## CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

### Petition No. 300/GT/2014

Coram:

Shri A.S. Bakshi, Member Dr. M.K. Iyer, Member

Date of Hearing : 11.07.2016 Date of Order : 23.8.2016

#### In the matter of:

Revision of tariff of National Capital Thermal Power Station Stage-II (2x490 MW) from 31.01.2010 to 31.03.2014- Truing up of tariff determined by order dated 4.12.2014 in Petition No. 17/GT/2013.

#### And in the matter of:

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

#### Versus

- Uttar Pradesh Power Corporation Limited Shakti Bhawan 14, Ashok Marg Lucknow- 226001
- 2. Tata Power Delhi Distribution Ltd., Grid Sub-station Hudson Road, Kingsway Camp, Delhi-110009
- 3. BSES-Rajdhani Power Ltd. BSES Bhawan, Nehru Place, New Delhi - 110019
- 4. BSES-Yamuna Power Ltd., Shakti Kiran Building, Karkardooma, Delhi- 110072

.....Respondents

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.....Petitioner

Parties present:-

For Petitioner: Shri PasianSiran, NTPC Shri Ajay Dua, NTPC Shri E. P. Rao, NTPC Shri Sameer Agarwal, NTPC Shri Vivek Kumar, NTPC Shri Rajeev Choudhary, NTPC

For Respondents: Shri Manish Garg, UPPCL Shri Varun Shankar, Advocate, TPDDL Shri R. B. Sharma, Advocate, BRPL

## <u>ORDER</u>

This petition has been filed by the petitioner, NTPC Ltd., for revision of tariff of National Capital Thermal Power Station Stage-II (2x490 MW) (hereinafter referred to as "the generating station") for the period from 31.01.2010 to 31.03.2014, based on true up exercise, in terms of Clause 1 of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. Petition No.14/2010 was filed by the petitioner for determination of tariff of the generating station for the tariff period 2009-14 and the Commission by its order dated 30.9.2011 determined the annual fixed charges for generating station. Subsequently, the petitioner filed Petition No. 17/GT/2013 for revision of tariff after truing up exercise based on the actual capital expenditure incurred for the period 2009-13 and projected additional capital expenditure for the period 2013-14. The Commission by its order dated 4.12.2014 approved the capital cost and the annual fixed charges as shown under.

## **Capital Cost**

						(₹ in la	akh)
		2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Opening cost	Capital	208033.47	215631.02	404125.12	435933.06	459741.01	488010.21
Additional expenditure	capital e	7597.55	9512.76	31807.94	23807.95	28269.20	5816.98
Closing cost	capital	215631.02	225143.78	435933.06	459741.01	488010.21	493827.19
Average cost	Capital	211832.24	220387.40	420029.09	447837.04	473875.61	490918.70

### Annual Fixed Charges

						(₹ in lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Depreciation	10528.98	10921.91	20786.94	22152.50	23404.85	24224.77
Interest on loan	12864.86	13019.48	25027.58	27017.84	26829.21	25531.78
Return on Equity	15403.81	15840.12	29843.91	31819.72	33669.81	34880.76
Interest on working capital	4171.30	4212.21	8143.88	8299.07	8377.92	8435.11
O&M expense	6370.00	6732.60	13465.20	14239.40	15052.80	15915.20
Cost of secondary fuel oil	1009.04	1009.04	2181.64	2187.61	2181.64	2181.64
Total	50347.98	51735.36	99449.14	105716.15	109516.23	111169.25

3. Aggrieved by the said order dated 4.12.2014, the petitioner hadfiled a review petition (Petition No. 2/RP/2015) and the same was disposed of by order dated 18.3.2015, with the observation that, the impact and rectification of the errors in the said order be considered at the time of revision of tariff after truing up in terms of Regulation 6(1) of the 2009 Tariff Regulations.

4. Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

5. The petitioner vide affidavit dated 9.2.2016 has revised its claim of annual fixed

charges considering the Order dated 18.3.2015 in Petition No. 2/RP/2015for the period

						(₹ in lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Depreciation	10534.14	10960.52	20775.32	22125.10	23380.01	24185.94
Interest on loan	12865.43	13019.28	24932.62	26918.04	26480.40	25463.69
Return on Equity	15403.80	15840.12	30079.97	31711.76	33561.85	35595.82
Interest on working capital	4171.44	4213.03	8146.36	8294.74	8368.99	8446.53
O&M expense	6370.00	6732.60	13465.20	14239.40	15052.80	15915.20
Cost of secondary fuel oil	1009.04	1009.04	2181.64	2187.61	2181.64	2181.64
Total	50353.83	51774.59	99581.10	105476.65	109025.70	111788.82

2009-14 as under:

6. The Commission had directed the petitioner vide Record of Proceedings (ROP) dated 20.05.2016 to submit additional information. In response, the petitioner has filed additional information with copy to the respondents. The respondents, BRPL and UPPCL have filed their replies and the petitioner has filedits rejoinder to the said replies. Based on the submission of the parties and the documents available on record, we proceed to consider the revision of tariff of the generating station for 2009-14 after truing up, as discussed in the subsequent paragraphs.

### Capital cost

The last proviso to Regulation 7 of the 2009 Tariff Regulations, as amended on
 21.6.2011 provides as under:

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"Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff."

8. The petitioner has claimed opening capital cost as ₹208033.46 lakh on cash basis as on COD of Unit-I i.e. 31.1.2010 as determined in order dated 4.12.2014 in Petition No. 17/GT/2013. The capital cost approved in respect of the generating station is as under:-

		(₹ in lakh)
	As on 31.1.2010	As on 31.7.2010
Gross Block including IDC Claimed in Petition No 17/GT/2013	228421.89	441656.66
IDC Claimed in Petition No 17/GT/2013	18038.75	38129.91
Gross Block excluding IDC Claimed in Petition No 17/GT/2013 as on COD of respective units (3=2-1)	210383.14	405045.94*
IDC Allowed in order dated 4.12.2014	17634.21	37215.79
Gross Block including IDC Allowed as on COD of respective units (5=3+4)	228017.35	442261.73
Un-discharged liabilities considered in order dated 4.12.2014	20444.96	39492.01
Capital cost on cash basis inclusive of actual IDC and FC	207572.39	402769.72
Add: Normative IDC over and above actual IDC	553.67	1440.40
Add: Short term FERV (charged to P&L A/c)	-92.60	-85.00
Opening Capital cost including Notional IDC & Short term FERV allowed in this order	208033.46	404125.12
	17/GT/2013IDC Claimed in Petition No 17/GT/2013Gross Block excluding IDC Claimed in Petition No 17/GT/2013 as on COD of respective units (3=2-1)IDC Allowed in order dated 4.12.2014Gross Block including IDC Allowed as on COD of respective units (5=3+4)Un-discharged liabilities considered in order dated 4.12.2014Capital cost on cash basis inclusive of actual IDC and FCAdd: Normative IDC over and above actual IDC Add: Short term FERV (charged to P&L A/c)Opening Capital cost including Notional IDC &	31.1.2010Gross Block including IDC Claimed in Petition No 17/GT/2013228421.89IDC Claimed in Petition No 17/GT/201318038.75Gross Block excluding IDC Claimed in Petition No 17/GT/2013 as on COD of respective units (3=2-1)210383.14IDC Allowed in order dated 4.12.201417634.21Gross Block including IDC Allowed as on COD of respective units (5=3+4)228017.35Un-discharged liabilities considered in order dated 4.12.201420444.96Capital cost on cash basis inclusive of actual IDC and FC207572.39Add: Normative IDC over and above actual IDC Add: Short term FERV (charged to P&L A/c)-92.60Opening Capital cost including Notional IDC & 208033.46

\*Differencein figure

9. The Commission, in order dated 18.3.2015 in Petition No. 2/RP/2015, the

Commission had approved rectification of capital cost as on 31.7.2010 and had allowed

revision of tariff of the generating station. The observation of the Commission in the said

order is as under:

"We have examined the submissions of the petitioner and the documents available on record. It is noticed that certain clerical/ arithmetical errors have inadvertently crept in the order dated 4.12.2014, as detailed under:

(i) In para 16 of the order, the capital cost as on COD of the Unit-II/station has been considered as ₹4050.46 crore (excluding IDC) instead of gross block of ₹4035.27 crore;

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Considering the fact that truing-up petition have been filed by the petitioner for the period 2009-14 in respect of this generating station in terms of Regulation 6(1) of the 2009 Tariff Regulations, we direct that the impact due to rectification of the said errors may be considered at the time of revision of tariff of the generating station based on truing-up exercise for the period 2009-14."

			(₹ in lakh)
SI No		As on 31.1.2010	As on 31.7.2010
1	Gross Block including IDC claimed in Petition No 17/GT/2013	228421.89	441656.66
2	IDC Claimed in Petition No 17/GT/2013	18038.75	38129.91
3	Gross Block excluding IDC claimed in Petition No 17/GT/2013 as on COD of respective units (3=2-1)	210383.14	403526.75*
4	IDC Allowed in order dated 4.12.2014	17634.21	37215.79
5	Gross Block including IDC allowed as on COD of respective units (5=3+4)	228017.35	440742.54
6	Un-discharged liabilities considered in order dated 4.12.2014	20444.96	39492.01
7	Opening Capital Cost allowedin this order	207572.39	401250.53
8	Add: Short term FERV allowed in order dated 4.12.2014	-92.60	-85.21
9	Add: Notional IDC allowed in order dated 4.12.2014	553.67	1440.40
10	Opening Capital cost including Notional IDC & Short term FERV allowed in this order	208033.46	402605.72

10. The capital cost considered after rectification is as shown under:

\*This amount is revised after rectification

#### **Initial Spares**

11. Regulation 8 of the 2009 Tariff Regulations provides that initial spares shall be capitalized as a percentage of the original project cost, subject to following ceiling norms:-

- -

"(i) Coal-based/lignite-fired thermal generating stations - 2.5% (ii) Gas Turbine/Combined Cycle thermal generating stations - 4.0% (iii) Hydro generating stations - 1.5%"

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12. The petitioner has claimed initial spares of ₹1584.44 lakh during 2013-14 (excluding un-discharged liabilities of ₹7.45 lakh).

13. The respondent, BRPL vide affidavit dated 6.7.2016 submitted that the petitioner has claimed an amount of ₹1584.44 lakh for initial spares which should be restricted to ₹10.92 lakh as permitted in Petition No. 17/GT/2013. In response, the petitioner vide affidavit dated 27.7.2016 has submitted that the Commission vide its order dated 4.12.2014 in Petition No. 17/GT/2013 has inadvertently not considered the discharge of liabilities amounting to ₹38108 lakh during the period from COD of Unit-2 (31.07.2010) to 31.03.2013 for calculation of initial spares. In line with the decision of the Commission in order dated 18.3.2015 in Petition No. 2/RP/2015, the petitioner has claimed an amount of ₹1584.44 lakh on account of initial spares capitalized during 2013-14.

14. We have considered the submissions of the parties. The petitioner's claim in Petition No. 17/GT/2013 and this petition are as under:

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					(₹ in lai	(n)
	Up to 30.7.2010	2010-11	2011-12	2012-13	2013-14	Total
Initial Spares claimed in Petition No. 17/GT/2013	883.75	977.57	5096.73	4135.35	1447.00	12540.40
Initial Spares Claimed Now	883.75	977.57	5096.73	4135.35	1584.44	12677.84

15. The Commission in its order dated 4.12.2014 in Petition No. 17/GT/2013 had inadvertently not considered the discharge of liabilities amounting to ₹38108 lakh during the period from COD of Unit-2 (31.07.2010) to 31.03.2013 for calculation of initial spares. In order dated 4.12.2014 it has observed as under:

"The amount of initial spares capitalized up to 30.7.2010 is ₹883.75 lakh. Initial spares claimed for capitalization from the date of commercial operation of the generating station (31.7.2010) to extended cut-off date 31.3.2014 is ₹11656.66 lakh. Thus, the total initial spares to be capitalized up to cut-off date are of the value of ₹12540.41 lakh (₹883.75 lakh + ₹11656.66 lakh). This works out to 2.82 % of the capital cost of ₹444173.10 lakh (excluding initial spares) up to the cut-off date which is more than the ceiling limit of



2.5% specified under Regulation 8 of the 2009 TariffRegulations. Therefore, the initial spares are to be restricted to 2.5% i.e. ₹11104.33 lakh. The petitioner's claim involves excess capitalization of ₹1436.08 lakh (₹12540.41 lakh - ₹11104.33 lakh) of the initial spares. Accordingly, additional capital expenditure of ₹1447.00 lakh claimed for initial spares in the year 2013-14 has been restricted to ₹10.92 lakh (₹1447.00 lakh -₹1436.08 lakh)."

16. The Commission in Petition No. 2/RP/2015 had allowed the revision of initial spares on account of non-consideration of discharge of liabilities of ₹38108 lakh for the period from the COD of Unit-II to 31.3.2013. This has been considered for the computation of initial spares. The capital cost considered as on the extended cut-off date (31.3.2014) is ₹492532.52 lakh (including net additional capital expenditure of ₹50109.58 lakh and un-discharged liabilities of ₹39817.21 lakh). Accordingly, initial spares have been computed and allowed as under:

	(₹ in lakh)
	As on 31.3.2014
Capital Cost as 31.3.2014	492532.52
Total Spares claimed (B)	12677.84
Capital Cost excluding spares (C )=(A)- (B)	479854.68
Percentage of initial spares as per Regulation 8 of the 2009 Tariff Regulations	2.50%
Admitted Initial spares (D)	12303.97
Excess initial spares claimed	373.87

17. The initial spares claimed by the petitioner works out to be 2.53% of the capital cost upto 31.3.2014 and is in excess of ₹373.87 lakh over and above the ceiling limit of 2.50% as specified in Regulation 8 of the 2009 tariff Regulations. In view of this the excess spares have been deducted from the additional capital expenditure claimed for the year 2013-14 as discussed in the subsequent paragraphs.

## Actual Additional Capital Expenditure

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

"9 (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudencecheck:

(i) Undischarged liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject tothe provisions of regulation 8;

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) Change in law:

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

19. The actual additional capital expenditure for the years 2009-10, 2010-11, 2011-

12 and 2012-13 and the projected additional capital expenditure for 2013-14 allowed

vide order dated 4.12.2014 in Petition No. 17/GT/2013 is as under:-

						(₹ in lakh)	
Sr. No.		2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
				Actual			Projected
А	Net Additional Expenditure allowed	1045.75	9145.91	10022.96	9996.29	16674.20	5806.06
В	De-capitalization	(-)0.29	(-)11.26	(-)14.52	(-)47.09	(-) 1054.52	-
С	Amount allowed (B)- (A)	1045.46	9134.65	10008.44	9949.21	15619.68	5806.06
D	Adjustment of FERV	(-)423.87	(-)159.40	(-)10.34	-	-	-
Е	Exclusions not allowed			-	-	-	-
F	Initial Spares	11.04	419.17	977.58	5096.73	4135.35	10.92
G	Net Additional Capital Expenditure allowed (C+D+E)	632.63	9394.43	10975.67	15045.94	19755.03	5816.98
Н	Liabilities Discharged	6964.92	118.34	20832.27	8762.01	8514.17	0.00
I	Additional Capital expenditure allowed (H+I)	7597.55	9512.76	31807.94	23807.95	28269.20	5816.98

20. There is no change in the actual additional capital expenditure for the period 2009-13 allowed in order dated 4.12.2014. Hence, the actual additional capital expenditure incurred during the year 2013-14 has only been considered in this order.



The break-up of the actual additional capital expenditure claimed for the year 2013-14 is

as under:

SI. No.	Package Description	Justification for capitalization	( <i>₹ in lakh)</i> Actual Capitalization in 2013-14 on cash basis
	Development Works		
1	Roads and Development works		22.13
2	Infrastructure and Site Development works		516.17
	S. Total		538.30
	Plant and Equipment		
3	Main Plant Package SG+TG (Unit V)		68.66
4	Main Plant Package SG+TG (Unit VI)	These are	60.65
	S.Total	actual	129.31
	BOP Mechanical	capitalization of	
5	Main Plant Civil Works	the balance	411.48
6	Fire Fighting System	work under	-
7	Ventilation System	approved cost which are	-
8	Coal Handling System	within the	8.06
9	Ash Handling System including Ash Brick Plant	original scope	14.11
10	DM Plant and CW Treatment Plant	of work and	13.29
11	Pretreatment Plant Package	claimed under	0.71
12	Railway siding and ST system	Regulation 9	768.64
13	CW & Make up water system	(1) (ii) and 9 (1) (iii).	-
14	Lining of MAT branch canal	Commission	782.61
		vide its order	
	Sub-Total	dated	1998.90
		4.12.2014 in	
15	Station C&I Package	mid-term true	16.03
		petition no 17/GT/2013	
	Civil Works	has extended	
16	Township & Colony	the Cut Off date	333.02
		for the purpose	
	Sub-Total	of capitalization	333.02
	BOP Electricals	of expenditure	
17	Transformer Package	of NCTPS Stage-II, Dadri	0.32
18	Switchgear & Bus Duct Package	from	-
19	Electrical Equipment Supply & Erection	31.03.2013 to	3.23
20	Switchyard Package	31.03.2014.	-
	Sub-Total		3.55
21	Capital Spares		1584.44

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22	Sub-Total of De-capitalization	(-)270.60
23	Grand Total of Claimed Items	4332.95

21. The petitioner has claimed net additional capital expenditure of ₹6041.70 lakh (including un-discharged liabilities and de-capitalization) for the period 2013-14 as against the total additional capital expenditure of ₹5816.98 lakh for 2013-14 allowed vide Commission's order dated 4.12.2014. The respondent, BRPL has requested the Commission to direct the petitioner to furnish the details of additional capitalization incurred for 2013-14 duly audited and certified by the Auditors as per requirements of the Regulation 6(3) of the 2009 Tariff Regulations. In response, the petitioner has submitted that it has already submitted the details of additional capital expenditure incurred for the year 2013-14 duly audited and certified by the auditors as per the requirement of the 2009 Tariff Regulations.

22. It is observed that the Commission vide order dated 4.12.2014 in Petition No. 17/GT/2013 had extended the cut-off date of the generating station for the purpose of capitalization of the expenditure for the generating stations by one year i.e. from 31.3.2013 to 31.3.2014 in exercise of Power to Relax under Regulation 44 of the 2009 Tariff Regulations. We now examine the claim of the petitioner and their admissibility, on prudence check, as discussed in the subsequent paragraphs.

#### **Development Works**

23. The Commission in order dated 4.12.2014 in Petition No. 17/GT/2013 had approved the additional capital expenditure of ₹906.73 lakh against development worksin 2013-14. The petitioner has claimed total actual additional capital expenditure of ₹538.30 lakh on cash basis (₹22.13 lakh for roads and development, ₹516.17 lakh for Infrastructure and site development) under Regulation 9(1)(ii) of the 2009 Tariff



Regulations. In justification the petitioner submitted that these are deferred works within the original scope of works. Since the expenditure of works is within the original scope of works and has been capitalized within the cut-off date of the generating station, the actual additional capital expenditure of ₹538.30 lakh is allowed under Regulation 9(1)(ii) of the 2009 Tariff Regulations.

#### Main Plant and Equipment

24. The Commission in its order dated 4.12.2014 had approved the projected additional capital expenditure of ₹490.59 lakh in 2013-14towards Main plant equipment. The petitioner has claimed total additional capital expenditure of ₹129.30 lakh (₹68.66 lakh under main plant package of Unit-I and ₹60.65 lakh under main plant package of Unit-II) under Regulation 9(1)(ii) of the 2009 Tariff Regulations. Since the claim of the petitioner isin regard of deferred works within the original scope of works and within the cut-off date of the generating station and the actual additional capital expenditure is allowed.

### **BOP Mechanical**

25. The Commission in its order dated 4.12.2014 had approved the projected additional capital expenditure of ₹1772.43 lakh in 2013-14 towards BOP Mechanical. The petitioner has claimed total additional capital expenditure of ₹1998.90 lakh under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The claim of the petitioner as for capitalization against the expenditure allowed in order dated 4.12.2014 is summarized as under:

		(₹ in lakh)	
	2013-14		
	Approved in order dated 4.12.2014	Actual additional Capital expenditure claimed	
Main Plant Civil Works	360.00	411.48	
Fire Fighting System	88.20	-	
Air Conditioning System	43.87	-	
Ventilation System	14.05	-	
Coal Handling System	233.87	8.06	
Ash Handling System including Ash Brick Plant	174.03	14.11	
DM Plant and CW Treatment Plant	21.60	13.29	
Pretreatment Plant Package	90.88	0.71	
Railway siding and ST system	745.93	768.64	
Lining of MAT branch canal	-	782.61	
Total	1772.43	1998.90	

26. It is observed that the actual capital expenditure incurred by the petitioner is higher than the projected additional capital expenditure allowed by the Commission vide order dated 4.12.2014. It is noticed that the increase in the expenditure claimed is mainly on account of inclusion of the capital expenditure towards lining of MAT branch canal works.

27. The petitioner has submitted that the expenditure incurred towards MAT branch canal is within the original scope of work and was allowed by the Commission in order dated 4.12.2014. It has also submitted that the work was carried out through UP Irrigation Department (UPID) at a total estimated cost of ₹23400 lakh as the work related to canal lining is within the purview of Uttar Pradesh Irrigation Department (UPID)which includes works like Canal lining, constructing Cross Regulator, bridges, maintenance etc. The petitioner has further submitted that as per their estimated demand, an amount of ₹23100 lakh was paid by the petitioner in advance and that UPID completed the works for ₹21971.11lakh as on 31.3.2014 and out of this an amount of ₹21188.50lakh has been incurred and allowed till 31.3.2013 in Commission's order dated 4.12.2014. The

petitioner has accordingly claimed the balance amount of ₹782.61 lakh in 2013-14. The details of additional capital expenditure claimed is summarized as under:

			(₹ in lakh
Lining of MAT Branch Canal	Up to 31.3.2013	Up to 31.3.2014	2013-14
Advance Payment Made to UPID	22100.00	23063.62	963.62
Sea Works (A)	18833.29	19562.53	729.24
Centage (B)	2355.21	2408.58	53.37
Total (A+B)	21188.50	21971.11	782.61

28. Considering the fact that, these are deferred works within the original scope of work and within the cut-off date of the generating station, the actual expenditure incurred is allowed to be capitalized under Regulation 9(1)(ii) of the 2009 Tariff Regulations.

### **BOP Electrical/ Station C&I/ Civil Works**

29. The Commission in its order dated 4.12.2014 had approved the additional capital expenditure of ₹2636.31 lakh (₹21.00 lakh under station C&I package, ₹1242.14 lakh under township and colony, ₹1373.17 lakh under BOP Electricals) in the year 2013-14. The petitioner has claimed total additional capital expenditure of ₹16.03 lakh under Station C&I package, ₹333.02 lakh under Township and Colony, ₹3.55 lakh under BOP Electricals under Regulation 9(1)(ii) of the 2009 Tariff Regulations.Considering the fact that these are deferred works within the original scope of works and within the cut-off date of the generating station, the actual expenditure incurred is allowed under Regulation 9(1)(ii) of the 2009 Tariff Regulations.

## **De-capitalization**:

30. The petitioner has adjusted the de-capitalization of ₹270.60 lakh towards decapitalization of spares, adjustment spares, furniture and fixtures, office equipment, EDP & SATCOM equipment, adjustment of MBOA as under:

				(₹ in lakh)
S.N	Description	Year of Capitalization	Capitalization/ De-cap amount	Depreciation recovered in Tariff
1	De-capitalization of Spares	2009-2010	245.84	39.48
2	De-capitalization of Spares	2010-2011	0.53	0.07
3	De-capitalization of Spares	2011-2012	0.35	0.03
	Sub-Total(A)		246.72	39.59
4	Adjustment of Spares	2009-10	3.08	0.49
5	Adjustment of Spares	2012-13	0.11	0.01
	Sub-Total(B)		3.19	0.50
6	Furniture and fixtures	2011-2012	4.10	0.41
7	Other Office Equipments	2006-2007	0.21	0.04
8	Other Office Equipments	2008-2009	0.04	0.01
9	EDP & SATCOM equipments	2006-2007	6.15	1.09
10	EDP & SATCOM equipments	2007-2008	0.96	0.17
11	EDP & SATCOM equipments	2008-2009	1.34	0.24
12	EDP & SATCOM equipments	2010-2011	0.19	0.03
13	EDP & SATCOM equipments	2012-2013	4.27	0.21
14	Hospital equipments	2006-2007	0.24	0.04
	Sub-Total (C)		17.50	2.23
15	Adjustment of MBOA	2012-13	0.11	0.01
16	Adjustment of MBOA	2012-13	3.03	0.15
17	Adjustment of MBOA	2012-13	0.05	0.00
	Sub-Total (D)		3.19	0.16
	Total (A+B+C+D)		270.60	42.47

31. The petitioner has submitted that the de-capitalization of these items is on account of final bill adjustments in the items already allowed by the Commission in order dated 4.12.2014 in Petition No.17/GT/2013. The respondent BRPL hassubmitted that the assets in Balance Sheetand the regulatory assets are required to be distinguished by the petitioner. It has further submitted that the petitioner has not furnished the year wise details duly audited and certified by auditors in respect of the capital works in progress and the assets added on account of the additional capital expenditure and decapitalization, if any, during the respective years. In response, the petitioner has been submitted.



32. Based on the above discussions, the actual additional capital expenditure allowed for the year 2013-14 is summarized as under:-

		(₹ in lakh)
SI. No.		2013-14
1	Capital Expenditure claimed on works	3019.11
2	De-capitalization	270.60
3	Net additional capital expenditure claimed (1-2)	2748.51
4	Actual additional Capital expenditureallowed (3-4)	2748.51

33. The additional capital expenditure as per books of accounts vis-à-vis additional capital expenditure for 2013-14 is detailed as under:

		(₹ in lakh)
SI. No.	2013-14	
1	Opening Gross Block as per audited Balance Sheet as on 1.4.2013 (A)	497888.67
2	Closing Gross Block as per audited Balance Sheet as on 31.3.2014 (B)	505006.41
3	Addition during the year 2013-14 C=(B-A) (as per books)	7117.75
4	Exclusions (D)	1783.02
5	Additional capital expenditure claimed E=(C-D) (for tariff purpose)	5334.73
6	Liability included (F)	1001.78
7	Net additional capitalization excluding liabilities G=(E-F)	4332.95
8	Discharge of liabilities (H)	1708.76
9	Net additional capitalization claimed on cash basis (G+H)	6041.70

34. It is observed that the actual additional capital expenditure claimed by the petitioner is at variance with the additional capital expenditure as per books of accounts. This is on account of 'exclusion' of certain expenditure for the purpose of tariff. The respondent, BRPL has submitted that there is no provision of exclusion of any assets under the 2009 Tariff Regulations. It has also submitted thatthe contention of the petitioner that capitalizationin respect of spares and MGR wagons was not allowed and hence theirde-capitalization may be allowed under exclusion is incorrect. It has



alsosubmitted that the de-capitalization of exclusion items is necessary and the same is required to be adjusted by reduction in the capital cost as per Regulation 7(1)(c) of the 2009 Tariff Regulations. It has also stated that the petitioner has shown capital spares, miscellaneous expenditures and MBOA items as not part of tariff to avoid de-capitalization. Accordingly, the respondenthas prayedthat the Commission maydisallow the same. In response, the petitioner vide affidavit dated 27.7.2016, has clarifiedthat Capital Spares and MBOA items which have become unserviceable are accordingly de-capitalized during 2013-14 have beendeducted from the capital cost of the generating station, Dadri and have not been shown asexclusions. It has therefore submitted that the submissions in respect ofCapital Spares and MBOAs are not maintainable.

35. The petitioner's claim of the exclusions (year-wise) claimed under different heads hasbeen examined as discussed in the subsequent paragraphs.

#### Inter- Unit Transfers

36. The petitioner has capitalized expenditure for ₹0.18 lakh towards Inter-unit transfer in books of accounts in2013-14. The petitioner has claimed the said amount towards transfer of furniture and equipments, IT equipment and MarutiDezire. These inter unit transfers are indicated as temporary. The Commission while dealing with applications for additional capitalization in respect of other generating stations of the petitioner, haddecided that both positive and negative entries arising out of inter unit-transfers of temporary nature shall be ignored for the purpose of tariff. In consideration of the same, the exclusions on account of inter-unit transfer of equipment on temporary basis are also in order and hence not considered as a part of additional capitalization.



### FERV

37. The petitioner has excluded amounts ₹1881.89 lakh in 2013-14, on account of impact of FERV. As the petitioner has billed the said amount directly to the beneficiaries, the exclusion of FERV is in order and hence allowed.

### Liability Reversal

38. The petitioner has excluded amounts ₹(-) 99.05 lakh on account of reversal of liability. The exclusion of reversal of liability is in order and therefore allowed.

## Exclusions

### 2013-14

39. Exclusions claimed as per books of accounts are as under:-

	(₹ in lakh)
	2013-14
FERV	1,881.89
Inter Unit Transfers	0.18
Liability Reversal	(-) 99.05
Total	1,783.02

40. The details of exclusions claimed and allowed for the year 2013-14 is summarized as under:

	(₹ in lakh)
Exclusions Claimed	1783.02
Exclusions Allowed	1783.02

### **Discharge of liabilities**

41. The discharge of liabilities amounting to ₹1708.76 lakh in 2013-14, out of the undischarged liabilities pertaining to capital cost of the capital assets/items allowed after COD and the same has been considered as additional capital expenditure during the respective years. 42. The respondent UPPCL vide affidavit dated 21.10.2014 has submitted that, the petitioner has not reconciled the liability details as per audited accounts as there is significant variation in liability for capital creditors as claimed against the Audited Financial statements. In response, the petitioner vide affidavit dated 16.5.2016 has submitted thatas on 31.3.2013, the total un-discharged liability is ₹13110 lakh as submitted for Stage-I& II of this generating station as compared tothat of ₹14883 lakh as per Audited Balance Sheet (BS) of the generating station and the variation is ₹1773 lakh. Similarly as on 31.3.2014, the un-discharged liability of ₹13182 lakh as submitted for Stage-I& II of the generating station vis-à-vis liability of amount of ₹15552 lakh as per Audited accounts of the generating station, the variation is ₹2370 lakh. The petitioner further submitted that thevariation is due to overlapping of some amount of Operational Expenditure liability in Capital Expenditure.Further, the amount of liability submitted of Stage-I& Ilof the generating station is less than that of liability as per audited balance sheet. Accordingly, the liability dischargedhasbeenrestricted to the amount claim in the petition of Stage-I& II i.e. CAPEX liability of ₹13182 lakh instead of auditedaccounts figure of ₹15552 lakh. Since, tariff is determined on cash basis, this difference has no impact on the capital cost allowed. The reconciliation amount as on 31.3.2013 and 31.3.2014 as submitted by petitioner is as under:

		(₹ in lakh)
	As on 31.3.2013	As on 31.3.2014
Capital liabilities in Gross Block as Claimed (Stage-I)	1358.09	1583.30
Capital Liabilities in CWIP as Claimed (Stage-I)	237.06	1096.73
Total	1595.15	2680.04
Capital liabilities in Gross Block as Claimed (Stage-II)	10779.61	9973.59
Capital Liabilities in CWIP as Claimed (Stage-II)	735.90	528.11

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Total	11515.51	10501.71
Capital Liabilities as per Audited Balance Sheet	14883.49	15551.88
Difference	1772.83	2370.14

43. Accordingly, the actual additional capital expenditure allowed for the year 2013-

14 is as under:-

	(₹ in lakh)
	2013-14
Works within approved cost (A)	3019.11
De-capitalization approved (B)	(-)270.60
Initial Spares approved (C)	1210.57
Net Additional capital expenditure allowed (D=A+B+C)	3959.08
Liabilities discharged (E)	1708.76
Total additional capitalization allowed including liabilities (F= D+E)	5667.83

44. Based on the above, the capital cost considered for the purpose of tariff for the period 2009-14 is summarized as under:-

					(₹ i	n lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Opening Capital cost	208033.46	215631.01	402605.72	434413.66	458221.62	486490.81
Additional capital expenditure	7597.55	9512.76	31807.94	23807.96	28269.20	5667.83
Closing capital cost	215631.01	225143.77	434413.66	458221.62	486490.81	492158.64
Average Capital cost	211832.23	220387.39	418509.69	446317.64	472356.22	489324.73

## Debt: Equity

45. The gross loan and net equity amounting to ₹145623.43 lakh and ₹62410.04 lakh respectively as on COD of Unit-I i.e. 31.1.2010 has been considered as gross loan and net equity as on COD of Unit-I i.e. 31.1.2010 as approved in order dated 4.12.2014 in Petition No. 17/GT/2013. However, due to adjustment of IDC the gross block has



beenrevised from the approved cost of ₹405046 lakh in order dated 4.12.2014 to ₹403527 lakh in accordance with the order dated 18.3.2015 in Petition No. 2/RP/2015.Accordingly, the gross loan and net equity has been revised to ₹281824.01 lakh and ₹120781.72 lakh respectively as on COD of Unit-II i.e. 30.7.2010. The year wiseadmitted actual additional capital expenditure has been allocated in the debt-equity ratio of 70:30 as under:

										(₹ in lakh)	
Asset	As on COD of Unit-I (31.1.2010 to 31.3.2010)		2010-11 (1.4.2010 to 30.7.2010)		As on COD of Unit-II Net Addi (31.7.2010 to capitaliz 31.3.2011) during 20		ization	As on 31	.3.2014		
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)	
Debt	145623.42	70.00%	150941.71	70.00%	281824.01	70.00%	62687.04	70.00%	344511.05	70.00%	
Equity	62410.04	30.00%	64689.30	30.00%	120781.72	30.00%	26865.88	30.00%	147647.59	30.00%	
Total	208033.46	100.00%	215631.01	100.00%	402605.72	100.00%	89552.92	100.00%	492158.64	100.00%	

#### Return on Equity

46. The grossing up of the base rate has been done with respect to the actual tax rate applicable to the petitioner for the year 2013-14. The Commission in order dated 4.12.2014 had allowed additional ROE of 0.5% for completion of the generating station within the time limit specified in Appendix-II of the 2009 Tariff Regulations.Further, in terms of the order dated 18.3.2015 in Petition No. 2/RP/2015, the tax rate of 33.2175% has been considered for the period from 31.7.2010 to 31.3.2011. Accordingly, return on equity has been worked out on the normative net equity as on 31.1.2010, after accounting for the admitted actual additional capital expenditure for the period 2009-14 as above. Return on Equity has been computed as under:-

	1		[]		(₹ ir	n lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Opening notional equity	62410.04	64689.30	120781.72	130324.10	137466.49	145947.24
Addition due to Additional Capitalisation	2279.26	2853.83	9542.38	7142.39	8480.76	1700.35
Closing Equity	64689.30	67543.13	130324.10	137466.49	145947.24	147647.59
Average Equity	63549.67	66116.22	125552.91	133895.29	141706.86	146797.42
Return on Equity (Base Rate ) (%)	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
Tax rate (%)	33.990%	33.218%	33.218%	32.445%	32.445%	33.990%
Rate of Return on Equity (Pre Tax) (%)	24.239%	23.958%	23.958%	23.684%	23.684%	24.239%
Return on Equity (Pre Tax)	15403.80	15840.12	30079.97	31711.76	33561.85	35582.23

### Interest on Loan

- 47. Interest on loan has been worked out as under:-
  - a. The gross normative loan of ₹145623.42 lakh worked out on cash basis has been considered as on 31.1.2010.
  - b. Cumulative repayment after adjustment of un-discharged liabilities as on
    1.4.2009 has been considered as cumulative repayment as on 31.1.2010.
  - c. Addition to normative loan on account of additional capital expenditure approved above has been considered on year to year basis.
  - d. Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further proportionate adjustment has been made to the repayments corresponding to discharges of liabilities considered during the respective years on account of cumulative repayment adjusted as on 31.1.2010. Also, proportionate adjustment has been made to the repayments on account of de-capitalizations considered in the additional capital expenditure approved above.

- e. The weighted average rate of interest of has been considered for 2013-14 based on actual loan portfolio. The calculations for weighted average rate of interest on loan are enclosed in **Annexure-I** of this order.
- 48. The Commission in order dated 18.3.2015 in Petition No. 2/RP/2015 has allowed the consideration of impact of reduction in repayment due to the de-capitalization of assets while calculating the cumulative repayment of normative loan. This has been considered and accordingly interest on loan is computed as under:-

					(₹ in	lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Gross opening loan	145623.42	150941.71	281824.01	304089.56	320755.13	340543.57
Cumulative repayment of loan up to previous year	0.00	1731.64	5357.24	19235.24	41327.37	64593.95
Net opening loan	145623.42	149210.07	276466.76	284854.32	279427.76	275949.62
Addition due to Additional Capitalisation	5318.28	6658.93	22265.56	16665.57	19788.44	3967.48
Repayment of Loan during the period	1731.64	3633.49	13888.16	22125.10	23380.01	24176.71
Less: Repayment adjustment on a/c of de- capitalization	0.00	7.88	10.16	32.96	113.44	189.42
Net Closing Loan	149210.07	152243.40	284854.32	279427.75	275949.62	255929.82
Average Loan	147416.74	150726.73	280660.54	282141.04	277688.69	265939.72
Weighted Average Rate of Interest on Loan (%)	8.7273%	8.6377%	8.8836%	9.5406%	9.5360%	9.5704%
Interest on Loan	12865.43	13019.28	24932.62	26918.04	26480.40	25451.61

## **Depreciation**

49. The Commission in the order dated 4.12.2014, in Petition No. 17/GT/2013considered the value of freehold land on cash basis as considered by the petitioner due to improper reconciliation of the freehold land in the balance sheet. The petitioner had earlier removed the cost of Rehabilitation & Resettlement and Preliminary Investigation & site development from the cost of land and reconciled the same with the

balance sheet. The cost of Rehabilitation & Resettlement and Preliminary investigation & site development was not traceable from the balance sheet of the station.

50. Accordingly, the value of freehold land indicated is as per the Balance Sheet of the Station. The same has been corrected and the revised value of freehold land has been furnished by the petitioner is summarized as under:-

						(₹ in lakh)	
		2009-10 (as on 31.1.2010)	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13
Rehabilitation	Dadri - Masoorie Road – Non NTPC Owned	-	655.78	34.62	23.82	37.36	-
and Resettlement (R&R)	Dadri - Masoorie Road - NON NTPC OWNED (Loan ERV)	-	-	(-)1.50	-	-	-
	Sub-Total	-	655.78	33.12	23.82	37.36	
Preliminary	Road and Drain New Steel yard (Stage II)	29.87	-	-	-	-	-
Investigation and Site development	Strengthening of Plant Roads	136.61	-	-	-	-	-
	Plant Road Stage-2	-	-	753.24	-	-	-
	Sub-Total	166.48	-	753.24	-	-	-
Total		166.48	655.78	786.36	23.83	37.36	-

51. The submissions of the petitioner have been considered. Accordingly, the depreciation has been calculated based on Straight Line Method and at rates specified in Appendix to the 2009 Tariff Regulations. Further, the proportionate adjustment has been made to the cumulative depreciation corresponding to discharges of liabilities considered during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. Also, the cumulative depreciation has been adjusted on account of de-

capitalization considered during the period 2009-14 for the purpose of tariff. The necessary calculations in support of depreciation are as under:

					(₹ in la	kh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Average capital cost	211832.23	220387.39	418509.69	446317.64	472356.22	489324.73
Value of freehold land	4533.23	4533.23	5806.47	7258.65	7635.49	7865.74
Depreciable value @ 90%	186569.11	194268.75	371432.90	395153.09	418248.65	433313.09
Balance depreciable value	186569.11	192537.22	366068.43	375904.15	376895.32	368622.21
Rate of depreciation (%)	4.9729%	4.9733%	4.9641%	4.9573%	4.9497%	4.9408%
Depreciation (Annualized)	10534.14	10960.52	20775.32	22125.10	23380.01	24176.71
Cumulative depreciation at the end of the period (before adjustment)	1731.64	5364.99	19252.61	41374.01	64733.33	88867.56
Less: Cumulative depreciation adjustment on account of de- capitalization	0.14	0.54	3.69	20.70	42.47	-
Cumulative depreciation after adjustment (at the end of the period)	1731.52	5364.47	19248.94	41353.34	64690.88	88867.59

### **Operation & Maintenance Expenses**

52. The Operation & Maintenance expenses considered for the purpose of tariff is

summarized as under:

					(₹ in lakh)
2009-10	2010-11	2010-11			
(31.1.2010 to	(1.4.2010 to	(31.7.2010 to	2011-12	011-12 2012-13	
31.3.2010)	30.7.2010)	31.3.2011)			
6370.00	6732.60	13465.20	14239.40	15052.80	15915.20

#### Interest on working capital

53. Regulation 18 (1) (a) of the 2009 Tariff Regulations provides that the working capital for Coal-based/lignite-fired thermal generating stations shall cover:



"(i) Cost of coal or lignite and limestone, if applicable, for  $1\frac{1}{2}$  months for pithead generating stations and two months for non-pit-head 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 secondary 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 charges and energy charges for sale of electricity calculated on the normative annual plant availability factor, and

(v) Operation and maintenance expenses for one month."

54. 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

55. Working capital has been calculated considering the following elements:

#### Fuel components in working capital

56. The petitioner has claimed the following cost of fuel component in working capital

based on price and GCV of coal & secondary fuel oil procured and burnt for the

preceding three months of April 2010, May 2010 and June 2010.



						(₹ in lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Cost of coal – 2 months	11843.60	11843.60	26640.89	26713.88	26640.89	26640.89
Cost of secondary fuel oil – 2 month	168.17	168.17	363.61	364.60	363.61	363.61

57. The claim of the petitioner for the cost of coal and secondary fuel oil is in order and has been considered for computation of the interest on working capital.

58. O&M expenses for 1 month for the purpose of working capital are allowed as under:

					(₹ in lakh)
2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
530.83	561.05	1122.10	1186.62	1254.40	1326.27

#### Maintenance Spares

59. Maintenance spares have been considered for the purpose of tariff as under.

					(₹ in lakh)
2009-10	2010-11	2010-11			
(31.1.2010 to	(1.4.2010 to	(31.7.2010 to	2011-12	2012-13	2013-14
31.3.2010)	30.7.2010)	31.3.2011)			
1274.00	1346.52	2693.04	2847.88	3010.56	3183.04

#### Receivables

60. Receivables have been worked out on the basis of two months of fixed and

energy charges as shown below:-

				(₹ in la	akh)
2009-10	2010-11	2010-11			
(31.1.201	(1.4.2010	(31.7.201			
0 to	to	0 to	2011-12	2012-13	2013-14
31.3.201	30.7.201	31.3.2011			
0)	0)	)			

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	2009-10 (31.1.201 0 to 31.3.201 0)	2010-11 (1.4.2010 to 30.7.201 0)	2010-11 (31.7.201 0 to 31.3.2011 )	2011-12	2012-13	2013-14
Variable charges for two months	11843.65	11843.65	26641.35	26714.34	26641.35	26641.35
Fixed charges for two months	8392.30	8629.10	16596.85	17579.44	18170.95	18625.54
Total	20235.95	20472.75	43238.20	44293.78	44812.30	45266.89

61. Interest on Working Capital for the period from 31.1.2010 to 30.7.2010 has been calculated based on SBI PLR of 12.25% prevailing as on 1.4.2009 (i.e. 1st April of the year in which Unit-I has been declared under commercial operation). Interest on Working Capital for the period from 31.7.2010 to 31.3.2014 has been calculated based on rate of interest of 11% (SBI Base Rate of 7.50% as on 1.7.2010 plus 350 basis points. Necessary computations in support of calculation of interest on working capital are as under:-

					(₹1	in lakh)
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Cost of coal – 2 months	11843.60	11843.60	26640.89	26713.88	26640.89	26640.89
Cost of secondary fuel oil – 2 month	168.17	168.17	363.61	364.60	363.61	363.61
O&M expenses – 1 month	530.83	561.05	1122.10	1186.62	1254.40	1326.27
Maintenance Spares	1274.00	1346.52	2693.04	2847.88	3010.56	3183.04
Receivables – 2 months	20235.95	20472.75	43238.20	44293.78	44812.30	45266.89
Total working capital	34052.56	34392.09	74057.83	75406.76	76081.75	76780.69
Rate of interest (%)	12.25	12.25	11.00	11.00	11.00	11.00
Interest on working capital	4171.44	4213.03	8146.36	8294.74	8368.99	8445.88

### **Secondary Fuel Oil**

62. Cost of Secondary Fuel Oil as allowed vide order dated 4.12.2014 in Petition No.

17/GT/2013has been considered as under:-



					(₹ in lakh)
2009-10	2010-11	2010-11			
(31.1.2010 to	(1.4.2010 to	(31.7.2010 to	2011-12	2012-13	2013-14
31.3.2010)	30.7.2010)	31.3.2011)			
1009.04	1009.04	2181.64	2187.61	2181.64	2181.64

#### Annual Fixed charges for 2009-14

63. The annual fixed charges allowed for the period 2009-14 in respect of the

generating station are summarized as under:-

					kh)	
	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Return on Equity	15403.80	15840.12	30079.97	31711.76	33561.85	35582.23
Interest on Loan	12865.43	13019.28	24932.62	26918.04	26480.40	25451.61
Depreciation	10534.14	10960.52	20775.32	22125.10	23380.01	24176.71
O&M Expenses	6370.00	6732.60	13465.20	14239.40	15052.80	15915.20
Interest on Working Capital	4171.44	4213.03	8146.36	8294.74	8368.99	8445.88
Cost of secondary fuel oil	1009.04	1009.04	2181.64	2187.61	2181.64	2181.64
Total	50353.83	51774.59	99581.10	105476.65	109025.70	111753.26

64. The difference in the annual fixed charges determined by order dated 4.12.2014 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

65. Petition No. 300/GT/2014 is disposed of in terms of the above.

Sd/-(Dr. M. K. Iyer) Member Sd/-(A.S. Bakshi) Member

Order in Petition No. 300/GT/2014

# <u>Annexure-I</u>

# **DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**

	1				n lakh)
SI No	Loan Details	Interest Rate (%)	Loan deployed as on 30.1.2010	Additions during the tariff period	Total
1	United Bank II Dr 3	9.25%	10000.00	0.00	10000.00
2	United Bank III Dr I	9.00%	5000.00	0.00	5000.00
3	SBI III T2 Dr 7	9.75%	5000.00	0.00	5000.00
4	SBI III T2 Dr 8	9.75%	4000.00	0.00	4000.00
5	SBI IV T1 Dr 2	9.50%	4500.00	0.00	4500.00
6	SBI IV T1 Dr 5	9.50%	10000.00	0.00	10000.00
7	SBI IV T1 Dr 7	9.50%	6000.00	0.00	6000.00
8	SBI V T1 Dr 2	9.50%	3000.00	0.00	3000.00
9	Andhra Bank T1 Dr 1	8.65%	4000.00	0.00	4000.00
10	Central Bank of India III Dr 2	8.50%	10000.00	0.00	10000.00
11	Central Bank of India IV T1 Dr 1	9.50%	1000.00	0.00	1000.00
12	IDFC I T1 Dr 1	9.02%	10000.00	0.00	10000.00
13	IDFC II T1 Dr I	9.30%	5000.00	0.00	5000.00
14	IDFC II T1 Dr 2	8.68%	6000.00	0.00	6000.00
15	LIC III Tr 4 Dr 3	8.29%	9500.00	0.00	9500.00
16	LIC IV Tr I Dr I	9.64%	7000.00	0.00	7000.00
17	LIC IV Tr I Dr 2	9.77%	10000.00	0.00	10000.00
18	LIC V Tr I Dr II	11.00%	7500.00	0.00	7500.00
19	Oriental Bank of Commerce T1 Dr I	8.25%	6000.00	0.00	6000.00
20	Oriental Bank of Commerce T1 Dr 4	8.25%	5000.00	0.00	5000.00
21	PNB II T1 Dr 2	8.75%	5000.00	0.00	5000.00
22	South Indian Bank II Dr 1	10.00%	100.00	0.00	100.00
23	Vijaya Bank II T1 Dr 2	8.50%	3500.00	0.00	3500.00
24	Allahabad Bank II T1 Dr 3	7.00%	2000.00	0.00	2000.00
25	TamilnadMercentile Bank T1 Dr I	10.00%	5000.00	0.00	5000.00
26	PFC V Dr 3	7.93%	9500.00	0.00	9500.00
27	PFC V Dr 5	8.23%	5500.00	0.00	5500.00
28	PFC V Dr 6	8.10%	10000.00	0.00	10000.00
29	PFC V Dr 9	8.03%	5000.00	0.00	5000.00
30	PFC V Dr 11	8.06%	2500.00	0.00	2500.00
31	PFC V Dr 16	8.22%	0.00	5000.00	5000.00
32	PFC V Dr 17	8.20%	0.00	10000.00	10000.00

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33	PFC V Dr 19	7.73%	0.00	2500.00	2500.00
34	PFC V Dr 20	7.82%	0.00	2000.00	2000.00
35	SBI V T1 Dr 3	9.50%	5000.00	0.00	5000.00
36	SBI V T1 Dr 7	9.50%	0.00	2500.00	2500.00
37	Bonds XXII	8.21%	500.00	0.00	500.00
38	Bonds XXIV	8.64%	4000.00	0.00	4000.00
39	Bonds XXV	9.40%	5000.00	0.00	5000.00
40	Bonds XXVI	9.09%	12500.00	0.00	12500.00
41	Bonds XXVII	11.28%	22500.00	0.00	22500.00
42	Bonds XXIX	8.68%	1400.00	0.00	1400.00
43	Bonds XXX	7.92%	20000.00	0.00	20000.00
44	Bonds XXXIII	8.76%	0.00	1700.00	1700.00
45	Bonds XXXIV	8.74%	0.00	500.00	500.00
46	Bonds XXXV	8.82%	0.00	1500.00	1500.00
47	PFC V T1 Dr 22	8.89%	0.00	1000.00	1000.00
48	PFC V Dr 23	9.36%	0.00	1000.00	1000.00
49	PFC V Dr 25	9.87%	0.00	4000.00	4000.00
50	PFC V Dr 27	9.86%	0.00	18000.00	18000.00
51	PFC V Dr 31	9.87%	0.00	3700.00	3700.00
52	PFC V Dr 32	10.03%	0.00	3700.00	3700.00
53	PFC V Dr 37	10.06%	0.00	11000.00	11000.00
54	Syndicate Bank-II T1 Dr 2	9.86%	0.00	13000.00	13000.00
55	SBI-VI, T1 D3	9.74%	0.00	6500.00	6500.00
56	SBI-VI, T1 D7	10.15%	0.00	1000.00	1000.00
57	HDFC-II, T1 D4	9.39%	0.00	4000.00	4000.00
58	Bonds XXXVIII	9.20%	0.00	3300.00	3300.00
59	NIB Dr 1	1.648%	61.39	0.00	61.39
60	NIB Dr 2	1.648%	200.11	0.00	200.11
61	NIB Dr 5	1.648%	3868.71	0.00	3868.71
62	NIB Dr 6	1.648%	2526.40	0.00	2526.40
63	NIB Dr 7	1.648%	5621.61	0.00	5621.61
	Total		259778.22	95900.00	355678.22

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# CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2009-14

					(₹ in lakh)		
	2009-10 (30.01.10 to 31.03.10)	2010-11 (01.04.10 to 30.07.10)	2010-11 (31.07.10 to 31.03.11)	2011-12	2012-13	2013-14	
Gross Loan Opening	259778.22	276478.22	283217.02	336517.02	354917.02	354917.02	
Cumulative Repayments	7982.14	10589.29	11064.29	17610.71	32683.24	57986.77	
Net opening loan	251796.07	265888.93	272152.74	318906.31	322233.78	296930.26	
Add: Addition during the period	16700.00	7500.00	53300.00	18400.00	0.00	0.00	
Less: Repayment during the period	2607.14	475.00	6546.43	15072.53	25303.53	32771.38	
Net Closing Loan	265888.93	272913.93	318906.31	322233.78	296930.26	264158.87	
Average Loan	258842.50	269401.43	295529.52	320570.05	309582.02	280544.56	
Rate of Interest (%)	8.7273	8.6377	8.8836	9.5406	9.5360	9.5704	
Interest	22589.84	23270.00	26253.52	30584.43	29521.76	26849.37	

