CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 78/TT/2012

Coram:

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

Date of Hearing : 24.04.2014
Date of Order : 30.04.2015

In the matter of:

Approval of transmission tariff for 765 kV S/C Seoni- Wardha T/L (Anticipated date of commercial operation 1.3.2012) under WRSS-II, Set A Scheme of Western Region from date of commercial operation to 31.3.2014under 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 Limited,
   Shakti Bhawan, Rampur
   Jabalpur-482 008

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

3. Gujarat Urja Vikas Nigam Limited,
   Sardar Patel Vidyut Bhawan,
   Race Course Road, Vadodara-390 007

4. Electricity Department, Government of Goa,
   Vidyut Bhawan, 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) Limited,
3/54, Press Complex, Agra-Bombay Road
Indore -452 008 **….Respondents**

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

For respondent : None

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of the transmission charges for 765 kV S/C Seoni-Wardha T/L (anticipated date of commercial operation 1.3.2012) under WRSS-II, Set A Scheme in Western Region for 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. Investment approval of the project was accorded by Ministry of Power, Government of India vide their letter 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) for

Power Grid's portion and **(ii)** ₹163983 lakh (including IDC of ₹12980 lakh) for IPTC's portion. Funding of the project was through World Bank Loan/Domestic borrowing/bonds. The project was scheduled to be commissioned within 48 months from the date of investment approval i.e. 1.8.2010.The scope of works covered under the WRSS-II (hereinafter referred as "scheme") broadly includes:-

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

A. 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- Station: (To be implemented by PGCIL)

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

3. 765 kV S/C Seoni-Wardha Transmission Line (hereinafter referred as "transmission asset") is covered in the instant petition.

4. The transmission tariff for 400 kV Parli Switching Station (New) with Bus Reactor and Bhadravati-Parli 400 kV D/C Line Parli (PGCIL)-Parli (MSETCL) first circuit and 400 kV Parli (PGCIL)-Parli (MSETCL) second circuit and 400 kV D/C Wardha-Parli line along with associated bays, covered in the instant scheme, was allowed vide order dated 27.1.2014 in Petition No. 97/TT/2011. The remaining assets are under construction.

5. The petitioner has claimed tariff on the basis of anticipated date of commercial operation of the instant asset, which is 1.3.2012. Accordingly, the petitioner has submitted the Auditor's Certificate and tariff forms along with the petition on the basis of anticipated date of commercial operation. Later, the petitioner vide affidavit dated 16.4.2013, has submitted that asset was actually put under commercial operation on 1.3.2012.

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

(₹ in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	174.87	2189.66	2252.21
Interest on Loan	96.04	1469.88	1407.38
Return on Equity	173.69	2174.86	2236.98
Interest on working capital	9.51	124.53	126.23
O & M Expenses	13.13	166.76	176.22
Total	**467.24**	**6125.69**	**6199.02**

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

(₹ in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	23.63	25.01	26.43
O & M Expenses	13.13	13.90	14.69
Receivables	934.48	1020.95	1033.17

Total	**971.24**	**1059.86**	**1074.29**
Rate of Interest	11.75%	11.75%	11.75%
Interest	**9.51**	**124.53**	**126.23**

8. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. Madhya Pradesh Power Management Company Limited (MPPMCL) Respondent No. 1, has filed reply, vide affidavit dated 7.11.2013. MPPMCL has raised the issue of cost over-run and time over-run. The objections raised by the respondent in their reply are addressed in the relevant paragraphs of this order.

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

<u>Capital Cost</u>

10. Regulation 7 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 details of capital cost submitted by the petitioner vide Management Certificate dated 11.6.2012 enclosed with affidavit dated 16.4.2013 as on actual date of commercial operation and estimated additional capital expenditure projected to be incurred for the asset are as follows:-

(₹ in lakh)

Apportioned approved cost	Expenditure up to DOCO*	Expenditure from DOCO to 31.3.2012	Projected expenditure for 2012-13	Total estimated completion cost
36593.62	39200.34	1086.01	2369.15	42655.55

*No initial spares have been claimed by the petitioner.

The expenditure up to 31.3.2012 has been verified on the basis of the information drawn from the audited statement of accounts of the petitioner for the period ended 31.3.2012. The estimated expenditure is on the basis of details furnished by the petitioner.

<u>Cost Over-run</u>

12. The total estimated completion cost of the project is ₹42655.55 lakh against the apportioned approved cost of ₹36593.62 lakh, thus there is cost over-run in case of the instant asset.

13. MPPMCL has submitted in its reply that there is a considerable increase in the completion cost of the instant transmission asset as compared to FR cost and

the applicable Bench Mark Norms. The increase in cost should not be considered for the purpose of tariff calculation. MPPMCL has further submitted that the approval was for construction of 268 km 2nd S/C 765 kV line, but the petitioner has constructed only 258.29 km S/C line. As per part-III, Form 2 the petitioner has also constructed 2.473 km D/C line with existing Seoni-Wardha line. This D/C line of 2.473 km is not part of the approved scheme and accordingly the capital cost relating to this D/C line should be disallowed in the instant petition. The petitioner has not filed any rejoinder to the reply filed by MPPMCL.

14. The petitioner was directed to furnish the reasons for increase in the cost of the instant asset vide Commission's letter dated 12.4.2012. In response, the petitioner has submitted vide affidavit dated 16.4.2013 that the estimated completion cost of the instant transmission asset is approximately 16% higher than the apportioned approved cost. However, the estimated completion cost of overall WRSS-II scheme is within approved cost. Therefore, the total completion cost of the instant asset as claimed may be allowed. The petitioner has submitted that there has been increase in the cost due to increase in quantity of Tower Steel, Conductors, Earth-wire, Insulators and Hardware Fitting. The petitioner has submitted the following increase in cost:-

(₹ in lakh)

Tower steel	**Ex-Works**	**Freight & Insurance**	**Tax & duties**	**Price variation**	**Total**
As per Award (actual)	14673.35	352.97	1086.91	293.29	16406.53
As per FR (Estimate)	10917.61	436.74	498.76	-	11853.11
Variation	3755.75	-83.77	588.15	293.29	4553.42
Conductor	**Ex Works**	**Freight & Insurance**	**Tax & duties**	**Price variation**	**Total**
As per Award (actual)	12075.25	272.00	171.48	-760.03	11758.70
As per FR (Estimate)	7733.70	309.39	353.31	-	8396.41
Variation	4341.55	-37.39	-181.83	-760.03	3362.30

Earth-wire	Ex-Works	Freight & Insurance	Tax & duties	Price variation	Total
As per Award (actual)	269.85	12.81	1.52	5.38	289.56
As per FR (Estimate)	200.47	8.02	9.16	-	217.65
Variation	69.38	4.79	-7.64	5.38	71.91
Insulator	**Ex- Works**	**Freight & Insurance**	**Tax & duties**	**Price variation**	**Total**
As per Award (actual)	1958.91	108.17	217.67	42.94	2327.68
As per FR (Estimate)	1808.45	72.62	82.75	-	1963.81
Variation	150.46	35.55	134.92	42.94	363.87
Hardware Fitting	**Ex-Works**	**Freight & Insurance**	**Tax & duties**	**Price variation**	**Total**
As per Award (actual)	1297.68	27.76	7.36	25.92	1358.72
As per FR (Estimate)	715.85	28.65	32.71	-	777.21
Variation	581.83	-0.89	-25.34	25.92	581.51

15. The petitioner vide affidavit, dated 12.12.2013, has submitted the following reasons for increase in quantity of transmission lines/elements and the material used:-

a. 765 kV Seoni-Wardha ckt-I constructed under Sipat-II supplementary package, was initially charged at 400 kV level. With completion of 765 kV Seoni-Wardha ckt-II, both 765 kV Seoni-Wardha S/C lines were required to be terminated at 765 kV Switch-yard. To overcome the ROW problems and to facilitate the termination of both the 765 kV S/C TL at Wardha Sub-station, situated in MIDC area, 10 nos. of 765 kV D/C towers have been used. About 50% of increase in tower weight is due to these 10 nos. of D/C towers at terminating end of Wardha Sub-station.

b. Both the 765 kV S/C TL are running parallel and passing through the dense Garpit Reserve Forest. In order to avoid forest area, populated areas and to minimize ROW constraints, the type of towers were changed (i.e. quantity of C&D type towers increase from 136 nos. to 210 nos.). Further, various crossings encountered in line corridor especially near Wardha Sub-station has also contributed to the change in tower type. Due to change in tower type, the hardware fittings suitable for angle tower have increased whereas the quantity of suspension hardware fittings decreased.

16. We have considered the submissions of both MPPMCL and the petitioner. As regards MPPMCL's plea that the D/C line of 2.473 km is not part of the approved scheme and hence its capital cost should be disallowed in the instant petition, we would like to clarify that 10 nos. of 765 kV D/C towers were constructed by the petitioner to overcome the ROW problems and to facilitate the termination of both the 765 kV S/C transmission lines at Wardha Sub-station and hence we are inclined to allow the cost of these 10 nos. of 765 kV D/C towers. Further, it is observed that the number and type of towers has increased due to ROW problems which led to increase in the cost of the asset. We are convinced with the justification furnished by the petitioner for the cost over-run and accordingly the cost over-run is allowed.

17. The total estimated completion cost exceeds the apportioned approved cost. The petitioner has submitted, in the petition, that the Revised Cost Estimates (RCE) of the project is under approval and the same shall be submitted after the approval. In the absence of RCE, the total capital cost of the asset has been restricted to the apportioned approved cost of ₹36593.62 lakh. The petitioner may submit the RCE at the time of truing up for the consideration of the Commission.

Time over-run

18. As per the investment approval dated 24.7.2006, the scheme was scheduled to be commissioned within 48 months from the date of investment approval. Accordingly, the schedule of completion works out to 24.7.2010, i.e. 1.8.2010.

However, the asset was commissioned on 1.3.2012 and accordingly there is a delay of 19 months.

19. MPPMCL in its reply has submitted that the petitioner has simply stated that the date of final forest approval was accorded on 30.12.2011, however the petitioner has not stated when the application for forest clearance was made. Therefore, it is difficult to ascertain whether the time over-run of 19 months is attributable solely to the Ministry of Environment & Forests or the petitioner. The MPPMCL has further submitted that the petitioner should place on record the Critical Path Analysis (CPA) and Project Evaluation and Review Technique (PERT) chart to substantiate the bonafide delay in commissioning of the instant asset. The reasons for delay are solely attributable to the petitioner and hence the consequences like cost escalation, IDC and IEDC should not be passed on to the beneficiaries.

20. The petitioner has submitted, vide affidavit dated 16.4.2013 the following reasons for delay:-

(i) Delay in commissioning of 765 kV Seoni-Wardha Transmission Line was mainly due to non-receipt of the required approval from Ministry of Environment & Forests in time;

(ii) The Maharashtra portion of forest involved approximately 12708 trees having a route length of forest of 6235 meters. 15 nos. of tower locations were involved which resulted in disruption of stringing work for 23.875 km. Proposal for forest clearance was submitted on 28.4.2009 & 29.4.2009 for Wardha & Nagpur Divisions respectively. It was forwarded to Chief Conservator of Forests, Nagpur by Conservator of Forests, Nagpur. Further, it was forwarded to the Ministry of Forest, Maharashtra, which in turn sought approval from Ministry of Environment & Forests, New Delhi. A series of queries and clarifications were sought, and finally the Stage II approval was issued by RMoEF, Bhopal on 11.7.2011;

(iii) The Madhya Pradesh portion of forest involved approximately 7005 trees having a route length of forest of 4703 meters. 11 nos. of tower locations were involved which resulted in disruption of stringing work for 10.214 km. Proposal for forest clearance was submitted to the Nodal Officer on 27.7.2009. It was forwarded to Chief Conservator of Forests, Chhindwara by the Nodal Officer. A series of queries and clarifications were sought, which took considerable time. Final approval was issued by RMoEF, Bhopal on 30.12.2011;

(iv) The tower packages for 765 kV S/C Seoni-Wardha TL associated with WRSS-II Set A were earlier proposed under the World Bank funding. The procurement process for the said transmission line packages were initiated in October, 2006 and accordingly the bidding documents were forwarded to the World Bank on 10.11.2006. After obtaining the clearance of the Bidding Document from the World Bank on 9.1.2007, the invitation for bids was published on 18.1.2007. The Bids received were opened on 6.3.2007 and the Bid Evaluation Report was forwarded to the World Bank on 11.6.2007 for their clearance prior to award of contract; and

(v) The World Bank asked the petitioner to review the recommendations on the basis of Bank's interpretation on the Technical Experience Requirement. A legal opinion was obtained from the former Chief Justice of India who opined that the World Bank interpretation is wholly unsustainable. Accordingly, the petitioner requested the World Bank to review the case and furnish their "No Objection". In response, the World Bank vide their letter dated 7.7.2008 rejected the petitioner's request for reviewing the case. Accordingly, it was decided to withdraw the package from the World Bank funding and re-bid under domestic funding. Subsequently, the packages were retendered on 28.8.2008 and the awards were placed on 13.2.2009.

21. During hearing on 12.11.2013, the petitioner was directed to submit the reasons for delay in applying for the forest clearance and the relevant documents to substantiate that the delay occurred due to the decision to withdraw the package from the funding of the World Bank and the consequent re-tendering.

22. In response, the petitioner has submitted, vide affidavit dated 12.12.2013, that the forest clearance proposal could be submitted to the authorities concerned only after completion of detailed survey of transmission line which included route alignment, profiling, tower spotting etc. The detailed survey of transmission line was within the scope of LOA for Tower Package. Since the award of LOA was delayed as the package was withdrawn from World Bank funding, detailed survey which was in the scope of Tower Package was delayed. After the tower package was awarded on 13.2.2009, detailed survey was carried out and the forest proposals for Maharashtra portion were submitted on 24.4.2009 and for Chhattisgarh portion on 27.7.2009.The petitioner has submitted that the time taken for submission of forest approvals was entirely due to the reasons which were beyond the control of the petitioner. The petitioner has further submitted certain documents to substantiate that the delay

occurred mainly due to the decision to withdraw the package from the funding of World Bank.

23. The petitioner has submitted a copy of an e-mail dated 10.8.2007 sent by World Bank where it suggested the petitioner to consider the bid submitted by M/s. Bajaj and Deepak. The relevant portion of the e-mail is extracted hereunder:-

> "In our view, the evidence presented by Deepak for the transmission line should be considered as? satisfactorily completed? in the length of 24.725 Km out of the total length of 29.228 km. The clause itself, in 1.1(i), provides a reasonable definition of? satisfactorily completed,? and there is no ground for going outside this clause to impose an interpretation based on another term used in a very specific, and different context (the defined term? completion? in the contract), particularly where such interpretation would materially change the qualification criterion as drafted and notified to bidders. As the difference of 0.275 is a minor deviation, the JV of Bajaj and Deepak should be considered as qualified."

24. PGCIL, vide letter dated 27.6.2008, has informed World Bank that acceptance of World Bank's interpretation would lead to dilution of Qualifying Requirement and the same view has been endorsed in the legal opinion obtained by it and requested to accord "no objection" to the award recommendation of the evaluation report taking into consideration the criticality of the implementation of the project. The said letter is produced below:-

> "This is with reference to Award of Tower Packages A1 and A2 for 765 kV S/C Seoni-Wardha transmission line associated with Western Region System Strengthening Scheme-II (Set-A) under the proposed PSDP-V Loan from the World Bank.
>
> 2. IFB for the said tower packages was issued in March, 2007 and award recommendations were forwarded for the Bank's concurrence in June, 2007. Powergrid in its evaluation of bids has disqualified one of the bidder namely "Joint Venture (JV) of Bajaj and Deepak" on the ground that the bidder does not meet the Qualifying Requirements (QR) as per provisions of the bidding document.
>
> 3. Vide your e-mail date 10.8.2007, it was advised that Powergrid may review and forward revised recommendations based on the comments mentioned therein.
>
> 4. Powergrid examined once again at the level of Board of Directors and the Board opined that acceptance of interpretation of the World Bank on the Technical

Experience requirement would lead to considerable dilution of QR and desired to obtain an opinion from a Legal Expert on the interpretation of QR.

5. In line with this, Powergrid has obtained a legal opinion from former Chief Justice of India, Shri G. B. Patnaik, who has also endorsed Powergrid's point of view, which is reproduced below:-
"In my considered opinion, the interpretation given by the World Bank is wholly unsustainable and the so called deviation cannot be held to be a minor deviation particularly when the experience of M/s Deepak is not at all satisfactory completion of high voltage transmission line. In other words, the experience claimed by M/s Deepak as a member in a joint venture cannot be construed as satisfactory completion of transmission line of 345/400 kV or above."

6. In view of the above and also considering the criticality of the implementation of the Western Region System Strengthening Scheme-II by July, 2010, it is requested that the said case may be reviewed again and the Bank may accord "no objection" to the award recommendation of the evaluation report submitted by Powergrid at the earliest so that the contracts can be awarded for timely completion of the project."

25. In response, World Bank, vide e-mail dated 7.7.2008, while declining the PGCIL's proposal gave its no objection to PGCIL for removing the package from its financing. The relevant portion of the said e-mail is extracted hereunder:-

"We do not agree on your proposal of reviewing the case as no new facts have been presented. However, taking into account the PSDP-V is under preparation, we have no objection if POWERGRID opts to remove those packages from the scope of proposed PSDP-V project."

Accordingly, PGCIL withdrew the instant assets from the World Bank funding and on the basis of approval of its Board of Directors dated 30.7.2008 resorted to re-bidding under domestic funding on Domestic Competitive Bidding basis.

26. During the hearing on 22.4.2014, representative of the petitioner reiterated that the time over-run was mainly on account of re-bidding and delay in forest clearance. The representative of the petitioner submitted that the project was withdrawn from the World Bank funding on the basis of the legal opinion obtained by it. The representative of petitioner submitted that though the approval in the project

was given in the year 2006, the award was given in February, 2009 and detailed survey of the forest could take place only after the award.

27. We have considered the submissions of the petitioner and the respondent. Initially, the petitioner claimed that the reasons for time over-run of 19 months were due to delay in forest clearance. Subsequently, in response to a query, the petitioner submitted vide affidavit dated 18.4.2013 that the instant asset was withdrawn from World Bank funding and domestic re-bidding was done which resulted in time over-run. This practice of revealing selective information is not appreciated and the petitioner is directed to place all the relevant documents on record to enable the Commission to take informed decision on the issues. Coming to case of World Bank funding, it is observed that on the basis of the documents on record the petitioner rejected the lowest bid submitted by a Joint Venture of M/s. Bajaj and Deepak as there was a marginal difference in qualifying criteria of 0.27 km in line length. However, World Bank did not accept the suggestion of the petitioner and directed the petitioner to relax the relevant conditions and award it to the next bidder. The petitioner sought the legal opinion on the suggestion of World Bank. In the legal opinion, it was opined that M/s. Bajaj and Deepak did not meet the criteria of satisfactory completion of the high voltage transmission line as required under the tender document and the question of any dilution of the qualifying requirements with regard to the satisfactory completion of transmission line of a specified voltage does not arise in a venture of construction of high voltage line, which involves public safety. Based on the legal opinion, the petitioner decided to withdraw the package from funding of the World Bank and the package was re-tendered. This whole process took about 20 months from 10.11.2006 to 7.7.2008

which has resulted in time over-run of 19 months. The time over-run of 19 months has taken place on account of the decision of the petitioner for availing funding from the World Bank and subsequently its decision to withdraw from the funding from the World Bank. The question therefore arises whether under the facts and circumstances of the case, the time over-run shall be attributable to the petitioner. The Hon'ble Appellate Tribunal for Electricity in its judgement dated 27.4.2011 in Appeal No.72/2010 has laid down the principle to be followed to determine the liability for time over-run in three scenarios as under:-

(a) Due to factors entirely attributable to the project developer;

(b) Due to the factors beyond the control of project developer; and

(c) Not covered under (a) and (b).

In the first scenario, the additional cost due to time over-run would be entirely borne by the project developer and the LD amount, if any, would be retained by them. In the second scenario, the additional cost due to time over-run shall be capitalized, however, the benefit of LD and the insurance proceeds, if any, to be reduced from the capital cost. In the last scenario, the additional cost due to time over-run including LD and insurance proceeds could be shared between the project developer and the beneficiaries.

28. In the present case, the petitioner decided to fund the project by taking concessional loan from the World Bank which was in the interest of consumers. Moreover, the petitioner while awarding the tower package went strictly by the provisions of the tender documents which was also approved and vetted by World Bank. As M/s. Bajaj and Deepak did not qualify the technical criteria of "satisfactory completion of high voltage line" as required under the tender document, the final bid

documents were sent to World Bank with the suggestion to award the contract to the next tenderer. The World Bank made its own interpretation of the technical experience requirement and asked the petitioner to review its recommendations in the light of the Bank's interpretation. The legal opinion received did not favour the Bank's interpretation and rather held that the Bank's interpretation amounts to the dilution of the qualifying requirements and the JV of M/s. Bajaj & Deepak did not meet the qualifying requirements. The petitioner had gone by the legal opinion and requested the World Bank to review the case and furnish the "no objection" which was rejected by the World Bank. Consequently, the petitioner went for domestic loan and for re-tendering which resulted in the time over-run of 19 months. In our view, the petitioner has followed the prudent utility practice and sought legal advice while deciding to withdraw from the World Bank funding. Had the petitioner acted on the World Bank's interpretation, there was a possibility of litigation and consequent delay in completion of the project apart from cost escalation. Even minor relaxation of the Qualifying Requirements (QR) at the time of short listing or selection of bidders would be unreasonable as it would amount to denial of reasonable opportunity to those companies who were similarly placed like that of M/s. Bajaj and Deepak to participate in the bidding process. For reasons beyond the control of the petitioner, the initial tender process was scrapped which resulted in the retendering resulting in the time over-run. Therefore, we are of the considered view that the case of the petitioner is covered under second scenario as the events responsible for the delay cannot be attributed to the petitioner and accordingly we condone the delay of 19 months. In the light of the principle laid down in the Appellate Tribunal's judgement, we allow IDC and IEDC for the period of time over-run of 19 months.

29. In view of above, the capital cost as on the date of commercial operation considered for the purpose of tariff computation is as under:-

(₹ in lakh)

Capital cost claimed by the petitioner	Capital cost disallowed in the absence of RCE	Capital cost as on DOCO considered for computing tariff
39200.34	2606.72	36593.62

Projected Additional Capital Expenditure

30. Clause (1) of Regulation 9 of 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:"

31. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines "cut-off" date as follows:-

> "cut-off date" means 31stMarch 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 31st March of the year closing after 3 years of the year of commercial operation".

Accordingly, the cut-off date for the instant assets is 31.3.2015.

32. The petitioner has claimed projected add cap amounting to ₹1086.01 lakh and ₹2369.15 lakh for the financial year 2011-2012 and 2012-2013 respectively.

33. The additional capital expenditure claimed by the petitioner falls within the cut-off date. However, the estimated completion cost exceeds the apportioned approved cost and the petitioner has not submitted RCE. Thus, in the absence of RCE capital expenditure on date of commercial operation has been restricted to apportioned approved cost by reducing ₹2606.72 lakh and additional capital expenditure for the financial year 2011-12 and 2012-13 has not been considered for computing tariff.

34. The estimated capital cost as on 31.3.2014 is as under:-

(₹ in lakh)

Capital cost restricted as on DOCO	Add cap for 2011-12	Add cap for 2012-13	Total capital cost
36593.62	-	-	36593.62

Debt- EquityRatio

35. 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."

36. Debt-equity ratio as on actual date of commercial operation and on 31.3.2014 is as under:-

(₹ in lakh)

Particulars	Amount	%
Debt	25615.54	70.00
Equity	10978.08	30.00
Total	**36593.62**	**100.00**

Return on Equity

37. 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".

38. Based on the above, the return on equity has been considered as given hereunder:-

(₹ in lakh)

Particulars	**2011-12 (pro-rata)**	**2012-13**	**2013-14**
Opening Equity	10978.08	10978.08	10978.08
Addition due to Additional Capitalisation	-	-	-
Closing Equity	10978.08	10978.08	10978.08
Average Equity	10978.08	10978.08	10978.08
Return on Equity (Base Rate)	**15.50%**	**15.50%**	**15.50%**
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	**159.92**	**1919.08**	**1919.08**

39. Return on equity has been computed as per Regulation 15 of the 2009 Tariff Regulations. Pre-tax return on equity of 17.481% has been considered.

Interest on Loan

40. 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."

41. 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 and rate of interest on actual loan have been considered as per the affidavit dated 25.4.2013.

(b) The 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 notional average loan during the year to arrive at the interest on loan.

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

43. Based on the above, interest on loan has been calculated is as given hereunder:-

(₹ in lakh)

Particulars	**2011-12 (pro-rata)**	**2012-13**	**2013-14**
Gross Normative Loan	25615.54	25615.54	25615.54
Cumulative Repayment upto previous year	-	161.01	2093.16
Net Loan-Opening	25615.54	25454.52	23522.38
Addition due to additional capital expenditure	-	-	-
Repayment during the year	161.01	1932.14	1932.14
Net Loan-Closing	25454.52	23522.38	21590.24
Average Loan	25535.03	24488.45	22556.31
Weighted Average Rate of Interest on Loan	4.1554%	5.2950%	5.3374%
Interest	**88.42**	**1296.66**	**1203.93**

Depreciation

44. Regulation 17 of the 2009 Tariff Regulations provides as follows:-

"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."

45. The assets covered in the current petition were put under commercial operation as on 1.3.2012. The assets 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 are given hereunder:-

(₹ in lakh)

Particulars	**2011-12 (pro-rata)**	**2012-13**	**2013-14**
Opening Gross Block	36593.62	36593.62	36593.62
Addition due to Projected Additional Capitalisation	-	-	-
Closing Gross Block	36593.62	36593.62	36593.62
Average Gross Block	36593.62	36593.62	36593.62
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	32934.26	32934.26	32934.26
Remaining Depreciable Value	32934.26	32773.25	30841.10
Depreciation	**161.01**	**1932.14**	**1932.14**

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

46. Clause (g) of Regulation 19 of 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
765 kV S/C, Quad, T/L(₹ lakh/km)	0.537	0.568	0.600	0.635	0.671
765 kV D/C, Quad, T/L(₹ lakh/km)	0.940	0.994	1.051	1.111	1.174

47. As per the norms of Tariff Regulations, 2009, allowable O&M Expenses for the asset covered in the petition are as under:-

(₹ in lakh)

Element	2011-12 (pro-rata)	2012-13	2013-14
258.29 km, 765 kV S/C quad Seoni-Wardha-II T/L	12.91	164.01	173.31
2.473 km, 765 kV D/C quad Seoni-Wardha-I T/L	0.22	2.75	2.90
Total O&M	**13.13**	**166.76**	**176.21**

48. 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 may approach the Commission for suitable revision in the norms for O&M expenses due to impact of wage revision.

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

However, in case the petitioner approaches with any such application, the same shall be dealt with in accordance with law.

<u>Interest on Working Capital</u>

50. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereafter:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, 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 2 months of annual 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 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 Tariff Regulations provides for O&M Expenses for one month to be included in the working capital. The petitioner has claimed O&M expenses for 1 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 8.25% plus 350 bps as on 1.4.2012 (11.75%). The interest on working capital for the assets covered in the petition has been worked out accordingly.

51. Necessary computations in support of interest on working capital are as under:-

(₹ in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	23.63	25.01	26.43
O & M Expenses	13.13	13.90	14.68
Receivables	862.59	904.24	890.13
Total	899.36	943.15	931.25
Interest	**8.81**	**110.82**	**109.42**

Transmission Charges

52. The transmission charges being allowed for the assets are summarized below:-

(₹ in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	161.01	1932.14	1932.14
Interest on Loan	88.42	1296.66	1203.93
Return on Equity	159.92	1919.08	1919.08
Interest on Working Capital	8.81	110.82	109.42
O & M Expenses	13.13	166.76	176.21
Total	**431.30**	**5425.46**	**5340.78**

Filing Fee and the Publication Expenses

53. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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.

Licence Fee

54. 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 42A (1) (b) of the 2009 Tariff Regulations

Service Tax

55. 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. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

56. 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.

57. This order disposes of Petition No. 78/TT/2012.

sd/-	sd/-
(A.K. Singhal)	**(Gireesh B. Pradhan)**
Member	**Chairperson**

Annexure

(₹ in lakh)

	CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
	Details of Loan	**2011-2012**	**2012-2013**	**2013-14**
1	**IBRD -III**			
	Gross loan opening	**140.42**	**140.42**	**140.42**
	Cumulative **Repayment upto DOCO/previous year**	**3.38**	**6.83**	**13.96**
	Net Loan-Opening	137.04	133.59	126.46
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	3.45	7.13	7.44
	Net Loan-Closing	133.59	126.46	119.01
	Average Loan	135.31	130.02	122.73
	Rate of Interest	2.00%	2.00%	2.00%
	Interest	2.71	2.60	2.45
	Rep Schedule	15 semi- annual installments from 15.09.2011		
2	**IBRD -IV**			
	Gross loan opening	**1023.66**	**1023.66**	**1023.66**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	1023.66	1023.66	1023.66
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	22.66
	Net Loan-Closing	1023.66	1023.66	1001.00
	Average Loan	1023.66	1023.66	1012.33
	Rate of Interest	1.95%	1.95%	1.95%
	Interest	19.96	19.96	19.74
	Rep Schedule	15 semi- annual installments from 15.11.2013		
3	**Bond XL**			
	Gross loan opening	**0.00**	**12337.05**	**12337.05**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	0.00	12337.05	12337.05
	Additions during the year	12337.05	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	12337.05	12337.05	12337.05
	Average Loan	6168.53	12337.05	12337.05
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	573.67	1147.35	1147.35
	Rep Schedule	12 annual installments from 28.06.2016		
4	**IBRD -IV ADDL**			
	Gross loan opening	**13939.10**	**13939.10**	**13939.10**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**	**235.57**
	Net Loan-Opening	13939.10	13939.10	13703.53

	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	235.57	475.32
	Net Loan-Closing	13939.10	13703.53	13228.21
	Average Loan	13939.10	13821.31	13465.87
	Rate of Interest	2.06%	2.06%	2.06%
	Interest	287.15	284.72	277.40
	Rep Schedule	15 semi- annual installments from 15.11.2013		
5	**IBRD -IV**			
	Gross loan opening	**0.00**	**127.16**	**127.16**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	0.00	127.16	127.16
	Additions during the year	127.16	0.00	0.00
	Repayment during the year	0.00	0.00	2.81
	Net Loan-Closing	127.16	127.16	124.35
	Average Loan	63.58	127.16	125.75
	Rate of Interest	1.95%	1.95%	1.95%
	Interest	1.24	2.48	2.45
	Rep Schedule	15 semi- annual installments from 15.11.2013		
6	**IBRD -IV ADDL**			
	Gross loan opening	**0.00**	**401.42**	**401.42**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**	**6.78**
	Net Loan-Opening	0.00	401.42	394.64
	Additions during the year	401.42	0.00	0.00
	Repayment during the year	0.00	6.78	13.69
	Net Loan-Closing	401.42	394.64	380.95
	Average Loan	200.71	398.03	387.79
	Rate of Interest	2.06%	2.06%	2.06%
	Interest	4.13	8.20	7.99
	Rep Schedule	15 semi- annual installments from 15.11.2013		
7	**Bond XXIX**			
	Gross loan opening	**0.00**	**231.63**	**231.63**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**	**19.30**
	Net Loan-Opening	0.00	231.63	212.33
	Additions during the year	231.63	0.00	0.00
	Repayment during the year	0.00	19.30	19.30
	Net Loan-Closing	231.63	212.33	193.03
	Average Loan	115.82	221.98	202.68
	Rate of Interest	9.20%	9.20%	9.20%
	Interest	10.65	20.42	18.65
	Rep Schedule	12 annual installments from 12.03.2013		
	Total Loan			
	Gross loan opening	15103.18	28200.44	28200.44
	Cumulative Repayment upto DOCO/previous year	3.38	6.83	275.62
	Net Loan-Opening	15099.80	28193.61	27924.82

	Additions during the year	13097.26	0.00	0.00
	Repayment during the year	3.45	268.79	541.23
	Net Loan-Closing	28193.61	27924.82	27383.59
	Average Loan	21646.70	28059.21	27654.20
	Rate of Interest	**4.1554%**	**5.2950%**	**5.3374%**
	Interest	899.52	1485.73	1476.02