# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

### Petition No. 230/GT/2014

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

Date of Order : 26.4.2016

#### IN THE MATTER OF

Corrigendum to order dated 24.2.2016

#### In the matter of

Revision of annual fixed charges after truing-up exercise for the period 2009-14 and Determination of annual fixed charges for the period 2014-19 respect of Dhauliganga Hydroelectric Power Station (280 MW)

#### And

#### In the matter of

NHPC Limited NHPC Office Complex, Sector-33, Faridabad, Haryana-121003

...Petitioner

### Vs

- 1. Punjab State Power Corporation Limited The Mall, Secretariat Complex, Patiala – 147001
- 2. Haryana Power Purchase Centre, Shakti Bhawan, Sector, VI Panchkula – 134109
- 3. BSES Rajdhani Power Ltd BSES Bhawan, Nehru Place, New Delhi – 110019
- 4. Uttar Pradesh Power Corporation Ltd Shakti Bhawan, 14, Ashok Marg, Lucknow 226001
- 5. BSES Yamuna Power Ltd BSES Bhawan, Nehru Place, New Delhi – 110 019
- 6. Rajasthan Rajya Vidyut Prasaran Nigam Ltd Vidyut Bhawan, Janpath, Jyoti Nagar, Jaipur-302005



- 7. Jaipur Vidyut Vitaran Nigam Ltd., Vidyut Bhawan, Janpath, Jaipur 302005
- 8. Jodhpur Vidyut Vitaran Nigam Ltd. New Power House, Industrial Area, Jodhpur – 342003
- 9. Ajmer Vidyut Vitaran Nigam Ltd. Old Power House, Hatthi Bhatta, Jaipur Road, Ajmer – 305001
- 10. Tata Power Delhi Distribution Ltd 33 kV Sub-station, Kingsway Camp, Delhi –110009
- 11. Uttaranchal Power Corporation Ltd, Urja Bhawan, Kanwali Road, Dehradun-248001
- 12. Himachal Pradesh State Electricity Board, Vidyut Bhawan, Kumar House, Shimla-171004
- 13. Engineering Department, UT Secretariat, UT Secretariat, Sector 9D Chandigarh-160009
- 14. Power Development Department, New secretariat, Jammu-180001 (J&K)

... Respondents

### Corrigendum

By order dated 24.2.2016, the Commission had revised the annual fixed charges of the generating station for the periods 2004-09 and 2009-14 after truing-up exercise and also determined the tariff for the period 2014-19.

2. It is noticed that in the same order, the additional capital expenditure of TOYO submersible agitator sand pump for an amount of ₹56.12 lakh and control panel for TOYO submersible agitator sand pump for an amount of ₹14.53 lakh which came as Inter-unit transfer from Bairasul Hydro Electric Project of the petitioner could not be inadvertently considered. It is further noticed that the corresponding negative entries for the said amounts in respect of these assets were covered under 'deletions' in order dated 17.6.2015 in Petition No. 235/GT/2014 in respect of Bairasul Hydro Electric Project. In addition, certain inadvertent arithmetical/ linkage

errors had occurred in the calculation of Return on Equity for the period 2012-13 and 2013-14. These inadvertent errors need to be rectified through suo motu review of the order by exercising power under Regulation 103 A of the Conduct of Business Regulations 1999. Accordingly, the order dated 24.2.2016 has been revised by rectifying the inadvertent clerical/ arithmetical errors in the succeeding paragraphs.

3. Based on the above, the table under para 40 of the order dated 24.2.2016 shall stand modified as under:

		(₹in lakh)
	2012-13	2013-14
Additions against works already approved by Commission	3.94	17.50
Additions not projected earlier but incurred and claimed	38.77	21.89
Inter-Unit transfer	0.00	88.04
Total additions allowed (a)	42.71	127.43
Deletions allowed (b)	(-)356.10	(-)1127.54
Assumed deletions considered (c)	(-)3.23	0.00
Total additional capital expenditure allowed before un-discharged/discharged liabilities (d)=(a)+(b)+(c)	(-)316.62	(-)1000.11
Liability discharged during the year for the Additional Capitalization 2009-12 <b>(e)</b>	0.11	0.00
Liability existed as on 31.3.2009 discharged during the year (f)	0.00	74.57
Additional Capital Expenditure allowed (g)=(d)+(e)+(f)	(-)316.51	(-)925.54

4. Consequently, para 41 of the order dated 24.2.2016 is modified as under:

		(₹ in iakn)
	2012-13	2013-14
Opening capital cost as on 1.4.2012	176196.73	175880.22
Admitted Additional capital expenditure	(-) 316.51	(-) 925.54
Closing capital cost	175880.22	174954.68

5. In view of the above, the various components of tariff for the period 2009-14 shall stand modified as under:

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### (a) Return on Equity (Para 42)

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	47301.89	47540.12	47745.06	47558.60	47463.65
Addition due to Additional Capitalization	238.24	204.94	(-)186.46	(-)94.95	(-)277.66
Closing Equity	47540.12	47745.06	47558.60	47463.65	47185.99
Average Equity	47421.01	47642.59	47651.83	47511.12	47324.82
Return on Equity (Base Rate )	15.500%	15.500%	15.500%	15.750%	16.500%
Tax rate	33.990%	33.218%	32.445%	20.008%	20.961%
Rate of Return on Equity	23.481%	23.210%	22.944%	19.689%	20.876%
Return on Equity	11134.93	11057.85	10933.24	9354.47	9879.53

# (b) Interest on Ioan (Para 45)

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	128039.13	128595.02	129073.21	128638.13	128416.57
Cumulative Repayment up to	8509.36	17461.40	26448.20	35452.43	44444.90
Previous Year					
Net Loan-Opening	119529.77	111133.62	102625.01	93185.70	83971.67
Repayment during the year	8952.04	8986.80	9004.24	8992.47	8951.29
Addition due to Additional	555.88	478.19	(-) 435.08	(-) 221.56	(-) 647.88
Capitalization					
Net Loan-Closing	111133.62	102625.01	93185.70	83971.67	74370.70
Average Loan	115331.70	106879.32	97905.35	88578.68	79171.18
Weighted Average Rate of	3.236%	3.217%	3.187%	3.225%	3.135%
Interest on Loan					
Interest on loan	3732.56	3438.78	3120.00	2857.03	2482.12

# (c) Depreciation (Para 46)

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block as on 31.3.2009	175341.02	176135.14	176818.27	176196.73	175880.22
Additional capital expenditure	794.12	683.13	(-)621.54	(-)316.51	(-)925.54
during 2009-14					
Closing gross block	176135.14	176818.27	176196.73	175880.22	174954.68
Average gross block	175738.08	176476.70	176507.50	176038.47	175417.45
Land Related Cost	1012.35	1012.35	864.05	663.25	610.75
Rate of Depreciation	5.094%	5.092%	5.101%	5.108%	5.104%
Depreciable Value	157253.16	157917.92	158079.10	157837.70	157326.03
Balance useful life of the asset	31.58	30.58	29.58	28.58	27.58
Remaining Depreciable Value	143642.76	135357.24	126536.04	117484.52	108080.98
Depreciation	8952.04	8986.80	9004.24	8992.47	8953.09

## (d) Receivables (Para 48)

(₹in lakh)

2012-13	2013-14
4714.25	4796.39

# (e) Interest on Working Capital (Para 52)

(₹in lakh)

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	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	802.72	848.63	897.17	948.49	1002.75
O & M expenses	445.95	471.46	498.43	526.94	557.08
Receivables	4989.18	4985.57	4969.73	4714.25	4796.39
Total	6237.86	6305.67	6365.34	6189.68	6356.22
Interest on Working Capital	764.14	772.44	779.75	758.24	778.64



6. Accordingly, the annual fixed charges for the period 2009-14 determined by order dated 24.2.2016 in Petition No. 230/GT/2014 at para 53 shall stand modified as under:

					(₹ in lakh)
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	11134.93	11057.85	10933.24	9354.47	9879.53
Interest on Loan	3732.56	3438.78	3120.00	2857.03	2482.12
Depreciation	8952.04	8986.80	9004.24	8992.47	8953.09
Interest on Working Capital	764.14	772.44	779.75	758.24	778.64
O & M Expenses	5351.45	5657.55	5981.16	6323.28	6684.98
Total	29935.11	29913.42	29818.39	28285.48	28778.35

- 7. In view of the revision in the capital cost, the opening capital cost for the period 2014-19 would undergo revision. Accordingly, para 58 of the order dated 24.2.2016 shall be modified as under:
  - "58. The closing capital cost considered by the Commission as on 31.3.2014 in this order is ₹174954.68 lakh. This has been considered as the opening capital cost as on 1.4.2014 for determination of tariff for the period 2014-19."
- 8. Consequent upon the above, table under para 70 of the order dated 24.2.2016 shall stand modified as under:

						(₹in lakh)
		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capi	tal Cost	174954.68	174975.42	175092.51	175381.51	175425.09
Admitted	Additional	20.74	117.09	289.00	43.58	0.00
Capital expen	diture					
Capital Cost	as on 31 <sup>st</sup>	174975.42	175092.51	175381.51	175425.09	175425.09
March of the	year					

9. Accordingly, the various components of tariff for the period 2014-19 shall stand modified as under:

### (a) Return on Equity (Para 74)

(₹in lakh) 2014-15 2015-16 2016-17 2017-18 2018-19 **Gross Notional Equity** 47185.99 47192.21 47227.33 47314.03 47327.11 Addition due to Additional 6.22 35.13 86.70 13.07 0.00 Capitalization 47192.21 47227.33 47314.03 47327.11 47327.11 Closing Equity 47320.57 47327.11 Average Equity 47189.10 47209.77 47270.68 16.500% Return on Equity (Base Rate) 16.500% 16.500% 16.500% 16.500% Tax rate for the year 20.961% 20.961% 20.961% 20.961% 20.961% 20.876% Rate of Return on Equity 20.876% 20.876% 20.876% 20.876% **Return on Equity** 9851.20 9855.51 9868.23 9878.64 9880.01

### (b) Interest on Loan (Para 78)

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	127768.69	127783.21	127865.18	128067.48	128097.98
Cumulative Repayment up to	53397.99	62327.99	71261.51	80205.39	89157.76
Previous Year					
Net Loan-Opening	74370.70	65455.22	56603.66	47862.08	38940.22
Repayment during the year	8930.00	8933.52	8943.88	8952.37	2823.15
Addition due to Additional	14.52	81.96	202.30	30.51	0.00
Capitalization					
Net Loan-Closing	65455.22	56603.66	47862.08	38940.22	36117.07
Average Loan	69912.96	61029.44	52232.87	43401.15	37528.65
Weighted Average Rate of	3.0861%	3.0874%	3.0783%	3.0734%	3.0677%
Interest on Loan					
Interest	2157.60	1884.21	1607.88	1333.90	1151.27

### (c) Depreciation (Para 80)

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block as on 31.3.2014	174954.68	174975.42	175092.51	175381.51	175425.09
Additional capital expenditure	20.74	117.09	289.00	43.58	0.00
Closing gross block	174975.42	175092.51	175381.51	175425.09	175425.09
Average gross block	174965.05	175033.97	175237.01	175403.30	175425.09
Land Related Cost	610.75	610.75	610.75	610.75	610.75
Rate of Depreciation	5.104%	5.104%	5.104%	5.104%	5.104%
Depreciable Value	156918.87	156980.89	157163.63	157313.30	157332.91
Balance Useful life of the asset	26.58	25.58	24.58	23.58	22.58
Remaining Depreciable Value	99093.41	90228.23	81480.12	72685.90	63756.03
Depreciation	8930.00	8933.52	8943.88	8952.37	2823.15

### (d) Receivables (Para 83)

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
4833.23	4871.88	4918.19	4970.14	3995.97

## (e) Interest on Working Capital (Para 88)

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	1077.28	1148.86	1225.19	1306.59	1393.40
O & M expenses	598.49	638.25	680.66	725.88	774.11
Receivables	4833.23	4871.88	4918.19	4970.14	3995.97
Total	6509.01	6,658.99	6,824.04	7,002.61	6,163.48
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	878.72	898.96	921.25	945.35	832.07

10. Based on the above, the annual fixed charges for the period 2014-19 determined by order dated 24.2.2016 in Petition No. 230/GT/2014 at para 89 shall stand modified as under:



(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	9851.20	9855.51	9868.23	9878.64	9880.01
Interest on Loan	2157.60	1884.21	1607.88	1333.90	1151.27
Depreciation	8930.00	8933.52	8943.88	8952.37	2823.15
Interest on Working	878.72	898.96	921.25	945.35	832.07
Capital					
O & M Expenses	7181.89	7659.05	8167.92	8710.59	9289.33
Total	28999.41	29231.25	29509.16	29820.85	23975.82

11. All other conditions of the order dated 24.2.2016 remain unchanged.

-Sd/(A.S. Bakshi)
Member

-Sd/(A.K. Singhal)
Member

-Sd/(Gireesh B. Pradhan)
Chairperson

