 400/220 kV 500 MVA ICT-I at Ballabgarh Sub-station, **Asset-VI:** LILO of one circuit of 400 kV D/C RAPP-Kankroli line along-with associated bays at Chittorgarh (RRVPL) Sub-station, **Asset-VII:** 400/220 kV 500 MVA ICT-II at Mandola Sub-station and **Asset-VIII:** 400/220 kV 500 MVA ICT-II at Ballabgarh Sub-station, under "NRSS XXXII in Northern Region" from COD to 31.3.2019 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-122001
Haryana

....Petitioner

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302 005
2. Ajmer Vidyut Vitran Nigam Limited,
400 KV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited,
400 KV GSS Building,
Ajmer Road, Heerapura, Jaipur



4. Jodhpur Vidyut Vitran Nigam Limited,
400 KV GSS Building, Ajmer Road,
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171 004
6. Punjab State Electricity Board,
Thermal Shed TI A, Near 22 Phatak,
Patiala-147 001
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula (Haryana)-134 109
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan Extension,
14, Ashok Marg, Lucknow-226 001
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road (near ITO),
New Delhi-110 002
11. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place,
New Delhi
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi
13. North Delhi Power Limited,
Power Trading & Load Dispatch Group,
Cennet Building, Adjacent to 66/11 kV Pitampura-3 Grid building,
Near PP Jewellers, Pitampura, New Delhi-110 034
14. Chandigarh Administration,
Sector-9, Chandigarh
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun



16. Northern Central Railway,
Allahabad.

17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110 002

....Respondents

For Petitioner : Shri S.S. Raju, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Jasbir Singh, PGCIL

For Respondents : Shri R.B. Sharma, Advocate for BRPL
Shri S.K. Agarwal, Rajasthan DISCOMS
Dr. A.P. Sinha, Rajasthan DISCOMS

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (“the petitioner”) seeking approval of transmission tariff for **Asset-I:** LILO of 400 kV S/C Dadri-Malerkotla line at Kaithal alongwith associated bays and 400 kV, 50 MVAR Line Reactor, **Asset-II:** 400/220 kV 500 MVA ICT-I at Mandola Sub-station, **Asset-III:** 400/220 kV 500 MVA ICT-III at Mandola Sub-station, **Asset-IV:** 400/220 kV 500 MVA ICT-IV at Mandola Sub-station, **Asset-V:** 400/220 kV 500 MVA ICT-I at Ballabgarh Sub-station, **Asset-VI:** LILO of one circuit of 400 kV D/C RAPP-Kankroli line alongwith associated bays at Chittorgarh (RRVNL) Sub-station, **Asset-VII:** 400/220 kV 500 MVA ICT-II at Mandola Sub-station and **Asset-VIII:** 400/220 kV 500 MVA ICT-II at Ballabgarh Sub-station under “Northern Region System Strengthening Scheme XXXII” in Northern Region for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).



2. The petitioner has been entrusted with the implementation of Transmission System associated with Northern Region system Strengthening Scheme-XXXII. The Investment Approval (IA) and expenditure sanction to the transmission project was accorded by the Board of Directors of the petitioner vide Memorandum dated 14.2.2014 for ₹90808 lakh including an IDC of ₹5276 lakh (Based on December, 2013 price level). The scope of the scheme was discussed and agreed in 31st Standing Committee Meeting (SCM) held on 2.1.2013, 28th meeting of NRPC and 25th meeting of TCC held on 1.6.2013. The instant assets were scheduled to be commissioned within 28 months from the date of IA i.e. by 13.6.2016. The Revised Cost Estimate (RCE) was accorded by Board of Directors as per extract submitted by the petitioner vide affidavit dated 8.5.2017, at an estimated cost of ₹96997 lakh, including IDC of ₹5656 lakh (Based on Dec, 2016 price level).

3. The scope of the scheme covered under the instant “transmission system” is broadly as under:-

Transmission Lines:

- (i) 400 kV Panchkula-Patiala D/C line (with 10 km on multi circuits tower in forest are near Panchkula for accomadating 400 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 Sub-station of RRVPNL;

Sub-stations:

- (i) Augmentation of transformation capacity at 400/220 kV Ballabgarh Sub-station 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 Sub-station by replacing existing 4x315 MVA ICTs with 4x500 MVA ICTs (Existing 4x315 MVA ICTs shall be kept 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. 220 kV line bays;
- (iv) Augmentation of transformation capacity by 500 MVA ICTs (4th) at 400/220 kV Gurgaon Sub-station.

Reactive Compensation:

S. 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 Sub-station (PG)		
	Existing		
	Dadri-Malerkotla 400 kV S/C	-	63 (to be gainfully used elsewhere)
	After LILO		
	Dadri-Kaithal 400 kV S/C line	-	50 MVAR (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	-	50 MVAR (to be used at Kanpur end of Allahabad-Kanpur under NRSS-XXX)
	RAPP-Chittorgarh 400 kV D/C line	-	-
	Chittorgarh-Kankroli	-	-

4. This order has been issued after considering the petitioners’ affidavits dated 10.11.2016, 31.1.2017, 8.5.2017, 8.6.2017, 22.6.2017 and 24.8.2017.

5. The petitioner had filed the original petition based on anticipated dates of commissioning for some assets in the instant petition. However, the petitioner vide



affidavits dated 10.11.2016 and 8.6.2017 has submitted the actual dates of commissioning COD of these assets.

6. 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. BSES Rajdhani Power Limited (BRPL), Respondent No. 15 has filed reply vide affidavit dated 2.12.2016. BRPL has raised issue relating to cost over-run, time over-run, non-filing of statutory information, decapitalisation of replaced assets, effective tax rate, filing fee, higher O&M Expenses, impleadment of outside agencies, etc. The petitioner has filed rejoinder dated 3.2.2017 to the reply of BRPL. The objections raised by the respondent and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

7. BRPL has further submitted that outside agencies may be impleaded in the instant petition to represent the consumers in general. As regards the impleadment of outside agencies, the petitioner has submitted that all respondents have been impleaded and tariff notices have been published in newspaper to invite attention of all the stakeholders and there is no need to implead an external agency. We have considered the submissions of BRPL and the petitioner. Comments were sought by the petitioner from the general public as provided under the Electricity Act, 2003 and the beneficiaries were made respondents. As submitted by the petitioner, we are also of the view that there is no need to implead an outside agency.

8. The petitioner has submitted in the original petition that as per the scope of the project, existing ICTs are being replaced by higher capacity ICTs at Ballabgarh Sub-station and Mandola Sub-station. The petitioner has also stated



that the existing ICTs shall be kept as regional spares and used elsewhere after refurbishment.

9. BRPL has submitted that augmentation of the transformation capacity by commissioning higher capacity ICTs would result in release of old ICTs and that there is no provision for keeping any asset as regional spare and the assets which are not in use are required to be removed from the capital cost as specified in the 2014 Tariff Regulations. The petitioner in its rejoinder has submitted that the scope of the project was deliberated and ratified in the 28th NRPC and 31st SCM forums, wherein the proposal was also agreed by the constituents of Northern Region. The petitioner has further submitted that earlier transmission tariff of such assets have been allowed in as many as four petitions, without decapitalisation, by the Commission.

10. The petitioner was directed, vide order dated 22.12.2016, to submit the number of ICTs installed in the region, number of ICTs required as regional spares, usefulness of the replaced ICTs, completed life of the replaced ICTs and reasons for replacing the ICTs if replaced before completion of useful life. In response, the petitioner has submitted that there are thirty one 500 MVA ICTs and ninety six 315 MVA ICTs, of which one 500 MVA and five 315 MVAs are spare ICTs in NR. The petitioner has submitted that these 127 ICTs are installed in 48 sub-stations spread over in eight states of NR. The petitioner has submitted that as per the 31st SCM of NR and 28th NRPC meeting, the replaced ICTs were to be used as Regional Spares. Later in 32nd SCM of NR, 29th NRPC, 17th SCM of ER and 33rd ERPC meeting, it was decided that out of four ICTs replaced at Mandola Sub-station, two of the ICTs which have completed more than 25 years are to be

used as Regional Spares, one ICT each was identified for diversion to Agra under NRSS-XXXIV and Rourkela under ERSS-XVII. The petitioner has also submitted that out of the four ICTs at Ballabgarh Sub-stations, one ICT which has completed 26 years of life, was to be kept as a Regional Spare, the remaining three ICTs were to be diverted to Rourkela under ERSS-XVII, Kaithal under NRSS-XXXIV and Fatehabad.

11. We have considered the submissions of the petitioner and BRPL. The petitioner has submitted that the old ICTs at Mandola and Ballabgarh Sub-stations which have completed more than 25 years of life are to be used as regional spares as decided in the RPC meetings and the other ICTs are to be diverted to sub-stations of other transmission systems identified in NR and ER by the RPC. BRPL has submitted that the assets that are not in use should be withdrawn from the capital cost as provided in the 2014 Tariff Regulations. In the instant case, two ICTs at Mandola and one ICT at Ballabgarh have completed their useful life of 25 years and the petitioner has identified these to be used as Regional Spares. Further, two ICTs at Mandola and the remaining three ICTs at Ballabgarh are to be diverted to other transmission systems in NR and ER. Accordingly, the three ICTs which have completed 25 years of life should be excluded from the capital cost of the existing project and ICTs that are proposed to be replaced or have been replaced are to be decapitalised in the instant project. These replaced or proposed to be replaced ICTs should be capitalised in the transmission project where the ICTs are diverted from the date of putting it into service as provided under Regulation 9(6) of the 2014 Tariff Regulations.



12. The Commission in a similar case, in order dated 6.1.2015 in Petition No. 206/TT/2012 disallowed the transformers that have completed service life of 25 years to be added as spare transformers and de-capitalised the said assets. The petitioner had filed Appeal No.98 of 2015 before Hon'ble Appellate Tribunal for Electricity (Tribunal) against the order dated 6.1.2015. The Tribunal upheld the Commission's order vide Judgement dated 25.4.2016. The relevant portion of the Tribunal's judgement dated 25.4.2016 in Appeal No.98 of 2015 is extracted hereunder:-

“17. It is to be noted that all the three Assets i.e. three of 1x50 MVA transformers have completed their useful life of 25 years and their capital costs were included by the Central Commission for tariff determination upto 31.03.2014 vide its Order dated 06.08.2013 in Petition No. 331/2010. Cost of new assets i.e. 3x160 MVA transformers replacing 3x50 MVA transformers has been allowed to be capitalized and as such, the replaced assets have to be de-capitalised by reducing the net value of replaced assets from the capital cost of new assets.

18. The Appellant has argued that when the transformers are used as spare transformers, it cannot be said that they are not in use and therefore, its claim for retention of capital cost of the replaced 3x50 MVA transformers with the consent of the beneficiaries does not violate the Regulations of the Central Commission as these replaced assets are to be considered as 'asset in use'. This submission of the Appellant does not have any merit in light of the fact that these 3x50 MVA transformers stand replaced and till the time they are requisitioned by any beneficiary State, they would remain as spare transformers and hence, it could be treated as spare transformers but 'asset not in use'. This Tribunal in its earlier judgment dated 08.05.2014 in Appeal No. 173/2013 (NTPC Ltd. Vs. Central Electricity Regulatory Commission & Ors.) and judgment dated 01.05.2015 in Appeal No. 97/2013 (NTPC Ltd. Vs. Central Electricity Regulatory Commission & Ors.) disallowed capitalization of spare/additional transformers. In judgment dated 01.05.2015, this Tribunal observed that unless there is a specific provision in the Regulations permitting capitalization of the cost of spare assets, such assets cannot be included in the capital base.

19. Since there is no provision in the statutory Regulations of the Central Commission in support of the Appellant's claim to permit retention of replaced assets not in use, in the capital cost of the new assets, we are of the considered view that the Appellant's claim in this regard is with the findings of the Central Commission in this regard in its Impugned Order dated 06.01.2015. As such, both these issues are decided against the Appellant.”

13. The Commission in a similar case directed the petitioner to decapitalize the two 100 MVA ICTs at Purnea Sub-station which completed 25 years of service life



vide order dated 10.7.2015 in Petition No. 43/TT/2013. The relevant portion of the order is as under:-

“20. The 2 nos. 100 MVA ICTs at Purnea Sub-station (commissioned on 1.12.1986) had completed 25 years of service life and they are replaced with 1 no. 160 MVA, 3-Phase ICT. However, the petitioner in the instant petition has not mentioned the details of de-capitalization of the asset that is being replaced. The asset which has completed life of 25 years must be de-capitalized and the petitioner is directed to submit the details at the time of truing-up.

“26-----The petitioner has also not provided any details about how ICT requirement at Baripada Sub-station would be met in view of shifting of ICT meant for Baripada to Purnea. The petitioner is directed to submit the details of the same at the time of truing-up and also details regarding ICT which is being replaced for decapitalisation in an appropriate petition”.

14. Further, in case of shifting of assets from one transmission system to another transmission system also held that the concerned asset should be decapitalised in the books of the account of the transmission system from where it is transferred and should be capitalised in the books of accounts of the transmission system where it is shifted. The relevant portion of the Commission’s order dated 28.9.2017 in Petition No. 195/TT/2016 is as under:-

“6. The tariff of “40% FSC at Lucknow Sub-station” was allowed since 1.6.2007 and it has completed 10 years of its useful life. It is a case of inter-unit transfer. Since the proposed shifting of FSC from Lucknow to Sohawal is of permanent nature and as it involves two different schemes covered under different Investment Approvals, there will be a mismatch of recovery of the cost of the “40% FSC” over the 25 years. In order to address this issue, the Commission in the past has decided that in case of inter-unit transfer, the assets shall be de-capitalised in the books of accounts of the transmission system where the asset was originally commissioned and capitalised in the books of accounts of the transmission system where it is transferred. In the instant case, the 40% FSC has been transferred from Lucknow to Sohawal end. Therefore, the said assets need to be de-capitalised from the books of accounts of the assets at Lucknow and capitalised in the books of account of assets at Sohawal. The petitioner is directed to carry out the decapitalisation and corresponding capitalisation of the assets within a period of six months and claim the revised tariff of the “40% FSC” at Sohawal Sub-station at the time of truing-up. In so far as the expenditure involved in inter-unit transfer is concerned, this is in the nature of revenue expenditure and is allowed as a onetime pass through. Since the “40% FSC” was dismantled and shifted to Sohawal and thereafter, commissioned on 12.2.2016, the tariff of the assets shall be determined afresh with reference to the COD as 12.2.2016. Accordingly, the petitioner after carrying out necessary de-capitalisation of the assets at Lucknow and capitalisation at Sohawal Sub-station shall seek fresh determination of the tariff with effect from 12.2.2016. Therefore, the tariff for “40% FSC at Sohawal Sub-station” is not allowed in this order”.



15. Thus, 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 decapitalised 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 decapitalisation 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 Ballabgarh 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 Ballabgarh Sub-stations alongwith the details of decapitalisation within three months of issue of this order after putting the ICTs into service and ensuring utilisation of the replaced ICTs.

16. The details of the transmission charges for Asset-I and Asset-VI, renumbered now as Asset-I and Asset-II (referred to as “instant assets”), claimed by the petitioner are as follows:-



(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	264.38	301.67	65.39	151.66	154.90
Interest on Loan	272.84	289.30	69.53	152.80	143.76
Return on Equity	293.78	335.27	72.85	168.98	172.59
Interest on working capital	26.12	28.46	8.04	17.60	17.80
O & M Expenses	152.96	158.03	67.02	139.23	143.84
Total	1010.08	1112.73	282.83	630.27	632.89

17. The details submitted by the petitioner in support of its claim for interest on working capital are as follows:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	22.94	23.70	20.21	20.88	21.58
O & M Expenses	12.75	13.17	11.23	11.60	11.99
Receivables	168.35	185.46	94.78	105.75	105.48
Total	204.04	222.33	126.23	137.53	139.04
Rate of Interest	12.80%	12.80%	12.80%	12.80%	12.80%
Interest	26.12	28.46	8.04	17.60	17.80

18. Having heard the representatives of the parties and perused the material available on record we proceed to dispose of the petition.

Capital cost

19. 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 13 of these regulations;
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;”
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

20. The petitioner, vide affidavits dated 10.11.2016 and 8.6.2017, has submitted the COD letters and RLDC certificates and Auditor’s Certificates dated 27.1.2017 and 14.6.2017 for Asset-II and Asset-I respectively, in support of the expenditure incurred/projected to be incurred along with revised tariff forms in respect of the instant assets as on COD. The petitioner has also submitted the details of additional capitalization incurred/projected to be incurred for the period from COD to 31.3.2019. The details of the revised approved apportioned costs, costs as on COD and estimated/projected additional capitalization to be incurred for the instant assets are as under:-

(₹ in lakh)

Particulars	Approved apportioned cost as per RCE	Cost as on COD	Estimated additional capital expenditure			Total estimated completion cost
			2016-17	2017-18	2018-19	
Asset-I	8459.81	4653.00	-	861.32	369.14	5883.46
Asset-II	2941.48	2234.52	619.47	79.75	-	2933.74

21. On the basis of the information submitted by the petitioner, BRPL has submitted that the cost over-run in respect of Asset-I may not be allowed and that



final tariff may be allowed after the Auditor Certificate is submitted by the petitioner. The petitioner in its rejoinder has submitted that the cost variation is due to the estimated cost and the cost recovered through bids and in case of Asset-I it is due to power line crossing which was not envisaged at the time of preliminary survey.

22. We have considered the submissions of the petitioner and BRPL. The petitioner has submitted the RCE vide affidavit dated 8.5.2017. The estimated completion of the instant assets is within the revised approved apportioned cost and there is no cost over-run.

Time Over-run

23. The instant assets were scheduled to be commissioned on 13.6.2016 as per Investment Approval dated 14.2.2014. However, Asset-I and Asset-II were commissioned on 1.4.2017 and 2.10.2016 respectively. Thus, there is a time over-run of 291 days and 110 days in case of Asset-I and Asset-II respectively. BRPL has submitted that even after a commitment by the Board of Directors of the petitioner for completing the project in 28 months, there is delay in COD of Asset-I and the reasons given for delay by the petitioner are casual problems which were not settled by the petitioner. BRPL has submitted that this shows lack of imprudence on the part of the petitioner for which it alone is responsible. BRPL has further, in case of delay in respect of Asset-II has submitted that it is merely due to lack of proper planning for which the petitioner is solely responsible. BRPL has also submitted that the justification for time over-run is not backed by the relevant statutory documents e.g. detailed project report, CPM analysis, Pert chart



and Bar chart, as such time over-run may not be allowed and accordingly IDC and IEDC during the period of time over-run be disallowed.

24. As regards Asset-I, the petitioner has submitted that the time over-run was mainly due to ROW issue. The petitioner has submitted that Government of India, Ministry of Power has issued guidelines for payment of compensation towards damage in case of Right of Way for transmission lines on 15.10.2015. The petitioner has further submitted that the farmers were obstructing the work demanding compensation in line with these guidelines, which it was ready to pay, if same were adopted by Government of Haryana. The petitioner has also submitted that District Magistrate, Kaithal was requested on 14.6.2016 to issue orders for adoption of guidelines so that compensation of ROW can be made to the affected farmers and the work could be done without any hindrance as stiff resistance/obstruction was put up by the locals in Keorak village on 27.6.2016 for unjustified compensation and to provide assistance to complete the work. The petitioner has submitted that the foundation and erection of the line was on the verge of completion except in case of one tower (Loc. No. 13/1). There was resistance for foundation work of the line from the land owners, although the landowner Shri Jagdish Singh and his brothers were informed. The petitioner has submitted that after a lapse of four months, meeting with the landowners and its officials was held on 12.6.2016, the landowners did not allow the casting at Loc 13/1. The petitioner has further submitted that out of the total foundation work, only one foundation was hampered due to stiff resistance by the landowner Shri Jagdish Singh. The petitioner has also submitted that the landowner Shri Jagdish filed a court case against Haryana State Board seeking higher land compensation. The petitioner, vide affidavit dated 8.5.2017, has submitted that on 31.1.2017 court



allowed to carry out the work after depositing ₹50 lakh to Deputy Commissioner, Kaithal for payment of compensation. After depositing the said amount, the foundation, erection and stringing work was started immediately, which took two months and Asset-I was finally charged on 30.3.2017. The petitioner has further submitted that it also requested for shutdown of LT, 11 kV and 33 kV line in villages Sirta and Khanpur to Sub-Divisional Officer as stringing work was in progress, but SDO intimated that no permit can be given in paddy season which was upto September and also restrained charging of the line.

25. The petitioner has submitted the chronology of communications with various authorities of Haryana as under:-

Date	From	To	Remarks
10.5.2016	Manager, PGCIL	Deputy Commissioner (Kaithal)	Request for necessary action for RoW at Loc 13/1
14.6.2016	AGM, PGCIL	District Magistrate	Adoption of guidelines for payment of compensation in regards to ROW
21.6.2016	Sub Divisional Officer	Deputy Manager	Shutdown of LT, 11 kV & 33 kV line
27.6.2016	Manager, PGCIL	Deputy Commissioner (Kaithal)	Request for suitable action against Landowner as they were threatening and hampering the work
19.8.2016	Court case Notice		Hearing date to be scheduled on 29/08/2016

26. As regards Asset-II, the petitioner has submitted that work was awarded on 19.5.14 with the completion schedule of 22 months but, major delay took place due to change in scope of work. The petitioner has submitted that originally, it was envisaged that both the Ckts. of LILO of 400 kV D/C RAPP-Kankroli line at Chittorgarh (RRV PNL) shall be constructed on multi Ckt. tower, but later on it was found that 6 Nos. of bays are not available at RRV PNL Sub-station. The petitioner has submitted that therefore the competent authority decided for construction of LILO of single circuit instead of double circuit and due to this, towers of line changed from multi-circuit to normal/double circuit, which resulted in detail survey



of the line and line length reduced from 20 km to 13.5 km. The petitioner has also submitted that it took considerable time to re-assess the quantities and finalization of design resulting in a delay of 3.5 month mainly due to change in scope as LOA was awarded to R.S & Company on 2.6.2014 and change in scope was approved in 34th SCM held on 25.8.2014 and quantity amendments proposal was issued to the contractor on 2.9.2015.

27. We have considered the submissions of the respondent and the petitioner. There is delay of 9 months and 18 days in COD of Asset-I. The main reason for time over-run was due to ROW issue specifically at location 13/1 due to unjustified demand for compensation by the locals. The land owner filed court case seeking higher land compensation. Later the court, on 31.1.2017, allowed the petitioner to carry out work at the site after a deposit of ₹50 lakh to DC, Kaithal for payment of compensation. Thereafter, the work of foundation, erection and stringing was completed in two months and Asset-I was put into commercial operation on 1.4.2017. Thus, the time taken to resolve the RoW issue took about three months and twenty three days (19.2.2016 to 12.6.2016). Thereafter, the court after five months and twelve days (19.8.2016 to 31.1.2017) allowed to carry out the work at the site. Thereafter it took two months time for erection and stringing. The petitioner has submitted the chronology of events alongwith copies of communication with Deputy Commissioner and court order. We are of the view that 9 months 5 days time taken to resolve the RoW issue is beyond the control of petitioner. Therefore, time over-run of 9 months 18 days in case of Asset-I is condoned.



28. There is time over-run of 110 days in case of Asset-II. The petitioner has submitted that the delay was due to change in scope of work due to non-availability of bays at RRVPNL Sub-station, it was decided in the 34th Standing Committee meeting held on 25.8.2014, to construct LILO on single Ckt. instead of double Ckt., due to which tower of line changed from multi circuit to double circuit as against the original plan of constructing both Ckts. of LILO of 400 kV D/C RAPP-Kankroli line at Chittorgarh as multi-circuit tower. This necessitated re-survey and it took considerable time to re-assess the quantities and design and this change was communicated to the contractor on 2.9.2015. The change of scope took about 12 months (25.8.2014 to 2.9.2015). The petitioner has also submitted the minutes of 34th Standing Committee meeting held on 25.8.2014, in support of its submissions. We are of the view that the time over-run on account of change of scope cannot be attributed to the petitioner and therefore time over-run of 110 days in case of Asset-II is condoned.

Treatment of IDC and IEDC

29. The petitioner has submitted the information related to IDC, which consists of the IDC discharged up to COD and the “IDC to be discharged” after COD i.e. during the years 2016-17, 2017-18 and 2018-19 for instant assets. The IDC on cash basis up to COD has been worked out based on the available information, i.e. loan details in Form-9C, as per the revised tariff forms submitted by the petitioner. The details submitted by the petitioner and the allowable/worked out IDC as on COD on cash basis is as follows:-



(₹ in lakh)							
Particulars	Claimed as on COD as per the Auditors' Certificate	Discharged up to COD (as claimed)	Allowed/ Worked out on Cash Basis as on COD	Balance Accrued IDC as on COD to be discharged during 2016-17 (as claimed)	Balance Accrued IDC being discharged during 2016-17 (as considered)	Balance Accrued IDC as on COD to be discharged during 2017-18 (as claimed)	Balance Accrued IDC being discharged during 2017-18 (as considered)
Asset-I	263.84	83.85	83.85	-	-	179.99	-
Asset-II	66.01	0.69	0.69	22.36	-	42.97	-

30. The IDC on cash basis has been worked out up to COD and has been capitalized as on that date. The balance accrued IDC which was not discharged as on COD, has not been considered for capitalization. The balance accrued IDC as on COD would be capitalized on cash basis after the actual payment is made by the petitioner. The allowed/disallowed IDC shall be verified, subject to submission of the information by the petitioner regarding actual payments made against the instant assets at the time of truing up.

31. There is a difference in the Gross Loan claimed as on COD (as per Form-9C) and the Gross Loan considered for the working of IDC by the petitioner. For tariff calculations purpose, Gross loan (as per Form-9C) has been considered for the calculation of IDC, as it depicts the actual loan deployed for the instant assets by the petitioner. The petitioner is directed to reconcile the Gross Loan for the calculation of weighted average Rate of Interest (as in Form-9C) vis-a-vis the calculation of IDC, which would be subject to review at the time of truing-up.

32. Similarly, the petitioner has claimed IEDC for the instant assets and has submitted that the same has been discharged as on COD, which is within the percentage on Hard Cost as indicated in the Abstract Cost Estimate. Accordingly, the IEDC claimed is allowed to be capitalized in the respective assets. The IEDC amounts claimed by the petitioner and allowed for tariff purpose is as follows:-



Particulars	(₹ in lakh)	
	IEDC Claimed	IEDC Allowed
Asset-I	153.37	153.37
Asset-II	16.42	16.42

Treatment of Initial Spares

33. Regulation 13 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) where the generating station has any transmission equipment forming part of the generation project, the ceiling norm for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:

(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 break up of head wise IDC & IEDC in its tariff application.”

34. The petitioner has claimed initial spares for the instant assets, as per 2014 Tariff Regulations. The cost of Initial Spares claimed by the petitioner in Asset-I exceeds the ceiling limit by ₹2.83 lakh but in the case of Asset-II, the claimed



amount is within the ceiling limit. The amount of ₹2.83 lakh has been reduced from the capital cost as on COD of Asset-I, whereas in the case of Asset-II, the claimed initial spares have been allowed to be capitalized for tariff purpose. The petitioner is directed to submit details of year-wise breakup of the spares claimed which would be reviewed at the time of truing-up.

Capital Cost As on COD

35. The capital cost as on COD, after taking into account the allowable IDC and IEDC and initial spares, is considered for the computation of tariff for the instant assets as per Regulation 9(2) of the 2014 Tariff Regulations is as under:-

Particulars	Capital cost claimed as on COD	Less: Total IDC & IEDC claimed	Add: allowed on cash basis as on COD		Less: Excess Initial spares as on COD	Capital Cost as on COD considered for tariff
			IDC	IEDC		
Asset-I	4653.00	417.21	83.85	153.37	2.83	4470.18
Asset-II	2234.52	82.43	0.69	16.42	-	2169.21

(₹ In lakh)

Additional Capital Expenditure

36. 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.



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

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

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

38. The cut-off date in the case of Asset-I and Asset-II is 31.3.2020 and 31.3.2019 respectively.

39. The petitioner has claimed additional capital expenditure on account of balance and retention payments as under:-

(₹ in lakh)

Particulars	Projected Additional Capital expenditure		
	2016-17	2017-18	2018-19
Asset-I	-	861.32	369.14
Asset-II	619.47	79.75	-

40. The additional capital expenditure being un-discharged liabilities in the nature of balance and retention payments are being allowed under Regulation 14(1)(i) of 2014 Tariff Regulations. Thus, capital costs considered for tariff purpose is as under:-

(₹ in lakh)

Particulars	Capital cost allowed as on COD	Projected additional capital expenditure			Estimated completion cost as on 31.3.2019
		2016-17	2017-18	2018-19	
Asset-I	4470.18	-	861.32	369.14	5700.64
Asset-II	2169.21	619.47	79.75	-	2868.43

Debt-Equity Ratio

41. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specify 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 may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

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

Particulars	Asset-I			
	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	3129.13	70.00	3990.45	70.00
Equity	1341.05	30.00	1710.19	30.00
Total	4470.18	100.00	5700.64	100.00

Particulars	Asset-II			
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	1518.44	70.00	2007.90	70.00
Equity	650.76	30.00	860.53	30.00
Total	2169.21	100.00	2868.43	100.00

Return on Equity

43. 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.”

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

45. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest

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

46. BRPL has submitted that the petitioner should furnish details in the working of effective tax rate alongwith tax audit report for 2014-15 and the reasons as to why it is opting for MAT. BRPL has further submitted that the instant asset is a new transmission project and is also entitled for Tax Holiday under Section 80 IA of the Income Tax Act, 1961 and the petitioner should at least submit the date from which it intends to claim the benefits of Section 80 IA of the Income Tax Act, 1961. The petitioner has submitted that the rate of return of equity has been calculated as per clause 25 of the 2014 Tariff Regulations and as the asset is commissioned during 2014-15, the final assessment of tax is yet to be finalised. The petitioner has further submitted that as the RoE is grossed up with MAT rate, any tax benefit is already factored into it, since MAT is the minimum tax rate to be paid by the company.

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



(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	1341.05	1599.45	650.76	836.60	860.53
Addition due to Additional Capitalisation	258.40	110.74	185.84	23.93	0.00
Closing Equity	1599.45	1710.19	836.60	860.53	860.53
Average Equity	1470.25	1654.82	743.68	848.57	860.53
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	288.32	324.51	72.32	166.40	168.75

Interest on Loan (IOL)

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

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

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

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of 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.”

49. In these calculations, IOL has been worked out as hereinafter:-

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

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

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

50. The petitioner has submitted that it be allowed to bill and adjust impact on IOL due to change in interest due to floating rate of interest applicable, if any, from the respondents.

51. The IOL has been calculated on the basis of rate prevailing as on the tariff date of commercial operation. Any change in rate of interest subsequent to the tariff date of commercial operation will be considered at the time of truing-up. Detailed calculation of the weighted average rate of interest has been given in Annexure-1 and 2 to this order.

52. Based on above, details of calculation of Interest on Loan is as under:-



(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Gross Normative Loan	3129.13	3732.05	1518.44	1952.07	2007.90
Cumulative Repayment upto Previous Year	0.00	259.46	0.00	64.91	214.25
Net Loan-Opening	3129.13	3472.59	1518.44	1887.17	1793.64
Addition due to Additional Capitalisation	602.92	258.40	433.63	55.83	0.00
Repayment during the year	259.46	291.99	64.91	149.35	151.45
Net Loan-Closing	3472.59	3439.00	1887.17	1793.64	1642.19
Average Loan	3300.86	3455.79	1702.81	1840.41	1717.92
Weighted Average Rate of Interest on Loan	8.11%	8.09%	8.17%	8.17%	8.17%
Interest	267.77	279.73	69.03	150.42	140.39

Depreciation

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

"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.”

54. The petitioner has claimed actual depreciation as a component of annual fixed charges. Depreciation has been allowed in accordance with Regulation 27 of the 2014 Tariff Regulations. The instant assets were put under commercial operation on 1.4.2017 and 2.10.2016. Accordingly, 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.

55. Accordingly, depreciation has been worked out on the basis of capital expenditure as on COD and additional capitalization incurred/projected to be incurred thereafter, wherein depreciation for the first year has been calculated on pro rata basis for the year/part of year. Details of the depreciation allowed are as under:-



(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2017-18 (pro-rata)	2017-18	2018-19
Opening Gross Block	4470.18	5331.50	2169.21	2788.68	2868.43
Additional Capital expenditure	861.32	369.14	619.47	79.75	0.00
Closing Gross Block	5331.50	5700.64	2788.68	2868.43	2868.43
Average Gross Block	4900.84	5516.07	2478.94	2828.55	2868.43
Rate of Depreciation	5.2942%	5.2934%	5.2800%	5.2800%	5.2800%
Depreciable Value	4410.76	4964.46	2231.05	2545.70	2581.58
Remaining Depreciable Value	4410.76	4705.00	2231.05	2480.79	2367.33
Depreciation	259.46	291.99	64.91	149.35	151.45

Operation & Maintenance Expenses (O & M Expenses)

56. Regulation 29(4)(a) of the 2014 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-

Element	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV bay (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
D/C twin conductor T/L (₹ lakh/Km)	0.707	0.731	0.755	0.780	0.806
S/C twin conductor T/L (₹ lakh/Km)	0.404	0.418	0.432	0.446	0.461

57. The petitioner has claimed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M Expenses has been worked out as given hereunder:-

(₹ in lakh)			
Particulars	2016-17	2017-18	2018-19
Asset-I	-	142.99	147.72
	2016-17 (pro-rata)	2017-18	2018-19
Asset-II	66.44	138.45	143.03
Grand total	66.44	281.44	290.75

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

59. 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 2014 Tariff Regulations. The petitioner in its rejoinder has submitted that the wage revision of the employees of the petitioner company is due with effect from 1.1.2017 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014-19. The scheme of wage revision applicable to CPSUs is binding on the petitioner and hence the petitioner would approach the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike from 1.1.2017 onwards.

60. We have considered the submissions of the petitioner. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, 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)

61. 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;”

62. 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 fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.



(ii) Maintenance spares

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

(iii) O & M expenses

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

(iv) Rate of interest on working capital

As per Proviso 3 of Regulation 28 of the 2014 Tariff Regulations, SBI Base Rate 9.30% as on 1.4.2016/1.4.2017 plus 350 Bps i.e. 12.80% has been considered for the Asset-I and Asset-II as the rate of interest on working capital.

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

(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	21.45	22.16	20.10	20.77	21.45
O & M expenses	11.92	12.31	11.17	11.54	11.92
Receivables	163.97	178.54	94.33	103.67	103.52
Total	197.33	213.00	125.60	135.98	136.90
Rate of interest	12.80%	12.80%	12.80%	12.80%	12.80%
Interest	25.26	27.26	7.97	17.40	17.52

Transmission charges

64. The transmission charges being allowed for the instant assets are summarized hereunder:-



(₹ in lakh)

Particulars	Asset-I		Asset-II		
	2017-18	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	259.46	291.99	64.91	149.35	151.45
Interest on Loan	267.77	279.73	69.03	150.42	140.39
Return on equity	288.32	324.51	72.32	166.40	168.75
Interest on Working Capital	25.26	27.26	7.97	17.40	17.52
O & M Expenses	142.99	147.72	66.44	138.45	143.03
Total	983.80	1071.21	280.67	622.03	621.15

65. 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, or any other kind of impositions etc. The same, if imposed shall be borne and additionally paid by the respondents. We have considered the submissions of the petitioner. The petitioner is entitled for late payment surcharge and FERV as per Regulations 45 and 50 respectively of the 2014 Tariff Regulations.

Filing Fee and Publication Expenses

66. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. BRPL has submitted that filing fee and other expenses may not be allowed. The petitioner 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

67. 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

68. 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.

69. This order disposes of Petition No. 200/TT/2016.

sd/-
(M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson



Annexure-1

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
	Details of Loan	2017-18	2018-19
1	Bond L		
	Gross loan opening	73.00	73.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	73.00	73.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	73.00	73.00
	Average Loan	73.00	73.00
	Rate of Interest	8.40%	8.40%
	Interest	6.13	6.13
	Rep Schedule	12 annual instalments from 27.5.2019	
2	Bond LIII		
	Gross loan opening	1787.99	1787.99
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1787.99	1787.99
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1787.99	1787.99
	Average Loan	1787.99	1787.99
	Rate of Interest	8.13%	8.13%
	Interest	145.36	145.36
	Rep Schedule	12 annual instalments from 25.4.2020	
3	Bond LIV		
	Gross loan opening	138.00	138.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	138.00	138.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	138.00	138.00
	Average Loan	138.00	138.00
	Rate of Interest	7.97%	7.97%
	Interest	11.00	11.00
	Rep Schedule	Redeemable at par in 3 equal instalments on 15.7.2021, 15.7.2026 and 15.7.2031	
4	Bond LII		
	Gross loan opening	782.67	782.67
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	782.67	782.67
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	782.67	782.67
	Average Loan	782.67	782.67
	Rate of Interest	8.32%	8.32%



	Interest	65.12	65.12
	Rep Schedule	Redeemable at par in 3 equal instalments on 23.12.2020, 23.12.2025 and 23.12.2030	
5	Bond LVII		
	Gross loan opening	199.44	325.44
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	199.44	325.44
	Additions during the year	126.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	325.44	325.44
	Average Loan	262.44	325.44
	Rate of Interest	7.20%	7.20%
	Interest	18.90	23.43
	Rep Schedule	Bullet payment on 21.12.2021	
6	Bond LI		
	Gross loan opening	150.00	150.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	150.00	150.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	150.00	150.00
	Average Loan	150.00	150.00
	Rate of Interest	8.40%	8.40%
	Interest	12.60	12.60
	Rep Schedule	12 annual instalments from 14.9.2019	
	Total Loan		
	Gross loan opening	3131.10	3257.10
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3131.10	3257.10
	Additions during the year	126.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	3257.10	3257.10
	Average Loan	3194.10	3257.10
	Rate of Interest	8.1121%	8.0944%
	Interest	259.11	263.64



(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2016-17	2017-18	2018-19
1	Bond LI			
	Gross loan opening	8.16	8.16	8.16
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	8.16	8.16	8.16
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	8.16	8.16	8.16
	Average Loan	8.16	8.16	8.16
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	0.69	0.69	0.69
	Rep Schedule	12 annual instalments from 14.9.2019		
2	Bond LIII			
	Gross loan opening	1164.78	1180.43	1200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1164.78	1180.43	1200.00
	Additions during the year	15.65	19.57	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1180.43	1200.00	1200.00
	Average Loan	1172.61	1190.22	1200.00
	Rate of Interest	8.13%	8.13%	8.13%
	Interest	95.33	96.76	97.56
	Rep Schedule	12 annual instalments from 25.4.2020		
3	Bond LIV			
	Gross loan opening	0.00	0.00	10.50
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	10.50
	Additions during the year	0.00	10.50	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	10.50	10.50
	Average Loan	0.00	5.25	10.50
	Rate of Interest	7.97%	7.97%	7.97%
	Interest	0.00	0.42	0.84
	Rep Schedule	Redeemable at par in 3 equal instalments on 17.7.2021, 15.7.2026 and 15.7.2031		
4	Bond LII			
	Gross loan opening	345.50	345.50	345.50
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	345.50	345.50	345.50
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	345.50	345.50	345.50
	Average Loan	345.50	345.50	345.50
	Rate of Interest	8.32%	8.32%	8.32%
	Interest	28.75	28.75	28.75



	Rep Schedule	Redeemable at par in 3 equal instalments on 23.12.2020, 23.12.2025 and 23.12.2030		
	Total Loan			
	Gross loan opening	1518.44	1534.09	1564.16
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1518.44	1534.09	1564.16
	Additions during the year	15.65	30.07	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1534.09	1564.16	1564.16
	Average Loan	1526.27	1549.13	1564.16
	Rate of Interest	8.17%	8.17%	8.17%
	Interest	124.76	126.61	127.83

