CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 89/GT/2013

Coram:
Shri Gireesh B. Pradhan, Chairperson
Shri A.K.Singhal, Member
Shri A.S. Bakshi, Member

Date of Hearing: 03.02.2015
Date of Order: 13.10.2015

In the matter of

Approval of generation tariff of Nimoo Bazgo Hydroelectric Project (45 MW) for the period from 10.10.2013 to 31.3.2014

And

In the matter of

NHPC Limited
NHPC Office Complex,
Sector-33, Faridabad,
Haryana-121003 **…Petitioner**

Vs

Power Development Department,
Civil Secretariat
Jammu (J&K) **…Respondent**

Parties present:

Shri A.K. Pandey, NHPC
Shri S.K. Meena, NHPC
Shri Piyush Kumar, NHPC
Shri Shubhalaxmi Gupta, NHPC

ORDER

Background

This petition has been filed by the petitioner, NHPC for approval of generation tariff of Nimoo Bazgo Hydroelectric project, (3 x 15 MW) ("hereinafter the generating station") for the period from the anticipated date of commercial operation (COD) of the generating station (1.4.2013) to 31.3.2014 based on the Central Electricity Regulatory Commission

(Terms & Conditions of Tariff) Regulations, 2009 ("the 2009 Tariff Regulations") and for relaxation of operational and/or technical norms of operation under Clause-4 of Part-7 (Misc) of the Indian Electricity Grid Code.

2. The generating station situated in the State of J&K has been designed as a purely run of the river scheme with diurnal pondage to provide peaking for 4 hours (except during winter season) and comprises of three units with a capacity of 15 MW each. The project involves construction of 57 m high concrete gravity dam and surface PH at dam toe. The project would generate 239 million units in a 90% dependable year. Power Development Department, Govt. of Jammu Kashmir is the sole beneficiary of the project. The petitioner has entered into a Power Purchase Agreement (PPA) with the Government of J&K on 26.10.2005 for supply of entire power from the project. Subsequently, Ministry of Power, Govt. of India vide its letter dated 8.4.2011 had made the following allocations from this project to the State of J&K as under:

	% share	Equivalent MW
Allocation to state of J&K	72	32.40
Unallocated share	15	6.75
Home state share	12	5.40
Free power to J&K towards local area development	1	0.45

3. The unallocated share of 15% power is also allocated to the State of J&K during winter season. The State Government of J&K will provide matching 1% power from its share of 12% free power, to the corpus of the Local Area Development Fund. Further, as per allocation letter 100 units of electricity per month is to be provided by the petitioner to each family affected by the project for a period of 10 years from the date of commissioning of the project.

4. The petitioner by affidavit dated 21.2.2013 has submitted that Unit Nos. II and III of the generating station has been commissioned on 20.1.2013 and 12.10.2012 respectively

and the said units were ready for testing at full load. The petitioner has also submitted that the units are being operated on partial load made available by the respondent presently, and Unit–I is being commissioned shortly. The petitioner has further submitted that the project has not been connected to the grid and therefore commercial operation of the units is possible only when full load will be provided by the respondent. The petitioner has added that the sub-stations are being constructed under RGGVY scheme at Leh which are yet to be commissioned for requisite test load. Accordingly, the petitioner has submitted that the declaration of Commercial Operation (COD) of the units of the generating station cannot be achieved at this stage and the total capital cost of the project shall be worked out after COD. Referring to the Commission's order dated 31.12.2012 in I.A. No.15/2012 (in Petition No.23/GT/2011) pertaining to tariff of Chutak HEP, the petitioner prayed that the generating station may be allowed to be declared under commercial operation under available load by relaxing the Regulation 3(12) of CERC (Terms & Conditions of Tariff) Regulations, 2009. Thereafter, the petitioner vide letter dated 28.6.2013 informed that Unit No. I has been commissioned on 17.6.2013 and that scheduling of infirm power of the generating station has commenced from 15.12.2012, 20.1.2013 and 17.6.2013 for Unit Nos. III, II and I respectively. In consideration of the submissions, the Commission by order dated 7.10.2013 has relaxed the provisions of Regulation 3 (12) of the 2009 Tariff Regulations and allowed the said prayer of the petitioner as under:

> *"18. In view of the submissions made by the petitioner as above and considering the fact that each hydro generating unit having been tested to the extent of about 80% of installed capacity during the periods ranging to 2 to 8 months (approx), the Commission is of the considered view that the provisions of the Regulation 3(12) of 2009 Tariff Regulations should be relaxed in the exercise of the power under Regulation 44 of the 2009 Tariff Regulations. We order accordingly. In accordance with this, the petitioner is allowed to declare commercial operation at the maximum load made available by the Respondent, after following the due process of testing of each machine for its commercial operation, by giving notice to the respondent"*

5. The petitioner in the said petition also prayed for relaxation of norms of NAPAF and design energy, method of recovery of capacity charges and energy charges based on deemed energy benefits and UI rate of ₹1.65 per unit corresponding to frequency in range of 50.02 and 50.00 Hz in terms of the UI Regulations, 2012 to be allowed as rate of infirm power since the generating station was not connected to the grid and the operation of the machines was in isolated mode. The petitioner also submitted that the decision of the Commission in order dated 31.12.2012 in I.A.No.15/2012 (in Petition No.23 /GT/ 2011) pertaining to tariff of Chutak HEP, may be adopted in the instant case.

6. As regards the prayer of the petitioner for relaxation of norms relating to NAPAF and Infirm Power, the Commission in order dated 7.10.2013 had decided as under:

> *"28. Similar issues have been raised in this petition and the petitioner has prayed that the said order in respect of Chutak HEP may be considered in this case. We have examined the matter. It is noticed that the petitioner has worked out the NAPAF of 60.71% assuming the operation of the generating station as purely run-or-river (with no pondage). Based on the information submitted in 'Form-2' of the petition, the station has been declared as run-of-river with pondage, to provide minimum 4 hours of daily peaking, except in winter season. It has also been mentioned in Form-2, that though the storage is available, the generating station is not proposed to run as peaking station during winter season to avoid frazil and anchor ice formation due to reservoir level fluctuation.*
>
> *29. Considering the fact that the generating station operates as run-of-river with pondage for six months i.e. from April to September and as purely run of river during six winter months i.e. October to March, the annual NAPAF has been worked out as 70.18%.*
>
> *30. As stated, the petitioner has prayed that the Commission may relax the norms of the NAPAF etc., in line with the order of the Commission dated 31.12.2012 in respect of Chutak HEP. Based on the discussions in the preceding paragraphs and considering the constraints of power evacuation (non-connectivity with grid) and operation in difficult areas in this case, we, in exercise of power under Regulation 44 of the 2009 Tariff Regulations, relax the norms relating to NAPAF and infirm power and allow the same for the generating station as under:-*
>
> > *(a) NAPAF of 65.18% is allowed after relaxation of 5% with reference to the NAPAF of 70.18% as mentioned in para-29 above.*
> >
> > *(b) Infirm power to be charged at the applicable UI rate of ₹1.65/kWh, corresponding to the frequency in the range of 50 Hz and 50.02 Hz, in terms of*

the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) (second amendment) Regulations, 2012 ."

7. In addition to the above, the prayer of the petitioner for methodology of recovery of capacity charges, energy charges based on deemed energy benefits and exemption of the generating station from the provisions of IEGC was allowed in the said order dated 7.10.2013, in line with the observations contained in the decision of Commission's order dated 31.12.2012 in I.A. No.15/2012 (in Petition No.23/GT/2011-Chutak HEP).

8. The petitioner also submitted that it has engaged M/s Tata Consulting Engineers Ltd, Bengaluru as the Designated Independent Agency (DIA) for vetting of capital cost of the project and the submissions of the report would take some more time. It had also submitted that the Revised Cost Estimate (RCE) for the project for ₹936.10 crore at March, 2011 Price Level has been submitted to the Ministry of Power, Government of India during June, 2011 and the same is pending for approval of the Govt. of India. In this background, the prayer of the petitioner for grant of provisional tariff for the generating station was considered. Accordingly, provisional tariff for 2013-14 based on 85% of the capital cost of ₹82218.99 lakh incurred as on 30.9.2012 was granted by order dated 7.10.2013, subject to adjustment after tariff of the generating station is finally determined by the Commission. The annual fixed charges for 2013-14 allowed by order dated 7.10.2013, subject to the declaration of COD by the petitioner, is as under:

(₹in lakh)

	COD of Unit-I to Unit-II	**COD of Unit-II to Unit-III**	**COD of Unit-III to 31.3.2014**
Return on Equity	1221.65	2443.30	3664.94
Interest on Loan	1250.16	2407.85	3473.09
Depreciation	1163.04	2326.07	3489.11
Interest on Working Capital	109.04	215.96	320.75
O & M Expenses	459.39	918.78	1378.17
Total	**4203.28**	**8311.96**	**12326.06**

9. The Commission in the said order dated 7.10.2013 also observed as under:

"50. Keeping in view that the tariff period 2009-14 is to expire, the petitioner is directed to take necessary steps to obtain the approval of RCE by the Central Government and for the submission of the report on the vetted capital cost by the independent agency, prior to the determination of final tariff of the generating station. The provisional annual fixed charges allowed are subject adjustment in terms of clause (4) of Regulation 5 of 2009 Tariff Regulations."

Amendment of Petition

10. As stated, the Commission in para 18 of the order dated 7.10.2013 had allowed the petitioner to declare commercial operation at the maximum load made available by the respondent, after following the due process of testing of each machine for commercial operation and after giving notice to the respondent. Accordingly, the petitioner has amended the petition and has submitted vide affidavit dated 5.8.2014 that in accordance with the Commission's order dated 7.10.2013, all three units and the generating station as a whole has been declared under commercial operation on 10.10.2013. It has also submitted that the tariff of the generating station for the period from 10.10.2013 to 31.3.2014 based on the capital expenditure incurred and duly certified by auditors may be determined. Copy of the amended petition has also been served on the respondent.

11. The petitioner has also submitted that in terms of the guidelines issued by the Commission, the DIA appointed for vetting of capital cost in respect of the generating station has submitted the report and recommended the capital cost of the project as ₹978.44 crore as on 1.4.2013 (earlier expected COD) of the generating station. It has also submitted that the Revised Cost Estimate of ₹ 911.00 crore at March, 2011 Price Level was vetted by CEA, which includes IDC & FC amounting to ₹49.23 crore, but excluding contingent liability. It has also submitted that during the Standing Committee meeting, it was decided to submit fresh RCE at latest price level and accordingly, the completion cost of ₹985.15 crore including IDC and FC of ₹48.37 crore has been finalized and submitted to MOP on 2.6.2014 for approval. The petitioner has served copies of the said documents on the respondent.

12. The annual fixed charges claimed by the petitioner for the period from 10.10.2013 to 31.3.2014 are as under:

(₹ in lakh)

	2013-14 (10.10.2013 to 31.3.2014)
Return on Equity	2860.12
Interest on Loan	1171.32
Depreciation	2272.49
Interest on Working Capital	195.90
O & M Expenses	1001.88
Total	**7501.71**

13. No reply has been filed by the respondent. The matter was heard on 3.2.2015 and the Commission reserved its orders after directing the petitioner to seek the approval of the Board of Directors to the Revised Cost Estimate submitted to the Central Government and place same on record. The petitioner was also directed to submit the circular/ notification regarding the delegation of financial powers being followed in NHPC. The above information was directed to be submitted on affidavit within 3 months. In addition to the above, the petitioner was directed to submit additional information on the following:

a) *The capital cost of ₹1021.52 crore claimed as on 31.3.2014 comprising of ₹946.03 crore towards cash expenditure as on COD and ₹55.76 crore on account of un-discharged liabilities and ₹19.74 crore as additional capitalization during 2013-14. Against the RCE (completion cost) amounting to ₹999.72 crore, CEA had approved an amount for ₹985.15 crore. Whereas, the Designated Independent Agency has vetted the capital cost of ₹978.44 crore as on COD. In this connection, clarification with regard to the difference in completion cost along with the reconciliation statement shall be furnished;*

b) *Details along with the justification of the activities for which the funds were deployed since 2001-02;*

c) *Necessary documents shall be furnished with regard to basis of rate of interest considered on normative loan before actual drawl of the loan for the generating station.*

14. In compliance with the direction of the Commission, the petitioner vide affidavits dated 2.3.2015, 1.7.2015 and 22.7.2015 has filed the additional information with copy to the respondent. We now proceed to determine the tariff of the generating station for the period from 10.10.2013 to 31.3.2014 based on the submissions and the documents available on record as stated in the subsequent paragraphs.

<u>Time and Cost overrun</u>

15. As regards Time and Cost Overrun involved in the project, the Commission in order dated 7.10.2013 has observed as under:

> "*22………The issue of time overrun and its consequential impact on cost overrun as indicated in the petition are required to be considered by the designated independent agency while vetting the capital cost of the generating station. As such, the issue of cost and time overrun in respect of the generating station shall be considered at the time of determination of final tariff based on the report of the designated agency to the Commission."*

16. Accordingly, we consider the time and cost overrun based on the report of the DIA as stated in the succeeding paragraphs.

Vetting of Capital Cost by Designated Independent Agency

17. Regulation 7 of the 2009 Tariff Regulations provides for vetting of capital cost of hydro power projects by an independent agency or expert, designated by the Commission. The Commission has from time to time empanelled six independent agencies for vetting the capital cost of new hydro projects. The Commission vide order dated 2.8.2010 has also issued guidelines for vetting of the capital cost of the hydro projects by designated independent agencies or experts.

18. The petitioner had engaged M/s Tata Consulting Engineers Ltd, Bengaluru an independent agency empanelled by the Commission for vetting of capital cost of the generating station. M/s Tata Consulting Engineers (the DIA) has submitted its report in September, 2013. As directed by the Commission, a copy of the report of the DIA has been served on the respondent. However, the respondent has not filed any objections / comments on the same.

19. M/s Tata Consulting Engineers have analyzed the time overrun and has observed as under:

> "*The project was scheduled to be commissioned by August, 2010 with start date of September, 2006 (CCEA sanction was conveyed on 24.8.2006) with a completion*

period of 48 months. The project has been commissioned in June, 2013 on partial load and hence there is time overrun of 34 months i.e up to June, 2013.

The project authorities expect the COD (commissioning with full load) of all the units by the end of October, 2013; the power evacuation/distribution system is expected to be completed by J& K State Power Development Department during October, 2013 to facilitate the generation of about 15 MW from Nimmo Bazgo Power station. Therefore the time overrun till the expected COD i.e October, 2013 will be about 38 months.

20. The breakup of the revised capital cost recommended by DIA in its report submitted during September, 2013 is as under:

(₹ in crore)

Hard cost	886.17
Financing charges (1.4.2013)	0.82
IDC	91.45
Total cost including IDC	**978.44**

21. The summary of the major milestones on the critical path as per construction schedule as indicated by DIA is as under:

Sl. No	Major Milestones	Scheduled	Actual	Overrun in months	Reasons for delay
1	River Diversion-Stage-I	November, 2007	November, 2007	0	
2	Concreting of dam during Stage-I	June, 2009	June, 2010	12	i. Embedded parts of HM works ---10 months (impact of delay in a ward of HM works. ii. Completion of plunge pool---2 months
3	Erection of radial gates	March, 2010	April, 2011	13	i. Concreting of Dam Stage I carry over-12 months ii. Winter of 2011---1 month
4	River Diversion – Stage-II	November, 2009	October, 2011	23	i. Erection of radial gates carry over---17 months (from Nov 2009 to Apr 2011) ii. Monsoon of 2011 (Apr to Sept)—6 months
5	Concreting gravity dam during Stage-II	May, 2010	June, 2012	25	i. Diversion IInd Stage (carried over)—23 months ii. winter of 2011-2012---2 months
6	Commissioning of the project (partial load)	August, 2010	June, 2013	34	i. carried from Gravity Dam—25 months ii. reservoir filling &water Availability 2 months iii. winter of 2012-2013---5 months including minimum productivity iv. others----2 months

7	Expected COD	August, 2010	October, 2013	38	No grid connectivity (Jul to Oct 2013)—4 months Note: i. There is no existing HT network and grid connectivity. Therefore, the machines are running on island mode and as per available load. ii. HT network is being constructed under RGGVY scheme by NHPC & LT network by J&K PDD, it is expected that about 15 MW of load will be available by end of Oct 2013 after above works are completed. iii. Likely date of COD is Oct 2013.

22. Based on the above, the DIA has observed that there has been a delay of 23 months in the River Diversion Stage-II with 10 months being contributed to the delay in the award of HM works. It has also noted that there was a cascading effect of harsh winter, monsoon and other related conditions which has led to the delay of 34 months (till June, 2013) for commissioning of all the units under partial load. It has also pointed out that there are many activities which are not on critical path mainly in the power house which have been delayed and have caused cost overrun. It has also stated that COD of all units are expected by the end of October, 2013 and power evacuation is expected to be completed by the respondent during October, 2013 and the time overrun till the expected COD will be 38 months.

Cost Overrun

23. The DIA in its report has also examined the abstract of the cost under major capital heads namely (i) Direct Cost (ii) Indirect Cost, Electrical works and IDC & FC to identify the components requiring more detail analysis of cost overrun. The DIA has stated that for the projects as a whole, inadequate provision is the major contributing factor for cost overrun (33%). It has also stated that the next contributing factor is the Interest During Construction (IDC) and Financing Charges (FC) with a share of 23%. The DIA has pointed out that IDC & FC, Establishment and Price escalation has resulted in 52% of

Cost overrun for this project. It has further observed that both these factors are essentially sue to the delay in the construction and commissioning of the project with a delay of 34 months *vis a vis* the scheduled completion date.

Review of Project Cost

24. The DIA in its report has reviewed the revised project cost with reference to the estimates sanctioned by CCEA in August, 2006 and has observed that major works of the project namely, Civil, Hydro-Mechanical and Electro-Mechanical works were carried out by the petitioner by awarding three main contract packages namely, LOT-I: Civil Works, LOT-II: HM Works and LOT-III: E&M Works on 23.9.2006, 28.7.2008 and 2.7.2007 respectively. It has also pointed out that the combined contract value of the above packages was ₹614.63 crore at the time of award of contract *vis-à-vis* the sanctioned cost by CCEA of ₹481.09 crore for the above mentioned major works. DIA has thus stated that the contract value is actually higher than the CCEA sanctioned estimates by ₹133.54 crore (27%) at around 2005 Price Level. In addition, the DIA has stated that the maximum variation in contract value *vis-à-vis* the sanctioned estimate is under E&M (LOT-III), which is ₹84.10 crore. The DIA has further observed that the petitioner awarded the contract to M/s BHEL, the lower of the two bidders. It has also stated that the contract values of Civil works (LOT-I) and HM works (LOT-II) have gone up by ₹34.49 crore and ₹14.95 crore respectively also due to poor response of the bidders. Accordingly, the DIA has observed that the Revised Completion Cost of the generating station as on 31.3.2013 is ₹978.44 crore and there is a cost overrun of ₹367.43 crore for this project. It has added that as the expected COD is being shifted to October 2013, there is likely to be a marginal revision to the above RCE.

Analysis

25. We have considered the matter. The reasons for revision in cost, time overrun of 38 months and cost overrun can be summarized from the report of the DIA as under:

i. Poor response of bidders. Initially, the quoted price by the lowest bidder was high which led to the re-tendering of LOT-2 i.e HM works.

ii. Delay of other major activities on critical path due to inclement weather i.e harsh winter resulting in complete stoppage of work/reduction of productivity.

iii. Cloud burst of August,2010

iv. Stoppage of work during monsoon period of 2011.

v. Late start of reservoir filling due to Indus water Treaty Limitations.

vi. Non-connectivity with grid leading to revision in evacuation voltage from 33 kV to 66 kV resulting in scope changes. The same resulted in delay due to changes in scope of works under E&M package. ,

vii. Delay in declaring COD of the units due to non-availability of load which was to be made available by PDD, J&K.

26. As regards time overrun, the DIA has observed that the generating station is one of the first big industrial projects to be developed in the Ladakh region under very treacherous terrain and hostile climatic conditions with very low oxygen levels and poor logistics. As regards the revision in project cost, the DIA in its report has stated that the contract values of C-Civil Works and HM works have gone up by ₹34.49 crore and ₹14.49 crore respectively and the same is due to poor response of the bidders, remoteness of site, severe cold conditions and availability of approach road for a limited period of 4-6 months in a year, less working season and other uncertainties associated with the site. DIA has attributed the cost overrun to remoteness of the project, inhospitable climate and terrain resulting in poor response of bidders, change in scope, inadequate provisions in original approval, exchange rate variation, statutory reasons (increase in taxes etc.), price escalation and increase in IDC due to time overrun. It has therefore submitted that from the review of the available data, the project cost as on COD appears to be reasonable keeping in view the cold desert conditions in the remote

Ladakh region. In the background of the findings of the DIA and keeping in view that the generating station has been developed under very treacherous terrain, hostile weather conditions including low oxygen levels, poor logistics, non-connectivity with grid which led to change in voltage level for power evacuation, we are of the considered view that the delay in commissioning of the project is beyond the control of the petitioner and cannot be attributed to the petitioner.

27. As regards Cost overrun, we are inclined to agree with the findings of the DIA and hold that the cost overrun in the execution of the project cannot be attributed to the petitioner especially considering the fact that time overrun is found to be beyond the control of the petitioner. Accordingly, the capital cost of ₹978.44 crore as on 1.4.2013 (expected COD) is considered and allowed in terms of the DIA report. In addition to the above the increase in IDC & Normative IDC from 1.4.2013 to 9.10.2013 is allowed to be included in the completion cost in view of the fact that the time overrun of 38 months till COD of the generating station is found to be beyond the control of the petitioner. Based on this, the completion cost allowable in terms of DIA report gets revised to ₹1002.33 crore as per the following break-up:

(₹in crore)

Hard cost	886.17
IDC & FC till station COD	48.48
Normative IDC till 1.4.2013 (As per affidavit dated 2.3.2015)	67.68
Total	**1002.33**

Capital Cost

28. Regulation 7(1) of the 2009 Tariff Regulations, provides as follows:

"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 finds deployed, by treating the excess equity as normative loan, or (i) being equal to the actual amount of loan in the event of the actual equal less than 30% of the funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

Capitalized initial spares subject of the ceiling rates specified in regulation 8; and 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.

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.

29. The project was originally sanctioned by the Central Government during August, 2006 at the estimated cost of ₹ 611.01 crore (including IDC & FC of ₹7.34 crore) at December, 2005 price level with the completion period of 48 months from the date of its sanction by the Government of India. The petitioner had submitted the RCE for ₹936.10 crore (including IDC & FC of ₹30.64 crore) at March, 2011 Price Level to the Ministry of Power, GOI, on 6.6.2011. Against the said RCE of ₹936.10 crore, the CEA vide letters dated 3.7.2013 and 10.7.2013 had conveyed the vetted revised cost amounting to ₹911.00 crore (including IDC & FC of ₹49.23 crore) at March, 2011 price level but excluding contingent liability of ₹27.60 crore. Thereafter, at the instance of the Standing Committee on Time & Cost Overrun and fixing the responsibilities on the delay in commissioning of the said project, RCE for completion cost of the project was finalized at ₹999.72 crore (including IDC & FC of ₹48.37 crore), at February, 2013 Price Level but excluding contingent liabilities of ₹341.27 crore and was submitted to CEA for vetting. Against the said RCE amount of ₹Rs. 999.72 crore, CEA vide letter dated 23.5.2014 has vetted the completion cost of ₹985.15 crore (including IDC & FC of ₹48.37 crore) but did not allow additional initial spares of ₹14.56 crore. Based on the CEA vetted completion cost, the petitioner has submitted the final RCE for ₹985.15 crore for the consideration of the GOI. The Standing Committee on Time & Cost Overrun and fixing the responsibilities on the delay in commissioning of the said project in its report dated 27.10.2014 has opined that the time

overrun was beyond the control of any agency or person and has accordingly recommended the revised cost of the project as ₹985.15 crore (including IDC and FC of ₹48.37 crore) towards the completion cost of the project. The petitioner vide affidavit dated 1.7.2015 has submitted that the RCE of the project for ₹985.15 crore as approved by the Standing Committee on 27.10.2014 is under process for PIB approval. In response to ROP dated 9.2.2015, the petitioner vide affidavit dated 22.7.2015 has submitted that Board of Directors in their meeting held on 29.6.2015 had approved the RCE at a completion cost of ₹985.15 crore. Based on the facts and recommendations of the DIA, we are inclined to consider the capital cost for the purpose of tariff. We decide accordingly.

Interest During Construction (IDC)

30. The petitioner has submitted the details of the loans availed for the project as under:

(₹ in lakh)

	Loan start date/ date of allocation to project	**Rate of Interest**		**Amount outstanding as on COD**
		Interest type	**Rate**	
LIC	24.8.2007	Fixed	Annualized yield of 13 year G-Sec rate+75 bps up to 31.3.12, Weighted Average applicable rate of 9.118% w.e.f. 1.4.2012	4443.25
Indus Ind Bank	24.1.2012	Fixed	10.75%	0.00
Syndicate Bank	2.2.2012	Floating	Base Rate Present effective rate w.e.f. 13.2.2013 - 10.25%	693.00
State Bank of Hyderabad	25.9.2013	Floating	Base Rate Present effective rate w.e.f. 25.3.2013 - 10.20%	10000.00
R1 Series Bonds	11.2.2013	Floating	8.70%	204.00
Subordinate Debt from Govt. of India	10.10.2013	Fixed	4.00%	27000.00
Total				**42340.25**

31. In view of the fact that time overrun of 38 months has been condoned, the entire cost overrun due to IDC in the project cost has been allowed. Therefore, IDC accrued during the period since the first drawl of the loan till the COD has been allowed without any deduction on account of time overrun. Accordingly, IDC for ₹4742.97 lakh as on the

actual COD of the generating station (10.10.2013) has been worked out and allowed to be capitalized as under:

(₹in lakh)

Source of the Debt	Start date (from)	To	IDC calculated
LIC	24.8.2007	9.10.2013	2729.46
Indusind	24.1.2012	9.10.2013	1837.80
Syndicate Bank	2.2.2012	9.10.2013	122.08
State Bank of Hyderabad	25.9.2013	9.10.2013	41.92
R1 Series Bond	11.2.2013	9.10.2013	11.71
Total			**4742.97**

Normative IDC

32. The petitioner has claimed normative IDC amounting to ₹6767.63 lakh as on COD of the generating station (10.10.2013). The normative IDC has been claimed from 2001-02, i.e. from the 1st fund deployment. The sanction for the project was awarded by Government of India on 24.8.2006. The petitioner vide affidavit dated 2.3.2015 has submitted the statement showing the details along with the justification of the activities for which the funds were deployed from 2001-02 to 2005-06, amounting to ₹1677.00 lakh. The petitioner has also submitted that the actual loan drawl started from 2007-08 onwards. It has also submitted that as no actual loan was outstanding from 2001-02 to 2006-07, weighted average rate calculated from all loans is in accordance with the provisions of Regulation 16(5) of the 2009 Tariff Regulations for working out the interest on normative loan.

33. The matter has been considered. Regulation 16(5) of the 2009 Tariff Regulations provides for rate of interest for the calculation on normative IDC as under:

> *"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. "

34. It is observed that the first actual loan drawn for the project was made in the second quarter of the year 2007-08. For the period prior to the actual drawl, the weighted average rate of interest of the petitioner Company as submitted vide affidavit dated 2.3.2015 has been applied. Thereafter, the actual rate of interest has been used for calculation of the normative IDC. Accordingly, normative IDC on the equity is in excess of 30% of the funds deployed in the project till the COD, which works out to ₹6767.63 lakh has been allowed to be capitalized.

35. It is pertinent to mention that Interest on Normative loan is to be treated as income in the Financial Statement i.e Profit & Loss A/c and Balance Sheet by the petitioner as it form part of capital cost for the purpose of allowing tariff.

Un-discharged Liabilities

36. The petitioner has claimed un-discharged liabilities amounting to ₹5575.56 lakh as on COD of the generating station (10.10.2013) and discharge of the liabilities amounting to ₹2977.07 lakh from COD till 31.3.2014. The petitioner has also submitted the party-wise and asset-wise details of the un-discharged liabilities as on COD and as on 31.3.2014, which has been duly certified by Auditors. Accordingly, the un-discharged liabilities of ₹5575.56 lakh has been adjusted for the computation of the capital cost as on 10.10.2013 (COD of the generating station). The liabilities discharged has however been considered as additional capital expenditure during the period of discharge.

Capital Cost as on COD

37. The petitioner in Form 5-B of the petition has claimed the capital cost for ₹100177.69 lakh as on COD of the generating station (10.10.2013) with the break-up as under:

(₹in lakh)

Hard cost	88562.03
Interest During Construction (IDC)	11510.60*
Financing Charges	95.69
Foreign Exchange Rate Variation	9.37
Total	**100177.69**
Less: Un-discharged liabilities	5575.56
Capital cost for the purpose of tariff excluding un-discharged liabilities.	**94602.13**

** includes normative IDC of ₹6767.63 lakh*

38. Based on the discussions in the foregoing paragraphs (paras 15 to 36), the Capital cost, including IDC, Normative IDC, FERV considered for the purpose of tariff is as under:

(₹in lakh)

Capital Cost as on COD (10.10.2013) (Hard cost on accrual basis)	**88562.46**
Less: Un-discharged liabilities	5575.56
Add: Interest during construction	4742.97
Add: Financing Charges	95.69
Add: FERV	9.37
Add: Normative IDC allowed	6767.63
Capital Cost as on COD (Cash basis)	**94602.56**

39. It is observed that the actual capital expenditure incurred as on COD (10.10.2013) is ₹94602.56 lakh and the same has been certified by Auditor. This capital cost is lesser than the DIA recommended completion cost of ₹100233.00 lakh. Accordingly, the opening actual cash expenditure of ₹94602.56 lakh as on COD (10.10.2013), excluding un-discharged liabilities is allowed for the purpose of tariff.

Additional capital expenditure from 10.10.2013 to 31.3.2014

40. The petitioner has claimed the following additional capital expenditure (on cash basis) for the period from 10.10.2013 to 31.3.2014.

(₹ in lakh)

		Regulation under which claimed
Additions in books on accrual basis (1)	3345.84	Regulation 9(1)(ii) i.e works deferred for execution
Deletions in books due to change of HOA, liability reversal, de-capitalization of assets etc. (2)	1371.56	
Net additional capitalization on accrual basis (3)=(1)-(2)	**1974.28**	
Un-discharged liabilities included in above	1451.83	

additions at Sl. No.1 (4)		
Liabilities discharged out of un-discharged liabilities deducted as on COD (5)	2977.07	
Additional capital expenditure claimed on cash basis for the purpose of tariff (6)=(3)-(4)+(5)	**3499.52**	

41. It is noticed that the amounts claimed above has been certified by Statutory Auditor. It is also noticed from Form-9 that the assets included are within the original scope of works and within the RCE. Accordingly, the additional capital expenditure claimed in respect of the assets within the original scope of work have been considered and allowed under Regulation 9(1)(ii) of the 2009 Tariff Regulations (works deferred for execution) and accordingly included in the capital cost of the generating station for the purpose of tariff. Further, the reduction of de-capitalized amounts corresponding to assets becoming obsolete, the deduction of un-discharged liabilities in additions to arrive at the additions on cash basis, and the addition of liabilities discharged are considered and allowed in terms of the proviso to Regulation 7(1)(c)and Regulation 9(1)(i) respectively. Accordingly, the additional capital expenditure for ₹3499.52 lakh has been allowed for the purpose of tariff.

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

(*₹ in lakh*)

Opening Capital Cost as on COD (on cash basis)	**94602.56**
Add: Additional Capital Expenditure allowed	3499.52
Capital Cost on cash basis as on 31.3.2014	**98102.08**

Debt Equity Ratio

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

"(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."

44. The debt-equity ratio as on the COD of the generating station is as under:

(₹ in lakh)

Debt (44.76%)	42340.25
Equity (55.24%)	52262.31
Total fund	**94602.56**

45. It is observed that the equity actually deployed is more than 30% of the capital cost. Hence, in line with the above regulations, the debt-equity ratio of 70:30 has been considered for the purpose of tariff. Accordingly, the debt and equity ratio is worked out as under:

(₹ in lakh)

Normative loan	66221.79
Normative Equity	28380.77
Total fund raised	94602.56
Debt %	70.00%
Equity %	30.00%

Return on Equity

46. 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:

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 year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.

Illustration.-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 11.33% including surcharge and cess:

Rate of return on equity = 15.50/ (1-0.1133) = 17.481%

(ii) In case of generating company or the transmission licensee paying normal corporate tax @ 33.99% including surcharge and cess:

Rate of return on equity = 15.50/ (1-0.3399) = 23.481%"

47. Accordingly, Return on Equity is worked out as under:

(₹ in lakh)

	10.10.2013 to 31.3.2014
Gross Notional Equity	28380.77
Addition due to Additional Capitalization	1049.86
Closing Equity	29430.62
Average Equity	28905.70
Return on Equity (Base Rate)	16.500%
MAT rate for the year	20.961%
Rate of Return on Equity	20.876%
Return on Equity *(pro rata)*	**2860.12**

Interest on Loan

48. 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."

49. The petitioner has furnished the calculation of weighted average rate of interest of 3.73% claimed for the period from 10.10.2013 to 31.3.2013 vide Form-13. It is observed that the petitioner has included normative loan in the calculations for arriving at the weighted average rate of interest.

50. In terms of Regulation 16 of the 2009 Tariff Regulations, the weighted average rate of interest is to be calculated on the basis of actual loan portfolio, and hence the normative loan has not been considered for calculation of weighted average rate of interest on loan. The methodology adopted by the petitioner to work out the interest rate from COD to 31.3.2014 and *pro rata* apply the same on the interest amount, leads to duplication and cannot be considered. This needs to be corrected. Accordingly, the weighted average rate of interest for the purpose of calculating the interest on normative loan to be allowed is calculated on the basis of the average of the actual loan amount for the year and the actual interest accrued. The annual interest rate so arrived has been worked out on *pro rata* basis for the period from COD (10.10.2013) to 31.3.2014. Accordingly, interest on loan allowed for the purpose of tariff is as under:

(₹ in lakh)

	2013-14
Gross Normative Loan	66221.79
Cumulative Repayment upto previous year	-
Net Loan opening	66221.79
Repayment during the year	2272.49
Addition due to Additional Capitalization	2449.66
Net Loan-Closing	66398.96
Average Loan	66310.38
Weighted Average Rate of Interest on Loan (annualized)	7.24%
Interest on Loan (*pro rata*)	**2274.64**

Depreciation

51. 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.

52. The petitioner has furnished the calculation of the rate of depreciation of 4.98% in Form-11 of the petition and the same is in order. Accordingly, depreciation has been calculated and allowed as under:

(₹ in lakh)

	2013-14
Gross Block as on10.10.2013	94602.56
Additional capital expenditure during 2009-14	3499.52
Closing gross block	98102.08
Average gross block	96352.32
Rate of Depreciation	4.98%
Depreciable Value	86717.09
Depreciation (pro-rata)	**2272.49**

O&M expenses

53. 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."*

54. The petitioner has claimed the following O&M expenses for the period 10.10.2013 to 31.3.2014 amounting to ₹2113.80 lakh for the year 2013-14, which is as under:

(₹ in lakh)

Total capital cost as on COD (cash basis)	94602.56
Total Additional capitalization till 31.3.2014 (cash basis)	522.45
Capital expenditure as per original scope up to cut off date of 31.3.2016	4704.27
Release of un-discharged liability existed at the time of COD till 31.3.2014	2977.07
Release of un-discharged liability existed at the time of COD & expected to be paid till 31.3.2016	2575.64
Release of un-discharged liability pertaining to Add cap till 31.3.2014 & expected to be paid till 31.3.2016	1451.83
Less: R&R expenses	1144.00
Capital expenditure for the purpose of O&M expenses	105689.82
2% for 1st year (105689.82 X 0.02)	**2113.80**

55. As stated earlier, the approval of RCE for the generating station is pending before the Central Government. In the absence of this, we are inclined to restrict the original capital cost as on cut-off date of the generating station to ₹100233.00 lakh (i.e the modified DIA vetted cost), for the purpose of calculating the O&M expenses for the said period. Accordingly, the admissible O&M expenses for the period from 10.10.2013 to 31.3.2014 are as under:

(₹ in lakh)

	10.10.2013 to 31.3.2014
Capital cost considered (modified DIA vetted cost)	100233.00
Less: R&R expenses	1144.00
Capital cost for the purpose of O&M expenses	99089.00
Annualized O&M expenses @ 2% of above	1981.78
Number of days	173
O&M expenses allowed	**939.31**

56. The O&M expenses allowed as above is subject to revision based on the approval of RCE by the Central Government and the actual capital cost as on the cut-off date of the generating station.

Water usage charges & License fee

57. The petitioner in the amended petition vide affidavit dated 5.8.2014 has submitted that it is entitled to recover the expenditure incurred for payment of water usage for

generation of electricity and license fee for using water under the Jammu & Kashmir Water Resources (Regulation and Management) Act, 2010.

58. Regulation 22 (7) (a) of the 2009 Tariff Regulations amended on 31.12.2012 provides as under:-

> *"7a. In case of the hydro generating stations of NHPC Ltd., located in the State of Jammu & Kashmir, any expenditure incurred for payment of water usage charges to the State Water Resources Development Authority under Jammu & Kashmir Water Resources (Regulations and Management) Act, 2010 shall be payable by the beneficiaries as additional energy charge in proportion of the supply of power from the generating station on month to month basis.*
>
> *Provided that the provisions of this clause shall be subject to the decision of the Hon'ble High Court of Jammu & Kashmir in OWP No. 604/2011 and shall stand modified to the extent of inconsistency with the decision of the High Court."*

59. In terms of the above regulations, the Commission in its order 7.10.2013 has permitted to recover the actual expenditure incurred on account of water usage charges and License fees from the respondent in terms of the above Regulations. The prayer of the petitioner is disposed of in terms of the above.

Interest on Working Capital

60. Regulation 18(1)(c) of the 2009 Tariff Regulations provides that the working capital for hydro based generating stations shall cover:

> *(i) Cost of coal for 1.5 months for pit-head generating stations and two months for non-pithead generating stations, for generation corresponding to the normative annual plant availability factor;*
>
> *(ii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel oil, cost of fuel oil stock for the main secondary fuel oil;*
>
> *(iii) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 19.*
>
> *(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor; and*
>
> *(v) O&M expenses for one month.*

61. Clause (3) of Regulation 18 of the 2009 Tariff Regulations as amended on 21.6.2011 provides as under:

"Rate of interest on working capital shall be on normative basis and shall be considered as follows:

(i) SBI short-term Prime Lending Rate as on 01.04.2009 or on 1st April of the year in which the generating station or unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the unit or station whose date of commercial operation falls on or before 30.06.2010.

(ii) SBI Base Rate plus 350 basis points as on 01.07.2010 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 01.07.2010 to 31.03.2014.

Provided that in cases where tariff has already been determined on the date of issue of this notification, the above provisions shall be given effect to at the time of truing up.

Interest on working capital

62. As the project was commissioned in the year 2013-14, the rate of interest allowed is 13.20% p.a., being the short-term Prime Lending Rate of State Bank of India as on 1.4.2013 (i.e. Base Rate + 350 basis points). Accordingly, interest on working capital as per Regulation 18 (3) of the 2009 Tariff Regulations is worked out (pro rata) and allowed as under:

(₹ in lakh)

	10.10.2013 to 31.3.2014
Maintenance Spares	297.27
O & M expenses	165.15
Receivables	2995.84
Total	**3458.25**
Rate of Interest	13.20%
Interest on Working Capital	**216.36**

Fixed Charges

63. Accordingly, the Fixed Charges (pro rata) allowed for the generating station for the period from 10.10.2013 to 31.3.2014 is as under:

(₹ in lakh)

	10.10.2013 to 31.3.2014
Return on Equity	2860.12
Interest on Loan	2274.64
Depreciation	2272.49
Interest on Working Capital	216.36
O & M Expenses	939.31
Fixed Charges	**8562.92**

Plant Availability Factor & Deemed Generation

64. The petitioner in the amended petition vide affidavit dated 5.8.2014 has submitted that as the project is not connected with grid, the SLDC is not in position to certify Plant Availability Factor (PAF) and deemed generation allowed by the Commission in order dated 7.10.2013. The petitioner has further submitted that in order to avoid any dispute in future, the sole beneficiary of project is required to certify PAF and deemed generation on monthly basis for raising the energy bills. Accordingly, the petitioner has prayed for issue of appropriate direction to the respondent in this regard.

65. We have examined the matter. The Commission in order dated 7.10.2013 while considering the prayer of the petitioner for relaxation of Normative Annual Plant Availability Factor (NAPAF) has decided as under:

> *(a) NAPAF of 65.18% is allowed after relaxation of 5% with reference to the NAPAF of 70.18% as mentioned in para-29 above.*
>
> *(b) Infirm power to be charged at the applicable UI rate of ₹1.65/kWh, corresponding to the frequency in the range of 50 Hz and 50.02 Hz, in terms of the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) (second amendment) Regulations, 2012 .*

66. SLDC being an apex body is required to ensure the integrated operation of the power system in the State. Accordingly, we direct the SLDC to certify the Plant Availability Factor and the deemed generation on monthly basis, after verifying the same with the respondent. The prayer of the petitioner is disposed of in terms of the above.

Auxiliary Power Consumption

67. The petitioner in the amended petition vide affidavit dated 5.8.2014 has submitted as under:

"24. Nimoo Bazgo HE project being located at very high altitude, weather remains at subzero temperature for almost seven months in a year from October to April. It has been observed that the minimum temperature has dropped (-) 30°C in winter month. In order to maintain working condition and water flow for power generation, substantial quantum of power is required for deicing arrangement of radial gates. In addition, substantial quantum of power is required to maintain working condition of various auxiliary equipments and systems when the units are running and especially when units are not running. Continuous power is required to maintain a minimum working temperature in the power house. All this is achieved through various heating arrangements. Accordingly, auxiliary consumption for the power station has been observed much higher than the normative value allowed by the commission. The petitioner shall claim the relaxation in auxiliary consumption of the power station in 2014-19 tariff petition."

68. The prayer of the petitioner to claim relaxation in auxiliary consumption of the power generating station in the tariff petitions for the period 2014-19 has been considered. While we permit the petitioner to prefer the said claim in the tariff petitions for the period 2014-19, the reliefs, if any, on this count, will be considered on merits, based on the submissions and documents regarding actual energy consumption to be filed in this connection. The prayer of the petitioner is disposed of in terms of the above

Design Energy

69. The month-wise design energy approved by CEA corresponding to 90% dependable year with 95% machine availability is considered as under:

Month		**Design Energy (Million Units)**
April	I	3.54
	II	3.75
	III	4.02
May	I	4.85
	II	6.81
	III	11.29
June	I	10.23
	II	10.26
	III	10.26
July	I	10.26
	II	10.26
	III	11.29
August	I	10.26
	II	10.26
	III	11.29
September	I	10.26
	II	10.26

	III	10.26
October	I	7.79
	II	5.99
	III	6.05
November	I	5.26
	II	4.93
	III	4.60
December	I	4.38
	II	4.37
	III	4.73
January	I	3.88
	II	3.69
	III	3.90
February	I	3.42
	II	3.36
	III	3.03
March	I	3.36
	II	3.37
	III	3.81
Total		**239.33**

70. The petitioner in its original petition has prayed for the recovery of annual fixed charges based on the actual energy generated from the generating station as per the available load and the Commission in its order dated 7.10.2013 has allowed the same, in line with the order of the Commission dated 31.12.2012 in IA No.15/2012 in Petition No. 23/GT/2011 in respect of Chutak HEP. The relevant portion of the order dated 31.12.2012 is extracted as under:

> *17. In the circumstances, the petitioner shall be able to recover the capacity charges corresponding to the declared capacity depending upon the water availability. The constraints of the respondent in not making the available load commensurate to the declared capacity would not in any way hamper the recovery of capacity charges corresponding to capacity declared to the available by the Petitioner. In view of this, the recovery of capacity charges by the petitioner shall be in terms of the provisions of the 2009 Tariff Regulations. Thus, the prayer of the petitioner on this count is answered accordingly.*
>
> *……………………………*
>
> *……………………………*
>
> *19. Taking into consideration that the recovery of energy charges shall be less if the beneficiary demands/schedules for lesser energy (than declared by the generator) due to non-availability of load, we, in exercise of power under Regulation 44 of the 2009 Tariff Regulations and allow the recovery of energy charges, corresponding to difference between energy declared to be generated and the energy scheduled by the beneficiary (due to non-availability of load) as deemed generation along with recovery of monthly energy charges for scheduled energy to be calculated as per provisions of the 2009 Tariff Regulations. The prayer of the petitioner is allowed in terms of the above."*

71. Based on this, the Commission in order dated 7.10.2013 decided as under:

> "34*. Considering the submissions of the petitioner, we allow the methodology of recovery of capacity charges, energy charges based on deemed energy benefits and exemption of the generating station from the provisions of IEGC, in line with the observations contained in the Commission's order dated 31.12.2012 as referred above*."

72. Accordingly, we reiterate that the methodology of recovery of capacity charges and energy charges based on the deemed energy benefits as allowed in order dated 7.10.2013 shall continue till full load is made available by the respondent.

Application fee and the publication expenses

73. In terms of our decision contained in order dated 11.1.2010 in Petition No.109/2009, the expenses towards filing of tariff application and the expenses incurred on publication of notices are to be reimbursed. Accordingly, the expenses incurred by the petitioner for petition filing fees for the period from 10.10.2013 to 31.3.2014 in connection with the present petition and the publication expenses for ₹58978/- incurred shall be directly recovered from the beneficiaries, on *pro rata* basis. The excess filing fee if any paid, shall be adjusted against any other appropriate application to be filed in respect of the generating station.

74. The difference between the tariff determined by this order and the tariff already recovered from the respondents in terms of interim order dated 7.10.2013 shall be adjusted in accordance with the proviso to Regulation 5(3) of the 2009 Tariff Regulations.

75. The fixed charges approved for the said period is subject to truing-up in terms of Regulation 6 of the 2014 Tariff Regulations

76. Petition No. 89/GT/2013 is disposed of in terms of the above.

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