

**Central Electricity Regulatory Commission
New Delhi**

Petition No. 89/GT/2013

**Coram:
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

**Date of Hearing: 25.6.2013
Date of Order: 7.10.2013**

In the matter of

Approval of generation tariff of Nimoo Bazgo Hydroelectric Project (3 x15 MW) for the period from 1.4.2013 to 31.3.2014 and relaxation of operational and/or technical norms of operation under Clause-4 of part-7 (Misc) of the Indian Electricity Grid Code.

And in the matter of

NHPC Ltd, Faridabad

....**Petitioner**

Vs

Power Development Department, Jammu (J&K)

....**Respondent**

Parties Present:

Shri R.Raina, NHPC
Shri Piyush Kumar, NHPC
Shri S.K.Meena, NHPC

ORDER

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 1.4.2013 to 31.3.2014 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations') seeking relaxation of operational and/or technical norms of operation under Clause-4 of Part-7 (Misc) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code), 2010 (hereinafter referred to as 'the IEGC').

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 has been sanctioned by the Government of India during August, 2006 at a cost of `611.01 crore, including IDC & FC of `7.34 crore at December, 2005 price level. 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 (in gross capacity)
Allocation to State of J&K	72	32.40
Unallocated share	15	6.75
Home state share (free) to J&K	12	5.40
Free Power to State of J&K towards Land Area Development Fund	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.

4. The petitioner by its 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 are 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.

5. Reply to the petition has not been filed by the respondent.

Capital Cost

6. The project was sanctioned by the Government of India in August, 2006 to be executed in the State of J&K at an 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 Govt. of India. The project has been funded through equity of `183.30 crore and a subordinate debt of `270 crore provided by the Govt. of India at an interest rate of 4% per annum with repayment of principal to start from the 12th year after the commissioning and to continue till the 29th year. It was also informed that there would be no interest on subordinate debt during the construction period and the purpose for providing subordinate loan is for reduction of the higher per MW cost of the project.

7. The petitioner has submitted that the capital expenditure actually incurred on the project upto 30.9.2012 is `822.19 crore (excluding depreciation) as per audited statement. It has also submitted that the anticipated expenditure for the balance period (from October, 2012 till COD) shall be `156.25 crore (excluding depreciation). Accordingly, the petitioner has submitted that the anticipated capital cost of the project as on COD is `978.44 crore (after adjustment of depreciation of `13.61 crore pertaining to construction period) and the actual cost of the project as on COD would be known after commercial operation of the project and closure of accounts thereafter. The petitioner has 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.

8. The Commission vide its order dated 2.8.2010 had specified guidelines for the vetting of the capital cost for hydro-electric projects by designated independent agencies or experts.

Subsequently, the Commission vide its orders dated 14.9.2010, 27.9.2011 and 23.2.2012 respectively has empanelled six designated independent agencies/ experts for the vetting the capital cost of new hydro-electric projects. The petitioner has submitted that it has engaged M/s Tata Consulting Engineers Ltd., Bengaluru as the designated agency for vetting the capital cost of the said project. Though the petitioner during the hearing had submitted that that the report on the vetting the capital cost would be submitted by September, 2013, it is understood that the same is not likely to be completed within the said time and the petitioner would require some more time. In view of this, we are of the considered view that the final tariff of the generating station/project can only be determined after approval of RCE by the Govt. of India and submission of the report on the vetted capital cost by the designated independent agency engaged by the petitioner.

9. The petitioner has prayed that during pendency of the petition, it may be permitted to bill the respondent for 95% of the Annual Fixed Charges in accordance with the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) (First amendment) Regulations, 2011, subject to retrospective adjustment after tariff is finally approved by the Commission. In the above backdrop, we propose to consider the prayer of the petitioner for grant of provisional tariff for the generating station, subject to adjustment after determination of final tariff after approval of RCE by the Govt. of India and submission of the report on the vetted capital cost by the designated independent agency.

10. Clauses (1) and (2) of Regulation 5 of the 2009 regulations provides as under:

“5. Application for determination of tariff. (1) The generating company or the transmission licensee, as the case may be, may make an application for determination of tariff in accordance with Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, as amended from time to time or any statutory re-enactment thereof, in respect of the units of the generating station or the transmission lines or sub-stations of the transmission system, completed or projected to be completed within six months from the date of application.

(2) The generating company or the transmission licensee, as the case may be, shall make an application as per **Appendix I** to these regulations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors

or projected to be incurred during the tariff period of the generating station or the transmission system:

Provided that in case of an existing project, the application shall be based on admitted capital cost including any additional capitalization already admitted up to 31.3.2009 and estimated additional capital expenditure for the respective years of the tariff period 2009-14:

Provided further that application shall contain details of underlying assumptions for projected capital cost and additional capital expenditure, where applicable.

11. Regulation 5 (4) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2011 provides as under:

“Where application for determination of tariff of an existing or a new project has been filed before the Commission in accordance with clauses (1) and (2) of this regulation, the Commission may consider in its discretion to grant provisional tariff upto 95% of the annual fixed cost of the project claimed in the application subject to adjustment as per proviso to clause (3) of this regulation after the final tariff order has been issued.

12. The petitioner has filed the petition in compliance with Clause (1) and (2) of Regulation 5 of the 2009 Tariff Regulations. Also, in compliance with the provisions of Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulation 2004, the petitioner has published the notice of the tariff petition on 3.1.2013 and 4.1.2013 respectively and has submitted the same vide affidavit dated 15.1.2013. Accordingly, we consider the grant of provisional tariff in respect of the generating station from the date of commercial operation by this order, based on the petition filed in terms of Regulation 5(1) of the 2009 Tariff Regulations, as discussed in the subsequent paragraphs.

Date of Commercial Operation of the generating station

13. The petitioner in the petition has submitted that the power generated from the generating station as planned to be evacuated at 33 kV level through 220/ 33 kV network comprising of 220 kV Alistang (Srinagar) Leh Transmission line passing through this area having 4 Nos. 220/ 33 kV sub-stations i.e. Drass, Kargil, Khalsti and Leh respectively. The petitioner has also submitted that CEA vide its letter dated 14.11.2007 has recommended that 66 kV transmission system would be more suitable for evacuation of power from Nimoo Bazgo (this generating station) and Chutak HEP and further transmission to Leh/Kargil and

adjoining areas from where the respondent shall make their own arrangement to absorb the power through 66/ 11 kV system. The petitioner has further submitted that if the transmission/evacuation system was to come up as per initial plan, the full load of 45 MW could have been available at the switchyard of the generating station by the date of commissioning. It has also been submitted that the initial plan got altered subsequently due to abandoning of 220 kV Alistang (Srinagar)-Leh Transmission line and associated 220/ 33 kV sub-station. The petitioner has further submitted that the respondent could not achieve the desired progress on the 66/11 kV sub-stations planned as part of the alternate scheme given by CEA. The petitioner has also submitted that the generating station is ready for declaration under commercial operation and the required procedure for declaration of commercial operation in accordance with the procedure under Regulation 3 (12) of the 2009 Tariff Regulations.

14. The petitioner vide affidavit dated 22.05.2013 has submitted as follows:

- (a) That out of total three units of the generating station, two units i.e. Unit nos. III and II have been commissioned on 11.10.2012 & 20.01.2013 respectively.
- (b) That the load available is not sufficient to demonstrate the installed capacity of the generating units/project though enough water is available to demonstrate the installed capacity.
- (c) That the maximum load provided by the Respondent is of the order of 12 MW whereas the capacity of one unit is 15 MW.
- (d) That the associated transmission system of the generating station for evacuation of 45 MW power is yet to be provided by the Respondent. Therefore, due to non-availability of regional / state grid and non-availability of full load in the local network, actual generation in MW and energy in MU entirely depends on the connected load.
- (e) The generating station is now ready for declaration under commercial operation. The required procedures to declare COD of the individual units and whole generating station as per Regulation 3(12) of the 2009 Tariff Regulations, is as under:

"(b) in relation to a unit of hydro generating station, the date declared by the generating company from 0000 hour of which, after notice to the beneficiaries, scheduling process in accordance with the Indian Electricity Grid Code is fully implemented, and in relation to the generating station as a whole, the date declared by the generating company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run, after notice to the beneficiaries:"

Although the inflows shall be available but full load will not be available to declare the project under commercial operation in the absence of grid, which is beyond the control of petitioner.

15. Referring to the order dated 21.12.2012 in I.A. No. 15/2012 pertaining to tariff of Chutak HEP, the petitioner has 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.

16. The petitioner has, vide letter dated 28.6.2013 has submitted that the last of the three Units i.e. Unit no.1 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.

17. On a specific query by the Commission as regards testing of each machine, the petitioner, during the hearing on 25.6.2013, has confirmed that each machine has been tested to the extent of maximum load of about 12 MW provided by the respondent, although the installed capacity of each Unit is 15 MW.

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.

Time and Cost overrun

19. As stated, the project was originally sanctioned by the Government of India in August, 2006 at the estimated cost of `611.01 crore with the completion period of 48 months from the date of its sanction. However, the generating station has been commissioned on 17.06.2013 resulting in time overrun of 34 months.

20. The major reasons for delay of 34 months in the commissioning of the project as submitted by the petitioner is as under:

- i) Change in scope.
- ii) Change in design.
- iii) Extreme weather conditions.
- iv) Agitation/ curfew in Srinagar.
- v) Transporters strike.
- vi) Agitation against land transfer.
- vii) Cloud burst in project area.
- viii) No prior experience of working at such high altitude (EL 3093 M), oxygen deficient area with temperature as low as (-) 30 degree Celsius during winter season.
- ix) Access to project site not available from November to May months due to extreme weather conditions on account of heavy snowfall, resulting in availability of less working season thereby affecting the construction period of the project.

21. Based on the RCE of `936.10 crore submitted for approval of the Central Government, the cost overrun worked out by the petitioner vis-à-vis original approved cost of `611.01 crore is `325 crore. This is 53 % higher compared to the original sanctioned cost. The major reasons attributed to cost overrun as submitted by the petitioner are as under:

- i) Price escalation (33%)
- ii) Addition/deletion (53%)
- iii) Increase in IDC &FC (7.5%), and
- iv) Statutory levies (6.5%).

22. We have examined the submissions of the petitioner. 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.

Relaxation in Normative Annual Plant Availability Factor (NAPAF)

23. As regards the fixation of NAPAF, the petitioner has made the following submissions in the petition:

(a) Till the availability of full load or connectivity with the regional /state grid

The actual MW loading on the units may be treated as Installed Capacity for calculating Plant Availability Factor and actual annual generation may be treated as Design Energy of Nimoo Bazgo HE Project till the availability of full load or connectivity with the regional / state grid whichever is later, if the units are available for generation.

(b) After availability of full load or connectivity with the regional/ state grid

The petitioner has prayed that considering the Nimoo Bazgo HE Project as run of river project with pondage and In view of the severe problems anticipated due to operation of machine in isolation mode, abnormal silt as well as hostile climatic conditions in operation & maintenance of the Project at such a remote location and the difficulties faced in Leh area, being even worse than that in North East Region, the Commission is requested to fix the NAPAF of the generating station as 50.71% under the 2009 Tariff Regulations as stated below:

(i) Regulation 27 (i) (1) (iv)

"Run-of-river type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant".

(ii) Regulation 27 (i) (2)

"A further allowance may be made by the Commission in NAPA F determination under special circumstances, e.g. abnormal silt problem or other operating conditions, and known plant limitations."

(iii) Regulation 27 (i) (3)

"A further allowance of 5% may be allowed for difficulties in North East Region."

(iv) As per Regulation 27 (i) (1) (iv), the calculation of NAPA F of the Project as per 10 daily discharge/energy data has been worked out as 60.71%.

(v) As per Regulation 27 (i) (2), Commission may allow relaxation of 5% in NAPA F for abnormal silt problem and other operating conditions and known plant limitations.

(vi) In view of the project being at remote location and the difficulties faced in Leh area, being even worse than that in North East Region, Hon'ble Commission is requested to allow a further allowance of 5% as allowed for the difficulties in North East Region as per Regulation 27(i) (3).

24. The petitioner has prayed that NAPA F of 50.71% may be fixed for the generating station after accounting for the relaxation of 5% for abnormal silt conditions and further relaxation of 5% considering the difficulties of the area, in line with the North East region as provided in the Regulation.

25. The petitioner in its petition has submitted that in view of the isolated mode of operation, billing of infirm power at the rate of UI charges is not applicable. It has therefore prayed that infirm power may be allowed to be charged at the rate of ` 1.65/ kWh as specified under the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) (second amendment) Regulations, 2012.

26. During the hearing, the petitioner has prayed for relaxation of norms of NAPA F 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 station is not connected to the grid and the operation of the machines is in isolated mode.

27. We have considered the submissions. It is noticed that the petitioner in the case of determination of the tariff of Chutak HEP for the period from 1.9.2011 to 31.3.2014 had made similar prayers and the Commission after hearing the parties therein had disposed of the same by its order dated 31.12.2012 in IA No.15/2012 in Petition No. 23/GT/2011 (Chutak HEP) as under:

“Relaxation of Norms for NAPAF and Design Energy

20. *The petitioner has prayed that the generating station may be allowed the relaxed norms for Normative Annual Plant Availability Factor (NAPAF) and Design Energy (DE) till full load is made available and the project is connected with regional grid/state grid whichever is later, as detailed at paragraph 12. It is noticed that the prayer of the petitioner in paragraph 12 of the interlocutory application relates to recovery of entire annual fixed charges based on actual energy generated from the project as per available load, which has been disposed of in terms of our findings in paragraphs 17 to 19 above of this order. Reverting to the prayer for relaxation of NAPAF and DE, we notice that Regulation 27 of the 2009 Tariff Regulations provides the norms of operation applicable to hydrogenating stations and Regulation 27 (i) provides the criteria for determination of NAPAF of the hydrogenating stations. Based on the Design Energy of 212.93 MUs approved by CEA, the NAPAF of the generating station works out to 55% in terms of Regulation 27 (1) of the 2009 Tariff Regulations. The petitioner in this interlocutory application has submitted that to enable it to recover entire annual fixed charges, the actual MW loading on the units may be treated as installed capacity for calculating plant availability factor and actual annual generation may be treated as Design Energy of the generating station till the availability of sufficient load or connectivity with the regional /state grid whichever is later, if the units are available for generation. It is observed that the petitioner, in its original petition has prayed that NAPAF of 45% may be allowed for the generating station after accounting for 5% reduction due to high silt conditions and 5% reduction due to hostile climatic conditions which affect the operation and maintenance of the generating station. The prayer of the petitioner is examined in the subsequent paragraphs.*

21. *As regards high silt content likely to be encountered during the operation of the generating station, the petitioner has submitted as under:*

"The petro graphic analysis of the river water sample shows 48.56% of the silt content lies in the range of 250-500 micron size and 36.2% in the range of 75-250 micron size. The analysis shows that the quartz present in the silt is extremely high in the range of 87% to 89%. Moreover, the quartz present in the silt content are of sub-angular to sub- rounded shape which is detrimental from erosion point of view of the machines". "BHEL, the OEM, vide their letter dated has informed that it is not recommended to operate the units for prolonged period under following conditions:

- When particles are over and above 200 microns*
- Hardness of particles is more than 5 mhos's*
- Concentration is above 200 PPM*

22. *In the above circumstances, the petitioner has prayed that the generating station may be allowed 5% allowance in NAPAF for high silt operating conditions. We have examined the matter. Regulation 27(1)(2) of the 2009 Tariff Regulations provides that:*
"A further allowance may be made by the Commission in NAPAF determination under special circumstances, e,g abnormal silt problem or other operating conditions and known plant limitations"

23. *On scrutiny, it is noticed that the petitioner has not submitted any justification to establish through data, the detail of the number of days/hours in a year during which the operation of the generating station would be affected due to the high silt conditions as envisaged by the OEM. Under these circumstances, we are not inclined to allow the prayer of the petitioner for*

5% allowance in NAPAF of the generating station due to high silt operating conditions. However, the petitioner is at liberty to approach the Commission for relaxation in NAPAF due to high silt conditions and the same would be considered in accordance with law and is subject to production of records containing details of the number of days/hours in the first year of operation (after declaration of commercial operation) during which the generating station was affected due to high silt conditions and its impact on recovery of annual fixed charges.

24. The petitioner has also prayed for a further allowance of 5% in NAPAF of the generating station due to hostile conditions and has submitted as under:

"Chutak HE project being located at very high altitude of El. 2783 m., the weather remains at sub-zero temperature for almost six months in a year from January to March & October to December. It has been observed that the minimum temperature has reached to (-)22.30 °C, (-) 15.44 °C, (-)15.10 °C and (-)12.67 °C in the years 2006,2005,2004 and 2003 respectively.

25. The matter has been examined. Regulation 27(1)(3) of the 2009 Tariff Regulations provides as under:

"A further allowance of 5% may be allowed for difficulties in North East Region"

26. As stated, the provisions of Regulation 27(1) enables the Commission to allow 5% allowance in NAPAF for hydrogenating stations considering the difficulties in North East Regions. The generating station of the petitioner is situated in the State of J&K. Considering the fact that the environmental/climatic conditions in the State of J&K is more hostile than the regions of North East, we are inclined to allow 5% allowance in NAPAF for the generating station in relaxation of Regulation 27(1)(3) of the 2009 Tariff Regulations, in exercise of power under Regulation 44 of the 2009 Tariff Regulations.

27. Based on the above discussions, the NAPAF of the generating station is considered as 50% towards the recovery of capacity charges by the petitioner."

Infirm Power

"28. The petitioner has submitted that the generating station is not connected to any grid (Regional/State) and hence the operation of machines will be in isolation mode. It has also submitted that as UI charges are calculated by the amount of deviation in actual generation with respect to scheduled generation, UI mechanism will not be applicable to the generating station, thereby depriving the petitioner the opportunity of supplying peaking power and supporting the grid. In the circumstances of isolation mode of operation, the petitioner has submitted that charging the infirm power at the rate of UI charges is not applicable and hence infirm power may be allowed to be charged at the rate of ` 1.65 kWh as provided by the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) (second amendment) Regulations, 2012 ('UI Regulations, 2012'). The respondent has submitted that the petitioner does not qualify for a rate of ` 1.65/kWh for any infirm power under the UI Regulations, 2012, as the said regulations apply to fuel based grid connected generating stations and which operate under prescribed IEGC code. It has also submitted that since the generating station of the petitioner is not connected to the grid and does not generate as per grid norms, cannot take advantage of the said regulations.

29. The matter has been examined. As stated, the generating station is not connected to the grid and the operation of the machines is in isolation mode with generation to be matched with the available load. In the absence of connectivity to the grid, the applicable UI rate of ` 1.65/kWh, corresponding to the frequency in the range of 50.02 and 50 Hz., in terms of the UI Regulations, 2012, is allowed as the rate of infirm power injected/to be injected by the generating station. "

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 .

31. The petitioner in the said petition has also submitted as under:-

"33. Due to non-availability of regional/ state grid and expected non-availability of full load in the local network, actual generation in MW and energy in MU would entirely depend on the connected load. The petitioner may be allowed to recover the entire AFC based on the actual energy generated from the Nimoo Bazgo HE project as per the available load.

To enable this, actual MW loading on the units may be treated as installed capacity for calculating the Plant Availability Factor and actual annual generation may be treated as Design energy of the project till availability of full load or connectivity with the regional/ state grid whichever is later, if units are available for generation.

37. *The Nimoo Bazgo HE project cannot fulfill the following technical/ operating conditions set out in IEGC Regulations, 2010 as amended from time to time:*

- i) Scheduling & Despatch Code (Part-6): Scheduling cannot be done as there is no fixed load & no regional/ state grid.*
- ii) Operating Code (Part-5): Restricted governor mode operation, outage planning, system security aspects etc.*

Till Nimoo Bazgo HE project is not connected to regional / state network directly, the above clauses of IEGC and other provisions will also not be applicable.”

32. During the hearing, the petitioner prayed that in a similar case pertaining to Chutak HE Project of the petitioner, situated in Ladakh region of State of Jammu & Kashmir, the conditions as mentioned in the above para have been considered by the Commission at the time of determination of tariff and prayed that similar relief in respect of this generating station may be allowed.

33. We have examined the matter. Similar prayer of the petitioner in respect of Chutak HEP has been considered by the Commission in I.A. No. 15/2012 in Petition No. 23/GT/2011 and the Commission vide its order dated 31.12.2012 had decided as under:

“15. The petitioner in its rejoinder has submitted that two substations viz Kargil (12.6 MVA) and Gramthang (6.3 MVA) along with connecting lines have been completed and load to the tune of 4 MW average and 11 MW (approx) during peak time is being provided by the respondent. The petitioner has also indicated that CEA vide order dated 14.11.2012 has declared two units viz Unit-2 and Unit-3, as commissioned w.e.f. 8.11.2012 and 11.11.2012, respectively. In view of the load availability of 11 MW, the petitioner is in a position to start the process of declaration of commercial operation of the units of the generating station, by giving notice to the beneficiary. Meanwhile petitioner vide affidavit dated 10.12.2012 has indicated that the date of commercial operation of three units have been declared on 29.11.2012 and scheduling has been started by SLDC, J&K. As such, the issue of declaration of commercial operation gets settled. Further, since the generating station is not connected to grid, the provisions of IEGC, except scheduling, shall not be applicable. Accordingly, we allow the prayer of the petitioner for exempting the generating station from the provisions of IEGC.

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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.

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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.”

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.

Water usage charges & License fee

35. The petitioner has submitted that Govt. of J&K has levied additional charges for water usage for generation of electricity and license fee for using water, under the Jammu & Kashmir Water Resources (Regulation and Management) Act, 2010.

36. Regulation 22 (7) (a) of the 2009 Tariff Regulations amended on 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.”

37. In view of the above, the petitioner is permitted to recover the actual expenditure incurred on account of water usage charges from the respondent in terms of the above Regulations.

Expenditure incurred within 5 Kms radius

38. The petitioner has submitted that entire expenditure as and when incurred for electrification of villages within 5 km periphery of the project under the scheme “Provision for supply of electricity in 5 km area around central power plants” launched by Ministry of Power, Govt. of India vide letter no. 44/7/2010-RE dated 27.4.2010 may be allowed in the project cost as per directive of Ministry of Power, Government of India. It is also submitted that the

charges for single lamp electricity connections and supply of electricity to BPL households may be allowed to be billed and reimbursed from the beneficiary.

39. Considering the fact that the Ministry of Power, Government of India vide its letter dated 25.3.2013 has withdrawn the said scheme, the prayer of the petitioner to allow the expenditure for electrification of villages within 5 km periphery of the project, has not been allowed.

Capital cost for the purpose of provisional tariff

40. The petitioner has claimed the following capital expenditure based on anticipated COD of the generating station as on 1.4.2013.

- a. Gross block: `97843.51 lakh
- b. less liabilities: `1350.00 lakh
- c. Capital cost: `96493.51 lakh

41. However, the above expenditure has not been duly certified by Auditor and hence cannot be considered for the purpose of granting provisional tariff.

42. Against the above claim, the petitioner has submitted the balance sheet as on 30.09.2012, duly certified by Auditor, according to which capital expenditure incurred has been mentioned as `82218.99 lakh.

43. It has been noticed that Chutak Hydro Electric project (44 MW) of the petitioner, located in Ladakh region of the State of J&K, has started commercial operation during February 2013. This project also faced problems of non-availability of regional/state grid and full load in the local network. Also the project involves time and cost overrun and RCE is yet to be approved by the Central Government. Moreover, the report on the capital cost vetted by the designated independent agency is yet to be submitted to the Commission. Considering the above facts, the Commission vide its order dated 1.4.2013 in Petition No. 3/GT/2013 (Chutak HEP) had granted provisional tariff based on 85% of the capital

expenditure incurred, as per audited balance sheet. In line with this, it is proposed to allow provisional tariff based on 85% of capital expenditure incurred as per audited balance sheet in respect of the generating station.

44. Since the petitioner has not submitted the capital expenditure as on 1.4.2013 duly certified by Auditor, we consider 85% of the capital expenditure of `82218.99 lakh as on 30.9.2012 for the purpose of provisional tariff. In addition to this, the petitioner has also not submitted the unit-wise breakup of the capital cost. As such, the proportionate capital cost on COD of each unit has been considered as under:-

	(` in lakh)		
	COD of 1 st unit	COD of 2 nd unit	COD of 3 rd unit
Capital expenditure apportioned	27406.33	55812.66	82218.99
Capital cost for the purpose of tariff (85% of above)	23295.38	46590.76	69886.14

O&M Expenses

45. In terms of Regulation 19 (f) (v), the capital cost considered for calculation of O&M expenses, after excluding proportionate R&R cost (`1150 lakh) as per Form-15A is as under:

	(` in lakh)		
Capital cost	COD of 1 st unit	COD of 2 nd unit	COD of 3 rd unit
	22969.55	45939.09	68908.64

46. Accordingly, O&M expenses on annual basis are allowed as under:

	(` in lakh)		
	COD of 1 st unit	COD of 2 nd unit	COD of 3 rd unit
O&M expenses for the year 2013-14 @2% of capital cost	459.39	918.78	1378.17

47. The annual fixed charges for 2013-14 determined as under, are allowed subject to declaration of COD by the petitioner:

	(` 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
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48. The provisional annual fixed charges determined on annualized basis as above are applicable *pro rata* to the number of days the units will run/ has run during the corresponding period

49. In view of the relaxed NAPAF and deemed energy benefits, the incentive in the formula of recovery of capacity charges and energy charges as per 2009 Tariff Regulations, is not allowed till the generating station is connected to the grid or the load commensurate with plant capacity is available, whichever is earlier.

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.

Sd/-
(M. Deena Dayalan)
Member

Sd/-
(V.S. Verma)
Member