

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 136/TT/2017

Coram:

**Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member**

Date of order: 20.08.2020

In the matter of:

Petition for determination of transmission tariff from COD to 31.3.2019 for Asset-I: Loop Out of 1st Ckt. of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala, Asset-II: Loop In of 1st Ckt of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala, Asset-III: LILO of 2nd Ckt. of Parbati-II Koldam Transmission Line at Pooling Station and LILO at Parbati-III (b-c portion) and Asset-IV: LILO of 2nd Ckt. of Parbati-II-Koldam Transmission Line at Pooling Station along with associated bays and LILO at Parbati-III associated with Parbati-III HEP (f-g portion) in Northern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon-122001

.....Petitioner

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur -302005.
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 (Ground Floor),
Ajmer Road, Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur.



5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building-II,
Shimla-171004.
6. Punjab State Power Corporation Limited,
Thermal Shed TIA, Near 22 Phatak,
Patiala-147001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula (Haryana) 134109.
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, 14, Ashok Marg,
Lucknow -226001.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
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 and Load Dispatch Group,
Cennet Building, Adjacent to 66/11 kV Pitampura-3 Grid Building,
Near PP Jewellers,
Pitampura, New Delhi-110034.
14. Chandigarh Administration,
Sector -9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
16. North Central Railway,
Allahabad.



17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
18. NHPC Limited,
NHPC Office Complex,
Sector-33, Faridabad,
Haryana-121003.
19. Parbati Koldam Transmission Company Limited,
5th Floor, JMD Galleria,
Sector-48, Sohna Road,
Grugaon-122018

....Respondents

For Petitioner : Shri S.S. Raju, PGCIL
Shri A.K. Verma, PGCIL
Shri Amit Kumar Jain, PGCIL

For Respondents : Shri R.B. Sharma, Advocate, BRPL
Shri Mohit Mudgal, Advocate, BRPL

ORDER

Power Grid Corporation of India Limited (PGCIL) has filed the instant petition for approval of the transmission tariff of Asset-I: Loop-Out of 1st Ckt. of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala, Asset-II: Loop-In of 1st Ckt. of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala, Asset-III: LILO of 2nd Ckt. of Parbati-II-Koldam Transmission Line at Pooling Station and LILO at Parbati-III (b-c Portion) (The schematic diagram is attached as Annexure-I to this order), Asset-IV: LILO of 2nd Ckt. of Parbati-II-Koldam Transmission Line at Pooling Station along with associated bays and LILO at Parbati-III (f-g portion) at Parbati-III Transmission Line at Parbati Pooling Station (Banala) (hereinafter referred to as “the transmission assets”) associated with Parbati-III HEP in Northern Region (hereinafter referred to as “the Transmission Scheme”) for the 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 made the following prayers in this petition:-

- “1. Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition, as per para– 16.2 above.*
- 2. Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred/projected to be incurred.*
- 3. Tariff may be allowed on the estimated completion cost, since few elements of the project are yet to be completed, the completion cost for the assets covered under instant Petition are within the overall project cost.*
- 4. 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.*
- 5. Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.*
- 6. Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.*
- 7. 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.*
- 8. 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.*
- 9. Allow Tariff up to 90% of the annual fixed charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the POC Charges.*
- 10. Allow the petitioner if GST is imposed in transmission charges under the proposed GST. The same may be allowed to recover from the beneficiaries.*
- 11. Provisional tariff in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.*



12. *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.*

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

3. The Respondents are transmission and distribution licensees who are procuring the transmission service from the Petitioner, mainly the beneficiaries of the Northern Region.

Background

4. The administrative approval of the Transmission Scheme was accorded by the Ministry of Power, Government of India, vide letter no. 12/19/2004-PG dated 31.7.2006. Based on the above approval, the Investment Approval (IA) for implementation of the Transmission Scheme was accorded by the Board of Directors of the Petitioner vide Memorandum dated 9th August, 2006 at an estimated cost of ₹55724 lakh including IDC of ₹2661 lakh based on 4th quarter, 2005 price level. Further, Revised Cost Estimate (hereinafter referred to as "the RCE") was approved by the Board of Directors of the Petitioner vide Memorandum No. C/CP/Parbati-III HEP TS dated 25.6.2013 with estimated cost of ₹77525 lakh including IDC of ₹14242 lakh on 1st quarter of 2013 price level. The scope of the scheme was discussed and agreed in 19th NRPC meeting dated 19.1.2011, 30th SCM dated 19.1.2012, 29th SCM dated 29.12.2010, 30th SCM dated 19.12.2012 and 19th meeting of NRPC dated 29.12.2010.

5. The Project was scheduled to be completed by the Petitioner within 42 months from the date of IA dated 9.8.2006 matching with the commissioning of generation projects. Thus, the scheduled commercial operation date of the Transmission



Scheme is 9.2.2010. The scope of work covered under the Transmission Scheme as per IA is as follows:-

Transmission Line

1. LILO of Parbati-II–Koldam/Nalagarh 400 kV Line (Parbati-II-Koldam and Parbati-Nalagarh Lines approved under Transmission System associated with Parbati-II HEP) at Parbati Pooling Point (Quad conductor)-10 km.
2. LILO of one 400 kV Ckt of Parbati-II–Parbati Pooling Point Line (Created as point no. 1) at Parbati-III HEP (Quad Conductor)-3.5 km.
3. Parbati Pooling Point-Amritsar 400 kV Double Circuit (D/C) Line (ACSR) Moose Conductor-258 km.

Sub-stations

1. New 400 kV Parbati Pooling Point Gas Insulated Sub-station.
2. Extension of 400/220 kV Amritsar Sub-station.

Petition No. 91/TT/2012

6. The Petitioner initially filed Petition No. 91/TT/2012 for approval of transmission charges for Asset-I: 400 kV D/C Parbati-Amritsar transmission line along with associated bays at both ends, Asset-II: LILO of 2nd Ckt of Parbati-II-Koldam transmission line at Pooling Station along with associated bays and LILO at Parbati-III, Asset-III: 400 kV 80 MVAR Bus Reactor at Parbati Pooling Station along with associated bays and Asset-IV: LILO of Parbati-II Koldam Ckt-I at Parbati Pooling Point along with associated bays for Transmission System associated with Parbati-III-HEP in Northern Region for the 2009-14 tariff period based on the 2009 Tariff Regulations. The Commission vide order dated 26.5.2015 allowed tariff for Asset-I and Asset-III in Petition No.91/TT/2012 while no tariff was allowed for Asset-II and Asset-IV. The Commission observed as under:-



"6. A portion of the LILO circuits of Asset-II is not utilized as the Koldam switchyard has not been commissioned and the part of LILO cannot be put to trial operation without the line getting connected at the other end as per the APTEL order dated 2.7.2012 in Appeal No. 123 of 2011. Further, the Petitioner has neither prayed for declaration of date of commercial operation under Regulation 3(12)(C) of the 2009 Tariff Regulations nor disclosed the information that the portion of LILO are not in use. Punjab State Power Corporation Limited (PSPCL), Respondent No. 6, has also raised this issue in their submission. Since the Koldam Switchyard has not been commissioned, we are not inclined to grant tariff for Asset-II in this petition. The Petitioner is at liberty to file the tariff of this asset when complete LILO is put into regular service after test charge and trial operation."

"7. Asset-IV has been commissioned in the 20014-19 tariff period and the Petitioner has already claimed tariff as per the 2014 Tariff Regulations for this asset in Petition No. 411/TT/2014. Accordingly, the transmission charges are allowed for only Asset-I and Asset-III in the instant petition. The Petitioner was directed to file separate capital cost of Assets-I and III as the Petitioner had submitted combined capital cost of all three assets. However, the Petitioner again vide affidavit dated 5.1.2015, submitted the combined capital costs of all the three assets."

Review Petition No. 19/RP/2017

7. The Petitioner filed Review Petition No.19/RP/2015 against order dated 26.5.2015 in Petition No. 91/TT/2012 praying for approval of COD of Asset-II (of Petition No. 91/TT/2012) and for grant of tariff. The Commission allowed the Review Petition No. 19/RP/2015 of PGCIL vide order dated 7.9.2016 observing as under:-

"15. It is observed that Asset-II was completed on the request of NHPC and part of the asset (c-d-e-f) ready for use to evacuate power from Parbati III HEP which was commissioned on 24.3.2014. Although PGCIL has claimed COD of Asset-II as 1.8.2013, it is further noticed that the metering arrangement was installed at NHPC end portion of the Asset-II. The Petitioner requested NHPC to file the date when bays associated with the (b-c-d) were ready at Parbati-III Switchyard. However, NHPC did not furnish the same, keeping in view that the meters were installed on 28.8.2013 we conclude that bays at NHPC end were ready on 28.8.2013. Hence, we grant COD of asset c-d-e-f as 1.9.2013 as per the 2009 Tariff Regulations. Therefore, we direct that NHPC should be liable to pay the charges from 1.9.2013 till 23.4.2014. With effect from 23.4.2014, the transmission charges of (c-d-e-f) portion of Asset-II shall be included in the PoC charges as provided under Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010. As regards, (b-c) and (f-g), these elements will be declared under commercial operation with effect from the date of commercial operation of line a-b and g-h respectively. The Petitioner is directed to submit the details of the cost of the portion of the transmission line represented by (c-d-e-f) of Asset-II as on 1.9.2013 for determination of tariff within 15 days from the issue of this order."

16. The instant review petition is allowed to the extent directed above and accordingly, the staff of the Commission is directed to work out the transmission tariff



for (c-d-e-f) portion of Asset-II in Petition No.91/TT/2012 on receipt of required information from the review petitioner.”

Petition No. 411/TT/2014

8. The Petitioner filed Petition No. 411/TT/2014 for determination of transmission tariff for 2014-19 period in respect of LILO of 1st ckt. of 400 kV D/C Parbati II-Koldam Transmission Line at Parbati Pooling Station as per the 2014 Tariff Regulations. The Petitioner claimed the COD of LILO of 1st ckt. of 400 kV D/C Parbati II-Koldam Transmission Line as 1.4.2014 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the associated upstream transmission lines under the scope of PKTCL were not ready. The Commission vide order dated 30.7.2016 in Petition No. 411/TT/2014 observed that the loop-out portion of the instant asset was put into use only on 10.10.2014 and the loop-in portion was put into use on 3.11.2015 after the associated transmission lines of PKTCL were put into commercial operation. Accordingly, the COD of the loop-in and loop-out portions of PGCIL was approved as 3.11.2015 and 10.10.2014 respectively. The Commission further held that the IDC and IEDC for the period from 30.6.2014 till the COD of the loop-in portion (i.e. till 2.11.2015) and COD of the loop-out portion (i.e. till 9.10.2014) would be borne by the PKTCL as it was held responsible for the said delay. However, the final tariff was not allowed for the assets as the audited capital cost as on 3.11.2015 and 10.10.2014 of the loop-in and loop-out portions of the assets respectively was not available on record. However, AFC granted vide order dated 24.11.2014 under Regulation 7(7) of the 2014 Tariff Regulations with effect from 3.11.2015 and 10.10.2014 for loop-in and loop-out portions of the assets respectively was allowed to be continued and liberty was granted to the Petitioner to file a fresh petition along with relevant information. The relevant extract of the order dated 30.7.2016 is as under:-



“14. We have considered the submissions of the petitioner and NHPC. The transmission lines covered in the Parbati-Koldam and Koldam-Ludhiana Transmission System are being executed by PKTCL and the LILOs of 1st and 2nd ckt covered under the Transmission System are being executed by PGCIL. The assets covered under the Transmission System are planned for evacuation of power from Parbati-II and Parbati-III of NHPC and Koldam HEP of NTPC. Parbati II has not been commissioned and it is anticipated to be commissioned in 2018. Parbati III was commissioned on 24.3.2014. Koldam HEP was commissioned on 31.3.2015. The asset covered in the instant petition is LILO of 1st ckt. of 400 kV D/C Parbati II-Koldam Transmission Line at Parbati Pooling Station. The upstream system (i.e. section of 400 kV (Quad) 2 x S/C Parbati Koldam Transmission Line, starting from Parbati-II HEP to LILO point of Parbati (Banala) Pooling Station for Circuit-I and from Parbati-II HEP to LILO Point of Parbati-III HEP for Circuit-II) and the downstream system of this LILO (i.e. section of 400 kV (Quad) 2xS/C Parbati-Koldam Transmission Line, starting from LILO point of Parbati (Banala) Pooling Station to Koldam HEP) were put into regular use from 3.11.2015 and 10.10.2014 respectively. Though the petitioner has contended that the instant LILOs were commissioned on 1.4.2014, it is observed that the Loop-out portion of the instant asset was put into use only on 10.10.2014 and the Loop-in portion was put into use on 3.11.2015 after the commissioning of the connecting transmission lines by PKTCL. As per the Annexure No. 4 to Implementation Agreement between PKTCL and PGCIL, the instant asset was to be commissioned on 30.6.2014 and accordingly, PKTCL had planned the execution of the asset. However, PGCIL has not explained as to how the assets were declared under commercial operation before the date agreed in the Implementation Agreement. In our view, the LILO was not put into service on 1.4.2014 as claimed by the petitioner and accordingly, we are not inclined to approve the petitioner's prayer for approval of COD of the Loop-in and Loop-out portion of the instant asset as 1.4.2014 under Regulation 4(3)(ii) of the 2014 Tariff Regulations.

15. It is observed that the Loop-in and Loop-out portion of the instant asset were put into use only on 3.11.2015 and 10.10.2014 as against the scheduled COD on 30.1.2010 because of the delay in commissioning of the transmission lines by PKTCL. Accordingly, the COD of the Loop-in and Loop-out portions shall be reckoned as 3.11.2015 and 10.10.2014, respectively. We are of the view that the IDC and IEDC from 30.6.2014 till the date of usage of the Loop-in and Loop-out portion i.e. 3.11.2015 and 9.10.2014 respectively would be borne by PKTCL. The petitioner is directed to submit the capital cost of Loop-in and Loop-out portions of the instant asset as on 10.10.2014 and 3.11.2015, respectively, along with the Auditor's Certificate, RLDC certificate as required under Regulation 5(2) of the 2014 Tariff Regulations, details of IDC and IEDC on cash basis for both the Loop-in and Loop-out portions within 30 days of the date of this order.

16. It is observed that the capital cost of Loop-in and Loop-out portions as on 3.11.2015 and 10.10.2014, the IDC and IEDC details upto 30.6.2014 and from 30.6.2014 to 3.11.2015 and from 30.6.2014 to 10.10.2014 have not been brought by the petitioner on record. Accordingly, we direct the petitioner to file fresh petition along with all relevant information within 30 days from the date of this order...”

9. Aggrieved with the order dated 30.7.2016 in Petition No. 411/TT/2014, PKTCL filed Review Petition No.52/RP/2016 contending that Implementation Agreement between PGCIL and PKTCL dated 23.11.2007 was amended vide Amendment No. V



dated 17.3.2015 and Amendment No.VI dated 10.2.2016 revising the scheduled COD of the loop-in and loop-out portions as 3.11.2015 and 10.10.2014 respectively. It submitted that the Commission did not take into consideration Amendment Nos. V and VI to the Implementation Agreement while approving the COD. The Commission vide order dated 20.7.2018 disposed of the Review Petition No. 52/RP/2016 observing that the Petitioner did not disclose the fact of signing of Amendments No. V and VI to the Implementation Agreement whereby PGCIL and PKTCL mutually agreed to revise COD of loop-in and loop-out portion of the instant assets as 3.11.2015 and 10.10.2014 respectively. The Commission had earlier directed the Petitioner to file a fresh petition in its order dated 30.7.2016 with amended capital cost considering the COD of Loop-in and Loop-out portions of the instant assets as 3.11.2015 and 10.10.2014 respectively. In terms of order dated 30.7.2016, the Petitioner has filed the instant petition. The Commission decided to “...review, the issue of COD of Loop-in and Loop-out and other related issues raised by the Review Petitioner which are consequential to the issue of COD shall be decided afresh. The Petition No.136/TT/2017 shall be heard again limited to the issue of COD of Loop-out portion”. The relevant extract of the order dated 20.7.2018 is hereunder:-

“12. In our view, PGCIL having agreed to the revised SCOD of the LILO as 3.11.2015 in Amendment to the Implementation Agreement dated 10.2.2016 was under obligation to bring the said fact to the notice of the Commission. Had the said fact been brought to the notice of the Commission, PGCIL could not have been granted COD prior to the date of revised SCOD. We, therefore find sufficient reasons to review our earlier decision to grant COD of the Loop-out portion from 10.10.2014 and Loop-in portion from 3.11.2015.

13. Accordingly, the review of the impugned order has been allowed to this extent. It is pertinent to mention that the Commission directed PGCIL to file a fresh petition with amended capital cost considering the COD Loop-in and Loop-out as 3.11.2015 and 10.10.2014. PGCIL has filed Petition No.136/TT/2017 as per the directions in the impugned order dated 30.7.2016. It is observed that in Petition No. 136/TT/2017 PGCIL has claimed the COD of Loop-out and Loop-in of the 1st Ckt of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala as 10.10.2014 and 3.11.2015.



14. The Review Petition No.52/RP/2016 is disposed of in terms of the above. Since, we have allowed the review, the issue of COD of Loop-in and Loop-out and other related issues raised by the Review Petitioner which are consequential to the issue of COD shall be decided afresh. The Petition No.136/TT/2017 shall be heard again limited to the issue of COD of Loop-out portion.”

10. Accordingly, the instant petition is being heard wherein the Petitioner has claimed the COD of loop-in and loop-out portions of the 1st Ckt of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala as 3.11.2015 and 10.10.2014 respectively and furnished the details as sought vide order dated 30.7.2016.

11. Against the Commission's orders in Petition No. 91/TT/2012 and Review Petition No. 19/RP/2015, NHPC filed Appeal Nos. 281 of 2016 and 81 of 2017 before the Appellate Tribunal for Electricity (APTEL). APTEL set aside the orders dated 21.7.2016 and 7.9.2016 in Petition No. 91/TT/2012 and 19/RP/2015 respectively vide judgment dated 16.7.2018 and remitted back the matter to the Commission for consideration. The relevant extract of the judgment dated 16.7.2018 is extracted hereunder:

“The matter stands remitted back to the Central Commission with the direction for fresh consideration in accordance with law after affording reasonable opportunity to both the parties and dispose of as expeditiously as possible.....”

12. In terms of the directions given by the Tribunal in its judgement dated 16.7.2018 in Appeal Nos. 281 of 2016 and 81 of 2017 filed by NHPC all the related petitions, namely, Petition Nos. 91/TT/2012, 19/RP/2015, 107/TT/2017, Review Petitions Nos.4/RP/2017, 15/RP/2017 including the present Petition No.136/TT/2017 were listed and heard again. Accordingly, the instant petition is taken up for determination of transmission tariff of the assets as discussed above.

13. The Petitioner has claimed the following transmission charges for the transmission assets:-



(₹ in lakh)					
Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	12.71	28.88	30.54	31.14	31.14
Interest on Loan	16.10	34.42	33.52	31.27	28.23
Return on Equity	14.16	32.18	34.03	34.69	34.69
Interest on WC	1.00	2.22	2.26	2.24	2.17
O&M Expenses	0.24	0.33	0.12	0.13	0.13
Total	44.21	98.03	100.47	99.47	96.36

(₹ in lakh)				
Asset-II	2015-16	2016-17	2017-18	2018-19
Depreciation	2.46	6.13	6.20	6.20
Interest on Loan	3.08	7.26	6.76	6.17
Return on Equity	2.74	6.83	6.91	6.91
Interest on WC	0.21	0.51	0.50	0.49
O&M Expenses	0.33	0.82	0.85	0.88
Total	8.82	21.55	21.22	20.65

(₹ in lakh)				
Asset-III	2015-16	2016-17	2017-18	2018-19
Depreciation	5.18	12.96	13.09	13.09
Interest on Loan	5.99	14.19	13.18	12.01
Return on Equity	5.77	14.44	14.59	14.59
Interest on WC	0.44	1.09	1.08	1.06
O&M Expenses	0.98	2.47	2.56	2.64
Total	18.36	45.15	44.50	43.39

(₹ in lakh)					
Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0.99	36.97	37.16	37.29	37.29
Interest on Loan	1.19	42.56	39.39	36.14	32.73
Return on Equity	1.10	40.97	41.18	41.32	41.32
Interest on WC	0.17	6.25	6.30	6.35	6.39
O&M Expenses	1.64	62.90	64.98	67.15	69.37
Total	5.09	189.65	189.01	188.25	187.10

14. The details of the Interest on Working Capital (IWC) claimed by the Petitioner are as under:-

(₹ in lakh)					
Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.08	0.05	0.02	0.02	0.02
O & M Expenses	0.04	0.03	0.01	0.01	0.01
Receivables	15.48	16.34	16.75	16.58	16.06



Total	15.60	16.42	16.77	16.61	16.09
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	1.00	2.22	2.26	2.24	2.17

(₹ in lakh)

Asset-II	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.12	0.12	0.13	0.13
O & M Expenses	0.07	0.07	0.07	0.07
Receivables	3.58	3.59	3.54	3.44
Total	3.76	3.78	3.74	3.65
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	0.21	0.51	0.50	0.49

(₹ in lakh)

Asset-III	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.36	0.37	0.38	0.40
O & M Expenses	0.20	0.21	0.21	0.22
Receivables	7.44	7.53	7.42	7.23
Total	8.00	8.11	8.01	7.85
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	0.44	1.09	1.08	1.06

(₹ in lakh)

Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.15	9.44	9.75	10.07	10.41
O & M Expenses	5.08	5.24	5.42	5.60	5.78
Receivables	31.57	31.61	31.50	31.38	31.18
Total	45.81	46.29	46.66	47.04	47.37
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	0.17	6.25	6.30	6.35	6.39

15. The Petitioner has served the copy of the petition upon the Respondents and notice of this tariff application has also 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. BRPL vide affidavit dated 17.8.2017 filed its reply to the petition. The Petitioner vide affidavit dated 21.9.2017 filed its rejoinder. Pursuant to the judgment of APTEL dated 16.7.2018 in Appeal



Nos. 281 of 2016 and 81 of 2017, BRPL vide affidavit dated 16.8.2018 also filed another reply. The Petitioner vide affidavit dated 14.9.2018 filed rejoinder to the additional reply of BRPL. The issues raised by the Respondents and rejoinder by the Petitioner have been discussed in the subsequent paragraphs of this order.

16. The matter was finally heard on 13.2.2020 and the Commission reserved order in the matter.

17. We have heard the representatives of the Petitioner and learned counsel for the Respondent and have also gone through the material on record. This order has been issued after considering Petitioner's affidavits dated 15.3.2017, 21.9.2017, 24.3.2018, 11.9.2018, 13.9.2018 and reply affidavits dated 17.8.2017 and 16.8.2018 of BRPL.

Date of Commercial Operation (COD)

18. The Petitioner has claimed the following dates of commercial operation for the transmission assets:-

Assets	SCOD	Revised COD	Time Over-run (months)
Asset-I	9.2.2010	10.10.2014	57
Asset-II		3.11.2015	70
Asset-III		3.11.2015	70
Asset-IV		22.3.2015	62

19. BRPL in its reply filed vide affidavit dated 17.8.2017 has submitted that LILO of Parbati-II-Koldam Transmission Line at Banala is one asset and it cannot be two assets, namely, Assets-I and II as mentioned in the instant petition and its COD will be 3.11.2015. BRPL has further submitted that the Petitioner is not expected to energize small portions and claim their CODs. BRPL has further submitted that the



Petitioner cannot be allowed to split an asset contrary to the Investment Approval and thereafter claim the tariff of small portions.

20. In response, the Petitioner vide affidavit dated 21.9.2017 has submitted that Assets-I and II in the present petition were earlier filed as Asset-I, i.e. LILO of 400 kV Parbati-II-Koldam Ckt. I at Parbati Pooling Point along with associated bays in Petition No.411/TT/2014. The Petitioner has further submitted that the Commission vide order dated 30.7.2016 in Petition No. 411/TT/2014 split Asset-I into two assets and shifted the COD based on utilization which is as under:-

Srl. No.	Assets	Revised COD
1	Asset-I: Loop Out of 1st Ckt. of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala.	10.10.2014
2	Asset-II: Loop In of 1st Ckt. of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala.	3.11.2015

21. The Petitioner has submitted that the COD of the above assets fall in 2014-19 tariff period. Hence, they are part of the assets in the instant petition. The Petitioner has further submitted that Assets-III and IV of the instant petition, namely, portions (b-c) and (f-g) covered in the present petition were included as one asset (Asset-II) in Petition No. 91/TT/2012. The Commission vide order dated 7.9.2016 in Review Petition No. 19/RP/2015 in Petition No. 91/TT/2012 split Asset-II, namely, LILO of 400 kV Parbati-II-Koldam line Ckt-II at Parbati-III alongwith associated bays and LILO of 400 kV Parbati-III-Koldam at Parbati Pooling Point alongwith associated bays into four assets and shifted the CODs and their details are as under:-

- a) Looped-In portion of LILO of 2nd ckt of Parbati-II-Koldam T/L at Pooling Station alongwith associated bays (e-f portion) with COD as 1.9.2013.
- b) Looped-Out portion of LILO of 2nd ckt of Parbati-II-Koldam T/L at Parbati-III (c-d portion) with COD as 1.9.2013.



c) Looped-In portion of LILO of 2nd ckt of Parbati-II-Koldam T/L at Parbati-III (b-c portion) with COD as 3.11.2015.

d) Looped-Out portion of LILO of 2nd Ckt. of Parbati-II-Koldam T/L at Pooling Station alongwith associated bays (f-g portion) with COD as 22.3.2015.

22. We have considered the above submissions made by the Petitioner and BRPL. We note that the Petitioner has not split the assets on its own and rather they have been split in view of decisions of the Commission in other petitions. The Petitioner vide affidavit dated 6.3.2020 has submitted the trial operation certificate in respect of all the assets covered in the present petition. Therefore, the date of commercial operation of the Assets-I, II, III and IV is approved as 10.10.2014, 3.11.2015, 3.11.2015 and 22.3.2015.

Capital Cost

23. Clauses (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;



(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.”

24. The Petitioner vide affidavit dated 15.3.2017 has submitted the Auditor's certificate dated 10.11.2016. The details of the revised approved apportioned cost, capital cost as on the dates of commercial operation and estimated/ projected additional capitalization for all the assets covered in the instant petition and considered for the purpose of computation of tariff are as under:-

(₹ in lakh)

Asset	RCE Apportioned Cost	Expenditure up to COD	Actual / Projected Expenditure			Estimated Capital Cost
			2014-15	2015-16	2016-17 #	
Asset-I	631.67	495.06	32.65	39.52	22.48	589.71
Asset-II	134.25	114.74	-	-	2.75	117.49
Asset-III	262.22	243.87	-	-	4.13	248.00
Asset-IV	721.26	697.24	-	0.29	4.79	702.32

*The capital expenditure has been verified from the Audited figures of accounts by the Auditor, up to 31.03.2016.

Estimated expenditure.

25. We have considered the submissions of the Petitioner. The total completion cost of each of the assets up to 31.3.2017 is within the revised approved apportioned cost and, therefore, there is no cost over-run in the execution of any of the instant transmission assets.

Time over-run

26. As per the Investment Approval dated 9.8.2006, the scheduled commissioning date of the Project was 42 months. Accordingly, the scheduled commercial operation date of the Project was 9.2.2010 against which Assets-I, II, III and IV were put into commercial operation with delay as per the following details:-

Assets	Scheduled Date of Completion (SCOD)	Revised COD	Delay (in days)
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Asset-I	9.2.2010	10.10.2014	1704
Asset-II		3.11.2015	2093
Asset-III		3.11.2015	2093
Asset-IV		22.3.2015	1867

27. BRPL in its reply filed vide affidavit dated 17.8.2017 has submitted that there is huge time over-run in the completion of instant assets. BRPL has further submitted that the Petitioner has failed to place on record the statutory documents such as DPR, CPM Analysis, PERT Chart and Bar Chart. BRPL has submitted that in the absence of any documentary evidence and justification for time over-run of the assets, delay cannot be condoned in the present case. BRPL has placed reliance on APTEL's judgment dated 1.7.2014 in Appeal No. 169 of 2013 in GRIDCO Limited Vs. Bhushan Power and Steel Ltd. & Ors. to contend that the Commission on its own cannot add, substitute or delete any word of the 2014 Tariff Regulations in condoning the time over-run.

28. In response, the Petitioner has submitted that delay for the assets covered in the instant petition has already been submitted in Petition Nos. 91/TT/2012 and 411/TT/2014. The Petitioner has further submitted that the Commission has condoned the delay after finalization of various transmission elements and their CODs covered in Petition Nos. 91/TT/2012 and 411/TT/2014.

29. We have considered the above submissions of the Petitioner and BRPL and have also perused the orders dated 30.7.2016 in Petition No. 411/TT/2014 and dated 26.5.2015 in Petition No. 91/TT/2012. On perusal of the order dated 30.7.2016 in Petition No. 411/TT/2014, we find that the said order covers Asset-I and Asset-II of the present petition. However, we do not find anything in the order dated 30.7.2016 suggesting that the time over-run in case of Asset-I and Asset-II of the present



petition was condoned in Petition No. 411/TT/2014. Also, on going through the order dated 26.5.2015 in Petition No.91/TT/2012, we notice that Asset-II was not considered for tariff in the order nor any delay in execution of Asset-II was condoned. Further, Asset-II of Petition No. 91/TT/2012 was split into four assets vide order dated 7.9.2016 in Review Petition No. 19/RP/2015 and Asset-III and Asset-IV of the instant petition are part of the said Asset-II covered in Petition No. 91/TT/2012.

30. In the absence of any justification for time over-run of 1704 days, 2093 days, 2093 days and 1867 days in case of Assets-I, II, III and IV respectively, we are unable to examine and arrive at any decision on time over-run in case of the instant assets. Accordingly, the IDC and IEDC for the period of time over-run in case of the instant assets are not capitalized.

Interest During Construction (IDC)

31. The Petitioner vide affidavit dated 15.3.2017 has submitted the information relating to IDC and has mentioned the year-wise discharge of the entire claimed IDC. We have considered the IDC up to scheduled commercial operation date. The allowable IDC in respect of Assets-I, II, III and IV are based on the available information of loan details as mentioned in Form-13 and the statement of IDC submitted by the Petitioner along with the petition. The IDC has been worked out after disallowing delay in case of Assets-I, II, III and IV. Accordingly, the IDC claimed and allowed for the tariff has been summarized as under:-

	(₹ in lakh)			
	Asset-I	Asset-II	Asset-III	Asset-IV
Total Accrued IDC claimed (As per Auditor's Certificate)	58.07	17.38	63.48	157.70
Total IDC Disallowed	58.07	17.38	57.59	137.50
Total IDC calculated	0.00	0.00	5.89	20.20
IDC Allowed as on COD (Cash Basis)	0.00	0.00	5.89	20.20



32. The aforementioned IDC is allowed to be capitalized in the trueing up calculations of 2009-14 tariff period.

Incident Expenditure During Construction (IEDC)

33. The Petitioner has submitted that the entire claimed IEDC in respect of all the assets covered in the present petition has been discharged as on COD. We have considered claim of allowable IEDC after disallowance of time over-run in case of Assets-I, II, III and IV. Accordingly, the IEDC claimed and allowed are as under:-

(₹ in lakh)			
Asset	IEDC Claimed on COD	IEDC Allowed as on COD	IEDC Disallowed
Asset-I	39.79	17.07	22.72
Asset-II	17.99	6.83	11.16
Asset-III	18.25	6.93	11.32
Asset-IV	41.71	16.96	24.75

34. Therefore, the capital cost considered as on COD after disallowing IDC and IEDC on account of time over-run not allowed is given below:

(₹ In lakh)				
Asset	Capital Cost claimed as on COD before considering IDC & IEDC	Less: IDC (Time over-run)	Less: IEDC (Time over-run)	Capital Cost as on COD after considering IDC & IEDC
Asset-I	495.06	58.07	22.72	414.27
Asset-II	114.74	17.38	11.16	86.20
Asset-III	243.87	57.59	11.32	174.96
Asset-IV	697.24	137.50	24.75	534.99

Initial Spares

35. 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) -----

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

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

36. The Petitioner vide affidavit dated 6.3.2020 has submitted that no Initial Spares are to be capitalized by the Petitioner for the instant transmission assets. However, we would like to make a brief mention of the account of Initial Spares claimed for the assets considered in Petition Nos.107/TT/2017 and 136/TT/2017 and the same are as under:

Asset	Petition No.	Asset Name
Asset-I (Asset-1)	107/TT/2017	400 kV D/C Parbati-Amritsar Transmisison Line with Bays (T/L Portion)
Asset-II (Asset-2)		400 kV 80 MVAR Bus Reactor at Prabati-Pooling station
Asset-III (Asset-3)		LILO (c-d) portion



Asset-IV (Asset-4)		LILO (e-f) portion
Asset-V (Asset-I in instant Petition)	136/TT/2017	Loop Out of 1st Ckt of 400 kV D/C Parbati-II -Koldam Transmission Line at Banala
Asset-VI (Asset-II in instant Petition)		Loop In of 1st Ckt of 400 kV D/C Parbati- II- Koldam Transmission Line at Banala
Asset-VII (Asset-III in instant Petition)		LILO (b-c) portion
Asset-VIII (Asset-IV in instant Petition)		LILO (f-g) portion

37. It is observed that the Petitioner in Petition No. 107/TT/2017 has claimed the Initial Spares for Assets-1 and 3 only. Further, the Petitioner in Petition No.107/TT/2017 has submitted that the Initial Spares of Assets-IV, VII and VIII were collectively capitalized in Asset-3 of the said petition, as Assets-III (Asset-3 in 107/TT/2017), IV (Asset-4 in 107/TT/2017), VII (Asset-III in instant Petition) and VIII (Asset-IV in instant Petition) were a single asset which was segregated into four assets vide order dated 7.9.2016 in Petition No. 19/RP/2015. The Petitioner vide affidavit dated 18.3.2020 in Petition No.107/TT/2017 has claimed the following Initial Spares:

(₹ in lakh)			
Initial Spares			
Transmission Line		Capital Cost	Initial Spares
Asset-III (Asset-3): c-d	107/TT/2017	1167.42	80.23
Asset-IV (Asset-4): e-f		470.92	32.90
Asset-VII: b-c	136/TT/2017	166.27	13.68
Asset-VIII: f-g		100.71	8.28
Total		1905.32	135.09



38. Assets-VII and VIII as indicated in the table above refer to Assets-III and IV of the instant petition. We have accordingly considered the Initial Spares as indicated above for the tariff calculations. Further, the Petitioner has not submitted the discharge detail as per segregated Initial Spares as mentioned in the table above. Hence, the Initial Spares claimed in respect of Assets-III and IV (of the instant petition) corresponding to the transmission line is considered to be discharged as on COD. The Initial Spares have been worked out considering the ceiling as mentioned in the 2014 Tariff Regulations. The Petitioner is directed to furnish the year-wise discharge details of Initial Spares at the time of true-up, whereupon a comprehensive view on Initial Spares shall be taken. The Initial Spares claimed and allowed for the 2014-19 tariff period are as under:-

		(₹ in lakh)				
Description		Total Capital Cost (Plant and Machinery cost excluding IDC, IEDC, land cost and cost of civil works) upto cut-off date (31.3.2017/18) (a)	Initial Spares claimed against capital cost claimed (as per affidavit dated 18.3.2020 in Petition No.107/TT/2016) (b)	Ceiling Limit as per 2014 Tariff Regulations (c)	Initial Spares worked out (d)	Excess Initial Spares claimed (e)
Asset-III	T/L	166.27	13.68	1.00%	1.54	12.14
Asset-IV	T/L	100.71	8.28	1.00%	0.93	7.35

39. The excess Initial Spares as shown in the table above have been deducted from the capital cost of the assets as on COD, considered after allowing IDC and IEDC.

40. Accordingly, the following capital cost is allowed as on COD after adjustment of Initial Spares:-

(₹ in lakh)

Assets	Capital cost as on COD after considering IDC and IEDC	Less: Excess Initial Spares as on COD	Capital Cost as on COD after considering IDC, IEDC and Initial Spares
Asset-I	414.27	0.00	414.27
Asset-II	86.20	0.00	86.20
Asset-III	174.96	12.14	162.82
Asset-IV	534.99	7.35	527.65

Additional Capital Expenditure (ACE)

41. 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.”

42. 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”.



43. The cut-off date in respect of the instant Asset-I is 31.3.2017 and that of Assets-II, III and IV is 31.3.2018.

44. The Petitioner through Auditor's Certificate dated 10.11.2016 has claimed the following Additional Capital Expenditure (ACE) for the instant transmission assets towards balance and retention payments under Regulation 14(1)(i) of the 2014 Tariff Regulations:-

Asset	Actual / Projected Expenditure			(₹ in lakh)
	2014-15	2015-16	2016-17	Total Add Cap
Asset-I	32.65	39.52	22.48	94.65
Asset-II	-	-	2.75	2.75
Asset-III	-	-	4.13	4.13
Asset-IV	-	0.29	4.79	5.08

45. ACE claimed by the Petitioner during 2014-15, 2015-16 and 2016-17 of the instant assets is within the cut-off dates and the same has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations.

46. Accordingly, the capital cost of the instant assets considered for computation of tariff is as under:-

Particulars	Capital cost as on COD	Additional Capital Expenditure			(₹ in lakh)
		2014-15	2015-16	2016-17	Total capital cost including additional capitalization as on 31.3.2019
Asset-I	414.27	32.65	39.52	22.48	508.92
Asset-II	86.20	-	-	2.75	88.95
Asset-III	162.82	-	-	4.13	166.95
Asset-IV	527.65	-	0.29	4.79	532.73

Debt-Equity Ratio

47. Clauses 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.”

48. The Petitioner has considered debt-equity ratio as 70:30 as on COD and for additional capitalization during 2014-19 period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of the debt-equity ratio as on the date of COD and as on 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period are as under:-

Asset-I	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	289.99	70.00	356.24	70.00
Equity	124.28	30.00	152.68	30.00
Total	414.27	100.00	508.92	100.00

Asset-II	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	60.34	70.00	62.26	70.00
Equity	25.86	30.00	26.68	30.00
Total	86.20	100.00	88.95	100.00



Asset-III	As on COD		As on 31.03.2019	
	Amount (₹ in lakh))	%	Amount (₹ in lakh)	%
Debt	113.97	70.00	116.86	70.00
Equity	48.85	30.00	50.08	30.00
Total	162.82	100.00	166.95	100.00

Asset-IV	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	%	Amount(₹ in lakh)	%
Debt	369.36	70.00	372.91	70.00
Equity	158.30	30.00	159.82	30.00
Total	527.65	100	532.73	100

Interest on Loan (IOL)

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

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

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

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



50. The Petitioner has submitted that IOL has been calculated on the basis of rate prevailing as on 1.4.2014 for the respective loans. The change in interest rate is due to floating rate of interest applicable for the Project to be claimed/adjusted over a five year period directly from the beneficiaries.

51. We have considered the above submissions of the Petitioner. IOL has been worked out as per Regulation 26 of the 2014 Tariff Regulations as detailed below:-

- (i) Gross amount of loan, repayment of instalments and rate of interest on actual loans have been considered as per petition.
- (ii) The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year.
- (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.

52. The details of IOL allowed are as follows:-

(₹ in lakh)					
Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	289.99	312.84	340.51	356.24	356.24
Cumulative Repayment up to Previous Year	0.00	10.78	35.42	61.69	88.56
Net Loan-Opening	289.99	302.07	305.09	294.55	267.68
Addition due to Additional Capitalisation	22.86	27.66	15.74	0.00	0.00
Repayment during the year	10.78	24.64	26.28	26.87	26.87
Net Loan-Closing	302.07	305.09	294.55	267.68	240.81
Average Loan	296.03	303.58	299.82	281.11	254.24
Weighted Average Rate of Interest on Loan	9.7316%	9.6756%	9.6290%	9.6175%	9.6037%
Interest	13.65	29.37	28.87	27.04	24.42

(₹ in lakh)				
Asset-II	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	60.34	60.34	62.26	62.26
Cumulative Repayment up to Previous Year	0.00	1.87	6.49	11.19
Net Loan-Opening	60.34	58.47	55.77	51.07
Addition due to Additional Capitalisation	0.00	1.93	0.00	0.00
Repayment during the year	1.87	4.62	4.70	4.70



Net Loan-Closing	58.47	55.77	51.07	46.38
Average Loan	59.40	57.12	53.42	48.72
Weighted Average Rate of Interest on Loan	9.5762%	9.5788%	9.5801%	9.5793%
Interest	2.34	5.47	5.12	4.67

(₹ in lakh)

Asset-III	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	113.97	113.97	116.86	116.86
Cumulative Repayment up to Previous Year	0.00	3.53	12.24	21.05
Net Loan-Opening	113.97	110.44	104.63	95.81
Addition due to Additional Capitalisation	0.00	2.89	0.00	0.00
Repayment during the year	3.53	8.71	8.81	8.81
Net Loan-Closing	110.44	104.63	95.81	87.00
Average Loan	112.21	107.53	100.22	91.40
Weighted Average Rate of Interest on Loan	8.8566%	8.8606%	8.8515%	8.8427%
Interest	4.08	9.53	8.87	8.08

(₹ in lakh)

Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	369.36	369.36	369.56	372.91	372.91
Cumulative Repayment up to Previous Year	0.00	0.77	28.80	56.96	85.24
Net Loan-Opening	369.36	368.59	340.77	315.96	287.67
Addition due to Additional Capitalisation	0.00	0.20	3.35	0.00	0.00
Repayment during the year	0.77	28.03	28.16	28.29	28.29
Net Loan-Closing	368.59	340.77	315.96	287.67	259.38
Average Loan	368.97	354.68	328.36	301.81	273.52
Weighted Average Rate of Interest on Loan	9.0965%	9.0942%	9.0891%	9.0836%	9.0779%
Interest	0.92	32.26	29.85	27.42	24.83

53. Detailed calculations of the weighted average rate of interest are given in Annexure-II to V to this order.

Return on Equity (ROE)

54. Clauses (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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$



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.”

55. The Petitioner is entitled for ROE of the instant assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed ROE @19.610% after grossing up the ROE with MAT rate of 20.961% based on the rate as prescribed by the Commission under Regulation 25(2)(i) of 2014 Tariff Regulations.

56. BRPL has submitted that the Petitioner is claiming MAT even on assets which are executed during 2014-19 tariff period. BRPL has further submitted that new transmission project is entitled for tax holiday under Section 80 of IA of the Income Tax Act, 1961. The benefit under this section at the option of the licensee can be claimed for 10 consecutive assessment years out of 15 years beginning from the year in which the enterprise begins to generate power. BRPL has submitted that reasons for claiming MAT in a new transmission project especially when tax holiday is available to it is required to be explained by the Petitioner.

57. In response, the Petitioner has submitted that they are availing tax benefits under section 80IA of the Income Tax Act, 1961 for computing normal income tax. However, under Section 115JB of the Income Tax Act, 1961, the Petitioner Company is liable for payment of MAT @18.5% plus surcharge and cess as applicable. The Petitioner has further submitted that as per Regulation 25(3) of the 2014 Tariff Regulations any under/over recovery of grossed up rate on ROE shall be adjusted at



the time of truing up on the basis of actual tax paid including interest and any additional tax demand by the Income Tax Authorities.

58. We have considered the submissions of the Petitioner and have also perused the documents available on record. ROE has been computed as per Regulation 24 of 2014 Tariff Regulations at the rate of 19.610% for the period 2014-19. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. Accordingly, the applicable MAT rate has been considered for the purpose of return on equity. Accordingly, the ROE allowed for the instant assets is as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I					
Opening Equity	124.28	134.08	145.93	152.68	152.68
Additional Capitalization	9.80	11.86	6.74	0.00	0.00
Closing Equity	134.08	145.93	152.68	152.68	152.68
Average Equity	129.18	140.00	149.30	152.68	152.68
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the financial year 2008-09 (%)	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)	12.01	27.45	29.28	29.94	29.94

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Asset-II				
Opening Equity	25.86	25.86	26.68	26.68
Additional Capitalization	0.00	0.83	0.00	0.00
Closing Equity	25.86	26.68	26.68	26.68
Average Equity	25.86	26.27	26.68	26.68
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT rate for the financial year 2008-09 (%)	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)	2.08	5.15	5.23	5.23

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Asset-III				
Opening Equity	48.85	48.85	50.08	50.08
Additional Capitalization	0.00	1.24	0.00	0.00
Closing Equity	48.85	50.08	50.08	50.08



Average Equity	48.85	49.47	50.08	50.08
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT rate for the financial year 2008-09 (%)	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)	3.94	9.70	9.82	9.82

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-IV					
Opening Equity	158.30	158.30	158.38	159.82	159.82
Additional Capitalization	0.00	0.09	1.44	0.00	0.00
Closing Equity	158.30	158.38	159.82	159.82	159.82
Average Equity	158.30	158.34	159.10	159.82	159.82
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the financial year 2008-09 (%)	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)	0.85	31.05	31.20	31.34	31.34

Depreciation

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

"27. Depreciation:

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

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

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

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



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

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

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

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

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

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

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

60. The Petitioner has claimed actual depreciation as a component of Annual Fixed Charges. We have considered depreciation as per Regulation 27 of the 2014 Tariff Regulations. All the assets covered in the instant petition were put into commercial operation between 10.10.2014 to 3.11.2015 and they will accordingly complete 12 years beyond 2018-19. We have, therefore, calculated depreciation annually based on Straight Line Method at rates specified in Appendix-II. Accordingly, depreciation has been worked out on the basis of capital expenditure as on COD and additional capitalization incurred/ projected to be incurred thereafter. The depreciation for the first year has been calculated on pro rata basis for the year/part of year. The depreciation allowed for the assets is as under:-



(₹ in lakh)

Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	414.27	446.92	486.44	508.92	508.92
Additional Capital Expenditure	32.65	39.52	22.48	0.00	0.00
Closing Gross Block	446.92	486.44	508.92	508.92	508.92
Average Gross Block	430.59	466.68	497.68	508.92	508.92
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	387.53	420.01	447.91	458.03	458.03
Remaining Depreciable Value	387.53	409.23	412.49	396.33	369.46
Depreciation	10.78	24.64	26.28	26.87	26.87

(₹ in lakh)

Asset-II	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	86.20	86.20	88.95	88.95
Additional Capital Expenditure	0.00	2.75	0.00	0.00
Closing Gross Block	86.20	88.95	88.95	88.95
Average Gross Block	86.20	87.57	88.95	88.95
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	77.58	78.81	80.05	80.05
Remaining Depreciable Value	77.58	76.94	73.56	68.86
Depreciation	1.87	4.62	4.70	4.70

(₹ in lakh)

Asset-III	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	162.82	162.82	166.95	166.95
Additional Capital Expenditure	0.00	4.13	0.00	0.00
Closing Gross Block	162.82	166.95	166.95	166.95
Average Gross Block	162.82	164.88	166.95	166.95
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	146.54	148.40	150.25	150.25
Remaining Depreciable Value	146.54	144.86	138.02	129.20
Depreciation	3.53	8.71	8.81	8.81

(₹ in lakh)

Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	527.65	527.65	527.94	532.73	532.73
Additional Capital Expenditure	0.00	0.29	4.79	0.00	0.00
Closing Gross Block	527.65	527.94	532.73	532.73	532.73
Average Gross Block	527.65	527.80	530.34	532.73	532.73
Rate of Depreciation	5.3102%	5.3102%	5.3101%	5.3100%	5.3100%
Depreciable Value	474.89	475.02	477.30	479.46	479.46
Remaining Depreciable Value	474.89	474.25	448.51	422.50	394.22
Depreciation	0.77	28.03	28.16	28.29	28.29



Operation and Maintenance Expenses

61. The Petitioner has claimed O&M Expenses for the instant assets which are as follows:-

(₹ in lakh)					
Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	0.24	0.33	0.12	0.13	0.13
Asset-II	0.00	0.33	0.82	0.85	0.88
Asset-III	0.00	0.98	2.47	2.56	2.64
Asset-IV	1.64	62.90	64.98	67.15	69.37
Total	1.88	64.54	68.39	70.69	73.02

62. The O&M Expenses as per Regulation 29(4)(a) of the 2014 Tariff Regulations are as follows:-

(lakh/ km/ Bay)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
S/C - 4 sub conductors	0.61	0.63	0.65	0.67	0.69
D/C - 4 sub conductors	1.06	1.10	1.13	1.17	1.21
S/C of a D/C transmission line (D/C / 2)	0.53	0.55	0.57	0.59	0.61
400 kV Bay	60.30	62.30	64.37	66.51	68.71

63. The Petitioner vide affidavit dated 15.3.2017 has submitted the following details of the instant assets:-

(in km/ No.)				
Asset	Asset-I	Asset-II	Asset-III	Asset-IV
S/C	0.19	0.14	0.07	0.25
D/C	0.65	0.65	2.14	0.40
400 kV Bay	0.00	0.00	0.00	1.00
COD	10.10.2014	3.11.2015	3.11.2015	22.3.2015

64. A perusal of above table shows that that all the instant assets consist of some portion as S/C line and some other portion as D/C line. Therefore, we have worked out the O&M Expenses of S/C line as per S/C line norms and for D/C portion, we have considered half of the O&M Expenses norms of D/C line when both the circuits of the same D/C line have been put into commercial operation of each of the instant



assets. In case when only one circuit is put into commercial operation of the D/C line, norms of S/C line are considered in such case till the second circuit put into commercial operation. The O&M Expenses are worked out for the instant assets as per the methodology discussed hereunder:-

O &M Expenses for transmission line length (except bays)

Assets-I and II

65. In the present case, Assets-I and II are loop-in and loop-out portions of the same LILO. Both assets have S/C and D/C portions. As such, we are of the view that the for the D/C portion, the Petitioner is entitled to get O&M Expenses based on the norm of D/C line. However, COD of both the assets are different.

- a) The COD of Asset-I is 10.10.2014. Therefore, from date of COD, this asset is eligible to get O&M Expenses of S/C line (4 sub-conductors) for the D/C portion also, since only one circuit (F-J) has been put into commercial operation.
- b) From 3.11.2015, when Asset-II was declared under commercial operation, Assets-I and II together/ combined are eligible to get O&M Expenses for D/C line. Hence, from 3.11.2015, O&M Expenses of Asset-I shall be taken as half of the norm of D/C line.
- c) Therefore, we have worked out O&M Expenses of Asset-I considering a portion of S/C line as per S/C line norms and for D/C portion, we have considered half of the O&M expense norms of D/C line post 3.11.2015. From 10.10.2014 till 2.11.2015, S/C norms are allowed.
- d) For Asset-II, D/C portion O&M expenses shall be taken as half of the norm for D/C line as other half of the D/C line's O&M Expenses have been granted in Asset-I w.e.f. 3.11.2015.



Assets-III and IV

66. Similarly, Asset-III with COD as 3.11.2015 and Asset-IV with COD as 22.3.2015 which are loop-in part of a LILO at Parbati-III and loop-out part of a LILO at Banala Pooling Station respectively where both of these assets have a D/C line common for each other i.e. Asset-III (b-c portion) has a D/C line common with (c-d portion) with COD as 1.9.2013 claimed in Petition No. 107/TT/2017 and Asset-IV (f-g portion) is having a D/C line common with (e-f portion) with COD as 1.9.2013 claimed in Petition No. 107/TT/2017.

67. We have, therefore, worked out the O&M Expenses of Asset-III considering a portion of S/C line as per S/C line norms and for D/C portion, we have considered half of the O&M expense norms of D/C line from COD i.e. 3.11.2015 as the other half of the D/C line is common for (c-d portion) claimed in Petition No. 107/TT/2017.

68. Similarly, for Asset-IV, we have worked out the O&M Expenses after considering a portion of S/C line as per S/C line norms and for D/C portion, we have considered half of the O&M norms of D/C line from 22.3.2015 as the other half of the D/C line is common (e-f portion) claimed in Petition No. 107/TT/2017.

69. Based on the above methodology, the O&M Expenses allowed for the instant assets are as under:-

(₹ in lakh)					
Asset-I (COD:10.10.2014)	2014-15	2015-16	2016-17	2017-18	2018-19
Total S/C from 10.10.2014 to 2.11.2015	0.24	0.31	0.00	0.00	0.00
S/C on a D/C tower (D/C / 2) after 2.11.2015	0.00	0.15	0.37	0.38	0.39
S/C after 2.11.2015	0.00	0.05	0.12	0.13	0.13
Total	0.24	0.51	0.49	0.51	0.52



(₹ in lakh)					
Asset-II (COD:3.11.2015)	2014-15	2015-16	2016-17	2017-18	2018-19
S/C	0.00	0.09	0.09	0.09	0.10
S/C on a D/C tower (D/C / 2) after 2.11.2015	0.00	0.36	0.37	0.38	0.39
Total	0.00	0.44	0.46	0.47	0.49

(₹ in lakh)					
Asset-III (COD:3.11.2015)	2014-15	2015-16	2016-17	2017-18	2018-19
S/C	0.00	0.04	0.05	0.05	0.05
S/C on a D/C tower (D/C / 2)	0.00	1.17	1.21	1.25	1.29
Total	0.00	1.22	1.26	1.30	1.34

(₹ in lakh)					
Asset-IV) (COD:22.3.2015)	2014-15	2015-16	2016-17	2017-18	2018-19
S/C	0.15	0.16	0.16	0.17	0.17
S/C on a D/C tower (D/C / 2)	0.21	0.22	0.23	0.23	0.24
400 kV Bay	60.30	62.30	64.37	66.51	68.71
Total	60.66	62.68	64.76	66.91	69.12

70. Accordingly, the total O&M Expenses allowed for the instant assets are as under:-

(₹ in lakh)					
Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	0.24*	0.51*	0.49	0.51	0.52
Asset-II	0.00	0.18*	0.46	0.47	0.49
Asset-III	0.00	0.50*	1.26	1.30	1.34
Asset-IV	1.66*	62.68	64.76	66.91	69.12
Total	1.90	63.86	66.97	69.19	71.48

*Pro-rata

71. As discussed above, all the instant assets consist of a S/C line alongwith D/C line. However, the Petitioner has not submitted any details whether there are S/C towers in the claimed portion as S/C. The Petitioner is directed to provide information that claim of S/C should involve a S/C tower. Hence, the Petitioner should clarify whether there is any S/C tower. In case there are no S/C towers, the Petitioner should not claim S/C line as it is a part of D/C line.



Interest on Working Capital (IWC)

72. 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 72 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;”

73. As per the 2014 Tariff Regulations, the components of the working capital and the interest thereon are discussed as under:-

a) Maintenance spares:

Maintenance spares @15% Operation and maintenance expenses specified in Regulation 28.

b) O & M Expenses:

Operation and Maintenance 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.



e) **Rate of Interest on Working Capital:**

As per Regulation 28(3) of the 2014 Tariff Regulations, SBI Base Rate Plus 350 Bps as on 1.4.2014 and 1.4.2015 i.e. 13.50% has been considered as the rate of interest on working capital for all the assets.

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

(₹ in lakh)					
Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.08	0.08	0.07	0.08	0.08
O & M Expenses	0.04	0.04	0.04	0.04	0.04
Receivables	13.20	13.98	14.48	14.39	13.94
Total	13.31	14.10	14.60	14.50	14.06
Rate of Interest	0.85	1.90	1.97	1.96	1.90

(₹ in lakh)				
Asset-II	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.07	0.07	0.07	0.07
O & M Expenses	0.04	0.04	0.04	0.04
Receivables	2.69	2.68	2.65	2.57
Total	2.79	2.79	2.76	2.69
Rate of Interest	0.15	0.38	0.37	0.36

(₹ in lakh)				
Asset-III	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.18	0.19	0.20	0.20
O & M Expenses	0.10	0.11	0.11	0.11
Receivables	5.01	4.98	4.92	4.79
Total	5.29	5.28	5.22	5.10
Rate of Interest	0.29	0.71	0.70	0.69

(₹ in lakh)					
Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.09	9.40	9.71	10.04	10.37
O & M Expenses	5.05	5.22	5.40	5.58	5.76
Receivables	26.45	26.60	26.60	26.61	26.56
Total	40.59	41.22	41.71	42.22	42.68
Rate of Interest	0.15	5.56	5.63	5.70	5.76

Transmission charges

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



(₹ in lakh)					
Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	10.78	24.64	26.28	26.87	26.87
Interest on Loan	13.65	29.37	28.87	27.04	24.42
Return on Equity	12.01	27.45	29.28	29.94	29.94
Interest on Working Capital	0.85	1.90	1.97	1.96	1.90
O & M Expenses	0.24	0.51	0.49	0.51	0.52
Total	37.53	83.88	86.89	86.31	83.65

(₹ in lakh)				
Asset-II	2015-16	2016-17	2017-18	2018-19
Depreciation	1.87	4.62	4.70	4.70
Interest on Loan	2.34	5.47	5.12	4.67
Return on Equity	2.08	5.15	5.23	5.23
Interest on Working Capital	0.15	0.38	0.37	0.36
O & M Expenses	0.18	0.46	0.47	0.49
Total	6.63	16.08	15.89	15.45

(₹ in lakh)				
Asset-III	2015-16	2016-17	2017-18	2018-19
Depreciation	3.53	8.71	8.81	8.81
Interest on Loan	4.08	9.53	8.87	8.08
Return on Equity	3.94	9.70	9.82	9.82
Interest on Working Capital	0.29	0.71	0.70	0.69
O & M Expenses	0.50	1.26	1.30	1.34
Total	12.35	29.91	29.51	28.75

(₹ in lakh)					
Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0.77	28.03	28.16	28.29	28.29
Interest on Loan	0.92	32.26	29.85	27.42	24.83
Return on Equity	0.85	31.05	31.20	31.34	31.34
Interest on Working Capital	0.15	5.56	5.63	5.70	5.76
O & M Expenses	1.66	62.68	64.76	66.91	69.12
Total	4.35	159.58	159.60	159.65	159.34

Filing Fee and the Publication Expenses

76. 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 the publication 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

77. 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

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

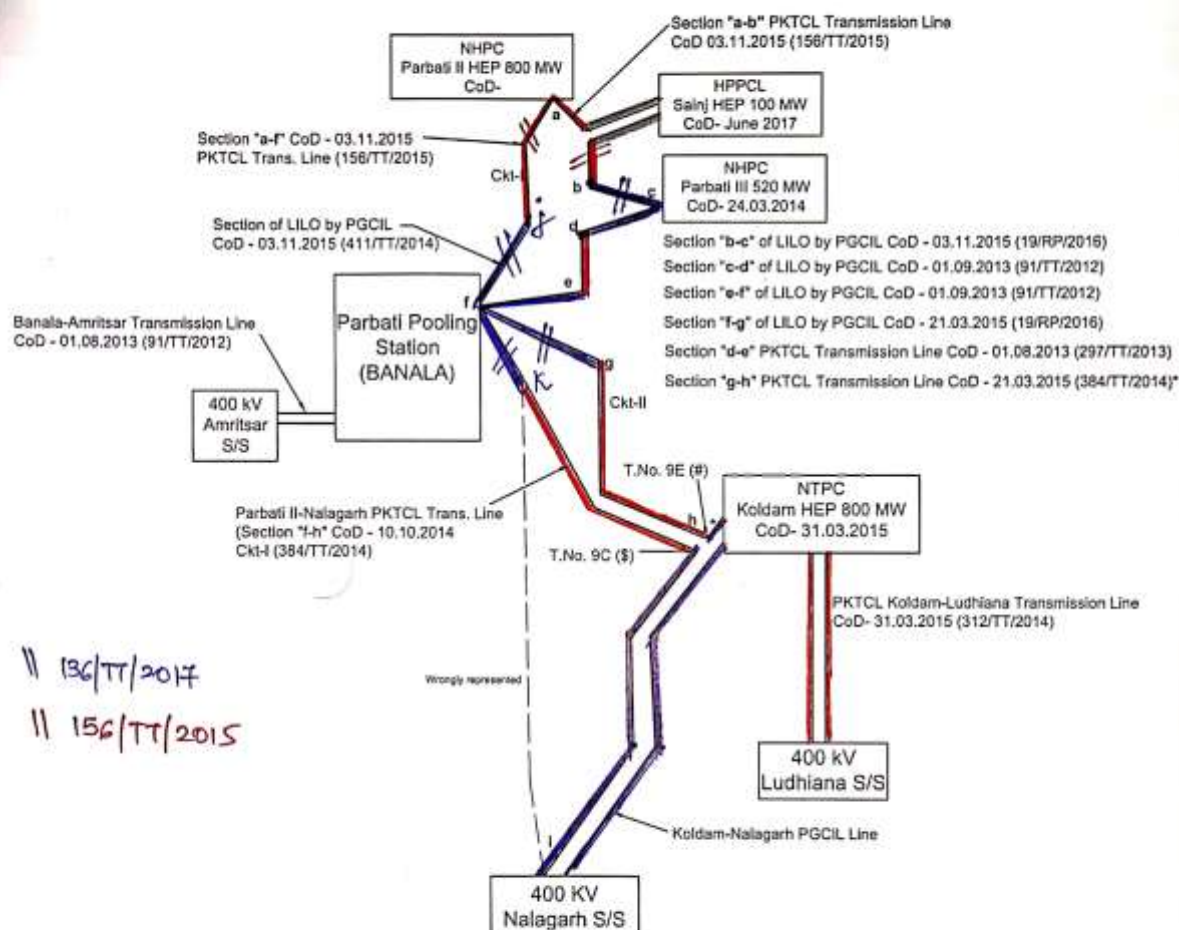
79. This order disposes of Petition No. 136/TT/2017.

sd/-
(I. S. Jha)
Member

sd/-
(P.K. Pujari)
Chairperson



The Schematic diagram describing transmission system constructed by PKTCL



Power Evacuation System for Koldam-Parbati II and Parbati III HEP

LEGEND:

- PGCIL Lines
- PKTCL Lines
- HPPCL Lines
- Wrongly represented

* Section of Koldam-Nalagarh Line of PGCIL CoD 01.04.2011 (2/TT/2011)

\$ Ckt-I "f-h" connected at Tower 9C of Koldam-Nalagarh Line of PGCIL forming Banala-Nalagarh section.

Ckt-II "g-h" connected at Tower 9E of Koldam-Nalagarh Line of PGCIL forming Banala-Koldam section.



Annexure-II**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

		(₹ in lakh)				
	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
1	Bond XXXIV					
	Gross loan opening	50.00	50.00	50.00	50.00	50.00
	Cumulative Repayment upto COD/previous year	0.00	4.17	8.33	12.50	16.67
	Net Loan-Opening	50.00	45.83	41.67	37.50	33.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	4.17	4.17	4.17	4.17	4.17
	Net Loan-Closing	45.83	41.67	37.50	33.33	29.17
	Average Loan	47.92	43.75	39.58	35.42	31.25
	Rate of Interest	8.84%	8.84%	8.84%	8.84%	8.84%
	Interest	4.24	3.87	3.50	3.13	2.76
	Rep Schedule	12 annual instalments from 21.10.2014				
2	Bond XXXV					
	Gross loan opening	45.00	45.00	45.00	45.00	45.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	3.75	7.50	11.25
	Net Loan-Opening	45.00	45.00	41.25	37.50	33.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	3.75	3.75	3.75	3.75
	Net Loan-Closing	45.00	41.25	37.50	33.75	30.00
	Average Loan	45.00	43.13	39.38	35.63	31.88
	Rate of Interest	9.64%	9.64%	9.64%	9.64%	9.64%
	Interest	4.34	4.16	3.80	3.43	3.07
	Rep Schedule	12 annual instalments from 31.5.2015				
3	Bond XXXVI					
	Gross loan opening	30.73	30.73	30.73	30.73	30.73
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	2.05	4.10
	Net Loan-Opening	30.73	30.73	30.73	28.68	26.63
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	2.05	2.05	2.05
	Net Loan-Closing	30.73	30.73	28.68	26.63	24.58
	Average Loan	30.73	30.73	29.71	27.66	25.61
	Rate of Interest	9.35%	9.35%	9.35%	9.35%	9.35%
	Interest	2.87	2.87	2.78	2.59	2.39
	Rep Schedule	15 annual instalments from 29.8.2016				
4	SBI (21.3.2012)					
	Gross loan opening	137.33	137.33	137.33	137.33	137.33
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	12.48	24.97
	Net Loan-Opening	137.33	137.33	137.33	124.85	112.36
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	12.48	12.48	12.48



	Net Loan-Closing	137.33	137.33	124.85	112.36	99.88
	Average Loan	137.33	137.33	131.09	118.60	106.12
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	14.08	14.08	13.44	12.16	10.88
	Rep Schedule	22 semi-annual instalments from 31.8.2016				
5	Bond XLV					
	Gross loan opening	76.18	76.18	76.18	76.18	76.18
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	6.35
	Net Loan-Opening	76.18	76.18	76.18	76.18	69.83
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	6.35	6.35
	Net Loan-Closing	76.18	76.18	76.18	69.83	63.48
	Average Loan	76.18	76.18	76.18	73.01	66.66
	Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
	Interest	7.35	7.35	7.35	7.05	6.43
	Rep Schedule	12 annual instalments from 28.2.2018				
6	Bond XLVI					
	Gross loan opening	0.18	0.18	0.18	0.18	0.18
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.18	0.18	0.18	0.18	0.18
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.18	0.18	0.18	0.18	0.18
	Average Loan	0.18	0.18	0.18	0.18	0.18
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	0.02	0.02	0.02	0.02	0.02
	Rep Schedule	3 (Three) equal instalments on 4.9.2019, 4.9.2024 and 4.9.2029				
7	Bond XLVI					
	Gross loan opening	0.00	22.86	22.86	22.86	22.86
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	22.86	22.86	22.86	22.86
	Additions during the year	22.86	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	22.86	22.86	22.86	22.86	22.86
	Average Loan	11.43	22.86	22.86	22.86	22.86
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	1.06	2.13	2.13	2.13	2.13
	Rep Schedule	3 (Three) equal instalments on 4.9.2019, 4.9.2024 and 4.9.2029				
8	Bond XLVI					
	Gross loan opening	0.00	6.40	6.40	6.40	6.40
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	6.40	6.40	6.40	6.40



	Additions during the year	6.40	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	6.40	6.40	6.40	6.40	6.40
	Average Loan	3.20	6.40	6.40	6.40	6.40
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	0.30	0.60	0.60	0.60	0.60
	Rep Schedule	3 (Three) equal instalments on 4.9.2019, 4.9.2024 and 4.9.2029				
9	Bond XLVI					
	Gross loan opening	0.00	0.00	0.72	0.72	0.72
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	0.72	0.72	0.72
	Additions during the year	0.00	0.72	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.72	0.72	0.72	0.72
	Average Loan	0.00	0.36	0.72	0.72	0.72
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	0.00	0.03	0.07	0.07	0.07
	Rep Schedule	3 (Three) equal instalments on 4.9.2019, 4.9.2024 and 4.9.2029				
10	Bond LI					
	Gross loan opening	0.00	0.00	27.66	27.66	27.66
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	27.66	27.66	27.66
	Additions during the year	0.00	27.66	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	27.66	27.66	27.66	27.66
	Average Loan	0.00	13.83	27.66	27.66	27.66
	Rate of Interest	8.40%	8.40%	8.40%	8.40%	8.40%
	Interest	0.00	1.16	2.32	2.32	2.32
	Rep Schedule	12 annual instalments from 14.9.2019				
	Total Loan					
	Gross loan opening	339.42	368.68	397.06	397.06	397.06
	Cumulative Repayment upto COD/previous year	0.00	4.17	12.08	34.53	63.33
	Net Loan-Opening	339.42	364.51	384.98	362.53	333.73
	Additions during the year	29.26	28.38	0.00	0.00	0.00
	Repayment during the year	4.17	7.92	22.45	28.80	28.80
	Net Loan-Closing	364.51	384.98	362.53	333.73	304.93
	Average Loan	351.97	374.75	373.75	348.13	319.33
	Rate of Interest	9.7316%	9.6756%	9.6290%	9.6175%	9.6037%
	Interest	34.25	36.26	35.99	33.48	30.67



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

		(₹ in lakh)			
	Details of Loan	2015-16	2016-17	2017-18	2018-19
1	Bond XXXV				
	Gross loan opening	5.00	5.00	5.00	5.00
	Cumulative Repayment upto COD/previous year	0.42	0.42	0.83	1.25
	Net Loan-Opening	4.58	4.58	4.17	3.75
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.42	0.42	0.42
	Net Loan-Closing	4.58	4.17	3.75	3.33
	Average Loan	4.58	4.38	3.96	3.54
	Rate of Interest	9.64%	9.64%	9.64%	9.64%
	Interest	0.44	0.42	0.38	0.34
	Rep Schedule	12 annual instalments from 31.5.2015			
2	Bond XXXVI				
	Gross loan opening	19.27	19.27	19.27	19.27
	Cumulative Repayment upto COD/previous year	0.00	0.00	1.28	2.57
	Net Loan-Opening	19.27	19.27	17.99	16.70
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1.28	1.28	1.28
	Net Loan-Closing	19.27	17.99	16.70	15.42
	Average Loan	19.27	18.63	17.34	16.06
	Rate of Interest	9.35%	9.35%	9.35%	9.35%
	Interest	1.80	1.74	1.62	1.50
	Rep Schedule	15 annual instalments from 29.8.2016			
3	Bond XLV				
	Gross loan opening	54.07	54.07	54.07	54.07
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	4.51
	Net Loan-Opening	54.07	54.07	54.07	49.56
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	4.51	4.51
	Net Loan-Closing	54.07	54.07	49.56	45.06
	Average Loan	54.07	54.07	51.82	47.31
	Rate of Interest	9.65%	9.65%	9.65%	9.65%
	Interest	5.22	5.22	5.00	4.57
	Rep Schedule	12 annual instalments from 28.2.2018			
4	Bond XLV (Add Cap)				
	Gross loan opening	0.00	1.98	1.98	1.98
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.17



	Net Loan-Opening	0.00	1.98	1.98	1.82
	Additions during the year	1.98	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.17	0.17
	Net Loan-Closing	1.98	1.98	1.82	1.65
	Average Loan	0.99	1.98	1.90	1.73
	Rate of Interest	9.65%	9.65%	9.65%	9.65%
	Interest	0.10	0.19	0.18	0.17
	Rep Schedule	12 annual instalments from 28.2.2018			
	Total Loan				
	Gross loan opening	78.34	80.32	80.32	80.32
	Cumulative Repayment upto COD/previous year	0.42	0.42	2.12	8.49
	Net Loan-Opening	77.92	79.90	78.20	71.83
	Additions during the year	1.98	0.00	0.00	0.00
	Repayment during the year	0.00	1.70	6.37	6.37
	Net Loan-Closing	79.90	78.20	71.83	65.46
	Average Loan	78.91	79.05	75.02	68.64
	Rate of Interest	9.5762%	9.5788%	9.5801%	9.5793%
	Interest	7.56	7.57	7.19	6.58



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

		(₹ in lakh)			
	Details of Loan	2015-16	2016-17	2017-18	2018-19
1	Bond XLII				
	Gross loan opening	50.00	50.00	50.00	50.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	50.00	50.00	50.00	50.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	50.00	50.00	50.00	50.00
	Average Loan	50.00	50.00	50.00	50.00
	Rate of Interest	8.80%	8.80%	8.80%	8.80%
	Interest	4.40	4.40	4.40	4.40
	Rep Schedule	Bullet Payment as on 13.3.2023			
2	Bond XLIII				
	Gross loan opening	30.00	30.00	30.00	30.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	2.50
	Net Loan-Opening	30.00	30.00	30.00	27.50
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	2.50	2.50
	Net Loan-Closing	30.00	30.00	27.50	25.00
	Average Loan	30.00	30.00	28.75	26.25
	Rate of Interest	7.93%	7.93%	7.93%	7.93%
	Interest	2.38	2.38	2.28	2.08
	Rep Schedule	12 annual instalments from 20.5.2017			
3	Bond XLV				
	Gross loan opening	14.22	14.22	14.22	14.22
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	1.19
	Net Loan-Opening	14.22	14.22	14.22	13.04
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	1.19	1.19
	Net Loan-Closing	14.22	14.22	13.04	11.85
	Average Loan	14.22	14.22	13.63	12.44
	Rate of Interest	9.65%	9.65%	9.65%	9.65%
	Interest	1.37	1.37	1.32	1.20
	Rep Schedule	12 annual instalments from 28.2.2018			
4	Bond XLV (Add Cap)				
	Gross loan opening	0.00	5.85	5.85	5.85
	Cumulative Repayment upto	0.00	0.00	0.00	0.49

	COD/previous year				
	Net Loan-Opening	0.00	5.85	5.85	5.36
	Additions during the year	5.85	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.49	0.49
	Net Loan-Closing	5.85	5.85	5.36	4.88
	Average Loan	2.93	5.85	5.61	5.12
	Rate of Interest	9.65%	9.65%	9.65%	9.65%
	Interest	0.28	0.56	0.54	0.49
	Rep Schedule	12 annual instalments from 28.2.2018			
5	Bond XLV (Add Cap)				
	Gross loan opening	0.00	0.00	0.64	0.64
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.05
	Net Loan-Opening	0.00	0.00	0.64	0.59
	Additions during the year	0.00	0.64	0.00	0.00
	Repayment during the year	0.00	0.00	0.05	0.05
	Net Loan-Closing	0.00	0.64	0.59	0.53
	Average Loan	0.00	0.32	0.61	0.56
	Rate of Interest	9.65%	9.65%	9.65%	9.65%
	Interest	0.00	0.03	0.06	0.05
	Rep Schedule	12 annual instalments from 28.2.2018			
6	Bond XXIX				
	Gross loan opening	70.00	70.00	70.00	70.00
	Cumulative Repayment upto COD/previous year	17.50	23.33	29.17	35.00
	Net Loan-Opening	52.50	46.67	40.83	35.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	5.83	5.83	5.83	5.83
	Net Loan-Closing	46.67	40.83	35.00	29.17
	Average Loan	49.58	43.75	37.92	32.08
	Rate of Interest	9.20%	9.20%	9.20%	9.20%
	Interest	4.56	4.03	3.49	2.95
	Rep Schedule	12 annual instalments from 12.3.2013			
	Total Loan				
	Gross loan opening	164.22	170.07	170.71	170.71
	Cumulative Repayment upto COD/previous year	17.50	23.33	29.17	39.23
	Net Loan-Opening	146.72	146.74	141.54	131.48
	Additions during the year	5.85	0.64	0.00	0.00
	Repayment during the year	5.83	5.83	10.06	10.06
	Net Loan-Closing	146.74	141.54	131.48	121.43
	Average Loan	146.73	144.14	136.51	126.45
	Rate of Interest	8.8566%	8.8606%	8.8515%	8.8427%
	Interest	13.00	12.77	12.08	11.18



Annexure-V**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(₹ in lakh)

	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
1	Bond XLII					
	Gross loan opening	127.27	127.27	127.27	127.27	127.27
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	127.27	127.27	127.27	127.27	127.27
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	127.27	127.27	127.27	127.27	127.27
	Average Loan	127.27	127.27	127.27	127.27	127.27
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	11.20	11.20	11.20	11.20	11.20
	Rep Schedule	Bullet Payment as on 13.3.2023				
2	Bond XLIII					
	Gross loan opening	4.65	4.65	4.65	4.65	4.65
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.39
	Net Loan-Opening	4.65	4.65	4.65	4.65	4.26
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.39	0.39
	Net Loan-Closing	4.65	4.65	4.65	4.26	3.88
	Average Loan	4.65	4.65	4.65	4.46	4.07
	Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
	Interest	0.37	0.37	0.37	0.35	0.32
	Rep Schedule	12 annual instalments from 20.5.2017				
3	Bond XLV					
	Gross loan opening	3.40	3.40	3.40	3.40	3.40
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.28
	Net Loan-Opening	3.40	3.40	3.40	3.40	3.12
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.28	0.28
	Net Loan-Closing	3.40	3.40	3.40	3.12	2.83
	Average Loan	3.40	3.40	3.40	3.26	2.98
	Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
	Interest	0.33	0.33	0.33	0.31	0.29
	Rep Schedule	12 annual instalments from 28.2.2018				
4	Bond XLVI					
	Gross loan opening	111.30	111.30	111.30	111.30	111.30
	Cumulative Repayment upto	0.00	0.00	0.00	0.00	0.00



	COD/previous year					
	Net Loan-Opening	111.30	111.30	111.30	111.30	111.30
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	111.30	111.30	111.30	111.30	111.30
	Average Loan	111.30	111.30	111.30	111.30	111.30
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	10.35	10.35	10.35	10.35	10.35
	Rep Schedule	3 (Three) equal instalments on 4.9.2019, 4.9.2024 and 4.9.2029				
5	Bond XXIX					
	Gross loan opening	240.00	240.00	240.00	240.00	240.00
	Cumulative Repayment upto COD/previous year	60.00	60.00	80.00	100.00	120.00
	Net Loan-Opening	180.00	180.00	160.00	140.00	120.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	20.00	20.00	20.00	20.00
	Net Loan-Closing	180.00	160.00	140.00	120.00	100.00
	Average Loan	180.00	170.00	150.00	130.00	110.00
	Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%
	Interest	16.56	15.64	13.80	11.96	10.12
	Rep Schedule	12 annual instalments from 12.3.2013				
6	Bond XLVI (Add Cap)					
	Gross loan opening	0.00	0.00	1.44	1.44	1.44
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	1.44	1.44	1.44
	Additions during the year	0.00	1.44	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	1.44	1.44	1.44	1.44
	Average Loan	0.00	0.72	1.44	1.44	1.44
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	0.00	0.07	0.13	0.13	0.13
	Rep Schedule	3 (Three) equal instalments on 4.9.2019, 4.9.2024 and 4.9.2029				
7	Bond LI					
	Gross loan opening	0.00	0.00	0.20	0.20	0.20
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	0.20	0.20	0.20
	Additions during the year	0.00	0.20	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.20	0.20	0.20	0.20
	Average Loan	0.00	0.10	0.20	0.20	0.20
	Rate of Interest	8.40%	8.40%	8.40%	8.40%	8.40%



Interest	0.00	0.01	0.02	0.02	0.02
Rep Schedule	12 annual instalments from 14.9.2019				
Total Loan					
Gross loan opening	486.62	486.62	488.26	488.26	488.26
Cumulative Repayment upto COD/previous year	60.00	60.00	80.00	100.00	120.67
Net Loan-Opening	426.62	426.62	408.26	388.26	367.59
Additions during the year	0.00	1.64	0.00	0.00	0.00
Repayment during the year	0.00	20.00	20.00	20.67	20.67
Net Loan-Closing	426.62	408.26	388.26	367.59	346.92
Average Loan	426.62	417.44	398.26	377.92	357.25
Rate of Interest	9.0965%	9.0942%	9.0891%	9.0836%	9.0779%
Interest	38.81	37.96	36.20	34.33	32.43

