

Summary of ARR & Tariff Filings

Submitted by

OHPC

For

FY 2015-16

SUMMARY OF ARR PROPOSAL OF OHPC FOR FY 2015-16

Installed Capacity

1. The total installed capacity of the various Hydro Stations owned by the Orissa Hydro Power Corporation (OHPC) is projected at 2008.5 MW for FY 2015-16 including Orissa's share of Machhkund. The Odisha share of Machhkund has been increased from 34.5 MW to 36 MW as the actual installed capacity of MHEP has been reported as 120 MW by the MHEP authorities.

The installed capacity of different generating stations as reported by OHPC for the FY 2015-16 is given in the table below.

Table - 1
Installed capacity of OHPC stations

Sl. No.	Name of the Power Station	Installed Capacity Approved for FY 2014-15	Proposed Installed Capacity for FY 2015-16
1	Rengali (RHEP)	250.00	250.00
2	Upper Kolab(UKHEP)	320.00	320.00
3	Balimela(BHEP)	510.00	510.00
4	Burla (HHEP)	220.50	220.50
5	Chiplima (CHEP)	72.00	72.00
6	Upper Indravati (UIHEP)	600.00	600.00
7	Machhakund (30% Orissa share)	34.50	36.00
Total		2007.00	2008.5

Design Energy of OHPC Stations

2. The Design Energy (DE) of a Hydro Power Station is an important parameter for determination of tariff. The OHPC has appealed to the commission to reduce the Design Energy of HHEP, Burla & CHEP, Chiplima as some of the generating stations are consistently unable to generate their Annual Design Energy and consequently OHPC is unable to recover the Annual Energy Charges in full. The hydro power station wise design energy proposed by OHPC for consideration during FY 2015-16 ARR and Tariff determination is given in the following table.

Table - 2
Design Energy for FY 2015-16

Sl. No.	Name of the Power Station	Design Energy (DE) (in MU)	Design Energy for sale (in MU)
1	RHEP	525.00	519.75
2	UKHEP	832.00	823.68
3	BHEP	1183.00	1171.17

4	HHEP	652.00	645.48
5	CHEP	309.00	305.91
Sub Total of Old Power Stations		3501.00	3465.99
6	UIHEP	1962.00	1942.38
Total		5463.00	5408.37

Reservoir Level and Anticipated Generation for FY 2015-16

3. The reservoir level of Power Stations reported by OHPC as on 24.11.14 vis-à-vis on 24.11.13 is given below

Table - 3
Reservoir Level and Anticipated Generation for FY 2015-16

Sl. No.	Reservoirs	As on 24.11.2013	As on 24.11.2014
1.	Rengali	123.41 Mt.	122.09 Mt.
2.	Kolab	856.28 Mt.	856.87 Mt.
3.	Balimela	1514.60 Ft.	1515.00 Ft.
4.	Hirakud	629.71 Ft.	629.31 Ft.
5.	Indravati	641.57 Mt.	640.49 Mt.

The actual generation of different power stations under OHPC up to 23.11.2014 and anticipated generation up to 31st March 2015 is also provided as given below in table-4, taking into consideration the directives of the Govt. of Odisha.

Table - 4
Actual /Anticipated Energy Generation for FY 2014-15

Sl. No.	Name of the power stations	Actual generation from 01.04.14 up to 23.11.14 (MU)	Anticipated generation from 24.11.14 to 31.03.15 based on DoWR & DoE Schedule	Total Anticipated generation for the FY 2014-15 based on DoWR & DoE Schedule
1.	RHEP	674.25	89.28	763.53
2.	UKHEP	488.83	183.36	672.19
3.	BHEP	996.03	257.04	1253.07
4.	HHEP	444.05	139.68	583.73
5.	CHEP	194.05	100.24	294.29
6.	UIHEP	2073.98	603.60	2677.58
Total		4871.19	1373.20	6244.39

Project Cost

4. The revalued cost of old power stations under OHPC is Rs.1196.80 Crs as on 01.04.1996 as per the notification no 5207 dtd. 01.04.1996 of Department of Energy, Government of Orissa. The Commission in its Order dated 23.03.2006 at clause no. 5.4 (C) had approved the same. The historical cost of old power station of OHPC is Rs.479.80 Crores. Further,

Hon'ble Commission, in the Order dated 20.03.2008 has approved Rs.1195.42 crores as final capital cost of UIHEP for the purpose of determination of tariff.

OHPC has shown additional capitalization of Rs. 140.59 Cr. for the FY 2015-16. This additional capitalization is based on the following factors.

- a) Capital work in progress (CWIP) of Rs. 9.87 Cr. for FY 2014-15 to be capitalized during FY 2014-15 and CWIP for FY 2015-16 to be capitalized during FY 2015-16 as per the audited accounts of FY 2013-14.
- b) An amount of Rs 130.72 Crs. is considered as additional capitalization for FY 2014-15 & 2015-16.

The detail unit wise additional capitalization considered for determination of tariff for the FY 2015-16 is mentioned in the table below.

Table - 5
Additional Capitalization for the FY 2015-16

(in Rs. Cr.)

SL. No.	Power Stations	Additional Capitalisation for FY 2013-14	Additional Capitalization considering CWIP for FY 2014-15	Additional Capitalization considering CWIP for FY 2015-16	Total Additional Capitalization for FY 2015-16 tariff
	1	2	3	4	5=2+3+4
1	RHEP	0.84	2.15	6.08	9.06
2	UKHEP	2.72	19.80	11.08	33.60
3	BHEP	1.14	0.21	1.11	2.46
4	HHEP	1.67	8.62	31.05	41.34
5	CHEP	0.93	1.52	3.57	6.02
6	Sub Total	7.30	32.29	52.88	92.48
7	UIHEP	2.57	10.47	35.08	48.11
8	Total	9.87	42.76	87.96	140.59

5. The decapitalization of OHPC power stations during FY 2011-12 to FY 2013-14 has been computed as Rs. 7.12 Cr. which has been deducted from the original historical cost and revalued cost of assets.

Table- 6
Reduced Historical Cost and Reduced Revalued Cost

(in Rs. Cr.)

Sl. No.	Name of Power Station	Historical cost of asset as on 01.04.1996.	Revalued cost of asset as on 01.04.1996.	Reduction of assets during the FY 2011-12 to FY 2013-14	Historical Cost as on 31.03.2014.	Revalued Cost as on 31.03.2014.
1	2	3	4	5	6 = 3 – 5	7 = 4 – 5
1	RHEP	91.09	259.01	0.00	91.09	259.01
2	UKEHP	108.31	307.96	0.09	108.22	307.87
3	BHEP	115.42	334.66	0.26	115.16	334.40
4	HHEP	72.75	130.16	6.07	66.68	124.09
5	CHEP	92.23	165.01	0.70	91.53	164.31
Total (Old PS)		479.80	1196.80	7.12	472.68	1189.68

6. The project cost of OHPC power stations reported for computation of ARR for the FY 2015-16 is given in the table below:

Table- 7
Capital Cost proposed for FY 2015-16

(in Rs. Crs.)

Sl. No.	Name of the power stations	Historical Cost as on 31.03.2013.	Revalued Cost as on 31.03.2013.	Approved New additions up to 31.03.2013	New additions for FY 2013-14(audited) & CWIP for 2014-15 & 2015-16	Project cost considered for Tariff Calculation based on historical cost	Project Cost considered Tariff calculation based on revalued cost
1	2	3	4	5	6	7=3+5+6	8=4+5+6
1.	RHEP	91.09	259.01	55.57	9.06	155.72	323.64
2.	UKHEP	108.22	307.87	15.79	33.60	157.61	357.26
3.	BHEP	115.16	334.40	212.42	2.46	330.04	549.28
4.	HHEP	66.68	124.09	204.94	41.34	312.96	370.37
5.	CHEP	91.53	164.31	45.24	6.02	142.79	215.57
	Sub Total	472.68	1189.68	533.96	92.48	1099.12	1816.12
6.	UIHEP	Approved project cost Rs 1194.79 Crore		1194.79	45.54	1242.90	1242.90
7	Total	472.68	1189.68	1728.75	140.59	2342.02	3059.02

Withdrawal of State Government Support in the Electricity Generation Tariff

7. The OHPC has noticed that the state government has expressed willingness to do away with the financial support to OHPC through various letters from the state government from time to time. In the proceedings of a meeting taken by the Chief Secretary of Government of Odisha on 18.03.2014, it was decided that -

Convertible Bonds worth Rs 766.20 Crores has been issued to State Government. These bonds shall not carry any interest up to FY 2014-15.

Part- Rs 383.10 Crores shall be converted to equity from 2015-16.

Part- Rs 383.10 Crores shall remain as loan which shall carry interest at the rate of 7% per annum w.e.f. 2015-16 until repayment.

Further the Chhattisgarh State Power Distribution Company Limited (CSPDCL) is placing a plea to pay the energy charges to OHPC at the average tariff of HHEP, Burla, which is actually applicable for the consumers of Odisha, and which is determined by the Hon'ble Commission, considering the supportive measures extended by the Govt. of Odisha.

With regards to the above the OHPC prays to the commission to fix the tariff for the FY 2015-16 of all the Power Stations under OHPC without considering the Govt. support, so that the average tariff rate derived for HHEP, Burla without Govt. support shall be applicable to CSPDCL. In the event the State Govt. further allows its supportive measures and concessions for the FY 2015-16, then subsidized generation tariff (including HHEP) will be applicable for billing to GRIDCO but the tariff of HHEP without the State Govt. support shall be applicable for billing to CSPDCL.

Determination of Annual Fixed Cost for FY 2015-16

8. Central Electricity Regulatory Commission (Terms and conditions of Tariff) Regulations, 2014 specifies methodology for computation of tariff for supply of electricity from a hydro generating station. The tariff shall comprise capacity charge and energy charge to be shared on 50:50 basis for recovery of annual fixed cost.

The Annual Fixed Cost of a hydro generating station shall consist of the following components:

- a. Return on equity (ROE)
- b. Interest on loan capital
- c. Depreciation
- d. Operation and Maintenance expenses
- e. Interest on working capital

- a. **Return on equity (ROE):** Return on equity shall be computed on pre-tax basis at the base rate of 16.5% to be grossed up as per the following formula.

Rate of pre-tax return on equity = 16.5% / (1-t)

Where "t" is the effective tax rate payable by OHPC.

For the FY 2015-16, the income tax rate of 33.99% including surcharge (10%) and cess (3%) as applicable for the FY 2014-15 is considered for computation of RoE for FY 2015-16.

∴ Rate of return on equity = 16.50% / (1 - 0.3399) = 24.9962%

The pre-tax return on equity @ 24.9962% has been considered for FY 2015-16 for OHPC power stations.

Table - 8

RoE Proposed for FY 2015-16 Without Considering Government Support

(in Rs. cr.)

Sl. No.	Name of the Power Station	Project Cost	Equity Capital Rate (%)	Value of Equity capital	ROE @24.9962% Proposed for 2015-16
1.	RHEP	323.64	30	97.093	24.270
2.	UKHEP	357.26	30	107.177	26.790
3.	BHEP	549.28	30	164.785	41.190
4.	HHEP	370.37	25	92.592	23.144
5.	CHEP	215.57	25 & 30	54.646	13.659
	Sub Total	1816.12		516.293	129.054
6.	UIHEP	1242.90	25 & 30	314.436	78.597
	Total	3059.02		830.729	207.651

N.B.: (i) Equity Capital of CHEP, Chiplima is taken 25% for new capitalization of Rs 200.495 Crs prior to FY 2009-10 and 30% of new capitalization of Rs 15.075 after FY 2009-10 to FY 2012-13 (Approved) & FY 2013-14 (Audited) & CWIP for FY 2014-15 & 2015-16.

(ii) Equity Capital of UIHEP, Mukhiguda is taken 25% for new capitalization of Rs 1194.79 Crs prior to FY 2012-13 and 30% of new capitalization of Rs48.11 for FY 2013-14(Audited) & CWIP for FY 2014-15 & 2015-16.

Based on the tariff order dtd. 19th April, 2002 and vide notification no. 5302 dtd. 6th May 2003, the RoE to OHPC has been allowed on the new capital addition made after 1st April, 1996 in different hydro projects under OHPC. The state government is not taking any RoE on its investments in different hydro projects prior to 1st April, 1996 which is considered as state government support. The RoE with state government support is given in the table below.

Table - 9
RoE Proposed for FY 2015-16 Considering Government Support

(in Rs. cr.)

Sl. No.	Name of the Power Station	Value of New capital addition from 01.04.1996 to 31.03.2014	Equity Capital Rate (%)	Value of Equity capital	ROE @24.9962% Proposed for 2015-16
1.	RHEP	64.63	30	19.390	4.847
2.	UKHEP	49.39	30	14.816	3.703
3.	BHEP	214.88	30	64.463	16.113
4.	HHEP	246.28	25	61.570	15.390
5.	CHEP	51.26	25 & 30	13.569	3.392
	Sub Total	626.44		173.808	43.445
6.	UIHEP	1242.90	25 & 30	314.436	78.597
	Total	1869.34		488.244	122.042

N.B.: (i) Equity Capital of CHEP, Chiplima is taken 25% for new capitalization of Rs 200.495 Cr. prior to FY 2009-10 and 30% of new capitalization of Rs 15.075 after FY 2009-10 to FY 2012-13 (Approved) & FY 2013-14 (Audited) & CWIP for FY 2014-15 & 2015-16.

(ii) Equity Capital of UIHEP, Mukhiguda is taken 25% for new capitalization of Rs 1194.79 Crs prior to FY 2012-13 and 30% of new capitalization of Rs48.11 for FY 2013-14(Audited) & CWIP for FY 2014-15 & 2015-16.

Based on Post tax Approach of RoE, Hon'ble OERC had approved Rs 83.57Cr. in the tariff of OHPC for the FY 2014-15. This is not in accordance with the CERC approved Tariff Regulations, 2014. Thus, OHPC submit the differential claim of RoE for FY 2014-15 which has been prepared as tabulated below:

Table - 10
Differential Claim of RoE for FY 2014-15

(in Rs. cr.)

Sl. No.	Name of the Power Station	Value of New capital addition	Value of Equity capital	Equity Portion (%)	ROE Proposed by OHPC @24.9962% for FY 2014-15	ROE approved by Hon'ble Commission for FY 2014-15 @ 16%	Income Tax Reimbursement approved by Hon'ble Commission for FY 2014-15	Differential Claim of RoE for FY 2014-15
	1	2	3	4	5	6	7	8=5-(6+7)
1.	RHEP	55.57	16.671	30	4.167	2.667	0.44	1.06
2.	UKHEP	15.79	4.738	30	1.184	0.758	0.12	0.306
3.	BHEP	212.42	63.725	30	15.929	10.196	1.67	4.063
4.	HHEP	204.94	51.235	25	12.807	8.198	1.35	3.259
5.	CHEP	45.24	13.572	30	3.392	2.172	0.36	0.86
	Sub Total	533.96	149.941		37.479	23.991	3.94	9.548
6.	UIHEP	1194.79	298.698	25	74.663	47.792	7.85	19.021
Total					112.143	71.783	11.79	28.57

Due to restructuring of Govt. investment in UIHEP, there is an increase of Rs1.303Cr in Equity base from FY2001-02. OHPC has proposed the differential claim on RoE for this differential Equity Base of Rs1.303Cr from FY 2001-02 to FY 2014-15. The table below shows the differential yearly RoE claim.

Table - 11
Differential Claim of RoE for UIHEP from FY 2001-02 to FY 2014-15
(in Rs. cr.)

Claim on RoE for Differential Equity of UIHEP				
				(Rs. in Cr.)
Sl. No.	Financial Year	Differential Equity	Multiplying Factor/ Rate of RoE	Amount Due
1	FY 2001-02	1.3025	12.000%	0.156
2	FY 2002-03	1.3025	12.000%	0.156
3	FY 2003-04	1.3025	12.000%	0.156
4	FY 2004-05	1.3025	12.000%	0.156
5	FY 2005-06	1.3025	12.000%	0.156
6	FY 2006-07	1.3025	14.000%	0.182
7	FY 2007-08	1.3025	14.000%	0.182
8	FY 2008-09	1.3025	14.000%	0.182
9	FY 2009-10	1.3025	17.481%	0.228
10	FY 2010-11	1.3025	18.674%	0.243
11	FY 2011-12	1.3025	19.358%	0.252
12	FY 2012-13	1.3025	19.3768%	0.252
13	FY 2013-14	1.3025	20.627%	0.269
14	FY 2014-15	1.3025	24.996%	0.326
	Total			2.898

OHPC prays before Hon'ble Commission to allow the RoE without considering government support and the differential amount as reimbursement for different power stations of OHPC for FY 2015-16. The prayer for RoE is tabulated in the table below.

Table - 12
RoE Claim by OHPC for FY 2015-16

(in Rs. cr.)

Power Stations	Differential claim of FY 2014-15 (as reimbursement)	Differential claim due to resetting of Equity of UIHEP(as reimbursement)	Proposed RoE claim for FY 2015-16
RHEP	1.06	-	24.270
UKHEP	0.306	-	26.790

BHEP	4.063	-	41.190
HHEP	3.259	-	23.144
CHEP	0.86	-	13.659
Sub Total	9.548	-	129.054
UIHEP	19.021	2.898	78.597
	28.57	2.898	207.651

- b. **Interest on Loan:** The loan liabilities on OHPC consist of state Government loans, PFC loans and Normative loans. The State Government loan for the OHPC power stations except the UIHEP has been repaid by the FY 2012-13.

The government loan to UIHEP stands at Rs. 821.47 Cr. as on 31.03.2001 after capitalization. Out of which Rs. 300 Cr. is treated as normative equity w.e.f 2001-02 and remaining Rs. 521.47 Cr. is treated as loan to UIHEP that carries an interest @7% p.a w.e.f 2006-07 onwards. The loan amount is supposed to be repaid by the OHPC in 15 equal annual instalments starting from 2010-11. The honourable commission has allowed depreciation @ Rs. 30.23 Cr. p.a from FY 2010-11 to FY 2014-15 which has been considered as repayment of loan to the government over the last five years. However, after restructuring of the loan, the depreciation per year turns out to be Rs. 34.76 Cr. (Rs. 521.47 Cr./15). Thus differential depreciation amount of Rs. 22.65 Cr. (Rs. 34.76 Cr. – Rs. 30.23 Cr.=4.53 Cr. p.a., Rs. 4.53Cr. p.a × 5 years) p.a may be approved as a pass through in the tariff order of FY 2015-16. Moreover, the OHPC has claimed Rs. 57.41 Cr. (Rs. 34.76 Cr. + Rs. 22.65 Cr.) as loan repayment to the government during FY 2015-16. Finally, the interest of Rs. 23.91 Cr. on the average outstanding balance for the FY 2015-16 has been claimed. Further the OHPC has proposed to designate the accumulated interest amount of Rs. 302.07 Cr. as on 01.04.2015 as regulatory asset and fix suitable installments as pass through in the ARR for recovery of the same from FY 2015-16 onwards.

Table - 13
Summary of OHPC's Claim on Govt. Loan to UIHEP

1.	Rs 57.41 Cr towards Loan Repayment.
2.	Rs 23.91 Cr towards Interest.
3.	Accumulated Interest of Rs 302.07 Cr. as on 01.04.2015 on the UIHEP Govt. Loan as the Regulatory Asset.
4.	Pass through of the 1st Installment (to be decided by the Hon'ble Commission) of the above Regulatory Asset in the tariff of 2015-16.

OHPC has considered the interest impact of 50 % convertible bond @ 7% rate of interest and distributed the same across different old power stations based on their share of installed capacity in the total installed capacity. The distribution of interest rate is shown in the table below.

Table - 14
Distribution of Interest on Convertible Bonds Across Different Old Power Stations
(in Rs. cr.)

Sl. No.	Loan/ Interest Component	RHEP	UKHEP	BHEP	HHEP	CHEP	Total
1	Zero Coupon Bond(Convertible Bond)(Rs Crs)	69.78	89.32	142.35	61.55	20.10	383.10
2	Interest on Loan @7% (Rs Crs)	4.8846	6.2524	9.9645	4.3085	1.407	26.817

The OHPC availed PFC loans in connection with R & M projects of HHEP, Burla and extension project of BHEP, Balimela. The PFC loan for UIHEP has already been paid by 2009-10.

Since, 9.8% state Govt. loan has been repaid, but normative loans of the respective units are still pending, the normative loans of CHEP, RHEP & UKHEP is considered @ 9.8% as per Clause No. 5 of CERC Regulation, 2014 and @ 9.6% for BHEP, Balimela for FY 2015-16 based on PFC interest rate applicable to BHEP. Similarly, the normative loan of HHEP, Burla is considered @ 8.75 % for FY 2015-16 based on PFC interest rate applicable to HHEP, Burla.

The OHPC has claimed interest on normative loan @12 % p.a as per the interest rate offered on the loans from PFC/REC.

The Hydro station-wise interest and guarantee commission for FY 2015-16 as claimed by OHPC is presented in Table No 15 & 16 below.

Table - 15
Interest on Loan and G.C for FY 2015-16 (Without Govt. Support)
(in Rs. Cr.)

Sl. No.	Source of loan	Interest on loan and G.C for FY 2015-16						TOTAL
		RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	
1.	PFC loan	-	-	1.94	0.23	-	-	2.18
2.	Normative loan	3.23	2.37	0.99	2.43	0.99	7.37	17.38
3.	Govt. Loan	-	-	-	-	-	23.91	23.91
4.	Convertible Bond	4.89	6.25	9.97	4.31	1.41	0.00	26.82
5.	G.C.	-	-	0.64	0.44	-	-	1.08
Total		8.11	8.62	13.53	7.41	2.40	31.28	71.36

Table - 16
Interest on Loan and G.C for FY 2015-16 (With Govt. Support)

(in Rs. Cr.)

Sl. No.	Source of loan	Interest on loan and G.C for FY 2015-16						TOTAL
		RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	
1.	PFC loan	-	-	1.94	0.23	-	-	2.18
2.	Normative loan	3.23	2.37	0.99	2.43	0.99	7.37	17.38
3.	Govt. Loan	-	-	-	-	-	23.91	23.91
4.	G.C.	-	-	0.64	0.44	-	-	1.08
Total		3.23	2.37	3.57	3.10	0.99	31.28	44.54

c. Depreciation

Depreciation is the refund of capital subscribed and is a constant charge against an asset to create a fund for its replacement. It is an important component of annual fixed cost of the generating station.

CERC Tariff regulation 2014-19 has specified rates for calculation of depreciation based on the capital cost admitted by the Commission.

OHPC has computed depreciation for the FY 2015-16 @ 5.28% on the revalued project cost as on 31.03.2014 plus additional capitalization w.e.f. 01.04.1996 up to FY 2013-14 plus cost of CWIP & some other capitalizations during the FY 2014-15 & 2015-16.

In case of UIHEP, Rs. 34.76 Cr. has been considered as the annual repayment of government loan for FY 2015-16, Rs. 22.65 Cr. is the differential depreciation due to government loan restructuring and Rs. 6.74 Cr. has been considered as the depreciation amount for additional capitalization during FY 2013-14, FY 2014-15 and FY 2015-16. Thus a total of Rs. 64.17 Cr. is considered as the depreciation for FY 2015-16 for UIHEP.

The depreciation without and with government support for different plants of OHPC are tabulated below.

Table - 17
Depreciation Without Govt. Support for FY 2015-16

(in Rs. Cr.)

Sl. No.	Name of the power station	Depreciation Claimed	Remark
1	RHEP	20.50	5.28%
2	UKHEP	21.47	5.28%
3	BHEP	40.35	5.28%
4	HHEP	32.56	5.28%

5	CHEP	14.09	5.28%
	Sub Total	128.97	
6	UIHEP	64.17	Equal to loan repayment
Grand Total		193.13	

Table - 18
Depreciation With Govt. Support for FY 2015-16

(in Rs. Cr.)

Sl. No.	Name of the power station	Depreciation Claimed	Remark
1	RHEP	4.68	Equal to loan repayment
2	UKHEP	6.39	Equal to loan repayment
3	BHEP	15.62	Equal to loan repayment
4	HHEP	12.75	Equal to loan repayment
5	CHEP	3.67	2.57%
	Sub Total	43.11	
6	UIHEP	64.17	Equal to loan repayment
Grand Total		107.27	

d. Operation and Maintenance (O&M) Expenses:

OHPC had calculated the O&M expenses for the FY 2014-15 as per the CERC Tariff Regulations 2009 based on the following formula.

The normalized O&M Expenses after prudence check, for the years 2008-09 to FY 2012-13, was escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses for the FY 2008-09 to FY 2012-13 at FY 2012-13 price level respectively and then averaged to arrive at normalized operation and maintenance expenses at FY 2012-13 price level and the averaged O&M was escalated at the rate of 5.72% to arrive at the operation and maintenance expense for FY 2014-15.

However, as per the CERC Regulation, 2014 the escalation rates were changed from 5.17% to 6.04% and 5.72% to 6.64% respectively for block period 2014-2019. Moreover, the O&M expenses for FY 2013-14 was obtained by escalating the O&M expenses for FY 2012-13 at the rate of 6.04% instead of 5.72%.

Considering the new escalation rates a differential O&M expenses for FY 2014-15 amounting to Rs. 8.22 Cr. (Rs. 291.53 Cr. – Rs. 283.31 Cr.) has been proposed in the ARR.

Following the CERC Regulation, 2014, the O&M expenses of OHPC is proposed as below.

- i. The O&M expenses for FY 2015-16 comes to Rs. 310.89 Cr. considering an escalation rate of 6.64% instead of 5.72%.

- ii. Arrear salary and terminal liabilities of corporate office amounting to Rs. 11.15 Cr. has been apportioned to different units and included in the O & M expenses for the tariff proposal for FY 2015-16.

Thus OHPC claims Rs. 322.04 Cr. as the O&M expense for FY 2015-16 and further proposes to reimburse Rs. 8.22 Cr. as differential O&M for FY 2014-15.

Table - 19
Statement of O&M Expenses for FY 2015-16

(in Rs. cr.)									
Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Subtotal	UIHEP	C.O.	Total
O&M expenses for FY 2015-16 including arrear salary and terminal liabilities	48.53	38.25	73.79	71.95	16.98	249.50	72.54	23.06	322.04
O&M approved for FY 2014-15 including arrear salary and terminal liabilities	44.33	35.03	67.67	65.49	15.65	228.15	66.31	19.65	294.46

Table - 20
Reimbursement Claim of Differential O & M for FY 2014-15

(in Rs. Cr.)										
Sl. No	PARTICULARS	RHEP	UKHEP	BHEP	HHEP	CHEP	Subtotal	UIHEP	C.O	TOTAL
01	O&M Expenses for FY 2014-15(with Escalation @6.04% & 6.64%)	41.81	31.44	59.89	63.33	14.40	210.85	60.52	20.1	291.53
2	Approved O&M Expenses for FY 2014-15(with Escalation @5.17% & 5.72%)	40.58	30.57	58.16	61.47	14.07	204.86	58.80	19.65	283.31
3	Differential Claim of O&M expenses for FY 2014-15	1.23	0.87	1.73	1.86	0.33	5.99	1.72	0.51	8.22
4	Corporate Office expenses apportioned to different units under OHPC based on installed capacity	0.06	0.08	0.13	0.06	0.02	0.35	0.16	0.51	
5	Total claim of Differential O & M for FY 2014-15	1.29	0.95	1.86	1.92	0.35	6.34	1.88		8.22

e. Interest on Working Capital

As per CERC Tariff Regulation 2014, the basis for calculation of working capital shall include the following:

- i. Receivables equivalent to two months of fixed cost.
- ii. Maintenance spares @ 15% of operational and maintenance expenses and
- iii. Operation and maintenance expenses for one month.

The rate of interest on working capital considered is the SBI base rate @ 10% as on 1st April, 2014 plus 350 basis points which turns out to be 13.5% in line with the CERC (Terms and Conditions of Tariff) Regulations'2014. In accordance with CERC guidelines, the interest on working capital shall be payable on normative basis.

Table -11 below summarizes the station wise interest on working capital as proposed by the OHPC for FY 2013-14.

Table - 21
Interest on Working Capital for FY 2015-16 Without Govt. Support
(in Rs. Cr.)

Sl. No.	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
1	Receivables equivalent to two months of fixed cost	17.55	16.42	29.19	23.42	8.13	94.71	42.43	137.14
2	Maintenance spares @ 15% of O&M expenses	7.28	5.74	11.07	10.79	2.55	37.42	10.88	48.31
3	O&M expenses for one month	4.04	3.19	6.15	6.00	1.42	20.79	6.05	26.84
4	Total working capital	28.88	25.35	46.40	40.20	12.09	152.92	59.36	212.28
5	Interest on working capital calculated @ 13.5%	3.90	3.42	6.26	5.43	1.63	20.64	8.01	28.66

Table - 22
Interest on Working Capital for FY 2015-16 With Govt. Support
(in Rs. Cr.)

Sl. No.	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
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1	Receivables equivalent to two months of fixed cost	10.71	8.85	19.00	17.98	4.36	60.90	42.43	103.33
2	Maintenance spares @ 15% of O&M expenses	7.28	5.74	11.07	10.79	2.55	37.42	10.88	48.31
3	O&M expenses for one month	4.04	3.19	6.15	6.00	1.42	20.79	6.05	26.84
4	Total working capital	22.04	17.77	36.21	34.77	8.32	119.12	59.36	178.48
5	Interest on working capital calculated @ 13.5%	2.97	2.40	4.89	4.69	1.12	16.08	8.01	24.09

For the FY 2014-15 Hon'ble Commission had allowed the interest on working capital for Rs 14.45Cr. to OHPC at an interest rate of 10%. In actual, the interest on working capital for the FY 2014-15 would have been Rs 19.51 Cr at an interest rate of 13.5% as per the CERC Regulations 2014.

Therefore, OHPC proposes to approve the differential amount of Rs 5.06Cr for FY 2014-15 as reimbursement in the ARR of FY 2015-16.

Table - 23
Differential Interest on Working Capital for the FY 2014-15

(in Rs. Cr.)

Sl. No.	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
1	Approved Interest on Working Capital calculated @ 10% for FY 2014-15	1.96	1.5	3.27	2.95	0.75	10.43	4.02	14.45
2	Interest on Working Capital calculated @ 13.5% for FY 2014-15	2.65	2.03	4.41	3.98	1.01	14.08	5.43	19.51
3	Differential IoWC claim for FY 2014-15	0.69	0.53	1.14	1.03	0.26	3.65	1.41	5.06

Annual Revenue Requirement (ARR) & Tariff (without Govt. Support) for the FY 2015-16

Based on the above parameters the station wise ARR and tariff have been calculated for the FY 2015-16 as indicated by OHPC is presented in the tables below.

In determining the ARR and tariff without government support in the form of up valuation of assets, the revalued cost of Rs. 1189.68 Cr. along with new capital addition for Rs. 1869.34 Cr. since 01.04.1996 up to 31.03.2014 (audited) along with CWIP for the FY 2014-15 & 2015-16 has been considered.

Table -24
Station wise ARR and Tariff for the FY 2015-16 Considering Proposed Saleable D.E. & Without Govt . Support

Details expenses	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
Existing Saleable Design Energy (MU)	519.75	823.68	1171.17	645.48	305.91	3465.99	1942.38	5408.37
(in Rs. Cr.)								
Return on Equity	24.270	26.790	41.190	23.144	13.659	129.054	78.569	207.651
Interest on Loan	8.11	8.62	13.53	7.41	2.40	40.08	31.28	71.36
Depreciation	20.50	21.47	40.35	32.56	14.09	128.97	64.17	193.13
O&M Expenses	48.53	38.25	73.79	71.95	16.98	249.50	72.54	322.04
Interest on working capital	3.90	3.42	6.26	5.43	1.63	20.64	8.01	28.66
Total ARR	105.32	98.55	175.12	140.49	48.76	568.25	254.60	822.85
Average Tariff (p/u)	202.63	119.64	149.53	217.66	159.41	163.95	131.08	152.14

In determining the ARR and tariff with government support, the historic cost of Rs. 472.68 Cr. along with new capital addition for Rs. 1869.34 Cr. since 01.04.1996 up to 31.03.2014 (audited) along with CWIP for the FY 2014-15 & 2015-16 has been considered.

Table - 25
Station wise ARR and Tariff for the FY 2015-16 Considering Proposed Saleable D.E. & With Govt . Support

Details expenses	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
Existing Saleable Design Energy (MU)	519.75	823.68	1171.17	645.48	305.91	3465.99	1942.38	5408.37
(Rs. in Crs.)								
Return on Equity	4.847	3.703	16.113	15.390	3.392	43.445	78.597	122.04

Interest on Loan	3.23	2.37	3.57	3.10	0.99	13.26	31.28	44.54
Depreciation	4.68	6.39	15.62	12.75	3.67	43.11	64.17	107.27
O&M Expenses	48.53	38.25	73.79	71.95	16.98	249.50	72.54	322.05
Interest on working capital	2.97	2.40	4.89	4.69	1.12	16.08	8.01	24.09
Total ARR	64.27	53.10	113.98	107.89	26.16	365.39	254.60	620.00
Average Tariff (p/u) with Govt. support.	123.65	64.47	97.32	167.14	85.52	105.42	131.08	114.64

Application Fee and Publication Expenses

9. As per the CERC tariff regulation 2014, the application filing fee and the expenses incurred on publication of notices may in the discretion of the commission, be allowed to be recovered by the generating company directly from the beneficiaries. As per the Commission notification no. 1992 dated 31.08.2009 in the clause no. 17, Commission has fixed a fee of Rs. 5000/- per MW as application fee for determination of tariff of conventional fuel based plant/ hydel plants, subject to maximum limit of Rs. 25,00,000/- (Rupees Twenty five lakhs). As per above provision, the application fee and publication expenses proposed by OHPC for FY 2015-16 are given in table below.

Table -26
Application Fees and Publication Expenses

Sl. No.	Application fee (lakhs)	Publication expenses (lakhs)	Total (lakhs)
1	25.00	1.00	26.00

Electricity Duty on Auxiliary Consumption

10. As per the agreed PPA between OHPC and GRIDCO, the taxes and duties including electricity duty (ED) on auxiliary consumption etc. payable by OHPC to the State Government and other statutory bodies shall be passed on to GRIDCO in the shape of supplementary bill raised by OHPC. GRIDCO will make payment accordingly within 30 days of receipt of bills. Moreover, the Commission allowed annual adjustment on reimbursement of ED at the year end limiting to 0.5% of the cumulative actual generation during the financial year instead of limiting to monthly generation in the tariff order for the FY 2014-15. Accordingly, ED on Auxiliary consumption of all the hydro electric projects to the tune of Rs.0.54 Crore has been proposed to be reimbursed to OHPC by GRIDCO. OHPC requested that Hon'ble Commission may approve the same.

License Fee for Use of Water for Generation of Electricity

11. As per the gazette notification dtd. 01.10.2010, OHPC has to pay Rs. 0.01/kwh as license fee on water used for generation of electricity from all Hydro Electric Projects to the tune of Rs. 5.376 Cr. and this is to be reimbursed to OHPC by GRIDCO, based on design energy. OHPC further requested that since, the above calculation is based on design

energy of hydro projects, the actual generation from OHPC power stations may be considered for reimbursement of license fee paid to Govt. of Orissa from GRIDCO. Hon'ble Commission may approve the same.

SLDC Charges

12. As per CERC (fees & charges of regional load dispatch centre and other related matters) regulations, 2009 SLDC has to levy and collect annual charges from the users towards system operation charges and market operation charges. Hon'ble Commission allowed Rs. 1.67 Cr. as SLDC charges for the FY 2014-15 which is to be collected by SLDC from OHPC. OHPC proposes Rs 1.78 Cr. (escalated at 6.64% to arrive at the charges payable by SLDC) to be considered provisionally as fees and charges payable by OHPC to SLDC for the FY 2015-16.

Tariff for Machhkund H.E. (Jt.) Scheme

13. Machhkund Hydro Electric Project is a joint scheme of Government of Andhra Pradesh and Government of Orissa with 70% and 30% shares respectively, with option of Government of Orissa to draw an additional 20% power (105 MU) at a cost of Rs. 0.08 per unit as per the inter state supplementary agreement in the year 1978 between Government of Andhra Pradesh and Government of Orissa. The proposed tariff of 34.38 P/U of Orissa drawl of Machhkund power for FY 2015-16 has been computed on cost reimbursement basis. The tariff proposed by OHPC is based on assumption that GRIDCO will draw power up to 50% of design energy of Machhkund equivalent to 262.50 MU.

Table -27

Proposed Tariff for Machhkund HEP (Jt scheme) FY 2015-16

Installed Capacity (MW)	120.00 MW
Odisha share as per Original Agreement (30%)	36.00 MW
Net. Energy for sharing between Andhra Pradesh & Odisha	525.00 MU
Expected Energy Drawl by Odisha (50%)	262.50 MU
Energy Drawl of 30% of Odisha share	157.50 MU
Purchase of Power up to 20% as per Supplementary Agreement	105.00 MU
O&M Escalation factor @ 6.64% for year for 2 years	1.1372
	<u>(in Rs. Cr)</u>
1. O&M Exp. (Odisha share of provisional O&M exp. for FY 13-14)	7.1962
2. O&M Exp for FY 2015-16 with escalation of 6.64% for 2014-15 & 2015-16	8.18
3. Power purchase cost of additional 20% above 30% Orissa Share (105MU x 0.08)	0.84
4. Total Annual Expenditure (2 +3)	9.02
5. Tariff (Paise/Kwh)	34.38

Note: The tariff is calculated on cost reimbursement basis. Any penalty for over drawl of power by M/s GRIDCO above 50% limit shall be paid directly to APGENCO separately by GRIDCO.

Foreign Exchange Fluctuation Loss of PFC Loan of BHEP

14. OHPC had availed PFC loan in USD for R&M works of Unit#7 & Unit#8 of BHEP, the principal repayment and interest payment of which started from the FY 2007-08. Due to variation in Foreign Exchange Rate, OHPC has incurred a loss of Rs 2.10 Cr. towards payment of interest and Rs 8.09 Cr. towards principal repayment on the PFC loan of BHEP form FY 2007-08 to FY 2014-15. Out of which Commission had approved Rs 5.99 Cr (i.e. Rs 1.35Cr towards interest + Rs 4.64Cr towards principal) in the tariff order for the FY 2014-15 for recovering the amount from GRIDCO. OHPC prayed before the Commission to allow the balance Rs. 4.2 Cr. for reimbursement from GRIDCO in FY 2015-16.

Reimbursement of Contribution Made to ERPC

15. OHPC had claimed Rs. 1.10146 Cr towards the ERPC establishment fund and ERPC fund contribution from FY 2006-07 to FY 2013-14 in the ARR of FY 2014-15. However, the Commission only approved claim of Rs. 0.15 Cr. for the FY 2014-15. Thus OHPC has claimed Rs. 1.10146 Cr. in the ARR for FY 2015-16 for reimbursement from GRIDCO. Moreover, Rs. 1 lakh for FY 2014-15 and Rs. 16 lakh for FY 2015-16 has been added to the claim. Thus a total of Rs. 1.2746 Cr. has been claimed in the ARR of FY 2015-16 as reimbursement from GRIDCO towards ERPC establishment fund and ERPC fund contribution from FY 2006-07 to FY 2015-16.

Reimbursement of Contribution Made to Catchment Area Treatment Plan(CATP)

16. In the first meeting of High Power Committee on Catchment Area Treatment Plan on 07th August 2013, Resolution was taken by Government for the treatment of catchments of the Upper Indravati Multipurpose Project & Upper Kolab Hydro-electric Project located in the districts of Kalahandi, Koraput, Nabarangpur and Raygada on watershed basis. In the 123rd meeting of Board of Directors of OHPC held on 27th September 2014 the Board has decided to reflect Rs 2.411 Cr (Rs 0.402Cr for the year 2013-14 & Rs 2.009 Cr for year 2014-15) in the ARR of FY 2015-16. Further OHPC proposes to consider the institutional cost of Rs 1.599 Cr as reimbursement for the FY 2015-16 towards CATP contribution.

Details of Reimbursement Cost:

Total reimbursement cost claimed for the FY 2015-16 is given in the table below.

Table - 28
Details of Reimbursement Claim

(in Rs. Cr.)

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
(a) License fee for use of water for generation of electricity	0.525	0.832	1.183	0.652	0.309	1.962	5.463

(b) ED on Auxiliary Consumption	0.05	0.08	0.12	0.06	0.03	0.20	0.54
(c) SLDC charges							1.78
(d) Application fees and publication expenses							0.26
(e) Institutional cost paid for implementation of CATP programme for FY2013-14 & 2014-15.							4.01
(e) Fluctuation loss of PFC Loan of BHEP			4.20				4.20
(f) ERPC charges							1.2746
(g) Reimbursement of differential RoE claim for FY 2014-15	1.06	0.306	4.063	3.259	0.86	19.021	28.57
(h) Reimbursement of differential RoE claim due to resetting of equity of UIHEP.						2.898	2.898
(i) Reimbursement of differential O&M claim for FY 2014-15	1.23	8.07	1.73	1.86	0.33	1.72	8.22
(j) Reimbursement of differential IoWC claim for FY 2014-15	0.69	0.53	1.14	1.03	0.26	1.41	5.06
Total							62.2756

Two-Part Tariff

17. As per Central Electricity Regulatory Commission (Terms and conditions of Tariff) Regulation 2014, the annual fixed cost of a power station shall be recovered through capacity charge (inclusive of incentives) and energy charge to be shared on a 50:50 basis.

1) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be

$$\text{Capacity charge (C.C)} = \text{AFC} \times 0.5 \times \text{NDM/NDY} \times (\text{PAFM/NAPAF}) \text{ in Rupees.}$$

Where, AFC = Annual Fixed Cost specified for the year in rupees

NAPAF= Normative Annual Plant Availability Factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant Availability Factor achieved during the month in percentage.

The PAFM shall be computed in accordance with the following formula:

$$\text{PAFM} = 10000 \times \frac{\sum \text{DC}_i}{\{N \times \text{IC} \times (100 - \text{Aux})\}} \%$$

i=1

Where,

Aux = Normative auxiliary energy consumption in percentage

N = No of days in the month

IC = Installed capacity in MW of the complete generating station

DC_i = Declared Capacity (in ex-bus MW) for the ith day of the month which the station can deliver for at least (3) hours, as certified by the nodal load dispatch centre after the day is over.

- 2) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, during the calendar month on ex-power plant basis at the computed energy charge rate.

Total energy charge payable to the generating company for a month shall be

{(Energy charge rate in Rs./ Kwh) x (Schedule energy (ex-bus)) for the month in Kwh}

- 3) Energy charge rate (ECR) in Rupees per Kwh on ex-bus plant basis for a hydro generating station shall be determined up to three decimal places based on the following formula, subject provisions in clause(6) and (7) of Schedule-22 of CERC Tariff regulations 2014.

$$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - Aux) \times 100\}$$

Where,

DE= Annual design energy specified for the hydro generating station in Mwh, subject to provisions in Clause-(6) of Schedule-22 of CERC tariff regulations 2014.

As per the CERC tariff regulation station-wise capacity charge and energy charge proposed by OHPC for the FY 2015-16 is presented in table - 27 and table - 28 below without considering and considering government support.

Table - 29
Capacity Charge and Energy Charge of Power Stations
(Without considering the Govt. Support)

Name of the power stations	Annual Fixed Cost (Rs. in Crs)	Capacity Charge (Rs. in Crs)	Energy Charge (Rs. in Crs)	Salable design energy (MU)	Energy Charge Rate(p/u)
RHEP	86.49	43.245	43.245	519.75	83.203
UKHEP	74.50	37.25	37.25	823.68	45.224
BHEP	139.26	69.63	69.63	1171.17	59.453
HHEP	106.70	53.35	53.35	645.48	82.652
CHEP	37.73	18.865	18.865	353.43	79.705
UIHEP	240.30	120.15	120.15	1942.38	61.857

Table - 30
Capacity Charge and Energy Charge of Power Stations
(Considering Govt. Support)

Name of the Power Stations	Annual Fixed Cost (Rs. in Crs)	Capacity Charge (Rs. in Crs)	Energy Charge (Rs. in Crs)	Salable design energy (MU)	Energy Charge Rate in Revised D.E (p/u)
RHEP	62.21	31.105	31.105	519.75	59.846
UKHEP	45.63	22.815	22.815	823.68	27.699
BHEP	113.60	56.80	56.80	1171.17	48.499
HHEP	97.43	48.715	48.715	645.48	75.471
CHEP	25.32	12.66	12.66	353.43	42.76
UIHEP	240.30	120.15	120.15	1942.38	61.857

Normative Plant Availability Factor (NAPAF)

18. Hon'ble Commission in the Tariff order of OHPC dated 22.03.2014 vide case no. 81/2013 has approved the NAPAF of OHPC stations for the control period from 01.04.2014 to 31.03.2019 as given in the table below.

Table - 31
Station wise Normative NAPAF Proposed for FY 2015-16

Power Stations	HHEP	CHEP	BHEP	RHEP	UKHEP	UIHEP
NAPAF (%)	78	75	87	75	83	88

Capital Maintenance of Different Power Stations

19. The cost for capital maintenance requirement for different power stations of OHPC are mentioned below.

a) Capital Maintenance of Unit - 2 of RHEP, Rengali:

The cost of capital maintenance for unit - 2 of RHEP Rengali is shown in the table below.

Table - 32
Capital Maintenance Cost of Unit - 2 of RHEP

Power Station	Unit No.	Nature of Work	Period of Capital Maintenance	Cost of the CWIP during 2014 – 15 (Rs.) (Approx.)	Cost of the CWIP during 20015-16 (Rs.) (Approx.)
RHEP	# - 2	Capital Maintenance	01.01.2015 to 30.04.2015	70,80,000/-	1,50,00,000/-

b) Capital Maintenance of Unit-1&2 of HHEP, Burla:

The cost of capital maintenance for unit – 1&2 of HHEP, Burla is shown in the table below.

Table - 33
Capital Maintenance Cost of Unit - 1&2 of HHEP

Power Station	Unit No.	Nature of Work	Period of Capital Maintenance	Cost of the CWIP during 2014 – 15 (Rs.) (Approx.)	Cost of the CWIP during 20015-16 (Rs.) (Approx.)
HHEP	# - 1	Capital Maintenance	01.03.2015 to 31.07.2015	6,10,00,000/-	12,29,00,000/-
	# - 2	- do -	15.12.2015 to 30.06.2016	16,00,00,000/-	

c) Capital Maintenance of UIHEP:

- Unit - 3, Mukhiguda:**

Spare parts for capital maintenance will be supplied by the OEM (M/s Voith Fuji) which will cost Rs. 1205.78 Lakhs. The capital maintenance work will be taken up by OEM. It will require more than 90 days. It has been tentatively programmed to take up the work from October to December 2015. The supervision charges , dismantling, reassembly charges will be Rs. 970 Lakhs.

- Capital Maintenance of Unit- 1&2 of UIHEP:**

Purchase order has been placed with the OEM M/s Voith Fuji for supply of DVR & Digital Governor for Unit No. 1 & 2 along with mandatory spares for Rs.1110.20 Lakhs. Erection and commissioning charges will be Rs. 492 Lakhs. The replacement of DVR and Digital Governor will be taken up tentatively during April & May 2015.

To conduct different testing during capital maintenance of Unit No.3, Erection and Commissioning of DVR and Digital Governor for Unit No1 & 2 new testing equipments needs to be procured at a cost of Rs. 55 Lakhs.

- **CT, PT & 245 KV SF6 Circuit Breaker:**

It has been programmed to replace the old and obsolete circuit breakers of all 4 nos. of generating units with new ones. The work will be taken up during 2015-16. The cost for procurement of new breakers, removal of old breakers, installation and commissioning of new breakers will cost Rs. 106 Lakhs. Further, 0.2 accuracy class CT & PT also needs replacement as all the present CT & PTs are 0.5 class and there is no spare PT & CT available. Cost of new PT & CT will be Rs. 50 Lakhs. PT & CTs will be procured during 2015-16.

- **20 MVA Station Transformer:**

Auxiliary power supply for Upper Indravati Power House is drawn from the only one available 20 MVA station transformer. It has been planned to have a second 20 MVA station transformer for alternate auxiliary power supply for Upper Indravati Power House. Tentative Expenditure for procurement, erection, testing and commissioning of 20 MVA, 220/33 KV transformer and 11 KV line will be Rs. 215 Lakhs.

- **Office Building & Fuse Call Building:**

The present office building for Upper Indravati Hydro Electric Project at Mukhiguda, Dist : Kalahandi is in dilapidated condition, repairing of which will not improve the condition. Hence it is essential to construct a new office building. Further, a new building is required for fuse call activities. The provisional expenditure for office building during 2015-16 has been kept at Rs. 215.50 Lakhs. Total expenditure for construction of fuse call building will be Rs. 23 Lakhs. The construction work will be taken up during 2015-16.

- **Store Yard Lighting:**

It has been proposed to install three no. of high mast lighting towers each having the height of 18 meters at Central Store yard of Upper Indravati Hydro Electric Project. The total cost involvement for it will be Rs. 16.20 Lakhs. The work will be taken up during 2014 & 2015.

- **Colony Lighting:**

The safety and security of Upper Indravati Hydro Electric Project employees are being endangered due to poor lighting inside sector -1 of colony area. Hence it has been programmed to take up the lighting work of colony area during 2015 at a cost of Rs. 50 Lakhs.

Loss of Energy Charges on Account of Hydrology Failure:

20. OHPC requested for approval of the net loss of Energy Charges for the period from FY 2001-02 to FY 2013-14 to the tune of Rs. Cr. on account of hydrology failure in the corresponding period. OHPC requested that this amount may be considered as pass on in Tariff in suitable installments.

PRAYER

OHPC prayed that, the Hon'ble Commission may kindly approve Rs. 822.85 Cr. as annual fixed cost & average tariff @ 152.14 p/u without considering both the state government support & saleable design energy (5408.37 MU). In case state govt. support is extended, the annual fixed cost of Rs. 620 Cr. & average tariff @ 114.64 p/u has been sought for approval of the Commission considering both the state government support & saleable design energy (5408.37 MU).