**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 209/TT/2016**

**Coram:**

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

**Date of Order : 1.9.2017**

**In the matter of:**

Approval of transmission tariff for 2 nos. 400 kV line bays at Muzaffarpur Sub-station for termination of Muzaffarpur (PG)-Darbhanga (TBCB) 400 kV D/C (Triple snowbird) line under Eastern Region Strengthening Scheme VI (ERSS VI) in Eastern Region for tariff block 2014-19from COD to 31.3.2019 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

**And in the matter of:**

Power Grid Corporation of India Limited,
"Saudamani", Plot No.2,
Sector-29, Gurgaon -122 001 **…….Petitioner**

Vs

1. Bihar State Power (Holding) Company Limited,
   (Formerly Bihar State Electricity Board-BSEB),
   Vidyut Bhawan, Bailey Road, Patna-800 001

2. West Bengal State Electricity Distribution Company Limited,
   Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II,
   Salt Lake City, Kolkata-700 091

3. Grid Corporation of Orissa Limited,
   Shahid Nagar, Bhubaneswar-751 007

4. Jharkhand State Electricity Board,
   In front of Main Secretariat,
   Doranda, Ranchi-834 002

5. Damodar Valley Corporation,
   DVC Tower, Maniktala, Civic Centre, VIP Road,
   Kolkata-700 054

6. Power Department,
   Government of Sikkim, Gangtok-737 101

7. Darbhanga-Motihari Transmission Company Limited,
   Essel House, B-10, Lawrence Road,
   Industrial Area, New Delhi-110035 **….Respondents**

**For petitioner**: Shri S.S. Raju, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Jasbir Singh, PGCIL
Shri Neeraj Verma, PGCIL

**For respondent:** Shri Matrugupta Mishra, Advocate, DMTCL
Shri Saahil Kaul, Advocate, DMTCL
Shri Nishant Kumar, Advocate, DMTCL
Shri Himesh Kumar Jha, Advocate, DMTCL
Shri Amit Kumar, Essel Infra

**ORDER**

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff for 2 nos. 400 kV line bays at Muzaffarpur Sub-station for termination of Muzaffarpur (PG)-Darbhanga (TBCB) 400 kV D/C (Triple Snowbird) line under Eastern Region Strengthening Scheme VI (ERSS VI or transmission scheme) in Eastern Region in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter "the 2014 Tariff Regulations").

2. The petitioner has been entrusted with the implementation of Eastern Region Strengthening Scheme VI. The scheme was discussed in the meeting of Standing Committee in Eastern Region held on 8.2.2012 at NRPC, New Delhi and on 5.1.2013 at POWERGRID, Gurgaon and later agreed in the 21$^{st}$ TCC and ERPC meeting held on 20-21 April, 2012 at Rajarhat, Kolkata and was further discussed in 24$^{th}$ TCC and ERPC meeting held on 26-27 April, 2013 at

Bhubaneswar. This was also approved in 29th Empowered Committee meeting held on 15.6.2012.

3. The Investment Approval for the transmission project was accorded by the Board of Directors of the petitioner vide Memorandum No. C/CP/ERSS-VI dated 23.3.2015, at an estimated cost of ₹1250 lakh including an IDC of ₹69 lakh (based on December, 2014 price level). The project was scheduled to be commissioned within 24 months from the date of investment approval. Therefore, the scheduled date of commissioning of the transmission system was 22.3.2017. The entire scope of work covered under the instant transmission scheme is covered in the instant scheme and it is as follows:-

> "2 nos. 400 kV line bays at Muzaffarpur Sub-station for termination of Muzaffarpur (PG)-Darbhanga (TBCB) 400 kV D/C (Triple Snowbird) line."

4. The petitioner has claimed transmission charges on the basis of actual date of commercial operation (COD) of the instant asset which was 31.8.2016.

5. The petitioner has claimed the following transmission charges for the instant asset:-

**(₹ in lakh)**

| Particulars | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|
| Depreciation | 25.69 | 62.23 | 77.96 |
| Interest on Loan | 28.11 | 64.81 | 76.50 |
| Return on Equity | 28.47 | 68.96 | 86.43 |
| Interest on Working Capital | 5.74 | 11.23 | 12.44 |
| O & M Expenses | 75.44 | 133.02 | 137.42 |
| Total | **163.45** | **340.25** | **390.75** |

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

**(₹ in lakh)**

| Particulars | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|
| O & M expenses | 19.31 | 19.95 | 20.61 |
| Maintenance Spares | 10.73 | 11.09 | 11.45 |
| Receivables | 46.49 | 56.71 | 65.12 |
| **Total** | 57.22 | 67.80 | 76.57 |
| Rate of Interest (%) | 12.80 | 12.80 | 12.80 |
| **Interest** | 7.32 | 8.68 | 9.80 |

7. 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. Darbhanga-Motihari Transmission Company Limited (DMTCL), Respondent No. 7, has filed its reply vide affidavit dated 13.2.2017 in compliance with the direction issued vide the record of proceeding dated 17.11.2016. The petitioner has filed rejoinder dated 8.5.2017 to the reply of DMTCL.

**<u>Date of Commercial Operation (COD)</u>**

8. As per the Investment Approval dated 23.3.2015, the instant assets were scheduled to be commissioned within 24 months from the date of Investment Approval, i.e. by 22.3.2017. The petitioner has submitted that the associated transmission line, i.e. Muzaffarpur (PG)-Darbhanga (TBCB) 400 kV D/C (Triple Snowbird) line is executed by DMTCL under the TBCB route and it was to be put under commercial operation in August, 2016. The petitioner has submitted that taking into consideration the progress of the associated transmission line, the LOA was placed in April, 2015 in order to put the instant assets into commercial operation matching with the commercial operation of the associated transmission line in June, 2016. However, the COD of the associated line was delayed to RoW issues and it was not possible to delay the COD of the instant assets any further and hence completed the work within the time schedule and declared the COD of

the instant assets on 31.8.2016. The petitioner has further submitted that the instant assets were not utilized due to delay in the completion and commissioning of the associated transmission line by DMTCL, which were beyond the control of the petitioner. The petitioner has submitted that instant assets were not put to regular service for reasons not attributable to the petitioner and qualifies for approval of COD under the second proviso to Regulation 4(3) of 2014 Tariff Regulations. The petitioner has prayed for approval of the COD of the instant assets as 31.8.2016 under the second proviso to Regulation 4(3) of the 2014 Tariff Regulations.

9. The petitioner was directed to submit RLDC certificate regarding completion of trial operation of the instant asset, the reasons for early commissioning of the asset and details of coordination carried out with DMTCL, the current status of the associated transmission line and to clarify whether the transmission assets are in use. In response, the petitioner vide affidavit dated 31.1.2017 has submitted the RLDC certificate w.r.t. the instant assets on 'no load' condition. As regards the reasons for early commissioning of the instant assets and the coordination carried out with DMTCL, the petitioner submitted that the SPV was acquired by ESSEL on 10.12.2013 and as per the TSA, the associated transmission line was scheduled to be completed by June, 2016. Accordingly, the petitioner planned and executed the instant bays at Muzaffarpur matching the completion of June, 2016. The petitioner further submitted that during CEA meeting held on 26.7.2016, ESSEL Infra Project Ltd. intimated that this transmission line would be completed by July, 2016. Further, as per CEA monthly report, the revised target completion date of transmission line was intimated and updated by ESSEL as August, 2016. Accordingly, the petitioner

made its best effort to match the commissioning of the bays with the line. However, due to contractual obligation, it was not feasible for the petitioner to stop and delay the construction activities beyond specified period once the contract has been awarded. Hence, the instant assets at Muzaffarpur Sub-station were put under commercial operation on 31.8.2016. The communication regarding the readiness of bay was given to ESSEL Infra through 125th OCC meeting dated 6.10.2016. The petitioner has further submitted that the instant assets were not put to use due to non-readiness of associated transmission line.

10. As the instant assets were not put to use due to delay in COD of the associated transmission lines of DMTCL, DMTCL was directed to submit its comments.

11. In response, DMTCL, vide affidavit dated 13.2.2017, has made the following submissions:--

(a) It is not a beneficiary of the system being built by the petitioner. For the purpose of determination of tariff, only the beneficiaries, who are liable to share the transmission charges, have to be made as respondents. DMTCL is an ISTS developer and not a beneficiary of the instant assets and hence it should not have been made a respondent. In the determination of the tariff petition there is neither any scope, nor an independent analysis of the reasons behind the delay occasioned in implementation of the transmission project within the scope of work of DMTCL.

(b) As regards the status of its project, DMTCL was selected through a tariff based competitive bidding process, pursuant to the RFP dated 27.5.2013, for implementing the transmission scheme, referred to as ERSS-

VI, on build, own, operate and maintain basis. Pursuant to the said bidding process, TSA was executed on 8.8.2013 with the various stakeholders in the Eastern Region. The ERSS VI consists of Darbhanga element i.e. creation of 2 x 500 MVA, 400/220 kV GIS sub-Station at Darbhanga and Muzaffarpur (PG)-Darbhanga 400 kV D/C line with triple snowbird conductor and Motihari element i.e. creation of 2 x 200 MVA, 400/132 kV GIS sub-Station at Motihari and LILO of both circuits of 400 kV D/C Barh-Gorakhpur line at Motihari GIS Sub-station. The schedule commercial operation date of the Darbhanga element is 10.6.2016 which was 30 months from the effective date as per the TSA and the SCOD of the Motihari element was 10.8.2016 which is 32 months from the effective date as per the TSA.

(c) The transmission scheme ERSS VI is to cater to the power demand of North Bihar and that Bihar STU (BSPTCL) is required to undertake construction of 220 kV transmission lines in order to off-take power from 400/220 kV Darbhanga GIS sub-Station. As per Central Electricity Authority Monthly Progress Report dated 31.1.2017, none of the transmission lines to be constructed by BSPTCL, which is the entity responsible for construction of downstream state transmission system, are ready, and thus, power cannot be drawn.

(d) On 17.10.2013, letter of intent for the project was issued to DMTCL and accordingly, as per Article 3.1.1 of the TSA, the SPV was transferred to DMTCL on 10.12.2013 by PFC Consulting Ltd., the bid process coordinator. Subsequently, transmission license was issued to DMTCL by the Commission vide order dated 30.5.2014.

(e) With regard to the status of 400 kV D/C Muzaffarpur–Darbhanga transmission line to be connected with PGCIL Muzaffarpur Sub-station, all the foundation work has been completed, towers are erected, stringing is nearing completion and the entire work is expected to be completed by 28.2.2017.

(f) The COD of the transmission line has been delayed due to severe right of ways issues, change in Gantry coordinates at PGCIL Muzaffarpur Sub-station, increase in power line crossings, high number of trees in transmission line route, assembly election in Bihar, prohibition of sand mining in Bihar due to NGT Order, demonetization, manhandling of Chinese erection team and delay in grant of forest clearance. These reasons which are beyond control and not attributable to DMTCL.

12. The petitioner in its rejoinder dated 8.5.2017 has prayed for approval of COD of the instant bays as 31.8.2016 under the second proviso to Regulation 4(3) of the 2014 Tariff Regulations. 2014

13. We have considered the submissions of petitioner and DMTCL and documents available on records. The petitioner has submitted that the instant bays were not utilized due to the delay in completion and commissioning of the associated transmission line under the scope DMTCL. Hence, the petitioner has prayed to approve the COD of the instant bays w.e.f. 31.8.2016 under the second proviso to Regulation 4(3) of the 2014Tariff Regulations. The said provision provides as under:-

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

Xxxxxxxxx

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

Provided that:

(i) where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations:

(ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof."

14. DMTCL has submitted the status of the project and detailed reasons for delay in commissioning of the transmission line. DMTCL has further submitted that the TSA under Article 4.4 provides for a situation wherein the SCOD may be extended for a period which is covered under situations arising out of events beyond the control and contemplation (Force Majeure events) of the TSP. We are not considering the reasons for delay in COD of the transmission line in the instant petition, however DMTCL is at liberty to approach Commission for condonation of delay and shifting of SCOD through a separate petition.

15. The Commission in a similar case, did not approve the COD of the 2 nos. 400 kV line bays along with 2 nos. 80 MVAR switchable line reactors at 400 kV Siliguri Sub-station and 2 nos. 400 kV line bays at Bongaigaon Sub-Station under transmission schemes for enabling import of NER/ER surplus power by NR in Eastern Region, in its order dated 10.6.2015 in Petition No. 42/TT/2013, as the

bays and the reactors cannot be charged for trial operation without the availability of the transmission line. The relevant extract of the order dated 10.6.2015 in Petition No. 42/TT/13 is extracted hereunder:-

> "10. A perusal of second proviso reveals that this proviso can be invoked only when a transmission element is in regular service but is prevented for providing such service for the reasons not attributable to the transmission licensee. As per Regulation 3(12)(c), a transmission element is in regular service only after successful charging and trial operation. The Tribunal in its judgement dated 2.7.2012 in Appeal No. 123 of 2011 has examined the provisions of Regulation 3(12)(c) and has come to the conclusion that three conditions are required to be met for declaration of COD under the said regulation. Relevant paragraph of the judgement is extracted as under:-
>
> “10. A transmission system may comprise of one or more transmission lines and substation, inter-connecting transformer, etc. According to above definition an element of the transmission system which includes a transmission line, could be declared as attained COD if the following conditions are met:
>
> i) It has been charged successfully,
> ii) its trial operation has been successfully carried out, and
> iii) it is in regular service."
>
> 11. As per the Tribunal’s judgment, an element of transmission system can be declared as having attained commercial operation only if it has been charged successfully after successful trial operation and is in regular service. In the instant case, Bays and Line Reactors covered in the petition were ready, but the successful trial operation and charging could not be carried out without the Bongaigaon-Siliguri Transmission Line getting commissioned. As per the information available in the website of CEA, Bongaigaon-Siliguri Transmission Line was got completed in November, 2014. As the Bays and Line Reactors could not have been charged for trial operation without the availability of the transmission line, the case is not covered under the second proviso of Regulation 3(12)(c) of the 2009 Tariff Regulations. Accordingly, the date of commercial operation of Asset-1 and Asset-2 cannot be approved as 1.4.2013 and 1.6.2013 respectively as claimed by the petitioner."

16. The petitioner filed appeal before the Hon’ble Appellate Tribunal for Electricity (APTEL) against Commission’s order dated 10.6.2015 in Petition No. 42/TT/2013. APTEL in its judgment dated 11.12.2015 in Appeal No. 198 of 2015 held as under:-

> "13. In our opinion, the present case is clearly covered by the Punjab State Power Corporation Limited. In that case, 400 KV BarhBalia double circuit transmission line was planned by the Appellant who was Respondent No.1 therein for evacuation of power output from Barh STPS to NTPC. The construction of transmission line and switchgear at the Balia end was in the

scope of the works of the Appellant. The switchgear and sub-station at Barh end was to be constructed by NTPC as per Government of India guidelines. The commissioning of Barh STPS was delayed by NTPC. Works of BarhBalia line in the scope of the Appellant was completed in June 2010. On 30.6.2010, the line was idle charged from Balia end by the Appellant. The Appellant declared commercial operation of the line w.e.f. 1.7.2010 even though the transmission line at Barh end was not ready on that day and was completed only in August, 2011. The Appellant filed petition before the Central Commission for determination of tariff. The Appellant placed reliance on second proviso to Regulation 3(12)(c) of the Tariff Regulations." …………….. "

14. …………We prima facie see no reason to take a different view. The Appellant is, therefore, not entitled to stay of the impugned order. The interim application is rejected. We, however, make it clear that all observations made by us which touch the merits of the case are prima facie observations made for the purpose of deciding the interim application."

17. The judgement of APTEL in Appeal No.123 of 2011 was challenged in Civil Appeal Nos. 9193 of 2012 and 9302 of 2012 before the Hon'ble Supreme Court. The Hon'ble Supreme Court upheld the decision of APTEL vide judgment dated 3.3.2016. The relevant extract of judgment dated 3.3.2016 in Civil Appeal Nos. 9193 and 9302 of 2012 is given below:-

"11. From the above definition, it is clear that switchgear and other works are part of transmission lines. In our opinion, Regulation 3 (12) of the Regulations, 2009 cannot be interpreted against the spirit of the definition “transmission lines” given in the statute. It is evident from record that it is not a disputed fact that switchgear at Barh end of Barh-Balia line for protection and metering were to be installed by NTPC and the same was not done by it when transmission line was completed by the appellant. As such the appellant might have suffered due to delay on the part of NTPC in completing the transmission lines for some period. But beneficiaries, including respondent No. 1, cannot be made liable to pay for this delay w.e.f. 01.07.2010 as the energy supply line had not started on said date.

12. We are apprised at the bar that meanwhile during the pendency of these appeals, in compliance of the interim order, after hearing all the concerned parties, C.E.R.C. has decided the matter on 30-06-2015, and transmission line has been now declared successfully charged w.e.f. 01-09-2011 and the commercial operation has started on said date. However, the order dated 30-06-2015 passed by CERC is stated to be operative subject to decision of this Court in the present appeals, due to the interim order passed by this court.

13. Since we are in agreement with the Tribunal that in the present case, respondent No. 1 and the beneficiaries could not have been made liable to pay the tariff before transmission line was operational, we find no infirmity in the impugned order. Therefore, the appeals are liable to be dismissed. Accordingly, both the appeals are dismissed without prejudice to the right of the appellant, if any, available to it under law, against NTPC. There shall be no order as to costs".

18. As per findings of the APTEL, which was upheld by the Hon'ble Supreme Court, an element of transmission system can be declared as having attained commercial operation only if it has been charged successfully, after successful trial operation and is in regular service. In the instant case, bays were ready, but the successful trial operation and charging could not be carried out without the commissioning of the associated Muzaffarpur (PG)-Darbhanga (TBCB) 400 kV D/C (Triple Snowbird) line. As the bays could not have been charged for trial operation without the transmission line, we are not inclined to approve the date of commercial operation of instant asset as 31.8.2016, as claimed by the petitioner. We are of the view that the instant transmission assets could be charged and trial operation could be successfully carried out only on commissioning of the associated transmission line, which is stated to have been commissioned on 21.4.2017. As such, the instant assets could be put into commercial operation only after 21.4.2017. Accordingly, the COD of the instant asset is approved as 21.4.2017. However, it is observed the instant bays of the petitioner at Muzaffarpur Sub-station were ready in all aspects by 31.8.2016 but were not put into use because of the non-commissioning of the associated transmission line by DMTCL. Accordingly, we are of the view that IDC and IEDC for the period from 31.8.2016 to 21.4.2017 shall be borne by DMTCL.

**Capital cost**

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

> "(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects."
>
> (2) "The Capital Cost of a new project shall include the following:

(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) Capitalised Initial spares subject to the ceiling rates specified in Regulation of these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD."

20. The petitioner has submitted Auditor Certificate dated 16.9.2016 in support of the capital cost claimed as on actual COD and estimated additional capital expenditure projected to be incurred from COD to 31.3.2019. As stated above, the COD of the instant asset is considered as 21.4.2017. The details of revised approved apportioned cost, capital cost as on COD and projected additional capital expenditure claimed by the petitioner are summarized below:-

**(₹ in lakh)**

| Revised approved apportioned cost | Capital cost as on COD | Estimated expenditure | | | Total estimated completion cost |
|---|---|---|---|---|---|
| | | 2016-17 | 2017-18 | 2018-19 | |
| 1656.00 | 637.55 | 391.32 | 293.49 | 293.49 | 1615.85 |

21. The details of additional capitalization incurred/projected to be incurred for the period from claimed COD to 31.3.2019 as submitted by the petitioner are as follows:-

(₹ in lakh)

| Particulars | Freehold land | Buildings | Transmis-sion Line | Sub-station | PLCC | Total |
|---|---|---|---|---|---|---|
| Expenditure up to 31.3.2016 | 0.00 | 0.00 | 0.00 | 178.87 | 3.34 | 182.21 |
| Expenditure from 1.4.2016 to 30.8.2016 | 0.00 | 0.00 | 0.00 | 442.73 | 12.61 | 455.34 |
| Expenditure from 31.8.2016 to 31.3.2017 | 0.00 | 0.00 | 0.00 | 378.63 | 12.69 | 391.32 |
| Estimated Expenditure from 1.4.2017 to 31.2.2018 | 0.00 | 0.00 | 0.00 | 285.02 | 8.47 | 293.49 |
| Estimated Expenditure from 1.4.2018 to 31.3.2019 | 0.00 | 0.00 | 0.00 | 293.49 | 0.00 | 293.49 |
| **TOTAL** | **0.00** | **0.00** | **0.00** | **1578.74** | **37.11** | **1615.85** |

**Cost Over-run**

22. As against the original cost estimate of ₹1249.34 lakh, the petitioner has claimed completion cost of ₹1615.85 lakh. The petitioner has submitted the reasons for item wise cost variation between the approved cost (FR) and anticipated cost. The same is summarized as below:-

(₹ in lakh)

| Srl. No. | Particulars | Original estimated cost (a) | Actual/claimed cost | | Total | Variation | |
|---|---|---|---|---|---|---|---|
| | | | As on COD (b) | Liabilities/ provisions (c) | (b+c) | amount (d) {(b+c)-a} | Cost overrun percentage (d/a) |
| 1 | Total preliminary works and land | 20.00 | 10.00 | 10.00 | 20.00 | 0.00 | 0.00% |
| 2 | Total civil works | 115.00 | 112.60 | 297.05 | 409.65 | 294.65 | 256.22% |
| 3 | Total substation equipment | 902.30 | 490.59 | 671.25 | 1161.84 | 259.54 | 28.76% |
| 4 | **Total: Sub-station (1+2+3)** | **1037.30** | **613.19** | **978.30** | **1591.49** | **554.19** | **53.43%** |
| 5 | Overheads | 142.63 | 9.56 | 0 | 9.56 | -133.07 | -93.30% |
| 6 | Project cost without IDC, FC (4+5) | 1179.93 | 622.75 | 978.30 | 1601.05 | 421.12 | 35.69% |
| 7 | IDC, FC, FERV & Hedging cost | 69.41 | 14.8 | 0 | 14.80 | -54.61 | -78.68% |
| 8 | **Capital cost including IDC, FC (6+7)** | **1249.34** | **637.55** | **978.30** | **1615.85** | **366.51** | **29.34%** |

23. It is observed that there has been a cost over-run mainly in case of total civil works (256.22%) and total sub-station equipment (28.76%). Further, it is observed that there is no cost over-run with respect to soft cost component.

There is an overall cost over-run in the project cost amounting to ₹366.51 lakh over the original estimate of ₹1249.34 lakh i.e. 29.34%. Since, the components of the project cost as mentioned above contributing to the over-run in the project cost are mainly technical in nature and since the completion cost submitted by the petitioner in the instant petition is on estimated basis, the admissibility of the cost variation will be reviewed at the time of true up on the basis of actual completion cost which shall be submitted by the petitioner with detailed reasoning for the cost variation duly certified by the auditor.

**Time over-run**

24. As per the Investment Approval dated 23.3.2015, the instant assets were scheduled to be commissioned within 24 months i.e. by 22.3.2017 against which the instant assets were ready to be put under commercial operation on 31.8.2016. However, the instant asset was put to use only on 21.4.2017. As stated in para 18 above, the IDC and IEDC for the period from 31.8.216 to 21.4.2017 shall be borne by DMTCL as the instant assets were not put into use due to the non-commissioning of the associated transmission line by DMTCL. The IDC and IEDC received from DMTCL shall not be capitalised by the petitioner for the purpose of tariff.

**Interest During Constrcution (IDC) and Incidental Expenditure During Construction (IEDC)**

25. As regards IDC and IEDC, Regulation 11 of the 2014 Tariff Regulations provides as follows:-

> **"11. Interest during construction (IDC), Incidental Expenditure during Construction (IEDC)**
> **(A) Interest during Construction (IDC):**
>
> (1) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) In case of additional costs on account of IDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds: Provided that if the delay is not attributable to the generating company or the transmission licensee as the case may be, and is due to uncontrollable factors as specified in Regulation 12 of these regulations, IDC may be allowed after due prudence check.

Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond the control of generating company or the transmission licensee, as the case may be, after due prudence and taking into account prudent phasing of funds.

**(B) Incidental Expenditure during Construction (IEDC):**

(1) Incidental expenditure during construction shall be computed from the zero date and after taking into account pre-operative expenses upto SCOD:

Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts may be taken into account for reduction in incidental expenditure during construction.

(2) In case of additional costs on account of IEDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justification with supporting documents for such delay including the details of incidental expenditure during the period of delay and liquidated damages recovered or recoverable corresponding to the delay:

Provided that if the delay is not attributable to the generating company or the transmission licensee, as the case may be, and is due to uncontrollable factors as specified in Regulation 12, IEDC may be allowed after due prudence check:
Provided further that where the delay is attributable to an agency or contractor or supplier engaged by the generating company or the transmission licensee, the liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost

(3) In case the time over-run beyond SCOD is not admissible after due prudence, the increase of capital cost on account of cost variation corresponding to the period of time over run may be excluded from capitalization irrespective of price variation provisions in the contracts with supplier or contractor of the generating company or the transmission licensee.

26. The petitioner, vide Auditors certificate dated 16.9.2016, has claimed the IDC of ₹14.80 lakh on accrual basis as on 31.8.2016. The petitioner has further submitted a statement showing the details of IDC discharged upto COD and discharge of IDC proposed in the subsequent years as given below:-

(₹ in lakh)

| IDC (on accrual basis) claimed in Auditor's Certificate | IDC discharged as on tariff date | IDC discharged during 2016-17 | IDC discharged during 2017-18 |
|---|---|---|---|
| 14.80 | 6.91 | 0.97 | 6.92 |

27. The petitioner has also furnished the details of the loans availed like date of drawl, rate of interest, interest payment dates, etc. which are as follows:-

(₹ in lakh)

| Name of the Loan /Bond | Date of disbursement | Loan amount | Rate id interest (%) |
|---|---|---|---|
| SBI | 1.1.2016 | 124.00 | 9.55 |
| Bond XLIII | 25.4.2016 | 198.00 | 8.13 |
| Proposed loan | 15.7.2016 | 124.28 | 7.97 |
| **Total** | | **446.28** | |

28. The financial package as on 31.8.2016 submitted by the petitioner is as follows:-

(₹ in lakh)

| Particulars | Amount |
|---|---|
| Loan | 440.76 |
| Equity | 188.90 |
| **Total** | **629.66** |

29. It is observed that the loan amount claimed for the IDC calculation is higher than the loan amount as per financial package on COD which is same as per Form-12B (draw down schedule for calculation of IDC and financing charges) and as per Form 9C (calculation of weighted average rate of interest on actual loans) i.e. ₹440.76 lakh. It is further noticed that the total of the loan and equity amount as per Form-6 matches with the capital expenditure on cash basis as on 31.8.2016 as per the Auditor certificate, which are as follows:-

(₹ in lakh)

| Particulars as on 31.8.2016 | Amount |
|---|---|
| Capital expenditure as per auditor's certificate dated 16.9.2016 | 637.55 |
| Less: Undischarged IDC | 7.88 |
| **Capital expenditure on cash basis** | **629.67** |

| Total of debt and equity as per Form-6 | 629.66 |
|---|---|

30. As such, there is a difference in the loan amount claimed by the petitioner for IDC calculation and as per other submissions as indicated above. As such, the loan amount for the purpose of IDC calculation is restricted to ₹440.76 lakh which is as per Forms-6, 12B and 9C, as the same could be reconciled with the cash expenditure as on 31.8.2016.

31. In view of the above, IDC has been calculated based on the available details. The undischarged IDC as on the COD as indicated in the table above, has been disallowed as on the tariff date and the same is being considered along with the allowable additional capital expenditure during 2016-17. The IDC allowed is as given below:-

**(₹ in lakh)**

| Name of the Loan /Bond | Date of disbursement | Loan amount as per Form 12B | Interest Rate (%) | Days | Interest up to allowable date | Annual instalment payment date upto COD | Undis-charged IDC | Interest on cash basis allowed as on actual COD |
|---|---|---|---|---|---|---|---|---|
| SBI | 1.1.2016 | 124.00 | 9.55 | 243 | 7.88 | 1.1.2016 | 0.97 | 6.91 |
| Bond XLIII | 25.4.2016 | 198.00 | 8.13 | 128 | 5.65 | 25.4.2016 | 5.65 | 0.00 |
| Proposed loan | 15.7.2016 | 118.76 | 7.97 | 47 | 1.22 | 15.7.2016 | 1.22 | 0.00 |
| **Total** | | **440.76** | | | **14.75** | | **7.84** | **6.91** |

32. The IDC re-calculated as above have no impact on the IDC claimed on cash basis (₹6.91 lakh). However, there is a minor difference in the undischarged IDC claimed (₹7.89 lakh) and recalculated as above (₹7.84 lakh). Accordingly, the discharge of IDC during 2017-18 is restricted to ₹6.87 lakh against the claim of ₹6.92 lakh. The IDC allowed would be reviewed at the time of truing-up after considering the position of the loans reconciled with the cash expenditure as on COD and actual discharge of IDC.

**IEDC**

33. The petitioner, vide Auditors Certificate dated 16.9.2016, has claimed IEDC of ₹9.56 lakh as on COD. The IEDC claimed by the petitioner is less than the allowable limit of IEDC indicated in the RCE, which is ₹41 lakh. Accordingly, the same is allowed.

**Initial Spares**

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

> **"13. Initial Spares**
>
> Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:
> (d) Transmission system
>
> (i) Transmission line - 1.00%
> (ii) Transmission Sub-station (Green Field) - 4.00%
> (iii) Transmission Sub-station (Brown Field) - 6.00%
> (iv) Series Compensation devices and HVDC Station - 4.00%
> (v) Gas Insulated Sub-station (GIS) - 5.00%
> (vi) Communication system - 3.5%
>
> Provided that:
> (i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:
>
> (ii) where the generating station has any transmission equipment forming part of the generation project, the ceiling norm for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:
>
> (iii) once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:
>
> (iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break up of head wise IDC & IEDC in its tariff application."

35. The petitioner has claimed Initial Spares amounting to ₹82.00 lakh. The details of the allowable initial spares in respect of the instant assets are as follows:-

**(₹ in lakh)**

| **Plant and Machinery cost (excl. IDC, IEDC, land cost & cost of civil works)** | **Initial spares claimed against capital cost claimed as on cut-off date, i.e. 31.3.2017** | **Ceiling limit as per Regulation 13** | **Allowable initial spares** | **Excess initial spares claimed** |
|---|---|---|---|---|
| 1591.49 | 82.00 | 6.00% | 95.49 | **0.00** |

36. The initial spares claimed by the petitioner are within limits prescribed under Regulation 13 of the 2014 Tariff Regulations, and therefore the same is allowed. Further, the petitioner, vide affidavit dated 30.5.2017, has submitted the details of initial spares discharged, which are as follows:-

**(₹ in lakh)**

| **Total Initial spares claimed** | **Initial spares discharged as on 31.8.2016** | **Estimated expenditure during 2016-17** | **Estimated expenditure during 2017-18** |
|---|---|---|---|
| 82.00 | 35.61 | 8.85 | 37.54 |

**<u>Additional capital expenditure</u>**

37. 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."

38. 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".

39. The cut-off date in the case of instant transmission asset is 31.3.2017.

40. The petitioner has claimed the following additional capital expenditure vide affidavit dated 30.1.2017:-

**(₹ in lakh)**

| **Add Cap from COD (22.4.2017) to 31.3.2017** | **Add Cap in 2017-18 (including discharge of IDC)** | **Add Cap in 2018-19** | **Total estimated Add Cap** |
|---:|---:|---:|---:|
| 391.32 | 300.36 | 293.49 | 985.17 |

41. The petitioner has submitted that the additional capital expenditure incurred/projected to be incurred is on account of Balance and Retention Payments. We have considered the submission of the petitioner. The additional capital expenditure incurred/projected to be incurred is on account of Balance/Retention Payments and are within "cut-off date" and is covered under Regulation 14(1)(i) of the 2014 Tariff Regulations and accordingly it is allowed. The total estimated completion cost of the instant assets as on 31.3.2019 is given below:-

(₹ in lakh)

| Capital cost allowed as on COD | Additional capitalisation for 2017-18 (including discharge of IDC) | Additional capitalisation during 2018-19 | Total estimated completion cost up to 31.3.2019 |
|---|---|---|---|
| 1021.95 | 300.36 | 293.49 | 1615.80 |

42. The capital cost as on COD includes the initial spares of ₹44.46 lakh (35.61+8.85) out of ₹82.00 lakh. ₹37.54 lakh accrued and paid during 2017-18 is not considered in the capital cost as on 31.8.2016 as it is not accrued as on COD. The issue will be dealt with at the time of true up. Accordingly, the capital cost considered for the purpose of computation of tariff for the instant assets, after adjustment of IDC on cash basis, scrutiny of IEDC and IDC on account of undischarged liability and scrutiny of initial spares (excess claim and un-discharged liability) is as follows:-

(₹ in lakh)

| | |
|---|---|
| **Capital cost claimed as on COD** | **1028.87** |
| **Less:** IDC disallowed | 0.05 |
| **Less:** Un-discharged IDC as on COD | 6.87 |
| Excess Initial Spares | 0.00 |
| Un-discharged Initial Spares | 0.00 |
| **Capital cost allowable as on COD** | **1021.95** |
| **Add:** Add-Cap during 2017-18 | 293.49 |
| **Add**: IDC discharged during 2017-18 | 6.87 |
| **Capital cost as on 31.3.2018** | **1322.31** |
| **Add**: Add-Cap during 2018-19 | 293.49 |
| **Capital cost as on 31.3.2019** | **1615.80** |

**Debt- Equity Ratio:**

43. Clause (1) and (5) of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

> "19. Debt-Equity Ratio: (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"

44. The petitioner has considered debt:equity ratio as 70:30 as on COD as well as for additional capitalisation. We have considered debt:equity ratio of 70:30 as on COD, additional capitalization during 2014-19 tariff period and 31.3.2019. The details of the debt:equity as on the date of COD and 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

**(₹ in lakh)**

| **Asset-I** | **As on COD** | | **As on 31.3.2019** | |
|---|---|---|---|---|
| | **Amount** | **%** | **Amount** | **%** |
| Debt | 715.37 | 70.00 | 1131.06 | 70.00 |
| Equity | 306.59 | 30.00 | 484.74 | 30.00 |
| **Total** | **1021.95** | **100.00** | **1615.80** | **100.00** |

## Return on Equity (RoE)

45. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

"24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

(i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers."

46. Return on equity has been computed @ 19.610% p.a on average equity. The MAT Rate for the financial year 2013-14 is considered for computing return on equity.

47. The details of return on equity calculated are as follows:-

**(₹ in lakh)**

| **Particulars** | **2017-18 (pro-rata)** | **2018-19** |
|---|---|---|
| Opening Equity | 306.59 | 396.69 |
| Addition due to Additional Capitalization | 90.11 | 88.05 |
| Closing Equity | 396.69 | 484.74 |

| | | |
|---|---|---|
| Average Equity | 351.64 | 440.72 |
| Return on Equity (Base Rate ) | 15.50% | 15.50% |
| Tax rate for the year 2013-14 (MAT) | 20.961% | 20.961% |
| Rate of Return on Equity (Pre Tax ) | 19.610% | 19.610% |
| Return on Equity (Pre Tax) | **65.18** | **86.42** |

**Interest on Loan (IOL)**

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

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

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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:
Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(5) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest."

49. In these calculations, interest on loan has been worked out as hereinafter:-

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

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

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

50. Detailed calculations in support of the weighted average rates of interest have been given at **Annexure**.

51. Based on above, details of Interest on Loan calculated are as follows:-

**(₹ in lakh)**

| **Particulars** | **2017-18 (pro-rata)** | **2018-19** |
|---|---|---|
| Gross Normative Loan | 715.37 | 925.62 |
| Cumulative Repayment upto Previous Year | 0.00 | 58.82 |
| Net Loan-Opening | 715.37 | 866.79 |
| Addition due to Additional Capitalization | 210.25 | 205.44 |
| Repayment during the year | 58.82 | 78.00 |
| Net Loan-Closing | 866.79 | 994.24 |
| Average Loan | 791.08 | 930.52 |
| Weighted Average Rate of Interest on Loan | 8.4864% | 8.4864% |
| Interest | **63.46** | **78.97** |

## Depreciation

52. Regulation 27 of the 2014 Tariff Regulations provide as follows:-

**"27. Depreciation:**

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

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

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

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

53. The instant assets were put under commercial operation on 21.4.2017. Accordingly, they will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

54. Details of the depreciation allowed are as under:-

**(₹ in lakh)**

| **Particulars** | **2017-18 (pro-rata)** | **2018-19** |
|---|---|---|
| Opening Gross Block | 1021.95 | 1322.31 |
| Additional Capital expenditure | 300.36 | 293.49 |
| Closing Gross Block | 1322.31 | 1615.80 |
| Average Gross Block | 1172.13 | 1469.05 |
| Rate of Depreciation | 5.3092% | 5.3092% |
| Depreciable Value | 1054.92 | 1322.15 |
| Remaining Depreciable Value | 1054.92 | 1263.33 |
| **Depreciation** | **58.82** | **78.00** |

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

55. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees of the petitioner Company is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19.The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

56. We have considered the submissions of the petitioner. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations:-

**(₹ in lakh)**

| 2016-17 | 2017-18 | 2018-19 |
|---|---|---|
| 75.44 | 133.02 | 137.42 |

57. The O&M Expenses norms specified in Regulation 29(3)(a) of the 2014 Tariff Regulations for the years 2017-18 and 2018-19 for the 400 kV bays are as follows:-

**(₹ in lakh)**

| Element | 2017-18 | 2018-19 |
|---|---|---|
| 400 kV bay | 66.51 | 68.71 |

58. Accordingly, ₹125.73 lakh and ₹137.42 lakh are allowed for the years 2017-18 and 2018-19 respectively as the O&M Expenses for the instant assets

**Interest on Working Capital (IWC)**

59. Clause 1 (c) of Regulation 28 and Clause 3 and 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

> "**28. Interest on Working Capital**
>
> (c)(i) Receivables equivalent to two months of fixed cost;
>
> (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
>
> (i) Operation and maintenance expenses for one month"
>
> "(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later"
>
> "(5) 'Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;"

60. The petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

**(i) Receivables**

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

**(ii) Maintenance spares**

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

**(iii) O & M expenses**

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

**(iv) Rate of IWC**

As per Proviso 3 of regulation 28 of 2014 tariff regulation, SBI Base rate 9.30% as on 1.4.2016 plus 350 Bps i.e. 12.80% has been considered for the asset, as the rate of IWC.

61. The IWC allowed for the instant assets is shown in the table given below:-

**(₹ in lakh)**

| **Particulars** | **2017-18 (pro-rata)** | **2018-19** |
|---|---|---|
| Maintenance Spares | 19.95 | 20.61 |
| O & M expenses | 11.08 | 11.45 |
| Receivables | 53.91 | 65.55 |
| Total | 84.95 | 97.61 |
| Interest | **10.28** | **12.49** |

## Transmission charges

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

**(₹ in lakh)**

| **Particulars** | **2017-18 (pro-rata)** | **2018-19** |
|---|---|---|
| Depreciation | 58.82 | 78.00 |
| Interest on Loan | 63.46 | 78.97 |
| Return on equity | 65.18 | 86.42 |
| Interest on Working Capital | 10.28 | 12.49 |
| O & M Expenses | 125.73 | 137.42 |
| Total | **323.46** | **393.30** |

**Filing fee and Publication Expenses**

63. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

**Licence fee and RLDC Fees and Charges**

64. 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**

65. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.

66. This order disposes of Petition No. 209/TT/2016.

| | | | |
|---|---|---|---|
| **(M.K. Iyer)**<br>**Member** | **(A.S. Bakshi)**<br>**Member** | **(A.K. Singhal)**<br>**Member** | **(Gireesh B. Pradhan)**<br>**Chairperson** |

| CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN | | | | |
|---|---|---|---|---|
| | | | | (₹ in lakh) |
| | **Details of Loan** | **2016-17** | **2017-18** | **2018-19** |
| | | | | |
| **1** | **SBI** | | | |
| | Gross loan opening | 124.00 | **124.00** | **124.00** |
| | Cumulative Repayment upto DOCO/previous year | **0.00** | **0.00** | **0.00** |
| | Net Loan-Opening | 124.00 | 124.00 | 124.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 124.00 | 124.00 | 124.00 |
| | Average Loan | 124.00 | 124.00 | 124.00 |
| | Rate of Interest | 9.55% | 9.55% | 9.55% |
| | Interest | 11.84 | 11.84 | 11.84 |
| | | | | |
| **2** | **Bond XLIII** | | | |
| | Gross loan opening | **198.00** | **198.00** | **198.00** |
| | Cumulative Repayment upto DOCO/previous year | **0.00** | **0.00** | **0.00** |
| | Net Loan-Opening | 198.00 | 198.00 | 198.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 198.00 | 198.00 | 198.00 |
| | Average Loan | 198.00 | 198.00 | 198.00 |
| | Rate of Interest | 8.13% | 8.13% | 8.13% |
| | Interest | 16.10 | 16.10 | 16.10 |
| | | | | |
| **3** | **Proposed loan** | | | |
| | Gross loan opening | **118.76** | **118.76** | **118.76** |
| | Cumulative Repayment upto DOCO/previous year | **0.00** | **0.00** | **0.00** |
| | Net Loan-Opening | 118.76 | 118.76 | 118.76 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 118.76 | 118.76 | 118.76 |
| | Average Loan | 118.76 | 118.76 | 118.76 |
| | Rate of Interest | 7.97% | 7.97% | 7.97% |
| | Interest | 9.47 | 9.47 | 9.47 |
| | | | | |
| | **Total Loan** | | | |
| | Gross loan opening | 440.76 | 440.76 | 440.76 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 |

| | | | | |
|---|---|---|---|---|
| | Net Loan-Opening | 440.76 | 440.76 | 440.76 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 440.76 | 440.76 | 440.76 |
| | Average Loan | 440.76 | 440.76 | 440.76 |
| | Rate of Interest | **8.4864%** | **8.4864%** | **8.4864%** |
| | **Interest** | 37.40 | 37.40 | 37.40 |