CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 201/TT/2015

Coram:

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

Date of Hearing: 02.06.2016
Date of Order : 29.07.2016

In the matter of:

Approval of transmission tariff for 4 nos. 400 kV Line Bays at Narendra (New) for Kudigi TPS-Narendra (New) 400 kV 2xD/C Quad lines, under "Sub-station Extension works associated with transmission system required for evacuation of power from Kudigi TPS (3x800 MW in phase-I) of NTPC Limited" in Southern Region for tariff block 2014-19 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulation 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014.

And in the matter of:

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

Vs

1. Karnataka Power Transmission Corporation Limited,
   (KPTCL), Kaveri Bhawan,
   Bangalore-560 009

2. Transmission Corporation of Andhra Pradesh Limited,
   (APTRANCO), Vidyut Soudha,
   Hyderabad-500 082

3. Kerala State Electricity Board (KSEB),
   Vaidyuthi Bhavanam,
   Pattom, Thiruvananthapuram-695 004

4. Tamil Nadu Electricity Board,
   NPKRR Maaligai, 800, Anna Salai,
   Chennai-600 002

5. Electricity Department,
   Government of Goa,
   Vidyuti Bhawan, Panaji, Goa-403 001

6. Electricity Department,
   Government of Pondicherry,
   Pondicherry-605 001

7. Eastern Power Distribution Company of Andhra Pradesh Limited,
   (APEPDCL), APEPDCL, P&T Colony,
   Seethmmadhara, Vishakhapatnam,
   Andhra Pradesh

8. Southern Power Distribution Company of Andhra Pradesh Limited,
   (APSPDCL), Srinivasasa Kalyana Mandapam Backside,
   Tiruchanoor Road, Kesavayana Gunta,
   Tirupati-517 501, Chittoor District, Andhra Pradesh

9. Central Power Distribution Company of Andhra Pradesh Limited,
   (APCPDCL), Corporate Office, Mint Compound,
   Hyderabad-500 063, Andhra Pradesh

10. Northern Power Distribution Company of Andhra Pradesh Limited,
    (APNPDCL), Opp. NIT Petrol Pump,
    Chaitanyapuri, Kazipet,
    Warangal-506 004, Andhra Pradesh

11. Bangalore Electricity Supply Company Limited,
    (BESCOM), Corporate Office, K. R. Circle,
    Bangalore-560 001, Karnataka

12. Gulbarga Electricity Supply Company Limited,
    (GESCOM), Station Main Road,
    Gulbarga, Karnataka

13. Hubli Electricity Supply Company Limited,
    (HESCOM), Navanagar, PB Road,
    Hubli, Karnataka

14. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575 001, Karnataka

15. Chamundeswari Electricity Supply Corporation Limited,
(CESC), # 927, L J Avenue, Ground Floor,
New Kantharaj Urs Road,
Saraswatipuram, Mysore-570 009, Karnataka

16. Kudgi Transmission Limited,
L&T infrastructure Development Projects Limited,
38 Cubban Road, Bangalore-560 001

17. NTPC Limited,
NTPC Bhawan, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110 003 **……Respondents**

For petitioner : Shri Aryaman Saxena, PGCIL
Shri S.S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL

For respondents: Shri B.S. Rajput, NTPC
Shri V.K. Jain, NTPC

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission charges for 4 nos. 400 kV Line Bays at Narendra (New) for Kudigi TPS-Narendra (New) 400 kV 2xD/C Quad lines (hereinafter referred to as "transmission asset"), under "Sub-station Extension works associated with transmission system required for evacuation of power from Kudigi TPS (3x800 MW in phase-I) of NTPC Limited" in Southern Region, from the date of commercial operation to 31.3.2019 based on the Central Electricity

Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. This order has been issued after considering petitioners’ affidavit dated 30.3.2016, 14.6.2016 and 18.7.2016.

3. The petitioner was entrusted with the implementation of “Sub-station Extension works associated with transmission system required for evacuation of power from Kudigi TPS (3x800 MW in phase-I) of NTPC Limited” in Southern Region. The transmission system for evacuation of power was discussed and agreed in the 33rd SCM of Southern Region Constituents held on 20.10.2011. Further, Empowered Committee on Transmission in its 29th meeting held on 15.6.2012 recommended the implementation of the transmission lines through tariff based competitive bidding and the present scope of the scheme (i.e. associated bays) to be implemented by the petitioner. The Investment Approval (IA) for the project was accorded by the Board of Directors of the petitioner vide Memorandum No. C/CP/Kudgi dated 17.2.2014 for 298th meeting held on 5.2.2014 at an estimated cost of ₹16740 lakh including an IDC of ₹806 lakh (based on December, 2013 price level). The project was scheduled to be commissioned within 22 months from the date of IA of Board of Directors i.e. 5.2.2014. Therefore, the scheduled date of commissioning of the transmission system was 4.12.2015. The scope of work covered under the project is broadly as follows:-

Sub-stations:

(a) Extension of Narendra (New) Sub-station (GIS) at Kudgi;

This is a sub-station under construction by PGCIL and shall be extended to accommodate following under this project:-

(i) 4 nos. 400 kV line bays at Narendra (New) for Kudgi TPS-Narendra (New) 400 kV 2xD/C quad lines;

(ii) 2 nos. 400 kV line bays at Narendra (New) for Narendra (New)-Madhugiri 765 kV D/C line initially charged at 400 kV;

(b) Extension of Madhugiri Sub-station (AIS);

This is a sub-station under construction by PGCIL and shall be extended to accommodate following under this project:-

(i) 2 nos. 400 kV line bays at Madhugiri for Narendra (New)-Madhugiri 765 kV D/C line initially charged at 400 kV;

(ii) 2 nos. 400 kV line bays at Madugiri for Madugiri-Bidadi 400 kV D/C quad line;

(c) Extension of Bidadi Sub-station (GIS);

This is a sub-station under construction by PGCIL and shall be extended to accommodate following under this project

(i) 2 nos. 400 kV line bays at Bidadi for Madhugiri-Bidadi 400 kV D/C quad line;

Reactive Compensation

Line Reactors (400 kV)

(i) 2x63 MVR (fixed) line reactors (with 600 ohm NGRs) at Narendra (New) for Narendra (New)-Madhugiri 765 kV D/C line initially charged at 400 kV;

(ii) 2x63 MVR (fixed) line reactors (with 600 ohm NGRs) at Madhugiri for Narendra (New)-Madhugiri 765 kV D/C line initially charged at 400 kV.

4. The petitioner initially filed the petition and has claimed tariff for the element "4 nos. 400 kV line bays at Narendra (New) for Kudgi TPS-Narendra (New) 400 kV

2xD/C quad lines", based on anticipated date of commercial operation (COD) of 31.8.2015. However, the petitioner vide affidavit dated 30.3.2016 has submitted the actual COD of the instant asset as 11.12.2015, in the instant petition. As such, the transmission tariff has been considered accordingly and allowed in this order.

6. The details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)

Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	72.78	254.94	259.72	261.05
Interest on Loan	78.45	261.59	245.63	225.65
Return on Equity	81.40	285.20	290.56	292.06
Interest on Working Capital	9.57	32.68	33.02	33.11
O & M Expenses	76.37	257.48	266.04	274.84
Total	**318.57**	**1091.89**	**1094.97**	**1086.71**

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

(₹ in lakh)

Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	37.38	38.62	39.91	41.23
O & M expenses	20.77	21.46	22.17	22.90
Receivables	173.26	181.98	182.50	181.12
Total	**231.41**	**242.06**	**244.58**	**245.25**
Interest Rate	13.50%	13.50%	13.50%	13.50%
Interest	**9.59**	**32.68**	**33.02**	**33.11**

8. 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. NTPC Limited (NTPC), Respondent No. 17 has filed replies

dated 5.10.2015 and 28.6.2016. Tamil Nadu Generation and Distribution Corporation Limited (TENGEDCO), a subsidiary of TNEB Limited and one of the successor entities to the erstwhile Tamil Nadu Electricity Board (TNEB), Respondent No.4 has filed reply dated 30.4.2016.

9. NTPC has raised the issue of COD of instant assets and has submitted that in view of non-availability of start-up power, commissioning activities of Kudgi are getting delayed. NTPC has also submitted that the application filing fee, expenses incurred on publication of notices in newspapers and license fee is not payable by it, but should be borne by the long term beneficiaries as per Regulation 52 of the 2014 Tariff Regulations. NTPC vide additional reply dated 28.6.2016 has submitted that except Bay no. 1 associated with line 1, the COD of the other 3 bays is not in accordance with the 2014 Tariff Regulations and the COD of these 3 bays at the petitioners' Sub-station Narendra (New) is null and void and needs prior approval of the Commission. The petitioner has filed rejoinder vide affidavit dated 18.7.2016 to the replies of NTPC.

10. TANGEDCO has also raised the issue of COD of instant assets and that due to delay, the petitioner be directed to claim the losses, if any, from the generator and not from all other beneficiaries. TANGEDCO has further raised the issue of over-estimation of cost, claim of additional ROE, O&M Expenses, application filing fee and publication expenses, license fee and service tax, etc. The petitioner has filed rejoinder to the reply of TANGEDCO vide affidavit dated 6.6.2016.

11. The issues raised by NTPC and TANGEDCO and the clarification given by the petitioner are addressed in the relevant paragraphs of this order. Having heard the representatives of the parties and perused the material available on record we proceed to dispose of the petition.

Date of Commercial Operation

12. The petitioner has claimed the date of the commercial operation of the instant transmission asset as 11.12.2015 and has submitted that it planned to commission the associated bays matching with the Kudgi-Narendra (New) 400 kV D/C line after being informed by NTPC about the delay in Kudgi generation project. The petitioner also submitted that Chief Engineer, CEA on 24.4.2015 reviewed the progress of Transmission System associated with Kudgi STPS & associated bays at POWERGRID substations, Kudgi Transmission Limited (KTL) informed that Kudgi TPS- Narendra (new) 400 kV 2XD/C line was scheduled to be completed by February, 2015 and is almost ready to commission. NTPC informed that Kudgi STPP generation project has been delayed and first unit of Kudgi STPP is scheduled for commissioning in March, 2016 and start up power would be required by June, 2015.

13. We have perused the minutes of meeting with Chief Engineer, CEA on 24.4.2015 regarding the review of progress of transmission system associated with Kudgi STPS and associated bays at its sub-stations and it is observed that Kudgi Transmission Limited (KTL) informed that Kudgi TPS-Narendra (new) 400 kV

2XD/C line has been completed but line could not be charged on 27.3.2015 as 400 kV bays at Kudgi STPP (NTPC) switchyard and Narendra (New) Sub-station (PGCIL) were not ready.

14. In this regard, the petitioner was directed vide RoP dated 6.10.2015 to submit the actual COD of the instant asset, RLDC Certificate for charging regarding instant asset, CEA certificate under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010, revised forms on the basis of actual COD, explain the variance between dates of commissioning, so far as per minutes of 29th meeting of Empowered Committee held on 15.6.2012, the system was to be made ready by June, 2015 but as per the Investment Approval of PGCIL, the system was to be ready by December, 2015. As such, whether PGCIL has matched schedule date of commissioning of its bays with schedule COD of Kudgi TPS-Narendra line (executed by KTL) and whether it has coordinated with generator so that associated bays at generator end are commissioned matching with transmission line as decided in minutes of Empowered Committee Meeting and lastly status of associated transmission lines.

15. The petitioner, vide affidavit dated 30.3.2016, has submitted that the instant asset has been put into commercial operation w.e.f 11.12.2015. The petitioner, vide letter dated 3.12.2015, has submitted the self declaration of trial operation certificate and vide letter dated 11.12.2015 has submitted self declaration of commercial operation of the instant asset. The petitioner has also submitted CEA letter dated

23.9.2015 in support of the claim of the commercial operation of the instant asset. The petitioner, vide affidavit dated 6.6.2016, has submitted RLDC certificate in accordance with Regulation 5(2) of the 2014 Tariff Regulations, indicating completion of successful trial operation of the instant transmission asset. From the RLDC certificate it is observed that Line-1 and Line-2 completed successful trial operation on 18.11.2015 and 1.12.2015 respectively.

16. NTPC in its reply dated 5.10.2015 has submitted that its Kudgi STPP is an inter-State Power Generation Project and Unit-1 was anticipated to be commissioned in the month of March, 2016. The start-up power for Kudgi STPP was to be drawn from 220 kV line of Karnataka Power Transmission Corporation Limited (KPTCL). However, the line was not available for drawl of start-up power. In the review meetings held in CEA on 24.4.2015 and 10.7.2015 regarding transmission system associated with Kudgi STPP, it was decided that start up power for Kudgi STPP would be drawn through 400 kV lines of Kudgi Transmission Ltd. (KTL) and its associated bays of the petitioner at New Narendra. The petitioner had committed its readiness for drawl of start-up power for Kudgi STPP by July, 2015. The same was communicated to the petitioner vide letter dated 16.6.2015. Accordingly, one no. 400 kV line bay was made ready at its Kudgi STPP switchyard for drawl of start-up power from 400 kV system, the same was inspected by CEA on 22.7.2015 and clearance for charging was given vide letter dated 24.8.2015. However, the charging of PGCIL New Narendra Sub-station is still pending, due to which drawl of start-up power for Kudgi STPP is delayed since July, 2015 and it has

applied to SRLDC for drawl of start-up power on 3.8.2015. In view of non-availability of start-up power, commissioning activities of Kudgi STPP got delayed.

17. TANGEDCO, vide reply dated 30.4.2016, has submitted that the generation project Kudgi TPS (3x800 MW in phase-I) executed by NTPC is getting delayed and the tentative date of commissioning is undecided by the developer. The associated transmission lines being developed by KTL are also not ready for commissioning. The petitioner has stated that despite its best efforts to match the commissioning of the bays with the transmission line and generation project, there may be possibility of mismatch. In such eventuality, the petitioner has requested to approve the COD as 31.8.2015 as per the clause 4(3) of Tariff Regulation, 2014. TANGEDCO also submitted that in the meeting convened on 24.4.2015 by CEA for resolving the similar issue between KTL and the beneficiaries, the following was observed:-

> "9. The representatives from PCKL informed that as per Regulation 8(6) of CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 and its amendments from time to time, It shall be the responsibility of generator to pay the charges under this regulation till commercial operation of the generator and as per Article 4.1 (c) of the Transmission Agreement signed on 14th May 2013 between Long Term Transmission Customers and Kudgi Transmission Limited, it is the Transmission Service Providers obligations for entering into Connection Agreement with the CTU/STU (as applicable) in accordance with the grid code. PCKL representatives informed that, as per Connection Agreement as in Detailed Procedures of Central Transmission Utility under Regulation 27 (1) of Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009, concerned parties (CTU, applicant and inter-state transmission licensee) shall separately take up modalities for implementation of the works on mutually agreed terms and conditions. The scope of works, time schedule for completion of works including the timelines for the various milestones to be reached for completion of works (PERT chart), shall form an appendix to connection agreement, and shall form the basis for evaluating if the works by the parties is being executed in time. Penalties for non completion of works in time by one party resulting in financial losses to the other party may be appropriately priced, as per mutual

agreement, for indemnification of each other against losses incurred in this regard, and form a part of this Agreement."

18. TANGEDCO has further submitted that the request of the petitioner to invoke the Regulation 4(3) of the 2014 Tariff Regulations and Regulation 24 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for approval of the deemed COD of the subject asset is unethical as the petitioner should claim the losses, if any, due to delay in commissioning of the assets attributed to the generator, only from the generator. The beneficiaries should not be burdened for no fault on their part. Hence, the request for declaration of deemed COD of the asset without being put into regular use may be rejected and the petitioner may be directed to claim the losses from the generator invoking the provisions of indemnifying agreement between the petitioner and the generator.

19. During the hearing held on 2.6.2016 the representative of the petitioner submitted that it initially claimed tariff on the basis of anticipated COD and sought approval of COD under Regulation 4(3) of the 2014 Tariff Regulations as the transmission line and generation projects were getting delayed, the RLDC certificate has been submitted only for two bays and for rest of the two bays RLDC certificate and CEA clearance letter will be submitted shortly, it has completed the scope of work, but NTPC portion is not ready and requested to approve the tariff as claimed in the petition.

20. However, the representative of NTPC contended that only Bay-1 is in regular use and Bay no. 2, 3 and 4 are not in regular use and as it has filed reply vide affidavit dated 5.10.2015, the Commission may decide the date of COD. NTPC vide additional reply dated 28.6.2016 has submitted that the petitioner has declared COD of all its 4 Nos. 400 kV line bays at Narendra (New) for Kudgi TPS-Narendra (New) 400 kV 2xD/C Quad lines w.e.f. 11.12.2015, but except Bay-1 associated with Line-1, the COD of the other 3 bays is not in accordance with the Regulation 4(3)(ii) of the 2014 Tariff Regulations, as these bays cannot be said to have been put into regular service until corresponding bays at Kudgi (NTPC) end are ready as provided under Regulation 4(3)(ii) of the 2014 Tariff Regulations. It specifies as under:-

> "**4. Date of Commercial Operation**
> (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:
> (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."

21. NTPC has further submitted that Bay-1 at NTPC Kudgi end was ready in July, 2015 and got CEA clearance in August, 2015. However, the same could not be charged till 16.11.2015 as PGCIL, Narendra (New) Sub-station was not ready. In this regard it has already made detailed submissions in Petition no. 236/MP/2015.

Similarly, in case of Line-2 bay at NTPC end, CEA Clearance was received on 6.11.2015. However, Line-2 bay at NTPC end could be charged only on 10.6.2016 due to the reasons not attributable to NTPC, which are as below:-

(a) In the 29th Commercial Committee Meeting held at Bangalore on 29.9.2015, NTPC submitted the SEM requirement for Kudgi STPP, Stage-I project. During the meeting, no consensus was reached on the ownership of standby meters. SRPC referred the matter to CEA and a meeting was held in CEA on 15.12.2015. CEA vide its minutes of said meeting clarified that the ownership of the standby meters as per CEA metering Regulation 6 (1) lies with CTU. However, for enabling charging of Line-2 bay, NTPC again requested PGCIL for providing SEMs for Line-2 on 20.1.2016 and 29.1.2016 via e-mail. SEMs were received from the petitioner on 8.3.2016. After completion of SEM installation and testing works, NTPC has submitted line charging formats to SRLDC for Line-2 bay charging clearance vide e-mail dated 25.4.2016 and a reminder was also sent to SRLDC on 16.5.2016. Line charging formats/documents pertaining to Line-2 were submitted to SRLDC by KTL and by the petitioner at the end of May, 2016. This has led to delay in charging of Bay-2 at NTPC end. Thus COD of Bay-2 at PGCIL end (New-Narendra) cannot be before 10.6.2016.

(b) Bay-3 and Bay-4 at PGCIL end Narendra (New) are also not ready for charging due to technical issue of conductor clearances for lines 3 and 4 of KTL. This is evident from the correspondences exchanged between the petitioner and KTL. Thus, the COD of Bay-3 and Bay-4 at PGCIL end (New-Narendra) declared by the petitioner is not as per the 2014 Tariff Regulations. The readiness for charging of the balance two bays at NTPC end is expected by July, 2016.

22. NTPC submitted that in view of the above, the COD of other 3 bays at PGCIL Sub-station Narendra (New) as a whole is null and void and needs prior approval of the Commission. NTPC in support of its contentions has also referred to the Hon'ble Supreme Courts' judgement dated 3.3.2016 in Civil Appeal No. 9193 of 2012 with Civil Appeal No. 9302 of 2012 regarding COD of Barh-Balia line, wherein the Appellate Tribunal of Electricity's (APTEL) judgments dated 2.7.2012 and 8.11.2012 have been upheld and has also quoted relevant portion of order dated 2.7.2012 in Appeal No. 123 of 2011 and has reiterated that as per the APTEL and the Hon'ble Supreme Courts' judgment dated 3.3.2016, the COD for transmission line or its element can be declared provided the bays at both end of transmission line are ready i.e. overall system including transmission line and bays are put into regular service. NTPC has further submitted that the petitioner in its affidavit dated 29.3.2016 also mentioned that the Kudgi TPS-Narendra (New) 400 kV 2xD/C quad line has been put into commercial operation w.e.f. 4.8.2015 by KTL.

23. The petitioner has filed rejoinder, dated 18.7.2016, to the reply of NTPC. The petitioner has submitted that out of 4 bays at Narendra (New) Sub-station, 2 bays have been charged on 18.11.2015 and remaining 2 bays have been charged on 1.12.2015 as per RLDC certificates submitted and these 4 bays have been put

under commercial operation on 11.12.2015. The petitioner, with reference to NTPC's request for SEMs received on 22.6.2015, has further submitted that out of four nos. SEMs 2 nos. SCMs were installed in November, 2015 and out of the other two meters, one meter was installed for Bus Reactor-I and 1 no. for Generator transformer-I at NTPC end. As such, it establishes that the required SEMs were provided at Kudgi NTPC end in November, 2015 before the COD of the bays.

24. The petitioner, vide additional affidavit dated 18.7.2016, has submitted RLDC charging certificate for 2 nos. 400 kV Line bays at Narendra (New) for Kudgi TPS-Narendra (New) 400 kV Line 1 and 2. The petitioner has further submitted that since NTPC Kudgi bays 3 and 4 for Kudgi TPS-Narendra (New) 400 kV Line 3 and 4 were not charged, power flow in these bays could not be established. However, as its own bays corresponding to Line 3 and 4 were ready, the same were test charged and declared under commercial operation on 11.12.2015.

25. We have considered the submissions of the respondents and the petitioner. COD for bays associated with Kudgi-Narendra Line-1 at Narendra is considered as 11.12.2015 as per COD declaration certificate dated 11.12.2015 of the petitioner and RLDC Certificate dated 4.4.2016. Regarding COD of other bays at Narendra, we note that NTPC has referred to the provisions of Regulation 4(3)(ii), which has been reproduced at para-19 and has confirmed that out of 4 bays, 3 bays associated with Kudgi-Narendra Line were not ready at NTPC end. Whereas, the petitioner has submitted during hearing on 2.6.2016 that it has completed its scope

of work but the scope of work of NTPC is not complete. As per the provisions of Regulation 4(3)(ii), the petitioner cannot declare COD on its own without approval of the Commission and needs to approach the Commission for the same. The petitioner did not seek approval of COD under Regulation 4(3)(ii) of the 2014 Tariff Regulations in the original petition. However, it was sought during the hearing held on 2.6.2016. We approve the COD of the 3 bays also as 11.12.2015 under Regulation 4(3)(ii) of the 2014 Tariff Regulations, as the petitioner had made its elements ready but was prevented from regular service for reasons not attributable to it. However, the petitioner is directed to approach the Commission, in advance, in future, for approval of COD under Regulation 4(3)(ii) of the 2014 Tariff Regulations as directed in order dated 30.6.2016 in Petition No.253/TT/2015.

Capital cost

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

> "(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects."
>
> (2) The Capital Cost of a new project shall include the following:
>
> (a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
>
> (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
>
> (c) Increase in cost in contract packages as approved by the Commission;

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

(e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;

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

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

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

27. The petitioner vide affidavit dated 30.3.2016 has submitted the Auditors' Certificate dated 17.3.2016 alongwith the revised tariff forms. The details of the apportioned approved capital cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred for the instant transmission asset and considered for the purpose of tariff are as follows:-

(₹ in lakh)

Approved apportioned cost	Capital cost claimed as on COD	Additional capital expenditure Incurred/Projected			Total estimated completion cost
		2015-16	2016-17	2017-18	
7165.00	4434.28	354.36	101.24	50.62	4940.50

As per Auditors' Certificate the expenditure upto 31.3.2015 has been verified from the books of account of the project and the balance expenditure is on the basis of details furnished by the management.

<u>Cost over-run</u>

28. TANGEDCO has submitted that there is over-estimation of the cost of instant asset and it is due to petitioners' inability to correctly estimate the costs. TANGEDCO has submitted that it is leading to inconsistent claims as the petitioner

is either regularly over-estimating or under-estimating costs. Thus, the provisions of tariff regulations need a revisit to standardize the capital cost claims of transmission systems. The petitioner, in its rejoinder has submitted reasons for over estimation to be on account of reduction in cost due to commissioning of 1 tie bay module as per site requirement as against provision of 2 nos., reduction in quantity of SF6 Bus duct, shifting of certain testing and maintenance equipments under SRSS-XVII and reduction in rates of certain equipments obtained in award of contracts through open competitive bidding route.

29. We have considered the submissions of TANGEDCO and the petitioner. There is over-estimation of cost not only in the instant case but few other projects as well. Over-estimation of cost makes it difficult to understand the increase in cost of various elements. The petitioner is directed to adopt more prudent methods in estimation of cost of various elements of a transmission project.

Time over-run

30. The project was scheduled to be commissioned within 22 months from the date of investment approval of 5.2.2014. Accordingly, the scheduled date of commercial operation works out to 4.12.2015 against which, the instant asset has been commissioned on 11.12.2015. Thus, there is a delay of 7 days in the commissioning of instant asset.

31. The petitioner was directed vide RoP for hearing dated 6.10.2015, to submit the reason of delay alongwith documentary evidence and chronology of events. The petitioner, in response, vide affidavit has just stated "that as per the Investment Approval, the asset was scheduled to be commissioned on 4.12.2015 against the same has been put into commercial operation w.e.f 11.12.2015. However, trial operation of the asset was done on 3.12.2015 and subsequently, COD was declared on 11.12.2015. Thus, there is a marginal delay of 7 days in commissioning of the instant asset." The petitioner has not submitted any reason for the time over-run of seven days in commissioning of instant asset. As such, we are not inclined to condone the delay of seven days in the commissioning of instant asset.

Treatment of IDC and IEDC

32. The petitioner has claimed Interest During Construction (IDC) of ₹206.67 lakh on accrual basis as per Auditors' Certificate dated 17.3.2016. The petitioner vide affidavit dated 30.3.2016 has also submitted the statement showing IDC computation, which indicates that entire IDC claimed has been discharged after COD during 2014-15 and 2015-16. Further, the petitioner has mentioned the amount of Loan from Proposed Loan (i.e. Bond L) amounting ₹505.39 lakh in Form-9C and Form-12B, whereas in IDC Statement the loan amount against the proposed loan (i.e. Bond L) is shown as ₹650.06 lakh. We have considered the loan amount as mentioned in Form-12B for computation of IDC.

33. The petitioner, vide RoP dated 6.10.2015 was directed to submit information

regarding IDC and in response, the petitioner has submitted details of the IDC amount up to SCOD (i.e. 4.12.2015) and from SCOD to actual COD amounting ₹199.81 lakh and ₹6.86 lakh respectively. However, based on drawl date of loans all interest payment is due after actual COD of 11.12.2015. Thus, as the delay of seven days has not been condoned, the petitioner is eligible for IDC only up to SCOD, which shall be allowed on cash basis as Additional Capital Expenditure of concerned year at the time of true up. The petitioner is directed to submit the details related to the payment of actual IDC on cash basis and loan wise IDC discharged after COD at the time of filing true-up petition.

34. The undischarged liability pertaining to IDC would be considered once it is paid, subject to submission of adequate information and prudence check at the time of truing-up. The petitioner is directed to submit Auditor certified details of capital cost on cash basis as on COD along with liability flow statement duly reconciled with the capital cost as per books of account at the time of truing-up.

35. The petitioner, vide affidavit dated 30.3.2016, has submitted Auditors' Certificate dated 17.3.2016 in support of its claim of ₹63.77 lakh as Incidental Expenditure During Construction (IEDC) for instant asset. The IEDC amount claimed is within the percentage of 10.75% on Hard Cost (i.e. 10.75% of ₹4163.83 lakh) as submitted in the Abstract Cost Estimate. Therefore, the amount of ₹63.77 lakh has been allowed as on COD for the purpose of tariff in this order. However, the IEDC for delayed period is not identifiable from the information submitted by the

petitioner. Therefore, the petitioner is directed to submit details of IEDC upto SCOD and after SCOD, at the time of truing-up.

Initial Spares

36. 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.

37. The petitioner has claimed initial spares amounting to ₹23.11 lakh for sub-station and vide affidavit dated 30.3.2016 has submitted the details of initial spares discharged upto COD. The petitioners' claim of ₹23.11 lakh of initial spares is within the ceiling limit specified in the 2014 Tariff Regulations, and it is considered for the purpose of tariff calculation in this order.

Capital cost as on COD

38. Accordingly, capital cost as on the date of commercial operation for the instant transmission asset after adjustment of IDC and IEDC and initial spares allowed is considered as per Regulation 9 (2) of the 2014 Tariff Regulations, as given under:-

(₹ in lakh)

Capital cost claimed as on COD	Un-discharged		Capital cost on cash basis allowed as on COD
	IDC	IEDC	
1	2	3	4=1-(2+3)
4434.28	206.67	-	4227.61

Projected Additional Capitalisation

39. 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.

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

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

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

41. The cut-off date in the case of instant transmission asset is 31.3.2018.

42. The additional capital expenditure during 2015-16, 2016-17 and 2017-18 claimed by the petitioner is as discussed at para-27 above. The additional capital expenditure incurred or projected to be incurred and claimed by the petitioner in respect of the instant transmission asset is within the cut-off date and is on account of balance payments. Thus, the additional capital expenditure claimed in respect of the instant transmission asset is allowed, which is subject to true-up. The additional capital expenditure approved for the purpose of tariff in this order is as under:-

(₹ in lakh)

2015-16	**2016-17**	**2017-18**
354.36	101.24	50.62

43. Based on the above, gross block has been considered as per details given below:-

(₹ in lakh)

Capital cost allowed as on COD	Additional Capital Expenditure Incurred/Projected			Total estimated completion capital cost as on 31.3.2019
	2015-16	2016-17	2017-18	
4227.61	354.36	101.24	50.62	4733.83

Debt- Equity ratio

44. Clause 1 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

> "(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:
>
> Provided that:
>
> (i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
>
> (ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
>
> (iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.
>
> **Explanation.-**The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

45. The capital cost on the dates of commercial operation arrived at as above and additional capitalization allowed have been considered in the normative debt-

equity ratio of 70:30. The details of debt-equity in respect of instant asset as on the date of commercial operation and as on 31.3.2019 considered on normative basis are as follows:-

(₹ in lakh)

Particulars	**As on COD**		**As on 31.3.2019**	
	Amount	**% age**	**Amount**	**% age**
Debt	2959.33	70.00	3313.68	70.00
Equity	1268.28	30.00	1420.15	30.00
Total	**4227.61**	**100.00**	**4733.83**	**100.00**

Return on equity

46. 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.... ...."
> 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: -------"
>
> **"25. Tax on Return on Equity:**
> (2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

47. The petitioner has submitted that RoE has been calculated at the rate of 20.24% after grossing up the RoE with MAT rate of 20.96% based on the rate prescribed as per illustration under Regulation 25 (2) (i) of the 2014 Tariff Regulations. The petitioner has further submitted that the grossed up RoE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up RoE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

48. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/ adjustable after completion of income tax assessment of the financial year.

49. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of

return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the RoE determined is as given under:-

(₹ in lakh)

Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Opening Equity	1268.28	1374.59	1404.96	1420.15
Addition due to Additional Capitalization	106.31	30.37	15.19	0.00
Closing Equity	1374.59	1404.96	1420.15	1420.15
Average Equity	1321.43	1389.77	1412.55	1420.15
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	**79.51**	**272.53**	**277.00**	**278.49**

50. The petitioner has also claimed additional RoE of 0.5% in the original petition for instant asset. TANGEDCO has submitted that petitioners' claim for additional RoE should be disallowed. The petitioner vide affidavit dated 30.3.2016 has submitted that additional RoE in the instant petition is an inadvertent error and requested to condone the error. Accordingly, additional RoE is not allowed for the instant asset.

Interest on loan

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

> "(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan
>
> (2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.
>
> (3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.
>
> (4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
>
> (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:
>
> Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:
>
> Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.
>
> (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest."

52. In keeping with the provisions of Regulation 26 of the 2014 Tariff Regulations, the petitioner's entitlement to interest on loan has been calculated on the following basis:-

(a) Gross amount of loan, repayment of instalments and rate of interest have been considered as per Form-9C submitted vide affidavit dated 310.3.2016;

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

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

53. The interest on loan has been calculated on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up.

54. Detailed calculations in support of interest on loan have been given in the Annexure.

55. The details of Interest on Loan calculated are as under:-

(₹ in lakh)

Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Gross Normative Loan	2959.33	3207.38	3278.25	3313.68
Cumulative Repayment upto Previous Year	-	71.44	316.24	565.03
Net Loan-Opening	2959.33	3135.94	2962.01	2748.65
Addition due to Additional Capitalisation	248.05	70.87	35.43	-
Repayment during the year	71.44	244.80	248.79	250.12
Net Loan-Closing	3135.94	2962.01	2748.65	2498.53
Average Loan	3047.64	3048.98	2855.33	2623.59
Weighted Average Rate of Interest on Loan	8.2342%	8.2342%	8.2342%	8.2342%
Interest on Loan	**77.00**	**251.06**	**235.11**	**216.03**

Depreciation

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

> **"27. Depreciation:**
>
> (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.
>
> Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.
>
> (2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.
>
> (3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:
>
> Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:
>
> Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:
>
> Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.
>
> 4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

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

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

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

57. The instant asset has been put under commercial operation on 11.12.2015. Accordingly, the depreciation for the instant asset has been calculated annually based on Straight Line Method and at rates specified in Appendix-II to the 2014 Tariff Regulations.

58. The details of the depreciation worked out are as follows:-

(₹ in lakh)

Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Gross Block as on COD	4227.61	4581.97	4683.21	4733.83
Addition during 2014-19 due to Projected Additional Capitalisation	354.36	101.24	50.62	0.00
Gross Block as on 31st March	4581.97	4683.21	4733.83	4733.83
Average Gross Block	4404.79	4632.59	4708.52	4733.83
Rate of Depreciation	5.2856%	5.2843%	5.2838%	5.2837%
Depreciable Value	3964.31	4169.33	4237.67	4260.45
Remaining Depreciable Value	3964.31	3892.87	3648.07	3399.28
Depreciation	**71.44**	**244.80**	**248.79**	**250.12**

<u>Operation & Maintenance Expenses (O&M Expenses)</u>

59. Regulation 29 (4) (a) of the 2014 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the

type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-

Elements	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV bays (₹ lakh per bay)	60.30	62.30	64.37	66.51	68.71

60. Accordingly, the petitioner's entitlement to O&M Expenses has been worked out and the allowable O&M expenses for the instant transmission asset are as under:-

(₹ in lakh)

Elements	2015-16 (pro-rata)	2016-17	2017-18	2018-19
4 nos. 400 kV bays	76.26	257.48	266.04	274.84

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

62. TANGEDCO has submitted that the petitioner has stated that the wage revision of the employees is due w.e.f. 1.1.2017 and reserves the right to approach the Commission as the actual impact of the wage hike was not factored in fixation of

the normative O&M Expenses for the tariff block 2014-19. However, there is no provision for revision of O&M Expenses based on the actuals in the 2014 Tariff Regulations. Further, the revised norms were considered based on past five years actual O&M Expenses, which include the wage hikes during the previous five years and a 10% margin over and above the effective CAGR of O&M Expenses has been allowed and any further revision of O&M rates will worsen the already burdened financial status of the beneficiaries. The petitioner has submitted that being a CPSU, the scheme of wage revision is binding on it and the O&M rates prescribed for tariff block 2014-19 were fixed without factoring the wage revision due from 1.1.2017. Thus, the prayer has been made in line with the provision of Regulation 19(f)(ii) of the 2009 Tariff Regulations for suitable revision in the norms for O&M Expenditure for claiming the impact of wage hike, if any, during 2014-19.

63. We have considered the submissions of TANGEDCO and the petitioner. The O&M Expenses have been worked out as per the norms specified in the 2014 Tariff Regulations. Any application filed by the petitioner with regard to the impact of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

Interest on working capital

64. Clause 1 (c) and 3 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:
>
> (a)-------

(c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:

(i) Receivables equivalent to two months of fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) Operation and maintenance expenses for one month"

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

"(5) 'Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;"

65. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The interest on working capital as determined is as under:-

(₹ in lakh)

Particulars	**2015-16 (Pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Maintenance Spares	37.28	38.62	39.91	41.23
O & M expenses	20.71	21.46	22.17	22.90
Receivables	170.38	176.30	176.53	175.30
Total	**228.37**	**236.38**	**238.60**	**239.43**
Interest Rate	13.50%	13.50%	13.50%	13.50%
Interest	**9.46**	**31.91**	**32.21**	**32.32**

Transmission charges

66. The transmission charges allowed for the instant transmission asset are summarized as follows:-

(₹ in lakh)

Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	71.44	244.80	248.79	250.12
Interest on Loan	77.00	251.06	235.11	216.03
Return on Equity	79.51	272.53	277.00	278.49
Interest on Working Capital	9.46	31.91	32.21	32.32
O & M Expenses	76.26	257.48	266.04	274.84
Total	**313.68**	**1057.78**	**1059.16**	**1051.81**

67. The petitioner has submitted that the claim for transmission charges and other related charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges or any other kind of impositions or surcharges etc. The same if imposed shall be borne and additionally paid by the respondents. The petitioner can make claims as per the prevailing regulations. We have allowed transmission tariff as per the 2014 Tariff Regulations.

Filing Fee and the Publication Expenses

68. 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. NTPC has submitted that the application filing fee, expenses incurred on publication of notices in newspapers and license fee is not payable by it, but should be borne by the long term beneficiaries as per Regulation 52 of the 2014 Tariff Regulations. We have considered the submissions of NTPC and the petitioner. 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. NTPC is not a beneficiary of the instant asset and hence, it is not liable to bear the filling fee and the publication expenses.

Licence Fee and RLDC fees and Charges

69. The petitioner has requested to allow it to bill and recover License fee and RLDC fees and charges, separately from the respondents. TANGEDCO has submitted that the petitioner being a CTU may not obtain transmission licence for the projects executed under cost plus approach and hence the request of the petitioner be rejected. NTPC has submitted that the license fee is not payable by it, but should be borne by the long term beneficiaries as per Regulation 52 of the 2014 Tariff Regulations. The petitioner has submitted that as per Regulation 52 of the 2014 Tariff Regulations, application filing fee, expenses incurred on publication of notices in newspapers and license fee are recoverable separately from the beneficiaries. We have considered the submissions of TANGEDCO, NTPC and the petitioner. 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. NTPC is not a beneficiary of the instant asset and hence, it is not liable to bear the filling fee and the publication expenses.

Service Tax

70. The petitioner has made a prayer to be allowed to bill and recover the 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. The

petitioner has further prayed that if any taxes and duties including cess etc. are imposed by any statutory/Government/municipal authorities, it shall be allowed to be recovered from the beneficiaries. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Deferred Tax Liability

71. The petitioner has sought recovery of deferred tax liability accrued before 1.4.2009 from the beneficiaries or long term consumers/DICs as and when materialized under Regulation 49 of the 2014 Tariff Regulations. However, the instant asset was commissioned on 11.12.2015 and hence the petitioner’s prayer is infructuous.

Sharing of Transmission Charges

72. Both NTPC and TANGEDCO have submitted replies, which have been discussed at para-16 to para-22 of this order. NTPC has submitted that the transmission charges allowed in the instant should be included in the PoC charges, whereas TANGEDCO has submitted that the petitioner should claim the losses, if any, due to delay in commissioning of the assets attributed to the generator, only from the generator. The beneficiaries should not be burdened for no fault on their part.

73. We have considered the submissions of the petitioner and respondents. The issue of payment of transmission charges after a detailed examination of similar issues, has already been decided by the Commission, in order dated 27.6.2016 in Petition No.

236/MP/2015 The relevant portion of the order dated 27.6.2016 in Petition No. 236/MP/2015 is as below:-

"42. It is noted that 400 kV D/C Kudgi TPS-Narendra (New) transmission line is connectivity line for NTPC Kudgi STPP and obtained clearance from CEA on 28.7.2015. However, NTPC Kudgi STPP switchyard obtained clearance from CEA on 24.8.2015 and charged the switchyard on 16.11.2015, after PGCIL`s sub-station was made ready. 400 kV Narendra (new) sub-station pertaining to PGCIL was charged on 15.11.2015. In view of the above, the transmission charges shall be payable by NTPC and PGCIL in the following manner:

(a) It is noted that the petitioner completed its entire scope of the work on 27.3.2015. However, due to non-availability of inter-connection facility required to be developed by NTPC and PGCIL at each end, it could not commission the transmission line. Therefore, the transmission charges for the period from 4.8.2015 to 23.8.2015 shall be shared by both NTPC and PGCIL in the ratio of 50:50.

(b) CEA vide its letter dated 24.8.2015 accorded the approval for energisation of 11 no. bays of 220 kV and 4 No. bays of 400 kV and 60-60 MVA, 400 kV station transformer and associated equipment at Kudgi STPP of NTPC. From the letter of CEA, it is observed that the bays pertaining to NTPC was ready in the month of August, 2015. However, PGCIL Narendra (New) sub-station was charged through PGCIL Kolhapur-New Narendra line from 15.11.2015. Subsequently, 400 kV Kudgi Switchyard was charged on 16.11.2015. Therefore, the petitioner`s transmission line could not be utilized due to non-completion of elements under the scope of PGCIL. Accordingly, PGCIL shall pay the transmission charges to the petitioner for the period from 24.8.2015 to 15.11.2015.

(c) As per Regulation 8(5) of the Sharing Regulations, the charges for connectivity line of NTPC are required to be paid by NTPC till date of COD of first unit of Kudgi or date of start of LTA, whichever is earlier. Accordingly, from the period 16.11.2015, NTPC shall pay the transmission charges to the petitioner in terms of the Regulation 8 (5) of the Sharing Regulations.

(d) As per Regulation 11 of the Sharing Regulations, CTU is responsible for raising the bills of transmission charges to ISTS transmission licensees. Accordingly, CTU is directed to raise the bills to PGCIL and NTPC for the period from 4.8.2015 to 23.8.2015 in the ratio of 50:50 and to PGCIL for the period from 24.8.2015 to 15.11.2015 and to NTPC from 16.11.2015. After collecting the transmission charges, CTU shall disburse the same to the petitioner immediately.

"45. In our view----------'

Issue No.4: What should be payment of charges for startup power by NTPC

"46. NTPC vide affidavit dated 14.12.2015 has contended that the charges payable by NTPC would correspond to the charges determined by the Commission for the relevant node under PoC mechanism and the same shall be adjusted in the pooled account in the next quarter. Therefore, the charges of beneficiaries would be reduced to the extent payment is made by the generator. Accordingly, the transmission charges as per the TSA for the first element of the petitioner are required to be included in the PoC charges. NTPC has submitted that as per provisions of the 4th amendment of Connectivity Regulations, it is required to pay the transmission charges corresponding to KTL`s Line-1 only for drawl of startup power from 21.11.2015 onwards till commissioning of Unit-1 of Kudgi STPP. These charges would correspond to charges of relevant node as approved by the Commission. According to NTPC, the transmission charges for first element need to be included and recovered through POC mechanism as the transmission charges are payable only from COD of the transmission lines and not from the date of completion/deemed COD as claimed by the petitioner in accordance with Transmission Service Agreement and Sharing Regulations."

74. The bays considered under this petition are part of connectivity lines i.e. Kudgi TPS-Narendra (New), whose sharing of transmission charges have been decided above. The tariff for the bays covered in the instant petition is to be borne by NTPC till COD of its first Unit or date of start of LTA whichever is earlier. Thereafter, 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.

75. This order disposes of Petition No. 201/TT/2015.

sd/-	sd/-	sd/-	sd/-
(M.K. Iyer)	**(A.S. Bakshi)**	**(A.K. Singhal)**	**(Gireesh B Pradhan)**
Member	**Member**	**Member**	**Chairperson**

Annexure

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
	Details of Loan	**2015-16**	**2016-17**	**2017-18**	**2018-19**
1	**BOND XLVIII**				
	Gross loan opening	**2453.93**	**2453.93**	**2453.93**	**2453.93**
	Cumulative Repayment upto DOCO/ previous year	**0.00**	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	2453.93	2453.93	2453.93	2453.93
	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	2453.93	2453.93	2453.93	2453.93
	Average Loan	2453.93	2453.93	2453.93	2453.93
	Rate of Interest	**8.20%**	**8.20%**	**8.20%**	**8.20%**
	Interest	201.22	201.22	201.22	201.22
	Rep Schedule	4 instalments 23.01.2020,23.01.2022,23.01.2025 and 23.01.2030			
2	**BOND L**				
	Gross loan opening	**505.39**	**505.39**	**505.39**	**505.39**
	Cumulative Repayment upto DOCO/ previous year	**0.00**	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	505.39	505.39	505.39	505.39
	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	505.39	505.39	505.39	505.39
	Average Loan	505.39	505.39	505.39	505.39
	Rate of Interest	**8.40%**	**8.40%**	**8.40%**	**8.40%**
	Interest	42.45	42.45	42.45	42.45
	Rep Schedule	12 Annual Instalment from 27.05.2019			
	Total Loan				
	Gross loan opening	**2959.32**	**2959.32**	**2959.32**	**2959.32**
	Cumulative Repayment upto DOCO/ previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	2959.32	2959.32	2959.32	2959.32
	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	2959.32	2959.32	2959.32	2959.32
	Average Loan	2959.32	2959.32	2959.32	2959.32
	Rate of Interest	**8.2342%**	**8.2342%**	**8.2342%**	**8.2342%**
	Interest	**243.68**	**243.68**	**243.68**	**243.68**