



Petition No. 1117 of 2016 & 1126 of 2016

BEFORE

THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

Date of Order: 18.01.2017

PRESENT:

1. Hon'ble Sri Desh Deepak Verma, Chairman
2. Hon'ble Sri Suresh Kumar Agarwal, Member

IN THE MATTER OF: Review of the Order dated 29th April, 2016 in Petition No 1025 & 1026 of 2015 in the matter of Final Truing Up for FY 2011-12, FY 2012-13 and FY 2013-14 for all existing stations, Approval of Annual Revenue Requirement and determination of Tariff for FY 2014-15 to FY 2018-19 in respect of existing thermal power stations and Petition for determination of provisional tariff for Anapara 'D'

AND IN THE MATTER OF

Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL)
Shakti Bhawan,
14-Ashok Marg,
Lucknow, U.P.

----- **Petitioner**

AND

1. UP Power Corporation Limited (UPPCL)
Shakti Bhawan
14- Ashok Marg, Lucknow.
2. Madhyanchal Vidyut Vitran Nigam Limited
PN Road, Lucknow
3. Poorvanchal Vidyut Vitran Nigam Limited
132 KV S/S Bhikari Vidyut Nagar, Varanasi
4. Paschimanchal Vidyut Vitran Nigam Limited
Victoria Park, Meerut
5. Dakshinanchal Vidyut Vitran Nigam Limited
Galina Road, Agra
6. Kanpur Electricity Supply Company Limited
KESA House, Kanpur



7. Noida Power Company Limited
Commercial Complex, H-Block, Alpha-II Sector
Greater Noida City

.....Respondent

ORDER
(Date of hearing: 16.08.2016)

- 1.1 UPRVUNL filed a review petition no. 1117 of 2016 against the UPRVUNL Tariff Order dated 29th April 2016 under the provisions of Regulation 150 of the Uttar Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 read with Section 94 (1) (f) of the Electricity Act 2003. The relevant portions of the aforementioned Act and Regulations have been reproduced below:

UPERC's (Conduct of Business) Regulations 2004

"150. (1) The Commission may on its own or on the application of any of the persons or parties concerned, within 90 days of the making of any decision direction or order, review such decision, directions or orders and pass such appropriate orders as the Commission thinks fit.

(2) An application for such review shall be filed in the same manner as a Petition under Chapter 2 of these Regulations. "

Electricity Act 2003

"94. (1) The Appropriate Commission shall, for the purposes of any inquiry or proceedings under this Act, have the same powers as are vested in a civil court under the Code of Civil Procedure, 1908 in respect of the following matters, namely: -

...

(f) Reviewing its decisions, directions and orders;"

- 1.2 Further, under the provisions of Section 95 of the Electricity Act, all the proceedings before the Commission are judicial proceedings and the Commission has all the powers of Civil court. The Civil Court, under the provisions of Section 114 and Order 47 Rules (1) and (2) of the Civil Procedure Code, has powers to review its own orders and judgements. The relevant portions of the aforementioned code have been reproduced below:

Section 114 of the Civil Procedure Code

"Section 114 CPC Review

Subject as aforesaid, any person considering himself aggrieved,-

- a. By a decree or order from which an appeal is allowed by this Code, but from which no appeal has been preferred,*
- b. By a decree or order from which appeal is allowed by this code, or*

- c. *By a decision on a reference from a Court of Small Causes, may apply for a review of judgement to the Court which passed the decree or made the order, and the Court may take such order thereon as it thinks fit”*

**Order 47 Rules (1) and (2) of the Civil Procedure Code reads as under:-
Order 47 Rules and 2 CPC**

“Application for review of judgement:-

(1) Any person considering himself aggrieved-

- a. *By a decree or order from which an appeal is allowed, but from which no appeal has been preferred,*
- b. *By a decree or order from which appeal is allowed, or*
- c. *By a decision on a reference from a Court of Small Causes, and who, from the discovery of new and important matter or evidence which after the exercise of due diligence was not within his knowledge or could not be produced by him at the time when the decree was passed or order made, or on account of some mistake or error apparent on the face of the record, or for any other sufficient reason, desires to obtain a review of the decree passed or order made against him, may apply for a review of judgement to the Court which passed the decree or made the order”*

- 1.3 UPRVUNL also filed a supplementary petition dated 15.07.2016 for review of some additional issues which it had not included in its earlier petition dated 20.06.2016.
- 1.4 UPPCL filed a counter affidavit dated 25.07.2016 against the review petition filed by UPRVUNL.
- 1.5 UPRVUNL filed rejoinder on 12.08.2016.
- 1.6 Further, UPPCL also filed a separate review petition no. 1126 of 2016 against the UPRVUNL Tariff Order dated 29th April 2016 under the provisions of Regulation 150 of the Uttar Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 read with Section 91 (1) (f) of the Electricity Act 2003.
- 1.7 UPRVUNL filed a counter affidavit dated 12.08.2016 against the petition filed by UPPCL.
- 1.8 Subsequently, the hearing for both above review petitions held on 16.08.2016.
- 1.9 In accordance with the aforementioned provisions of Electricity Act, 2003, UPERC (Conduct of Business Regulations), 2004 and Civil Procedure Code, the Commission has considered the petitions filed by UPRVUNL and UPPCL in the matter of Tariff Order dated 29th April 2016. Since the subject matters of both the review petition no.1117 of 2016 filed by UPRVUNL and review petition no. 1126 of 2016 filed by UPPCL were same, the Commission decided to club them together for hearing and adjudicating.



- 1.10 After going through the petitions submitted by UPRVUNL and UPPCL, the Commission made observations against the specific issues raised as given below:

Issue 1: Disallowance of O&M Expenses during FY 2011-12 to FY 2013-14 for Obra 'A', Panki and Harduaganj

UPRVUNL submitted that:

- 1.11 The Commission has partially disallowed O&M expenses amounting to Rs 86.17 Cr for power stations namely Obra 'A', Panki and Harduaganj on account of non-submission of requisite details of operational data of the power stations.
- 1.12 It has provided all the detailed information requested by the Commission. Further, it quoted the Clause 5(1) of the Tariff Order dated 20.01.2011 issued by the Hon'ble Commission which stated:

“keeping in view the vintage and other factors as above, the O&M expenditure for Obra- A, Harduaganj, Panki and Parichha has been considered same as that submitted in the petition. Any under or over recovery may be considered retrospectively by the Commission at the time of True up”

- 1.13 Accordingly, the Commission had allowed the truing up of additional O&M expenses incurred by UPRVUNL in its True Up Order dated 14.11.2013.
- 1.14 Hence, in view of the above, UPRVUNL requested the Hon'ble Commission to reconsider the disallowance of O&M expenses in the true up of FY 2011-12 to FY 2013-14 and allow the same as a pass through in True up of the aforementioned stations.

UPPCL submitted that:

- 1.15 The power to review under CPC is exercisable under exceptions contemplated under Order 47 R.1 which allows review on three specific grounds, namely:
- Discovery of new and important matter of evidence which after the exercise of due diligence, was not within the applicant's knowledge or could not be produced by him at the time when the decree was passed or order was made;
 - Mistake or error apparent on the face of the record;
 - Any other sufficient reason;

- 1.16 UPPCL further quoted the propositions for scope of review laid by the Hon'ble Central Commission in its Order dated 15.12.2000 in Review Petition no. 13/2000 and Petition No 2/99. The relevant portion of the Order as quoted by UPPCL is reproduced below:

“Keeping in view the statutory provisions and the law laid down by the Supreme Court, the following propositions emerge in regard to the scope of review

- The power of review can be exercised only for correction of patent error, whether of law or fact, which stares in the face and needs no elaborate argument;*

- ii) *Where there are conceivably two opinions on an issue, it cannot be said to be an error on the face of the record;*
- iii) *The error should be self-evident and*
- iv) *The review by no means is an appeal in disguise whereby an erroneous decision is reheard and corrupted”*

1.17 In view of the above, UPPCL submitted that UPRVUNL’s submission is beyond the scope of review petition as the issues raised are neither ‘new evidence’ nor ‘an apparent error of fact or of law, on the face of the record’.

1.18 UPPCL further submitted that the grievance of UPRVUNL is unjustified since it has failed to show that how the amount of O&M expenses allowed is less than the amount allowed under UPERC (Terms and Conditions for Generation Tariff) Regulations, 2009.

UPRVUNL’s rejoinder w.r.t UPPCL’s above submission:

1.19 With respect to UPPCL’s submission that UPRVUNL’s submission is beyond the scope of the review Petition, UPRVUNL submitted that it has filed the review petition before the Hon’ble Commission in line with the provisions under Regulation 150 of UPERC (Conduct of Business), Regulations, 2004 read with Section 94 (1) (f) of the Electricity Act, 2003.

1.20 They further stated that under the provisions of Section 95 of the Electricity Act, all the proceedings before the Commission are judicial proceedings and the Commission has all the powers of Civil court. The Civil Court under the provisions of Section 114 and Order 47 Rules (1) and (2) of the Civil Procedure Code has powers to review its own orders and judgements on the grounds provided under Order 47 rules 1 & 2 of Civil Procedure Code.

1.21 Hence, in view of the above, UPRVUNL has filed the review petition considering the timeline provided in Regulation 150 of UPERC (Conduct of Business), Regulations, 2004. Further, submitted that they are seeking review of Tariff Order dated 29.04.2016 on account of *“Discovery of new and important matter of evidence which even after exercise of due diligence could not be produced by the Petitioner during the original proceedings which culminated in the final order passed”* since the Hon’ble Commission while approving O&M expenses for the period has clearly stated that they were not able to submit the requisite details relating to operational data of the power stations. The relevant clause of the Tariff Order is reproduced below:

“the Commission had asked for the plant/unit wise operational data for the station from the Petitioner. However the Petitioner was not able to submit the requisite details”

1.22 UPRVUNL argued that the requisite details have not been considered by the Commission while approving O&M expense for the power stations namely Obra ‘A’, Panki and Harduaganj for the period of truing up and can be considered as the important matter of evidence which even after exercising due diligence could not be produced during the original proceedings. Hence, UPPCL’s plea for not accepting the review petition may not be accepted.



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- 1.23 UPRVUNL further submitted that the Commission has not distinctly qualified the nature of requisite details in relation with the operational data of the power stations while quoting reasons for disallowance of O&M expenses.
- 1.24 UPRVUNL reiterated that it has provided all the detailed information requested by the Commission and has requested the Commission to review the disallowance of O&M expenses.

Commission's View:

- 1.25 UPRVUNL has selectively quoted the text from the Tariff Order dated 29.04.2016 in its review petition inaccurately stating that the Commission has not distinctly qualified the nature or nomenclature of the requisite details in relation with the operational data of the power stations. The Commission has clearly mentioned in the Tariff Order the reasons for disallowance of the cost and the methodology for the same.
- 1.26 The Commission while scrutinizing the Petition for Determination of Final True Up for FY 2011-12 to FY 2013-14 and Determination of Multi Year Tariff and approval of Annual Revenue Requirement for FY 2014-15 to FY 2018-19 had observed a significant increase in O&M expenses as compared to the O&M costs approved in the true up Order dated 14.11.2013.
- 1.27 In the previous Tariff Orders, the Commission had allowed additional capitalization to improve the performance of these stations. The Commission during the process of approval of Final True Up for FY 2011-12 to FY 2013-14 and Determination of Multi Year Tariff and approval of Annual Revenue Requirement for FY 2014-15 to FY 2018-19 had directed the UPRVUNL to submit operational performance data to verify and validate the improvement of operational performance of these stations on account of additional capitalization undertaken. However UPRVUNL failed to satisfy data requirement on improvement of operational performance of these stations on account of additional capitalization undertaken.
- 1.28 Further, the Commission had directed UPRVUNL to submit plant wise audited accounts or alternatively CA certified O&M expenses for the stations in order to verify the actual O&M expenses of these stations. However, even after multiple opportunities to submit, the data requirement could not be satisfied.
- 1.29 The Commission has already elaborated on the reasons for disallowance as well as the methodology used for approval of O&M expenses for the concerned power stations Obra 'A', Panki and Harduaganj. Accordingly no change is required in this respect.

Issue 2: Operational Parameters approved for recovery of Energy Charge

UPRVUNL submitted that:

- 1.30 The Commission in the Tariff Order dated 29th April 2016 has incorrectly mentioned the auxiliary consumption norms which may form a reason for objection by UPPCL at the time of adjustment of Fuel Cost Adjustment Bill on account of change in price and GCV of coal and oil by the Petitioner.

Commission's View:

- 1.31 There is an inadvertent typographical error in the values of auxiliary consumption norms in the Tariff Order dated 29th April 2016. The corrected approved values of auxiliary consumption norms and Plant Availability Factor norms have been produced below for greater clarity:

Table 1: Auxiliary Consumption Norms for Power Stations

Station	2014-15	2015-16	2016-17	2017-18	2018-19
Anpara A	8.50%	8.50%	8.50%	8.50%	8.50%
Anpara B	5.25%	5.25%	5.25%	5.25%	5.25%
Obra A	10.00%	10.00%	10.00%	10.00%	10.00%
Obra B	9.70%	9.70%	9.70%	9.70%	9.70%
Panki	9.80%	9.80%	9.80%	9.80%	9.80%
Harduaganj	10.50%	10.50%	10.50%	10.50%	10.50%
Harduaganj Extn	9.00%	9.00%	9.00%	9.00%	9.00%
Parichha	10.70%	10.70%	10.70%	10.70%	10.70%
Parichha Extn	9.00%	9.00%	9.00%	9.00%	9.00%
Parichha Extn Stage II	9.00%	9.00%	9.00%	9.00%	9.00%

Table 2: Plant Availability Factor Norms for Power Stations

Station	2014-15	2015-16	2016-17	2017-18	2018-19
Panki	70.00%	70.00%	70.00%	70.00%	70.00%
Harduaganj	65.00%	65.00%	65.00%	65.00%	65.00%
Parichha Extn	85.00%	85.00%	85.00%	85.00%	85.00%

Issue 3: Financials approved for recovery of Capacity Charges

a) Name of Power Station: Anpara 'B'

UPRVUNL submitted that:

- 1.32 The Commission has incorrectly approved the opening values of Gross Fixed Assets and Equity Balances which has consequently resulted in under determination of components of fixed charges.
- 1.33 In view of above, UPRVUNL has requested the Commission to suitably revise the opening values of GFA and Equity for FY 2014-15 and further modify the components of tariff namely Depreciation, return on equity and interest on working capital accordingly.

Commission's View:



- 1.34 There has been an inadvertent error in the approved opening value of Gross Fixed Assets for FY 2014-15 for Anpara-'B' power station. The revised tables for MYT and ARR for Anpara 'B' Thermal Power Station are:

Table 3: Calculation of GFA & NFA including financing

(Rs Cr)

Anpara 'B' Power Station	2014-15	2015-16	2016-17	2017-18	2018-19
Op. GFA	4,855.81	4,855.81	4,855.81	4,855.81	4,855.81
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. GFA	4855.81	4855.81	4855.81	4855.81	4855.81
Cl. Net FA	602.56	496.08	496.08	496.08	496.08
Financing:					
Op. Equity	1,317.01	1,317.01	1,317.01	1,317.01	1,317.01
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. Equity	1,317.01	1,317.01	1,317.01	1,317.01	1,317.01
Op. Accu Dep.	3975.50	4253.25	4359.74	4359.74	4359.74
Dep. During the	277.75	106.49	-	-	-
Cl. Accu. Dep.	4253.25	4359.74	4359.74	4359.74	4359.74
Op. Debts	-	-	-	-	-
Additions	-	-	-	-	-
Less: Dep.	-	-	-	-	-
Cl. Debts	-	-	-	-	-

Table 4: Details of RoE, Depreciation, O&M and Interest on Loans

(Rs Cr)

Sl.	Particular	2014-15	2015-16	2016-17	2017-18	2018-19
1	Return on Equity	204.14	204.14	204.14	204.14	204.14
2	Depreciation	277.75	106.49	0.00	0.00	0.00
3	Interest on Loans	0.00	0.00	0.00	0.00	0.00
4	O & M Expenses	160.00	170.10	180.80	192.20	204.30
5	Com. Allowance	7.50	7.50	7.50	7.50	7.50
	Total:	649.39	488.22	392.44	403.84	415.94



- 1.35 The amount of GFA pertaining to Anpara 'B' Power Station at the beginning of FY 2014-15 was Rs 4,855.81 Cr. out of which Rs 11.66 Cr. was invested on land leaving a balance of Rs 4844.15 Cr. The maximum Depreciation as per UPERC (Terms and Conditions for Generation Tariff Regulations), 2014 is permissible to the extent of 90% of the value of the GFA excluding the value of land which is worked out to Rs 4359.74 Cr. The accumulated depreciation allowed till the end of FY 2013-14 is Rs 3975.50 Cr. which is less than Rs 4359.74 Cr. therefore, the Commission has allowed full Depreciation of Rs 277.75 Cr for FY 2014-15 and depreciation of Rs 106.49 Cr for FY 2015-16.

Table 5: Annual Receivables of Anpara 'B' Power Station required for calculation of Working Capital

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges*	715.27	550.91	453.22	465.33	478.18
Cost of Fuel	1144.52	1147.14	1144.52	1144.52	1144.52
Total Receivables	1859.79	1698.05	1597.74	1609.85	1622.70

*In accordance with proviso under Regulation 17 (2) of UPERC Generation Tariff Regulations 2014

Table 6: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	184.35	184.77	184.35	184.35	184.35
2	Cost of Secondary Fuel Oil for 2 months	3.95	3.96	3.95	3.95	3.95
3	O & M for 1 month	13.33	14.18	15.07	16.02	17.03
4	Maintenance Spares @20% of O & M Exp.	32.00	34.02	36.16	38.44	40.86
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	309.97	283.01	266.29	268.31	270.45
6	Working Capital	543.60	519.93	505.82	511.07	516.64
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	73.39	70.19	68.29	68.99	69.75



Table 7: Fixed Charges as claimed by UPRVUNL and as approved by the Commission

(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	160.00	160.00	0.00	170.10	170.10	0.00
Depreciation (Rs Cr)	277.75	277.75	0.00	277.75	106.49	-171.26
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr)	51.87	73.39	21.52	66.39	70.19	3.80
Compensation Allowance (Rs Cr)	7.50	7.50	0.00	7.50	7.50	0.00
Total (Rs Cr)	701.26	722.77	21.51	725.88	558.41	-167.47
Ex-bus Energy Sent Out (kWh)	7055.09	7055.09	0.00	7055.00	7071.19	16.19
Fixed Cost per Unit	0.99	1.02	0.03	1.03	0.79	-0.24

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	180.80	180.80	0.00	192.20	192.20	0.00
Depreciation (Rs Cr)	277.75	0.00	-277.75	277.75	0.00	-277.75
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr)	69.57	68.29	-1.28	72.66	68.99	-3.67
Compensation Allowance (Rs Cr)	7.50	7.50	0.00	7.50	7.50	0.00
Total (Rs Cr)	739.76	460.72	-279.04	754.25	472.83	-281.42
Ex-bus Energy Sent Out (kWh)	7055.09	7055.09	0.00	7055.09	7055.09	0.00
Fixed Cost per Unit	1.05	0.65	-0.40	1.07	0.67	-0.40

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	204.30	204.30	0.00
Depreciation (Rs Cr)	277.75	0.00	-277.75
Interest on Loan (Rs Cr)	0.00	0.00	0.00
Return on Equity (Rs Cr)	204.14	204.14	0.00
Interest on Working Capital	75.90	69.75	-6.15
Compensation Allowance (Rs Cr)	7.50	7.50	0.00
Total (Rs Cr)	769.59	485.68	-283.91
Ex-bus Energy Sent Out (kWh)	7055.09	7055.09	0.00



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
Fixed Cost per Unit	1.09	0.69	-0.40



Table 8: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission

(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	160.00	160.00	0.00	170.10	170.10	0.00
Depreciation (Rs Cr.)	277.75	277.75	0.00	277.75	106.49	-171.26
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr.)	51.87	73.39	21.52	66.39	70.19	3.80
Com. Allowance (Rs Cr.)	7.50	7.50	0.00	7.50	7.50	0.00
Fixed Cost (Rs Cr.)	701.26	722.77	21.51	725.88	558.41	-167.47
F. C. per Unit (Rs./ kWh)	0.99	1.02	0.03	1.03	0.79	-0.24
V. C. on Fuel (Rs Cr)	1106.73	1144.52	37.79	1162.07	1147.14	-14.93
V. C. per Unit (Rs./kWh)	1.57	1.62	0.05	1.60	1.62	-0.025
Total Cost (Rs In Cr.)	1807.99	1867.30	59.31	1887.95	1705.55	-182.40
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00	7055.00	7071.19	16.19
Total Cost per Unit (Rs/kWh)	2.56	2.65	0.08	2.68	2.41	-0.26

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	180.80	180.80	0.00	192.20	192.20	0.00
Depreciation (Rs Cr.)	277.75	0.00	-277.75	277.75	0.00	-277.75
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr.)	69.57	68.29	-1.28	72.66	68.99	-3.67
Com. Allowance (Rs Cr.)	7.50	7.50	0.00	7.50	7.50	0.00
Fixed Cost (Rs Cr.)	739.76	460.72	-279.04	754.25	472.83	-281.42
F. C. per Unit (Rs./kWh.)	1.05	0.65	-0.40	1.07	0.67	-0.40
V. C. on Fuel (Rs Cr.)	1220.17	1144.52	-75.65	1281.18	1144.52	-136.66
V. C. per Unit (Rs./kWh.)	1.73	1.62	-0.11	1.82	1.62	-0.19
Total Cost (Rs Cr.)	1959.93	1605.25	-354.68	2035.43	1617.35	-418.08
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00	7055.09	7055.09	0.00
Total Cost per Unit (Rs/kWh)	2.78	2.28	-0.50	2.89	2.29	-0.59



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	204.30	204.30	0.00
Depreciation (Rs Cr.)	277.75	0.00	-277.75
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	204.14	204.14	0.00
Interest on Working Capital (Rs Cr.)	75.90	69.75	-6.15
Com. Allowance (Rs Cr.)	7.50	7.50	0.00
Fixed Cost (in Cr..)	769.59	485.68	-283.75
F. C. per Unit (Rs/kWh.)	1.09	0.69	-0.40
V. C. on Fuel (Rs Cr.)	1345.24	1144.52	-200.72
V. C. per Unit (Rs/ kWh.)	1.91	1.62	-0.28
Total Cost (Rs Cr.)	2114.83	1630.21	-484.62
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00
Total Cost per Unit (In Rs./kWh)	3.00	2.31	-0.69

b) Name of Power Station: Obra 'A'

UPRVUNL submitted that

- 1.36 The Commission has incorrectly mentioned the compensation allowance for FY 2016-17 in the summary table as Rs 144.43 Cr against the approved figure of Rs 1.50 Cr.

Commission's View:

- 1.37 There is no compensation allowance to be provided in case of Obra –A as discussed in Paragraph 1.111 of this Order. The revised fixed charges have been provided under Paragraph 1.114

UPRVUNL submitted that

- 1.38 The Commission has incorrectly mentioned the total value of fixed charges for FY 2014-15 as Rs 187.68 Cr at Page No 107 of the Tariff Order dated 29.04.2016 as against the approved figure of Rs 187.98 Cr at Page No 112 of the Order.

Commission's View:

- 1.39 There is a typographical error in the value of the total fixed charge at Page No 107 of the Tariff Order dated 29.04.2016. The corrected summary table is as follows

Table 9: Fixed charges as claimed by UPRVUNL and as approved by Commission

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)



Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	133.14	133.14	0.00	138.70	138.70	0.00
Depreciation (Rs Cr)	12.74	12.74	0.00	12.74	12.74	0.00
Interest on Loan (Rs Cr)	11.14	11.13	-0.01	9.73	9.73	0.00
Return on Equity (Rs Cr)	12.47	12.47	0.00	12.47	12.47	0.00
Interest on Working Capital (Rs Cr)	17.49	16.96	-0.53	18.24	17.29	-0.95
Compensation Allowance (Rs Cr)	1.50	0.00	-1.50	1.50	0.00	-1.50
Special allowance (If applicable)	0.00	0.0	0.00	0.00	0.00	0.00
Total (Rs Cr) :	188.48	186.44	-2.04	193.38	190.93	-2.45
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65	994.00	1073.09	79.09
Fixed Cost per Unit	1.90	1.74	-0.15	1.95	1.78	-0.17

UPPCL submitted that:

- 1.40 The Hon'ble Commission has computed the fixed charges for Obra 'A' for the MYT Period FY 2014-15 to FY 2018-19 based on installed/ de-rated capacity of 288 MW as against the computation of the variable charges which has been done based on installed/ de-rated capacity of 194 MW
- 1.41 UPPCL stated that the same has resulted in higher claim of fixed charges and has requested the Commission to suitably revise the value of fixed charges for Obra 'A'.

UPRVUNL submitted that

- 1.42 With respect to UPPCL's submission regarding computation of fixed charges on higher installed/de-rated capacity of 288 MW, it has taken the reduced availability factor into consideration on the ground that 94 MW unit is under deletion and has billed UPPCL accordingly. Hence, the UPPCL's submission that this error has resulted into higher claim of fixed charges is totally baseless.

Commission's View

- 1.43 The Commission has considered the submissions made by both UPRVUNL and UPPCL. As the capacity is under deletion and since the unit is not generating any power, UPRVUNL has stated that under Availability Based Tariff (ABT), the billing to UPPCL is being done considering the reduced availability factor and hence, no extra charges are being claimed. UPRVUNL also submitted that the proposal for deletion of 94 MW capacity is under consideration and pending for approval.



1.44 In view of the above circumstances, the Commission is of the opinion that this matter can be taken up at the time of the true up and no changes are currently required in the same.

c) Name of Power Station: Panki

UPRVUNL submitted that

1.45 The Commission has incorrectly approved the figure of depreciation for FY 2018-19 as Rs 0.78 Cr leading to accumulated depreciation as Rs 124.20 Cr which is less than 90% of the allowable depreciation i.e. 142.61 Cr at Page No 128 of the Tariff Order dated 29th April 2016.

1.46 In view of above, the Petitioner has requested the Commission to suitably revise the depreciation for FY 2018-19 and further modify the Total fixed cost accordingly.

Commission's View:

1.47 There is an inadvertent error in the approved value of depreciation in the table for calculation of GFA and NFA including financing for FY 2018-19 at Page No 127 of the Tariff Order dated 29h April 2016.

1.48 The amount of GFA at the beginning of FY 2014-15 was Rs 159.97 Cr. out of which Rs 1.55 Cr. was invested on land leaving a balance of Rs 158.42 Cr. The maximum Depreciation as per UPERC (Terms and Conditions for Generation Tariff Regulations), 2014 is permissible to the extent of 90% of the value of the GFA excluding the value of land which is worked out to Rs 142.58 Cr. Therefore, the Commission has allowed full depreciation up to FY 2018-19 with accumulated depreciation allowed till the end of FY 2018-19 as Rs 130.82 Cr. which is less than Rs 142.58 Cr.

1.49 The corrected table for Calculation of GFA and NFA including financing as well as the summary table for components of Fixed charges is as follows:

Table 10: Calculation of GFA & NFA including financing

(Rs Cr)

Panki Power Station	2014-15	2015-16	2016-17	2017-18	2018-19
Op. GFA	159.97	159.97	159.97	159.97	159.97
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. GFA	159.97	159.97	159.97	159.97	159.97
Cl. Net FA	58.76	51.36	43.96	36.55	29.15
Financing:					
Op. Equity	36.63	36.63	36.63	36.63	36.63
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. Equity	36.63	36.63	36.63	36.63	36.63



Panki Power Station	2014-15	2015-16	2016-17	2017-18	2018-19
Op. Accu Dep.	93.80	101.21	108.61	116.02	123.42
Dep. During the year	7.40	7.40	7.40	7.40	7.40
Cl. Accu. Dep.	101.21	108.61	116.02	123.42	130.82
Op. Debts	25.14	17.74	10.33	2.93	-
Additions	-	-	-	-	-
Less: Repayment	7.40	7.40	7.40	2.93	-
Cl. Debts	17.74	10.33	2.93	-	-

Table 11: Details of ROE, Depreciation, O&M and Interest on Loans

(Rs Cr)

Sl.No.	Particular	2014-15	2015-16	2016-17	2017-18	2018-19
1	Return on Equity	5.68	5.68	5.68	5.68	5.68
2	Depreciation	7.40	7.40	7.40	7.40	7.40
3	Interest on Loan	2.48	1.62	0.77	0.17	0.00
4	O & M Expenses	115.37	120.20	125.18	130.28	135.56
5	Com. Allowance	0.00	0.00	0.00	0.00	0.00
6.	Special Allowance	15.75	16.75	17.81	18.94	20.15
	Total:	146.68	151.66	156.84	162.48	168.78

- 1.50 The revised value for Interest on Working Capital for FY 2018-19 due to the changes in Depreciation, compensation allowance and special allowance is as follows:

Table 12: Annual Receivables of Panki required for Calculation of Working Capital

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges*	156.78	161.08	165.45	170.26	175.68
Cost of Fuel	400.34	401.26	400.34	400.34	400.34
Total Receivables	557.12	562.34	565.79	570.60	576.02

*In accordance with proviso under Regulation 17 (2) of UPERC Generation Tariff Regulations 2014

Table 13: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	64.28	64.43	64.28	64.28	64.28
2	Cost of Secondary Fuel Oil for 2 months	1.65	1.65	1.65	1.65	1.65
3	O & M for 1 month	9.61	10.02	10.43	10.86	11.30
4	Maintenance Spares @20% of O & M Exp.	23.07	24.04	25.04	26.06	27.11
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	92.85	93.72	94.30	95.10	96.00
6	Working Capital	191.47	193.86	195.69	197.94	200.34



Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	25.85	26.17	26.42	26.72	27.05

1.51 Accordingly, the revised values for Capacity Fixed charges for FY 2018-19 is as tabulated below:

Table 14: Fixed Charges as claimed by UPRVUNL with those as allowed by the Commission

(Rs Cr)

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr.)	135.56	135.56	0.00
Depreciation (Rs Cr.)	7.40	7.40	0.00
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	5.68	5.68	0.00
Interest on Working Capital (Rs Cr.)	28.65	27.05	-1.60
Compensation Allowance (Rs Cr.)	2.10	0.00	-2.10
Special Allowance	0.00	20.15	20.15
Total (Rs Cr.)	179.39	195.83	16.44
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52
Fixed Cost per Unit	1.66	1.69	0.02

1.52 Accordingly, the revised values for Total Charges for FY 2018-19 is as tabulated below:

Table 15: Cost per kWh as claimed by UPRVUNL with those as allowed by the Commission (Rs Cr)

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	135.56	135.56	0.00
Depreciation (Rs Cr.)	7.40	7.40	0.00
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	5.68	5.68	0.00
Interest on Working Capital (Rs Cr.)	28.65	27.05	-1.60
Com. Allowance (Rs Cr.)	2.10	0.00	-2.10
Special Allowance (Rs Cr.)	0.0	20.15	20.15
Fixed Cost (Rs Cr.)	179.39	195.83	16.44
F. C. per Unit (Rs/kWh.)	1.66	1.69	0.02



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
V. C. on Fuel (Rs Cr.)	482.71	400.34	-82.37
V. C. per Unit (Rs/ kWh.)	4.47	3.45	-1.03
Total Cost (Rs Cr.)	662.10	596.17	-65.93
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52
Total Cost per Unit (Rs./kWh)	6.14	5.13	-1.00

d) Name of Power Station: Harduaganj

UPRVUNL submitted that

- 1.53 The Commission has incorrectly mentioned the total value of fixed charges for FY 2014-15 as Rs 22.72 Cr at Page No 145 of the Order against the approved figure of Rs 122.72 Cr at Page No 140 of the Order.

Commission's View:

- 1.54 There is typographical error in the value of total fixed charges for FY 2014-15 at Page No 145 of the Order. The corrected summary table is as follows:

Table 16: Cost per Kwh as claimed by UPRVUNL and those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	87.91	87.91	0.00	91.59	91.59	0.00
Depreciation (Rs Cr.)	7.06	7.06	0.00	7.06	6.34	-0.72
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	6.92	6.92	0.00	6.92	6.92	0.00
Interest on Working Capital (Rs Cr.)	17.76	19.14	1.38	18.59	19.38	0.79
Com. Allowance	1.65	0.00	-1.65	1.65	0.00	-1.65
Fixed Cost (Rs Cr.)	121.30	121.03	-0.27	125.81	124.23	-1.58
F. C. per Unit (Rs/kWh)	1.56	1.44	-0.12	1.62	1.47	-0.15
V. C. on Fuel (Rs Cr.)	290.92	291.61	0.69	305.46	292.28	-13.18
V. C. per Unit (Rs/kWh)	3.75	3.47	-0.28	3.94	3.47	-0.47
Total Cost (Rs Cr)	412.22	412.65	0.43	431.27	416.51	-14.76
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86	776.00	842.78	66.78
Total Cost per Unit (Rs/kWh)	5.31	4.91	-0.40	5.56	4.94	-0.62



e) Name of Power Station: Parichha Extension

UPRVUNL submitted that

- 1.55 The Commission has incorrectly mentioned the total value of fixed charges for FY 2016-17 as Rs 381.15 Cr in the summary table at Page No 167 of the Order instead of the approved figure of Rs 384.40 Cr at Page No 163 of the Order

Commission's View:

- 1.56 There is a typographical error in the value of total fixed charges for FY 2016-17. The corrected summary table has been produced below for greater clarity:

Table 17: Cost per Kwh as claimed by UPRVUNL and those as allowed by the Commission

(Rs Cr)

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	113.40	113.40	0.00	120.54	120.54	0.00
Depreciation (Rs Cr.)	97.64	97.64	0.00	97.64	97.64	0.00
Interest on Loan (Rs Cr.)	64.05	64.05	0.00	55.20	55.20	0.00
Return on Equity (Rs Cr.)	55.45	55.45	0.00	55.45	55.45	0.00
Interest on Working Capital	50.28	53.85	3.57	52.46	54.09	1.63
Com. Allowance (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Cost (Rs Cr.)	380.82	384.40	3.58	381.29	382.93	1.64
F. C. per Unit (Rs./kWh)	1.34	1.35	0.01	1.34	1.35	0.01
V. C. on Fuel (Rs Cr.)	919.90	914.38	-5.52	965.89	914.38	-51.51
V. C. per Unit (Rs/ kWh)	3.23	3.21	-0.02	3.39	3.21	-0.18
Total Cost (Rs Cr.)	1300.72	1298.78	-1.94	1347.18	1297.31	-49.87
Ex-bus Energy Sent Out (MU)	2846.00	2845.86	-0.14	2846.00	2845.86	-0.14
Total Cost per Unit (Rs/kWh)	4.57	4.56	-0.01	4.73	4.56	-0.18

f) Name of Power Station: Parichha Extension Stage II

UPRVUNL submitted that

- 1.57 The Commission has incorrectly approved the figure of opening value of debt for FY 2014-15 as Rs 1777.87 Cr as against the closing value of debt for FY 2013-14 which is Rs 1777.95 Cr.
- 1.58 Hence, in view of the above, UPRVUNL has requested the Commission to modify the opening value of debt for FY 2014-15 and consequently revise the value of the other tariff components such as Interest on Loan and interest on working capital.



Commission's View:

- 1.59 There has been a typographical error in the value of additions to debt for FY 2013-14 in the True up Order dated 29.04.2016. The approved value of additions to debt is Rs 988.54 Cr as against the value of Rs 988.62 Cr at Page No 71 of the Order. Consequently, the closing balance of debt will be revised which will be equal to the opening balance of debt for FY 2014-15. The corrected summary tables for the true up period FY 2011-12 to FY 2013-14 has been reproduced in this section.

UPRVUNL submitted that

- 1.60 The Commission while approving the Interest on Working Capital for FY 2015-16 has approved the figure of Rs 67.71 Cr which is in line with the UPERC (Terms and Conditions for determination of Generation Tariff), 2014 on Page 185 of the Order. However, on the same page the Interest on Working Capital has been incorrectly mentioned as Rs 67.83 Cr and the Total Fixed Charges have been approved as Rs 631.66 Cr.
- 1.61 Further, while summarizing the final table of Fixed and Variable charges on Page No 190 of the Order, the Commission has approved the value of Interest on Working Capital as Rs 62.78 Cr and Total Fixed Charges as Rs 626.61 Cr for FY 2015-16
- 1.62 Hence, in view of the above, it has requested the Commission to modify the values of Interest on Working Capital and total Fixed Charges.

Commission's View:

- 1.63 Unit -5 of Parichha Extension Stage II was commissioned on 17.07.2012 and Unit 6 was commissioned on 18.04.2014. Accordingly, the pro rata values for ROE, Interest on loan and Depreciation have been calculated.
- 1.64 Accordingly, the Commission is of the view that Fixed Charges for Parichha Extension Stage II should be computed on pro rata basis for the period FY 2012-13 to FY 2013-14 to ensure consistent methodology in the Tariff Order.
- 1.65 There are typographical errors in the value of Interest in Working Capital for FY 2015-16 on Page No 185 of the Tariff Order dated 29.04.2016. The revised table for calculation of Interest on Working Capital and Capacity Fixed Charges has been reproduced below.
- 1.66 The revised tables for Parichha Extension Stage II for True Up of FY 2011-12 to FY 2013-14 and MYT Period FY 2014-15 to FY 2018-19 addressing all the above concerns have been produced below for greater clarity.



Table 18: Approved Revised GFA

(Rs Cr)

Parichha Extension-II Power Station	2011-12			2012-13			2013-14		
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC
Op. GFA	-	-	-	-	-	-	1,411.41	1,261.23	1,261.23
Additions	-	-	-	1,411.41	1,261.23	1,261.23	1,411.41	1,412.32	1,412.21
Deletions	-	-	-	-	-	-	-	-	-
Cl. GFA	-	-	-	1,411.41	1,261.23	1,261.23	2,822.82	2,673.54	2,673.43
Cl. Net FA	-	-	-	1,338.38	1,238.53	1,229.13	2,585.12	2,580.01	2,547.45
Financing:	-	-	-	-	-	-	-	-	-
Op. Equity	-	-	-	-	-	-	423.42	378.37	378.37
Additions	-	-	-	423.42	378.37	378.37	423.42	423.7	423.66
Reduction	-	-	-	-	-	-	-	-	-
Cl. Equity	-	-	-	423.42	378.37	378.37	846.85	802.06	802.03
Op. Accu Dep	-	-	-	-	-	-	73.03	22.7	32.10
Dep. during the Year	-	-	-	25.44	22.7	32.10	76.32	70.83	93.88
A. A. D.	-	-	-	47.59	-	-	88.35	-	-
Cl. Accu. Depreciation	-	-	-	73.03	22.7	32.10	237.70	93.53	125.98
Op. Debts	-	-	-	-	-	-	914.96	860.15	850.76
Additions	-	-	-	987.99	882.86	882.86	987.99	988.62	988.54
Less : Repayment.	-	-	-	73.03	22.7	32.10	164.67	70.83	93.88
Cl. Debts	-	-	-	914.96	860.15	850.76	1,738.27	1,777.95	1,745.42

Table 19: Approved True-up for FY 2013-13 & FY 2013-14

Parichha Extension Stage II Power Station	(Rs in Cr)							
	2012-13				2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	73.03	22.70	32.10	-40.93	164.67	70.83	93.88	-70.79
Interest on Loan	48.04	45.16	63.14	15.10	139.29	138.50	181.06	41.77
Return on Equity	65.63	58.65	41.45	-24.18	131.26	124.32	121.26	-10.00
Interest on Working Capital	25.85	25.85	25.85	0.00	53.34	53.34	53.34	0.00
O&M Expenses	53.76	21.80	21.80	-31.96	113.68	43.36	43.36	-70.32



(Rs in Cr)								
Parichha Extension Stage II Power Station	2012-13				2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.201	As claimed by UPRVNL	As Approve d by the UPERC	Diff
Compensation All	-	-	-	-	-	-	-	
Total	266.31	174.16	184.34	-81.97	602.25	430.35	492.90	-109.34

1.67 Accordingly, the revised tables for MYT Period are as produced below:

Table 20: Calculation of GFA & NFA including financing

(Rs Cr)

Parichha Extension Stage II Power Station	2014-15	2015-16	2016-17	2017-18	2018-19
Op. GFA	2,673.43	2,673.43	2,673.43	2,673.43	2,673.43
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. GFA	2,673.43	2,673.43	2,673.43	2,673.43	2,673.43
Cl. Net FA	2398.09	2248.73	2099.36	1950.00	1800.64
Financing:					
Op. Equity	802.03	802.03	802.03	802.03	802.03
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. Equity	802.03	802.03	802.03	802.03	802.03
Op. Accu Dep.	125.98	275.34	424.70	574.07	723.43
Dep. During the	149.36	149.36	149.36	149.36	149.36
Cl. Accu. Dep.	275.34	424.70	574.07	723.43	872.79
Op. Debts	1745.42	1596.06	1446.70	1297.33	1147.97
Additions	-	-	-	-	-
Less: Dep.	149.36	149.36	149.36	149.36	149.36
Cl. Debts	1596.06	1446.70	1297.33	1147.97	998.61

Table 21: Details of RoE, Depreciation, O&M and Interest on Loans

(Rs Cr)

Sl.No.	Particular	2014-15	2015-16	2016-17	2017-18	2018-19
1	Return on Equity	124.31	124.31	124.31	124.31	124.31
2	Depreciation	149.36	149.36	149.36	149.36	149.36
3	Interest on Loans	175.43	159.74	144.06	128.38	112.70
4	O & M Expenses	119.50	127.00	135.00	143.50	152.55
5	Com. Allowance	0.00	0.00	0.00	0.00	0.00



Sl.No.	Particular	2014-15	2015-16	2016-17	2017-18	2018-19
	Total:	568.61	560.42	552.74	545.56	538.92

- 1.68 The amount of GFA pertaining to Parichha Extension Stage-II Power Station at the beginning of FY 2014-15 was Rs 2673.43 Cr. The cost of land is nil. The maximum Depreciation as per UPERC Generation Tariff Regulations, 2014 is permissible to the extent of 90% of the value of the GFA excluding the value of land which is worked out to Rs 2406.09 Cr. for Parichha Extension Stage-II Power Station. The accumulated depreciation allowed till the end of FY 2018-19 is Rs 872.79 Cr. which is less than ` 2406.09 Cr. therefore, the Commission has allowed full Depreciation for FY 2014-15 to FY 2018-19.

Table 22: Annual Receivables of Parichha Extension Stage-II Power Station required for calculation of Working Capital

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges	636.14	628.17	620.51	613.50	607.06
Cost of Fuel	1088.53	1091.02	1088.53	1088.53	1088.53
Total Receivables	1724.67	1719.19	1709.04	1702.03	1695.59

Table 23: Working Capital as determined by the Commission

(Rs Cr)

S.No	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	177.45	177.85	177.45	177.45	177.45
2	Cost of Secondary Fuel Oil for 2 months	1.48	1.49	1.48	1.48	1.48
3	O & M for 1 month	9.96	10.58	11.25	11.96	12.71
4	Maintenance Spares @20% of O & M Exp.	23.90	25.40	27.00	28.70	30.51
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	287.44	286.53	284.84	283.67	282.60
6	Working Capital	500.23	501.85	502.02	503.26	504.75
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	67.53	67.75	67.77	67.94	68.14

Table 24: Fixed Charges as claimed by UPRVUNL and as approved by the Commission

(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	119.50	119.50	0.00	127.00	127.00	0.00
Depreciation (Rs Cr)	149.36	149.36	0.00	149.36	149.36	0.00
Interest on Loan (Rs Cr)	178.84	175.43	-3.41	163.16	159.74	-3.42



Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Return on Equity (Rs Cr)	124.32	124.31	-0.01	124.32	124.31	-0.01
Interest on Working Capital (Rs Cr)	59.99	67.53	7.54	62.26	67.75	5.49
Compensation Allowance (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr) :	632.01	636.14	4.13	626.10	628.17	2.07
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	- 0.07	3388.00	3395.67	7.66
Fixed Cost per Unit	1.87	1.88	0.01	1.85	1.85	0.00

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	135.00	135.00	0.00	143.50	143.50	0.00
Depreciation (Rs Cr)	149.36	149.36	0.00	149.36	149.36	0.00
Interest on Loan (Rs Cr)	147.48	144.06	-3.42	131.79	128.38	-3.41
Return on Equity (Rs Cr)	124.32	124.31	-0.01	124.32	124.31	-0.01
Interest on Working Capital (Rs Cr)	64.67	67.77	3.10	67.22	67.94	0.72
Compensation Allowance (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr) :	620.83	620.51	-0.32	616.19	613.50	-2.69
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07	3388.00	3387.93	-0.07
Fixed Cost per Unit	1.83	1.83	0.00	1.82	1.81	-0.01

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	152.55	152.55	0.00
Depreciation (Rs Cr)	149.36	149.36	0.00
Interest on Loan (Rs Cr)	116.11	112.70	-3.41
Return on Equity (Rs Cr)	124.32	124.31	-0.01
Interest on Working Capital (Rs Cr)	69.92	68.14	-1.78
Compensation Allowance (Rs Cr)	0.00	0.00	0.00
Total (Rs Cr) :	612.26	607.06	-5.20
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
(Rs Cr.)						
Fixed Cost (Rs Cr.)	620.83	620.51	-0.32	616.19	613.50	-2.69
F. C. per Unit (Rs./kWh)	1.83	1.83	0.00	1.82	1.81	-0.01
V. C.on Fuel (Rs Cr.)	1126.85	1088.53	-38.32	1183.19	1088.53	-94.66
V. C. per Unit (Rs/ kWh)	3.33	3.21	-0.11	3.49	3.21	-0.28
Total Cost (Rs Cr.)	1747.68	1709.04	-38.64	1799.38	1702.03	-97.35
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07	3388.00	3387.93	-0.07
Total Cost per Unit (Rs/kWh)	5.16	5.04	-0.12	5.31	5.02	-0.29

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	152.55	152.55	0.00
Depreciation (Rs Cr.)	149.36	149.36	0.00
Interest on Loan (Rs Cr.)	116.11	112.70	-3.41
Return on Equity (Rs Cr.)	124.32	124.31	-0.01
Interest on Working Capital (Rs Cr.)	69.92	68.14	-1.78
Com. Allowance (Rs Cr.)	0.00	0.00	0.00
Fixed Cost (Rs Cr.)	612.26	607.06	-5.20
F. C. per Unit (Rs./kWh)	1.81	1.79	-0.02
V. C.on Fuel (Rs Cr.)	1242.35	1088.53	-153.82
V. C. per Unit (Rs/ kWh)	3.67	3.21	-0.45
Total Cost (Rs Cr.)	1854.61	1695.59	-159.02
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07
Total Cost per Unit (Rs/kWh)	5.47	5.00	-0.47

g) Name of Power Station: Harduaganj Extension

UPRVUNL submitted that

- 1.70 The Commission has approved a figure of Rs 664.64 Cr as the total value of Fixed Charges for FY 2017-18 at page no 179 of the Tariff Order dated 29th April 2016. However, while summarizing in the summary table, at page no 174 the Commission has incorrectly mentioned the figure of Rs 656.76 Cr as total fixed charges.
- 1.71 In view of above, it has requested the Commission to suitably revise the value of total fixed charges in the Tariff Order.

Commission's View:



- 1.72 There is an inadvertent typographical error in the total value of fixed charges for FY 2017-18 in the summary table at Page No 174 of the Order. The corrected summary table has been provided in this section of the order.

UPPCL submitted that

- 1.73 Unit -1 of Harduaganj Extension was commissioned on 1st February 2012 and Unit 2 was commissioned on 10th October 2013 and an amount of Rs 1518.97 Cr invested in Unit – I and Rs 1579.75 Cr was invested in Unit – II.
- 1.74 The Commission has computed ROE, Interest on loan and depreciation on average year basis and consequently the claim for FY 2011-12 and FY 2013-14 has been computed for 183 days when in effect Unit – I was available for use for only 60 days in FY 2011-12 and Unit – II was available for 172 days in FY 2013-14. Hence, ROE, Interest on loan and depreciation have been overstated in the Tariff Order dated 29.04.2016.
- 1.75 UPPCL has requested the Hon'ble Commission to suitably correct these charges in the Tariff Order.

Commission's View:

- 1.76 The Commission has considered the submission of UPPCL with respect to calculation of ROE, Interest on Loan and Depreciation for FY 2011-12 and FY 2013-14 and has accordingly corrected these charges. Unit – I of Harduaganj Extension was available for use for 60 days in FY 2011-12 and Unit – II was available for 173 days in FY 2013-14.
- 1.77 Accordingly, the corrected tables for Harduaganj Extension for True Up of FY 2011-12 to FY 2013-14 and MYT Period FY 2014-15 to FY 2018-19 have been produced below for greater clarity.

Table 26: Approved Revised GFA

(Rs Cr)

(Rs in Cr)									
Harduaganj Extension Power Station	2011-12			2012-13			2013-14		
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC
Op. GFA	-	-	-	1,518.88	1,518.88	1,518.97	2,956.00	1,537.93	1,538.02
Additions	1,518.88	1,518.88	1518.97	1,437.12	19.05	19.05		1,579.75	1,579.75
Deletions		-	-		-	-		-	-
Cl. GFA	1,518.88	1,518.88	1518.97	2,956.00	1,537.93	1,538.02	2,956.00	3,117.68	3,117.77
Cl. Net GFA	1,464.18		1510.00			1474.01			2971.48



(Rs in Cr)									
Harduaganj Extension Power Station	2011-12			2012-13			2013-14		
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC
Financing									
Op. Equity	-	-	-	455.66	455.69	455.69	886.80	461.41	461.41
Additions	455.69	455.69	455.69	431.14	5.72	5.72		473.93	473.93
Reduction	-	-	-	-	-	-		-	-
Cl. Equity	455.69	455.69	455.69	886.80	461.41	461.41	886.80	935.33	935.33
Op. Accu Dep	0	0	0	54.70	27.35	8.97	202.38	82.4	64.02
Dep. during the Year	54.70	27.35	8.97	106.45	55.05	55.05	106.45	83.83	82.27
A. A. D.	-	-	-	41.24	-	-	53.94	-	-
Cl. Accu. Depreciation	54.70	27.35	8.97	202.38	82.4	64.02	362.78	166.23	146.29
Op. Debts	-	-	-	1,008.52	1,035.86	1054.31	1,866.82	994.15	1012.60
Additions	1,063.22	1,063.22	1063.28	1,005.98	13.33	13.34	-	1,105.83	1105.83
Less : Repayment.	54.70	27.35	8.97	147.68	55.05	55.05	160.39	83.83	82.27
Cl. Debts	1,008.52	1,035.86	1054.31	1,866.82	994.15	1012.60	1,706.43	2,016.15	2036.15

Table 27: Approved Revised Capacity (Fixed) Cost for FY 2011-12 to FY 2013-14 after True Up

(Rs Cr)

(Rs in Cr)									
Harduaganj Extension Power Station	2011-12				2012-13				
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	
Dep incl AAD	54.70	27.35	8.97	-45.73	147.69	55.05	55.05	-92.64	
Interest on Loan	52.95	54.38	18.15	-34.80	150.96	106.58	108.51	-42.45	
Return on Equity	70.63	70.63	11.58	-59.05	137.45	71.51	71.08	-66.37	
Interest on Working Capital	20.35	20.35	20.35	0.00	49.39	49.39	49.39	0.00	



(Rs in Cr)								
Harduaganj Extension Power Station	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
O&M Expense	3.26	3.02	3.02	-0.24	107.53	33.26	33.26	-74.27
Compensation All	-	-	-	-	-	-	-	-
Total	201.88	175.73	62.07	-139.82	593.01	315.79	317.29	-275.73

(Rs in Cr)				
Harduaganj Extension Power Station	2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	160.39	83.83	82.27	-78.12
Interest on Loan	187.60	158.04	156.96	-30.64
Return on Equity	137.45	144.97	106.24	-31.21
Interest on Working Capital	50.76	50.76	50.76	0.00
O&M Expenses	113.68	82.19	82.19	-31.49
Compensation All	-	-	-	-
Total	649.89	519.79	478.43	-171.45

1.78 Accordingly, the corrected tables for MYT Period are produced below:

Table 28: Calculation of GFA & NFA including financing

(Rs Cr)

Harduaganj Extension Power Station	2014-15	2015-16	2016-17	2017-18	2018-19
Op. GFA	3,117.77	3,117.77	3,117.77	3,117.77	3,117.77
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. GFA	3,117.77	3,117.77	3,117.77	3,117.77	3,117.77
Cl. Net FA	2808.13	2644.77	2481.42	2318.07	2154.71
Financing:					
Op. Equity	935.33	935.33	935.33	935.33	935.33
Additions	-	-	-	-	-
Deletions	-	-	-	-	-
Cl. Equity	935.33	935.33	935.33	935.33	935.33
Op. Accu Dep.	146.29	309.64	473.00	636.35	799.71
Dep. During the	163.35	163.35	163.35	163.35	163.35
Cl. Accu. Dep.	309.64	473.00	636.35	799.71	963.06



Harduaganj Extension Power Station	2014-15	2015-16	2016-17	2017-18	2018-19
Op. Debts	2036.15	1872.80	1709.44	1546.09	1382.73
Additions	0.00	0.00	0.00	0.00	0.00
Less: Dep.	163.35	163.35	163.35	163.35	163.35
Cl. Debts	1872.80	1709.44	1546.09	1382.73	1219.38

Table 29: Details of RoE, Depreciation, O&M and Interest on Loans

(Rs Cr)

Sl.No.	Particular	2014-15	2015-16	2016-17	2017-18	2018-19
1	Return on Equity	144.98	144.98	144.98	144.98	144.98
2	Depreciation	163.35	163.35	163.35	163.35	163.35
3	Interest on Loans	205.22	188.07	170.92	153.76	136.61
4	O & M Expenses	119.50	127.00	135.00	143.50	152.55
5	Com. Allowance	0.00	0.00	0.00	0.00	0.00
	Total:	633.05	623.40	614.25	605.59	597.49

- 1.79 The amount of GFA pertaining to Harduaganj Extension Power Station at the beginning of F.Y. 2014-15 was Rs 3117.77 Cr. The cost of land is nil. The maximum Depreciation as per UPERC Generation Tariff Regulations, 2014 is permissible to the extent of 90% of the value of the GFA excluding the value of land which is worked out to Rs 2805.99 Cr. for Harduaganj Extension Power Station. The accumulated depreciation allowed till the end of FY 2018-19 is Rs 963.06 Cr. which is less than Rs 2805.99 Cr. therefore, the Commission has allowed full Depreciation for FY 2014-15 to FY 2018-19.

Table 30: Annual Receivables of Harduaganj Extension Power Station required for Calculation of Working Capital

(Rs Cr)

Particulars	2014-15	2015-16	2017-18	2018-19	2019-20
Annual Capacity [Fixed] Charges	693.74	684.25	675.10	666.59	658.65
Cost of Fuel	906.24	908.31	906.24	906.24	906.24
Total Receivables	1599.97	1592.56	1581.34	1572.83	1564.89

Table 31: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	147.45	147.79	147.45	147.45	147.45
2	Cost of Secondary Fuel Oil for 2 months	1.54	1.54	1.54	1.54	1.54
3	O & M for 1 month	9.96	10.58	11.25	11.96	12.71
4	Maintenance Spares @20% of O & M Exp.	23.90	25.40	27.00	28.70	30.51



Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	266.66	265.43	263.56	262.14	260.82
6	Working Capital	449.52	450.74	450.80	451.79	453.03
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	60.68	60.85	60.86	60.99	61.16

1.80 Accordingly, the revised values for Capacity Fixed Charges for the period FY 2014-15 to FY 2018- 19 is as tabulated below:.

Table 32: Fixed Charges as claimed by UPRVUNL and as approved by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	119.50	119.50	0.00	127.00	127.00	0.00
Depreciation (Rs Cr)	163.35	163.35	0.00	163.35	163.35	0.00
Interest on Loan (Rs Cr)	203.12	205.22	2.10	185.97	188.07	2.10
Return on Equity (Rs Cr)	144.97	144.98	0.01	144.97	144.98	0.01
Interest on Working Capital (Rs Cr)	57.91	60.68	2.77	59.98	60.85	0.87
Compensation Allowance (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr)	688.85	693.74	4.89	681.27	684.25	2.98
Ex-bus Energy Sent Out (kWh)	3388.00	3387.93	-0.07	3388.00	3395.67	7.66
Fixed Cost per Unit	2.03	2.05	0.02	2.01	2.02	0.01

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	135.00	135.00	0.00	143.50	143.50	0.00
Depreciation (Rs Cr)	163.35	163.35	0.00	163.35	163.35	0.00
Interest on Loan (Rs Cr)	168.82	170.92	2.10	151.66	153.76	2.10
Return on Equity (Rs Cr)	144.97	144.98	0.01	144.97	144.98	0.01
Interest on Working Capital (Rs Cr)	62.19	60.86	-1.33	64.52	60.99	-3.53
Compensation Allowance (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr)	674.33	675.10	0.77	668.00	666.59	-1.41
Ex-bus Energy Sent Out (kWh)	3388.00	3387.93	-0.07	3388.00	3387.93	-0.07
Fixed Cost per Unit	1.99	1.99	0.00	1.97	1.97	0.00

Particulars	FY 19
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	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	152.55	152.55	0.00
Depreciation (Rs Cr)	163.35	163.35	0.00
Interest on Loan (Rs Cr)	134.51	136.61	2.10
Return on Equity (Rs Cr)	144.97	144.98	0.01
Interest on Working Capital (Rs Cr)	67.00	61.16	-5.84
Compensation Allowance (Rs Cr)	0.00	0.00	0.00
Total (Rs Cr) :	662.38	658.65	-3.73
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07
Fixed Cost per Unit	1.96	1.94	-0.02

1.81 Accordingly, the revised values for Total Charges for the period FY 2014-15 to FY 2018- 19 is as tabulated below:

Table 33: Cost per kWh as claimed by UPRVUNL and as approved by the Commission

(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	119.50	119.50	0.00	127.00	127.00	0.00
Depreciation (Rs Cr)	163.35	163.35	0.00	163.35	163.35	0.00
Interest on Loan (Rs Cr)	203.12	205.22	2.10	185.97	188.07	2.10
Return on Equity (Rs Cr)	144.97	144.98	0.01	144.97	144.98	0.01
Interest on Working Capital (Rs Cr)	57.91	60.68	2.77	59.98	60.85	0.87
Compensation Allowance (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Cost (Rs Cr)	688.85	693.74	4.89	681.27	684.25	2.98
Fixed Cost per Unit (Rs/kWh)	2.03	2.05	0.02	2.01	2.02	0.01
VC Cost on Fuel (Rs Cr.)	943.84	906.24	-37.60	991.04	908.31	-82.73
VC per Unit (Rs/kWh)	2.79	2.67	-0.11	2.93	2.67	-0.25
Total Cost (Rs Cr)	1632.69	1599.97	-32.72	1672.31	1592.56	-79.75
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07	3388.00	3395.67	7.67
Total Cost per unit (Rs/kWh)	4.82	4.72	-0.10	4.94	4.69	-0.25

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	135.00	135.00	0.00	143.50	143.50	0.00



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Depreciation (Rs Cr)	163.35	163.35	0.00	163.35	163.35	0.00
Interest on Loan (Rs Cr)	168.82	170.92	2.10	151.66	153.76	2.10
Return on Equity (Rs Cr)	144.97	144.98	0.01	144.97	144.98	0.01
Interest on Working Capital (Rs Cr)	62.19	60.86	-1.33	64.52	60.99	-3.53
Compensation Allowance (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Cost (Rs Cr)	674.33	675.10	0.77	668.00	666.59	-1.41
Fixed Cost per Unit (Rs/kWh)	1.99	1.99	0.00	1.97	1.97	0.00
VC Cost on Fuel (Rs Cr.)	1040.59	906.24	-134.35	1092.62	906.24	-186.38
VC per Unit (Rs/kWh)	3.07	2.67	-0.40	3.22	2.67	-0.55
Total Cost (Rs Cr)	1714.92	1581.34	-133.58	1760.62	1572.83	-187.79
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07	3388.00	3387.93	-0.07
Total Cost per unit (Rs/kWh)	5.06	4.67	-0.39	5.20	4.64	-0.56

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	152.55	152.55	0.00
Depreciation (Rs Cr)	163.35	163.35	0.00
Interest on Loan (Rs Cr)	134.51	136.61	2.10
Return on Equity (Rs Cr)	144.97	144.98	0.01
Interest on Working Capital (Rs Cr)	67.00	61.16	-5.84
Compensation Allowance (Rs Cr)	0.00	0.00	0.00
Fixed Cost (Rs Cr)	662.38	658.65	-3.73
Fixed Cost per Unit (Rs/kWh)	1.96	1.94	-0.02
VC Cost on Fuel (Rs Cr.)	1147.25	906.24	-241.01
VC per Unit (Rs/kWh)	3.39	2.67	-0.71
Total Cost (Rs Cr)	1809.63	1564.89	-244.74
Ex-bus Energy Sent Out (MU)	3388.00	3387.93	-0.07
Total Cost per unit (Rs/kWh)	5.34	4.62	-0.72

Issue 4: Approval of Tariff for Vintage Stations of UPRVUNL during MYT Control Period FY 2014-15 to FY 2018-19

UPRVUNL submitted that



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- 1.82 The Hon'ble Commission in its Order dated 29th April 2016 while approving the tariff for vintage stations namely Obra 'A', Panki, Harduaganj and Parichha has restricted the recovery of tariff after FY 2017-18 for Unit 1, 2, 3 and 4 of Obra 'A', Unit 3 of Panki, Unit 5 of Harduaganj and Unit 1 & 2 of Parichha on account of poor availability of these vintage plants.
- 1.83 The Units of Obra 'A' and Harduaganj have either already been deleted or are under the process of deletion and hence UPRVUNL has no concerns over the non-allowance of tariff for these units after FY 2017-18. However, it has planned R&M and overhauling schemes for Unit 3 of Panki and Unit 1& 2 of Parichha to improve the operational performance and lower the cost of these units to acceptable level.
- 1.84 Further, it has planned to delete Unit 3 and 4 of Panki power station within 6 months each from the date of commissioning of 660MW Panki extension power plant which is expected to be commissioned within 48 months from the date of award of EPC contract which is already under process. Also, in view of the scarcity of electricity in the state, it would be in public interest to run these units till 1X600 MW gets commissioned.
- 1.85 Hence, in view of the above, UPRVUNL requested the Commission to allow the tariff for Unit 3 of Panki and Unit 1 & Unit 2 of Parichha power stations.

UPPCL submitted that

- 1.86 With respect to UPRVUNL's submission that running Panki Unit 3 will be in the public interest, that no electricity was supplied by these Units of Panki for the month of Dec'15, Jan'16 and Feb'16 but the capacity charges were paid by UPPCL. Hence, the submission that Panki is required to meet the power deficit in the state is unsustainable.
- 1.87 With respect to UPRVUNL's claim that it is making serious efforts to improve the performance of Unit 3 of Panki and Unit 1 & Unit 2 of Parichha power stations, the R&M scheme for Parichha was approved by BoD on 8.11.2012 but the work has not started yet and it is expected to be completed by March 2018. Similarly, the overhauling scheme claimed by UPRVNL for Panki station has neither been approved by the Hon'ble Commission in R&M scheme and nor was it claimed under Additional Capital Expenditure in the MYT Petition.
- 1.88 Hence, in view of the above, UPPCL stated that it is evident that there is no urgency on the part of UPRVUNL to improve the operational performance of these stations.

UPRVUNL resubmitted that

- 1.89 With respect to UPPCL's submission that there is no urgency on the part of UPRVUNL to improve the operational performance of Panki Unit 3 and Parichha Unit 1 & 2, UPRVUNL is making its best efforts to improve the efficiency of these stations and R&M scheme for Parichha Unit 1 has already been approved by Board of Directors and the work has been awarded to BHEL. R&M scheme of Parichha Unit 2 has just been completed and since then the unit is running at a PLF of 83.23%. The major reason for poor performance of Unit 2 was that the unit was out of generation on account of fire in cable galleries.
- 1.90 With respect to Panki Unit 3, the petitioner submitted that it has planned an overhauling scheme expected to start from 15.11.2016 which would lead to significant improvement in the operational efficiency of the plant.
- 1.91 Further, it understands that these stations are not the profit making centre of UPRVUNL and is also of the opinion that such Units should be deleted in coming future.
- 1.92 However, it requested the Hon'ble Commission to allow tariff for additional period beyond FY 2017-18 :
- i. for Panki Unit 3 till new power station (Panki Extn) gets commissioned.
 - ii for the Parichha Units 1 & 2 so that it can recover its R&M cost.

Commission's View:

- 1.93 The Commission has already elaborated the reasons for not approving the tariff for these stations at Page No. 196 of the Tariff Order dated 29th April 2016. UPRVUNL has not been able to satisfy the Commission regarding the operating feasibility of these stations.
- 1.94 In case of Unit -2 of Parichha Thermal Power Station the R&M has been completed and the machine is running on desired load. Therefore the Commission will decide the tariff for Unit-2. However, the R&M work on Unit-1 had not started and as per the Commission's earlier order the R&M of Unit-1 should not have been taken up. The status regarding Unit-1 should be communicated to the Commission separately..

Issue 5: Inclusion of Separate Clause for allowing recovery of statutory Charges

UPRVUNL submitted that

- 1.95 The Hon'ble Commission in Clause 8 (A) of its MYT Order dated 20th January 2011 had allowed UPRVUNL to recover the cost incurred on account of payment of statutory charges from the beneficiary. Further, it quoted the aforementioned clause of the Tariff Order dated 20th January 2011 which is produced below:

“In addition to the above tariff UPRVUNL is allowed to recover the payment of statutory charges like water cess, cost of water, payment to Pollution Control Board, rates and taxes, FBT and Regulatory Fee paid to the Commission, on production of details of actual payments made and duly supported with the certificate of the Statutory Auditors. The Petitioner has claimed certain additional charges as variable charges towards other fuel related costs, station supplies, lubricants and consumables critical to the generating stations as separate pass through on actuals. The same is allowed for the consideration period of MYT subject to verification of audited accounts at the time when true up would be considered by the Commission...”

- 1.96 The Hon’ble Commission while issuing the MYT Tariff Order dated 29.04.2016 for the period FY 2014-15 to FY 2018-19 has left out the above clause. Due to absence of the above clause, it would not be able to recover its costs incurred on payment of statutory charges like water cess, cost of water payment to Pollution Control Board, rates and taxes, FBT and regulatory fee paid to commission, additional payments towards other fuel related costs and station supplies, lubricants and consumables critical to generating station.
- 1.97 Hence, in view of the above, UPRVUNL requested the Hon’ble Commission to amend the MYT Tariff Order dated 29.04.2016 and insert the aforementioned clause allowing recovery of statutory charges and other fuel related costs as a separate pass through in line with the previous MYT Tariff Order dated 20.01.2011

Commission’s View:

- 1.98 The Commission found the prayer reasonable and decided that following shall be added in clause “11” of UPRVUNL’s Tariff Order dated 29.04.2016,:

(G) Recovery of Statutory charges and Tax on income etc.

In addition to the above tariff UPRVUNL is allowed to recover the payment of statutory charges like water cess, cost of water, payment to Pollution Control Board, rates and taxes, FBT and Regulatory Fee paid to the Commission and taxes on income etc., on production of details of actual payments made and duly supported with the certificate of the Statutory Auditors. The Petitioner has claimed certain additional charges as variable charges towards other fuel related costs, station supplies, lubricants and consumables critical to the generating stations as separate pass through on actuals. The same is allowed for the consideration period of MYT subject to verification of audited accounts at the time when true up would be considered by the Commission.

However, the payment of finance and bank charges will not be allowed separately as these charges are considered as part and parcel of the acquired loans to be invested for addition of Gross Fixed Assets and therefore the same shall be claimed as Fixed Charges in the same manner as is applicable for the recovery of interest during construction. Similarly the payment of Service Tax on services provided by CISF shall not be allowed separately because the same has already been included in norms of O & M Expenses.”



Issue 6: Disallowance of Additional Capital Expenditure Claim wherein Compensation allowance has been allowed

UPPCL submitted that

- 1.99 The Commission in its Tariff Order dated 29.04.2016 has inadvertently allowed both compensation allowance and additional capital expenditure for the period FY 2011-12 to FY 2013-14 for the stations Anpara 'A', Anpara 'B', Obra 'A', Obra 'B', Panki, Harduaganj and Parichha power stations.
- 1.100 Further, the Hon'ble Commission has erroneously allowed compensation allowance for the period FY 2011-12 to FY 2013-14 and FY 2014-15 to FY 2018-19 to generating stations namely Obra 'A', Obra 'B', Panki, Harduaganj and Parichha which have completed their useful lives and hence, are not eligible to claim compensation allowance.
- 1.101 In view of the above, UPPCL requested the Hon'ble Commission to disallow compensation allowance for vintage generating stations since they have completed their useful lives and also disallow compensation allowance for non-vintage stations since both compensation allowance and additional capital expenditure has been allowed for the period FY 2011-12 to FY 2013-14.

UPRVUNL submitted that

- 1.102 UPPCL's submission that additional capital expenditure ought to be disallowed in cases where compensation allowance has been claimed is misplaced in view of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009.
- 1.103 With respect to UPPCL's submission that the compensation allowance cannot be allowed to the stations which have completed their useful life, according to second proviso to Regulation 18 (4)(i)(a) of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009 and Regulation 22 (5)(i)(a) of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014, the coal based stations, may, in its discretion avail a 'special allowance' for meeting the requirement of expenses including renovation and modernization beyond the life of the generating station.
- 1.104 In case the Hon'ble Commission decides to disallow the compensation allowance, then the special allowance should be allowed accordingly to the vintage power stations.

Commission's View

- 1.105 In case of non-vintage stations namely Anpara 'A' and Anpara 'B', the Commission has allowed both compensation allowance and additional capital expenditure for the period FY 2011-12 to FY 2013-14 in accordance with the relevant provisions of Terms and Conditions of Generation Tariff) Regulations, 2009 which have been produced below for greater clarity



“21 (1) (iv) (e) In case of coal-based thermal generating station a separate compensation allowance unit-wise may be permitted to meet expenses in nature of capital expenditure on replacement of minor assets,”

1.106 Hence, the Commission is of the view that no change is required with respect allowance of compensation allowance and additional capital expenditure for non-vintage stations for the period FY 2011-12 to FY 2013-14.

1.107 In case of vintage stations namely Obra ‘A’, Obra ‘B’, Panki, Harduaganj and Parichha for the period FY 2011-12 to FY 2013-14, there has been an inadvertent error in approving the compensation allowance beyond the useful life of the plant and since it has now been brought to the notice of the Commission, the Commission has accepted the submission made by UPPCL and accordingly, the Commission disallows the compensation allowance approved for these stations for the period FY 2011-12 to FY 2013-14.

1.108 With respect to UPRVNL’s submission on special allowance, according to second proviso to Regulation 18 (4)(i)(a) of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009, the option to avail special allowance is not available to generating stations or units which have undertaken renovation & modernization. The aforementioned provision has been produced below for greater clarity:

“Provided also that such option shall not be available for a generating station or unit for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations, or for a generating station or unit which is in a depleted condition and operating under relaxed operational and performance norms.”

1.109 The Commission has already admitted Renovation & Modernization expenditure for Obra ‘A’, Obra ‘B’, Harduaganj, Parichha power generating stations in its previous tariff orders and hence these stations are not eligible for special allowance. Hence, only Panki generating station is eligible for special allowance under UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009.

1.110 Accordingly, the corrected tables for fixed charges for these stations have been produced below for greater clarity:

Table 34: Approved Revised Capacity (Fixed) Cost for FY 2011-12 to FY 2013-14 after True Up for Obra ‘A’

(Rs Cr)

Obra ‘A’ Power Station	(Rs in Cr)							
	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	13.11	13.12	13.12	0.01	13.12	13.12	13.12	0.00
Interest on Loan	15.41	15.42	15.42	0.01	13.97	13.99	13.99	0.02
Return on Equity	16.97	16.98	18.66	1.69	16.97	16.98	18.67	1.70



(Rs in Cr)								
Obra 'A' Power Station	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Interest on Working Capital	15.10	15.10	15.10	0.00	14.09	14.09	14.09	0.00
O&M Expenses	107.14	117.01	104.15*	-2.99	61.93	125.54	114.83*	52.90
Compensation All	1.87	1.87	0.00	-1.87	1.87	1.87	0.00	-1.87
Total	169.61	179.50	166.44	-3.17	121.96	185.59	174.70	52.74

*Deducted by Commission

(Rs in Cr)				
Obra 'A' Power Station	2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	20.37	13.13	13.13	-7.24
Interest on Loan	17.62	12.55	12.55	-5.07
Return on Equity	22.52	10.78	15.57	-6.95
Interest on Working Capital	15.18	15.18	15.18	0.00
O&M Expenses	65.48	128.11	120.70*	55.22
Compensation All	1.87	1.87	0.00	-1.87
Total	143.05	181.62	177.12	34.07

*Deducted by Commission

Table 35: Approved Revised Capacity (Fixed) Cost for FY 2011-12 to FY 2013-14 after True Up for Obra 'B'

(Rs Cr)

(Rs in Cr)								
Obra 'B' Power Station	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	22.59	22.60	22.60	0.01	27.71	29.18	29.18	1.47
Interest on Loan	14.33	14.35	14.35	0.02	22.85	26.04	26.04	3.19
Return on Equity	32.59	32.63	26.00	-6.59	32.59	36.36	34.49	1.90
Interest on Working Capital	45.73	45.73	45.73	0.00	50.50	50.50	50.50	0.00
O&M Expenses	164.01	176.75	176.75	12.74	215.05	157.24	157.24	(57.81)
Compensation All	6.50	6.50	0.00	-6.50	6.50	6.50	0.00	-6.50
Total	285.75	298.56	285.43	-0.32	355.21	305.82	297.46	-57.75

(Rs in Cr)



Obra 'B' Power Station	2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	27.71	30.63	30.63	2.92
Interest on Loan	19.68	25.84	25.83	6.15
Return on Equity	32.59	36.36	36.36	3.77
Interest on Working Capital	52.96	52.96	52.96	0.00
O&M Expenses	227.35	176.77	176.77	(50.58)
Compensation All	6.50	6.50	0.00	-6.50
Total	366.79	329.07	322.56	(44.23)

Table 36: Approved Revised Capacity (Fixed) Cost for FY 2011-12 to FY 2013-14 after True Up for Panki

(Rs Cr)

(Rs in Cr)

Panki Power Station	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	6.2	6.21	6.21	0.01	6.33	6.34	6.34	0.01
Interest on Loan	3.91	3.92	3.92	0.01	3.46	3.48	3.48	0.02
Return on Equity	6.38	6.39	6.23	-0.15	6.38	6.39	6.39	0.01
Interest on Working Capital	17.05	17.05	17.05	0.00	17.72	17.72	17.72	0.00
O&M Expenses	95.99	111.95	101.14*	5.15	78.98	118.08	105.62*	26.64
Compensation All	1.37	1.37	0.00	-1.37	1.37	1.37	0.00	-1.37
Special All	0.00	0.00	11.74	11.74	0.00	0.00	12.41	12.41
Total	130.9	146.89	146.28	15.38	114.23	153.38	151.96	37.73

*Deducted by Commission

(Rs in Cr)

Panki Power Station	2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	6.33	6.46	6.46	0.13
Interest on Loan	2.73	3.01	3.01	0.28
Return on Equity	6.38	5.68	6.04	-0.34
Interest on Working Capital	18.22	18.22	18.22	0.00
O&M Expenses	83.5	127.92	113.11*	29.61
Compensation All	1.37	1.37	0.00	-1.37
Special All	0.00	0.00	13.12	13.12
Total	118.52	162.66	159.96	41.44

*Deducted by Commission



Table 37: Approved Revised Capacity (Fixed) Cost for FY 2011-12 to FY 2013-14 after True Up for Harduaganj

(Rs Cr)

Harduaganj Power Station	(Rs in Cr)							
	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	9.97	9.86	9.86	-0.11	9.73	9.74	9.74	0.01
Interest on Loan	2.16	1.91	1.91	-0.25	0.97	0.52	0.52	-0.45
Return on Equity	12.27	12.29	12.59	0.32	12.27	12.29	12.45	0.18
Interest on Working Capital	10.67	10.67	10.67	0.00	11.81	11.81	11.81	0.00
O&M Expenses	83.00	95.16	86.91*	3.91	46.01	70.45	66.07*	20.06
Compensation All	1.07	1.07	0.00	-1.07	1.07	1.07	0.00	-1.07
Total	119.14	130.95	121.93	2.79	81.87	105.89	100.59	18.72

*Deducted by Commission

(Rs in Cr)

Harduaganj Power Station	2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	49.67	9.74	9.74	-39.93
Interest on Loan	21.56	-	-	-21.56
Return on Equity	33.15	6.76	9.68	-23.47
Interest on Working Capital	14.36	14.36	14.36	0.00
O&M Expenses	53.07	72.33	67.85	14.78
Compensation All	1.17	1.17	0.00	-1.17
Total	172.98	104.37	101.64	-71.34

Table 38: Approved Revised Capacity (Fixed) Cost for FY 2011-12 to FY 2013-14 after True Up for Parichha

(Rs Cr)

Parichha Power Station	(Rs in Cr)							
	2011-12				2012-13			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	8.06	8.06	8.06	0.00	14.02	8.07	8.07	(5.95)
Interest on Loan	2.37	2.38	2.38	0.01	3.60	1.38	1.38	(2.22)
Return on Equity	8.47	8.49	8.48	0.01	11.25	8.49	8.49	(2.76)
Interest on Working Capital	15.47	15.47	15.47	0.00	16.85	16.85	16.85	0.00
O&M Expenses	46.96	52.37	52.37	5.41	69.02	54.49	54.49	(14.53))
Compensation All	1.43	1.43	0.00	-1.43	1.43	1.43	0.00	-1.43
Total	82.75	88.20	86.76	4.01	116.17	90.71	89.28	-26.89



Parichha Power Station	(Rs in Cr)			
	2013-14			
	Approved True up order dated 14.11.2013	As claimed by UPRVNL	As Approved by the UPERC	Diff
Dep incl AAD	12.23	9.52	9.52	-2.71
Interest on Loan	4.57	3.83	3.83	-0.74
Return on Equity	11.25	12.25	10.37	-0.88
Interest on Working Capital	17.66	17.66	17.66	0.00
O&M Expenses	72.97	46.43	46.43	-26.54
Compensation All	1.43	1.43	0.00	-1.43
Total	120.10	91.12	87.81	-32.29

1.111 in case of vintage stations namely Anpara 'A', Obra 'A', Obra 'B', Panki, Harduaganj and Parichha for the period FY 2014-15 to FY 2018-19, there has been an inadvertent error in approving the compensation allowance beyond the useful life of the plant and since it has now been brought to the notice of the Commission, the Commission has accepted the submission made by UPPCL and accordingly, the Commission disallows the compensation allowance approved for these stations for the period FY 2014-15 to FY 2018-19.

1.112 With respect to UPRVUNL's submission on special allowance, according to the second proviso under Regulation 22(5)(i)(a) of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014, the option to avail special allowance is not available to generating stations or units which have undertaken renovation & modernization. The aforementioned provision has been produced below for greater clarity:

"Provided also that such option shall not be available for a generating station or unit for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations, or for a generating station or unit which is in a depleted condition and operating under relaxed operational and performance norms"

1.113 The Commission has already admitted Renovation & Modernization expenditure for Obra 'A', Obra 'B', Harduaganj, Parichha power generating stations in its previous tariff orders and hence these stations are not eligible for special allowance. Hence, only Anpara-A and Panki generating station are eligible for special allowance under UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014.

1.114 Accordingly, the corrected tables for fixed charges for these stations have been produced below for greater clarity:

Table 39: Annual Receivables of Anpara A required for Calculation of Working Capital:

Particulars	(Rs Cr)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges*	282.04	292.13	302.75	282.58	279.11



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Fuel	801.75	803.58	801.75	801.75	801.75
Total Receivables	1083.79	1095.71	1104.50	1084.33	1080.86

*In accordance with proviso under Regulation 17 (2) of UPERC Generation Tariff Regulations 2014

Table 40: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	129.44	129.73	129.44	129.44	129.44
2	Cost of Secondary Fuel Oil for 2 months	2.49	2.50	2.49	2.49	2.49
3	O & M for 1 month	12.55	13.34	14.18	15.07	16.02
4	Maintenance Spares @20% of O & M Exp.	30.11	32.00	34.02	36.16	38.44
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	180.63	182.62	184.08	180.72	180.14
6	Working Capital	355.22	360.18	364.20	363.88	366.53
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	47.95	48.62	49.17	49.12	49.48

Table 41: Fixed Charges as claimed by UPRVUNL and as approved by the Commission for Anpara A

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	150.57	150.57	0.00	160.02	160.02	0.00
Depreciation (Rs Cr)	46.07	46.07	0.00	46.07	46.07	0.00
Interest on Loan (Rs Cr)	0.03	0.03	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	37.42	37.42	0.00	37.42	37.42	0.00
Interest on Working Capital (Rs Cr)	38.09	47.95	9.86	40.01	48.62	8.61
Compensation Allowance (Rs Cr)	6.30	0.00	-6.30	6.30	0.00	-6.30
Special allowance (If applicable)	0.00	47.25	47.25	0.00	50.25	50.25
Total (Rs Cr) :	278.48	329.29	50.81	289.82	342.38	52.56
Ex-bus Energy Sent Out (MU)	4292.25	4292.25	0.00	4292.00	4302.05	10.05
Fixed Cost per Unit	0.65	0.77	0.12	0.68	0.80	0.12



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	170.10	170.10	0.00	180.81	180.81	0.00
Depreciation (Rs Cr)	46.07	46.07	0.00	46.07	15.24	-30.83
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	37.42	37.42	0.00	37.42	37.42	0.00
Interest on Working Capital (Rs Cr)	42.04	49.17	7.13	44.17	49.12	4.95
Compensation Allowance (Rs Cr)	6.30	0.00	-6.30	6.30	0.00	-6.30
Special allowance (If applicable)	0.00	53.44	53.44	0.00	56.83	56.83
Total (Rs Cr) :	301.93	356.19	54.26	314.77	339.42	24.65
Ex-bus Energy Sent Out (MU)	4292.25	4292.25	0.00	4292.25	4292.25	0.00
Fixed Cost per Unit	0.70	0.83	0.13	0.73	0.79	0.06

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	192.21	192.21	0.00
Depreciation (Rs Cr)	46.07	0.00	-46.07
Interest on Loan (Rs Cr)	0.00	0.00	0.00
Return on Equity (Rs Cr)	37.42	37.42	0.00
Interest on Working Capital (Rs Cr)	46.42	49.48	3.06
Compensation Allowance (Rs Cr)	6.30	0.00	-6.30
Special allowance (If applicable)	0.00	60.44	60.44
Total (Rs Cr) :	328.42	339.55	11.13
Ex-bus Energy Sent Out (MU)	4292.25	4292.25	0.00
Fixed Cost per Unit	0.77	0.79	0.03

Table 42: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Anpara A Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	150.57	150.57	0.00	160.02	160.02	0.00
Depreciation (Rs Cr.)	46.07	46.07	0.00	46.07	46.07	0.00
Interest on Loan (Rs Cr.)	0.03	0.03	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	37.42	37.42	0.00	37.42	37.42	0.00
Interest on Working Capital (Rs Cr.)	38.09	47.95	9.86	40.01	48.62	8.61



Anpara A Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Com. Allowance (Rs Cr.)	6.30	0.00	-6.30	6.30	0.00	-6.30
Special Allowance (Rs Cr.)	0.00	47.25	47.25	0.00	50.25	50.25
Fixed Cost (Rs Cr.)	278.48	329.29	50.81	289.82	342.38	52.56
F. C. per Unit (Rs./ kWh)	0.65	0.77	0.12	0.68	0.80	0.12
V. C. on Fuel (Rs Cr)	647.04	801.75	154.72	679.39	803.58	124.20
V. C. per Unit (Rs./kWh)	1.51	1.87	0.36	1.58	1.87	0.28
Total Cost (Rs In Cr.)	925.52	1131.04	205.53	969.21	1145.96	176.75
Ex-bus Energy Sent Out (MU)	4292.25	4292.25	0.00	4292.00	4302.05	10.05
Total Cost per Unit (Rs/kWh)	2.16	2.64	0.48	2.26	2.66	0.41

Anpara A Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	170.10	170.10	0.00	180.81	180.81	0.00
Depreciation (Rs Cr.)	46.07	46.07	0.00	46.07	15.24	-30.83
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	37.42	37.42	0.00	37.42	37.42	0.00
Interest on Working Capital (Rs Cr.)	42.04	49.17	7.13	44.17	49.12	4.95
Com. Allowance (Rs Cr.)	6.30	0.00	-6.30	6.30	0.00	-6.30
Special Allowance (Rs Cr)	0.00	53.44	53.44	0.00	56.83	56.83
Fixed Cost (Rs Cr.)	301.93	356.19	54.26	314.77	339.42	24.65
F. C. per Unit (Rs /kWh.)	0.70	0.83	0.13	0.73	0.79	0.06
V. C. on Fuel (Rs Cr.)	713.36	801.75	88.40	749.02	801.75	52.73
V. C. per Unit (Rs/KWh.)	1.66	1.87	0.21	1.75	1.87	0.12
Total Cost (Rs Cr.)	1015.29	1157.94	142.66	1063.79	1141.17	77.38
Ex-bus Energy Sent Out (MU)	4292.25	4292.25	0.00	4292.25	4292.25	0.00
Total Cost per Unit (Rs/kWh)	2.37	2.70	0.33	2.48	2.66	0.18

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	192.21	192.21	0.00
Depreciation (Rs Cr.)	46.07	0.00	-46.07
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	37.42	37.42	0.00
Interest on Working Capital (Rs Cr.)	46.42	49.48	3.06
Com. Allowance (Rs Cr.)	6.30	0.00	-6.30



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Special Allowance (Rs Cr)	0.00	60.44	60.44
Fixed Cost (Rs Cr.)	328.42	339.55	11.13
F. C. per Unit (Rs/kWh.)	0.77	0.79	0.03
V. C. on Fuel (Rs Cr.)	786.48	801.75	15.28
V. C. per Unit (Rs/ kWh.)	1.83	1.87	0.04
Total Cost (Rs Cr.)	1114.90	1141.31	26.41
Ex-bus Energy Sent Out (MU)	4292.25	4292.25	0.00
Total Cost per Unit (In Rs./kWh))	2.60	2.66	0.06

Table 43: Annual Receivables of Anpara B required for Calculation of Working Capital:

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges*	715.27	550.91	453.22	465.33	478.18
Cost of Fuel	1144.52	1147.14	1144.52	1144.52	1144.52
Total Receivables	1859.79	1698.05	1597.74	1609.85	1622.70

*In accordance with proviso under Regulation 17 (2) of UPERC Generation Tariff Regulations 2014

Table 44: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	184.35	184.77	184.35	184.35	184.35
2	Cost of Secondary Fuel Oil for 2 months	3.95	3.96	3.95	3.95	3.95
3	O & M for 1 month	13.33	14.18	15.07	16.02	17.03
4	Maintenance Spares @20% of O & M Exp.	32.00	34.02	36.16	38.44	40.86
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	309.97	283.01	266.29	268.31	270.45
6	Working Capital	543.60	519.93	505.82	511.07	516.64
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	73.39	70.19	68.29	68.99	69.75

Table 45: Fixed Charges as claimed by UPRVUNL and as approved by the Commission for Anpara B

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	160.00	160.00	0.00	170.10	170.10	0.00



Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Depreciation (Rs Cr)	277.75	277.75	0.00	277.75	106.49	-171.26
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr)	51.87	73.39	21.52	66.39	70.19	3.80
Compensation Allowance (Rs Cr)	7.50	7.50	0.00	7.50	7.50	0.00
Special allowance (If applicable)	0.0	0.0	0.00	0.0	0.0	0.00
Total (Rs Cr) :	701.26	722.77	21.51	725.88	558.41	-167.47
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00	7055.00	7071.19	16.19
Fixed Cost per Unit	0.99	1.02	0.03	1.03	0.79	-0.24

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	180.80	180.80	0.00	192.20	192.20	0.00
Depreciation (Rs Cr)	277.75	0.00	-277.75	277.75	0.00	-277.75
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr)	69.57	68.29	-1.28	72.66	68.99	-3.67
Compensation Allowance (Rs Cr)	7.50	7.50	0.00	7.50	7.50	0.00
Special allowance (If applicable)	0.0	0.0	0.00	0.0	0.0	0.00
Total (Rs Cr) :	739.76	460.72	-279.04	754.25	472.83	-281.42
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00	7055.09	7055.09	0.00
Fixed Cost per Unit	1.05	0.65	-0.40	1.07	0.67	-0.40

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	204.30	204.30	0.00
Depreciation (Rs Cr)	277.75	0.00	-277.75
Interest on Loan (Rs Cr)	0.00	0.00	0.00
Return on Equity (Rs Cr)	204.14	204.14	0.00
Interest on Working Capital (Rs Cr)	75.90	69.75	-6.15
Compensation Allowance (Rs Cr)	7.50	7.50	0.00
Special allowance (If applicable)	0.0	0.0	0.00
Total (Rs Cr) :	769.59	485.68	-283.91
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
Fixed Cost per Unit	1.09	0.69	-0.40

Table 46: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	160.00	160.00	0.00	170.10	170.10	0.00
Depreciation (Rs Cr.)	277.75	277.75	0.00	277.75	106.49	-171.26
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr.)	51.87	73.39	21.52	66.39	70.19	3.80
Com. Allowance (Rs Cr.)	7.50	7.50	0.00	7.50	7.50	0.00
Fixed Cost (Rs Cr.)	701.26	722.77	21.51	725.88	558.41	-167.47
F. C. per Unit (Rs./ kWh)	0.99	1.02	0.03	1.03	0.79	-0.24
V. C. on Fuel (Rs Cr)	1106.73	1144.52	37.79	1162.07	1147.14	-14.93
V. C. per Unit (Rs./kWh)	1.57	1.62	0.05	1.60	1.62	-0.025
Total Cost (Rs In Cr.)	1807.99	1867.30	59.31	1887.95	1705.55	-182.40
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00	7055.00	7071.19	16.19
Total Cost per Unit (Rs/kWh)	2.56	2.65	0.08	2.68	2.41	-0.26

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	180.80	180.80	0.00	192.20	192.20	0.00
Depreciation (Rs Cr.)	277.75	0.00	-277.75	277.75	0.00	-277.75
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	204.14	204.14	0.00	204.14	204.14	0.00
Interest on Working Capital (Rs Cr.)	69.57	68.29	-1.28	72.66	68.99	-3.67
Com. Allowance (Rs Cr.)	7.50	7.50	0.00	7.50	7.50	0.00
Fixed Cost (Rs Cr.)	739.76	460.72	-279.04	754.25	472.83	-281.42
F. C. per Unit (Rs./kWh.)	1.05	0.65	-0.40	1.07	0.67	-0.40
V. C. on Fuel (Rs Cr.)	1220.17	1144.52	-75.65	1281.18	1144.52	-136.66
V. C. per Unit (Rs./kWh.)	1.73	1.62	-0.11	1.82	1.62	-0.19
Total Cost (Rs Cr.)	1959.93	1605.25	-354.68	2035.43	1617.35	-418.08
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00	7055.09	7055.09	0.00
Total Cost per Unit (Rs/kWh)	2.78	2.28	-0.50	2.89	2.29	-0.59



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	204.30	204.30	0.00
Depreciation (Rs Cr.)	277.75	0.00	-277.75
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	204.14	204.14	0.00
Interest on Working Capital (Rs Cr.)	75.90	69.75	-6.15
Com. Allowance (Rs Cr.)	7.50	7.50	0.00
Fixed Cost (` in Cr..)	769.59	485.68	-283.91
F. C. per Unit (Rs/kWh.)	1.09	0.69	-0.40
V. C. on Fuel (Rs Cr.)	1345.24	1144.52	-200.72
V. C. per Unit (Rs/ kWh.)	1.91	1.62	-0.28
Total Cost (Rs Cr.)	2114.83	1630.21	-484.62
Ex-bus Energy Sent Out (MU)	7055.09	7055.09	0.00
Total Cost per Unit (In Rs./kWh)	3.00	2.31	-0.69

Table 47: Annual Receivables of Obra A required for Calculation of Working Capital:

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges	186.44	190.93	192.54	188.44	194.89
Cost of Fuel	171.15	171.54	171.15	171.15	171.15
Total Receivables	357.59	362.47	363.69	359.59	366.04

Table 48: Working Capital as determined by the Commission

(Rs Cr)

SI.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	26.53	26.59	26.53	26.53	26.53
2	Cost of Secondary Fuel Oil for 2 months	1.78	1.78	1.78	1.78	1.78
3	O & M for 1 month	11.10	11.56	12.04	12.53	13.03
4	Maintenance Spares @20% of O & M Exp.	26.63	27.74	28.89	30.07	31.28
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	59.60	60.41	60.61	59.93	61.01
6	Working Capital	125.63	128.08	129.84	130.83	133.63
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	16.96	17.29	17.53	17.66	18.04



Table 49: Fixed Charges as claimed by UPRVUNL and as approved by the Commission for Obra A

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	133.14	133.14	0.00	138.70	138.70	0.00
Depreciation (Rs Cr)	12.74	12.74	0.00	12.74	12.74	0.00
Interest on Loan (Rs Cr)	11.14	11.13	-0.01	9.73	9.73	0.00
Return on Equity (Rs Cr)	12.47	12.47	0.00	12.47	12.47	0.00
Interest on Working Capital (Rs Cr)	17.49	16.96	-0.53	18.24	17.29	-0.95
Compensation Allowance (Rs Cr)	1.50	0.00	-1.50	1.50	0.00	-1.50
Special allowance (If applicable)	0.00	0.0	0.00	0.00	0.00	0.00
Total (Rs Cr) :	188.48	186.44	-2.04	193.38	190.93	-2.45
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65	994.00	1073.09	79.09
Fixed Cost per Unit	1.90	1.74	-0.15	1.95	1.78	-0.17

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	144.43	144.43	0.00	150.34	150.34	0.00
Depreciation (Rs Cr)	12.74	9.61	-3.13	12.74	0.00	-12.74
Interest on Loan (Rs Cr)	8.50	8.50	0.00	7.97	7.97	0.00
Return on Equity (Rs Cr)	12.47	12.47	0.00	12.47	12.47	0.00
Interest on Working Capital (Rs Cr)	19.01	17.53	-1.48	19.84	17.66	-2.18
Compensation Allowance (Rs Cr)	1.50	0.00	-1.50	1.50	0.00	-1.50
Special allowance (If applicable)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr) :	198.65	192.54	-6.11	204.86	188.44	-16.42
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65	994.00	1070.65	76.65
Fixed Cost per Unit	2.00	1.80	-0.20	2.06	1.76	-0.30

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	156.41	156.41	0.00



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
Depreciation (Rs Cr)	12.74	0.00	-12.74
Interest on Loan (Rs Cr)	7.97	7.97	0.00
Return on Equity (Rs Cr)	12.47	12.47	0.00
Interest on Working Capital (Rs Cr)	20.71	18.04	-2.67
Compensation Allowance (Rs Cr)	1.50	0.00	-1.50
Special allowance (If applicable)	0.00	0.00	0.00
Total (Rs Cr) :	211.80	194.89	-16.91
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65
Fixed Cost per Unit	2.13	1.82	-0.31

Table 50: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	133.14	133.14	0.00	138.70	138.70	0.00
Depreciation (Rs Cr.)	12.74	12.74	0.00	12.74	12.74	0.00
Interest on Loan (Rs Cr.)	11.14	11.13	-0.01	9.73	9.73	0.00
Return on Equity (Rs Cr.)	12.47	12.47	0.00	12.47	12.47	0.00
Interest on Working Capital (Rs Cr.)	17.49	16.96	-0.53	18.24	17.29	-0.95
Com. Allowance (Rs Cr.)	1.50	0.00	-1.50	1.50	0.00	-1.50
Fixed Cost (Rs Cr.)	188.48	186.44	-2.04	193.38	190.93	-2.45
F. C. per Unit (Rs./ kWh)	1.90	1.74	-0.15	1.95	1.78	-0.17
V. C. on Fuel (Rs Cr)	212.44	171.15	-41.29	223.06	171.54	-51.52
V. C. per Unit (Rs./kWh)	2.14	1.60	-0.54	2.24	1.60	-0.65
Total Cost (Rs In Cr.)	400.92	357.59	-43.33	416.44	362.47	-53.97
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65	994.00	1073.09	79.09
Total Cost per Unit (Rs/kWh)	4.03	3.34	-0.69	4.19	3.38	-0.81

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	144.43	144.43	0.00	150.34	150.34	0.00
Depreciation (Rs Cr.)	12.74	9.61	-3.13	12.74	0.00	-12.74
Interest on Loan (Rs Cr.)	8.50	8.50	0.00	7.97	7.97	0.00
Return on Equity (Rs Cr.)	12.47	12.47	0.00	12.47	12.47	0.00
Interest on Working Capital (Rs Cr.)	19.01	17.53	-1.48	19.84	17.66	-2.18
Com. Allowance (Rs Cr.)	1.50	0.00	-1.50	1.50	0.00	-1.50



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Fixed Cost (Rs Cr.)	198.65	192.54	-6.11	204.86	188.44	-16.42
F. C. per Unit (Rs /kWh.)	2.00	1.80	-0.20	2.06	1.76	-0.30
V. C. on Fuel (Rs Cr.)	234.22	171.15	-63.07	245.93	171.15	-74.78
V. C. per Unit (Rs/kWh.)	2.36	1.60	-0.76	2.47	1.60	-0.88
Total Cost (Rs Cr.)	432.87	363.69	-69.18	450.79	359.59	-91.20
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65	994.00	1070.65	76.65
Total Cost per Unit (Rs/kWh)	4.35	3.40	-0.96	4.54	3.36	-1.18

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	156.41	156.41	0.00
Depreciation (Rs Cr.)	12.74	0.00	-12.74
Interest on Loan (Rs Cr.)	7.97	7.97	0.00
Return on Equity (Rs Cr.)	12.47	12.47	0.00
Interest on Working Capital (Rs Cr.)	20.71	18.04	-2.67
Com. Allowance (Rs Cr.)	1.50	0.00	-1.50
Fixed Cost (in Cr)	211.80	194.89	-16.91
F. C. per Unit (Rs/kWh.)	2.13	1.82	-0.31
V. C. on Fuel (Rs Cr.)	258.22	171.15	-87.07
V. C. per Unit (Rs/ kWh.)	2.60	1.60	-1.00
Total Cost (Rs Cr.)	470.02	366.04	-103.98
Ex-bus Energy Sent Out (MU)	994.00	1070.65	76.65
Total Cost per Unit (In Rs./kWh)	4.73	3.42	-1.31

Table 51: Annual Receivables of Obra B required for Calculation of Working Capital:

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges	403.65	414.36	425.94	438.67	453.56
Cost of Fuel	964.65	966.85	964.65	964.65	964.65
Total Receivables	1368.30	1381.21	1390.58	1403.32	1418.20

Table 52: Working Capital as determined by the Commission

(Rs Cr)

SI.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	152.29	152.64	152.29	152.29	152.29



SI.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
2	Cost of Secondary Fuel Oil for 2 months	6.88	6.89	6.88	6.88	6.88
3	O & M for 1 month	19.92	21.17	22.50	23.92	25.43
4	Maintenance Spares @20% of O & M Exp.	47.80	50.80	54.00	57.40	61.02
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	228.05	230.20	231.76	233.89	236.37
6	Working Capital	454.94	461.70	467.43	474.37	481.98
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	61.42	62.33	63.10	64.04	65.07

Table 53: Fixed Charges as claimed by UPRVUNL and as approved by the Commission for Obra B

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	239.00	239.00	0.00	254.00	254.00	0.00
Depreciation (Rs Cr)	45.38	45.38	0.00	45.38	45.38	0.00
Interest on Loan (Rs Cr)	21.49	21.49	0.00	16.29	16.29	0.00
Return on Equity (Rs Cr)	36.36	36.36	0.00	36.36	36.36	0.00
Interest on Working Capital (Rs Cr)	65.44	61.42	-4.02	68.66	62.33	-6.33
Compensation Allowance (Rs Cr)	10.00	0.00	-10.00	10.00	0.00	-10.00
Special allowance (If applicable)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr) :	417.67	403.65	-14.02	430.69	414.36	-16.33
Ex-bus Energy Sent Out (MU)	5933.00	6328.22	395.22	5933.00	6342.67	409.67
Fixed Cost per Unit	0.70	0.64	-0.07	0.73	0.65	-0.07

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	270.00	270.00	0.00	287.00	287.00	0.00
Depreciation (Rs Cr)	45.38	45.38	0.00	45.38	45.38	0.00
Interest on Loan (Rs Cr)	11.09	11.09	0.00	5.89	5.89	0.00
Return on Equity (Rs Cr)	36.36	36.36	0.00	36.36	36.36	0.00
Interest on Working Capital (Rs Cr)	72.05	63.10	-8.95	75.64	64.04	-11.60
Compensation Allowance	10.00	0.00	-10.00	10.00	0.00	-10.00



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
(Rs Cr)						
Special allowance (If applicable)	0.00	0.00	0.00	0.00	0.00	0.00
Total (Rs Cr) :	444.88	425.94	-18.94	460.27	438.67	-21.60
Ex-bus Energy Sent Out (MU)	5933.00	6328.22	395.22	5933.00	6328.22	395.22
Fixed Cost per Unit	0.75	0.67	-0.08	0.78	0.69	-0.08

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	305.10	305.10	0.00
Depreciation (Rs Cr)	45.38	45.38	0.00
Interest on Loan (Rs Cr)	1.64	1.64	0.00
Return on Equity (Rs Cr)	36.36	36.36	0.00
Interest on Working Capital (Rs Cr)	79.44	65.07	-14.37
Compensation Allowance (Rs Cr)	10.00	0.00	-10.00
Special allowance (If applicable)	0.00	0.00	0.00
Total (Rs Cr) :	477.92	453.56	-24.36
Ex-bus Energy Sent Out (MU)	5933.00	6328.22	395.22
Fixed Cost per Unit	0.81	0.72	-0.09

Table 54: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	239.00	239.00	0.00	254.00	254.00	0.00
Depreciation (Rs Cr.)	45.38	45.38	0.00	45.38	45.38	0.00
Interest on Loan (Rs Cr.)	21.49	21.49	0.00	16.29	16.29	0.00
Return on Equity (Rs Cr.)	36.36	36.36	0.00	36.36	36.36	0.00
Interest on Working Capital (Rs Cr.)	65.44	61.42	-4.02	68.66	62.33	-6.33
Com. Allowance (Rs Cr.)	10.00	0.00	-10.00	10.00	0.00	-10.00
Fixed Cost (Rs Cr.)	417.67	403.65	-14.02	430.69	414.36	-16.33
F. C. per Unit (Rs./ kWh)	0.70	0.64	-0.07	0.73	0.65	-0.07
V. C. on Fuel (Rs Cr)	1158.58	964.65	-193.93	1216.50	966.85	-249.65
V. C. per Unit (Rs./kWh)	1.95	1.52	-0.43	2.05	1.52	-0.53
Total Cost (Rs In Cr)	1576.25	1368.30	-207.95	1647.19	1381.21	-265.98
Ex-bus Energy Sent Out (MU)	5933.00	6328.22	395.22	5933.00	6342.67	409.67
Total Cost per Unit (Rs/kWh)	2.66	2.16	-0.49	2.78	2.18	-0.60



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	270.00	270.00	0.00	287.00	287.00	0.00
Depreciation (Rs Cr.)	45.38	45.38	0.00	45.38	45.38	0.00
Interest on Loan (Rs Cr.)	11.09	11.09	0.00	5.89	5.89	0.00
Return on Equity (Rs Cr.)	36.36	36.36	0.00	36.36	36.36	0.00
Interest on Working Capital (Rs Cr.)	72.05	63.10	-8.95	75.64	64.04	-11.60
Com. Allowance (Rs Cr.)	10.00	0.00	-10.00	10.00	0.00	-10.00
Fixed Cost (Rs Cr.)	444.88	425.94	-18.94	460.27	438.67	-21.60
F. C. per Unit (Rs /kWh.)	0.75	0.67	-0.08	0.78	0.69	-0.08
V. C. on Fuel (Rs Cr.)	1277.33	964.65	-312.68	1341.20	964.65	-376.55
V. C. per Unit (Rs/kWh.)	2.15	1.52	-0.63	2.26	1.52	-0.74
Total Cost (Rs Cr.)	1722.21	1390.58	-331.63	1801.47	1403.32	-398.15
Ex-bus Energy Sent Out (MU)	5933.00	6328.22	395.22	5933.00	6328.22	395.22
Total Cost per Unit (Rs/kWh)	2.90	2.20	-0.71	3.04	2.22	-0.82

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	305.10	305.10	0.00
Depreciation (Rs Cr.)	45.38	45.38	0.00
Interest on Loan (Rs Cr.)	1.64	1.64	0.00
Return on Equity (Rs Cr.)	36.36	36.36	0.00
Interest on Working Capital (Rs Cr.)	79.44	65.07	-14.37
Com. Allowance (Rs Cr.)	10.00	0.00	-10.00
Fixed Cost (in Cr)	477.92	453.56	-24.36
F. C. per Unit (Rs/kWh.)	0.81	0.72	-0.09
V. C. on Fuel (Rs Cr.)	1408.26	964.65	-443.61
V. C. per Unit (Rs/ kWh.)	2.37	1.52	-0.85
Total Cost (Rs Cr.)	1886.18	1418.20	-467.98
Ex-bus Energy Sent Out (MU)	5933.00	6328.22	395.22
Total Cost per Unit (In Rs./kWh)	3.18	2.24	-0.94

Table 55: Annual Receivables of Panki required for Calculation of Working Capital:

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges*	156.78	161.08	165.45	170.26	175.68
Cost of Fuel	400.34	401.26	400.34	400.34	400.34
Total	557.12	562.34	565.79	570.60	576.02



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Receivables					

*In accordance with proviso under Regulation 17 (2) of UPERC Generation Tariff Regulations 2014

Table 56: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	64.28	64.43	64.28	64.28	64.28
2	Cost of Secondary Fuel Oil for 2 months	1.65	1.65	1.65	1.65	1.65
3	O & M for 1 month	9.61	10.02	10.43	10.86	11.30
4	Maintenance Spares @20% of O & M Exp.	23.07	24.04	25.04	26.06	27.11
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	92.85	93.72	94.30	95.10	96.00
6	Working Capital	191.47	193.86	195.69	197.94	200.34
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	25.85	26.17	26.42	26.72	27.05

Table 57: Fixed Charges as claimed by UPRVUNL and as approved by the Commission for Panki

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	115.37	115.37	0.00	120.20	120.20	0.00
Depreciation (Rs Cr)	7.40	7.40	0.00	7.40	7.40	0.00
Interest on Loan (Rs Cr)	2.48	2.48	0.00	1.62	1.62	0.00
Return on Equity (Rs Cr)	5.68	5.68	0.00	5.68	5.68	0.00
Interest on Working Capital (Rs Cr)	23.90	25.85	1.95	25.01	26.17	1.16
Compensation Allowance (Rs Cr)	2.10	0.00	-2.10	2.10	0.00	-2.10
Special allowance (If applicable)	0.0	15.75	15.75	0.0	16.75	16.75
Total (Rs Cr) :	156.93	172.53	15.60	162.01	177.83	15.82
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52	1079.00	1164.18	85.18
Fixed Cost per Unit	1.45	1.49	0.03	1.50	1.53	0.03

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	125.18	125.18	0.00	130.28	130.28	0.00



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Depreciation (Rs Cr)	7.40	7.40	0.00	7.40	7.40	0.00
Interest on Loan (Rs Cr)	0.77	0.77	0.00	0.17	0.17	0.00
Return on Equity (Rs Cr)	5.68	5.68	0.00	5.68	5.68	0.00
Interest on Working Capital (Rs Cr)	26.16	26.42	0.26	27.37	26.72	-0.65
Compensation Allowance (Rs Cr)	2.10	0.00	-2.10	2.10	0.00	-2.10
Special allowance (If applicable)	0.0	17.81	17.81	0.0	18.94	18.94
Total (Rs Cr) :	167.29	183.26	15.97	173.00	189.20	16.20
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52	1079.00	1161.52	82.52
Fixed Cost per Unit	1.55	1.58	0.03	1.60	1.63	0.03

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	135.56	135.56	0.00
Depreciation (Rs Cr)	7.40	7.40	0.00
Interest on Loan (Rs Cr)	0.00	0.00	0.00
Return on Equity (Rs Cr)	5.68	5.68	0.00
Interest on Working Capital (Rs Cr)	28.65	27.05	-1.60
Compensation Allowance (Rs Cr)	2.10	0.00	-2.10
Special allowance (If applicable)	0.0	20.15	20.15
Total (Rs Cr) :	179.39	195.83	16.44
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52
Fixed Cost per Unit	1.66	1.69	0.02

Table 58: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	115.37	115.37	0.00	120.20	120.20	0.00
Depreciation (Rs Cr.)	7.40	7.40	0.00	7.40	7.40	0.00
Interest on Loan (Rs Cr.)	2.48	2.48	0.00	1.62	1.62	0.00
Return on Equity (Rs Cr.)	5.68	5.68	0.00	5.68	5.68	0.00
Interest on Working Capital (Rs Cr.)	23.90	25.85	1.95	25.01	26.17	1.16
Com. Allowance (Rs Cr.)	2.10	0.00	-2.10	2.10	0.00	-2.10
Special Allowance (Rs Cr)	0.00	15.75	15.75	0.00	16.75	16.75
Fixed Cost (Rs Cr.)	156.93	172.53	15.60	162.01	177.83	15.82



Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
F. C. per Unit (Rs./ kWh)	1.45	1.49	0.03	1.50	1.53	0.03
V. C. on Fuel (Rs Cr)	397.13	400.34	3.21	416.98	401.26	-15.72
V. C. per Unit (Rs./kWh)	3.68	3.45	-0.23	3.86	3.45	-0.42
Total Cost (Rs In Cr)	554.06	572.87	18.81	578.99	579.09	0.10
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52	1079.00	1164.18	85.18
Total Cost per Unit (Rs/kWh)	5.13	4.93	-0.20	5.37	4.97	-0.39

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	125.18	125.18	0.00	130.28	130.28	0.00
Depreciation (Rs Cr.)	7.40	7.40	0.00	7.40	7.40	0.00
Interest on Loan (Rs Cr.)	0.77	0.77	0.00	0.17	0.17	0.00
Return on Equity (Rs Cr.)	5.68	5.68	0.00	5.68	5.68	0.00
Interest on Working Capital (Rs Cr.)	26.16	26.42	0.26	27.37	26.72	-0.65
Com. Allowance (Rs Cr.)	2.10	0.00	-2.10	2.10	0.00	-2.10
Special Allowance (Rs Cr)	0.00	17.81	17.81	0.00	18.94	18.94
Fixed Cost (Rs Cr.)	167.29	183.26	15.97	173.00	189.20	16.20
F. C. per Unit (Rs /kWh.)	1.55	1.58	0.03	1.60	1.63	0.03
V. C. on Fuel (Rs Cr.)	437.83	400.34	-37.49	459.72	400.34	-59.38
V. C. per Unit (Rs/kWh.)	4.06	3.45	-0.61	4.26	3.45	-0.81
Total Cost (Rs Cr.)	605.12	583.60	-21.52	632.72	589.55	-43.17
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52	1079.00	1161.52	82.52
Total Cost per Unit (Rs/kWh)	5.61	5.02	-0.58	5.86	5.08	-0.79

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	135.56	135.56	0.00
Depreciation (Rs Cr.)	7.40	7.40	0.00
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	5.68	5.68	0.00
Interest on Working Capital (Rs Cr.)	28.65	27.05	-1.60
Com. Allowance (Rs Cr.)	2.10	0.00	-2.10
Special Allowance (Rs Cr.)	0.00	20.15	20.15
Fixed Cost (in Cr)	179.39	195.83	16.44
F. C. per Unit (Rs/kWh.)	1.66	1.69	0.02



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
V. C. on Fuel (Rs Cr.)	482.71	400.34	-82.37
V. C. per Unit (Rs/ kWh.)	4.47	3.45	-1.03
Total Cost (Rs Cr.)	662.10	596.17	-65.93
Ex-bus Energy Sent Out (MU)	1079.00	1161.52	82.52
Total Cost per Unit (In Rs./kWh)	6.14	5.13	-1.00

Table 59: Annual Receivables of Harduaganj required for Calculation of Working Capital:

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges	121.03	124.23	121.73	125.88	130.14
Cost of Fuel	291.61	292.28	291.61	291.61	291.61
Total Receivables	412.65	416.51	413.34	417.49	421.75

Table 60: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	46.19	46.30	46.19	46.19	46.19
2	Cost of Secondary Fuel Oil for 2 months	1.92	1.92	1.92	1.92	1.92
3	O & M for 1 month	7.33	7.63	7.95	8.27	8.61
4	Maintenance Spares @20% of O & M Exp.	17.58	18.32	19.07	19.86	20.66
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	68.77	69.42	68.89	69.58	70.29
6	Working Capital	141.79	143.59	144.02	145.82	147.67
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	19.14	19.38	19.44	19.69	19.94

Table 61: Fixed Charges as claimed by UPRVUNL and as approved by the Commission for Harduaganj

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	87.91	87.91	0.00	91.59	91.59	0.00
Depreciation (Rs Cr)	7.06	7.06	0.00	7.06	6.34	-0.72



Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	6.92	6.92	0.00	6.92	6.92	0.00
Interest on Working Capital (Rs Cr)	17.76	19.14	1.38	18.59	19.38	0.79
Compensation Allowance (Rs Cr)	1.65	0.00	-1.65	1.65	0.00	-1.65
Special allowance (If applicable)	0.00	0.00	0.00	0.0	0.0	0.00
Total (Rs Cr) :	121.30	121.03	-0.27	125.81	124.23	-1.58
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86	776.00	842.78	66.78
Fixed Cost per Unit	1.56	1.44	-0.12	1.62	1.47	-0.15

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr)	95.37	95.37	0.00	99.28	99.28	0.00
Depreciation (Rs Cr)	7.06	0.00	-7.06	7.06	0.00	-7.06
Interest on Loan (Rs Cr)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr)	6.92	6.92	0.00	6.92	6.92	0.00
Interest on Working Capital (Rs Cr)	19.46	19.44	-0.02	20.37	19.69	-0.68
Compensation Allowance (Rs Cr)	1.65	0.00	-1.65	1.65	0.00	-1.65
Special allowance (If applicable)	0.0	0.0	0.00	0.0	0.0	0.00
Total (Rs Cr) :	130.46	121.73	-8.73	135.28	125.88	-9.40
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86	776.00	840.86	64.86
Fixed Cost per Unit	1.68	1.45	-0.23	1.74	1.50	-0.25

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
O & M Expenses (Rs Cr)	103.29	103.29	0.00
Depreciation (Rs Cr)	7.06	0.00	-7.06
Interest on Loan (Rs Cr)	0.00	0.00	0.00
Return on Equity (Rs Cr)	6.92	6.92	0.00
Interest on Working Capital (Rs Cr)	21.31	19.94	-1.37
Compensation Allowance (Rs Cr)	1.65	0.00	-1.65
Special allowance (If applicable)	0.0	0.0	0.00
Total (Rs Cr) :	140.23	130.14	-10.09



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86
Fixed Cost per Unit	1.81	1.55	-0.26

Table 62: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	87.91	87.91	0.00	91.59	91.59	0.00
Depreciation (Rs Cr.)	7.06	7.06	0.00	7.06	6.34	-0.72
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	6.92	6.92	0.00	6.92	6.92	0.00
Interest on Working Capital (Rs Cr.)	17.76	19.14	1.38	18.59	19.38	0.79
Com. Allowance (Rs Cr.)	1.65	0.00	-1.65	1.65	0.00	-1.65
Fixed Cost (Rs Cr.)	121.30	121.03	-0.27	125.81	124.23	-1.58
F. C. per Unit (Rs./ kWh)	1.56	1.44	-0.12	1.62	1.47	-0.15
V. C. on Fuel (Rs Cr)	290.92	291.61	0.69	305.46	292.28	-13.18
V. C. per Unit (Rs./kWh)	3.75	3.47	-0.28	3.94	3.47	-0.47
Total Cost (Rs In Cr)	412.22	412.65	0.43	431.27	416.51	-14.76
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86	776.00	842.78	66.78
Total Cost per Unit (Rs/kWh)	5.31	4.91	-0.40	5.56	4.94	-0.62

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	95.37	95.37	0.00	99.28	99.28	0.00
Depreciation (Rs Cr.)	7.06	0.00	-7.06	7.06	0.00	-7.06
Interest on Loan (Rs Cr.)	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity (Rs Cr.)	6.92	6.92	0.00	6.92	6.92	0.00
Interest on Working Capital (Rs Cr.)	19.46	19.44	-0.02	20.37	19.69	-0.68
Com. Allowance (Rs Cr.)	1.65	0.00	-1.65	1.65	0.00	-1.65
Fixed Cost (Rs Cr.)	130.46	121.73	-8.73	135.28	125.88	-9.40
F. C. per Unit (Rs /kWh.)	1.68	1.45	-0.23	1.74	1.50	-0.25
V. C. on Fuel (Rs Cr.)	320.73	291.61	-29.12	336.77	291.61	-45.16
V. C. per Unit (Rs/kWh.)	4.13	3.47	-0.67	4.34	3.47	-0.87
Total Cost (Rs Cr.)	451.19	413.34	-37.85	472.05	417.49	-54.56
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86	776.00	840.86	64.86
Total Cost per Unit (Rs/kWh)	5.81	4.92	-0.90	6.08	4.97	-1.12



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	103.29	103.29	0.00
Depreciation (Rs Cr.)	7.06	0.00	-7.06
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	6.92	6.92	0.00
Interest on Working Capital (Rs Cr.)	21.31	19.94	-1.37
Com. Allowance (Rs Cr.)	1.65	0.00	-1.65
Fixed Cost (in Cr)	140.23	130.14	-10.09
F. C. per Unit (Rs/kWh.)	1.81	1.55	-0.26
V. C. on Fuel (Rs Cr.)	353.61	291.61	-62.00
V. C. per Unit (Rs/ kWh.)	4.56	3.47	-1.09
Total Cost (Rs Cr.)	493.84	421.75	-72.09
Ex-bus Energy Sent Out (MU)	776.00	840.86	64.86
Total Cost per Unit (In Rs./kWh)	6.36	5.02	-1.35

Table 63: Annual Receivables of Pariccha required for Calculation of Working Capital:

(Rs Cr)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capacity [Fixed] Charges	132.33	133.46	134.57	136.46	139.44
Cost of Fuel	503.46	504.61	503.46	503.46	503.46
Total Receivables	635.80	638.07	638.03	639.92	642.90

Table 64: Working Capital as determined by the Commission

(Rs Cr)

Sl.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Cost of Coal for 60 days	80.92	81.10	80.92	80.92	80.92
2	Cost of Secondary Fuel Oil for 2 months	1.99	2.00	1.99	1.99	1.99
3	O & M for 1 month	5.85	6.09	6.35	6.61	6.87
4	Maintenance Spares @20% of O & M Exp.	14.04	14.63	15.23	15.85	16.49
5	Receivables equivalent to 2 months capacity and energy charges for sale of electricity	105.97	106.34	106.34	106.65	107.15
6	Working Capital	208.77	210.16	210.82	212.02	213.42
7	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
8	I W C	28.18	28.37	28.46	28.62	28.81



Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Difference (if any)
Interest on Loan (Rs Cr)	0.00	0.00	0.00
Return on Equity (Rs Cr)	12.25	12.25	0.00
Interest on Working Capital (Rs Cr)	28.31	28.81	0.50
Compensation Allowance (Rs Cr)	2.20	0.00	-2.20
Special allowance (If applicable)	0.0	0.0	0.00
Total (Rs Cr) :	141.14	139.44	-1.70
Ex-bus Energy Sent Out (MU)	1205.00	1290.74	85.74
Fixed Cost per Unit	1.17	1.08	-0.09

Table 66: Cost per KWh as claimed by UPRVUNL with those as allowed by the Commission
(Rs Cr)

Particulars	FY 15			FY 16		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	70.20	70.20	0.00	73.13	73.13	0.00
Depreciation (Rs Cr.)	15.92	15.92	0.00	15.92	15.92	0.00
Interest on Loan (Rs Cr.)	5.78	5.78	0.00	3.78	3.78	0.00
Return on Equity (Rs Cr.)	12.25	12.25	0.00	12.25	12.25	0.00
Interest on Working Capital (Rs Cr.)	23.67	28.18	4.51	24.74	28.37	3.63
Com. Allowance (Rs Cr.)	2.20	0.00	-2.20	2.20	0.00	-2.20
Fixed Cost (Rs Cr.)	130.02	132.33	2.31	132.02	133.46	1.44
F. C. per Unit (Rs./ kWh)	1.08	1.03	-0.05	1.10	1.03	-0.06
V. C. on Fuel (Rs Cr)	443.34	503.46	60.12	465.51	504.61	39.10
V. C. per Unit (Rs./kWh)	3.68	3.90	0.22	3.86	3.90	0.04
Total Cost (Rs In Cr)	573.36	635.80	62.44	597.53	638.07	40.54
Ex-bus Energy Sent Out (MU)	1205.00	1290.74	85.74	1205.00	1293.69	88.69
Total Cost per Unit (Rs/kWh)	4.76	4.93	0.17	4.96	4.93	-0.03

Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	76.14	76.14	0.00	79.27	79.27	0.00
Depreciation (Rs Cr.)	15.92	15.92	0.00	15.92	15.92	0.00
Interest on Loan (Rs Cr.)	1.79	1.79	0.00	0.40	0.40	0.00
Return on Equity (Rs Cr.)	12.25	12.25	0.00	12.25	12.25	0.00
Interest on Working Capital (Rs Cr.)	25.86	28.46	2.60	27.05	28.62	1.57
Com. Allowance (Rs Cr.)	2.20	0.00	-2.20	2.20	0.00	-2.20
Fixed Cost (Rs Cr.)	134.16	134.57	0.41	137.09	136.46	-0.63



Particulars	FY 17			FY 18		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
F. C. per Unit (Rs /kWh.)	1.11	1.04	-0.07	1.14	1.06	-0.08
V. C. on Fuel (Rs Cr.)	488.79	503.46	14.67	513.23	503.46	-9.77
V. C. per Unit (Rs/kWh.)	4.06	3.90	-0.16	4.26	3.90	-0.36
Total Cost (Rs Cr.)	622.95	638.03	15.08	650.32	639.92	-10.40
Ex-bus Energy Sent Out (MU)	1205.00	1290.74	85.74	1205.00	1290.74	85.74
Total Cost per Unit (Rs/kWh)	5.17	4.94	-0.23	5.40	4.96	-0.44

Particulars	FY 19		
	As claimed by UPRVUNL	As determined by the Commission	Diff. (if any)
O & M Expenses (Rs Cr.)	82.46	82.46	0.00
Depreciation (Rs Cr.)	15.92	15.92	0.00
Interest on Loan (Rs Cr.)	0.00	0.00	0.00
Return on Equity (Rs Cr.)	12.25	12.25	0.00
Interest on Working Capital (Rs Cr.)	28.31	28.81	0.50
Com. Allowance (Rs Cr.)	2.20	0.00	-2.20
Fixed Cost (in Cr)	141.14	139.44	-1.70
F. C. per Unit (Rs/kWh.)	1.17	1.08	-0.09
V. C. on Fuel (Rs Cr.)	538.89	503.46	-35.43
V. C. per Unit (Rs/ kWh.)	4.47	3.90	-0.57
Total Cost (Rs Cr.)	680.03	642.90	-37.13
Ex-bus Energy Sent Out (MU)	1205.00	1290.74	85.74
Total Cost per Unit (In Rs./kWh)	5.64	4.98	-0.66

Issue 7: Disallowance of Undischarged Liability/Deferred Liability

UPPCL submitted that

- 1.115 According to Regulation 18(1)(i) of the UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009, the deferred liabilities within the original scope of work actually incurred after the date of commercial operation and up to the cutoff date may be admitted by the Commission subject to prudence check. Similarly, according to Regulation 18 (2) (i) of the aforementioned Regulations, deferred liabilities relating to works/services within the original scope of work' actually incurred after the cutoff date may be admitted by the Commission subject to prudence check. Hence, till the amount is actually incurred, the tariff is not payable.
- 1.116 UPPCL also quoted Regulation 22 (1) (i) and Regulation 22 (2) (v) of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 with regards to admitting deferred liabilities in the capital cost/additional capital expenditure and iterated that the tariff is not payable until the amount is actually incurred.

1.117 In view of the above, UPPCL submitted the plant wise year wise details of undischarged liabilities/deferred liabilities for the period FY 2011-12 to FY 2013-14 and FY 2014-15 and FY 2015-16 (half year) and requested the Hon'ble Commission to deduct it from the capital cost/additional capital expenditure to determine capital cost/additional capital expenditure actually incurred.

UPRVUNL submitted that

1.118 the Civil Court under section 114 of Civil Procedure Code and under Order 47 Rules (1) and (2) has powers to review its own orders on three specific grounds namely:

- a. Discovery of new and important matter of evidence which after the exercise of due diligence, was not within the applicant's knowledge or could not be produced by him at the time when the decree was passed or order was made;
- b. Mistake or error apparent on the face of the record;
- c. Any other sufficient reason;

1.119 In view of the above, the Petitioner submitted the issue of undischarged liabilities has already been heard and decided by the Hon'ble Commission at the time of the finalization of the Tariff Order and the same cannot be allowed to be re-agitated at a subsequent stage. Further, issue raised by UPPCL does not fall under the ambit of 'mistake or error apparent on the face of the record' since it is not self-evident and may require long debate and reasoning. Therefore, UPPCL's submission is beyond the scope of review petition and is not maintainable on the above grounds.

1.120 The UPPCL's submission on undischarged liabilities in extraneous to the UPERC (Terms and Conditions for Generation) Regulation, 2009 and UPERC (Terms and Conditions for Generation) Regulation, 2014.

Commission's View

1.121 The Commission is aware of the relevant provisions of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009 and UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 for admitting the deferred liabilities in the capital cost/additional capital expenditure. However, The Commission has also considered UPRVUNL's submission stating that significant amounts of deferred liabilities are on account of large outstanding payments by UPPCL.

1.122 Hence, in consideration of UPRVUNL's submission, the Commission has allowed a relief to them and has not deducted the undischarged liabilities from the capital cost/additional capital expenditure to determine capital cost/additional capital expenditure actually incurred. Therefore, no changes are currently required in respect of the same.



Issue 8: Anpara D: Determination of claim of IDC and IEDC

UPPCL submitted that

- 1.123 The Hon'ble Commission has inadvertently allowed Interest during Construction for Anpara D Power Station beyond Scheduled Commercial Operation Date (SCOD). UPPCL has further quoted the relevant provisions of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 which are produced below:

“20 (a) Interest during Construction:

(1) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) In case of additional costs on account of IDC due to delay in achieving the SCOD, the generating company shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds:

Provided that if the delay is not attributable to the generating company and is due to uncontrollable factors as specified in Regulation 21 of these regulations, IDC may be allowed after due prudence check.

Provided further that only IDC on actual loan may be allowed beyond the SCOD, to the extent the delay is found beyond the control of generating company after due prudence and taking into account prudent phasing of funds”

- 1.124 UPPCL requested the Hon'ble Commission to allow Interest during Construction (IDC) as per the relevant provisions of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 and to not allow IDC beyond SCOD. UPPCL further requested the Commission to direct the Petitioner to claim IDC only in respect of actual loans and not for normative components of loan.

Commission's View

- 1.125 The Commission is aware of the relevant provisions of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 for determination of Interest during Construction. The Commission has determined tariff for Anpara 'D' provisionally on the basis of proposed capital expenditure. Detailed analysis shall be performed by the Commission when the Petitioner files audited details of capital expenditure actually incurred and will make a fresh application as per Appendix – II to UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 for determination of final tariff. Hence, no change is currently required in determination of IDC for Anpara 'D'.



Issue 9: Anpara A, Anpara B and Anpara D: Computation of coal stock for pit head generating stations

UPPCL submitted that

- 1.126 The Hon'ble Commission has inadvertently considered the coal stock for 60 days as against maximum permissible coal stock for 45 days for pit head generating stations namely Anpara 'A', Anpara 'B' and Anpara 'D' in the Tariff Order dated 29.04.2016 while determining Interest on Working Capital for the period FY 2014-15 to FY 2018-19. UPPCL has also quoted relevant provisions of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 which have been produced below:

"25 (v) Interest on Working Capital

(a) Working capital shall be allowed on a normative basis and for coal based generating stations shall include:

- (i) Cost of coal for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal stock storage capacity whichever is lower;*
(ii) Cost of coal for 30 days for generation corresponding to the target availability"

- 1.127 In view of above, UPPCL has requested the Commission to suitably revise the interest on Working Capital for these stations.

Commission's View

- 1.128 The Commission while scrutinizing the Petition for Determination of Final True Up for FY 2011-12 to FY 2013-14 and Determination of Multi Year Tariff and approval of Annual Revenue Requirement for FY 2014-15 to FY 2018-19 had reviewed the actual coal storage days for pit head generating stations namely Anpara 'A', Anpara 'B' and Anpara 'D' which was 60 days.
- 1.129 The Commission had then accordingly determined the Interest on Working Capital for these stations for the period FY 2014-15 to FY 2018-19. Therefore, no change is required with respect to the same.

(Suresh Kumar Agarwal)
Member

(Desh Deepak Verma)
Chairman

Place: Lucknow
Dated: 18.01.2017