CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 53/TT/2013

Coram:

ShriGireesh B. Pradhan, Chairperson
Shri A. K. Singhal, Member

Date of Hearing : 25.02.2014
Date of Order : 12.05.2015

In the matter of:

Approval of transmission tariff for 400 kV D/C Raipur – Wardha T/L alongwith FSC at Wardha under WRSS-II Set-A Scheme of Western 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. Madhya Pradesh Power Trading Company Ltd.,
Shakti Bhawan, Rampur
Jabalpur-482 008

2. Maharashtra State Electricity Distribution Company Limited,
Prakashgad, 4th floor
Andehri (East), Mumbai-400 052

3. Gujarat UrjaVikas Nigam Ltd.,
Sardar Patel VidyutBhawan,
Race Course Road, Vadodara-390 007

4. Electricity Department, Government of Goa,
VidyutBhawan, Panaji,
Near Mandvi Hotel, Goa-403 001

5. Electricity Department,
Administration of Daman and Diu,
Daman-396 210

6. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T., Silvassa-396 230

7. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013

8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.,
3/54, Press Complex, Agra-Bombay Road
Indore -452 008

….Respondents

For petitioner : Ms. Seema Gupta, PGCIL
ShriM. M. Mondal, PGCIL
Shri S.K. Venkatesan,PGCIL
Shri S.S Raju, PGCIL
Shri A.M. Pavgi, PGCIL
Ms. Sangeeta Edwards, PGCIL
Shri P. Saraswat, PGCIL

For respondent : None

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL)seeking approval of transmission tariff for 400 kV D/C Raipur – Wardha Transmission Linealongwith FSC at Wardha under WRSS-II Set-A Schemein Western Region fortariff block 2009-14,in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. Investment Approval(IA) for the Western Region System Strengthening Scheme-II was accorded by the Ministry of Power, Government of India, videletter No. 12/7/2004-PG, dated 24.7.2006 at an estimated cost of ₹522123 lakh including IDC of ₹38042 lakh (based on 4th Quarter, 2005 price level) consisting of (i)₹358140 lakh (including IDC of ₹25062 lakh) to be implemented by PGCIL and (ii)₹163983 lakh (including IDC of ₹12980 lakh) to be implemented by Independent Private Transmission Company.The scope of workscovered under the scheme broadly includes:-

Set-A: For absorbing import in Eastern and Central part of WR

Transmission Lines (To be implemented by PGCIL)

1. Seoni (PGCIL) – Wardha (PGCIL) 765 kV 2nd S/C (initially to be operated at 400 kV)
2. Wardha (PGCIL) – Parli (PGCIL) 400 kV D/C (Quad)
3. Raipur (PGCIL) – Wardha (PGCIL) 400 kV D/C Line
4. Bhadravati (PGCIL) – Parli (PGCIL) 400 kV D/C
5. Parli (MSEB) – Parli (PGCIL) 400 kV D/C

Sub-stations (To be implemented by PGCIL)

1. Seoni 400 /220 kV Substation (PGCIL) Extension
2. Parli 400 kV (New) Switching Station (PGCIL)
3. Parli 400/220 kV Substation (MSEB) (Extension)
4. Bhadravati 400 kV Substation (PGCIL) Extension
5. Wardha 400/220 kV Substation (PGCIL) Extension along with 25% Fixed Series Compensation

6. Raipur 400/220 kV Substation (PGCIL) Extension.

3. With the commissioning of 400 kV D/C Raipur – Wardha Transmission Linealongwith FSC at Wardha, covered under the instant petition, the whole scheme will be completed. Tariff for the other assets covered under the system has already been claimed by the petitioner vide Petition Nos. 349/2010, 18/TT/2011, 81/TT/202011, 97/TT/2011, 152/TT/2011, 78/TT/2012 and 107/TT/2012.

4. The petitioner has vide affidavit dated 19.9.2013 submitted that asset has been put under commercial operation on 1.1.2013 and the cost of conventional sub-station is ₹4894.95 lakh and cost of FSC is ₹7611.60 lakh. Accordingly, the total cost of sub-station including FSC works is ₹12506.55 lakh. But as permanagement certificate dated 17.7.2013,the petitioner has claimed ₹12143.18 lakhfor conventional sub-station as well as FSC. The petitioner has, vide affidavit dated 20.2.2014, submitted breakup of capital cost of conventional sub-station and FSC as ₹4531.59 lakh and ₹7611.59 lakh respectively.

5. The transmission charges claimed by the petitioner are as follows:-

(₹ in lakh)

Particulars	**2012-13 (Pro-rata)**	**2013-14**
Depreciation	836.47	3387.27
Interest on Loan	207.40	800.01
Return on Equity	830.83	3365.43
Interest on working capital	53.97	219.58
O & M Expenses	195.80	827.80
Total	2124.47	8600.09

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

(₹ in lakh)

Particulars	**2012-13 (Pro-rata)**	**2013-14**
Maintenance Spares	117.48	124.17
O & M Expenses	65.27	68.98
Receivables	1416.31	1433.35
Total	**1599.06**	**1626.50**
Rate of Interest	53.97	219.58
Interest	13.50%	13.50%

7. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. MaharashtraState Electricity Distribution Company Limited (MSEDCL), Respondent No. 2, has filed reply, vide affidavit dated 14.2.2013, in whichit has raised the issue of time over-run, initial spares, Service tax, Licence fee and publication expenses. The petitioner has filed its rejoinder to the reply of MSEDCL, vide its affidavit dated 20.3.2014.

8. We have heard the representatives of the parties present at the hearing and have perused the material on record. We proceed to dispose of the petition. While doing so, the submissions of the respondent shall be duly taken note of.

Capital Cost

9. Regulation 7 of the 2009 Tariff Regulations so far as relevant provides as under:-

"(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."

10. Details of apportioned approved cost, capital cost as on actual date of commercial operation and additional capital expenditure projected to be incurred for the asset covered in this petition are given hereunder:-

(₹in lakh)

Apportioned approved cost	**Expenditure as on DOCO***	**Projected additional capital expenditure**		**Total estimated completion cost**
		DOCO to 31.3.2013	2013-14	
42893.76	62856.78	1025.90	580.73	**64463.41**

*inclusive of initial spares pertaining to sub-station (excluding FSC), sub-station (FSC only) and Transmission Line

Time over-run

11. As per the IA dated 24.7.2006, the scheme was scheduled to be commissioned within 48 months from the date of IA, i.e. by 1.8.2010. However, the asset was commissioned on 1.1.2013 and accordingly,there is a delay of 29 months.

12. The petitioner has in the petition and its subsequentaffidavit dated 19.9.2013 submitted the following reasons for delay:-

a. **Delay in getting Railway clearances:-**

Permission of Railway Board for erection of Towers on Railway land was required as the line was passing through the Railway land. The proposal was submitted by the petitioner to Sr. DE, SECR, Raipur on 6.8.2009. After lot of persuasion, provisional approval for erection of 400 kV D/C line was accorded on 24.12.2012 by Railways and with tremendous efforts, the work was completed by the petitioner by 31.12.2012.

b. Delay in getting forest clearance in Chhattisgarh and Maharashtra:

(i) Forest clearance in Chhattisgarh:

On completion of detailed survey, the petitioner submitted application for forest clearance for a total area of 15.37 Hectare (line length 3.34 km)coming under Chhattisgarh portion. The first stage approval was accorded on 31.5.2010 (approximately after 15 months from date of application) by RMOEF, Bhopal with various conditions including undertaking for compliance of guidelines. Accordingly, payment wasdeposited by thepetitioner and on complying with all the terms & conditions and on submission of undertakings as stipulated in stage-I approval, the 2nd stage and final approval was issued on 9.3.2011 by RMOEF, Bhopal. On second stage approval, the cost of tree cutting was deposited and approval for tree cutting was given in May, 2011.

(ii) Forest clearance in Maharashtra:

On completion of detailed survey, the petitioner submitted application for forest clearance, for total area of 100.9 Hectare (line length 21.94 km)coming under Maharashtra portion. The proposal involved 80.90 Hectare in forest division of Gondia and 20.00 Hectare under area of Forest Development Corporation of Maharashtra (FDCM). No objection Certificate (NOC) from the FDCM was prerequisite for further processing of the case and the same was obtained in November, 2010. The proposal was forwarded by State Government toMinistry of Environment & Forests (MoEF), New Delhi in May, 2011.MoEF directed RMOEF, Bhopal for site inspection in June,2011 and after site inspection the report was forwarded by RMOEF, Bhopal to MoEF in July, 2011.The proposal was discussed in the meeting of FAC in August, 2011 and since the line is passing through the Wildlife Corridor area (Tiger Corridor), comments were asked from National Tiger Conservation Authority (NTCA). Wildlife Institute of India/ NTCAsubmitted its recommendations to MoEF in December, 2011 and the proposal was again discussed in FAC in December, 2011 and accordingly,RMOEF, Bhopal issued the 1st stage approval on

30.4.2012stipulating various conditions including undertakings for compliance of guidelines. On complying with all the terms & conditions and on submission of undertakings as stipulated in stage-I approval, the petitioner obtained approval for second and final stage on 17.9.2012.Since the line was passing through the protected area/ eco-sensitive zone and the proposed land being within the 10 km of boundary of protected reserve,permission for felling treesis also required to be taken from Hon'bleBombay High Court. Accordingly, the petitioner filed an application beforeHon'ble Bombay High Court in September, 2011, seeking permission for establishment of the 400 kV D/C Transmission Line. However pending MOEF approval, the Hon'ble High Court directed to file fresh CA after the approval of MoEF under FC Act. On second stage approval in September, 2012, application was filed on 18.9.2012before the Hon'bleHigh Court which granted permission for tree felling in the forest area on 30.11.2012.After permission of Hon'bleHigh Court, thepetitioner started construction activities in forest areas, and successfully charged the line on 31.12.2012 and declared the asset under commercial operation from 1.1.2013**.**

13. After the hearing on 25.2.2014, the petitioner has submitted, vide affidavit dated 17.5.2014, certain additional reasons for time over-run as given overleaf:-

(i) Initial delay in the award of contract under WRSS-II Set-A delay is on account of delay in tie up of the total loan assistance of US $ 1 billion from the World Bank, for a basket of projects to be implemented during the X and XI Five year plans.The petitioner decided to avail this loan in tranches to optimize the commitment charges;

(ii) As these baskets of projects were scheduled for commissioning at different time periods, the first tranche of US $ 400 million was signed in May, 2006 under Power System Development Plan-III loan;

(iii) The 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 per details given 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

(iv) The second tranche of US $ 600 Million (envisaged to be available by Sept., 2007) for which the petitioner forwarded the request to Ministry of Power (MoP) in June,2006 and MoP forwarded the same to Department of Economic Affairs in August, 2006, got delayed. After considering additional fund requirement based on investment approvals of the project by Govt. of India (GoI), the petitioner in December, 2006 submitted the revised request to MoP for a loan of US $ 1.6 Billion (i.e. 2^{nd} tranche of US $ 600 million plus additional requirement of US $ 1000 million).

(v) Based on the Government of India's approval, the petitioner proceeded with advance procurement action for the project. However, clearance of 2nd tranche loan of US $ 600 million from World Bank could not materialize in time. The petitioner was compelled to place on hold the supplies of a number of awarded packages (beyond the first tranche of US $ 400 million). WRSS-II Set –A was one of such transmission projects affected.

(vi) Following sequence of events led to delay in getting the loan signed with the World Bank:-

Sl. 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 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 PGCIL'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 PGCIL 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 PGCIL.
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, PGCIL 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

(vii) In all its correspondences to MoP/MoF, the petitioner has mentioned that non-availability of loan shall lead to delay in implementation of projects identified with World Bank funding.This second tranche of US $ 600 million was subsequently signed on 28.3.2008 and accordingly thereafter the procurement process initiated for 400 kV D/C Raipur-Wardha Transmission Line alongwith FSC at Wardha associated with WRSS – II Set A.

14. MSEDCL has raised the issue of 29 months delay in commissioning of transmission asset and requested the Commission to disallow IDC and IEDC for delay after prudence check. The petitioner in its rejoinder vide affidavit dated 21.3.2014 has submitted that the detailed reasons for delay have already been submitted vide affidavit dated 18.9.2013 along with documentary evidences, under intimation to the respondents.

15. We have considered the submissions of the petitioner and the respondent. The petitioner has initially submitted in the petition that the proposal for railway clearance was submitted on 6.8.2009 whereas in its subsequent affidavit dated 19.9.2013, the petitioner has submitted that the proposal for railway clearance was submitted on 6.5.2009. It has not submitted reasons for filing the application for Railway clearance after 34 months of IA. Instead, the petitioner has attributed the time over-run for

thedelay in getting railway and forest clearance.The petitioner has also not provided any documentary evidence to show that it made the application for forest clearance to Maharashtra forest authorities on 17.10.2007. However, from the chronology of the events, it is evident that the petitioner has submitted complete set of documents to the forest authorities on 30.11.2009 and got Stage-I clearance on 30.4.2012 and Stage-II clearance from MoEF, New Delhi on 17.9.2012 for Maharashtra portion. It is also observed that the petitioner started correspondence with the State government of Chhattisgarh for forest clearance on 29.8.2008. Stage-I approval was received on 31.5.2010 and Stage-II approval was received from MoEF, New Delhi on 9.3.2011.

16. While the petitioner is seeking condonation of delay,citing uncontrollable factors, analysis shows that the petitioner was not prudent in the activities which were under its domain.Timely submission of application for clearance from Forest and Railway Authorities are activities which were under the control of the petitioner, and as stated above, the petitioner, even after being asked to submit reason for approaching Railway/forest authorities so late for these clearances, has not submitted the same andinstead, reiterated the reasons for delay in clearance. Many of the activities in transmission projects are performed concurrently. While the work cannot be done in the areas requiring forest and railway clearance, execution of work can be continued in the areas not requiring any clearance. The petitioner has not given detailed break-up of activities in the areas not requiring any clearance and how the forest and railway clearance wascritical

activities. Sequencing and time line of various activities can only enable assessment of admissibility of time over-run.

17. As regards forest and railway clearances, they are meant for few locations only and the petitioner could have undertaken other works simultaneously. Out of the total line length of 370.565 km, the forest clearance was required only for line length of 3.34 km and 21.94 km in Chhattisgarh and Maharashtra respectively. There was no hindrance in taking up the work in the remaining portion of line length of 370.565 km and completing the same. The petitioner has not given documents to show that the delay in getting the aforementioned clearances obstructed the work in such a manner as to cause delay in the completion of work envisaged in the scope of works in the instant petition. The petitioner has notfurther explained the reason for approaching the authorities for forest and railway clearance so late. As such we are not inclined to agree with the petitioner's contention that the time over-run is attributable to the delay in getting forest and railway clearance.

18. However, it is observed that there was delay in tie-up with funding agency which has delayed the award of contract by 20 months (from the date of IA 24.7.2006 to date of signing of loan agreement 28.3.2008). The change in configuration of Raipur-Wardha line from Moose to Quad in RPC meeting held on 30.9.2006 and minutes issued on 30.10.2006 took 3 months (24.7.2006 to 30.10.2006). This is of no consequence as this period of 3 months falls during the period from the date of IA to signing of loan

agreement with the World Bank and letter of award was placed on 23.5.2008 (approximately 19 months after decision in RPC). Therefore, the delay of 20 months from the date of IA to signing of loan agreement with World Bank (24.7.2006 to 28.03.2008) is condoned.The petitioner has taken two months (from 28.3.2008 to 23.5.2008) in the process leading to the award of contract, and these two months are also being condoned. However, the petitioner is advised to submit complete details at the first instance itself.

19. Accordingly, IDC/IEDC for the condoned 22 months is being capitalized and IDC/ IEDC for period of 7 months are not being allowed. Details of disallowed IDC/IEDC is as follows:-

(₹ in lakh)

Details of IDC &IEDC as per Management Certificate dated 17.7.2013 (affidavit dated 19.9.2013)		
	IDC	**IEDC**
Total IDC and IEDC claimed up to 31.12.2012	3017.08	2110.39
Details of IDC disallowed for 7 months		
Total disallowed IDC from June 2012 to December 2012 i.e. for 7 months*	274.28	191.85

*Disallowed IDC and IEDC have been deducted from the capital cost of the elements as on date of commercial operation on pro-rata basis (excluding land).

Cost Over-run

20. With the completion of the asset covered in the instant petition, the scope of the whole system is completed. Total estimated completion cost for WRSS-II (i.e. ₹ 343895.42 lakh) falls within approved cost (i.e. ₹358139.41 lakh)forWRSS-II. However, the total estimated completion cost (i.e. ₹64463.41 lakh) exceeds the apportioned approved cost (i.e. ₹62856.78 lakh) for the transmission asset.

21. The petitioner, vide affidavit dated 19.9.2013, has submitted revised Form 5Bindicating that the cost over-run is due to change in conductor configuration from twin to quad (agreed in 25th SCM of Western Region Constituents held on 30.9.2006 at New Delhi), increase in line length from 363 km to 370.565 km to avoid populated area and minimize RoW constraints and various crossings and available line corridor etc as per site requirement.

22**.** During hearing on 25.2.2014,**i**n response to Commission's query as to why there is no need to submit the RCE in the instant case, the representative of the petitioner clarified that though the estimated completion cost of the instant asset is more than the apportioned approved cost, the overall cost of the project is within the estimated completed cost of the project and hence there is no requirement to file RCE in the instant case. The Commission directed the petitioner to submit the estimated cost, actual cost, IDC and IEDC of all the assets covered under the scheme and the reasons for variation in cost in detail.In response to it, the petitioner vide affidavit dated 25.3.2014 has submitted as under:-

i) The major variation in cost can be attributed to the increase in the quantities of Tower Steel (increased from 14,226 MT to 24,612.47 MT), Conductor (increased from 4,396 km to 8,938 km), Earth wire (increased by 13 km), Insulator 120 KN (increased from 1,22,592 nos. to 2,36,971 nos.) and 160 KN (increased from 86,927 nos. to 1,64,458 nos.), other hardware fitting, etc. due to change in configuration from twin to quad which has already been brought out in Form 5B of the Petition.

ii) The increase in cost in sub-station heads is mainly on account of change of type of conductor from twin to quad for the 400 kV D/C Raipur-Wardha line, the series compensation from 25% to 40% has been changed. The same was agreed in 27th SCM meeting.

iii) The total approved cost of WRSS – II is ₹358139.41lakh and estimated completion cost of the entire project is ₹343895.42lakh. Though the completion cost of the asset covered in the instant petition is more than the approved FR cost, the overall completed cost of the project (WRSS –II) is within the approved cost.

iv) The estimated cost, actual cost, IDC & IEDC of all the assets covered under WRSS-II Set A Scheme has been submitted. The reasons for variation in cost of the subject Asset (400 kV D/C Raipur-Wardha TL along-with FSC at Wardha) have already been submitted along with the petition in Form 5B. The major variation in cost can be attributed to the increase in the quantities of Tower Steel, Conductor, Earth wire, Insulator, other hardware fitting, etc. due to change in configuration from twin to quad.

23. The petitioner has not furnished the RCE for the asset covered in the instant petition. Accordingly, the capital cost of transmission asset is restricted to the apportioned approved cost, in terms of order of Hon'ble Appellate Tribunal for Electricity dated 28.11.2013 in Appeal No. 165 of 2012. Capital costhas been restricted to apportioned approved cost as on

date of commercial operation,i.e. ₹42893.76 lakh. Capital cost restricted due to cost over-run will be reviewed on the submission of actual expenditure or revised apportioned approved cost, as the case may be.

Initial Spares

24. The petitioner has claimed initial spares of ₹357.14 lakh, ₹262.96 lakh and ₹175.21 lakh for transmission line, sub-station (excluding FSC) and sub-station (FSC only) respectively.

25. MSEDCL has vide affidavit dated 14.2.2013 submitted that additional amount of initial spares may not be allowed and initial spares ceiling shall be as per the norms of 2009 Tariff Regulations. Further, the excess initial spares may be deducted proportionately from the cost of components of sub-station to arrive capital cost as on the date of commercial operation.

26. The petitioner in its rejoinder has clarified that the investment approval of this project was accorded in July 2006 which is during the tariff block 2004-09. Various activities including BOQ for procurement of various equipments along with spares were also finalized by that time. All these are done in line with the prevailing norms indicated in the 2004 Regulations.

27. We have considered the submission of petitioner and the respondent. The transmission asset covered in the petition has been put under commercial operation on 1.1.2013. Adopting a consistent approach, we are of the view that initial spares for transmission line fall within the ceiling limit

of 0.75% whereas the same exceeds for sub-station (excluding FSC) and sub-station (FSC). Accordingly, initial spares for sub-station (excluding FSC) and sub-station (FSC) have been restricted to 2.5% and 3.5% of original project cost of respective element. Further, initial spares so allowed/restricted shall be reviewed at the time of truing up on the submission of the actual expenditure.

<u>Projected Additional Capital Expenditure</u>

28. Clause (1) of Regulation 9of the 2009 Tariff Regulations provides as follows:-

> "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:"

29. Clause (11) of Regulation 3 ofthe 2009 Tariff Regulations defines "cut-off" date as under:-

> "cut-off date" means 31^{st}March of the year closing after 2 years of the year of commercial operation of the project, and incase the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31^{st} March of the year closing after 3 years of the year of commercial operation".

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

30. The petitioner has claimed projected additional capital expenditure of ₹1025.90 lakh and ₹580.73 lakh for 2012-13 (date of commercial

operation to 31.3.2013) and 2013-14 respectively. However, due to cost over-run, the same has been restricted to apportioned approved cost.

31. Details of the capital expenditure claimed and considered is as follows:-

(₹ in lakh)

Particular			
Apportioned Approved Cost (A)			**42893.76**
Capital Cost claimed as on DOCO (I)			62856.78
Less: IDC and IEDC disallowed (II)			466.13
Capital cost after reducing disallowed IDC/IEDC (i) = (I)-(II)			**62390.65**
AddCap claimed for 2012-13 (ii)			1025.90
AddCap claimed for 2013-14 (iii)			580.73
Total (B) = (i)+ (ii)+ (iii)			63997.28
Cost Over-run (A)-(B)			**-21103.52**
Capital expenditure restricted due to cost over-run	**2013-14**	**2012-13**	**As on DOCO after reducing disallowed IDC and IEDC**
	580.73	**1025.90**	**19496.89**

Accordingly,capital cost of ₹42893.76 lakh has been considered as on date of commercial operation.

Debt- EquityRatio

32. 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."

33. Debt-Equity Ratio after adjusting IDC/IEDC as on actual date of commercial operation and on 31.3.2014 is as below:-

(₹in lakh)

	Apportioned approved cost		**Capital cost claimed as on DOCO**		**Capital cost considered as on DOCO and 31.3.2014**	
Particulars	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
Debt	30025.63	70.00	43999.73	70.00	30025.63	70.00
Equity	12868.13	30.00	18857.05	30.00	12868.13	30.00
Total	**42893.76**	**100.00**	**62856.78**	**100.00**	**42893.76**	**100.00**

Return on Equity

34. 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".

35. Based on the above, the Return on Equity has been consideredashereunder:-

(₹in lakh)

Particulars	**2012-13 (Pro-rata)**	**2013-14**
Opening Equity	12868.13	12868.13
Addition due to Additional Capital Expenditure	0.00	0.00
Closing Equity	12868.13	12868.13
Average Equity	12868.13	12868.13
Return on Equity (Base Rate)	**15.50%**	**15.50%**
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%
Return on Equity (Pre Tax)	**562.37**	**2249.48**

Interest on Loan

36. Regulation 16 of the 2009 Tariff Regulations provides as under:-

"16. **Interest on loan capital**(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."

37. In keeping with the provisions of Regulation 16 of the 2009 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 & rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.

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

(c) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

(d) 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.

38. Detailed calculations in support of the weighted average rate of interest have been given in the Annexure to this order.

49. Based on the above, interest on loan has been calculated as per details given overleaf:-

(₹in lakh)

Particulars	2012-13 (Pro-rata)	2013-14
Gross Normative Loan	30025.63	30025.63
Cumulative Repayment upto previous year	0.00	566.19
Net Loan-Opening	30025.63	29459.44
Addition due to additional capital expenditure	0.00	0.00
Repayment during the year	566.19	2264.76
Net Loan-Closing	29459.44	27194.68
Average Loan	29742.54	28327.06
Weighted Average Rate of Interest on Loan	1.8880%	1.8872%
Interest	**140.38**	**534.59**

Depreciation

40. Regulation 17 of the 2009 Tariff Regulations provides as under:-

"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."

41. The asset covered in the current petition was put under commercial operation on 1.1.2013, and will complete 12 years beyond 2013-14. Accordingly, depreciation has been calculated annually, based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations, as per details given hereunder:-

(₹in lakh)

Particulars	**2012-13 (Pro-rata)**	**2013-14**
Opening Gross Block	42893.76	42893.76
Addition due to Projected Additional Capital Expenditure	0.00	0.00
Closing Gross Block	42893.76	42893.76
Average Gross Block	42893.76	42893.76
Rate of Depreciation	5.2799%	5.2799%
Depreciable Value	38604.38	38604.38
Remaining Depreciable Value	38604.38	38038.19
Depreciation	**566.19**	**2264.76**
Cumulative Depreciation	**566.19**	**2830.95**

Operation &Maintenance Expenses(O&M Expenses)

42. Clause (g) of Regulation 19of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system,based on the type of sub-station and the transmission line. Norms prescribed in respect of the elements covered in the instant petition are as follows:-

Elements	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
400 kV D/C bundled conductor , T/L (₹lakh per km)	0.940	0.994	1.051	1.111	1.174
400 kV bays (₹lakh per bay)	52.40	55.40	58.57	61.92	65.46

43. As per the 2009 Tariff Regulations, allowable O&M Expenses for theasset covered in the petition are as under:-

(₹in lakh)

Element	2012-13 (Pro-rata)	2013-14
370.565 km, 400 kV D/C, four conductors T/L	102.92	435.04
6 Nos. 400 kV bays	92.88	392.76
Total O&M	**195.80**	**827.80**

45. The petitioner has submitted that O&M Expenses for 2009-14 tariff block had been arrived on the basis of normalized actual O&M Expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O&M Expenses for tariff period 2009-14. The petitioner has also submitted that it would approach the Commission for suitable revision in the norms for O&M Expenses due to impact of wage revision.

45. The Commission has given effect to the impact of pay revision in the 2009Tariff Regulations by factoring 50% on account of pay revision of the employees ofPSUs after extensive stakeholders' consultation. We do not see any reason why theadmissible amount is inadequate to meet the requirement of the employee cost.

Interest on Working Capital

46. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. Thecomponents of the working capital and the petitioner's entitlement tointerest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 TariffRegulations, receivables as a component of working capital will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of two months of annual transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of two months transmission charges.

(ii) Maintenance Spares

Regulation 18(1)(c)(ii) of the 2009 TariffRegulations provides for maintenance spares @ 15% per annum of the O & M Expenses as part of the working capital from 1.4.2009. The value of maintenance spares has accordingly been worked out.

(iii) O & M Expenses

Regulation 18(1) (c) (iii) of the 2009 TariffRegulations provides for O&M Expenses for one month to be included in the working capital. The petitioner has claimed O&M Expenses for one month of the respective year. This has been considered in the working capital.

(iv) Rate of Interest on Working Capital

In accordance with clause (3) of Regulation 18 of the 2009Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and shall be equal to State Bank of India Base Rate of 10% plus 350 bps as on 1.4.2012. The interest on working capital for the asset covered in the petition has been worked out accordingly.

47. Necessary computations in support of interest on working capital are given hereunder:-

(₹in lakh)

Particulars	2012-13 (Pro-rata)	2013-14
Maintenance Spares	117.48	124.17
O & M Expenses	65.27	68.98
Receivables	1003.18	1006.43
Total	1185.93	1199.58
Interest	40.03	161.94

Transmission Charges

48. The transmission charges being allowed for the asset are summarized hereunder:-

(₹inlakh)

Particulars	2012-13 (Pro-rata)	2013-14
Depreciation	566.19	2264.76
Interest on Loan	140.38	534.59
Return on Equity	562.37	2249.48
Interest on Working Capital	40.03	161.94
O & M Expenses	195.80	827.80
Total	**1504.77**	**6038.58**

Filing Fee and the Publication Expenses

49. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses.MSEDCLhas submitted that the filing fee shall be governed as per the Commission's order dated 11.1.2010 in

Petition No. 109/2009. The petitioner has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of the 2009 Tariff Regulations .The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42A (1) (a) of the 2009 Tariff Regulations.

LicenceFee

50. 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. MSEDCL has submitted that Regulation 42 needs to be suitably amended to provide for reimbursement of licence fee during 2009-14. Until the proposed amendment takes place, The petitioner may not be allowed to recover the licence fee separately from the beneficiaries. The petitioner has clarified that the licence fee shall be recovered separately from the beneficiaries as per the CERC (Terms and Conditions of Tariff) (Third Amendment) Regulations, 2012 issued on 31.12.2012. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

Service Tax

51. 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.MSEDCL has objected to recovery of

service tax from the beneficiaries in future.The petitioner clarified that if notifications regarding granting of exemption to transmission service are withdrawn at a later date, the beneficiaries shall have to share the service tax paid by the petitioner. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

52. 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.

53. This order disposes of Petition No. 53/TT/2013.

sd/- sd/-

(A. K. Singhal) (Gireesh B. Pradhan)
Member Chairperson

Annexure

Calculation of Weighted Average Rate of Interest on Actual Loans

(₹ in lakh)

	Details of Loan		**2012-13**	**2013-14**
1	**IBRD IV**			
	Gross loan opening		**23373.40**	**23373.40**
	Cumulative Repayment upto DOCO/previous year		**0.00**	**0.00**
	Net Loan-Opening		23373.40	23373.40
	Additions during the year		0.00	0.00
	Repayment during the year		0.00	517.33
	Net Loan-Closing		23373.40	22856.07
	Average Loan		23373.40	23114.74
	Rate of Interest		1.790%	1.79%
	Interest		**418.38**	**413.75**
	Rep Schedule	30 half yearly instalments starting from 15.11.2013		
2	**IBRD IV ADDL**			
	Gross loan opening		**372.72**	**372.72**
	Cumulative Repayment upto DOCO/previous year		**0.00**	**348.58**
	Net Loan-Opening		20626.32	20277.74
	Additions during the year		0.00	0.00
	Repayment during the year		348.58	703.36
	Net Loan-Closing		20277.74	19574.38
	Average Loan		20452.03	19926.06
	Rate of Interest		2.00%	2.00%
	Interest		**409.04**	**398.52**
	Rep Schedule	52 half yearly instalments starting from 1.2.2013		
	Total Loan			
	Gross loan opening		**23746.12**	**23746.12**
	Cumulative Repayment upto DOCO/previous year		0.00	348.58
	Net Loan-Opening		43999.72	43651.14
	Additions during the year		0.00	0.00
	Repayment during the year		348.58	1220.69
	Net Loan-Closing		43651.14	42430.45
	Average Loan		43825.43	43040.79
	Rate of Interest		**1.8880%**	**1.8872%**
	Interest		827.42	812.27