

**ODISHA HYDRO POWER CORPORATION
BHUBANESWAR**



**APPLICATION FOR APPROVAL OF
ANNUAL REVENUE REQUIREMENT AND TARIFF
FOR THE FINANCIAL YEAR 2017-18**

**IN TERMS OF SECTION 62 READ WITH
SECTION 86 OF THE ELECTRICITY
ACT, 2003**

BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN, PLOT NO-4, CHUNUKOLI, BHUBANESWAR-751023

Filing No: 1

Case No :

IN THE MATTER OF: APPLICATION FOR APPROVAL OF ANNUAL REVENUE
REQUIREMENT AND TARIFF OF INDIVIDUAL POWER
STATIONS OF OHPC FOR THE FINANCIAL YEAR 2017-18 IN
TERMS OF SECTION 62 READ WITH SECTION 86 OF THE
ELECTRICITY ACT, 2003.

AND

IN THE MATTER OF: ODISHA HYDRO POWER CORPORATION LTD., REGD. OFFICE:
JANPATH, BHUBANESWAR-751022.

.....Applicant.

AFFIDAVIT VERIFYING THE APPLICATION

I, Shri Aswini Kumar Mishra, Son of Late Durga Prasad Mishra , aged 60 years residing at Bhubaneswar do solemnly affirm and say as follows:

- (1) I am the Director (Operation) of Odisha Hydro Power Corporation Ltd., the applicant in the above matter and am duly authorized to make this affidavit on its behalf.
- (2) The statements made in paragraphs 1 to 18 of this petition are true to my knowledge and the statements made in paragraphs are based on information and I believe them to be true.

DEPONENT

Verification:

I, the deponent above named do hereby verify that the contents of my affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Verified at _____ on the day of _____

DEPONENT

BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN, PLOT NO-4, CHUNUKOLI, BHUBANESWAR-751023

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IN THE MATTER OF: APPLICATION FOR APPROVAL OF ANNUAL REVENUE REQUIREMENT AND TARIFF OF INDIVIDUAL POWER STATIONS OF OHPC FOR THE FINANCIAL YEAR 2017-18 IN TERMS OF SECTION 62 READ WITH SECTION 86 OF THE ELECTRICITY ACT, 2003.

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IN THE MATTER OF: ODISHA HYDRO POWER CORPORATION LTD., REGD. OFFICE: JANPATH, BHUBANESWAR-751022.

.....Applicant.

THE HUMBLE APPLICANT ABOVE NAMED MOST RESPECTFULLY SHOWETH THAT:

1. PROCEDURAL HISTORY:

The Orissa Hydro Power Corporation Ltd. (OHPC) is a Generating Company under Part-I Section (28), (30) of the Electricity Act, 2003. The company was incorporated under the companies Act, 1956, in the year 1995, to carry out the business of Hydro Power Generation. After unbundling of the Orissa State Electricity Board (OSEB) in the year 1996, the assets, liabilities and personnel of Hydro Power Projects under erstwhile OSEB and Government of Orissa were transferred to OHPC to carryout the business of generation of hydro-electricity. The entire power (excluding 5MW share of Chhattisgarh State from HHEP generation) produced from OHPC stations is fully dedicated to the state of Odisha. After the Electricity Act, 2003 came into force and with the promulgation of the Government of Orissa Transfer Scheme 2005, GRIDCO is entrusted with the business of bulk purchase power from all generators and supply of power to different entities in the state/ outside the state as per power purchase agreements(PPAs). Due to the existing single buyer model presently prevailing in the state of Odisha, OHPC is supplying its entire power to GRIDCO, less by corresponding generation of 05MW share of Chhattisgarh State Power Distribution Corporation Limited (CSPDCL) from Hirakud as per the Minutes of Meeting dated 24.12.2004 signed between the officials from Dept. of Energy of Govt. of Odisha, GRIDCO, OHPC, MPSEB and CSEB under the chairmanship of the Chief Secretary, Govt. of Odisha in pursuance to the interim judgment passed by Hon'ble High Court of Jabalpur, Madhya Pradesh in Writ

Petition No.1241/2002 Dtd. 16.12.2004 and as per Order dtd 17.08.2006 of the Ministry of Power, Govt. of India regarding transfer of above 5 MW Share from erstwhile MPSEB to erstwhile CSEB (presently CSPDCL).

As per Regulation 61(2) of the OERC (Conduct of Business) Regulations, 2004; a generating company is required to file an application by 30th November each year to the Commission giving details of fixed and variable costs associated with generation of electricity in different power stations for approval of Annual Revenue Requirement (ARR) and determination of tariff for the generating stations for sale of energy in the state of Odisha. Accordingly, OHPC as a generating company is hereby filing an application before the Hon'ble Commission for approval of ARR and fixation of Tariff of its generating stations for the FY 2017-18.

Hon'ble OERC in the Tariff Order of OHPC for the FY 2015-16 did not consider the CERC (Terms and Conditions of Tariff) Regulations, 2014 norms for determination of ARR & Tariff of OHPC Power Stations (that overruled the terms & conditions of OERC approved PPA executed between OHPC & GRIDCO for determination of tariff of OHPC Power Stations as per the CERC tariff norms). In this connection Hon'ble Commission viewed at Clause No. 106 of the OHPC Tariff Order for the FY 2015-16 as under:

“The Clause 2.1 of OERC (Terms and Conditions of Determination of Generation Tariff) Regulations, 2014 stipulates that “Notwithstanding anything contained in these Regulations, the Commission shall at all times have the authority, either on suo motu basis or on a Petition filed by the applicant, to determine the tariff, including terms and conditions thereof, of any generating company”. Further, as per Clause 4.4 of the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014, the annual fixed cost for OHPC will be determined by the Commission by taking into account the notification(s) issued by the Govt. of Odisha from time to time. Accordingly the Annual Revenue Requirement of OHPC power stations for FY 2015-16 has been determined.”

So the ARR & Tariff of OHPC Power Stations for FY 2015-16 was determined by Hon'ble OERC as per OERC's considerations. Just after the pronouncement of above Tariff Order of OHPC for the FY2015-16, the State Govt. in the Dept. of Energy made an office order No. 3060 dtd. 31.03.2015 to include the tariff implication of up valuation of Asset etc. from the FY 2015-16. Accordingly OHPC filed a review petition before Hon'ble OERC for redetermination of tariff in order to give effect to the provisions of the said Order of DoE, GoO. But the request of OHPC was finally not considered and

rejected by the Hon'ble Commission. As a result OHPC implemented the approved tariff order for the FY 2015-16 but the observation of the Hon'ble Commission at Clause No. 106 of the OHPC tariff order for the FY 2015-16 resulted in amendment of the Schedule no. 05 of the vetted PPA between OHPC & GRIDCO.

Subsequently, the Dept. of Energy, Govt. of Odisha vide Notification No. 5843 dtd 03.07.2015, again imposed the effect of up valuation etc. to be considered in OHPC's tariff determination retrospectively from the FY 2015-16.

Accordingly OHPC filed it's ARR and tariff application for the FY 2016-17 before the Hon'ble Commission considering the effect of the State Govt. decision in Dept. of Energy vide Notification No.5843 Dtd. 03.07.2015 regarding principal & interest repayment on Restructured Govt. investment at UIHEP, Convertible Bond issued by OHPC for Rs 766.20 Crores converted to loan and RoE on Rs 300 Crs relating to Old Power Stations effective from the FY 2015-16.

But the impact of Notification No.5843 dtd.03.07.2015 as proposed by OHPC in its ARR application for the FY 2016-17 was again not taken into consideration by Hon'ble OERC while determining tariff, as the same was not in accordance with law and would escalate financial burden on public. Hon'ble Commission at Para No. 75 of Tariff Order of OHPC for FY 2016-17 had observed the following:

“After considering the submission made by OHPC, reply by Government of Odisha and views of objectors the Commission decides as follows:

- (a) The Section 25 (i) of the Orissa Electricity Reform Act, 1995 provides that the transfer in terms of Schemes 23 and 24 shall be provisional for a period of 12 months from the effective date i.e. 01.04.1996. In the present case the notification of up-valuation made on 01.04.1996 specifying terms and condition of transfer has become final after 01.04.1997 and binding on all the parties. Therefore, the Government unilaterally cannot alter the terms and condition of transfer at present.*
- (b) The up-valuation of the assets of OHPC and GRIDCO had been kept in abeyance by the Government vide its notification dated 29.01.2003 till the power sector turns around. Therefore, it is not in the larger interest of the State to pass on the effect of up-valuation on the consumers of Odisha by raising electricity tariff.*

- (c) *The Commission in its tariff order for FY 2015-16 for OHPC has also categorically stated that keeping in abeyance of up-valuation is a composite issue applicable to both OHPC and GRIDCO. Therefore, it cannot be treated in isolation for OHPC only.*
- (d) *It is an accepted principle under the Electricity Act and the Regulation framed by the Commission that tariff for generating stations has to be made on cost plus basis which means the cost of erection and installation of generating plant is to be considered for determination of tariff. All the plants of OHPC are old and after grant of depreciation the Written Down Value (WDV) of those plants on the date of transfer from OSEB to OHPC must have been much lower than final valuation now made by Government of Odisha amounting to Rs.1196.80 Cr. No data has been furnished either by OHPC or Government of Odisha with supporting evidence to justify the present higher valuation of the assets. The methodology of such valuation has also not been scrutinized by OERC.*
- (e) *It is found that the present method of tariff fixation of OHPC without considering up-valuation of assets leaves substantial surplus in OHPC from year to year which now stands at Rs.811.00 Cr. This has been invested in fixed deposits earning sizeable interest. In case up-valuation of assets is an accounting and record keeping arrangement between Government of Odisha and OHPC the bond can be serviced from the reserves of OHPC without having any impact on tariff.”*

In view of the above order of Hon’ble OERC, the OHPC BoD decided to file a review petition. Accordingly, OHPC filed the review petition on the basis of errors apparent on the face of the records as well as sufficient cause limited to the non-consideration by the Hon’ble Commission to the effect of up-valuation of Rs.766.20 Cr. in the form of convertible bonds carrying interest @ 7% and restructuring of the UIHEP Govt. Loan with respect to the Govt. Notification No. 5843 dtd.03.07.2015.

Hon’ble OERC dismissed the review petition of OHPC for review of the Tariff Order dated 21.03.2016 for the FY 2016-17 passed in Case No. 52/2015 devoid of any merit. The matter was intimated to DoE, GoO vide letter no. 7323 dtd. 08.08.2016 and requested for their views and comments for taking up further course of action by OHPC in this regard. Simultaneously, the disapproval of Hon’ble OERC was also placed before the OHPC Board for necessary order. OHPC Board in its 134th meeting dtd. 22.08.2016 & 135th meeting dtd. 24.09.2016 had advised the following:

“ The Board discussed the matter in detail and observed that since 2 to 3 months’ time are left to file the ARR application for FY 2017-18 before Hon’ble OERC & lot of efforts are required within

a short period in case the company prefers to file an appeal before the Hon'ble ATE, New Delhi, it will be prudent to raise the same issue again in ARR application of OHPC for FY 2017-18 and simultaneously reserves the right for Truing Up exercise.”

The copy of the relevant minutes of meeting of 134th & 135th BoD of OHPC is enclosed at **Annexure- 16** for reference. Although the State Govt. in the Dept. of Energy, Bhubaneswar have not responded to the above mentioned letter no. 7323 dtd. 08.08.2016 of OHPC, but the contents of the Lr. No. 2091 Dtd. 11.03.2016 of the DoE, GoO written to OERC which are relevant in connection to the tariff setting of OHPC has been recorded by the Hon'ble OERC under para 60 of the Tariff Order of OHPC for the FY 2016-17 which is reproduced below.

x x x x x x

“Keeping in abeyance of Up-valuation, Moratorium of Debt Service etc.:

The issue of up-valuation does not figure in case of GRIDCO which does not own any assets. However regarding the issue of up-valuation of assets pertaining to OPTCL, the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets, such a benefit cannot go indefinitely. However, considering the present difficult situation, the Govt. agrees to extend the status-quo on up-valuation till 2016-17.

As regards to assets, OHPC has considered the effect of convertible bond worth of Rs.766.20 crores in line with Deptt. of Energy, Govt. of Odisha Notification No.5843 dtd. 03.07.2015 wherein it has been mentioned to treat the entire amount of Rs.766.20 crore as loan bearing interest @7% w.e.f. 2015-16.

As stated by OHPC, they have considered the interest impact along with loan repayment for the financial year 2015-16 and 2016-17 with a repayment period of 15 years starting from the financial year 2015-16. Therefore the interest along with principal repayment of the convertible bond in respect of different old power stations as submitted by OHPC in its ARR for the FY 2016-17 should be considered.

Regarding moratorium of debt services of OHPC, it can be stated that moratorium of debt service have been allowed by Govt. for both repayment of loan and payment of interest for UIHEP Govt. Loan. The State Govt. vide notification dtd. 06.01.2010 is of the view that, the State Govt. investment actually made in Upper Indravati Project, excluding the normative equity, should yield return to the State Govt. w.e.f. FY 2010-11 after clearance of loan liabilities of PFC. However, interest @7% should be charged and paid on the investment from FY 2006-07 onwards. Further, the State Govt. vide letter

no.4323 dtd.31.05.2014 has suggested Hon'ble Commission to include both payment of interest and repayment of principal in the ARR of UIHEP.

In view of above, Hon'ble Commission may include both payment of interest and repayment of principal in the ARR of UIHEP. The interest w.e.f. 2006-07 to 2016-17 may be kept as Regulatory Assets of OHPC to be paid in future tariff."

So the above decision of the State Govt. intimated to OERC vide their letter no. 2091 dtd. 11.03.2016 and the decision of the OHPC Board in its 134th & 135th meeting mentioned above form the basis of tariff setting of OHPC for the FY 2017-18.

Accordingly the effect of the State Govt. decision in Dept. of Energy vide Notification No.5843 Dtd. 03.07.2015 is considered as follows in the ARR and Tariff application of OHPC for the FY 2017-18:

- i) The principal & interest repayment on Restructured Govt. investment at UIHEP is considered in the tariff application for the FY 2017-18.
- ii) The interest repayment on Restructured Govt. investment at UIHEP w.e.f FY 2006-07 to FY 2016-17 is claimed as regulatory asset.
- iii) The differential principal repayment @Rs4.61Cr from FY 2010-11 to FY 2016-17 is claimed as additional depreciation of UIHEP along with normal Depreciation of Rs34.84Crs.
- iv) Power Station wise upvalued project cost of old power stations as on 01.04.1996 along with approved additional capitalization/ decapitalization upto 2014-15 and audited additional capitalization / decapitalization for FY 2015-16 have been considered for determination of project cost for computation of tariff.
- v) The principal & interest repayment on Convertible Bond issued by OHPC for Rs 766.20 Crores is claimed for FY 2015-16, FY 2016-17 & FY 2017-18 as per Notification No.5843 Dtd. 03.07.2015 of DoE, GoO is effective from the FY 2015-16.
- vi) Differential RoE on Rs 300 Crs relating to Old Power Stations has been calculated for FY 2015-16 & FY 2016-17 while normal RoE has been considered for the FY 2017-18 considering Upvalued Asset (less decapitalization) to give effect to Notification no. 5843 dtd. 03.07.2015 of DoE, GoO.
- vii) Income Tax on Core Business is claimed as Reimbursement.

2. INSTALLED CAPACITY(IC):

The installed capacity of various Hydro Stations owned by Orissa Hydro Power Corporation (OHPC) was 2062 MW as on 1st of April 2013 including Odisha share of Machhkund. Subsequently, for the FY 2013-14 after 02.07.2013 the installed capacity has been reduced to 2007.00 MW due to reduction of installed capacity of HHEP, Burla from 275.5 MW to 220.5 MW due to de-rating of the capacities of Unit No. 5 & 6 in line with the order passed by the Commission on dt.26.12.2012 and 02.07.2013 in Case No.31/2011 & Case No.09/2013 wherein the combined capacity of both the units were considered as 20 MW together in place of original installed capacity of 75 MW (2x37.5 MW).

OHPC has started the R&M of Unit -3 of CHEP, Chiplima. The Zero date of Unit-3 CHEP, Chiplima is considered as 15.10.2015 with a completion period of 20Months. So, OHPC has considered 48MW as the Installed Capacity for CHEP, Chiplima from 15.10.2015 as per the clause no. 4.1.3 of vetted PPA between OHPC & GRIDCO and Order dtd. 31.03.2014 in Case no.62 of 2013 of Hon'ble Commission.

Also, OHPC has started the RM&U of Unit -6 of HHEP, Burla as per the Order dtd 31.03.2014 in Case no. 67 of 2013 of Hon'ble Commission. The Zero date of these Units of HHEP, Burla is considered as 16.10.2015 with a completion period of 30Months (21 months for Unit-6, 18 months for Unit-5 with some overlap period). OHPC has considered 210.5MW as the Installed Capacity of HHEP, Burla from 16.10.2015 the date Unit-6 was taken under RM&U. Similarly Unit – 5 which was available for generation at 10MW out of the combined capacity of 20MW, has also been taken under RM&U from 25.10.2016. Accordingly OHPC has considered the installed capacity of HHEP, Burla as 210.5MW and 200.5MW w.e.f 16.10.2015 & 24.10.2016 respectively as per the clause no. 4.1.3 of vetted PPA between OHPC & GRIDCO and as per Order dtd. 31.03.2014 in 67 of 2013 of Hon'ble Commission.

Further Unit- 1of BHEP, Balimela of 60 MW capacity has been taken under R&M with zero date starting from 05.08.2016. So the installed capacity of BHEP shall be considered as 450 MW for computation of PAFM from 05.08.2016 onwards for the approved period. The Unit No. 02 will also be taken under R&M during FY 2017-18, the actual date will be intimated as soon as the work is taken up.

The Installed Capacity of MHEP is 120MW (i.e. 17MW x 3 = 51MW and 23MW x 3 = 69MW). So the 30% Odisha Share from MHEP being to 36 MW, has been considered for computation of total IC of OHPC.

In view of the above the installed capacity proposed for FY 2017-18 is given in the table below, vis-à-vis Installed Capacity approved by Hon'ble Commission for FY 2016-17.

Table-1

Installed Capacity (in MW) for computation of PAFM:

Sl. No.	Name of the Power Station	Installed Capacity Approved for FY 2016-17	Installed Capacity for FY 2017-18
1	Rengali (RHEP)	250.00	250.00
2	Upper Kolab(UKHEP)	320.00	320.00
3	Balimela(BHEP)	450.00 (for R&M of one Unit)	450.00 (form 05.08.016 due to R&M Unit-1)
4	Burla (HHEP)	210.50 (from 16.10.2015 onwards till the approved period of shut-down of any one Unit under R&M)	210.50 (from 16.10.2015 onwards till the approved period of shut-down of Unit- 6 under R&M)
		200.50 (during the overlapping period of R&M of #5 & #6)	200.50 (from 25.10.2016 for overlapping period of R&M of #5 & #6)
5	Chiplima (CHEP)	48.00 (from 15.10.2015 onwards till the approved period of shut down of Unit-3 under R&M)	48.00 (from 15.10.2015 onwards till the approved period of shut down of Unit-3 under R&M)
6	Upper Indravati (UIHEP)	600.00	600.00
7	Machhakund (30% Orissa share)	36.00	36.00
Total Installed Capacity (MW)		1974.50 (during R&M of Unit-3 of CHEP, Unit-6 of HHEP)	1974.50 (during R&M of Unit-3 of CHEP, Unit-6 of HHEP)
		1964.50 (during R&M of Unit-3 of CHEP, overlapping period of Unit-5 & 6 of HHEP)	1964.50 (during R&M of Unit-3 of CHEP, overlapping period of Unit-5 & 6 of HHEP)
		1914.50 (during R&M of Unit-3 of CHEP, Unit-6 of HHEP & Unit-1 of BHEP)	1914.50 (during R&M of Unit-3 of CHEP, Unit-6 of HHEP & Unit-1 of BHEP)
		1904.50 (during R&M of Unit-3 of CHEP, overlapping period of Unit-5 & 6 of HHEP & Unit-1 of BHEP)	1844.5 (during R&M of Unit-3 of CHEP, overlapping period of Unit-5 & 6 of HHEP & Unit-1&2 of BHEP)

Hence, OHPC prays before the Hon'ble Commission to approve the Installed Capacity of OHPC as shown in the above table for computation of PAFM for the FY 2017-18.

3. **DESIGN ENERGY OF OHPC STATIONS:**

The Design Energy (DE) of a Hydro Power Station is an important parameter for determination of Tariff. The approved Design Energy of OHPC Power Stations for the FY 2016-17 is given in the table below:

Table-2
Design Energy approved for the FY 2016-17

(in MU)

Sl. No.	Name of the Power Station	Design Energy (DE)	Design Energy for sale
1	RHEP	525.00	519.75
2	UKHEP	832.00	823.68
3	BHEP	1183.00	1171.17
4	HHEP	684.00	677.16
5	CHEP	490.00	485.10
Sub Total of Old Power Stations		3714.00	3676.86
6	UIHEP	1962.00	1942.38
Total		5676.00	5619.24

Due to some specific reasons not attributable to OHPC, some of the generating stations are consistently unable to generate their Annual Design Energy approved by the Commission resulting in non-recovery of the approved Annual Energy Charges resulting in and substantial loss in Revenue to OHPC year after year.

During years of Hydrology failure OHPC sustains substantial loss in Revenue due to shortfall in the recovery of Energy Charges. In response to the OHPC's claim towards Hydrology Failure Hon'ble OERC had observed in the Tariff Order of OHPC for FY 2014-15 as follows:

“The compensation claimed towards hydrology failure is not to be allowed in view of the Commission's earlier orders dt.10.06.2005 & dt.23.03.2006 wherein OHPC was directed to maintain a separate fund to deposit the revenue earnings out of sale of secondary energy which shall be utilized to replenish the shortfall in revenue due to lesser generation by OHPC in years of hydrology failure to provide necessary comfort to the consumers of the state. {Para 6.5(e) of Order dt.10.06.2005}.”

Status of Secondary Fund as on 31.03.2016:

Accordingly, OHPC has calculated the revenue earning out of sale of secondary energy from FY 1996-97 to FY 2015-16. The detail calculation is enclosed at **Annexure-17**. As observed the secondary energy fund has always remained deficit, which is approximately Rs 207.70 Crs. as on 31.03.2016.

In the earlier tariff applications OHPC had considered the industrial consumption of water from the Reservoirs as a part of Hydrology failure and the compensation received in this regard had been adjusted in the deficit Secondary Energy Fund of OHPC.

As per the direction of the Hon'ble High Court, OHPC has received Rs 4.53Cr from the industrial units utilizing water from different reservoirs towards compensation for the loss of generation during the FY 2014-15. Besides, some of the industries have also paid some amount towards the energy compensation, hence OHPC have received total amount Rs4.9467Cr (Details at **Annexure-18**). Though OHPC was adjusting this amount in the secondary energy fund, but CAG of India has observed to keep the industrial consumption compensation separately, as the matter is under sub-judice in the Court of Law.

As per the direction of Hon'ble OERC vide Lr. No. 1161 dtd. 25.08.2016 addressed to the Commissioner-cum- Secretary, DoE, GoO a detail note along with all documentary evidence have been submitted to the DoE, GoO along with a copy to the Hon'ble OERC vide Lr. No. 8598 dtd. 22.09.2019 for further necessary Order in this regard. The letter of the Commission along with the appraisal note furnished to Additional Secretary is enclosed at **Annexure- 19**.

Since the secondary energy fund has a negative balance, OHPC pray before the Hon'ble OERC to consider Rs 207.70 Crs as regulatory asset and approve its return to OHPC in suitable installments.

Revision of Design Energy of HHEP & CHEP on account of restriction in generation below 595 ft. at HHEP, Burla.

OHPC is constantly loosing energy charges for 31MU (i.e. 14.81MU for HHEP, Burla & 15.95MU for CHEP, Chiplima) every year on account of restriction in generation from Hirakud reservoir below 595ft. R.L by DoWR, Govt. of Odisha. OHPC has consistently raised this issue in its earlier tariff application furnishing all the facts in detail and prayed the Commission either to consider the reduction in D.E of HHEP, Burla & CHEP, Chiplima proportionately or allow compensation in accordance with the Clause No.11 of the Electricity Act, 2003.

Govt. of Odisha communicated to Hon'ble OERC its suggestions/views/comments on various issues involving tariff setting for the year 2016-17 having a direct bearing on fixation of tariff for the year 2016-17 vide their letter No.2091 dated 11.03.2016. DoE, GoO has viewed the following on generation of HHEP, Burla below 595ft of Hirakud Reservoir as follows:

“Energy Department is awaiting response of Water Resource Department regarding not allowing generation beyond the reservoir level of 595 ft of Hirakud Reservoir. However in the 1st meeting of the Committee held on 3.7.2012 on formulation of policy for utilization of water in the reservoir by industrial units and hydro electric project with optimum capacity, it was resolved that due to inadequate pressure in the end reaches of canal below RL 595 ft which is hampering irrigation it was declared that DoWR shall issue necessary circular/letter to OHPC maintaining minimum RL at 595 ft.”

In the absence of the required notification from DoWR , Hon’ble OERC is neither considering the reduction in Design Energy in respect of HHEP & CHEP for computation of Tariff nor compensating for the loss of energy incurred by OHPC as per the provision of Clause No. 11 of the Electricity Act’ 2003. Till date the DoE/ DoWR, GoO have not notified the same, as a result OHPC is not in a position to recover the approved Annual Energy Charges in respect of HHEP & CHEP.

Pending decision from DoE/ DoWR, the total D.E (Saleable) of OHPC Power Stations is considered as is 5619.24MU. OHPC has not considered reduction in Design Energy of HHEP, Burla & CHEP, Chiplima due to restriction in Generation at HHEP, Burla below RL 595ft in Hirakud Reservoir.

Considering the above facts, OHPC proposes the following Design Energy for its Power stations for computation of tariff for the FY 2017-18.

Table-3

(in MU)

Sl. No.	Name of the Power Station	Design Energy approved for FY2016-17	Design Energy for sale for FY 2016-17	Design Energy proposed for FY 2017-18	Design Energy for sale for FY 2017-18
1	RHEP	525.00	519.75	525.00	519.75
2	UKHEP	832.00	823.68	832.00	823.68
3	BHEP	1183.00	1171.17	1183.00	1171.17
4	HHEP	684.00	677.16	684.00	677.16
5	CHEP	490.00	485.10	490.00	485.10
Sub Total of Old Power Stations		3714.00	3676.86	3714.00	3676.86
6	UIHEP	1962.00	1942.38	1962.00	1942.38
Total		5676.00	5619.24	5676.00	5619.24

(A) **Factors Affecting for non- achievement of Design Energy of OHPC power stations:-**

Factors affecting for non-achieving of Design Energy of different power stations of OHPC which are beyond the control of OHPC are furnished below:

- i) Loss of 31MU (i.e. 14.81MU for HHEP, Burla & 15.95MU for CHEP, Chiplima) every year on account of restriction of generation from Hirakud reservoir below 595ft. R.L by DoWR, Govt. of Odisha.
- ii) Loss of around 160MU every year on account of incorrect assessment and approval of D.E of CHEP as 490MU which has never been achieved by Chiplima Power House since its inception. The maximum generation achieved by CHEP is 332.56MU after installation of Trash-Rack, which should be considered as the Design Energy of CHEP for computation of tariff, otherwise it will never be able to achieve the approved D.E of 490 MU and continue to sustain loss of revenue to the tune of Rs 5.0 Crs every year towards non recovery of Annual Energy Charges which has already been appraised to the Hon'ble OERC in the tariff applications of OHPC for the previous years.
- iii) Non adherence to the generation schedule of OHPC for different power stations by SLDC is resulting in non- achievement of both Design Energy and MDDL for the reservoirs.
- iv) In this connection, Design Energy, the maximum RL & the minimum RL achieved in different reservoirs vis a vis actual generation achieved during the last 5 years are furnished in the table below for kind perusal of the Commission.

Table-4(A)

Name of the Power Station	Design Energy for sale Approved by OERC (in MU)	MDDL	FRL	Design Energy for sale Achieved in FY 2012-13 (in MU)	Lowest R.L achieved in FY 2012-13	Maximum R.L achieved in FY 2012-13	Design Energy for sale Achieved in FY 2013-14(in MU)	Lowest R.L achieved in FY 2013-14	Maximum R.L achieved in FY 2013-14
RHEP	519.75	109.72 Mtr.	123.5 Mtr.	691.58	109.56	123.64	885.47	109.72	123.96
UKHEP	823.68	840.00 Mtr.	858.0 Mtr.	453.79	845.02	856.75	852.31	848.89	856.44
BHEP	1171.17	1440.00 Ft.	1516.0 Ft.	528.51	1438.50	1500.80	1631.96	1475.60	1517.00
HHEP	677.16	590.00 Ft.	630.0 Ft.	664.12	594.97	630.02	669.71	596.39	630.02
CHEP	485.10	-	-	276.59	-	-	306.17	-	-
UIHEP	1942.38	625.00 Mt.	642.0 Mtr.	1637.33	627.50	640.70	2445.11	627.60	641.75
Total	5619.24			4251.92			6790.73		

Table-4(B)

Name of the Power Station	Design Energy for sale Approved by OERC (in MU)	MDDL	FRL	Design Energy for sale Achieved in FY 2014-15 (in MU)	Lowest R.L achieved in FY 2014-15	Maximum R.L achieved in FY 2014-15	Design Energy for sale Achieved in FY 2015-16(in MU)	Lowest R.L achieved in FY 2015-16	Maximum R.L achieved in FY 2015-16
RHEP	519.75	109.72 Mt.	123.5 Mtr	710.10	110.24	122.88	583.39	113.3 Mtr.	120.33 Mtr.
UKHEP	823.68	840.00 Mt.	858.0 Mtr.	702.70	847.56	856.90	712.80	850.42 Mtr.	856.44 Mtr.
BHEP	1171.17	1440.00 Ft.	1516.0 Ft.	1240.93	1479.90	1515.60	578.00	1480 Ft.	1501.9 Ft.
HHEP	677.16	590.00 Ft.	630.0 Ft	548.16	598.23	630.00	427.51	599.77 Ft.	630.0 Ft.
CHEP	485.10	-	-	277.11	-	-	211.63	-	-
UIHEP	1942.38	625.00 Mt.	642.0 Mtr	2597.23	627.65	64188	1590.98	631.13 Mtr.	636.20 Ft.
Total	5619.24			6076.223			4104.32		

From the above information it is observed that except Rengali the water of the other reservoirs are never utilized upto the MDDL. In this process OHPC is not able to generate and achieve it's Design Energy and recover its Energy Charges approved by the Hon'ble Commission which results in non-recovery of investments made by OHPC as submitted here below.

(B) Uncertainty in Recovery of Investment in R&M works/ Capital Maintenance of Units:

OHPC has taken up the Renovation & Modernization activity of Unit-3 CHEP, Chiplima; Unit-5&6 HHEP, Burla & Unit-1 to 6 of BHEP, Balimela as per the approval of Hon'ble OERC, at a cost of about **Rs610Crs.** OHPC will invest more than Rs 200Cr from it's own fund and the balance will be arranged from the financial institutions as debt without any financial support by Govt. of Odisha. In spite of availability of machines for generation non-achievement of Design Energy and non-recovery of Annual Energy Charges by OHPC Power Stations, due to the reasons as discussed above not attributable to OHPC shall ultimately result in uncertainty in Recovery of huge investment in different RM &U projects.

In this connection, it is not out of place to mention here that shortly OHPC is also going to make substantial investment for RM&U of 06No. of Units at Machhkund Hydro Electric(Joint) Project, on

50% cost and power sharing basis by APGENCO and OHPC on behalf of Govt. of Andhra Pradesh and Odisha respectively.

So far Hon'ble OERC is only approving the tariff of MHEP(Joint) Project on reimbursable basis, where GRIDCO is paying / reimbursing to APGENCO the portion of Operation & Maintenance expenses of MHEP(Joint) Project shared on maximum demand(MW) utilized between the two States (i.e.Odisha & Andhra Pradesh) as per the terms of the Original Interstate Agreement(1946) and paying the energy charges for the energy portion beyond 30% upto 50% of the shareable energy @8 paisa per Kwh as per the terms of the supplementary Interstate Agreement(1978). The copies of the above two agreements are Annexed as **Annexure - 20** for kind perusal.

The real drawback in the system is the deficiency existing in the power evacuation of Odisha share of 50% Power (energy) from MHE(Joint) project by OPTCL(STU) & SOUTHCO(DISCOM). Due to evacuation constraints, Odisha is not getting 50% of the shareable energy on real time basis from Machhkund generation. **The details of drawl by Odisha & Andhra Pradesh from FY 1996-97 onwards is furnished below for kind perusal of the Commission for taking suitable decision in this regard & issuing necessary instructions / orders to the responsible Utilities.**

Table: 5
Short drawal of Machhkunda Share

Financial Year	Total drawal by AP & Odisha from MHEP (in MU)	50% of Odisha Drawal (in MU)	Actual drawl made by Odisha (in MU)	Shortfall (in MU)
2015-16	576.903	288.451	280.254	8.1975
2014-15	576.32	288.16	284.989	3.171
2013-14	542.823	271.411	235.118	36.294
2012-13	533.453	266.726	250.561	16.165
2011-12	454.068	227.034	224.002	3.032
2010-11	559.635	279.817	268.438	11.379
2009-10	579.348	289.674	285.928	3.746
2008-09	561.452	280.726	242.859	37.867
2007-08	406.403	203.202	174.631	28.571
2006-07	772.228	386.114	341.719	44.395
2005-06	702.359	351.179	323.987	27.192
2004-05	836.332	418.166	366.592	51.574
2003-04	487.614	243.807	198.902	44.905
2002-03	538.367	269.183	266.079	3.105
2001-02	685.240	342.62	237.574	105.046
2000-01	635.024	317.512	251.656	65.856
1999-00	684.442	342.221	310.11	32.111
1998-99	494.269	247.135	245.005	2.129
1997-98	596.197	298.098	296.666	1.4325
1996-97	868.222	372.395	495.827	61.716
Total	12090.69	6045.349	5457.465	587.884

From the above information it is clear that Odisha is not in a position to draw the 50% shareable energy from Machhkund generation due to transmission & distribution constraints. Some of the main reasons behind this deficiency & inability are as follows:

- (i) APTRANSCO (Andhra Pradesh Transmission Corporation) have 02 Nos of 132KV transmission lines for evacuation of power(energy) from Machhkund power house, whereas OPTCL is having only 01 No. of 132KV transmission line (i.e. 132KV Machhkund Jayanager feeder) for evacuation of Odisha Share. The second 132KV feeder from Machhkund supplying power to Railway traction is in defunct condition since long. Since this feeder was supplying fluctuating traction load in southern Odisha directly from the MHEP, was isolated by APGENCO as such load is detrimental to the health of generating units. And so far OPTCL has not taken any action for revival of second circuit for evacuation of drawl of Odisha Share from MHEP for the purpose.
- (ii) MHEP is synchronized to Andra Pradesh Power system whereas Odisha is drawing and supplying power to some southern parts through 132KV Machhkund-Jayanager feeder radially. Due to this hardly 02 to 03 distribution substation (such as Akhusingh, Ryagada, Mohana) of SOUTHCO are getting supply from Machhkund generation purely on manual arrangement depending upon the generation at MHEP. In this process it is very difficult to match this distribution load of the above sub-stations under SOUTHCO, exactly to 50% of the available energy from MHEP resulting in under drawl of Odisha share of Power from MHEP on a real time basis. Moreover, drawing power in radial mode is not an effective way of evacuation of Odisha share from a Joint project like Machhkund. In this regard, the senior General Manager(O&M), OPTCL, Berhampur has also admitted that OPTCL can only evacuate maximum up to 50MW from MHEP. The above statement of OPTCL has also been recorded in the 101st PSOC (Power System Operation Coordination) meeting, and the relevant portion is annexed at **Annexure – 21** for kind perusal of OERC.

Further the above issue was also discussed in detail in the 13th GCC meeting held on 25th May 2016 at Bhubaneswar where the OERC officials attended the said meeting as “Observers”.

OHPC had raised the Machhkund issue regarding short drawl by Odisha due to the transmission constraints, which is reproduced below,

“The Odisha share of energy generated from MHEP is evacuated through 132kV Jayanagar feeder which is connected to 132kV Jayanagar Grid sub station (under the control of OPTCL) in a isolated manner through a sectionalized Bus, and further connected to SOUTHCO distribution system

in a radial mode. Since Machhkund Power system and Odisha Power system do not run in synchronous mode, hence depending upon the real time generation at MHEP, the SLDC / 132KV Jayanagar GRID (OPTCL) direct the SOUTHCO controlled sub- stations to arrange a matching load to be fed from MHEP.

There are only two to three sub- stations under SOUTHCO whose load may be either more or less than the 50% shareable energy generated at MHEP on real time basis, which can be connected to Machhkund system through Jayanagar GRID. So when the matching load is more than the 50% sharable energy, APGENCO (MHEP under the administrative control of APGENCO as per the Interstate Agreement between Odisha & AP) hand trip the 132KV Jayanagar feeder at MHEP end to restrict over drawl by Odisha. So availing power from MHEP generation in a regular/ continuous manner, the possible way of evacuation is only through under drawl situation i.e. when the Odisha drawl is less than 50% shareable energy at MHEP on real time basis.

As a result, there will be always short drawl of energy by the methodologies (i.e. arranging matching load in radial mode) adopted by OPTCL, SLDC, SOUTHCO for evacuation of Odisha share of Machhkund power. Further GRIDCO should have developed a suitable commercial mechanism with APGENCO to compensate the short drawl. Proper evacuation system should be framed by OPTCL so as to draw 50% of the available energy on real time basis from MHEP. Also GRIDCO should draw suitable commercial mechanism with APGENCO to compensate the short drawl by Odisha.”

After detailed deliberation, the CMD, OPTCL has issued necessary directives vide his letter no.4919 dtd 06.06.2016. , which is reproduced below.

“ Due to inadequate coordination among OPTCL, OHPC, SOUTHCO, GRIDCO & APGENCO, constraints arises for availing power from MHEP in a regular/ continuous manner. The following guidelines may be enforced with immediate effect:

- 1. CGM (O&M) will work as nodal officer to coordinate among OPTCL, SOUTHCO, OHPC, GRIDCO & MHEP for optimum utilization of the share. Availing power from MHEP generation in a regular/ continuous manner, the possible way of evacuation is only through under drawl situation i.e. when the Odisha drawl is less than 50% shareable energy at MHEP on real time basis.*
- 2. O&M OPTCL will co-ordinate with MHEP on daily basis for availing uninterrupted power supply from MHEP to Jayanagar grid (on regular/ continuous manner). The feeder should be healthy and to be charged promptly in case it trips. He will further coordinate with SOUTHCO on daily basis to avoid hand tripping at Machhkund end.*

3. *The substation under SOUTHCO (whose load may be either more or less than the 50% shareable energy generated at MHEP on real time basis) can be connected to Machhkund system through Jayanager Grid. Hand tripping of 132KV Jayanager feeder at MHEP end may be avoided (restricting over drawl by Odisha). SOUTHCO will ensure this in coordination with O&M.*
4. *The Unit Head Upper Kolab Power House(UKHEP) will coordinate with MHEP on daily basis for Optimum Utilisation of Odisha Share.*
5. *SLDC & GRIDCO will regulate the system to maintain Odisha drawl within 50% shareable energy at MHEP on real time basis. “*

The copy of the Lr. No. 4919 dtd. 06.06.2016 of CMD, OPTCL on the above is annexed at **Annexure- 22** for kind perusal of the Commission.

In addition to the above mentioned constraints it is understood that, OPTCL is again going to supply “Traction load” from Rayagada Grid. In case traction load is extended from Rayagada grid on MHEP supply then it will adversely affect the performance of the generators at Machhkund and APGENCO shall be forced to hand trip the 132KV Jayanager feeder in view of the safety and reliability of the generating units which will further deprive Odisha for availing it’s Machhkund share of power.

In consideration to the above mentioned facts relating to the different constraints of power evacuation from MHEP(Joint) Scheme, beyond the control of OHPC Hon’ble OERC may kindly issue directives, to the concerned organizations [i.e. OPTCL/SOUTHCO/GRIDCO/OHPC/SLDC] which are considered proper to safe guard the interest of the State of Odisha as a whole.

4. RESERVOIR LEVEL AND ANTICIPATED GENERATION FOR FY 2017-18:

The Reservoir Level of OHPC Power Stations as on 31.10.15 vis-à-vis on 31.10.16 is given below:

Table-6

Sl. No.	Reservoirs	As on 31.10.2015	As on 31.10.2016
1.	Rengali	119.16 mtr.	123.00mtr.
2.	Kolab	856.02 mtr.	856.66mtr.
3.	Balimela	1501.00 ft.	1507.20 ft.
4.	Hirakud	627.27 ft.	630.06 ft.
5.	Indravati	635.25 mtr.	639.32 mtr.

The actual generation of different Power Stations under OHPC from 01.04.2016 up to 31.10.2016 and anticipated generation up to 31.03.2017 for the FY 2016-17 prepared on the basis of the availability of water, irrigation requirement and peak load requirement of power in co-ordination with DoE, DoWR, GRIDCO and SLDC is furnished below.

Table-7

Sl. No.	Name of the power stations	Actual generation from 01.04.16 up to 31.10.16 (in MU)	Anticipated generation from 01.11.16 to 31.03.17 based on DoWR & DoE Schedule (in MU)	RL likely to be achieved as on 31.03.17 as per generation Schedule	Total Anticipated generation for the FY 2016-17 based on DoWR & DoE Schedule (in MU)
1.	RHEP	484.99	188	117.35Mtr.	672.99
2.	UKHEP	392.615	261	851.48 Mtr.	653.615
3.	BHEP	533.95	450	1481.70Ft.	983.951
4.	HHEP	425.921	153	617.77Ft.	578.921
5.	CHEP	136.253	101	-	237.253
6.	UIHEP	980.682	686	632.50Mtr.	1666.682
Total		2954.414	1839		4793.414

The extra/ shortfall in generation from the design energy approved for respective Power Stations shall be accounted towards the secondary energy fund as per the above mentioned Order of the Hon'ble Commission. The present deficit of the secondary energy fund of OHPC as a whole is about Rs 207.7Crs. as mentioned in Para 3 above. The total anticipated generation of OHPC for the present FY2016-17 is 4793.414MU which will fall short by 882.58MU from the approved D.E of 5676MU which will incur a revenue loss to the tune of Rs 30.583 Cr to OHPC. The shortfall in generation in the present FY will give rise to further deficit in the secondary Energy Fund.

5. PROJECT COST:

The revalued cost of old power stations under OHPC was Rs. 1196.80 Crs as on 01.04.1996 as per the Notification No. 5207 Dt. 01.04.1996 of Department of Energy, Government of Orissa. Hon'ble Commission in the order dated 23.03.2006 at clause no. 5.4 (C) has approved the same.

Further, Hon'ble Commission, in the order dated 20.03.2008 has approved Rs. 1195.42 Crs. as final capital cost of UIHEP for the purpose of determination of tariff. However, the Tariff of Old power stations were determined on the historical cost of old power station of OHPC for Rs. 479.80 Crores as per the Notification No. 1068 Dtd. 29.01.2003 of DoE, GoO.

Withdrawal of State Govt. Support to OHPC:

During the recent past the State Govt. has expressed severally regarding withdrawal of its supports in the matter of fixation of generation tariff of OHPC, and finally the State Govt. withdrew its support from the FY 2015-16 vide its Notification No. 5843 dtd 03.07.2015 in the Dept. of Energy, Govt. of Odisha. The chronological events in this regard is summarized below:

Views of the State Govt. for non-extending of Govt. Support for determination of Generation Tariff of OHPC:

(i) State Govt. vide letter No. 2404 Dtd. 21.03.2011 had commented on extension of keeping abeyance of Up valuation of the asset which is stipulated as follows:

“ An open ended commitment by the State Govt. to extend this supportive measures will be undesirable. At the first stage these supports may be continued till FY 2012-13 after which a review should be made by the State Govt. and on that basis a view could be taken on the need for further extension of these measures.”

(ii) In reply to the Commission’s letter dated 06.1.2012, the Department of Energy in their letter dated 19.3.2012 have mentioned the following:-

“The suggestions of the Hon’ble Commission to keep the support of govt. in the matter of keeping the effect of up valuation of assets of GRIDCO / OPTCL & OHPC, allowing the moratorium on debt services to the State Govt.’s till the sector turn around and not allowing ROE to GRIDCO/OPTCL and OHPC till the sector becomes viable on cash basis has not been agreed to by the Govt. in Finance Department. However, steps have been taken in regard to other recommendations of the Hon’ble Commission in their letter No.4440 dated 19.7.2010 and the proposal will be placed before the Cabinet for approval after which required notification will be issued.”

(iii) In the Proceedings of the Meeting taken by the Chief Secretary, Govt. of Odisha on 18.03.2014, this has been decided as under:

“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 will 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.”

The copy of the above Proceedings dtd 18.03.2014 is enclosed at (**Annexure- 8 (iv)**) for kind appraisal of the Hon'ble Commission.

- (iv) In the recent past, State Govt, vide its Lr. No. 4323 Dtd. 31.05.2014 has expressed its intention not to allow the supportive measures to OHPC in keeping the generation tariff at a sustainable level. Such view of the State Govt. as mentioned in the above letter is reproduced below.

“The Govt. still holds the view that up valuation of assets cannot be kept frozen for indefinite period. However, a decision can be taken judiciously if the resultant impact arising out of the above recommendations on various stages of tariff, i.e. on generation tariff, BSP and RST are made available to the Government. In order to facilitate the same, the Commission may provide a detailed analysis of facts and figures and raw data to support the same at the earliest for consideration of the Government. Besides a time bound action plan to reduce AT & C loss and turn around of distribution sector with proactive intervention of the Commission needs to be worked out and submitted before the Government for better apprehension of the problems and its magnitude which will enable Government to take a judicious decision in the matter.”

- (v) Hon'ble Commission in Para no 116(2) of the tariff order of the OHPC for the FY 2015-16 has detailed as follows:

“The State Govt. in their letter No.4323 dated 31.5.2014 sought information from the Commission on the impact of up-valuation of assets on tariff which had been kept in abeyance. The Commission gave the supporting details i.e. summary sheet of up-valuation impact vide letter No.862 dated 12.6.2014. The reply from the State Govt. is still awaited. On this issue, decision of the govt. is important for the ensuing tariff period 2015-16.”

- (vi) **Restructuring of Govt. Loan in UIHEP, RoE on Equity of Rs 300 Crs in respect of Old Power Stations and return on Convertible Bond of Rs 766.20 Crs.:-**

The Dept. of Energy, Govt. of Odisha vide Office Order No. 3060Dtd. 31.03.2015 has amended SRO No. 256 dated 01.04.1996 as follows:

“Rs 630.00Crore will be apportioned to Upper Indravati H.E.P as on 1.4.1996. Out of this, Rs 132.14 crore would be treated as interest free perpetual loan to OHPC on account of a portion out of the 50% of the expenses on Dam and Appurtenant of Rs 232.14 crore as on 01.04.1996. Balance Rs 100 crore would be treated as grant to OHPC. As Rs. 25crore is already released, balance Rs 75 crore is to be against Dam maintenance share. Balance Rs497.86 crore bearing loan as on 01.04.1996. The loan along with interest @ 13% till 31.03.2001 works out to Rs 821.47crore. As the up-valuation was kept in abeyance till 2005-06, the value of the asset

would remain Rs 821.47crore as on 01.04.2006. Out of Rs 821.47crore Rs 298.85crore would be converted to equity and balance Rs 522.62 crore at 7% interest bearing Government loan w.e.f. as on 01.04.2006 as per Energy Department Notification of 2010. The loan will be repaid in 15 equal annual installments with 4 years moratorium starting from 2010-11.

An initial Equity of Rs 300 Crores shall be considered for the projects other than Upper Indravati H.E.P.

Convertible Bond worth Rs 766.2crores will be issued to State Govt. The bonds shall not carry any interest for the first 5 years. Government allowed interest as kept in abeyance upto 2012-13 and OERC assumes extensions of the same upto 2014-15. The entire amount of Rs 766.2Cr would be treated as loan and interest @7% shall be charged from the FY 2015-16.”

Dept. of Energy, Govt. of Odisha vide Letter No. 3063Dtd. 31.03.2015 (Copy enclosed at Annexure-V) has directed OHPC to pay accumulated interest of Rs 329.07Cr from FY2006-07 to FY 2014-15 on the restructured Govt. Loan of Rs 522.62Cr for UIHEP along with repayment of the Principal in 15 equal installments starting from FY 2010-11 @ Rs 34.84Cr.(i.e. Rs 522.62Cr / 15).

In view of the above, OHPC filed a petition before Hon’ble OERC for the review of the Tariff Order of OHPC for the FY 2015-16 as Hon’ble Commission has not considered the Restructured UIHEP loan, Convertible Bond etc as per the above proposed amendment to SRO No. 256 dtd 01.04.1996. But Hon’ble Commission rejected the review petition of OHPC without any consideration. The matter had been intimated to Dept. of Energy, Govt. of Odisha vide letter no.6155 dtd 11.08.2015.

- (vii) **The Dept. of Energy, Govt. of Odisha vide Notification No. 5843 Dtd. 03.07.2015 had confirmed the above amendment of SRO No. 256 dated 01.04.1996 made initially through the Office Order No. 3060 Dtd. 31.03.2015 of the DoE, GoO.**

The above Notification mandates its implication in the determination of ARR & tariff of OHPC Power Stations from the FY 2015-16 onwards. Following are the different tariff implications of OHPC for the FY 2017-18:

- (a) As per the above Govt. Notification the restructured Govt. Loan in UIHEP will be as follows:

Govt. Loan (Revised figure)	=	Rs 522.62Cr.
PFC Loan	=	Rs 320.00 Cr. (Repaid Fully)
Equity(Revised figure)	=	Rs 298.85 Cr
<u>Normative Loan (Balancing Figure)</u>	=	<u>Rs 53.32 Cr</u>
	=	Rs 1194.79Crs (Approved Project Cost of OERC)

The Financial implication of this restructured Govt. investment in UIHEP will be as follows:

- The State Govt. investment as loan changed from Rs 497.68Cr to **Rs 522.62 Cr**.
- The repayment period is considered as 15years starting from FY 2010-11. The annual installment of repayment of UIHEP Govt. Loan has been considered as annual Depreciation @**Rs34.84Cr** (522.62/ 15).
- The opening balance of the loan as on 01.04.2017 will be Rs311.01Cr {522.62- (30.23x7)} considering the repayment of Govt. Loan of UIHEP @Rs30.23Cr from FY 2010-11 to FY 2016-17.
- Since the differential Depreciation of Rs34.84Cr- Rs 30.23Cr= Rs4.61Cr has not been considered in the previous Tariff orders, thus a total of Rs4.61Cr x 7= Rs32.27Cr may be approved and passed through in the ARR of FY 2017-18 for necessary payment to State Govt.
- Considering the pass through of the above differential Depreciation of Rs32.27Cr & Rs34.84Cr as normal repayment of Govt. Loan a total amount of Rs67.11Cr has to be recovered through ARR of FY 2017-18 under depreciation. **Accordingly OHPC has considered Rs 67.11 Crs towards repayment of the UIHEP Govt. Loan in the calculation of Tariff & ARR for FY 2017-18.**
- Considering Repayment of loan of Rs67.11Cr the closing balance will reduce to Rs243.9Cr as on 01.04.2018. **Accordingly, interest on Govt. Loan of UIHEP is calculated as Rs19.421Cr.(i.e, 7% on average principal), which has been considered in the tariff for the FY 2017-18 as per the suggestions of the Govt. of Odisha communicated to OERC vide their letter no. 2091 dtd. 11.03.2016.**
- **The accumulated interest of Rs350.57Crs from FY 2006-07 to FY 2016-17 is proposed to be considered as Regulatory Asset as per the suggestions of the Govt. of Odisha communicated to OERC vide their letter no. 2091 dtd. 11.03.2016.**

OHPC has considered the above implications for calculation of Tariff for the FY 2017-18. OHPC pray before the Hon'ble Commission to recognize the restructuring of Govt. investment in UIHEP and approve the tariff for the FY 2017-18 considering the above implications.

(b) **Financial Implication of Convertible Bond (or Up-valuation of Assets) and Return on Equity of Rs 300 Crs.:-**

- The loan of Rs 766.2Cr towards Convertible Bond (Up-valuation effect) has been apportioned in the ratio of Revalued Cost of Old Power Stations of OHPC. Such derived apportioned loan amount in respect of each power house will be considered as separate Govt. Loan for that power house with a recovery period of 15 years as per the Notification of Govt. of Odisha for the Repayment schedule starting from the FY 2015-16. The details of apportionment of Rs 766.2Cr is given in the Table – 7 below. OHPC has considered the principal and interest repayment for the FY 2015-16 to FY 2017-18 in the Tariff computation of OHPC for FY 2017-18 as per the suggestions of the Govt. of Odisha communicated to OERC vide their letter no. 2091 dtd. 11.03.2016.
- The Equity base shall be on the Revalued Project Cost as on 01.04.1996 plus New Addition from 01.04.1996 onwards and shall be considered for computation of RoE of the individual Old Power Stations. By this way the RoE of Rs 300.0Cr shall be automatically taken care and such return shall be ploughed back towards the equity investment for R,M &U of Old power stations. This computation of RoE is done on Approved Capital Cost plus Upvalued Asset for the FY 2015-16 to FY 2016-17. For FY 2017-18 RoE is computed on Audited figure of the Additional Capitalization plus Up valued Asset. OHPC has claimed the differential RoE of the Upvalued project cost with additional capitalization for the FY2015-16 and FY 2016-17(i.e the amount which was not a passed through in the tariff orders of OHPC for FY 2015-16 & FY 2016-17) along with the present implication for the FY 2017-18.
- Between the actual loan repayment and Depreciation calculated @ 2.57% on Revalued Cost + New Capital Addition, whichever is higher shall be considered as Depreciation for the purpose of Tariff computation.
- OHPC shall make payment to the GoO @7% interest on the Convertible Bond which shall be treated as loan from the FY 2015-16 as per the above Govt. Notification and as per the suggestions of the Govt. of Odisha communicated to OERC vide their letter no. 2091 dtd. 11.03.2016. Accordingly OHPC has considered the interest on the Convertible Bond for the FY 2015-16 & FY 2016-17(which was not passed through in the tariff orders of OHPC for FY 2015-16 & FY 2016-17) in the Tariff of OHPC for FY 2017-18 along with the present implication for FY 2017-18.

Table-8:

Power Station wise apportionment of Loan on account of Convertible Bond

(Rs. Cr.)

Name of the Power Stations	Revalued cost of assets as on 01.04.96 (in Crs.)	Unit wise percentage sharing of Revalued Cost (in %)	Unit wise apportionment of convertible bond cost (in Crs.)
a	b	c = (b/1196.80)x100	d = (cx766.20)/100
RHEP	259.01	21.64	165.82
UKHEP	307.96	25.73	197.16
BHEP	334.66	27.96	214.25
HHEP	130.16	10.88	83.33
CHEP	165.01	13.79	105.64
Total	1196.80	100	766.2

- Accordingly, OHPC has considered the Project Cost equal to Revalued Cost as on 01.04.1996 plus New additions after 01.04.1996 and calculated the ARR & Tariff of OHPC power station for FY 2017-18, considering the above tariff impacts of the Govt. Notification No. 5843 dtd 03.07.2015 as per the suggestions of the Govt. of Odisha communicated to OERC vide their letter no. 2091 dtd. 11.03.2016..

(viii) Additional Capitalization

OHPC has also made additional capitalization as per Clause No 3.4 of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 for different power stations for different works like Power house Electrical & Mechanical Works, Water Supply Installation, Electrical Installation, Buildings, Power House Civil Works, Hyd. Works, Dam, Tunnel & substation equipments etc. The additional capitalization for an amount of Rs 19.31 Crs as per the audited account for FY 2015-16 has been considered determination of tariff for the FY 2017-18. The detail of unit wise additional capitalization considered for determination of tariff for the FY 2017-18 is mentioned in the table-7 below. The Audited Capital additions for the FY 2017-18 in respect of different Power Stations of OHPC for a total amount of Rs 12.95 Crs is enclosed at **Annexure-15** along with the detail Audited Accounts and Audited Report of OHPC for the FY 2015-16 is enclosed at **Annexure- 14**.

The supporting documents of Additional capitalization of Capital Maintenance of Unit-1 of HHEP, Burla amounting to Rs 10.029Crs is enclosed at **Annexure-34**. It may be noted that out of the Capital Addition of Rs 10.029Cr, an amount of Rs 6.3672Cr has to be taken as revenue expenditure as confirmed by the Unit Head HHEP, Burla. Hence balance Rs 3.662Crs is considered for Capitalisation in the Tariff for FY 2016-17.

Similarly, OHPC has capitalized Rs6.56Cr under civil works of HHEP, Burla for construction of 18 Nos of 'DF' & 06 Nos of 'CF' type quarters and its associated works. These detail is annexed at **Annexure-34**.

OHPC has considered the additional capitalization of each Unit as Normative Loan for Capitalization in line with Hon'ble OERC approval in the Tariff of OHPC for the FY2010-11 for capital expenditure towards TRCM of Chiplima Power House with a repayment period of 5years. Such procedure being also approved in case of other Power Stations on account of additional capitalization by the Hon'ble Commission till the FY 2016-17.

(ix) Revalued Project Cost:

The adjustment of cost of assets during the period from FY 2011-12 to FY 2014-15 on account of de-capitalization of asset for an amount of Rs 7.19 Cr has been approved by Hon'ble Commission in the earlier tariff order of OHPC. There is de-capitalization of Rs 0.84 Cr in case of Old power stations of OHPC & Rs0.49Cr in case of UIHEP for FY 2015-16. The Revalued cost as on 31.03.2016 is shown in the table-9 below. Hence the total decapitalisation of Power Stations during the FY 2011-12 to FY 2015-16 comes to Rs 9.37Cr which has been deducted from the original Revalued Cost as on 01.04.1996.

The project cost of OHPC power stations considered for computation of ARR & tariff for the FY 2017-18 is given in the table below:

Table-9
Project Cost for tariff Calculation for FY 2017-18

(Rs. in Crs.)

Name of the power stations	Revalued Cost as on 01.04.1996	Asset reduction during FY 2012-13 to FY 2015-16	Approved New additions up to 31.03.2015	Capitalisation of R&M works considering CWIP	New additions for FY 2015-16 (audited)	Total New Addition upto 2015-16 & CWIP of R&M works	Project Cost considered Tariff calculation based on revalued cost
1	2	3	4	5	6	7=4+5+6	8=2+7-3
RHEP	259.01	0.06	57.26	-	0.21	57.47	316.43
UKHEP	307.96	0.16	18.88	-	0.10	18.98	326.78
BHEP	334.66	0.29	214.42	-	1.08	215.50	549.88
HHEP	130.16	6.77	206.91	-	10.44	217.35	340.74
CHEP	165.01	0.75	47.36	65.67	0.51	113.54	277.80
Sub Total	1196.80	8.03	544.83	65.67	12.35	622.85	1811.62
UIHEP	1194.79	1.35	3.76	-	0.99	4.75	1198.19
Total	2391.59	9.37	548.59	65.67	13.34	627.60	3009.81

N.B: Project Cost approved for UIHEP after CoD is Rs1194.79Cr.

(x) **Tariff for Energy Billing to CSPDCL:**

This is to bring to the kind notice of the Hon'ble Commission that as per the MoM mentioned under para no.1 (Procedural History), the long term customer, the erstwhile Chhattisgarh State Electricity Board (CSEB), presently Chhattisgarh State Power Distribution Company Limited (CSPDCL) drawing energy from Hirakud generation towards 5MW share of Chhattisgarh State (erstwhile share holder being Madhya Pradesh) is taking a plea since the FY 2006-07 to pay the energy charges at the tariff approved by the Hon'ble Commission for HHEP, Burla, applicable for the consumers of Odisha, considering the supportive measures extended by the Govt. of Odisha which is considerably less than the actual cost of generations from HHEP on which billing is made to them as per the Minutes of Meeting dtd. 24.12.2004.

This is further to bring to the kind notice of the Hon'ble Commission that the energy billing @ cost of generation and other applicable terms & conditions have been decided by the Hon'ble High Court, Jabalpur, MP vide orders dated 16.12.2004 & dated 02.09.2005 in W.P. No. 1241/2002; Order dated 17.08.2006 of the Ministry of Power, Govt. of India; Minutes of Meeting dated 24.12.2004 under the Chairmanship of the Chief Secretary, Govt. of Odisha. In spite of this CSPDCL, Chhattisgarh did not accept the concept of energy billing @ cost of generation of Hirakud Power.

Finally in a meeting at Raipur between OHPC & CSPDCL on 28.10.2014, it was decided as under:

“Signing of PPA:

It is jointly agreed that PPA shall be executed between OHPC & CSPDCL for purchase of 5 MW power from Hirakud Hydro Electric Project, Burla. For execution of PPA a draft power purchase agreement shall be sent by OHPC which is after getting approved by Chhattisgarh State Electricity Regulatory Commission, execution shall be done.

Applicable tariff for power purchase from HHEP, Burla.

CSPDCL suggested that as power is being purchased from a hydel power project situated in Orissa it has status of inter-state project, as such tariff should be decided in accordance to norms approved by Central Electricity Regulatory Commission.

It is further jointly agreed that Odisha State Electricity Regulatory Commission shall be requested to decide the tariff from 2006-07 onwards in accordance to regulation notified by CERC, treating HHEP Burla as a inter-state entity. In case OERC advises to apply CERC for fixation of tariff

for this inter-state transaction, then OHPC shall file a petition before Hon'ble CERC for fixation of tariff.

Presently it is decided that from 2008-09 onwards CSPDCL shall pay at a rate as approved by OERC provisionally till the rate is approved by appropriate Commission and afterwards necessary adjustment shall be done in accordance to law.”

Accordingly as per the request of OHPC Hon'ble Commission have provisionally fixed the ECR for billing to CSPDCL for the FY 2015-16 & FY 2016-17. OHPC is in the process of truing up of the expenditure for its power stations which will be filed before OERC for approval. Considering the approved up-valued project cost of HHEP after truing-up, OHPC shall compute the ECR at the actual cost of generation applicable for CSPDCL from the FY 2006-07 onwards, and file an application before the Hon'ble Commission for approval of the same. However for coming FY 2017-18 OHPC has computed the tariff for billing of Energy to CSPDCL as per the CERC (Terms and Conditions of Tariff) Regulation'2014 as furnished at Table-10 below.

Table- 10
Tariff for CSPDCL for 2017-18

Details of Expenses HHEP	Amount (Rs in Crs)
Salable Design Energy of HHEP	677.16 MU
Project Cost (Up-valued cost as on 01.04.1996 + Capitalization up to 31.03.2016 - Decapitalization)	340.740
Return on Equity (@ 24.9962%)	25.55
Interest on Loan	6.31
Depreciation (@ 5.28%)	17.99
O & M expenses (Escalated @ 6.64%)	77.00
Interest on Working Capital (@ 13.5%)	5.07
Total ARR	131.92
Average Tariff (p/u)	196.78

The detail calculation of the CSPDCL tariff for the FY 2017-18 is enclosed as **Annexure-12**.

In view of the above reasons, OHPC prays Hon'ble OERC to approve the tariff for energy billing to CSPDCL @ 196.78 paisa/unit for the FY 2017-18.

6. ANNUAL FIXED COST:

- (i) According to the OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2014 the tariff computation for supply of electricity from a Hydro Generating Station shall comprise Capacity Charge and Energy Charge to be shared on 50:50 basis for recovery of annual fixed cost.
- (ii) The Annual Fixed Cost of a hydro generating station shall consist of the following components:
 - A) Return on Equity (ROE).
 - B) Interest on Loan.
 - C) Depreciation.
 - D) O & M Expenses.
 - E) Interest on Working Capital.

A) Return on Equity (ROE):

- (i) According to Clause No. 4.5 & 4.6 of OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2014 the Return on Equity shall be computed @16% of the equity amount. Also as per the provisions made in the said clause the income tax of the Generating Company shall be recovered from the beneficiaries (income tax on other income streams shall not be considered)
- (ii) The DoE, Govt. of Odisha vide Notification No. 5843 Dtd. 03.07.2015 has amended the Para 5(i) of the existing SRO No. 256/96 dtd. 01.04.1996 and had modified the Equity Base for Govt. investment in UIHEP to Rs 298.85Cr. OHPC has made additional capitalization on UIHEP in the subsequent years. 30% of these additional capitalization is considered as Equity Base as per the provision in clause No. 3.8 of OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2014.
- (iii) The DoE, Govt. of Odisha vide Notification No. 5843 dtd. 03.07.2015 has amended the Para 5 (ii) of the existing SRO No. 256/96 dtd. 01.04.1996 and modified as follows:
“An initial Equity of Rs 300 crores shall be considered for the projects other than Upper Indravati H.E.P.”
- (iv) The above amendment Notification is effective from the FY 2015-16. So, OHPC has considered RoE claim for FY 2015-16 & FY 2016-17 by computing the RoE claim on Upvalued project cost of the respective years and then deducting from it the RoE approved for the respective years. The differential RoE computed in this manner is considered as the additional financial impact on RoE arising out of above Govt. Notification for the FY 2015-16 & FY 2016-17 along with the normal RoE for the FY 2017-18 for computation of Tariff.
- (v) However OHPC has considered Equity Base as 30% of the Revalued cost of Old power stations as on 01.04.1996 along with approved Additional Capitalization from 1996-97 onwards upto 2014-15 & audited cost for capitalization for FY 2015-16 for calculation of Project cost for FY 2015-16; FY 2016-17 & FY 2017-18. 30% of these additional capitalization are considered as Equity Base as per the provision in clause No. 3.8 of OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2014.

- (vi) Hon'ble OERC while approving RoE of OHPC for FY 2016-17 at Para No. 87 of the tariff order has quoted as mentioned below:

Para No. 87: *“The Commission is of the view that actual tax paid need to be allowed as a pass through but not a notional calculation of the tax on normative basis. Accordingly the Commission decides to allow return on equity at 16% with new capital addition with a provision to reimburse the actual income tax paid during the FY 2014-15 which is subject to change after the actual tax paid during the FY 2016-17. Since there is possibility of under recovery or over recovery of income tax if it is inbuilt to tariff the Commission feels to pass on the income tax as a reimbursement to be recovered from the beneficiary i.e. GRIDCO. Income tax paid during FY 2014-15 as per audited accounts is Rs.31.09 cr. and OHPC has claimed the same amount to be considered for reimbursement from GRIDCO during the year 2016-17. But, from the audited account for FY 2014-15, it is observed that the income tax paid during the year was on non-generation activities of OHPC and thus, the Commission does not allow the same to be reimbursed from GRIDCO in the tariff of 2016-17.”*

- (vii) OHPC has paid Rs 40.70 Crs as income tax for FY 2015-16 on the core business. This has been reflected in the audited account & the details of which is enclosed at **Annexure-13**. The same is considered as reimbursement from GRIDCO in line with the order of the Hon'ble Commission at Para no. 127 of the Tariff Order of OHPC for the FY 2015-16 & Para no. 87 for the FY 2016-17 as mentioned above.

The details of equity base and RoE of OHPC Power Stations for the different years starting from the FY 2015-16 to FY 2016-17 is furnished below:

Table-11
Computation of RoE for different power stations of OHPC for FY 2015-16:-

(Rs. in Crs.)

Sl. No.	Name of the Power Station	Project Cost	Equity Capital Rate (%)	Value of Equity capital	ROE @16% Proposed for 2015-16	RoE approved by OERC for 2015-16	Differential RoE for FY 2015-16 claimed in FY 2017-18
1.	RHEP	315.42	30	94.626	15.140	2.708	12.432
2.	UKHEP	326.38	30	97.913	15.666	0.888	14.778
3.	BHEP	547.97	30	164.390	26.302	10.251	16.051

Sl. No.	Name of the Power Station	Project Cost	Equity Capital Rate (%)	Value of Equity capital	ROE @16% Proposed for 2015-16	RoE approved by OERC for 2015-16	Differential RoE for FY 2015-16 claimed in FY 2017-18
4.	HHEP	330.70	30	99.210	15.874	8.264	7.610
5.	CHEP	210.48	30	63.145	10.103	1.927	8.176
6.	UIHEP	1197.36	25 & 30	299.469	47.915	47.915	0.000
Total		2928.31		818.752	131.000	71.953	59.050

Table-12
Computation of RoE for different power stations of OHPC for FY 2016-17:-
(Rs. in Crs.)

Sl. No.	Name of the Power Station	Project Cost	Equity Capital Rate (%)	Value of Equity capital	ROE @16% Proposed for 2016-17	RoE approved by OERC for 2016-17	Differential RoE for FY 2016-17 claimed in FY 2017-18
1.	RHEP	316.27	30	94.880	15.181	2.748	12.433
2.	UKHEP	326.68	30	98.003	15.680	0.906	14.774
3.	BHEP	548.82	30	164.645	26.343	10.292	16.051
4.	HHEP	331.00	30	99.301	15.888	9.932	5.956
5.	CHEP	211.67	30	63.501	10.160	2.273	7.887
6.	UIHEP	1197.69	25 & 30	299.611	47.938	47.938	0.000
Total		2932.13		819.941	131.191	74.089	57.102

Table-13
Computation of RoE for different power stations of OHPC for FY 2017-18:-
(Rs. in Crs.)

Sl. No.	Name of the Power Station	Project Cost	Equity Capital Rate (%)	Value of Equity capital	ROE @16% Proposed for 2017-18	Differential RoE for FY 2016-17 claimed in FY 2017-18	Differential RoE for FY 2015-16 claimed in FY 2017-18	Total RoE claim for FY 2017-18
1.	RHEP	316.43	30	94.928	15.188	12.433	12.432	40.053
2.	UKHEP	326.78	30	98.034	15.685	14.774	14.778	45.238
3.	BHEP	549.88	30	164.963	26.394	16.051	16.051	58.497
4.	HHEP	340.74	30	102.221	16.355	5.956	7.610	29.921
5.	CHEP	277.80	30	83.341	13.335	7.887	8.176	29.398
6.	UIHEP	1198.19	25 & 30	299.785	47.966	0.000	0.000	47.965
Total		3009.81		843.272	134.924	57.102	59.047	251.072

Hon'ble Commission may kindly approve Rs 251.072 Crs. as RoE for FY 2017-18 as mentioned in the Table-13 and Rs 40.70Crs. as reimbursement of income tax on core business as per Audited Account of OHPC for FY2015-16.

B) Interest on Loan:

The loan liabilities on OHPC consist of state Government loan , PFC loans and Normative Loans. The State Government loan liabilities outstanding as on 01.04.1996 is given in the table below:

Table-14

(Rs. in Crs.)

Sl. No.	Description of loan	Amount as on 01.04.1996	Present Status
1.	9.8% loan	39.20	Fully Repaid
2.	13% loan (UIHEP)	497.86	Restructured as Rs 522.62Cr & interest.@7% (Rs211.61Crs Repaid)
3.	Interest free loan (UIHEP)	132.14	Converted to perpetual loan without interest.
4.	13% loan (Potteru)	14.30	
5.	Zero Coupon Bond-I	383.10	Converted to Loan with 15years repayment period from 2015-16 & interest @7%
6.	Zero Coupon Bond-II	383.10	
7.	Other loan	0.99	

I) State Govt. Loan:

- a) During passing the order for Annual Revenue Requirement of OHPC for the FY 2014-15 the Hon'ble Commission had examined the proposal of OHPC towards payment of interest on UIHEP Govt. loan of Rs.497.86 cr. and normative loan of Rs.78.23Cr. Hon'ble Commission has made the following observations in the tariff order of OHPC for the FY 2014-15:

“i) The Commission had observed that the depreciation has already been allowed in the tariff of 2010-11, 2011-12, 2012-13 and 2013-14 @ Rs.30.23 Cr. per year. The same amount is also allowed in the tariff of 2014-15 towards principal repayment of UIHEP Govt Loan. Thus OHPC is required to make Principal repayment of Rs 30.23 Crs. against the depreciation allowed during the FY 2014-15. Further the depreciation allowed from the FY 2010-11 to 2013-14 totals amounting to Rs 120.92 Crs. may also be paid to the Govt. of Odisha.

ii) *The Commission may consider the interest accumulated on Govt Loan and Normative loan of UIHEP in the ARR of OHPC after completion of the Principal repayment of the Govt loan and Normative loan as per our observations above.*

iii) *The Commission had examined the Comments of Comptroller and Auditor General of India regarding non-booking of interest by OHPC on Govt loan extended to UIHEP @ 7% w.e.f 2006-07 onwards based on the Govt Notification dated 6.01.2010 which provides that :-*

“The State Government investment actually made in Upper Indravati Project, excluding the Normative Equity, should yield return to the State Government w.e.f FY 2010-11 after clearance of loan liabilities of PFC. However, interest @ 7% should be charged and paid on this investment from FY 2006-07 onwards.”

The Commission has accepted the interest element on UIHEP Govt loan since 2006-07 but could not pass the same to avoid tariff burden on Consumers. Hence the matter has been crystallized in the Tariff Order for FY 2013-14. Therefore, OHPC is required to book the interest on UIHEP Govt Loan @ 7% w.e.f 2006-07 on accrual basis based on the Tariff Order dated 20.3.2013.

Based on the above observations and the Commission’s letter No. Dir(T)-175/02/77 dtd.16.01.2014 to the Government, Hon’ble Commission did not allow interest on loan for UIHEP for the purpose of tariff for FY 2014-15.”

(b) Hon’ble Commission in the Tariff approval of OHPC for the FY 2016-17 has stated as follows:

“Considering the above, the Commission allows OHPC to make Principal repayment of Rs.30.23 Cr. against the depreciation allowed during the FY 2016-17. The Commission may consider the interest accumulated on Govt Loan and Normative loan of UIHEP in the ARR of OHPC after completion of the Principal repayment of the Govt. loan and Normative loan as per our earlier observations.

In line with the above observations and the Commission’s letter No. DIR(T) 175-12/57 dtd.13.01.2015 to the Government, no interest on loan for UIHEP is allowed for the purpose of tariff for FY 2016-17.”

(c) The DoE, Govt. of Odisha vide Notification No. 5843 Dtd. 03.07.2015 has amended the Para 5 of the existing SRO No. 256/96 dtd. 01.04.1996 as follows:

Para-5 *“The consideration amount to be adjusted in favor of the State Government shall be subject to the following:-*

- *Loan of Rs 683.5 crores, in the two parts:*

Part A- Rs 39.2 crores, which will be repaid in 15years after a moratorium of 5 years. This loan will carry an interest rate of 9.8% per annum.

Part B- Rs 644.3 crores which will not carry any interest up to the completion of Upper

(d) *Indravati H.E.P. and Potteru H.E.P. The break- up is as follows:*

- *Rs 14.30 crore will be apportioned to Potteru H.E.P. as on 01.04.1996. No interest on Potteru H.E.P loan of Rs 14.30 crore would be charged as the project is under disposal.*
- *Rs 630.00 crore will be apportioned to Upper Indravati H.E.P as on 01.04.1996. Out of this , Rs. 132.14 crore would be treated as interest free perpetual loan to OHPC on account of the 50% of the expenses on Dam and Appurtenant of Rs 232.14 crore as on 01.04.1996. Balance Rs100crore would be treated as grant to OHPC. As Rs. 25 crore is already released, balance Rs. 75 crore is adjusted against Dam maintenance share. Balance Rs 497.86 crore shall be treated as 13% interest bearing loan as on 01.04.1996. The loan along with interest @13% till 31.03.2001 works out to Rs 821.47 crore. As the up- valuation was kept in abeyance till 2005-06, the value of the asset would remain Rs 821.47 crore as on 01.04.2006. Out of Rs 821.47 crore, Rs 298.85 Crore would be converted to equity and balance Rs 522.62 crore as 7% interest bearing Government loan w.e.f as on 01.04.2006 as per Energy Department Notification of 2010. This loan will be repaid in 15 equal annual instalments with 4 years moratorium starting from 2010-11.*
- *An initial Equity of Rs 300 crores shall be considered for the projects other than Upper Indravati H.E.P.*

- *Convertible Bonds worth Rs. 766.2 crores will be issued to State Government. The bonds shall not carry any interest for the first 5 years. Government allowed interest as kept in abeyance upto 2012-13 and OERC assumes extension of the same up to 2014-15. The entire amount of Rs 766.20 crore would be treated as loan and interest @7% shall be charged from financial year 2015-16.”*

(e) **Restructured Govt. Loan of UIHEP :**

However, after above Govt. Notification OHPC has considered the related tariff impact in the FY 2016-17. The approved Capital cost of UIHEP being Rs 1194.79 Cr, shall be restructured based on the above Notification of DoE, GoO. The detail break-up of this capital cost is as follows:

Break-up:-

Equity	= Rs 298.85 Cr
PFC Loan (fully repaid)	= Rs 320.00 Cr
Govt. Loan @7% (partly paid)	= Rs 522.62 Cr.
Normative Loan(Not repaid)	= Rs 53.32 Cr.
Total	= Rs 1194.79Cr.

The detail Statement of State Govt. loan of UIHEP and its tariff implication in terms of Depreciation & Interest is given below:

(f) **Present Status of UIHEP Govt. Loan :-**

- PFC loan of Rs320.00 has already been repaid in full by FY 2009-10.
- As per the earlier Order of the Hon’ble Commission in the Tariff approval of OHPC including the Order for the FY 2015-16, OHPC has so far paid Rs181.38Cr to Govt. by March 2016. The depreciation approved for FY 2016-17 for Rs 30.23Cr shall be paid by the end of this Financial Year.
- OHPC also did not make any provision in its account for payment of interest on UIHEP loans from FY 2006-07 to FY 2015-16 as the same was not passed through by Hon’ble Commission. But after recognition of interest component in the Tariff order of OHPC for FY 2014-15, OHPC booked this interest component from FY 2006-07 onwards as liability of OHPC.

- (g) Hon'ble Commission has ordered in the Tariff approval of OHPC for the FY2013-14 that the Principal & Interest on Normative Loan of UIHEP shall be allowed after repayment of UIHEP Govt. loan.

The Present Status of State Govt. loan of UIHEP is given in the table below:

Table-15

(Rs. in Cr.)

Original Approved Project Cost	1195.42
Project cost deducting the infirm power cost	1194.79
Equity	298.85
Govt. Loan of UIHEP	522.62
Depreciation allowed from 2010-11 to 2016-17 @ Rs30.23 Crore	211.61 Crore.
Loan Repayment made till FY 2016 -17	Rs181.38(Rs30.23Cr to be paid)
Balance Outstanding Loan as on 01.04.2017	Rs311.01Crore (Considering Depreciation allowed)
Cumulative interest on UIHEP Govt. Loan from FY 2006-07 to FY 2016-17 @ 7%	350.57 Crore
Cumulative interest on normative loan from FY 2001-02 to FY 2016-17@ 7%	65.24 Crore

(h) **Tariff Implication of Restructured Govt. Loan of UIHEP:-**

The DoE, Govt. of Odisha vide Notification No. 5843 Dtd. 03.07.2015 has amended the Para 4 & 5 of the existing SRO No. 256/96 dtd. 01.04.1996. This amended Notification is effective from the FY 2015-16.

Prior to this, the DoE, Govt. of Odisha vide their Lr. No. 4323 Dtd. 31.05.2014 have also suggested Hon'ble OERC to consider both interest & loan in the ARR of UIHEP. Accordingly OHPC has calculated the principal repayment, interest & differential depreciation claim on State Govt. Loan on UIHEP based on the observation of the State Govt. made vide Lr. No. 4323 Dtd. 31.05.2014 and in accordance to the Govt. Notification No. 5843 Dtd. 03.07.2015 as follows:

- i. The State Govt. investment as loan changed from Rs 497.68Cr to Rs 522.62 Cr through the above amendment Notification.
- ii. The repayment period is considered as 15years starting from FY 2010-11. The annual installment of repayment of UIHEP Govt. Loan has been considered as annual Depreciation @Rs34.84Cr (522.62/ 15).

- iii. The opening balance of the loan as on 01.04.2017 will be Rs311.01Cr {522.62-(30.23x7)} considering the repayment of Govt. Loan of UIHEP @Rs30.23Cr from FY 2010-11 to FY 2016-17.
- iv. Since the differential Depreciation of Rs34.84Cr- Rs 30.23Cr= Rs4.61Cr has not been considered in the previous Tariff orders, thus a total of Rs4.61Cr x 7= Rs32.27Cr may be approved and passed through in the ARR of FY 2017-18.
- v. Considering the pass through of the above differential Depreciation of Rs32.27Cr & Rs34.84Cr as normal repayment of Govt. Loan in the FY 2017-18, a total of Rs67.11Cr has to be recovered through ARR of FY 2017-18 under depreciation. **Accordingly OHPC has considered depreciation of Rs 67.11 Crs in the ARR of UIHEP for repayment of the Govt. Loan during the FY 2017-18.**
- vi. Considering Repayment of loan of Rs 67.11Cr the closing balance will reduce to Rs 243.9 Cr as on 31.03.2018. **Accordingly, interest on Govt. Loan of UIHEP is calculated as Rs 19.4218Cr. (i.e., 7% on average principal), which has been considered in the tariff for the FY 2017-18.**
- vii. The DoE, Govt. of Odisha vide their Lr. No. 4323 Dtd. 31.05.2014 have suggested that, **“the interest accrued on reducing balance to be allowed in Tariff in suitable manner as per usual practice of recovery of Govt. loan.”** The accumulated interest up to 01.04.2017 of UIHEP Govt. Loan is computed as Rs 350.57 Crs and need to be recovered and paid to the State Govt. **Hence, Hon’ble Commission may kindly designate Rs 350.57 Crs as Regulatory Asset and fix suitable installments and allow in the tariff from the FY 2017-18 onwards.**
- viii. **The detail calculation of the Restructured UIHEP Govt. Loan is enclosed at *Annexure-10*.**
- ix. Further as per lr. No. 2091 dtd. 11.03.2016 the Govt. of Odisha has suggested OERC to include both payment of interest & repayment of Principal in the ARR of UIHEP. The interest w.e.f FY2006-07 to FY 2016-17 may be kept as Regulatory Assets of OHPC to be paid in future tariff.

(II) Loan Recovery schedule of UIHEP within its Life period of 35years:

Hon’ble OERC approved the Original project cost of UIHEP as Rs1194.79Crs.,out of which 90% of the project cost(i.e. Rs1075.311Crs) is to be recovered through depreciation. The year of commercialization shall be reckoned as the last Unit of UIHEP which was commissioned during the FY2001-2002(being the year of CoD of Unit-4 of UIHEP). The useful life of the Hydro power station is

considered as 35years from the date of CoD of the power stations. As a result during its useful life period of the project the loan liability has to be recovered through tariff. As such, all the loan liability of UIHEP should be recovered by the FY2035-36. Accordingly a loan recovery schedule has been prepared by OHPC based on the previous directions of Hon'ble Commission in respect of UIHEP Loan which is enclosed at **Annexure-11** and shown below for kind perusal of the Commission for taking a suitable decision in this regard.

- Break-Up of UIHEP approved project cost:-

Govt. Loan	=	Rs 497.86Cr. (Rs211.61Cr paid)
PFC Loan	=	Rs 320.00 Cr. (Repaid Fully)
Equity	=	Rs 298.70 Cr
Normative Loan (Balancing Figure)	=	Rs 78.23 Cr
Total	=	Rs 1194.79Crs (Approved Project Cost of OERC)

- Status of UIHEP Loan Liability as on 31.03.2017:

- PFC loan of Rs320 Crs repaid.
- Rs211.61 Crs @Rs30.23Crs approved and repaid to Govt.
- Interest on Govt. Loan of UIHEP not approved by Commission.
- Principal & Interest on normative loan not approved by the Commission.

- Commission view on Govt. Loan:

Commission in the Para 131 of Compendium of Tariff Order of OHPC for FY 2013-14 has observed that *“after the total repayment of Govt. loan as approved above, this loan repayment may start at the same rate of Rs.30.23 Cr. each year i.e. beginning with 2026-27. The interest component will be considered after the total repayment of the principal in line with the Govt. loans”*.

- Future Status of UIHEP Loan Liability as on 31.03.2029 (if above order of OERC is carried out):

- PFC loan of Rs320 Crs will stand repaid.
- Govt. Loan of Rs 497.86Cr. shall stand repaid.
- Normative Loan of Rs 78.23Cr. shall stand repaid.
- Cumulative depreciation passed in the Tariff Upto FY2028-29 shall be Rs319.49Cr +Rs497.86Cr + Rs78.23Cr = **Rs895.58Cr**.
- Balance Depreciation to be recovered = Rs1075.311Crs(90% of project cost) – Rs895.58Cr(Cumm. Dep. Recovered) = **Rs179.73Cr**.----- (a)

- vi) Cumulative Interest on Govt. Loan of UIHEP not approved by Commission shall stand at **Rs426.64Cr.** ----- (b)
- vii) Cumulative Interest on normative loan not approved by the Commission shall stand at **Rs 154.52Cr.** ----- (c)
- Total liability of UIHEP Loan as on 01.01.2029 will be (a+b+c above) = **Rs760.89Cr**, which has to be recovered between FY 2029-30 to FY2034-35(i.e. the balance life period of the UIHEP, project). This means recovery @Rs126.815Cr has to be made each year starting from FY 2029-30 to FY 2034-35 instead of Rs30.23Cr every year to clear the liability which will result in sharp hike in the tariff to the tune of 50 paise per unit for UIHEP.
 - Hon'ble OERC in Para No. 134 of the Tariff Order for the FY 2010-11 of OHPC has defined the basis of allowing depreciation of UIHEP Investment as follows:
 “x x.....x.. In respect of UIHEP the depreciation is calculated based on straight line method after deducting the cumulative depreciation allowed in ARR till FY 2009-10 from the depreciable value of the project cost. Since the depreciation amount to the extent of Rs 319.49 Crore has already been recovered, this amount has been deducted from the depreciable value of the project cost. The balance amount is divided by remaining life period while calculating depreciation for FY 2010-11.”

As per the above direction the depreciation calculated is as follows:

- i) Original project cost = Rs 1194.79Cr.
- ii) 90% of the Project cost as on 31.03.2009 = Rs 1075.31Cr.
- iii) Cumulative depreciation allowed till 2009-10= Rs 319.49Cr
- iv) Balance depreciation to be recovered(ii – iii) = Rs 755.82Cr.
- v) Balance Life period = 25years.
- vi) Depreciation calculated by OERC (iv / v) = Rs30.23Cr

Thus, Hon'ble Commission has approved only depreciation of UIHEP @Rs 30.23Cr, as per which OHPC shall be able to recover the depreciable value of the project cost over a period of 25 years of the balance life of the project but the accumulated interest on Govt. Loan & Normative Loan of OHPC will remain unrecovered even after the project life.

Therefore, OHPC prays before the Hon'ble OERC to revise the decision taken in Para 131 of Compendium of Tariff Order of OHPC for FY 2013-14 and approve a suitable mechanism for recovery

of Loan Liability & Depreciation(upto 90% of project cost) within the life period of the project i.e. FY2035-36.

In view of the above, in the Tariff proposal for FY 2017-18 OHPC has considered the differential depreciation @Rs 4.61Crs from FY 2010-11 to FY 2016-17 total amounting to Rs32.27Crs(i.e. Rs 4.61Cr X 7); the normal depreciation of Rs 34.84Crs & interest @ 7% amounting to Rs19.42Crs on Govt. Loan for the FY2017-18. OHPC pray before the Commission to allow the above in the FY2017-18.

Thus, OHPC prays before the Hon’ble Commission to approve the following in respect of Govt. loan of UIHEP in the Tariff for the FY 2017-18 so as to maintain a sustainable tariff throughout the useful life period of UIHEP.

Table - 16

1.	Rs 67.11 Crs towards Loan Repayment.
2.	Rs 19.42Crs towards Interest.
3.	Declare the accumulated Interest of Rs 350.57 Crs as on 31.03.2017 on the UIHEP Govt. Loan as the Regulatory Asset.
4.	Pass through of the 1 st Installment (to be decided by the Hon’ble Commission) of the above Regulatory Asset in the tariff of 2017-18.

III) Zero Coupon Bonds (Convertible Bonds):-

- (a) The DoE, Govt. of Odisha vide Notification No. 5843 Dtd. 03.07.2015 has amended the Para 5(iii) of the existing SRO No. 256/96 dtd. 01.04.1996 as under:

“Convertible Bonds worth Rs. 766.2 crores will be issued to State Government. The bonds shall not carry any interest for the first 5 years. Government allowed interest as kept in abeyance upto 2012-13 and OERC assumes extension of the same up to 2014-15. The entire amount of Rs 766.20 crore would be treated as loan and interest @7% shall be charged from financial year 2015-16.”

From the above it is clear that the financial implication of convertible bond of Rs 766.2Crore starts from FY 2015-16. The detail financial implication of this loan of convertible bond is shown below.

Financial Implication:-

- Rs 766.2Cr will be apportioned in the ratio of Revalued Cost of Old Power Stations of OHPC. Such derived apportioned amount of each power house will be considered as separate Govt. Loan for that power house with a recovery period of 15 years as per the

Govt. Schedule of Repayment. The details of apportionment of Rs 766.2Cr is given in the Table below.

- The Equity base shall be on the Revalued Project Cost as on 01.04.1996 plus New Addition from 01.04.1996 onwards and shall be considered for computation of RoE of the individual Power Stations.
 - Between the actual loan repayment and Depreciation calculated @ 2.57% on Revalued Cost + New Capital Addition, whichever is higher shall be considered as Depreciation for the purpose of Tariff computation.
 - As per the decision of the State Govt. communicated to OERC vide their letter no. 2091 dated 11.03.2016, OHPC shall have to pay interest @7% interest on the net value of the Convertible Bond to GoO with effect from the FY 2015-16 onwards.
- (b) **Power Station wise apportionment of Loan on account of Convertible Bond (Rs. Cr.)**
Based on the above amendment Notification of DoE, GoO, OHPC had considered the loan on account of the convertible bond of Rs766.2Crore apportioned to different Old power stations of OHPC as shown in the table- 16 below based on revalued cost as on 01.04.1996 and has considered the power station wise impact of interest & principal of the convertible bond for FY 2015-16 to FY 2017-18 in the present tariff of 2017-18. The detail calculation of repayment of principal & interest of the Convertible Bond is enclosed at *Annexure-9* for the Old Power Stations of OHPC.

Table:-17
Apportionment of convertible bond cost

Name of the Power Stations	Revalued cost of assets as on 01.04.96 (in Crs.)	Unit wise percentage sharing of Revalued Cost (in %)	Unit wise apportionment of convertible bond cost (in Crs.)
a	b	c = (b/1196.80)x100	d = (cx766.20)/100
RHEP	259.01	21.64	165.82
UKHEP	307.96	25.73	197.16
BHEP	334.66	27.96	214.25
HHEP	130.16	10.88	83.33
CHEP	165.01	13.79	105.64
Total	1196.80	100	766.2

Thus, OHPC prays before the Hon'ble Commission to approve the following in respect of Govt. loan of convertible bond in the Tariff for the FY 2017-18.

Table – 18
Repayment of Principal & Interest on convertible bond

Rs in Crs.

Sl. No.	Particulars	<i>Repayment of Principal & Interest on Rs766.2Cr convertible bond form FY 2015-16 to FY 2017-18</i>						TOTAL
		RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	
1.	Principal Repayment	33.164	39.432	42.850	16.666	21.128	Nil	153.24
2.	Interest Repayment	33.661	40.023	43.493	16.916	21.445	Nil	155.538

IV) PFC Loan:

- (a) The PFC loans were obtained in connection with R & M projects of HHEP, Burla and extension project of BHEP, Balimela as shown below.

Table- 19
Status of outstanding PFC loan

Sl. No.	Name of the Units	Outstanding loan as on 01.04.2017	Loan Repayment for FY 2017-18	Interest Repayment for FY2017-18
1.	Unit #3 & #4, Burla	0.00Crs (INR)	0.00 Crs (INR)	0.00Crs
2.	Unit #7 & #8, Balimela	0.00 (USD)	0.00 Crs (INR)	0.00 Crs

OHPC has fully repaid the PFC loan for Unit-3 & 4 of HHEP, Burla by FY 2015-16. The outstanding PFC Loan for Unit-7&8 of BHEP, Balimela was 2120999.73 USD as on 01.04.2016 was repaid during the FY 2016-17. So, there is no liability towards Repayment of Interest & Principal on PFC Loan of Unit-7 & 8 for the FY 2016-17 as this loan is fully repaid.

- (b) **Loss due to FERV & its Reimbursement:** On account of repayment of Principal & Interest in Indian rupees in respect of PFC Loan availed in USD for Unit#7 & Unit#8 of BHEP, Balimela, OHPC has incurred a loss of Rs 17.59Crs towards payment of principal and Rs 1.96Crs towards payment of interest from FY2007-08 to FY 2016-17 due to fluctuation in Dollar to Rupee rate. The total loss amounting Rs 19.55Crs (Principal+ Interest) is due by the end of FY 2016-17, out of which Rs 5.99Cr, Rs 4.20Crs & Rs 3.71Crs have already been approved by the Hon'ble Commission in the tariff of OHPC for the FY 2014-15, FY 2015-16 & FY 2016-17 respectively. Balance Rs 5.65Crs is claimed as FERV reimbursement for FY 2016-17. Hon'ble Commission may approve the

same. The details of claim is annexed at **Annexure-23** as per the direction of Hon'ble OERC in the Tariff order of OHPC for the FY 2012-13 (Ref. Page No. 83, 84; Para No.130 of Compendium of Tariff of OHPC for FY2012-13).

V) **Normative Loan:**

(a) **Normative Loans of different Power Stations due to Additional Capitalisation:-**

Though, 9.8% State Govt. loan has been repaid, the normative loans of the respective units are still pending. The normative loans of CHEP, RHEP & UKHEP is considered @ 9.8% as per Clause No. 4.13 of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014. The normative loan of BHEP, Balimela is considered @ 9.6 % for FY 2017-18 based on PFC interest rate applicable to BHEP. Similarly, the normative loan of HHEP, Burla is considered @ 8.75 % for FY 2017-18 based on PFC interest rate applicable to HHEP, Burla. The Normative loan of UIHEP due to the additional capitalization based on audited accounts of FY 2015-16 is considered @7% being the prevailing rate of interest for State Govt. Loan as per the OERC tariff norms.

(b) **Normative Loan of Rs 53.32Crs of UIHEP:-**

As far as repayment of normative loan of UIHEP amounting to Rs.53.32 Crs is concerned, the Commission in the Para 131 of Compendium of Tariff Order of OHPC for FY 2013-14 has stated that “ **after the total repayment of Govt. loan as approved above, this loan repayment may start at the same rate of Rs.30.23 Crs. each year i.e. beginning with 2026-27. The interest component will be considered after the total repayment of the principal in line with the Govt. loans**”.

Hon'ble Commission has never allowed interest and/or principal of the Normative Loan of Rs 53.32Crs in previous Tariff approvals of OHPC. The accumulated interest calculated upto 31.03.2016 will be Rs 65.24Crore at the prevailing rate of interest of State Govt. Loan @7%.

In case, Hon'ble Commission does not allow the interest on UIHEP Govt. Loan, as well as Principal & Interest of Normative Loan from FY 2017-18 onwards, then the financial burden in respect of UIHEP Loan will be very high as on FY 2026-27 when the generating units of UIHEP will be due for Renovation or Replacement and as such must be at the verge of high Capital Investment. And the combined effect of the deferred interest impact of the Present Govt. Loan & Normative Loan (Principal + Interest) along with the huge Capital investment to be made for Renovation / Replacement towards the fag end shall definitely cost appreciably to the consumers.

Hence, OHPC prays before the Hon'ble Commission to designate the accumulated interest amounting to Rs 65.24 Crs from the FY 2001-02 to FY 2016-17 on Normative Loan of Rs 53.32 Crs as Regulatory Asset and fix suitable installment as pass through in the tariff for the FY 2017-18 in order to reduce the future tariff burden.

Summary of Interest:

Considering the above facts, the interest on outstanding loans payable by OHPC for the FY 2017-18 is given in the table below:-

Table-20
(Statement of Outstanding Loans and Interest there on)

(Rs. in Crs.)			
Sl. No.	Source of Loan	Loan Outstanding as on 01.04.17	Interest on Average Net Loan for the FY 2017-18
1.	State Govt. Loan of UIHEP @7%	311.01	19.42
2.	Normative loan for R&M of Unit 2, CHEP, Chiplima.	1.79	0.11
3.	Normative Loan for R&M of Unit-3, CHEP, Chiplima @10%.	45.97	4.37
4.	Normative loan for Addl. Capitalization FY 2012-13 to FY 2015-16 of CHEP, Chiplima @ 9.8%	2.05	0.17
5.	Normative loan for Unit #4 & Addl. Capitalization FY 2012-13 to FY 2015-16 of Upper Kolab @ 9.8%	1.88	0.15
6.	Normative loan for Addl. Capitalization FY 2012-13 to FY 2015-16 of Balimela @ 9.6%	1.92	0.16
7.	Normative loan for Addl. Capitalization FY 2012-13 to 2015-16 of HHEP @ 8.75%	9.18	0.71
8.	Normative loan for Addl. Capitalization FY 2013-14 to 2015-16 of RHEP, Rengali @ 9.8%	0.97	0.08
9.	Normative loan for Addl. Capitalization FY 2013-14 and FY 2015-16 of UIHEP, Mukhiguda @ 7%	2.44	0.18
10.	Normative loan of UIHEP, Mukhiguda for Rs 53.32Cr @ 7%	53.32	3.73
11.	Normative loan for Unit -1&2 R&M, Rengali	22.12	2.0
12.	Zero Coupon Bond (Convertible 7% Bond)	766.20	155.539
	Total	1218.84	186.61

Abstract of Interest :

The Power Station wise interest on loan and guarantee commission as described above is given below:

Table-21
Interest on loan of different power house of OHPC

(Rs. In Crs)

Sl. No.	Source of loan	Interest on loan for FY 2017-18						TOTAL
		RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	
1.	Normative loan	2.082	0.151	0.159	0.706	0.276	3.909	7.282
2.	Loan of R&M CHEP(#3)	-	-	-	-	4.367	-	4.367
3.	Govt. Loan	-	-	-	-	-	19.422	19.422
4.	Convertible Bond for FY 2017-18	10.45	12.42	13.50	5.250	6.66	-	48.271
5.	Convertible Bond for FY 2015-16 & FY 2016-17	23.21	27.60	30.00	11.666	14.79	-	107.268
Total		35.744	40.174	43.652	17.622	26.088	23.331	186.610

Therefore OHPC prays before the Hon'ble Commission to approve Rs 186.610 in the tariff of OHPC for the FY2017-18 for payment of Interest towards PFC, Govt. Loan, Convertible Bond and Normative Loans of the different Power Stations of OHPC as mentioned in the above table.

C) Depreciation:

(i) 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.

OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014 at Appendix-A has specified rates for calculation of depreciation based on the Capital Cost admitted by the Commission. The rate of depreciation of a hydro electric plant is 5.28%, considering a loan repayment period of 12 years from CoD for a new plant. The remaining depreciable value after 12 years shall be spread over the balance useful life of the assets.

Hon'ble Commission at clause no. 4.21 of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014 has specified for OHPC as follows:

“Provided that for existing plants of OHPC as per the directions of the High Court of Orissa, depreciation will be calculated at pre- 1992 norms notified by Government of India on the book value of the assets.”

OHPC has computed depreciation for the FY 2017-18 @ 2.57% on the Revalued project cost as on 01.04.1996 (excluding de-capitalization) plus additional capitalization w.e.f. 01.04.1996 up to FY 2015-16. The Unit wise depreciation so calculated is compared with the Loan repayment and the amount whichever is higher is considered as depreciation for Tariff computation.

(ii) Depreciation on State Govt. Loan of UIHEP:

State Govt. vide Notification No. 5843 Dtd. 31.03.2015 has validated the amendment made in the Office Order No. 3060 dated 31.03.2015 of the existing SRO No. 256/96 dtd. 01.04.1996.

In view of the above the depreciation on UIHEP Govt. Loan is considered as under:

- The State Govt. investment as loan changed from Rs 497.68Cr to Rs 522.62 Crore as per the amended clause no. 5(ii) of the Govt. Notification No. 5843 dtd. 03.07.2015.
- The repayment period is considered as 15 years starting from FY 2010-11. The annual installment of repayment of UIHEP Govt. loan shall be considered as annual Depreciation @ Rs34.84Cr (522.62/ 15) from FY 2010-11. But, from the FY 2010-11 to FY 2016-17 the actual depreciation @ Rs 30.23Cr. has been allowed by Hon'ble Commission on UIHEP, Govt. Loan.
- Since the differential Depreciation of Rs34.84Cr- Rs 30.23Cr= Rs4.61Cr has not been considered in the previous Tariff orders, thus a total of Rs4.61Cr x 7= Rs32.27Cr is required to be approved and passed through in the ARR of FY2017-18 for necessary payment to the Govt.
- Considering the pass through of the above differential Depreciation of Rs32.27Cr and normal repayment of Rs 34.84Cr towards Govt. Loan, a total of Rs67.11Cr has to be recovered through ARR of FY 2017-18 under depreciation for UIHEP.

- Considering Repayment of loan of Rs67.11Cr the closing balance of UIHEP Govt. Loan will reduce to Rs 243.9 Cr as on 01.04.2018. Accordingly, Depreciation of UIHEP is considered as Rs67.11Cr for the FY 2017-18.

(iii) Depreciation on the State Govt. Loan of Convertible Bond of Rs 766.2Cr:

The DoE, Govt. of Odisha vide Notification No. 5843 Dtd. 03.07.2015 has amended the Para 5(iii) of the existing SRO No. 256/96 dtd. 01.04.1996 as under:

“Convertible Bonds worth Rs. 766.2 crores will be issued to State Government. The bonds shall not carry any interest for the first 5 years. Government allowed interest as kept in abeyance upto 2012-13 and OERC assumes extension of the same up to 2014-15. The entire amount of Rs 766.20 crore would be treated as loan and interest @7% shall be charged from financial year 2015-16.”

In view of the Govt. Notification No. 5843 Dtd. 03.07.2015, OHPC has claimed loan repayment of convertible bond for FY 2015-16 to FY 2017-18 as depreciation for the respective power stations for the Tariff calculation of FY 2017-18, assuming 15years repayment period starting from FY 2015-16.

(iv) Depreciation on the Normative Loan on approved Additional Capitalization & Additional Capitalization of FY 2015-16(Audited):

OHPC has calculated the normative loan repayment of different power stations of OHPC as per the terms approved by Hon’ble OERC. The power station wise detail calculation of principal repayment for the FY 2017-18 in respect of existing Normative Loans are enclosed at *Annexure-8.*

(v) Abstract of Depreciation claim for the FY 2017-18:

Between the actual loan repayment and Depreciation calculated @ 2.57% on Revalued Cost(excluding de-capitalization) + New Capital Addition, whichever is higher shall be considered as Depreciation for the purpose of Tariff computation.

The comparative statement for actual repayment of loans and depreciation @2.57% for the FY 2017-18 as shown in the Table below to arrive at the depreciatiion amount to be claimed in the ARR & Tariff of OHPC for the FY 2017-18.

Table -22
Depreciation Claim for the FY 2017-18

(Rs in Crs.)

Sl. No.	Power Stations	Project Cost	Loan Repayment Amount	Depreciation @ 2.57%	Depreciation Claimed	Remark
1.	RHEP	316.43	36.84	8.13	36.84	Equal to loan Repayment
2.	UKHEP	326.78	40.11	8.40	40.11	Equal to loan Repayment
3.	BHEP	549.88	43.38	14.13	43.38	Equal to loan Repayment
4.	HHEP	340.74	18.90	8.76	18.90	Equal to loan Repayment
5.	CHEP	277.80	27.77	6.63	27.77	Equal to loan Repayment
6.	UIHEP	1198.19	67.77	30.79	67.77	Equal to loan Repayment
Total		3009.81	234.78	75.65	234.78	

OHPC prays before the Hon'ble Commission to approve Rs 234.78 Crs towards Depreciation for the FY 2017-18 for the different Power Stations of OHPC as mentioned in the above table.

D) Operation & Maintenance (O&M) Expenses:

Hon'ble Commission at clause no. 4.28 of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014 under the head Operation and Maintenance Expenses has stipulated as follows:

“O&M norms for the existing plants of OPGC & OHPC will be determined by the commission from time to time.”

Hon'ble OERC in the Tariff approval of O&M Expense of OHPC for the FY 2016-17 had observed the following:

“The Commission has calculated the O&M expenses as per the Generation Tariff Regulations, 2014 and escalation @5.72% is allowed on the previous years approved O&M expenses. On this principle the O&M expenses comes to Rs.316.64 Cr. for FY 2016-17. It has been decided in the tariff order for FY 2015-16 that the DOWR share towards dam maintenance receivable by OHPC is to be deducted from the total O&M expenses of OHPC. Audited accounts for FY 2014-15 indicates that Rs.12.43 crore was received towards dam maintenance expenses from DOWR. The same amount is

deducted from the approved O&M expenses of UIHEP of Rs.74.84 cr. resulting in the net O&M expenses of Rs.62.41 cr. for calculation of ARR of UIHEP for the FY 2016-17. Thus, the Commission after due scrutiny approves total O&M expenses at Rs.315.36 cr. for FY 2016-17 as against the proposal of Rs.317.79 cr. proposed by OHPC.”

Accordingly OHPC for computation of O&M Expense of different power stations of OHPC for the FY 2017-18 has escalated the approved O&M expenses for FY 2016-17 @ 5.72%. Arrear terminal liabilities of Rs.78.01 Cr as on 31/03/2009 claimed over a period of seven years starting from FY 2010-11 has already been approved by Hon’ble OERC upto FY 2016-17 @Rs 11.15Crs. Hence OHPC has made no claim under this Head of Arrear Terminal Liability in the O&M Expense of FY2017-18.

It may be noted here that Hon’ble OERC has deducted an amount of Rs12.43Crs from the O&M Expense of UIHEP, Mukhiguda towards the Dam Maintenance Expense receivable from DoWR for the FY 2016-17. Assuming the same principle OHPC has deducted Rs10.97Crs from the escalated O&M expenses of UIHEP for the FY 2017-18.

The Station-wise O&M expenses proposed by OHPC for FY 2017-18 is presented in the table below:

Table- 23

Statement of O & M Expenses for different power stations of OHPC for FY 2017-18

(Rs. Crs.)

Sl. No.	Particulars	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	CO	Total
1	O & M expenses for FY 2016-17 Approved by OERC.	45.36	34.17	65.01	68.71	15.73	228.98	65.72	21.96	316.66
2	O & M expenses for FY 2017-18 with escalation @ 5.72% over FY 2016-17	47.95	36.12	68.73	72.64	16.63	242.08	69.48	23.22	334.77
3	Corporate Office expenses apportioned to different units under OHPC based on Design Energy	2.15	3.40	4.84	2.80	2.00	15.19	8.03	23.22	
4	Total O & M Expenses for the FY 2017-18	50.10	39.53	73.57	75.44	18.63	257.27	77.50		334.77

Sl. No.	Particulars	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	CO	Total
Less: Amount Received from DoWR.										
5	Less : Income to be received from DOWR towards dam maintenance of UIHEP							(-) 10.97		(-) 10.97
6	Total O&M Expenses for the FY 2017-18.	50.10	39.53	73.57	75.44	18.63	257.27	66.53		323.80

OHPC prays before the Hon'ble Commission to approve Rs 323.80Crs towards O&M Expenses for the FY 2017-18 for the different Power Stations of OHPC as mentioned in the above table.

E) Interest on Working Capital:

Hon'ble Commission at clause no. 4.24 of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014 under the head Interest on working Capital has stipulated the basis for calculation of working capital which shall include the following:

“Receivables equivalent to two months of fixed cost.

Maintenance spares @ 15% of operational and maintenance expenses and Operation and maintenance expenses for one month.”

Further Hon'ble OERC has stipulated the following regarding rate of interest on working capital for OHPC at clause no. 4.26 & 4.27.

“ Provided that for the existing generation plants of OHPC and OPGC the rate of interest on working capital shall be on normative basis and shall be equal to the SBI Base Rate plus 300 basis points as on 1st April of the year for which the application for determination of tariff is being made.

Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken loan for working capital from any outside agency.”

The Reserve Bank of India has issued new guidelines for setting lending rate(on loans) by commercial banks under the name Marginal Cost of Funds based Lending Rate (MCLR). This MCLR will replace the prevailing SBI base rate from April 2016 onwards. The MCLR as on 1st April 2016 of SBI for one year was 9.2%. OHPC has considered the MCLR rate of SBI as on 01.04.2016 instead of SBI Base rate.

Hon'ble Commission may approve the same. The Photo copy is enclosed herewith at **Annexure-24** for reference.

Accordingly, based on the above principles OHPC has calculated the Interest on working Capital of different power stations of OHPC for the FY 2017-18 in the table below:

Table- 24
Interest on Working Capital for FY 2017-18

(Rs. in Crs.)

Sl. No	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
1	Receivables equivalent to two months of fixed cost	27.93	28.27	37.63	24.50	17.42	135.76	35.30	171.06
2	Maintenance spares @ 15% of O&M expenses	7.52	5.93	11.04	11.32	2.80	38.59	9.98	48.57
3	O&M expenses for one month	4.18	3.29	6.13	6.29	1.55	21.44	5.54	26.98
4	Total working capital	39.62	37.49	54.80	42.10	21.77	195.79	50.83	246.61
5	Interest on working capital calculated @ 12.20%	4.834	4.574	6.685	5.137	2.656	23.886	6.201	30.087

OHPC prays before the Hon'ble Commission to approve Rs 30.087 Crs towards Interest on Working Capital for the FY 2017-18 for the different Power Stations of OHPC as mentioned in the above table.

Annual Revenue Requirement (ARR) & Tariff for the FY 2017-18:

Based on the above parameters the power station wise ARR and tariff of OHPC have been calculated for the FY 2017-18 as follows:

The values of ARR along with its different components and the average tariff computed considering the Saleable Design Energy of 5619.24MU for the FY 2017-18 is shown in the table below. The Power Station wise detail calculations are enclosed at (**Annexure-8(xi)**).

Table-25

Station wise ARR and Tariff for the FY 2017-18 considering saleable D.E. of 5619.24 MU

Details expenses	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
Existing Saleable Design Energy (MU)	519.75	823.68	1171.17	677.16	485.10	3676.86	1942.38	5619.24
(Rs. in Crs.)								
Return on Equity	40.053	45.238	58.497	29.921	29.398	203.107	47.965	251.072
Interest on Loan	35.744	40.174	43.652	17.622	26.088	163.279	23.331	186.610
Depreciation	36.845	40.115	43.383	18.898	27.769	167.010	67.775	234.784
O&M Expenses	50.102	39.528	73.567	75.438	18.634	257.269	66.534	323.803
Interest on working capital	4.834	4.574	6.685	5.137	2.656	23.886	6.201	30.087
Total ARR	167.578	169.629	225.784	147.015	104.545	814.551	211.805	1026.356
Average Tariff (p/u)	322.42	205.94	192.79	217.11	215.51	221.53	109.04	182.65

7. APPLICATION FEE & PUBLICATION EXPENSES:

Hon’ble Commission at clause no. 7.9 of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014 under the head Application and Publication Expenses has stipulated the following:

“The application filing fee and the expenses incurred on publication of notices in the application for approval of Tariff, may in discretion of the Commission, be allowed to be recovered by the generating company, directly from the beneficiaries.”

As per the Hon’ble Commission Notification No. 1992 on Dt. 31.08.2009 in the Clause No. 17, the Hon’ble Commission has fixed a fee of Rs. 5, 000/- 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 Only).

In consideration of the above order, OHPC has to deposit application fee of Rs. 25 Lakhs for the FY2017-18. OHPC may be allowed to recover the same amount from GRIDCO. In addition to the above, OHPC has incurred expenses of Rs 0.83896 Lakhs (approx.) on publication of tariff related

matters in the newspaper for the FY 2016-17 against the approved Publication Expenses of Rs 1.00 Lakhs in the FY 2016-17 **Annexure- 25**.

In view of the above, Hon'ble OERC may approve the Application Fee & Publication Expenses for the FY 2017-18 as shown below:

Table- 26
Application Fee & Publication Expenses

(Rs. in Lakhs)

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

Hence the Hon'ble Commission may approve the reimbursement of application fee and publication expenses directly from M/s. GRIDCO for the FY 2017-18 as above.

8) ELECTRICITY DUTY ON AUXILIARY CONSUMPTION:

As per the agreed PPA, the taxes and duties including 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.

In pursuance of Sub-section-I of Section-3 of Orissa Electricity (Duty) Act-1961 and supersession of the notification No.1 RE(ED) 25/2005 dated the 01.06.2006 issued by Govt. of Odisha in the Department of Energy as amended from time to time, the State Govt. specified the rate for which Electricity Duty shall be levied & paid to the State Govt. on the energy consumed. Accordingly, the Rate of Electricity Duty / Unit has been revised from 20 paisa per Unit to 30 paisa per Unit with effect from 1st October 2015 as per the Gazette Notification No. 1387 dtd. 01.01.2015.

Relying on above procedure of reimbursement of ED from GRIDCO & present notification of State Govt., OHPC has proposed the ED on Auxiliary consumption of all Hydro Electric Projects to the tune of Rs 0.852 Cr during the FY 2017-18, as shown in the table below. Hon'ble Commission may approve the same.

Table-27
ED for OHPC Power station for FY 2017-18

(Rs. in Crs)

Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Subtotal	UIHEP	Total
ED on Auxiliary Consumption	0.079	0.125	0.177	0.103	0.074	0.558	0.294	0.852

9) **LICENSE FEE FOR USE OF WATER FOR GENERATION OF ELECTRICITY:**

As per the gazette Notification Dt. 01.10.2010, OHPC has to pay @Rs. 0.01/KWh as Licence Fee on water used for generation of electricity from all Hydro Electric Project to the tune of Rs. 5.676 Crs. based on design energy which is to be reimbursed to OHPC by GRIDCO,

Table – 28

Licence fee for Consumption of water for FY 2017-18

(Rs. in Crs)

Description	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
Licence fee for Consumption of water for generation of electricity	0.525	0.832	1.183	0.684	0.49	1.962	5.676

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 licence fee paid to Govt. of Odisha from GRIDCO.

Hence Hon’ble OERC may approve the total reimbursement of License fee paid to Govt. of Odisha from GRIDCO on actual generation from OHPC Power Stations.

10) **SLDC CHARGES:**

As per OERC (fees & charges of state load dispatch centre and other related matters) regulations, 2010 SLDC has to levy and collect annual charges from the users towards system operation charges and market operation charges. Hon’ble Commission Considering the installed capacity of 1858 MW of OHPC (as submitted by SLDC in its ARR application for FY 2016-17), approved the total SLDC charges of OHPC as Rs.1.53 cr. for the FY 2016-17, which is to be collected by SLDC from OHPC on monthly basis and OHPC has to reimburse the same from GRIDCO. Since OHPC has not received the ARR & fees & charges of SLDC for the FY 2017-18, the previous year fees & charges applicable to OHPC has been escalated @5.72% to arrive at the charges payable by OHPC for the FY 2017-18. Accordingly, Rs. 1.62 Crs. has provisionally been considered as fees & charges of SLDC payable by OHPC **on the approved Installed Capacity of OHPC power Stations for the FY 2017-18 based on the information provided by OHPC under Table-1.**

Hence the Hon’ble Commission may approve Rs 1.62Crs to be reimbursed from GRIDCO by OHPC towards payment of SLDC fees & charges for the FY 2017-18 on the approved Installed Capacity of OHPC power Stations for the FY 2017-18 as under Table-1.

11) ANNUAL REVENUE REQUIREMENT & TARIFF FOR MACHHKUND H.E. (JT.) SCHEME:

Machhkund Hydro Electric Project is a joint scheme of Government of Andhra Pradesh and Government of Odisha with 70% and 30% share with option of Government of Odisha to draw an additional 20% power at a cost of Rs. 0.08 per KWh as per the inter state supplementary agreement in the year 1978 between Government of Andhra Pradesh and Government of Odisha.

The proposed tariff of 55.068 Paise/KWh of Odisha drawl of Machhkund power for FY 2017-18 has been computed on cost reimbursement basis. Provisional O&M Expenses of Rs. 11.973 Crs. for the FY 2015-16 has been escalated @ 6.64% per year to arrive at O & M Expenses of Rs. 13.6156 Crs for FY 2017-18. The power purchase cost comes to Rs. 0.84 Crs. for additional 20% share (105 MU) computed @ 8 p/u. The total expected annual expenditure calculated to be Rs. 14.4556 Cr for FY 2017-18. The cost per unit is 55.068 Paise considering 50% share of design energy of Machhkund i.e. 262.50 MU. The provisional bill towards share of working expenses payable by OHPC for FY 2015-16 is enclosed at ***Annexure- 26.***

Since, all the Units of Machhkund project are almost 60 years old, it has been proposed to go for R&M of all the six units and up-gradation wherever possible taking in to account of the existing water conductor system. Being an inter-state Joint Project between Odisha & Andhra Pradesh, execution of necessary inter-state agreement is under progress for taking up RM & U of all the generating units along with auxiliaries and switchyard system. As per the high level meeting, it has been decided that OHPC shall make payment towards 20% of differential value of present Project Cost of MHEP(Joint) scheme to APGENCO so that, Odisha shall have 50% legitment share and draw 50% of power/ energy generated on real time basis from MHEP. By the way, once the above interstate agreement is signed between the two States, OHPC shall invest around Rs 120Crs towards the 50% share of Odisha for the RM&U of MHEP(Joint) scheme. After Commercial operation of MHEP, the Energy & Capacity Charges billing shall be raised to GRIDCO by OHPC based on the tariff determined by OERC or CERC as applicable.

As stated under sl. no. 03 of this tariff application, it is again to bring to the kind notice of Hon'ble OERC that due to the transmission constraints Odisha is permanently losing the cheap power from MHEP. In case the present deficiency in the evacuation system continues, Odisha shall perpetually fall short of drawing its 50% shareable energy from MHEP. As a result the investment made by OHPC at MHEP cannot be fully recovered as the approved AEC can only be recovered, in case OPTCL is in a position to draw 50% of the Design Energy from MHEP (Joint) scheme. This will result in considerable

loss to OHPC. Also in the process GRIDCO shall have to purchase same amount of costly power from other sources to meet the power requirement of the State, which will ultimately burden the consumers of the State of Odisha.

In view of the above, Hon'ble OERC may issue necessary directives to OPTCL/GRIDCO/SLDC/SOUTHCO so that 50% of the available energy from MHEP can be drawn and supplied to Odisha Grid on real time basis forthwith & report the regular drawl position on daily/monthly/ yearly basis by them to Hon'ble OERC. In view of the above Hon'ble Commission may kindly issue notice to the above organizations and direct them to reply in the Public hearing.

The tariff proposed by OHPC is based on assumption that GRIDCO will draw power up to 50% of D. E. of Machhkund equivalent to 262.50 MU. The projected tariff calculation for the FY 2017-18 is given in the table below:

Table-29

Projected Tariff of Machhkund H.E. (J) Scheme For FY 2017-18

Installed Capacity (MW)	120.00 MW
Odisha share as per Original Agreement (30%)	36.00 MW
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>(Rs. in Crs)</u>
1. O&M Exp. (Odisha share of Provisional O&M Exp. For FY 15-16)	11.973
2. O&M Exp for FY 2017-18 with escalation of 6.64% for 2016-17 & 2017-18	13.6156
3. Power purchase cost of additional 20% above 30% Orissa Share (105MU x 0.08)	0.84
4. Total Annual Expenditure (2 +3)	14.4556
5. Tariff (Paise/Kwh)	55.068
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.	

12) FOREIGN EXCHANGE FLUCTUATION LOSS OF PFC LOAN OF BHEP:-

OHPC had availed a PFC loan of 21210001.4 USD for Unit-7 & Unit-8 of BHEP, having 10 years repayment period, with two instalments of loan repayment per year @ 1060500.07 USD per installment and interest on reducing balance @ 9.60%. The principal repayment and interest payment started from the FY 2007-08.

Due to variation in Foreign Exchange Rate, OHPC has incurred a loss of Rs 1.96 Crs. towards payment of interest and Rs 17.59 Crs. towards principal repayment on the PFC loan of BHEP from FY 2007-08 to the FY 2016-17. As per clause no 7.8 (Recovery of cost of hedging and foreign Exchange Rate Variation) of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014 the recovery of cost of hedging and foreign exchange rate variation shall be made directly by the generating company from the beneficiaries. Hence the Hon'ble Commission may approve the same to be reimbursed by GRIDCO.

It may be noted here that OHPC during FY 2012-13 had applied for fluctuation loss on account of Foreign Exchange Variation towards the PFC Loan of BHEP. Hon'ble Commission had observed that, *"To the extent the generating company is not able to hedge the Foreign Exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible provided it is not attributable to the generating company or its supplier or contractor."*

Accordingly, OHPC has calculated the details of payments of principal and interest on PFC Loan of BHEP for the expansion project of Unit#7 & Unit#8 and is enclosed at **Annexure-27**. Total claim towards FERV claim of PFC Loan of BHEP is Rs 19.55 Crs. (i.e. **Rs 1.96Crs towards interest + Rs 17.59Crs towards principal**) from FY 2007-08 to FY 2016-17. Out of which Hon'ble Commission had approved Rs 5.99; Rs 4.20Crs & Rs3.71Crs for the FY2014-15; FY 2015-16 & FY 2016-17 respectively, total amounting to Rs 13.9Crs. The balance Rs 5.65Cr is to be reimbursed from GRIDCO as FERV claim of PFC loan in FY 2017-18.

So, Hon'ble Commission may approve Rs 5.65Crs to be reimbursed from GRIDCO in the FY2017-18. This amount may be accordingly provided in the ARR of GRIDCO.

13) REIMBURSEMENT OF CONTRIBUTION MADE TO ERPC:

OHPC is contributing towards ERPC establishment fund & ERPC fund from the FY 2006-07 onwards as per their demand note. OHPC had paid Rs15Lakhs towards contribution to ERPC Establishment Fund & Rs01 Lakhs towards contribution to ERPC Fund. Assuming the same claim of ERPC, OHPC had claimed this amount Rs 16.0 Lakhs as a pass through in the tariff for FY 2017-18 to be reimbursed from GRIDCO. Any excess claim (above Rs16.0 Lakhs) made by ERPC for the FY 2017-18 will be claimed as additional reimbursement in the subsequent Tariff year.

Hence, Hon'ble OERC may approve a total reimbursement claim for an amount of Rs 0.16Cr towards ERPC contribution for FY2017-18 from GRIDCO. This amount may be accordingly provided in the ARR of GRIDCO.

14. INCOME TAX

Chapter 4, Clause 4.7 of the Generation Tariff Regulation mandates,

“Income tax of the Generating Company shall be recovered from the beneficiaries. This will exclude income tax on other income streams (income from non-generation and non-transmission business.”

Accordingly OHPC had paid a total of Rs72.649Cr towards income tax for FY 2015-16. OHPC has paid Rs 31.945 Crs on the interest income of Rs 92.3061Cr which is a non-generation business but has paid Rs 40.704Cr on Operational Income of Rs 117.61Cr which is a core business. The audited accounts of OHPC enclosed at **Annexure-14** may please be referred.

Hence, Hon'ble OERC may approve a total reimbursement claim for an amount of Rs 40.704Cr from GRIDCO in the Tariff of OHPC for FY 2016-17 towards Income Tax as per the Audited Accounts of FY2014-15. This amount may be accordingly provided in the ARR of GRIDCO.

15. REIMBURSEMENT OF CONTRIBUTION MADE TO CATCHMENT AREA TREATMENT PLAN (CATP):

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. The brief features of the project are as follows:

- i) The plan implementation period is for 10 years commencing from 2013-14.

- ii) The total approved cost for implementation of this Project is Rs 595.634Cr including institutional cost of Rs 17.57Cr.
- iii) The plan implementation cost shall be met from IWMP mainly and with convergence with other schemes. **The institutional cost of Rs 17.57 Cr shall be met by Odisha Hydro Power Corporation Ltd.**

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 had proposed to consider the Institutional cost of Rs 1.599 Crs as reimbursement for the FY 2015-16 towards CATP contribution.

Based on the proposal of OHPC to approve Rs.4.01 Cr. to be reimbursed from GRIDCO in the FY2015-16, the Commission after due scrutiny has approved Rs.4.01 Cr in the tariff order of OHPC for 2015-16 to be reimbursed from GRIDCO towards contribution made to Catchment Area Treatment Plan.

Total payment made by OHPC for CATP programme till date is Rs 2.9368Crs against the approved amount of Rs 4.01Crs by Hon'ble Commission. OHPC has only claimed the disbursed amount of Rs 2.9368Crs from GRIDCO. OHPC had received an Utilization Certificate of Rs2.53Crs. from OFSDP till 31.03.2016 which is enclosed at *Annexure-27* for reference. Since no requisition has been received from OFSDP for FY 2017-18 therefore OHPC assumes that the tentative expenditure of CATP programme during the FY 2017-18 will be within the approved amount of Rs 4.01Crs. So, OHPC does not claim any further reimbursement under the head CATP for the FY 2017-18 but if any excess payment is made over approved amount of Rs 4.01Cr the same will be reimbursed in the Tariff of OHPC for FY 2018-19.

Details of Reimbursement:

The details of reimbursement claim from GRIDCO towards ED on auxiliary consumption, license fee for use of water for generation of electricity, SLDC charges, Application fee and publication

expenses, ERPC Charges, Fluctuation Loss of PFC Loans of BHEP for FY 2017-18 of OHPC are summarized in the table below:

Table –30
Details of Reimbursement for FY 2017-18

(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	0.684	0.49	1.962	5.676
(b) ED on Auxiliary Consumption	0.079	0.125	0.177	0.103	0.074	0.294	0.852
(c) SLDC charges							1.62
(d) Application fees and publication expenses							0.26
(e) Fluctuation loss of PFC Loan of BHEP			5.65				5.65
(f) ERPC charges							0.16
(g) Income Tax as per Audit Account of FY 2015-16							40.704
Total							54.922

Thus, the Commission may approve the total reimbursement of Rs 54.922 Crs. proposed by OHPC. The above expenditure may be included in GRIDCO's ARR and hence shown as revenue requirement in OHPC filing for FY 2017-18.

TWO PART TARIFF: As per clause no. 4.36 to 4.44 of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014, the annual fixed cost of a power station shall be recovered on monthly basis under Capacity Charge (inclusive of incentives) and Energy Charge to be shared on 50:50 basis.

- a.** The Capacity Charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be

$$\text{Capacity Charge (CC)} = \text{AFC} \times 0.5 \times \text{NDM/NDY} \times (\text{PAFM} / \text{NAPAF}) \text{ (in Rupees)}$$

Where,

AFC = Annual Fixed Cost specified for the year, in Rupees

NAPAF= Normative 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:

$$\text{PAFM} = 10000 \times \frac{\sum_{i=1}^N \text{DC}_i}{\{N \times \text{IC} \times (100 - \text{Aux})\}} \%$$

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.

- b. 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 EC 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}

The actual energy sent out (Ex-bus) is considered as the scheduled energy (Ex-bus) for OHPC Power Stations.

- c. Energy Charge Rate (ECR) in Rupees per KWh on Ex-power plant basis for a hydro generating station shall be determined up to three decimal places based on the following formula.

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

Where, DE = Annual design energy specified for the hydro generating station in MWh, subject to provisions in Clause-(4.41) of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014.

Accordingly, the Annual Capacity Charges (ACC), Annual Energy Charges (AEC) and Energy Charge Rate (ECR) of different power stations of OHPC for the FY 2017-18 is shown below:

Table-31

Proposed Capacity Charge and Energy Charge of OHPC Power Stations for the FY2017-18

Name of the power stations	Annual Fixed Cost (ARR) (Rs. in Crs)	Annual Capacity Charge (ACC) (Rs. in Crs)	Annual Energy Charge (AEC) (Rs. in Crs)	Salable design energy (MU)	Energy Charge Rate (ECR) (in p/u)
RHEP	167.578	83.789	83.789	519.75	161.210
UKHEP	169.629	84.814	84.814	823.68	102.970
BHEP	225.784	112.892	112.892	1171.17	96.393
HHEP	147.015	73.508	73.508	677.16	108.553
CHEP	104.545	52.272	52.272	485.10	107.756
UIHEP	211.805	105.903	105.903	1942.38	54.522

OHPC prays before the Hon'ble Commission to approve the ACC, AEC & ECR of its power stations as indicated in Table-31 for the FY 2017-18.

15) NORMATIVE ANNUAL PLANT AVAILABILITY FACTOR (NAPAF):

As per OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2014, 50% of the Annual Fixed Cost of a generating station is to be recovered through capacity charge.

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-32

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

Hon'ble OERC may approve the NAPAF as shown in the Table above for the different power stations under OHPC for the FY 2017-18.

16) STATUS OF RENOVATION AND MODERNIZATION OF OHPC POWER PLANTS AND APPROVAL OF REVISED SCHEDULE:

Hon'ble OERC accorded in principle approval to carry out the R&M works of Unit 3 of CHEP, Chiplima, Unit 1 to 6 of BHEP, Balimela and Unit 5&6 of HHEP, Burla

at an estimated cost of Rs. 96.5 Crores, Rs.325.96 Crores and Rs.664.76 Crores respectively vide its order Dated 31.03.2014 against Case No. 62/2013, 67/2013 & 68/2013. The schedule approved provisionally by OERC was as follows:

Table-33

R & M Approved by OERC

Power station	Unit	Zero Date	Tentative Date of Commercial Operation	Total duration of Shut down for R&M works
CHEP, Chiplima	3	01.11.2014	30.11.2016	20 months
BHEP, Balimela	1	01.11.2014	30.04.2017	30 months
	2	01.11.2015	30.04.2017	18 months
	3	01.11.2016	30.04.2018	18 months
	4	01.11.2016	30.04.2018	18 months
	5	01.11.2017	30.04.2019	18 months
	6	01.11.2017	30.04.2019	18 months
HHEP, Burla	5	01.11.2014	31.07.2016	21 months
	6	01.11.2015	31.04.2017	18 months

Present Status of Renovation, Mordenisation & Uprating of different Generating Units of OHPC:

A. For R&M of Unit 3 of CHEP, Chiplima

On evaluation of Pre- Qualification Bid ,Techno-Commercial Bid &Price Bid **M/s Voith Hydro Private Limited ,India** was found to be the successful L1 bidder for the R&M works as per the terms and conditions of the tender specification at a price of EURO 96594,USD 781708 & Rs.44.30 Crores plus taxes and duties prevailing on the base date for evaluation i.e. 29.07.2014. The revised estimated project cost of Rs. 65.67 Crores (Exchange rate of one EURO= 70.67 Rupee & one USD= 64.10 Rupees as on dtd. 25.05.2015) considering the offered price of L1 bidder and including IDC and consultancy charges was approved by Board of Directors of OHPC in their 128th meeting held on Dt. 29.07.2015. The R&M works of Unit-3 CHEP, Chiplima has started from 15.10.2015 (zero date) which is the effective date of the contract. The project is likely to be commissioned & commercialized by 15.06.2017. OHPC has considered the revised estimate Project Cost for R&M of Unit-3, CHEP as Rs 65.67Cr which has been approved by BoD, OHPC for Capitalization. Hon'ble Commission may kindly approve the same. However the final adjustment if any in the capitalization of this project cost shall be made in the subsequent Tariff proposal based on audited accounts. The detail of the project cost approved by BoD, OHPC & Bar Chart is furnished at **Annexure-28**.

B. R&M of Units 1 to 6 of BHEP, Balimela

On evaluation of Pre- Qualification Bid ,Techno-Commercial Bid &Price Bid **M/s Bharat Heavy Electricals Limited** was found to be the successful L1 bidder for the R&M works as per the terms and conditions of the tender specification at a price of Rs. 295.00 Crores including taxes and duties as on base date 11.11.2015. The revised estimated project cost of Rs 382.91Crores considering the price of L1 bidder and including IDC and consultancy charges was approved by Board of Directors of OHPC in their 133rd meeting held on Dt. 31.05.2016. The details of Project cost approved by BoD, OHPC & Bar chart is furnished at **Annexure-29**. The zero date of Unit-1 of BHEP, Balimela started from 05.08.2016. In the first phase Unit-1 & 2 will be taken up for R&M works as per the schedule and bar chart of contract.

C. R,M & U of Unit 5&6 of HHEP, Burla

On evaluation of Pre- Qualification Bid ,Techno-Commercial Bid &Price Bid **M/s Voith Hydro Private Limited, India** was found to be the successful L1 bidder for the R&M works as per the terms and conditions of the tender specification at a price of EURO 223730,USD 912074 &Rs.114.27 Crores plus taxes and duties prevailing on the base date for evaluation i.e. 29.07.2014. The revised estimated project cost of Rs. 158.77 Crores (Exchange rate of one EURO= 70.67 Rupee & one USD= 64.10 Rupees as on dtd. 25.05.2015) considering the price of L1 bidder and including IDC and consultancy charges is approved by Board of Directors, OHPC in their meeting held on Dt. 29.07.2015.

After approval of BOD of OHPC, Letter of Award (LOA) was issued to M/s Voith Hydro Pvt. Ltd. on dated 17.08.2015. The contract for the project was signed between OHPC Ltd. and M/s Voith Hydro Pvt. Ltd on dated 16.10.2015 (zero date) which is the Effective date of contract. RM & U work of Unit-6 HHEP, Burla has started from 16.10.2015; Unit-5 of HHEP, Burla has started from 25.10.2016. Since Unit No. 5 & 6 of HHEP are scheduled to be commissioned at the fag end of the FY 2017-18 i.e. during April 2018 & February 2018 respectively, so the capitalization of R&M expenditure shall be made in the Tariff proposal for the FY 2018-19. The details of Project cost approved by BoD, OHPC & Bar chart is furnished at **Annexure-30**.

The complete road map, funding pattern, Plan of action, Zero date and Completion date etc. for Renovation and Modernization of OHPC Power Plants was submitted to Hon'ble OERC vide this office Lr. No. 1412 dated 13.11.2015 for kind perusal of the Hon'ble Commission and the same had also been furnished in the Tariff Application of OHPC for the FY 2016-17.

Meanwhile based upon the outcome of tendering process, the project cost for R&M works of different generating units have been reduced from the estimated project cost as had been determined in the DPR stage and filed (in Case No. 62,67 & 68 of 2013) before OERC for approval. Simultaneously the working schedule and duration of shut down period of individual Units for R&M works have also been changed from the duration of approval mentioned in the Order dated 31.03.2014 of the Hon'ble OERC in Case No.62,67 & 68 of OHPC.

The detailed physical and financial profile of the proposed RM units are as under after finalization of the contracts with successful bidders;

Table-34

Financial profile of the proposed RM units

(Rs. in Lakhs)

Name of the Project /Unit	Estimated Capital cost of R & M (provisionally proposed in the OERC filing)	Estimated Duration of R & M (provisionally proposed in the OERC filing)	Actual Capital cost of R & M (Derived after finalization of Tender)	Actual Duration of R & M (Derived after finalization of Tender)	Remarks
1	2	3	4	5	6
HHEP (Unit-5&6)	32596 Lakhs	30 months	15877 Lakhs	30 months	Project cost reduced by 16719 Lakhs with the same overall time period.
BHEP (Unit-1to6)	66475 Lakhs	54 months	38291 Lakhs	54 months	Project cost reduced by 28184 Lakhs with the same overall time period.
CHEP Unit-3	9650 Lakhs	20 months	6567 Lakhs	20 months	Project cost reduced by 3083 Lakhs with the same overall time period

Although there was a delay in starting the R&M works for the reasons indicated in earlier submissions of OHPC but in the process of International Competitive Bidding the price discovered was reduced considerably as shown in the table above. OHPC had tried its best to keep the Units available up to its zero date although these Units had completed their useful life.

Hence a revised time schedule of the individual generating units along with reduced project cost as per the contract agreement & subsequent approval of OHPC Board are furnished below for kind approval of the Hon'ble OERC.

Table-35

Revised Time scheduled alongwith Reduced Project cost of R & M works

Power station	Unit	Zero Date	Tentative Date of Commercial Operation	Total duration of Shut down for R&M works	Revised Capital Cost of R&M works
CHEP, Chiplima	3	15.10.2015	15.06.2017	20 months	6567 Lakhs
BHEP, Balimela	1	05.08.2016	05.02.2019	30 months	38291 Lakhs
	2	*	05.02.2019	*	
	3	05.08.2018	05.02.2020	18 months	
	4	05.08.2018	05.02.2020	18 months	
	5	05.08.2019	05.02.2021	18 months	
	6	05.08.2019	05.02.2021	18 months	
HHEP, Burla	<u>5</u>	25.10.2016	24.04.2018	16 months	15877 Lakhs
	<u>6</u>	16.10.2015	16.02.2018	28 months	

As already mentioned, out of the above OHPC had considered the Capitalization of Rs6567 Lakhs in the Tariff for FY 2017-18 towards R&M of Unit-3, CHEP which may kindly be approved by the Hon'ble OERC. However the final adjustment if any in the capitalization of this project cost shall be made in the subsequent Tariff proposal based on audited accounts.

N.B- * The Unit-2 is required to be kept under shutdown during R&M works of Unit-1 as the Surge Tank Gate for Unit No-1 & Unit No-2 is common & the Surge tank gate is required to be lowered for safety doing work. Hence, the Zero date for R&M works of Unit-2 will be intimated after finalization of site mobilization by Contractor i.e. M/s BHEL.

Hence OHPC pray before the Hon'ble Commission to approve the revise time schedule along with Capital Cost as shown in the Table above derived after finalization of the Tenders through International Competitive Bidding for taking up the R&M works of different units for Capitalization of the Project Cost of respective Units & computation of PAFM during the period of Shut down.

17. CAPITAL MAINTENANCE WORK OF OHPC POWER STATIONS

(A) **Status On Approved Capital Maintenance Of Different Power Stations of OHPC:-**

The Commission in its order dt. 01.05.2012 in Case No-5 of 2012 has clarified that “ *a generator should not suffer from non- recovery of capacity charges due to capital maintenance of a generating unit which takes around three months and normally taken in each 3 or 5 Years as per the manufactures guidelines.*”

Further the Commission at Para-137 of its order dated 22.03.2014 while passing the ARR and Tariff of the OHPC for FY 2014-15 has mentioned as quoted below:

“However, the capacity of the generating units under Renovation and Modernization shall not be considered in installed capacity while computing the plant availability factor. Further, while computing the plant availability, the capacity of the generating units under capital maintenance requiring maintenance period of more than 45 days may also be deducted from installed capacity after due approval of the Commission.”

Accordingly OHPC in this ARR & Tariff application for FY 2015-16 has sought approval of the Commission to carry out the capital maintenance of the following generating units of its different generating stations.

After scrutiny the Commission while approving the proposals in the Tariff Order for the FY 2015-16 advised OHPC to take up the Capital Maintenance of the generating units which are due for capital maintenance as per the operating manual/manufactures guidelines and also with due approval of OHPC Board. The zero date for taking up the capital maintenance of the generating units should be fixed in consultation with SLDC. However, the capital maintenance of the generating units shall not be taken during rainy season where there is a possibility of spillage of water from the reservoir.”

Based on the above approval of the Hon'ble Commission, OHPC has taken up the capital maintenance of different Units of OHPC in co-ordination with SLDC & GRIDCO. The power station wise status of Capital Maintenance is as follows:

Table: 36

Status of Approved Capital Maintenance work of OHPC

Sl. No	Power Station & Unit under Capital Maintenance	Zero Date (in consultation with SLDC)	Approved Period	Present Status
1.	Unit-1 of HHEP, Burla	18.4.2015	153days	Synchronized to Grid on 14.10.2015 after completion of Capital Maintenance
2.	Unit-1 UKHEP, Bariniput	29.07.2015	181days	Synchronized to Grid on 13.06.2016 after completion of Capital Maintenance
3.	Unit-3 UIHEP, Mukhiguda	23.11.2015	123days	Synchronized to Grid on 01.08.2016 after completion of Capital Maintenance
4.	Unit-2 RHEP, Rengali	Not yet finalized	122days	To be taken up after due planning.
5.	Unit-3 RHEP, Rengali	04.11.2014	46days	Synchronized to Grid on 21.12.2014 after completion of Capital Maintenance
6.	Unit-2 of HHEP, Burla	22.07.2016	198days	Capital Maintenance Under Progress.

(B) Proposal of Capital Maintenance Work to be executed in FY 2017-18:

Capital Maintenance of Unit-IV of UKHEP:

Brief History: It is apprehended that the stones of different sizes are coming from Lower Expansion Gallery of Surge Tank since 2006 entering into the Guide Vanes of Unit-4 Turbine. This had resulted in damage of Guide Vane and Turbine Equipments and shaft vibration of the Unit. Due to bad effect of water conductor system(Non-operation of stop log and intake gates) and Surge shaft (Non-operation of Surge Gates) the removal of boulders/ stones at surge shaft area is not possible at present. Due to damage by stone, replacement of 3 Nos. of Guide Vanes, Shaft sleeves, Bushes, Link plates, Eccentric Pin etc. is required urgently along with Runner welding, Labrynth machining by APHMEL, repair of draft tube, penstock dewatering etc.

Further, in addition to the Capital Maintenance of the Unit, it is also proposed for

replacement of old Governor by microprocessor based Digital Governor which is procured and preserved in the store of UKHEP. During the period of Capital Maintenance, the replacement of Governor, HM panel, Speed sensing device, replacement of defective poles, Stator cleaning work & other works will also be taken up. It is also proposed for overhauling of 102MVA, 11/220KV Generating Transformer of Unit-4 and replacement of old Transformer oil by OEM, M/s. Crompton Greaves Limited. The Transformer is in service since inception of the Project and no major works have been taken so far. Hence it is proposed to carry out the Capital Maintenance of Unit No.-4 of UKHEP at a cost of Rs2.9 Cr.(approx..) within a shutdown period of 185days.

The Capital Maintenance work of Unit No. 04 of UKHEP shall be taken up tentatively from 15th March 2017 to 15th September 2017 during the lean period of generation in consultation with the OEM and zero date shall be finalized in discussion with SLDC for the purpose. The details of works to be carried out and No. of days required for the work and the tentative cost is enclosed at *Annexure-35*.

Hon'ble OERC may kindly approve the proposal of Capital Maintenance of Unit-4 of UKHEP.

18. AUGMENTATION OF STORAGE CAPACITY OF THE SURULIKONDA BARRAGE:

The DoWR, GoO has submitted a proposal to DoE, GoO and requested to intimate OHPC to contribute Rs24.5 Cr for augmentation of storage capacity of Surlikonda Barrage, in the downstream of Balimela Power House. The discharged water from Balimela Power House during generation is stored in the Surlikonda Barrage for irrigation. In order to enhance the storage capacity to support irrigation, the DoWR has framed an estimate for dredging of the Surulikonda Barrage for an estimated amount of Rs24.5 Cr, detail of which is submitted at *Annexure-34*.

On the above proposal of DoWR for Augmentation of the Storage Capacity of Surlikonda Barrage at Balimela, OHPC in its 133rd Board of Director meeting has viewed that since the augmentation of the capacity of Surlikonda Barrage is linked with efficient management of water discharged through generation of Balimela Power House, for the purpose of irrigation in the command area the bearing of the entire cost or sharing of a portion thereof by OHPC needs approval of Hon'ble OERC for recovery through tariff. Accordingly, it was decided in the BoD, OHPC that any payment to be made to DoWR for the above purpose will be subject to approval of Hon'ble OERC. The decision of

the 133rd BoD, OHPC along with all other relevant document are submitted at **Annexure-32** for kind perusal of Hon'ble OERC. In view of the above proposal, the relevant portion of the Order of Hon'ble High Court of Odisha under Para No. 24(ii) in W.P(C) No. 8409 of 2011 between Navanirman Parishad Vrs State of Odisha is submitted at **Annexure-33** for kind perusal of the Hon'ble Commission.

Considering the above, Hon'ble OERC may kindly decide whether contribution of Rs24.5Cr by OHPC to DoWR for the purpose of dredging of Surlikonda Barrage should be a pass through in the ARR and tariff of OHPC. If approved OHPC proposes to recover the disbursed amount of Rs24.5Cr to DoWR as reimbursement in the Tariff of FY2018-19.

PRAYER

OHPC pray before the Hon'ble Commission to kindly approve the following in the ARR & Tariff Order of OHPC Power Stations for the FY 2017-18:

- i) The ARR amounting to Rs 1026.356 Crs. of OHPC Power Stations for the FY 2017-18 at an average tariff @ 182.65 p/u.
- ii) The miscellaneous reimbursement of Rs54.922 Cr by OHPC from GRIDCO.
- iii) The tariff for energy billing to CSPDCL at 196.78 paisa per Kwh considering Upvalued asset of HHEP and the norms of CERC (Terms & Conditions of Tariff) Regulations, 2014.
- iv) Recognizing the following as the Regulatory Asset and taking suitable decision for realization of the same.
 - a) Accumulated interest of UIHEP Govt. Loan from 2006-07 to 2016-17 = Rs.350.57Cr.
 - b) Accumulated interest on Normative Loan of UIHEP from 2001-02 to 2016-17 = Rs.65.24Cr.
 - c) Realization of Rs. 207.70 Crs. towards Hydrology Failure (negative fund for Secondary energy) from FY 1996-97 to FY 2015-16.
- v) Suitable decision in allowing interest on the above recognized Regulatory Asset.
- vi) The fixation of Installed Capacity for computation of PAFM & payment of SLDC charges during the FY 2017-18 as per the information furnished under Table No.1.
- vii) To approve the revise time schedule along with Capital Cost as shown in the Table No.35 derived after finalization of the Tenders through International Competitive Bidding for taking up the R&M works of different units of OHPC.
- viii) Direct OPTCL to strengthen the power system network for evacuation of 50% Odisha share of generation from MHEP (Joint) Scheme. OPTCL, SOUTHCO to ensure drawl of 50% shareable energy from MHEP on real time basis.
- ix) Direct appropriate authorities for optimization of hydro power generation from OHPC power stations utilizing the water potential up to MDDL.
- x) In principle approval for the proposed Capital Maintenance Work of Uni-4 of UKHEP, Bariniput.
- xi) In-principle approval for Augmentation of storage capacity of the Surlikonda barrage through dredging at a cost Rs 24.5 Crs to be paid by OHPC to DOWR, GoO which is to be reimbursed from GRIDCO.

Place : Bhubaneswar

Date :

Deponent