

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 107/GT/2015

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri A.K.Singhal, Member

Shri A.S. Bakshi, Member

Date of Hearing: 16.7.2015

Date of Order: 02.9.2015

IN THE MATTER OF

Grant of interim tariff for Koldam Hydroelectric Power Project (4x200 MW) for the period from the COD of Units-I & II (18.7.2015) to 31.3.2019

AND

IN THE MATTER OF

NTPC Ltd
NTPC Bhawan,
Core-7, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003

...Petitioner

Vs

1. Uttar Pradesh Power Corp. Ltd, Lucknow
2. Jaipur Vidyut Vitran Nigam Ltd, Jaipur
3. Ajmer Vidyut Vitran Nigam Limited, Jaipur
4. Jodhpur Vidyut Vitran Nigam Limited, Jodhpur
5. Tata Power Delhi Distribution Limited
6. BSES Rajdhani Power Limited, New Delhi
7. BSES Yamuna Power Limited, New Delhi
8. Haryana Power Purchase Centre, Haryana
9. Punjab State Power Corporation, Patiala
10. Himachal Pradesh State Electricity Board, Shimla
11. Power Development Department, Srinagar
12. Electricity Department, Chandigarh
13. Uttarakhand Power Corporation Limited, Dehradun

....Respondents

Parties present:

1. Shri Senthil, NTPC
2. Shri K.B Singh, NTPC
3. Shri K.K Sinha, NTPC
4. Shri K.K Narang, NTPC
5. Shri P.K Yadav, NTPC
6. Shri Ajay Dua, NTPC
7. Shri Manish Gupta, UPPCL



ORDER

This petition has been filed by the petitioner, NTPC Limited for approval of tariff of Koldam Hydroelectric Project (4 x 200 MW) ('the generating station/project') for the period from the anticipated date of commercial operation (COD) of Units I & II i.e from 1.7.2015 to 31.3.2019, based on the provisions of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014 ('the 2014 Tariff Regulations').

2. Koldam hydro electric project is the first hydroelectric project of the petitioner comprising of 4 units with a capacity of 200 MW each located at river Sutlej in the District Bilaspur in the State of Himachal Pradesh. The project is a run of the river scheme with pondage providing peak power of 800 MW at an annual design energy generation of 3054.79 GWh in a 90% dependable year with 95% machine availability.

3. The techno economic clearance of the project was granted by the Central Electricity Authority (CEA) on 30.6.2002 at a total project cost of ₹4527.15 crore (including IDC & FC of ₹992.62 crore at an exchange rate of 1 US\$=₹47.50 on the foreign component of the Project Cost & WCM of ₹34.37 crore) at the Price Level of December, 2001 and indicative estimated completed cost of ₹5340.07 crore (including IDC & FC of ₹1122.11 crore at an exchange rate of 1 US\$=₹47.50 on the foreign component of the project cost & WCM of ₹40.54 crore). As per TEC, the last unit of the project was scheduled to be commissioned in April, 2009.

4. The petitioner, in the petition has submitted that four units of the generating station are under various stages of erection/construction. It has also submitted that the first unit was expected to be synchronized by the end of March, 2015 and expected to be declared under



commercial operation subsequently. The anticipated dates of COD of the units of the generating station are as under:

Unit-I	1.7.2015
Unit-II	1.7.2015
Unit-III	31.7.2015
Unit-IV	31.7.2015

5. The capital cost claimed by the petitioner from the anticipated COD of Units I & II as on 1.7.2015 and Units III & IV as on 31.7.2015 are as under:

	2015-16		2016-17
	1.7.2015 (COD of Units-I & II) to 30.7.2015	31.7.2015 (COD of Units-III & IV) to 31.3.2016	
Opening Capital Cost	644111.29	708351.88	728879.05
Add: Additions during the period/ year	0.00	20527.17	3245.69
Closing Capital Cost	644111.29	728879.05	732124.74
Average Capital Cost	644111.29	718615.46	730501.90

6. Accordingly, the annual fixed charges claimed by the petitioner from the anticipated COD of Units I & II as on 1.7.2015 and Units III & IV as on 31.7.2015 are as under:

	2015-16		2016-17
	1.7.2015 (COD of Units-I & II) to 30.7.2015	31.7.2015 (COD of Units-III & IV) to 31.3.2016	
Depreciation	33666.80	37595.69	38217.55
Interest on Loan	41084.89	44554.56	42272.95
Return on Equity	41918.12	46766.78	47540.33
Interest on Working Capital	3190.68	3977.77	4024.46
O&M Expenses	9144.80	18289.60	19504.03
Total	129005.30	151184.39	151559.32

7. The petitioner has filed this application in terms of Regulation 7(1) of the 2014 Tariff Regulations and has prayed for issuance of interim order to facilitate interim arrangement for billing of energy supplied to various beneficiaries after COD of Units I & II based on the capital cost claimed. The petitioner has also made publication of the notice of application for



determination of tariff in compliance with Regulation 3(6) of the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004. Copies of the petition have also been served on the respondents.

8. Reply to the petition has been filed by the respondents, UPPCL and the discoms of Rajasthan (JVVNL, JdVVNL and AVVNL). The petitioner has filed its rejoinder to the reply filed by the respondent, UPPCL. Accordingly, the matter was heard on 16.7.2015 on the prayer of the petitioner for interim order, after issuance of notice to all the parties.

9. During the hearing, the representative of the petitioner submitted that the units of the generating station are expected to achieve commercial operation shortly and prayed for grant of interim tariff for the purpose of billing, subject to adjustment after determination of final tariff of the generating station. Thereafter, the petitioner on 28.7.2015 has informed that all the units of the generating station have been declared under commercial operation on 18.7.2015.

10. The present petition is required to be revised based on the audited financial details as on COD of all the units of the generating station. While the petitioner has incurred expenditure for the generating station, the respondent beneficiaries are reaping the benefits of such expenditure by way of supply of power. In this background and in order to enable the petitioner to meet its ongoing financial obligations through reasonable recovery of cost of supply of electricity by the petitioner, we consider the grant of interim tariff for the generating station for the period from 18.7.2015 till 31.3.2017, as stated in the subsequent paragraphs.



Time and Cost overrun

11. There is Time and Cost overrun involved in the declaration of COD of the generating station and the petitioner has submitted the justification/reasons for the same. However the question of time overrun and cost overrun involved in the project would be examined along with the Appraisal report on the capital cost of the generating station vetted by the Designated Independent Agency (DIA) at the time of determination of final tariff of the generating station.

Capital Cost

12. The petitioner has submitted the Investment approval of the project accorded by the Board of the Petitioner company on 28.10.2012 at a total project cost of ₹4527.15 crore including IDC & FC of ₹992.62 crore and WCM of Rs. 34.37 crore at December, 2001 Price Level. The petitioner has also submitted the Revised Cost Estimate (RCE-I) accorded by the Board of the Petitioner company on 24.12.2013 at a cost of ₹7219.80 crore (including IDC & FC of ₹2199.41 crore and WCM of ₹51.65 crore) at 3rd Quarter Price Level.

13. The petitioner vide affidavit dated 30.7.2015 has submitted the audited balance sheet for the year 2014-15 in respect of the generating station. This has been considered for working out the capital cost for the purpose of interim tariff of the units/generating station from 18.7.2015 to 31.3.2017. It is observed that in respect of the petition (Petition No. 3/GT/2013) for approval of tariff of Chutak Hydroelectric Project (4 x 11 MW) of NHPC Ltd, the Commission by its order dated 1.4.2013 had granted provisional tariff for the said generating station for the period from 29.11.2012 to 31.3.2014 based on 85% of the audited capital cost as per books of accounts i.e ₹79707 lakh as on 31.12.2012, considering the fact that the project involved time and Cost Overrun and the Appraisal report on the capital cost as vetted by the DIA was yet to be submitted by NHPC. In line with this decision, we grant



interim tariff for the generating station of the petitioner, based on the audited balance sheet for 2014-15. Accordingly, the capital cost worked out for the purpose of interim tariff is as under:

(₹ in lakh)	
Gross Block (Tangible and Intangible assets)	127294.78
Capital Works in Progress	541023.53
Actual Capital Expenditure as on 31.3.2015 (a)	668318.31
Current liabilities	
Trade Payable	702.96
Other current liabilities	11006.11
Short Term Provisions	7458.08
Non-current liabilities	
Other long term liabilities	109.59
Total liabilities as on 31.3.2015 (b)	19276.74
Total Capital cost as on 31.3.2015 (c)=(a)-(b)	649041.57

14. Due to the involvement of Time and Cost overrun and since the appraisal report on the capital cost as vetted by the DIA is yet to be submitted by the petitioner, we allow the capital cost of ₹551685.33 lakh (constituting 85% of the actual capital cost of ₹649041.57 lakh as on 31.3.2015) for the purpose of interim tariff of the generating station for the period from 18.7.2015 to 31.3.2017.

15. The rate of return on equity has been computed considering the effective tax rate of 23.939% as considered in the petition. Similarly, depreciation has been computed considering the weighted average rate of depreciation as claimed as on COD of the generation station. Interest on loan has been computed considering the weighted average rate of interest claimed by the petitioner as on COD of the generating station till 31.3.2017.

O&M Expenses

16. In terms of Regulation 29 (3) (d) of the 2014 Tariff Regulations, the capital cost for the purpose of O&M expenses has been worked out after *pro rata* deduction of 85% of R&R expenditure of ₹11070.50 lakh from the capital cost of ₹551685.33 lakh. Accordingly, the annualized O&M expense for the period 18.7.2015 to 31.3.2017 is worked out as under:



(₹ in lakh)

	18.7.2015 to 31.3.2016	2016-17
Capital cost considered	551685.33	
Less: 85% of R&R expenses	9409.93	
Capital cost for the purpose of O&M expenses	542275.41	
Annualized O&M expenses @ 2.5% of above	13556.89	
Number of days	258	
O&M expenses allowed for the period	9556.49	14457.06
O&M expenses allowed (annualised)	13556.89	14457.06

17. After carrying out due prudence check, we allow the annual fixed charges for the purpose of interim tariff for the period from 18.7.2015 to 31.3.2017 as under:

(₹ in lakh)

	2015-16 (18.7.2015 to 31.3.2016)	2016-17
Depreciation	28862.52	28862.52
Interest on Loan	34351.61	31992.76
Return on Equity	35903.13	35903.13
Interest on Working Capital	3030.39	3025.83
O&M Expenses	13556.89	14457.06
Total	115704.54	114241.30

Note: 1) All figures are on annualized basis. 2) All the figures under each head have been rounded. The figure in total column in each year is also rounded. Because of rounding of each figure the total may not be arithmetic sum of individual items in columns.

Normative Annual Plant Availability (NAPAF)

18. The petitioner has claimed NAPAF of 90% as per the 2014 Tariff Regulations and has submitted that further allowance in NAPAF may be required to be made under special circumstances as and when experienced in due course of time. The respondent, UPPCL has objected to the same and has submitted that NAPAF of 90% as per the 2014 Tariff Regulations may be considered. The matter has been examined and the prayer of the petitioner for further allowance in NAPAF has not been considered at this stage. Hence, the NAPAF of 90% has been considered as per the 2014 Tariff Regulations in this order.



Design Energy

19. CEA while granting Techno-Economic Clearance for the project has approved the Design Energy (DE) as 3054.79 MU for an installed capacity of 800 MW. The month-wise breakup for the same is as under:

Month	10 days monthly DE	Design Energy (MUs)
April	I	59.21
	II	57.80
	III	89.80
May	I	103.87
	II	186.01
	III	206.82
June	I	64.92
	II	171.32
	III	118.63
July	I	155.60
	II	192.00
	III	211.20
August	I	192.00
	II	192.00
	III	211.20
September	I	129.86
	II	93.03
	III	71.50
October	I	46.88
	II	44.33
	III	41.29
November	I	30.49
	II	27.94
	III	25.39
December	I	24.48
	II	24.48
	III	26.93
January	I	24.48
	II	24.48
	III	26.93
February	I	24.48
	II	24.48
	III	19.58
March	I	24.48
	II	39.39
	III	47.51
Total		3054.79



20. The petitioner is directed to revise the petition taking into consideration the actual COD of the generating station. The interim fixed charges granted above are subject to adjustment after determination of final tariff of the generating station for the period from 18.7.2015 to 31.3.2019.

**Sd/-
(A.S.Bakshi)
Member**

**Sd/-
(A.K.Singhal)
Member**

**Sd/-
(Gireesh B. Pradhan)
Chairperson**

