CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No.279/GT/2018

Coram:
Shri P.K. Pujari, Chairperson
Dr. M.K. Iyer, Member
Shri I.S. Jha, Member

Date of Order: 5th February, 2020

In the matter of

Revision of tariff of Uri-II Hydroelectric Project (240 MW) for the period from 11.10.2013 to 31.3.2014-Truing up of tariff determined by Commission's order dated 4.2.2016 in Petition No. 156/GT/2013

And

In the matter of

NHPC Ltd
NHPC Office Complex,
Sector-33, Faridabad,
Haryana-121003 **....Petitioner**

Vs

1. Punjab State Power Corporation Ltd
The Mall, Near Kali Badi Mandir,
Patiala – 147 001

2. Uttar Haryana Bijli Vitran Nigam Limited
Vidyut Sadan, Plot No. C16, Sector-6
Panchkula- 134109

3. Dakshin Haryana Bijli Vitran Nigam Limited
Vidyut Sadan, Vidyut Nagar,
Hisar- 125005

4. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6,
Panchkula- 134109

5. Uttar Pradesh Power Corporation Ltd
Shakti Bhawan,
14, Ashok Marg,
Lucknow – 226 001

6. Engineering Department,
Union Territory of Chandigarh,
1st Floor, UT Secretariat, Sector 9D,
Chandigarh – 160 009

7. BSES Rajdhani Power Ltd
BSES Bhawan, Nehru Place,
New Delhi – 110 019

8. BSES Yamuna Power Ltd
Shakti Kiran Building, Karkardooma,
New Delhi – 110 032

9. Tata Power Delhi Distribution Ltd
33 KV Sub-station, Hudson Lane, Kingsway Camp,
Delhi – 110 009

10. Uttarakhand Power Corporation Ltd,
Urja Bhawan, Kanwali Road,
Dehradun – 248001

11. Jaipur Vidyut Vitran Nigam Ltd
Vidyut Bhawan, Janpath
Jaipur – 302 005

12. Ajmer Vidyut Vitran Nigam Ltd
Old Power House,
Hatthi Bhatta, Jaipur Road,
Ajmer – 305 001

13. Jodhpur Vidyut Vitran Nigam Ltd,
New Power House, Industrial Area,
Jodhpur – 342 003

14. Power Development Department,
New Secretariat,
Jammu **…Respondents**

Parties Present:

Shri Rajiv Shankar Dvivedi, Advocate, NHPC
Shri Piyush Kumar, NHPC
Shri M.G Gokhale, NHPC
Shri V.N Tripathi, NHPC
Shri Dhanush. C.K, NHPC
Shri R.B Sharma, Advocate, BRPL & BYPL
Shri Mohit K. Mudgal, Advocate, BRPL & BYPL
Ms. Sonya Sood, Advocate, BRPL & BYPL
Shri Sanjay Srivastava, BRPL

ORDER

The Petitioner, NHPC Ltd, has filed this petition for revision of tariff of Uri-II Hydroelectric Project (4 x 60 MW) (hereinafter referred as 'the generating station') for the period 11.10.2013 to 31.3.2014 after truing up exercise, in terms of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ("the 2009 Tariff Regulations").

2. The generating station is purely a run-of-the-river project, with no diurnal pondage for peaking and with provision for 10% overloading on continuous basis. The project was sanctioned by the Central Government on 1.9.2005 at a cost of ₹172479 lakh, including IDC and FC of ₹6661 lakh at February 2005 price level, with scheduled date of completion in 51 months from the date of approval. The actual date of commercial operation of the units/generating station is as under:

Unit-I	11.10.2013
Unit-II	1.12.2013
Unit-III	11.10.2013
Unit-IV/generating station	1.3.2014

3. Petition No. 156/GT/2013 was filed by the Petitioner, based on the anticipated date of commercial operation as 1.12.2011. The Commission vide order dated 14.2.2014, granted provisional tariff of the generating station for the period 11.10.2013 to 31.3.2014, considering 85% of the capital cost as on 30.6.2013, subject to the determination of final tariff of the generating station based on RCE approved by the Central Government and the recommendations of the Designated Independent Agency (DIA) on the vetting of capital cost of the generating station. Thereafter, the Petitioner amended the said petition, based on the capital expenditure incurred up to the COD of the respective units, duly certified by the auditors and the actual additional capital from COD of generating station till 31.3.2014. The Petitioner had also submitted that RCE of the project based on the completion cost of ₹2290.02 crore was pending approval of MOP, GOI. However, the Commission, taking note of the fact that approval of RCE by MOP, GOI would take some more time, considered the report of the DIA (M/s Aquagreen Management Private Limited) dated 14.8.2014 and determined the capital cost and

the annual fixed charges of the generating station by its order dated 4.2.2016, as under:

Capital Cost

(₹ in lakh)

	11.10.2013 to 30.11.2013 (Units I & III)	1.12.2013 to 28.2.2014 (Units I,II & III)	1.3.2014 to 31.3.2014 (All units)
Capital expenditure as on COD	112958.12	169482.99	225000.46
Less: Un-discharged liabilities	5694.32	8120.96	9165.97
Opening capital cost for the purpose of tariff (cash basis)	107263.80	161362	215834.49
Additions	0.00	0.00	145.83
Discharge of liabilities	0.00	0.00	241.85
Closing capital cost	**107263.80**	**161362.03**	**216222.17**

Annual Fixed Charges

(₹ in lakh)

	11.10.2013 to 30.11.2013 (Units I & III)	1.12.2013 to 28.2.2014 (Units I,II & III)	1.3.2014 to 31.3.2014 (All units)
Depreciation	765.88	2033.03	937.34
Interest on Loan	1038.54	2713.12	1247.87
Return on Equity	881.72	2340.72	1079.39
Interest on Working Capital	76.58	202.3	93.23
O&M Expenses	299.23	794.37	366.64
Total	**3061.93**	**8083.55**	**3724.47**

4. The annual fixed charges determined as above were subject to revision after truing-up exercise, in terms of Regulation 6 of the 2009 Tariff Regulations. Subsequently, the Petitioner was directed by communication dated 3.7.2018, to file tariff petitions in respect of their generating stations, by enclosing (i) Board approval of the actual cost of the Company and (ii) at least one of the documents namely (a) the DIA report (b) cost approved by CEA/PIB (c) cost approved by CCEA.

5. In line with the Commission's order dated 4.2.2016 read with the communication dated 3.7.2018, the Petitioner has filed the present petition for revision of tariff of the generating station for the period from 11.10.2013 to 31.3.2014. It has also filed Petition No.308/GT/2018 for determination of tariff of the generating station for the period 2014-19. The Petitioner has submitted that the Board of Directors of the Petitioner Company in its 385th meeting on 29.6.2015

had approved the Revised Cost Estimate (RCE) of the project at ₹229002 lakh. The Petitioner has further submitted that it had pursued the matter with the Ministry of Power (MOP), Government of India (GOI) for approval of RCE amounting to ₹229002 lakh and the CEA has recommended the project cost for ₹229002 lakh. It has also stated that the Standing Committee for time & cost overrun, after detailed analysis, has recommended the completion cost of the project as ₹200412 lakh, up to the cut-off date of the generating station (31.3.2017). The Petitioner has clarified that RCE is pending for approval by MOP, GOI.

6. The Petitioner has submitted that the present petition is a resubmission of Petition No. 156/GT/2013, which was duly certified by Statutory Auditor and there is no change in the financial data. It has also stated that re-auditing of the same data has not been done and accordingly the Commission may consider the same, for determination of tariff of the generating station. Based on this, the capital cost and the annual fixed charges claimed by the Petitioner in Form 5B are as under:

Capital Cost

(₹ in lakh)

	11.10.2013 (2 Units)	**1.12.2013 (All 3 units)**	**1.3.2014 (All 4 Units)**
Capital Cost without IDC, FC, FERV & Hedging cost	87632.55	130967.70	174095.02
IDC, FC, FERV & Hedging cost			
Interest During Construction (IDC)*	25255.84	38410.69	52498.25
Financing Charges (FC)	119.94	179.91	241.57
Foreign Exchange Rate Variation (FERV)	-50.20	-75.30	-100.40
Hedging cost	0.00	0.00	0.00
Total of IDC, FC, FERV & Hedging cost	25325.57	38515.29	52639.42
Capital cost including IDC, FC, FERV & Hedging cost (a+b)	**112958.12**	**169482.99**	**226734.44**
Less: Liability	5694.32	8120.96	9165.97
Capital cost, on cash basis	**107263.80**	**161362.03**	**217568.47**

** includes normative IDC for ₹6168.45 lakh, ₹9350.92 lakh and ₹12713.15 lakh respectively*

Annual Fixed Charges

(₹ in lakh)

	11.10.2013 to 30.11.2013	1.12.2013 to 28.2.2014	1.3.2014 to 31.3.2014
	(Units I & III)	(Units I,II & III)	(All units)
Depreciation	959.01	2387.11	944.86
Interest on Loan	1300.43	3184.19	1253.46
Return on Equity	1104.09	2748.45	1088.08
Interest on Working Capital	94.19	236.19	96.45
O&M Expenses	343.13	908.28	417.14
Total	**3800.84**	**9464.22**	**3799.98**

7. The Petition was heard on 6.2.2019 and the Commission vide ROP had sought certain additional information. Thereafter, the Petition was heard on 14.5.2019 and the Petitioner was directed to file certain additional information. Subsequently, the matter was heard on 27.8.2019 and the Commission after hearing the parties, reserved its order in the Petition. In response, the Petitioner vide its affidavits dated 23.4.2019 and 11.6.2019 has filed the additional information with copy to the Respondents. Reply has been filed by the Respondent, UPPCL vide its affidavit dated 17.9.2018 and the Respondent, BRPL vide affidavit dated 12.7.2019. Rejoinder to the said replies have been filed by the Petitioner vide its affidavits dated 29.3.2019 and 24.7.2019 respectively. Based on the submissions of the parties and the documents available on record we proceed to revise the tariff of the generating station, after truing up exercise, as stated in the subsequent paragraphs.

<u>Time Overrun and Cost Overrun</u>

8. The project was accorded CCEA clearance in September, 2005 with the stipulated completion period of 51 months i.e. November, 2009. However, based on the actual dates of commercial operation of the generating units, there has been a time overrun of 51 months. It is noticed that the major constraints during construction which had affected the implementation of the project, as submitted by the Petitioner and considered by DIA in its report are as under:

(a) Earthquake in Project area;
(b) Unexpected heavy rain/flood;
(c) Disturbance in Kashmir Valley;
(d) Engineering Challenges; and
(e) Widening of National Highway.

9. The DIA in its report dated 14.8.2014 had observed that the delay in the execution of various works for around 46 months beyond the scheduled commissioning as envisaged in CCEA sanction, appeared reasonable. Accordingly, the Commission, after considering the submissions of the parties and the recommendations of the DIA, in its order dated 4.2.2016, allowed the time overrun of 49 months as under:

*"**Analysis and decision***

30. We have considered the submissions of the parties and the documents available on record. It is observed that as against the completion schedule of 51 months from 1.9.2005, the Petitioner has taken a time line of 102 months for completion of the project, resulting in a time overrun of 51 months in the completion of the project. Out of this time overrun of 51 months, the DIA based on the findings, has observed that the delay of 46 months is not attributable to the Petitioner. On scrutiny of the reasons and the justification submitted by the Petitioner for the delay and the findings of the DIA, we are of the considered view that the stoppage of work and the consequential time overrun of 46 months, as per the following break-up, is beyond the control of the Petitioner:

- *6 months due to earthquake i.e. from October, 2005 to March, 2006*
- *4 months due to Widening of National highway i.e. from April, 2007 to July, 2007.*
- *5 months due to combined effect of widening of National highway and due to encountering of Riverine material during excavation of TRT i.e. from August, 2007 to December,2007*
- *7 months from January, 2008 to July, 2008 due to encountering of Riverine material during excavation of TRT.*
- *One month i.e. August, 2008 due to agitation by Amarnath Shrine Board.*
- *1.5 months between June to July,2009*
- *8 months i.e. from October, 2009 to May, 2010 due to combined effect of benching excavation of Riverine material in TRT and intermittent bandhs/ curfew by different organizations in valley causing blockade of NH-1A.*
- *6 months i.e. from June, 2010 to November, 2010 due to combined effect of Civil unrest in valley and overtopping of bund at TRT outlet due to heavy rain and flood.*
- *5 months delay between March, 2012 to August, 2012 due to strike by land out sees.*

- *2.5 months between January, 2013 to March, 2013 due to combined effects of escalation of cross border tension, civil unrest & incidents of bandh and resistance of locals while filling of upstream water conductor system.*

31. It is noticed that the disallowance of 3 months delay on account of overtopping of bund at TRT outlet Nalla by the DIA in its report, considering the same to be delay caused due to washing away of coffer dam, has been objected to by the Petitioner. The Petitioner has clarified that the delay on account of overtopping of bund at TRT due to flash flood in the Golta Nalla cannot be linked with the delay on account of washing away of coffer dam and that the period of three months i.e from 16th September, 2011 to 15th November, 2011 and September, 2012 (one month) does not overlap with any other activities. In consideration of this submission, we are of the considered view that the time overrun of 3 months (16th September, 2011 to 15th November, 2011) was also beyond the control of the Petitioner and the delay on this count cannot be attributable to it. Accordingly, the total time overrun of 49 months (46+3), in our view, is not attributable to the Petitioner and the same is condoned."

10. The Petitioner was directed vide ROP of the hearing dated 14.5.2019, to furnish, amongst others, the report of the Standing Committee on time and cost overrun. In response, the Petitioner vide Annexure-I of its affidavit dated 11.6.2019 has submitted the said report. The Investment Approval of GOI for execution of the Project is at an estimated cost of ₹1724.79 crore including IDC & FC of ₹66.61 crore at February 2005 price level, with the scheduled period of completion as 51 months i.e. by 30.11.2009. All the units of the generating station were commissioned by 2.2.2014. As such, there is time over run of 50 months & 2 days in commissioning of the project. However, the generating station was declared under commercial operation on 1.3.2014. The major reasons for time overrun, as considered by the Standing Committee are as under:

S. No.	Major reasons for delays	Net delay (*in months & days)*
1	Damages due to earthquake of 7.6 intensity on richter scale in project area (October 2005 to March 2006).	6
2	Unexpected heavy rain/flood during construction period resulting in overtopping/washing away of coffer dams, flooding of Tailrace tunnel and occurrence of heavy slides (March 2007 to October 2007 , July 2010 to August 2010, April 2011 to May 2011, 16.9.2011 to 15.11.2011)	13
3	Disturbance in Kashmir valley e.g. amaranth shrine land row, civil unrest in valley, strike & stoppage of works by land oustees, (July 2008 to September 2008, June 2009 to 13.7.2009, January-February 2010, June 2010 to November 2010, July & August 2012, February & March 2013 and from 4.3.2013 to 26.3.2013)	18 months & 2 days
4	Technical/Engineering challenges in negotiating poor geological	10

	strata in TRT (August 2008, October 2009 to May 2010)	
5	Widening of National Highway (along which all project structure are located) in 2007 & 2008 (April 2007 to December 2007)	3
	Total Delay	**50 months & 2 days**

11. The analysis of cost overrun by the Standing Committee in its report is extracted as under:

"2.1 Head wise sanction cost, completion cost and cost variation thereon is given below:

	Description of Item	Approved cost (PL February, 2005)	Completion cost	Variation	% Variation
1	Direct Charges				
	I-Works				
A	Preliminary	8.25	5.96	-2.29	-27.8%
B	Land	49.02	83.61	34.58	70.5%
C	Works	212.35	185.57	-26.78	-12.6%
J	Power Plant Civil Works	836.27	592.23	-244.04	-29.2%
K	Buildings	24.62	58.43	33.81	137.3%
O	Miscellaneous	44.52	102.82	58.30	130.9%
P	Maintenance During Construction	11.13	2.29	-8.84	-79.4%
Q	Special Tools and Plants	4.77	7.69	2.92	61.1%
R	Communication	38.74	38.17	-0.57	-1.5%
X	Environment & Ecology	24.19	33.08	8.89	36.7%
Y	Losses on Stock	2.78	0	-2.78	-100%
	Total - I-Works	1256.66	1109.85	-146.81	-11.7%
	II-Establishment	87.52	221.66	134.31	153.3%
	III-Tools and Plants	12.61	0.14	-12.47	-98.9%
	IV-Suspense	0.00	0	0.00	0.0%
	V-Receipts & Recoveries (-)	5.60	-17.12	-11.52	205.7%
	Total - Direct Charges	1351.19	1314.52	-36.67	-2.7%
2	Indirect Charges				
	I-Capitalized value of abatement of Land Revenue (5% of Cost of cultivable land)	0.94	0.94	0.00	0.00%
	II-Audit & Account Charges (1% of I-Works)	12.61	19.47	6.85	54.3%
	Total - Indirect Charges	13.55	20.40	6.85	50.6%
	Total - Direct & Indirect charges	1364.74	1334.93	-29.82	-2.2%

	B- Electrical Works	293.44	568.78	275.34	93.8%
	Total - Civil + Electrical (net)	1658.18	1903.71	245.53	14.8%
	C-IDC & FC	66.614	386.31	319.70	480.0%
	TOTAL	1724.79	2290.02	565.23	32.8%

12. The break-up of cost overrun as examined by the Standing Committee is as under:

"2.1.1 The breakup of cost overrun of ₹565.23 crore is as under:

Reasons	***Cost Overrun***	***% of total increase in sanctioned cost***
(A) - Total - Civil + Electrical (net)		
Price Escalation	*349.20*	*20.25*
Exchange Rate Variation	*33.84*	*1.96*
Statutory Levies	*16.94*	*0.98*
Addition/deletion	*(84.73)*	*(4.91)*
Under/over Estimation	*62.87*	*3.64*
Quantity Variation	*(147.40)*	*(8.54)*
Others(claims)	*14.81*	*0.85*
Sub Total	***245.53***	***14.23***
(B) - IDC&FC	***319.70***	***18.54***
Total (A) + (B)	***565.23***	***32.77***

It may be seen that Cost Overrun is only because of increase in fiscal factors e.g. P.E, ERV, SLV and increase in IDC & FC only. There has been no increase in cost of work rather there is an overall saving in works."

13. The observations of the Standing Committee on time and cost overrun are reproduced here as under:

"4.0 ***Observations of the Standing Committee***

a) The project has been commissioned w.e.f. 02.02.2014 and is under commercial operation. It has generated 1890.23 MUs worth ₹680. 17 crore till 31st October 2015."

b) The Committee noted that the Revised Cost at Completion of the Project comes to ₹2290.02 crore, which implies an excess cost of ₹565.23crore i.e. 32.77% of sanctioned cost of ₹1724.79 crore. The cost overrun after excluding Price Escalation (PE) , Statutory 'Levies (SLV) and Exchange Rate Variation (ERV), within the original approved time cycle out of the total excess cost of ₹565.23 crore works out to ₹401.47 Crore which is 23,27% higher than the sanctioned cost.

c) The Committee noted that the cost overrun in the project cost has happened due to increase in fiscal factors i.e. P.E, SLV, ERV and IDC & FC. Overall there is savings in the Works.

d) The Committee noted that the time overrun of 50 months and 2 days has resulted in an increase of ₹ 581.27 Crore which was due to fiscal factors and consequential increase in Interest during Construction (IDC) and Financing Charges (FC). The time overrun of 50 months and 2 days was due to unforeseen *conditions/hindrances as detailed at para 3.1 above.*

e) On examining the reasons of cost and time overrun, Committee is of the considered opinion that reasons for cost and time over-run were beyond the control of any agency or person, hence no individual/agency can be held responsible for the same."

14. After analysing the reasons for time and cost overrun, the Standing Committee has made the following recommendations:

> *"In view of above deliberations, Standing Committee recommends the revised cost of Uri-II HE Project amounting to ₹2290.02 crore including IDC & FC amounting to ₹386.31 crore at Completion with Time overrun of 50 months and 2 days for consideration of the PIB."*

15. The Petitioner has submitted that RCE of the project was approved by the Board of Directors in its 385th meeting held on 29.6.2015. It has further submitted that the RCE for ₹2290.02 crore has been submitted to CEA on 30.7.2014 and this cost has been appraised by CEA, the Standing Committee and PIB. The Petitioner has stated that the approval of RCE by MOP, GOI is under process. Accordingly, the Petitioner has submitted that the recommendations of the Standing Committee on time and cost overrun may be considered for revision of tariff of the generating station.

16. The Respondent UPPCL in its reply has submitted that the Commission in its order dated 4.2.2016 has observed that as against the completion schedule of 51 months from 1.9.2005, the Petitioner has taken time of 102 months for completion of the project resulting in a time over run of 51 months. The Respondent has also submitted that the Commission in the said order had held that the delay of 2 months in the declaration of COD of Unit- IV was attributable to the Petitioner and the IDC and Establishment cost for the delay of 2 months shall be deducted while working out the capital cost as on COD of the generating station. The Respondent BRPL has submitted that the time overrun of the various units may be finalized strictly in accordance with the principles laid down by the Tribunal in its judgment

dated 27.4.2011, in Appeal No. 72/2010, wherein the Petitioner has undertaken the responsibility of completing the project within the timelines of 51 months. The Petitioner in its rejoinder has clarified that the PIB in its recommendation has considered time overrun of 50 months & 2 days and the same may be considered in the present case.

Analysis and Decision

17. We have examined the submissions of the parties along with the observations and recommendations of the Standing Committee on Time and Cost Overrun and recommendations of PIB. The provisions of Regulation 7 of the 2009 Tariff Regulations and the guidelines for vetting of capital cost issued by the Commission provide that the Commission may consider the capital cost as vetted by the DIA, while determining the tariff of the hydro generating companies. It is noticed that DIA, while recommending that the delay of 46 months was not attributable to the Petitioner, had vetted the capital cost of ₹214685 lakh, as against the claim of the Petitioner for ₹217956 lakh (in Petition No. 156/GT/2013). However, the Commission in its order dated 4.2.2016 had condoned the delay of 49 months, (after condoning the delay of 3 months on account of overtopping of bund at TRT outlet Nalla, in addition to the delay recommended by the DIA) and had allowed the completion cost of ₹239536.70 lakh including normative IDC of ₹12590.40 lakh, subject to approval of RCE by MOP, GOI. However, it is noticed that the RCE i.e. completion cost of ₹229002 lakh as submitted by the Petitioner has been examined in detail and vetted by the MOP, GOI through its nodal agency i.e., CEA in association with CWC and thereafter, the RCE of ₹229002 lakh has been approved by MOP, GOI. Since the RCE has been approved after a detailed review by competent technical bodies, we are inclined to consider the recommendations of the Standing Committee that the time overrun of 50 months and 2 days in

commissioning of the project and the Cost overrun on account of the same were beyond the control of any agency or person and no individual can be held responsible for the same. Moreover, the time period of 27 days taken by the Petitioner from the date of commissioning till COD of the generating station is considered reasonable. It is also observed that PIB in its meeting dated 9.3.2017 has recommended the RCE of the Project for ₹229002 lakh crore including IDC, FC & ERV of ₹38631 lakh. Accordingly, the same is allowed for the purpose of tariff, subject to actual cash expenditure. In the event of approval of RCE by CCEA/ MOP, GOI, the same shall be brought to the notice of the Commission.

<u>Capital Cost</u>

18. Clause (1) of Regulation 7 of the 2009 Tariff Regulations 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:
xxx
Provided also that the Commission may issue guidelines for vetting of capital cost of hydro-electric projects by independent agency or expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff for the hydro generating station:

Provided also that the Commission may issue guidelines for scrutiny and commissioning schedule of the hydro-electric projects in accordance with the tariff policy issued by the Central Government under section 3 of the Act from time to time.

Provided also that in case the site of a hydro generating station is awarded to a developer (not being a State controlled or owned company), by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer for getting the project site allotted shall not be included in the capital cost:

Provided also that the capital cost in case of such hydro generating station shall include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) project in the affected area:

Provided also that the capital cost of the generating station shall include the cost for creating infrastructure for supply of power to the rural households located within a radius of five kilometers of the power station if the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.

Provided also that where the power purchase agreement entered into between the generating company and the beneficiaries or the implementation agreement and the transmission service agreement entered into between the transmission licensee and the long-term transmission customer, as the case may be, provide for ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of tariff."

19. The Commission in its order dated 4.2.2016 in Petition No. 156/GT/2013 while allowing the capital cost in the table under para 3 above had directed the Petitioner to submit on affidavit, the actual treatment of normative IDC as carried out in the books of accounts, duly authorized by Auditor, at the time of truing-up exercise. In response, the Petitioner has furnished the audited balance sheet for years 2012-13 and 2013-14 and has claimed capital cost as under:

(₹ in lakh)

	2013-14		
	11.10.2013 to 30.11.2013	**1.12.2013 to 28.2.2014**	**1.3.2014 to 31.3.2014**
	(Units I & III)	**(Units I,II & III)**	**(All units)**
Opening Capital cost	107263.80	161362.03	217568.47
Addition	56524.87	57251.45	145.83
Less : Un-discharged liabilities	2426.64	1045.01	0.00
Add : Discharge of liabilities pertaining to COD	0.00	0.00	241.85
Net Addition	54098.23	56206.44	387.68
Closing capital cost	**161362.03**	**217568.47**	**217956.15**

20. The Petitioner has claimed additional capital expenditure of ₹54098.23 lakh for the period from 11.10.2013 to 30.11.2013. It is noticed that the additional capital expenditure claimed pertains to Unit-II which had achieved COD on 1.12.2013. Thus, the additional capital expenditure of ₹54098.23 lakh forms part of the actual expenditure as on 1.12.2013 i.e. COD of the Unit-II. Similarly, with

regard to the claim for additional capital expenditure of ₹56206.44 lakh from 1.12.2013 to 28.2.2014, it is noticed that the said claim pertains to Unit-IV which had achieved COD on 1.3.2014. As such, the additional capital expenditure of ₹56206.44 lakh forms part of the actual expenditure as on 1.3.2014 i.e. COD of the Unit-IV/Station. Therefore, the additional capital expenditure of ₹54098.23 lakh & ₹56206.44 forms a part of the actual expenditure as on 1.12.2013 i.e. COD of Unit-II and 1.3.2014 i.e. COD of Unit-IV/Station respectively. Moreover, the interest on loan portion of these capitalized amounts (70%) forms part of IDC till the COD of next unit/generating station. Accordingly, the claim for the Petitioner for additional capital expenditure has not been considered as additional capital expenditure for the period from 11.10.2013 to 28.2.2014.

21. As the capital cost claimed by the Petitioner as on COD of units/ generating station is within the completion cost of ₹229002 lakh (RCE recommended by Standing Committee and considered by the Commission), we allow the claim of the Petitioner for the purpose of tariff as under:

(₹ in lakh)

11.10.2013 (Unit I&III)	**1.12.2013 (Unit I,II & III)**	**1.3.2014 (all units)**
107263.80	161362.03	217568.47

Interest During Construction (IDC)

22. IDC claimed by the Petitioner vide Form 5B is as under:

(₹ in lakh)

11.10.2013 (2 units)	**1.12.2013 (3 units)**	**1.3.2014 (all 4 units)**
25255.84	38410.69	52498.25

23. The IDC claimed as above is inclusive of Normative IDC, and the break-up details are as under:

(₹ in lakh)

	11.10.2013 (2 units)	1.12. 2013 (3 units)	1.3. 2014 (all 4 units)
IDC on loan	19087.39	29059.77	39785.10
Normative IDC	6168.45	9350.92	12713.15
Total	**25255.84**	**38410.69**	**52498.25**

24. The Petitioner has furnished the details of amount, date of drawl, rate of interest etc. in respect of loans. Based on the above details, IDC has been calculated up to the COD of the generating station as under:

(₹ in lakh)

11.10.2013 (2 units)	1.12.2013 (3 units)	1.3.2014 (all 4 units)
19087.39	29059.77	39785.10

Normative IDC

25. The Petitioner has claimed IDC on normative loan, in terms of Regulation 7 (1) (a) (ii) of the 2009 Tariff Regulations, In addition to IDC on actual loan, as under:

(₹ in lakh)

11.10.2013 (2 units)	1.12.2013 (3 units)	1.3.2014 (all 4 units)
6168.45	9350.92	12713.15

26. The Petitioner has furnished the statement of calculation of normative IDC claimed duly certified by Auditor. For calculation of normative IDC, the Petitioner has applied the weighted average rate of interest in respect of loans availed by the Company as a whole, for the period before the drawl of loans for the project. For the period after the drawl of actual loan for the project, the rate of interest applicable for actual loan has been considered. The Petitioner was directed vide ROP of the hearing dated 6.2.2019, to furnish the balance sheets of the generating station since the 1st infusion of fund (2001-02). The Petitioner has however submitted the balance sheets from the year 2005-06 vide affidavit dated 23.4.2019. Based on the details furnished, IDC has been calculated up to COD of the units/generating station and allowed as under:

(₹ in lakh)

11.10.2013 (2 units)	1.12. 2013 (3 units)	1.3. 2014 (All 4 units)
6007.00	9010.50	12283.50

Financing Charges (FC)

27. The Petitioner has claimed FC as on COD of the units/generating station vide Form 5B as under:

(₹ in lakh)

11.10.2013 (2 units)	1.12.2013 (3 units)	1.3.2014 (all 4 units)
119.94	179.91	241.57

28. The FC claimed by the Petitioner has been duly certified by Auditor. The Petitioner was directed vide ROP of the hearing dated 6.2.2019 to furnish the break-up details of the FC claimed, along with documentary evidence and the same has been furnished by the Petitioner vide its affidavit dated 23.4.2019. Based on the said details, FC considered for the purpose of capital cost is as under:

(₹ in lakh)

11.10.2013 (2 units)	1.12.2013 (3 units)	1.3.2014 (all 4 units)
110.86	166.29	221.73

Un-discharged liabilities

29. The Petitioner has claimed un-discharged liabilities as on COD of the units/generating station as under:

(₹ in lakh)

11.10.2013 (2 units)	1.12. 2013 (3 units)	1.3. 2014 (all 4 units)
5694.32	8120.96	9165.97

30. The Petitioner has furnished the liability flow statement and in the asset wise/ party-wise details of un-discharged liabilities, duly certified by Auditor, confirming the claim of the Petitioner. Accordingly, un-discharged liabilities as claimed by the Petitioner, has been considered for the purpose of tariff.

31. Based on the above discussions, the capital cost allowed for the purpose of tariff is as under:

(₹ in lakh)

	11.10.2013 (2 units)	1.12.2013 (3 units)	1.3.2014 (all 4 units)
Hard Cost	87632.55	130967.70	174095.02
IDC	19087.39	29059.77	39785.10
Normative IDC	6007.00	9010.50	12283.50
Financing charges	110.86	166.29	221.73
Contract FERV	(-) 50.20	(-) 75.30	(-) 100.40
Total Capital cost	**112787.60**	**169128.96**	**226284.95**
Less: Liability	5694.32	8120.96	9165.97
Capital Cost	**107093.28**	**161008.00**	**217118.99**

Additional Capital Expenditure

32. Regulation 9 (1) of the 2009 Tariff Regulations provides as under:

"9 (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) Un-discharged 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:

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff."

33. The COD of the generating station is 1.3.2014 and hence, the cut-off date of the generating station is 31.3.2017. The capital cost allowed as on COD of the generating station is ₹217118.99 lakh, which includes Normative IDC of ₹12283.50 lakh. As such, the capital cost allowed for works within the original scope of work of the project, as on COD of the generating station (1.3.2014) is ₹204835.49 lakh (₹217118.99 – ₹12283.50). However, the balance cost available for consideration in respect of the expenditure on assets/works within the original scope of work of the project, up to the cut-off date, works out as ₹24146.68 lakh [(RCE of ₹229002

recommended by the Standing Committee and allowed by the Commission) – (₹19.83 lakh towards FC disallowed) - ₹204835.49)].

34. The net additional capital expenditure claimed by the Petitioner from COD of the generating station (1.3.2014) to 31.3.2014, is as under:

(₹ in lakh)

	1.3.2014 to 31.3.2014
Add: Addition during the year / period	145.83
Add: Liability discharged pertaining to COD	241.85
Net additional capital expenditure	**387.68**

35. The details of the additional capital expenditure claimed during the period from 1.3.2014 to 31.3.2014 are summarised as under:

(₹ in lakh)

Assets/Works	**1.3.2014 to 31.3.2014**
Buildings	2.47
Plant and Machinery- Transmission lines	47.00
Plant and Machinery- Others	91.00
Furniture and Fixture	1.00
Computers	1.43
Office Equipment	0.11
Other Assets	0.08
Tangible Assets of minor value >750 and < ₹5000	2.17
Obsolete / surplus assets	0.58
Sub -Total	**145.83**

36. The additional capital expenditure of ₹145.83 lakh claimed by the Petitioner broadly consists of expenditure on various heads such as, Building, Computers, Plant and Machinery-others, Plant and Machinery - transmission lines, Furniture and Fixture, Office Equipment, tangible assets of minor value and other assets. It is noticed that the additional capital expenditure claimed by the Petitioner is mostly in respect of assets/works within the original scope of work of the project and is within the limit of balance amount ₹24146.68 lakh available for consideration in respect of expenditure towards assets/works within the original scope of work of the project and up to the cut-off date of the generating station. Hence, the

additional capital expenditure of ₹145.83 lakh is allowed in terms of Regulation 9(1)(ii) of the 2009 Tariff Regulations.

Discharge of liabilities

37. The Petitioner has submitted the liability flow statement in Appendix-I to Form-5B of the petition, duly certified by Auditor in support of the same, as under:

(₹ in lakh)

	Amount
Un-discharged liabilities as on COD	9165.97
Liability discharged in 2013-14	241.85
Un-discharged liabilities as on 31.3.2014	8924.12

38. Based on the details certified by auditor, the discharge of liabilities claimed by the Petitioner has been allowed.

Capital Cost considered till 31.3.2014

39. Accordingly, the capital cost approved for the purpose of tariff is as under:

(₹ in lakh)

		11.10.2013 to 30.11.2013 (2 Units)	**1.12.2013 to 28.2.2014 (3 Units)**	**1.3.2014 to 31.3.2014 (all 4 Units)**
1	Opening Capital cost	**107093.28**	**161008.00**	**217118.99**
2	Net additional capital expenditure allowed	0.00	0.00	145.83
3	Add: Liability discharged pertaining to COD	0.00	0.00	241.85
4	Net total capital expenditure allowed (2+3)	**0.00**	**0.00**	**387.68**
5	**Closing capital cost (1+ 4)**	**107093.28**	**161008.00**	**217506.67**

Debt-Equity Ratio

40. 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 utilized 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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

41. Accordingly, the debt equity ratio of 70:30 has been considered for the purpose of tariff.

Return on Equity

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

"15. Return on Equity. (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:"

43. In accordance with the above regulations, Return on Equity has been computed as follows:

(₹ in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
Opening Equity	32127.98	48302.40	65135.70
Addition due to additional capital expenditure	0.00	0.00	116.30
Closing Equity	32127.98	48302.40	65252.00
Average Equity	32127.98	48302.40	65193.85
Return on Equity (Base Rate)	15.500%	15.500%	15.500%
Tax rate for the year	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	**880.32**	**2335.59**	**1085.81**

Interest on Loan

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

"(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."*

45. The salient features for computation of interest on loan are as under:

i) The opening gross normative loan has been arrived at in accordance with Regulation 16 of the 2009 Tariff Regulations.

ii) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year applicable to the project.

iii) The repayment for the year of the tariff period 2013-14 has been considered equal to the depreciation allowed for that period.

iv) The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

46. Accordingly, Interest on loan has been computed as under:

(₹ in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
Gross Normative loan	74965.30	112705.60	151983.29
Cumulative Repayment up to previous year	0.00	764.66	2793.23
Net loan-Opening	74965.30	111940.94	149190.06
Repayment during the period	764.66	2028.57	942.91
Additional Capitalization	0.00	0.00	271.38
Net loan-Closing	74200.64	109912.37	148518.53
Average loan	74582.97	110926.66	148854.29
Weighted Average Rate of Interest	9.950%	9.898%	9.931%
Interest on loan	**1036.88**	**2707.16**	**1255.48**

Depreciation

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

"(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 3[the cumulative depreciation including Advance against Depreciation] as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis."

48. The weighted average rate of depreciation calculated in terms of the above regulations has been considered for calculation of depreciation. Accordingly, depreciation has been worked out and allowed as under:

(₹ in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	**1.12.2013 to 28.2.2014 (3 Units)**	**1.3.2014 to 31.3.2014 (all 4 Units)**
Opening Gross Block	107093.28	161008.00	217118.99
Additional Capitalization	0.00	0.00	387.68
Closing Gross Block	107093.28	161008.00	217506.67
Average Gross Block	107093.28	161008.00	217312.83
Rate of Depreciation	5.110%	5.110%	5.109%
Depreciable value	96383.95	144907.20	195581.54
Remaining Depreciable value	96383.95	144142.54	192788.31
Depreciation	**764.66**	**2028.57**	**942.91**

O&M Expenses

49. Regulation 19(f) (v) of the 2009 Tariff Regulations provides as under:

"In case of hydro generating station declared under commercial operation on or after 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding rehabilitation & resettlement works) and shall be subject to annual escalation of 5.72% per annum for subsequent years."

50. Regulation 3 (29) of the 2009 Tariff Regulation, provides as under:

"original project cost' means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission"

51. The Petitioner has claimed O&M expenses based on the projected additional capital expenditure of ₹245573.05 lakh upto the cut-off date (31.3.2017) and R&R expenses of ₹375 lakh, as under:

(₹ in lakh)

2013-14		
11.10.2013 to 30.11.2013	**11.2.2013 to 28.2.2014**	**1.3.2014 to 31.3.2014**
(Unit I & III)	**(Unit I,II & III)**	**(all 4 units)**
343.13	908.28	417.14

52. The cut-off date of the project is 31.3.2017 and therefore the completion cost is required to be approved in Petition No. 308/GT/2018 filed by the Petitioner for approval of tariff for the period 2014-19. Accordingly, the capital cost as on 31.3.2014 and the R&R cost of ₹375 lakh (as claimed by the Petitioner) has been considered for calculation of O&M expenses. Accordingly, the O&M expenses worked out and allowed based on the approved capital cost is as under:

(₹ in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	**1.12.2013 to 28.2.2014 (3 Units)**	**1.3.2014 to 31.3.2014 (all 4 Units)**
Project cost allowed	107093.28	161008.00	217506.67
Less: R&R expenses	140.63	281.25	375.00
Capital cost considered for purpose of O&M expenses	106952.65	160726.75	217131.67
Annualized O&M expenses @ 2% of above	2139.05	3214.54	4342.63
Number of days	51	90	31
O&M expenses allowed	**298.88**	**792.63**	**368.83**

Interest on working capital

53. The Petitioner is entitled to claim interest on working capital as per provisions of Regulation 18 of the 2009 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder.

(i) **Receivables**

54. As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital are equivalent to two months' of fixed cost. Accordingly, receivables have been worked out on the basis of 2 months' fixed cost as under:

(₹ in lakh)

11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
509.53	1344.30	624.47

(ii) **Maintenance spares**

55. 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. The value of maintenance spares has accordingly been worked out as under:

(₹ in lakh)

11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
44.83	118.89	55.32

(iii) **O & M expenses (1 month)**

56. Regulation 18(1) (c) (ii) of the 2009 Tariff Regulations provides for O&M expenses for one month to be included in the working capital. Accordingly, the same is worked out as under:

(₹ in lakh)

11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
24.91	66.05	30.74

57. Regulation 18(3)(ii) of 2009 Tariff Regulations, as amended on 21.6.2011 provides as under:

> *"(3) Rate of interest on working capital shall be on normative basis and shall be considered as follows:*
>
> *(i) xxxx*
>
> *(ii) SBI Base Rate plus 350 basis points as on 1.7.2010 or as on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the units or station whose date of commercial operation lies between the period 1.7.2010 to 31.3.2014:*

58. The SBI Base rate as on 1.4.2013 was 9.75%. Hence, the rate of interest on working capital has been considered as 13.20%. Necessary computations in support of interest on working capital are as under:

(₹ in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
Maintenance spares	44.83	118.89	55.32
O & M expenses	24.91	66.05	30.74
Receivables	509.53	1344.30	624.47
Total	**579.27**	**1529.25**	**710.53**
Interest Rate	13.20%	13.20%	13.20%
Interest on Working Capital	**76.46**	**201.86**	**93.79**

Fixed Charges

59. Based on the above, the fixed charges allowed for the purpose of tariff for 2013-14 is as under:

(₹ in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)
Return on Equity	880.32	2335.59	1085.81
Interest on loan	1036.88	2707.16	1255.48
Depreciation	764.66	2028.57	942.91
Interest on Working Capital	76.46	201.86	93.79
O & M Expenses	298.88	792.63	368.83
Total	**3057.20**	**8065.80**	**3746.81**

Normative Annual Plant Availability Factor (NAPAF)

60. NAPAF of 55% as considered in Commission's order dated 4.2.2016 in Petition No. 156/GT/2013 has been considered.

Design Energy (DE)

61. The DE of 1123.77 MUs as approved by CEA for the generating station has been allowed. The month-wise DE is as under:

Month		Design Energy (MUs)
April	I	54.72
	II	54.72
	III	54.72
May	I	54.72
	II	54.72
	III	60.19

June	I	33.92
	II	30.65
	III	39.96
July	I	30.51
	II	27.77
	III	34.32
August	I	40.77
	II	30.88
	III	30.98
September	I	21.25
	II	20.72
	III	20.88
October	I	14.92
	II	13.43
	III	13.26
November	I	23.00
	II	17.58
	III	14.94
December	I	12.87
	II	13.48
	III	14.77
January	I	11.57
	II	20.67
	III	21.24
February	I	17.13
	II	23.65
	III	38.94
March	I	41.02
	II	54.71
	III	60.19
Total		**1123.77**

62. The difference between the tariff already recovered by the Petitioner and the tariff determined under this order shall be adjusted in terms of the clause (6) of the Regulation 6 of the 2009 Tariff Regulations.

63. Petition No. 279/GT/2018 is disposed of in terms of the above.

Sd/-	***Sd/-***	***Sd/-***
(I.S Jha)	**(Dr. M.K Iyer)**	**(P.K Pujari)**
Member	**Member**	**Chairperson**