CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 104/TT/2013

Coram:

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

Date of Hearing : 20.10.2015
Date of Order : 12.04.2016

In the matter of:

Determination of transmission tariff of Asset-1: Reconductoring Ckt.-I of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line and Asset-2: Reconductoring Ckt.-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line under ERSS-I in Eastern Region for tariff block 2009-14 under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

And in the matter of:

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

Vs

1. Bihar State Electricity Board,
   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. Damodar Valley Corporation,
   DVC Tower, Maniktala
   Civil Centre, VIP Road,
   Kolkata-700 054

5. Power Department,
   Govt. of Sikkim,
   Gangtok-737 101

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

For petitioner : Shri S.K. Venkatesan, PGCIL
Shri M.M. Mondal, PGCIL
Shri Rakesh Prasad, PGCIL
Shri S.S. Raju, PGCIL

For respondents : Shri R.B. Sharma, Advocate, GRIDCO

ORDER

The petition has been filed by Power Grid Corporation of India Limited (petitioner) seeking approval of the transmission charges for Asset-1: Reconductoring Ckt.-I of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line and Asset-2: Reconductoring Ckt.-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line (hereinafter referred to as "transmission asset") under ERSS-I in Eastern Region, for the tariff block 2009-14, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The administrative approval and expenditure sanction for the project was conveyed by the Ministry of Power vide letter dated 4.10.2006 at an estimated cost of for ₹97596 lakh, including IDC of ₹4572 lakh (based on 2nd Quarter, 2006 price level). The transmission project was scheduled to be commissioned within 36 months from the date of Investment Approval (IA) and accordingly the scheduled commissioning date of the project works out to 3.10.2009 i.e. 1.11.2009.

3. The scope of work covered under the project is as follows:-

Transmission Lines:

1) Durgapur-Jamshedpur 400 kV D/C line : 181 km
2) Jamshedpur-Baripada 400 kV D/C line : 135 km
3) Baripada-Chandaka (Mendhasal) (GRIDCO) 400 kV D/C line : 255 km
4) Re-conductoring of Siliguri-Purnea 400 kV D/C line with twin INVAR Moose conductor : 175 km

Sub-stations:

1) Jamshedpur 400/220 kV Sub-station Extension;
2) Durgapur 400/220 kV Sub-station Extension;
3) Baripada 400/220 kV Sub-station Extension;
4) Siliguri 400/220 kV Sub-station Extension*
5) Purnea 400/220 kV Sub-station Extension*
6) Chandaka (Mendhasal) 400/220 kV Sub-station Extension (GRIDCO);

*Re-conductoring of 400 kV bays including dismantling & replacement of equipment and associated works.

*The dismantled equipment of Siliguri and Purnea Sub-stations will be utilized at Jamshedpur and Durgapur Sub-stations.

4. The petitioner initially claimed transmission tariff for the assets from the anticipated date of commercial operation. Subsequently, the petitioner has submitted the actual date of commercial operation of Asset-1: Reconductoring Ckt.-I of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line and Asset-2: Reconductoring Ckt.-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line as 1.4.2014 and 1.6.2013 respectively. Accordingly, tariff of Asset-2: Reconductoring Ckt.-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line, commissioned during 2009-14 is allowed in the instant petition. The petitioner was directed to file a fresh petition under the 2014 Tariff Regulations in case of Asset-1: Reconductoring Ckt.-I of 400 kV D/C Siliguri-Purnea (HTLS Cond.)

Transmission Line commissioned during 2014-19 tariff period. Accordingly, the petitioner filed Petition No. 164/TT/2015 for Asset-1 under tariff period 2014-19. The details of the asset considered in the instant order are as follows:-

Particulars	**Scheduled COD**	**Actual COD**	**Time over-run**
Reconductoring Ckt.-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line	1.11.2009	1.6.2013	43 months

5. This order has been issued after considering petitioner's affidavits dated 31.1.2014, 27.5.2014, 2.7.2014 and 8.6.2015.

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

(₹ in lakh)

Particulars	**2013-14 (pro-rata)**
Depreciation	380.11
Interest on Loan	87.22
Return on equity	379.61
Interest on Working Capital	19.05
O & M Expenses	-
Total	**865.99**

7. The details submitted by the petitioner in support of its claim for Interest on Working Capital are as below:-

(₹ in lakh)

Particulars	**2013-14 (pro-rata)**
Maintenance Spares	-
O & M expenses	-
Receivables	173.20
Total	**173.20**
Rate of Interest	13.20%
Interest	**19.05**

8. No comments have been received from the general public in response to the notices published in news papers by the petitioner under Section 64 of the Electricity Act, 2003. GRIDCO Limited (GRIDCO), Respondent No. 3 has filed reply dated 15.10.2015. GRIDCO has raised issues like over estimation of cost, time over-run, de-capitalisation of existing conductor, filing fee, claim for increase in O&M Expenses on account of wage revision, if any, levies, duties, cess or any other statutory taxes etc. The petitioner has not filed rejoinder to the reply of GRIDCO. The objections raised by the respondent are addressed in the relevant paragraphs of this order.

9. Having heard the parties and perused the material on record, we proceed to dispose of the petition.

Capital Cost

10. As regards the capital cost, Regulation 7(1) of the 2009 Tariff Regulations provides as follows:-

> **"(1) Capital cost for a project shall include:-**
>
> (a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.
>
> (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and
>
> (c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff."

11. The petitioner has submitted the approved apportioned cost, cost as on COD and additional capitalisation incurred as per Auditors' Certificate dated 26.5.2015 submitted vide affidavit dated 8.6.2015 and the total estimated completion cost is within the approved apportioned cost. However, in Form-9A there is no mention of any liability as on COD and thereafter, whereas the petitioner vide Form-9 (i.e. Statement of Additional Capitalisation after COD) has submitted the justification that additional capital expenditure is on account of balance and retention payments. Further, as per the statement of "Discharge of IDC", it is noted that all IDC claimed is not discharged as on COD and some portion was discharged during 2013-14. Thus, there is a mismatch between Form-9, Form-9A and the statement of "Discharge of IDC" with reference to the liability. As such, as per the information submitted by the petitioner, it is not possible to determine the capital cost as on COD on cash basis and the nature of additional capital expenditure, so as to consider the same to be just discharge of liability or as an addition to the Gross Block. The petitioner is directed to submit the required information such as capital cost statement on cash basis indicating element wise and year wise actual expenditure incurred up to 31.3.2014 along with element wise details of undischarged liability as on COD and at

the end of the financial year duly certified by the Auditors along with the true-up petition.

12. The details of approved apportioned cost, actual expenditure incurred as on the date of commercial operation and details of additional capital expenditure (hereinafter “add cap”) incurred/projected to be incurred for the instant assets as claimed vide affidavit dated 8.6.2015 are summarized below:-

(₹ in lakh)

Apportioned approved cost	Cost as on COD	Add-cap		Estimated completion cost
		COD to 31.3.2014	2014-15	
9694.81	8479.63	306.70	5.21	8791.54

Cost over-run

13. GRIDCO has submitted that in spite of consuming more than six and half years in the execution of the asset, there is no/marginal increase in the cost, which shows that there is over-estimation of the project cost. Thus, cost over-run cannot be determined in the instant case. It is observed that as per the investment approval, the re-conductoring was to be done by using “INVAR Moose Conductor” whereas the petitioner has actually commissioned "Gap type conductor". The cost of Gap type conductor is lower than that of INVAR moose conductor. Thus, there is no cost over-run even after a delay of 43 months in completion of re-conductoring. The petitioner on its own has not submitted whether Gap type conductor is technically superior or inferior as compared to INVAR Moose Conductor, or the reasons for using different conductor. We are of the view that the petitioner should have submitted the reasons for changing the type of conductor. The petitioner is directed to provide the reasons for the same and the approval of competent authority for the change at the time of truing-up.

14. The total cost as on 31.3.2014 as well as the total estimated completion cost is within the approved apportioned cost. Thus, there is no cost over-run in case of instant asset. However, there is cost variation in certain heads as per Form-5B as compared with FR cost.

15. The petitioner has submitted that prior to undertaking the re-conductoring work with HTLS conductor, it had no past experience in procuring HTLS conductor and re-conductoring on such scale. Therefore, the cost of certain activities/items was broadly estimated based on budgetary quotations while preparing the cost at FR stage. We have considered the submission of the petitioner and the clarification/justification submitted by the petitioner for cost variation. The clarification given by the petitioner appears to be in order and therefore, the cost variation is allowed.

<u>Time over-run</u>

16. The project was scheduled to be commissioned within 36 months from the date of IA i.e. 4.10.2006. Accordingly, the scheduled commissioning works out to 3.10.2009 i.e. 1.11.2009. The instant asset was commissioned on 1.6.2013. Thus, there is time over-run of 43 month in commissioning of the instant asset.

17. The petitioner vide affidavit dated 31.01.2014 and 27.5.2014 has submitted reasons of delay as under:-

a. Initial delay is due to tie up of loan from the funding agency World Bank (WB). The total loan assistance of US $ 1 billion for a basket of projects, to be implemented during the X and XI five year plans were sought from the WB. It was also decided to avail this loan in tranches to optimize the commitment charges. As these basket of projects were scheduled for commissioning at different time periods, the first tranche of US $ 400 million was signed in May, 2006 under this PSPD-III (Power System Development Plan) loan. Projects were categorized as core and candidate, based on their preparedness and on this basis subsequent tranches amount, considering the completion schedule of project as per their approval were considered, as detailed hereunder:-

Tranche	Amount (US $ million)	Schedule for loan signing
1	400 (PSPD-III)	Already signed on May 2, 2006
2	600	September, 2007
3	500	September, 2008
4	500	September, 2009

The second tranche of US $ 600 Million (envisaged to be available by September, 2007) for which the request was forwarded to Ministry of Power (MoP) in June, 2006 and MoP forwarded the same to DEA (Department of Economic Affairs) in August, 2006 got delayed. After considering additional fund requirement based on investment approvals of the project by Government of India (GoI), the revised request was submitted in December, 2006 to MoP for a loan of US $ 1.6 Billion (i.e. 2nd tranche of US $ 600 million plus additional requirement of US $ 1000 million). Based on the GoI approval for projects with WB funding request to the WB for a loan of US $ 1000 million and additional requirement projected, advance procurement action for the project had been proceeded with. However, clearance of 2nd tranche loan of US $ 600 million from WB could not materialize in time. It was compelled to place on hold the supplies of a number of awarded packages (beyond the first tranche of US $ 400 million). Eastern Region System Strengthening

Scheme-I (ERSS-I) was one of such transmission projects affected due to delay in signing of loan agreement by World Bank (WB). The sequence of events led to delay in getting the loan signed with the World Bank is as follows:-

S. No.	Date	Remark
1	20.6.2006	Proposal for USD 600 Million forwarded to MoP
2	4.8.2006	MoP forwarded the above proposal to Ministry of Finance MoF)
3	12.12.2006	Proposal forwarded to MoP for appropriating MoF for arranging overall fund requirement of USD 1.6 Billion, to be availed under series of tranches during 2007-12
4	5.2.2007	MoP forwarded the above proposal to MoF
5	7.3.2007	MoP requested to expedite the proposal with MoF
6	14.3.2007	Clarifications sought by MoF regarding specific proposal, borrowing programme and cost of proposed borrowing
7	19.3.2007	Reminder from MoP to MoF regarding PAC (Project Authority Certificate) and EDEC (Excise Duty Exemption Certificate)
8	20.3.2007	Reply to clarifications forwarded to MoF
9	17.4.2007	Additional information sought by MoF regarding cost of borrowing and POWERGRID's financial data
10	20.4.2007	Reply to clarifications forwarded to MoF
11	20.4.2007	MoP requested to expedite the proposal
12	24.7.2007	Request by POWERGRID to MoP for expedition of loan approval by MoF.
13	11.9.2007	World Bank, Country Director, asked MoP to follow up the US $ 600 million loan for POWERGRID.
14	20.9.2007	Letter from Secretary Power to Secretary Finance to expedite loan processing to avoid project implementation delay.
15	21.9.2007	Request from CMD, POWERGRID to MoF for expediting loan processing.
16	20.11.2007	Letter from Secretary Power to Secretary Finance for expedite loan processing.
17	6.12.2007	Request from CMD, POWERGRID to MoP for expediting loan processing.
18	7.12.2007	Communication from CMD, POWERGRID, to Secretary Finance
19	13.12.2007	Communication from POWERGRID to Director , (FB-WB)
20	31.12.2007	MoF forwarded the proposal to the WB
21	28.3.2008	Loan signing

In all the correspondences with MoP and MoE&F and that of MoP to MoE&F it was mentioned that non-availability of loan would lead to delay in implementation of projects identified with WB funding. Further, delay in availability of WB loan had an adverse affect in further delaying this project.

The second tranche of US $ 600 million was subsequently signed on 28.3.2008 and accordingly thereafter, the procurement process initiated for Re-conductoring for 400 kV D/C Siliguri-Purnea TL under ERSS-I. The assets covered under this petition are a part of a scheme consisting of number of assets. Asset covered under this petition i.e. HTLS (High Tension Low Sag) conductor was being used for the first time in India. This was a new technology for Indian Power Sector and was being introduced for the first time. The contract for the conductor was funded by World Bank and the bids were subject to prior view of the World Bank. The petitioner had to modify the Qualifying Requirements as per the requirement of the funding agency (WB) which was not envisaged during initial stage. Further, World Bank had revised the QR on two occasions and two-stage bidding process under the procedures of World bank funding had to be adopted, and in the two stage bidding process under prior review procedures of the World Bank took around 12 months time.

b. The petitioner has submitted that there was delay of two years in finalization of contracts after Draft Bidding Documents were forwarded to the World Bank for their approval. The World Bank procedures were pre-requisite to the financial closure of the packages and were beyond the control of the petitioner. Since the packages were covered under WB funding, deemed exports benefits as well as the cheaper rate of interest as compared to the domestic sources on loans was available resulting in the cost savings. The petitioner has further submitted that the HTLS conductor was also to be sourced through International Competitive Bidding (ICB) route which were not available in India. The petitioner further submitted that during this period no investment was made in the project.

c. Thereafter, the first lot of conductors was scheduled to arrive from Japan in May, 2011 and last lot in January, 2012. However, Japan was hit by a devastating earth quake and Tsunami on 11.3.2011 due to which basic infrastructural facilities were thoroughly disrupted and the supplier M/s KEC requested to extend delivery of conductor to 16.6.2012 due to force-majeure conditions which was beyond the control of petitioner/supplier. The petitioner requested to condone the time over-run of four and half months i.e. February, 2012 to 16.6.2012.

d. After completion of work in Ckt.-1, nearly 20 km of the said line collapsed due to heavy storm at Pagligach on 6.4.2012 which was restored on 16.7.2012. Meanwhile, another section collapsed on 3.5.2012 and was restored on 9.6.2012, which hampered re-conductoring work for more than three months i.e. from 6.4.2012 to 16.7.2012. The delay from 6.4.2012 to 16.6.2012 is overlapping with delay in supplies of conductor due to earthquake and Tsunami in Japan.

e. The Eastern Region OCC meeting approved shut down of 400 kV Purnea-Siliguri Ckt.-I from 30.5.2013 to 30.6.2013. However, evacuation of power from Hydro Generating Stations in Sikkim/Bhutan and NER Region and non-availability of this link leading to high loading in other parallel Ckt. NLDC on 30.5.2013 requested ERLDC to review the approved shut down and shift it after October, 2013. Further, shut down clearance of one Ckt., out of two Ckts. was given at a time and progress of work was slow due to extra precaution taken for safety, as work was carried out in a ckt. while the other ckt. is charged at 400 kV level. This caused a delay of three months in the execution of work.

f. Due to WBSETCL not allowing timely shut down of their line but the specific date/(s) have not been provided or the constraints on account of RoW problem, due to demand for compensation and not allowing entering the field for construction work but no specific date/(s) or period of delay have been provided by the petitioner.

18. GRIDCO has submitted that there is a huge time over-run and the petitioner has provided only a sketchy information on time over-run and has submitted the following:-

a) The time over-run of 43 months is attributed to delay in award of contract, earthquake, tsunami, tower collapse, shut-down issues and ROW issues;

b) The time over-run due to delay in award of contract is only 6 months and not 38 months as claimed by the petitioner;

c) The petitioner has claimed delay of 7 months due to the tsunami in Japan. However, as per the correspondence submitted by the petitioner the anticipated delay due to this reason was only 4 months;

d) The petitioner has claimed delay of 3-4 months due to collapse of tower due to heavy storm. However, the report of Standing Committee of the experts recommended strengthening of towers. The petitioner was well aware of this problem and should have taken care of the same. The delay due to this reason is attributable to the petitioner and it should not be condoned;

e) The petitioner has claimed delay of 3-4 months due to non-availability of shut-down. It is not clear why the petitioner has applied for shutdown and rescheduling when the hydro generation is high in the region. Time over-run due to this reason is attributable to the petitioner and it should not be condoned; and

f) In view of the APTEL's judgment in Appeal No 72 of 2010, the time over-run of 6 months due to delay in award of contract and 4 months due to natural forces is justified and can be condoned.

19. We have considered the submissions of the petitioner. There was delay in tie-up with World Bank which delayed the award of contract by 18 months, i.e. from the date of investment approval to the date of signing of loan agreement on 28.3.2008. In a similar case, the delay due to tie-up with World Bank was condoned in order dated 12.5.2015 in Petition No.53/TT/2013. We are of the view that the delay of 18 months in signing the loan agreement with World Bank is due to the procedures laid down by it and hence it is condoned. The time over-run of four and half months (from 1.2.2012 to 16.6.2012) due to delay in delivery of conductor due to tsunami in Japan is a force majeure condition and it is beyond the control of the petitioner and hence it is condoned. Time over-run of one month (from 17.6.2012 to 16.7.2012) on account of tower collapse due to storm (after excluding over lapping delay) is also beyond the control of petitioner so it is condoned. Time over-run of 5

months due to shifting of shutdown from May to October, 2015 is also condoned. Accordingly, out of total time over-run of 43 months in commissioning of the instant asset 28.5 months are condoned and the remaining 14.5 months is not condoned.

Treatment of IDC and IEDC

20. The petitioner vide affidavit dated 8.6.2015 has submitted the details of Interest During Construction (IDC) claimed, which are not adequate enough to work out the IDC on cash bass. Thus, the IDC has been worked out based on the available information i.e. considering the foreign loans details submitted in Form-13 and exchange rate thereof as on COD. Further, it has also been assumed that interest payment in case of all the foreign loans is due on yearly basis, as in other loans drawn by the petitioner. The variance, if any, in these assumptions would be reviewed at the time of truing-up on the submission of the Interest Payment schedule by the petitioner. Further, the rates of interest considered for each of these loans is the floating rates of interest submitted by the petitioner vide affidavit dated 26.6.2014.

21. The petitioner has submitted the date of disbursement of all the foreign loans as 31.3.2011. Hence, the IDC has been calculated considering this date of disbursement for all the submitted loans till the COD of the asset i.e. 1.6.2013. We have also used the rate of interest corresponding to first quarter of 2011-12 for each loan for the calculation of the IDC as the date of disbursement is 31.3.2011.

22. Further, while working out the IDC on cash basis, the exchange rates as on COD of the respective foreign loans, have been considered. The petitioner has not submitted the date of drawl of any loan and proofs of exchange rates as on COD for

any loan. Hence, it would be subject to review at the time of truing-up upon the submission of the relevant details of the same by the petitioner.

23. The details of IDC claimed and allowed on cash basis are as under:-

(₹ in lakh)

IDC claimed on accrual basis	Claimed on cash basis upto COD	Balance IDC discharged in 2013-14	Allowed on cash basis upto COD
399.99	375.97	24.02	103.21

24. The petitioner has also submitted that the balance amount of ₹24.02 lakh for IDC is not included in the amount of additional capitalisation of the instant asset. Therefore, the balance IDC would be added up in the additional capitalisation of 2013-14 after prudence check upon submission of all relevant information by the petitioner at the time of truing-up.

25. The petitioner has claimed Incidental Expenditure During Construction (IEDC) of ₹177.74 lakh but has not submitted any supporting document with respect to claim of IEDC. As such, in the absence of detailed computation of IEDC, the percentage on hard cost indicated in the Abstract Cost Estimate, has been considered as the allowable limit of the IEDC. In the instant petition, 5.00% of the Hard Cost is considered as IEDC limit as indicated in the abstract cost estimate and the IEDC claim of ₹177.74 lakh is lower than 5.00% of the hard cost, as on COD. Hence, the IEDC claimed by the petitioner after disallowance on account of non-condonation of delay and considered for the purpose of tariff determination in this order is as follows:-

(₹ in lakh)

IEDC for the total period of completion (80 Months)	177.74
Detail of IEDC disallowed for 14.5 months	
Pro-Rata IEDC Disallowed (14.5 months)	32.22
Total IEDC Allowed	**145.52**

Initial Spares

26. Regulation 8 of 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

Transmission line	0.75%
Transmission Sub-station	2.5%

27. The petitioner vide affidavit dated 14.12.2015 has submitted that the entire liability against the procurement of the initial spares has been discharged as on COD. As such we have considered initial spares discharged upto 31.3.2014 for the purpose of determination of tariff as per the 2009 Tariff Regulations. Therefore, variance, if any, in the discharge of the liability for initial spares upto 31.3.2014 is subject to review at the time of truing-up. The details of initial spares claimed, allowed and excess initial spares are as follows:-

(₹ in lakh)

Particulars	Claimed upto actual cut-off date		Capital cost adjusted upto 31.3.2014		Ceiling limit as per 2009 Tariff Regulations	Initial spares	
	Capital cost	Initial spares	Considering allowable IDC and IEDC	Proportionate claim of initial spares		Allowable	Excess
Transmission line	8145.93	68.21	7832.85	65.59	0.75%	58.69	6.89

De-capitalisation

28. GRIDCO has submitted that de-capitalised value of the replaced conductor is required to be adjusted in the capital cost as per the provisions of the 2009 Tariff

Regulations. However, the petitioner has not submitted any information regarding the replaced conductor. As such, the petitioner was directed vide RoP dated 20.10.2015 to submit the details of the de-capitalised conductor and also the petition numbers in which transmission tariff for the replaced conductor was claimed. The petitioner vide affidavit dated 14.12.2015 has submitted the amount of original Gross Block of the de-capitalised asset to be ₹2376.03 lakh and the corresponding cumulative depreciation of the same de-capitalised asset as ₹761.63 lakh. The petitioner has further submitted that in Petition Nos. 380/TT/2014, 200/TT/2014 and 508/TT/2014, tariff for these de-capitalised conductors has been claimed without any mention of the replacement of the conductor. We have noted that the above said petitions were filed for truing-up for the tariff block 2009-14 along with 2014-19 tariff petitions and the Commission has already issued orders in these petitions. The petitioner should have disclosed the correct information with regard to the replacement of conductor in these petitions. The Commission is of the view that such lapses are not expected of the petitioner. However, taking into account the fact that the decapitalized conductors have been replaced by new conductors, the Gross Block of the old de-capitalised conductors has been deducted from the Gross Block of the instant asset. The cumulative depreciation on account of decapitalized conductor would be adjusted in the above three petitions at the time of truing-up of 2014-19 period.

29. We had also enquired whether any terminal end equipments were replaced and had directed the petitioner to provide the details of the same and the petition numbers in which tariff of these old equipments was claimed. The petitioner submitted that the dismantled old equipments were installed and the tariff is being claimed in Petition No. 34/TT/2014. The petitioner has not explicitly indicated the

Gross Block and cumulative depreciation of these dismantled equipments. Therefore, an amount of ₹1.94 lakh, as submitted by the petitioner vide affidavit dated 14.12.2015, being Gross Block of the de-capitalised equipment like Isolators, CTs, and Wave Traps has also been reduced from the Gross Block of the instant asset. The cumulative depreciation corresponding to these equipments would be adjusted, at the time of truing-up of Petition No.34/TT/2014 for 2009-14 period. Hence, an amount ₹2377.97 lakh on account of the de-capitalised assets, has been deducted from the Gross Block claimed for the instant asset. However, the petitioner is directed to furnish the gross block and cumulative depreciation of dismantled terminal end equipments at Siliguri and Purnea Sub-stations.

Capital cost allowed as on COD

30. The details of the capital cost considered as on the date of commercial operation after allowing capitalization of IDC, IEDC, initial spares and deduction of Gross Block of de-capitalised assets for the purpose of the determination of transmission tariff of the instant asset are as follows:-

(₹ in lakh)

Capital cost claimed as on COD	Less: IDC & IEDC claimed	Add: allowed		Less: excess initial spares	Less: gross block of de-capitalised assets as on COD	Capital cost allowed as on COD
		IDC on cash basis	IEDC			
8479.63	577.73	103.21	145.52	6.89	2377.97	5765.77

31. Further, the petitioner vide affidavit dated: 14.12.2015 has submitted that as the ACSR Moose conductor and hardware accessories have been replaced with the HTLS conductor, the replaced ACSR conductors are still in serviceable condition which would be re-used in NR/WR at NIL cost but the hardware accessories of these replaced conductors have no value. However, its 'Scrap Value' would be

submitted at the time of truing-up, if any for the purpose of further adjustment as required as per the 2009 Tariff Regulations.

Additional Capital Expenditure

32. As regards additional capital expenditure clause 9(1) of the 2009 Tariff Regulations provides as under:-

> "Additional Capitalisation: (1) The capital expenditure 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;
> (ii) Works deferred for execution;
> (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
> (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
> (v) Change in Law:"

33. Further, the 2009 Tariff Regulations defines cut-off date as follows:-

> "cut-off date means 31st march of the year closing after 2 years of the year of commercial operation of the project, and incase 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 3 years of the year of commercial operation".

34. Therefore, the cut-off date for the instant assets is 31.3.2016.

35. It is noted that the additional capital expenditure claimed by the petitioner falls within the cut-off date and is mainly on account of balance and retention payments. Additional capital expenditure for financial year 2014-15 claimed by the petitioner falls beyond the tariff period i.e. 2009-14 and is not being allowed for calculation of tariff for the period up to 31.3.2014. Thus, additional capital expenditure claimed from the date of commercial operation to 31.3.2014 has been allowed for tariff computation and the details of capital cost as on 31.3.2014 are as follows:-

(₹ in lakh)

Capital cost allowed as on COD	Add-cap for 2013-14 allowed	Estimated capital cost allowed as on 31.3.2014
5765.77	306.70	6072.47

Debt- Equity Ratio

36. Regulation 12 of the 2009 Tariff Regulations provides as under:--

> "12. **Debt-Equity Ratio**. (1) For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:
>
> Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.
>
> **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, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.
>
> (2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.
>
> (3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 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."

37. The debt: equity ratio as on the date of commercial operation of the instant assets is 72.61:27.39. The Additional Capital expenditure for 2013-14 has been financed 100% from loan. Thus, no notional equity has been considered for Additional Capital expenditure. Thus, the details of debt: equity in respect of the asset covered in this petition as on date of commercial operation and as on 31.3.2014 respectively are as follows:-

(₹ in lakh)

Particulars	Cost as on COD		Additional capital expenditure		Cost as on 31.3.2014	
	Amount	% age	Amount	% age	Amount	% age
Debt	4186.27	72.61	306.70	100.00	4492.97	73.99
Equity	1579.49	27.39	-	-	1579.49	26.01
Total	**5765.77**	**100.00**	**306.70**	**100.00**	**6072.47**	**100.00**

38. The above stated debt-equity ratio has been applied for the purpose of tariff calculation in this order.

Return on Equity (RoE)

39. Regulation 15 of the 2009 Tariff Regulations provides as under:-

"15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be:

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

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

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee as the case may be, shall recover the shortfall or refund the excess Annual Fixed charge on account of Return on Equity due to change in applicable Minimum Alternate/ Corporate Income Tax

Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission;

Provided further that Annual Fixed charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".

40. The petitioner has requested to allow to recover the shortfall or refund the excess Annual Fixed Charges, on account of return on equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission. We would like to clarify that the RoE has been computed @ 19.610% p.a based on the tax rate (MAT) for the year 2013-14 on average equity as per Regulation 15(5) of the 2009 Tariff Regulations.

41. The details of return on equity calculated are as given under:-

(₹ in lakh)

Particulars	**2013-14 (pro-rata)**
Opening Equity	1579.49
Addition due to Additional Capitalisation	-
Closing Equity	1579.49
Average Equity	1579.49
Return on Equity (Base Rate)	**15.50%**
Tax rate for the year 2013-14 (MAT)	20.961%
Rate of Return on Equity (Pre Tax)	19.610%
Return on Equity (Pre Tax)	**258.12**

Interest on Loan

42. Regulation 16 of the 2009 Tariff Regulations provides that:-

"16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

(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 annual depreciation allowed,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

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.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

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

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

(b) The normative repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period;

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

(d) The date of drawl considered in the instant case for all the foreign loans is 31.3.2011, as submitted vide affidavit dated 2.7.2014. The exchange rates as on COD of the respective foreign loans have been considered while calculating the weighted average rate of interest, but the petitioner has not submitted the date of drawl and the Exchange Rate proof of any loan.

44. The petitioner has submitted that the interest on loan has been considered on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, during 2009-14 needs to be billed/adjusted. We would like to clarify that 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 or variance in case of assumptions at (d) above will be reviewed at the time of truing-up.

45. Detailed calculations of the weighted average rate of interest have been given at Annexure.

46. Details of Interest on Loan calculated are as under:-

(₹ in lakh)

Particulars	2013-14 (pro-rata)
Gross Normative Loan	4186.27
Cumulative Repayment upto Previous Year	-
Net Loan-Opening	4186.27
Addition due to Additional Capitalisation	306.70
Repayment during the year	260.61
Net Loan-Closing	4232.36
Average Loan	4209.32
Weighted Average Rate of Interest on Loan	1.72%
Interest	**60.40**

Depreciation

47. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner, namely:-

"17. **Depreciation** (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) 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 stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;

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

(3) 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.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) 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."

48. The date of commercial operation of assets covered in the petition falls in the year 2013-14. Accordingly, the asset will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 Tariff Regulations.

49. The details of the depreciation allowed are as under:-

(₹ in lakh)

Particulars	**2013-14 (pro-rata)**
Opening Gross Block	5765.77
Additional Capital expenditure	306.70
Closing Gross Block	6072.47
Average Gross Block	5919.12
Rate of Depreciation	5.2835%
Depreciable Value	5327.21
Remaining Depreciable Value	5327.21
Depreciation	**260.61**

Operation & Maintenance Expenses (O&M Expenses)

50. The petitioner has not claimed any O&M Expenses. However, the petitioner has submitted that O & M Expenses for the period 2009-14 were arrived at on the basis of normalized actual O & M Expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O & M Expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for additional manpower cost on account of wage revision (if any) during the tariff block 2009-14 for claiming in the tariff.

51. The petitioner has also submitted that the claim for transmission tariff is exclusive of any statutory taxes, levies, duties, cess or any other kind of impositions etc. GRIDCO has submitted that the petitioner has reserved his rights for revision of the O&M expenses and rather the petitioner must take care of revision by improvement in their productivity levels tariff regulations do not provide for any revision of normative O&M expenses based on actuals. GRIDCO has further submitted that as regards petitioner's claim for statutory taxes, levies, duties, cess or any other kind of impositions is concerned, such kind of payments are generally included in the O & M Expenses. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. We also agree that claim of tariff being exclusive of statutory taxes, levies, duties, cess or any other kind of impositions is concerned, such kind of payments are generally included in the O&M expenses. However, as the petitioner has not claimed any O&M Expenses we have not allowed O&M Expenses in the instant order.

Interest on Working Capital

52. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed under:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance spares

Regulation 18(1)(c)(ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses from 1.4.2009. However, no maintenance spares have been claimed by the petitioner.

(iii) O & M Expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for O&M Expenses for one month as a component of working capital. However, no O&M Expenses have been claimed by the petitioner.

(iv) Rate of interest on working capital

As provided under 18(3) of the 2009 Tariff Regulations, SBI Base rate of 9.70% as on 1.4.2013 plus 350 BPS i.e. 13.20% has been considered for the purpose of working out the interest on working capital.

53. Necessary computations in support of interest on working capital are as follows:-

(₹ in lakh)

Particulars	2013-14 (pro-rata)
Maintenance Spares	-
O & M expenses	-
Receivables	118.43
Total	**118.43**
Rate of interest	13.20%
Interest	**13.03**

Transmission Charges

54. The transmission charges being allowed for the transmission asset are as under:-

(₹ in lakh)

Particulars	**2013-14 (pro-rata)**
Depreciation	260.61
Interest on Loan	60.40
Return on equity	258.12
Interest on Working Capital	13.03
O & M Expenses	-
Total	**592.16**

Filing Fee and the Publication Expenses

55. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. GRIDCO has submitted that the filing fee and the expenses can be allowed at the discretion of the Commission. 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 Regulation 42 of the 2009 Tariff Regulations.

Licence Fee

56. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations

Service Tax

57. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. The petitioner submitted that service tax on transmission has been put on negative list w.e.f. 1.4.2012 and therefore the transmission charges, is exclusive of service tax and shall be born and additionally paid by the respondents. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

58. 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.

59. This order disposes of Petition No. 104/TT/2013.

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	**2013-14**
1	**IBRD-IV (Exchange Rate Rs.56.95)**	
	Gross loan opening	2674.37
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2674.37
	Additions during the year	0.00
	Repayment during the year	59.19
	Net Loan-Closing	2615.18
	Average Loan	2644.77
	Rate of Interest	1.68%
	Interest	**44.43**
	Rep Schedule	30 semi-annual instalments from 15.11.2013
2	**IBRD-IV ADDL-Add-Cap. for 2013-14 (Exchange Rate Rs.55.88)**	
	Gross loan opening	0.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	306.70
	Repayment during the year	10.46
	Net Loan-Closing	296.24
	Average Loan	148.12
	Rate of Interest	1.68%
	Interest	2.49
	Rep Schedule	38 semi- annual instalments from 01.02.2013
3	**IBRD-IV ADDL - COD (Exchange Rate Rs.56.95)**	
	Gross loan opening	2058.57
	Cumulative Repayment upto DOCO/previous year	34.79
	Net Loan-Opening	2023.78
	Additions during the year	0.00
	Repayment during the year	70.20
	Net Loan-Closing	1953.58
	Average Loan	1988.68
	Rate of Interest	1.68%
	Interest	33.43
	Rep Schedule	38 semi- annual instalments from 01.02.2013
4	**ADB III (Exchange Rate Rs.56.95)**	
	Gross loan opening	1423.75
	Cumulative Repayment upto DOCO/previous year	174.55
	Net Loan-Opening	1249.20
	Additions during the year	0.00
	Repayment during the year	61.79
	Net Loan-Closing	1187.41

	Average Loan	1218.30
	Rate of Interest	1.88%
	Interest	22.96
	Rep Schedule	Half yearly Instalments from 15.01.2010
	Total Loan	
	Gross loan opening	6156.69
	Cumulative Repayment upto DOCO/previous year	209.34
	Net Loan-Opening	5947.35
	Additions during the year	306.70
	Repayment during the year	201.64
	Net Loan-Closing	6052.41
	Average Loan	5999.88
	Rate of Interest	**1.722%**
	Interest	**103.31**