

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 22/TT/2014

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

**Date of Hearing : 06.10.2015
Date of Order : 27.05.2016**

In the matter of:

Determination of fees and charges for fibre optic communication system in lieu of existing Unified Load Despatch and Communication (ULDC) Microwave links (Part II) in Northern Region for tariff block 2009-14 under sub-section 4 of Section 28 & 79(1)(d) of the Electricity Act, 2003 and Regulation-86 of Central Electricity Regulatory Commission (Conduct of business) Regulations, 1999.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001...

...Petitioner

Vs

1. National Thermal Power Corporation (NTPC)
NTPC Bhawan, Core-7, Scope complex
7, Institutional Area, Lodhi Road
New Delhi – 110003
2. National Hydro Power Corporation Ltd. (NHPC)
NHPC Office Complex, Lodhi Road, New Delhi 110003
3. Satluj Jal Vidyut Nigam Limited (SJVN),
Jhakri, Rampur, Distt. Shimla,
Himachal Pradesh 172201
4. THDC India Ltd.,
Bhagirath Puram, Tehri
Uttarakhand – 249001



5. Nuclear Power Corporation of India Ltd.(NPCIL)
Nabhikya Bhawan, Anu-Shakti Nagar
Mumbai – 400094
6. ADHPL
Bhilwara Towers, A-12 Sector-1
NOIDA – 201301
7. Aravali Power Company Private Limited (APCL)
Indira Gandhi Super Thermal Power Project
P.O. Jharli, Distt. Jhajjar
8. Jaypee Karcham Hydro Corporation Ltd. (JKHCL)
Sector -128 NOIDA – 201304
9. Everest Power Pvt. Ltd.
1st Floor, Hall-1, NBCC Tower
Bhikaji Cama Place, New Delhi 110066
10. Shree Cement Ltd.
P.O. Box No. 33, Bangur Nagar
Beawar 305901, Distt. Ajmer, Rajasthan
11. Chandigarh (Electricity Department)
UT Chandigarh, Sector-9, Chandigarh – 160019
12. Delhi Transco Ltd.
Shakti Sadan, Kotla Road (near ITO)
New Delhi
13. Haryana Vidyut Prasaran Nigam Ltd.
Room No. – 2013, Shakti Bhawan, Sector-6
Panchkula – 134109, Haryana
14. Himachal Pradesh State Electricity Board
Totu, Shimla-171 011, Himachal Pradesh
15. Power Development Department
Janipura Grid Station
Jammu (Tawi) 180 007
16. Punjab state Power Corporation Ltd.
Thermal Shed T-1A, Patiala – 147001
17. Vidyut Bhawan, Jyoti Nagar,
Vidyut Marg, Jaipur – 302015, Rajasthan



18. U.P. Power Corporation Ltd.
11th Floor Shakti Bhawan Extn.
14-Ashok Marg, Lucknow – 226001, U.P.
19. Northern Central Railway
Nawab Yusuf Road
Allahabad, U.P.
20. Uttaranchal Power Corporation Ltd.
Kanwli Road Urja Bhawan,
Dehradun – 248001, Uttarakhand
21. Powerlinks Transmission Ltd.
10th Floor, DLF Tower- A
District Centre, Jasola, New Delhi 110044

....Respondents

For petitioner : Shri Jasbir Singh, PGCIL
Shri S.S Raju, PGCIL
Ms. Sangeeta Edwards, PGCIL
Shri Subhash C. Taneja, PGCIL
Shri K.K. Jain, PGCIL
Shri M.M. Mondal, PGCIL

For respondents : Shri Arvind Agrawal, RVPN
Ms. Sheela Mishra, RVPN
Shri R.S. Dahiya, HVPNL
Shri Gaurav Sharma, HVPNL
Shri K. Nayak, NHPC
Shri Jitendra Kumar Jha, NHPC
Shri Rajiv Shankar Dvivedi, NHPC
Shri Vikas Sharma, PDD, J & K

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) under sub-section (4) of Section 28 and Section 79(1)(d) of Electricity Act 2003 for determination of annual fees and charges for 530.621 km of fiber optic communication system in lieu of existing Unified Load Dispatch and Communication (ULDC) Microwave links (Part-II) (hereinafter referred to as "transmission assets") for 2009-14 tariff period.



Brief Background

2. As per the directives of Government of India vide order dated 4.7.2008, Power System Operation Corporation Ltd. (POSOCO), a wholly owned subsidiary of Power Grid Corporation of India Ltd. was created and POSOCO is responsible for system operation of National Load Despatch Centre (NLDC) and Regional Load Despatch Centres (RLDCs). Pursuant to Satnam Singh Committee's report, the assets pertaining to system operations have been transferred to POSOCO for which separate tariff orders had been issued by the Commission.

3. Government of India had also constituted a Task Force to look into the financial aspects for augmentation and up-gradation of the State Load Despatch Centres and issues related to emoluments for the personnel engaged in the system operation. The Task Force made certain recommendations with regard to the ownership of the assets. The petitioner constituted committees at the regional level, subsequent to the Task Force's report, to identify the assets to be transferred to POSOCO. The recommendations of the committees for asset transfer were as under:-

(A) Assets to be transferred to POSOCO:

- (i) EMS/SCADA system (computer system, hardware and software)
- (ii) Auxiliary power supply system comprising of uninterrupted powersupply, diesel generating set etc.
- (iii) Building and civil works.

(B) Assets which will remain with petitioner:

I. Central Portion:

- (i) Fibre Optic Cables (overhead and underground)
- (ii) Fibre Optic Communication Equipment
- (iii) Digital Microwave Communication System (Tower, Antenna, Equipment etc.)
- (iv) PABX
- (v) Power Line Carrier Communication System;
- (vi) Auxiliary power supply system.



II. State Portion: Entire state portion which consists of the following equipment will remain with the petitioner:

- (i) EMS/SCADA system
- (ii) Fibre Optic System
- (iii) Digital Microwave Communication System (Tower, Antenna, Equipment etc.)
- (iv) PABX
- (v) Power Line Carrier Communication System
- (vi) Auxiliary power supply system (part)

4. Thereafter the petitioner filed a Miscellaneous Petition No. 68/2010 under sub-section (4) of Section 28 of Electricity Act 2003 and Regulations 44 "Power to Relax" of the CERC (Terms and Conditions of Tariff) Regulations 2009 for fixation of tariff norms for recovery of cost for the assets ("Communication system" and "Sub-Load Dispatch Centre system") to be retained/to be installed by the petitioner after formation of POSOCO for the period 2009-14 block.

5. The Commission in Petition No. 68/2010 vide order dated 8.12.2011, had observed as under:-

“9.....Since the communication system and SLDC system form part of the assets of the CTU, there is a requirement to specify regulations for determination of tariff of these assets. We direct the staff of the Commission to undertake the exercise separately and include these assets of CTU in the tariff regulations applicable for the next tariff period i.e.2014-19. As regards the tariff of these assets for the period 2009-14, we are not inclined to determine the tariff of these assets by exercising our power to relaxation under Regulation 44 of the 2009 regulations since there is no provision for determination of tariff for the assets covered under the communication system and ULDC system. We are of the view that the tariff of these assets shall be determined under our general power of determination of tariff for inter-State transmission system under section 79(1)(d) of the Act.....”

“.....It clearly emerges from the above judgment that the Central Commission can specify the terms and conditions of tariff even in the absence of the regulations. Since no regulation was specified for determination of tariff of the communication system and the ULDC system, the Commission determined the tariff of these assets during the period 2004-09 on levelised basis by adopting some of the parameters of 2004 tariff regulations. We have decided to continue with the levelised tariff for the existing assets in the absence of any provision in 2009 regulations regarding determination of tariff of communication system and ULDC system of the petitioner. For the new assets, the tariff will be decided as per the regulations for communication systems to be framed. Accordingly we direct the staff of the Commission to take necessary action to prepare draft regulations for determination of tariff for the communication system and ULDC system of the petitioner.”



“21. We have considered the submission of the petitioner and the respondents. We are of the view that replacement of microwave links with fibre optic links should be implemented as agreed by the beneficiaries to ensure safe and reliable operation of the power system. Moreover, the petitioner has submitted that surrender of the microwave frequencies would save substantial cost and the fibre optic system would be beneficial in the long run as the fibre optic communication network is required for implementation of new technologies like Wide Area Measurement System (WAMS), Special Protection Schemes (SPS) etc. in view of fast development and complexity of the power system in the country. As regards the regulatory approval, we are of the view that since the project has been agreed to be implemented by the constituents of each of the regions, regulatory approval is not considered necessary. The petitioner is granted liberty to approach the Commission for determination of tariff for the fibre optic network being installed in lieu of microwave links for each of the region separately. As regards the submission of UPPTCL, it is clarified that if the state portion is not being implemented by it separately as proposed earlier, the same shall be implemented by the petitioner and UPPTCL would be required to share the tariff in proportion to the assets being utilised by it. It is however made clear that the timeline for replacement of the digital microwave by optical fibre should be strictly complied with.”

6. As held in our order dated 8.12.2011 in Petition No.68/2010, we would like to continue with the levelised tariff for the existing assets in the absence of any provision in the 2009 Tariff Regulations regarding determination of tariff of communication system and ULDC system of the petitioner. Accordingly, the annual fees and charges of the optic fibre need to be determined as per the principles approved by the Commission vide order dated 8.12.2011 in Petition No 68/2010.

7. The Investment Approval for the Fibre Optic Communication System in Northern Region in lieu of existing ULDC Microwave links was accorded by Board of Directors of the petitioner company vide letter Reference No. C/CP/Fibre Optic in NR dated 25.3.2010 at an estimated cost of ₹16131 lakh, including IDC of ₹1474 lakh (based on 4th Quarter, 2009 price level). The scheduled completion time of the project was 30 months from the date of investment approval i.e. 24.9.2012.



8. The broad scope of work covered under the project is as follows:-

- “(i) Installation of OPGW fibre optic cable on the existing EHV transmission line of POWERGRID and constituents, the estimated length of such cable is approximately 4488 km.
- (ii) Installation of approximately 18 km underground fibre optic to provide last mile connectivity to the control room where transmission line connectivity is not available. It is also envisaged that portion of the network which involves installation of the underground cable would be provided with radio based communication which operates in free band to back up the underground cable link of the network. Three number of radio links are proposed. Further, in some portions of the proposed network around 14 km of Aerial cable is also required.
- (iii) The terminal equipment for communication based upon Synchronous Digital Hierarchy (SDH) technology shall be installed in the substations of constituents and POWERGRID. The project would also involve installation of primary multiplexers at the new wide band nodes. To monitor the Network, Network Management System (NMS) would also be required.”

9. The details of other assets under the same scheme and corresponding petitions under which they were dealt with are given as under:-



Assets	DOCO	CERC Order /Petition No.
"1099.803 km Fibre optic in lieu of existing Microwave "	01.04.2012	Order dated 01.09.2015 in Petition no.: 240/TT/2013
"1628.966 km Fibre optic in lieu of existing Microwave"	01.01.2013	
"493.064 km Fibre optic in lieu of existing Microwave"	01.04.2013	
"847 km Fibre optic in lieu of existing Microwave"	01.04.2014	139/TT/2014

* 530.621 km optic fibre is covered in the instant petition.

10. Having heard the representatives of the respondents, the petitioner and perused the material on record including the affidavits dated 5.11.2014 and 20.7.2015, we proceed to dispose of the petition.

Capital cost

11. The petitioner vide affidavit dated 20.7.2015 has submitted details of actual expenditure incurred as on the date of commercial operation (COD) and additional capital expenditure incurred/projected to be incurred for the period from COD to 31.3.2014 corresponding to 530.621 km of Fibre Optic Communication System supported by the Auditors' certificate dated 25.5.2015.

12. Based on the information submitted by the petitioner, the gross value of assets as on COD for the purpose of Annual Transmission Charges for 2009-14 period has been considered as under:-

Particulars	530.621 km Optic Fibre (COD : 1.10.2013)	
	Central Portion	State Portion
Expenditure upto COD	418.76	684.12
Additional Capitalisation during 2013-14	105.32	328.03
Sub Total	524.08	1012.15
Total	1536.23	



Time over-run

13. As per the investment approval dated 25.3.2010, the instant asset was to be commissioned within 30 months from the date of investment approval. Accordingly, the scheduled date of completion works out to 25.9.2012. However, the instant asset has been commissioned on 1.10.2013 resulting in time over-run of 12 months.

14. The petitioner has explained the reasons for time over-run as under:

(a) **Delay due to late confirmation by UPPTCL:** Initially UPPTCL did not agree to participate in the above microwave replacement project due to funding reasons as UPPTCL wanted DOT to compensate for the project as Microwave Replacement was necessitated due to vacation of frequency spectrum mandate by DOT. UPPTCL subsequently confirmed its participation in January, 2011 and asked the petitioner to take up the work, i.e. 10 months after the award of the package. Out of 4488km of the OPGW length, UPPTCL's share was 2039 km (almost 45%), thus causing substantial delay to the project.

(b) **Delay due to inclusion of PTCUL:** Initially PTCUL was not part of the Project but was included in the project as per decision of NRPC in the month of September, 2011. Therefore, the process for taking up PTCUL portion of the work was delayed by around 18 months. The OPGW network is a complex network which comprises lines of State Utilities (Constituents) and Central Sector Utilities. There are many lines of central sector viz. Lucknow PG (LILO of UPPTCL Sultanpur-Sarojni Nagar), Rihand HVDC-Rihand, Rihand-Singrauli, Singrauli-Anpara, Allahabad PG-Allahabad



UPPTCL, Roorkee PG-Nara etc, which cannot be made operational unless links of UPPTCL, PTCUL are ready, hence many Central Sector links have also been delayed due to late entry by UPPTCL and PTCUL.

(c) **Delay due to heavy foggy condition:** During the installation of the OPGW, for almost 4 months i.e. from mid December, 2011 to mid February, 2012 and mid December, 2012 to mid February, 2013 were lost due to heavy foggy conditions. As OPGW installation work is carried out in live line condition, it is not safe to work as lines have tripped on many occasions due to failure of T&P on account of fog.

15. We have considered the submissions of the petitioner. As regards the initial refusal of UPPTCL, it has already been dealt by us in order dated 8.12.2011 in Petition No. 68/2010 wherein it was clarified if the state portion was not being implemented by UPPTCL separately, the same would be implemented by the petitioner and UPPTCL would be required to share the tariff in proportion to the assets being utilized by it. It was made clear in the said order that the timeline for replacement of the digital microwave by optical fibre should be strictly complied with.

16. The petitioner has submitted that the foggy conditions in Northern Part of India adversely affected the progress of the work. We are of the view that foggy conditions during winter season are a normal phenomenon in parts of Northern Region. The petitioner has not placed on record any evidence with regard to the severity of foggy conditions which prevented the petitioner or its contractor from carrying out the laying of OPGW work. Therefore, we are not inclined to condone the delay of 12 months in commissioning of the instant asset.



Treatment of IDC and IEDC

17. The petitioner has made claims of ₹26.39 lakh and ₹52.00 lakh towards IDC for Central portion and State portion respectively. The petitioner vide affidavit dated 20.7.2015 has submitted that the total IDC of ₹78.39 lakh has been discharged as on COD i.e. 1.10.2013. However, petitioner has not submitted detailed working of IDC calculations as well as details of IDC paid after COD. Therefore, IDC on cash basis has been considered based on the loans deployed for the assets as per details submitted by the petitioner vide affidavit dated 20.7.2015 assuming that the petitioner has not made any default in the payment of interest. Further, in view of non-condonation of delay of 12 months in the commissioning of the instant asset, IDC for the corresponding period has not been allowed. Thus, IDC upto COD has been considered i.e. ₹20.51 lakh as against ₹26.39 lakh for Central Portion and ₹33.50 lakh as against ₹52.00 lakh for State Portion.

18. Similarly, the petitioner has claimed ₹19.08 lakh and ₹37.53 lakh towards Incidental Expenditure during Construction (IEDC) as on COD for Central portion and State portion respectively. The claim is within the percentage of 10.75% on Hard Cost as indicated in the Abstract Cost Estimate submitted by the petitioner.

19. Thus, the capital cost being allowed in case of Central portion and State portion of OPWG are given as under:-



(₹ in lakh)

Particulars	530.621 km Optic Fibre (DOCO:01.10.2013)	
	Central Portion	State Portion
(1) Expenditure up to DOCO (claimed)	418.76	684.12
(2) IDC Disallowed due to Undischarged Liability and Time Overrun	5.88	18.50
(3) IEDC Disallowed due to Time Overrun	5.45	10.72
(4) Capital Cost as on DOCO (allowable)[1-(2+3)]	407.42	654.89

20. Undischarged liabilities are allowed after the same are discharged. However, as the required information with regard to the IDC/IEDC actually discharged is not available, we are not inclined to allow the amount of IDC/IEDC as claimed by the petitioner. The petitioner is directed to submit the amount of IDC/IEDC paid specific to the transmission asset considered in this petition upto date of commercial operation and balance IDC discharged after date of commercial operation. IDC and IEDC allowed will be reviewed at the time of truing up on submission of adequate and proper information by the petitioner in respect of interest during construction and incidental expenses during construction at the time of truing-up.

Additional Capital Expenditure

21. The petitioner, vide Auditor's Certificate dated 25.5.2015 submitted under affidavit dated 20.7.2015 has claimed the revised additional capitalization of ₹105.32 Lakh for Central Portion and ₹328.03 Lakh for State Portion during 2013-14. These claims have been considered for calculation of fee and charges for these assets.



Debt-Equity Ratio

22. The details of Debt-Equity as on COD and as on 31.3.2014 of the asset, calculated in accordance with Regulation 12 of the CERC (Terms and Conditions of Tariff) Regulations, 2009 are as under:

(₹ in lakh)						
530.621 km Optic Fibre						
Particulars	As on COD			As on 31.3.2014		
	%	Central Portion	State Portion	%	Central Portion	State Portion
Loan	70.00	285.20	458.43	70.00	358.92	688.05
Equity	30.00	122.23	196.47	30.00	153.82	294.88
Total	100.00	407.42	654.89	100.00	512.74	982.92

The additional capitalisation allowed during 2013-14 has been considered in the debt-equity ratio of 70:30.

Rates for Recovery of loan and equity

23. The Commission had approved the recovery of loan and equity based on the weighted average rate of interest and return on equity using a Recovery Factor for loan and equity for 15 years (i.e. 180 months)

$$\text{Recovery Factor} = \frac{i \times (1+i)^n}{(1+i)^n - 1}$$

Where, n = period and
i = rate

It works out to be 9.1775% for loan in respect of the asset for Central Portion as well as State Portion. For the reasons cited at para 30 of Commission's order dated 5.9.2015 in Petition No. 240/TT/2013, the Capital Recovery Factor for equity has been considered on post-tax return on equity of 15.50%.



24. The Commission is of the view that there is a need to review the Capital Recovery Factor methodology applied while determining fee and charges for Communication system. Accordingly, Commission directs the staff to examine the issue and submit to the Commission for appropriate directions.

Monthly Capital Recovery Charges: -

25. Monthly Recovery factors, as on DOCO, for Central Portion as well as State Portion for the asset have been arrived as:

(₹ in lakh)

Particulars	530.621 km Optic Fibre	
	Central Portion	State Portion
Loan	0.010249	0.010249
Equity	0.014340	0.014340
Total	0.024589	0.024589

26. Monthly Capital recovery charges, as on COD, for Central Portion as well as State Portion for the asset are worked out as follows:-

(₹ in lakh)

Particulars	530.621 km Optic Fibre	
	Central Portion	State Portion
Loan	2.92	4.70
Equity	1.75	2.82
Total	4.68	7.52

Operation & Maintenance Expenses (O&M Expenses)

27. The petitioner, vide affidavit dated 20.7.2015, has claimed O&M charges @ 7.5% of the capital cost for 2013-14 period for the central portion of the asset, subject to actual expenditure at the time of truing up. However, the petitioner has not claimed any O&M charges for the State portion. The petitioner's claim is based on the normalized actual O&M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at norms for the tariff period



2009-14. Accordingly, O&M Expenses are allowed for the Central portion only in the instant asset subject to truing up with actual expenditure.

28. The petitioner has further submitted that the wage revision of employees has been implemented since 1.1.2007 and the actual impact of wage hike has not been factored in fixation of the normative O&M rates specified for the tariff block 2009-14. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses due to impact of wage revision, if any. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms.

Interest on working capital

29. In accordance with Regulation 18(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, SBI Base Rate Plus 350 bps as on 1.4.2013 (i.e. 13.20%) has been considered as the rate of interest on working capital for the asset for Central Portion as well as State Portion.

Filing fee

30. The petitioner has sought reimbursement of filing fee paid by it. The petitioner has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of the 2009 Tariff Regulations. The petitioner shall recover



the filing fee in connection with the present petition, directly from the beneficiaries on pro-rata basis.

Service tax

31. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. The petitioner has clarified that if notifications regarding granting of exemption to transmission service are withdrawn at a later date, the beneficiaries shall have to share the service tax paid by the petitioner. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Annual Fees and Charges

32. The fees and charges for Fiber Optic Communication system allowed in this order shall be shared on similar lines as system operation charges by the users in the ratio of 45:45:10 as per Regulation 22 (1) of the Central Electricity Regulatory Commission (Fees and charges of Regional Load Despatch Centre and other related matters) Regulations, 2009 as under:-

- (a) Distribution licensees and buyers : 45% of system operation charges;
- (b) Generating stations and sellers : 45% of system operation charges;
- (c) Inter-state Transmission licensees: 10% of system operation charges."

33. The fees and charges allowed for the instant assets for the year 2013-14 are given in Annexure-I.

34. The fees and charges for state sector shall be recovered from respective States. Further, as specified under Regulation 5 of Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of transmission assets for



other business) Regulations, 2007, the revenue earned by the petitioner from utilization of these assets for other business shall be adjusted on monthly basis in the bills of the respective month in the proportion given in Para 31 above.

35. This order disposes of Petition No. 22/TT/2014.

sd/-
(Dr. M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson



Annexure – I

**Central Portion - Charges
(2009-14)**

(₹ in lakh)

**State Portion - Charges
(2009-14)**

(₹ in lakh)

Particulars
Gross Capital Cost
Gross Notional Loan
Gross Equity
Years
Months
Weighted Average Rate of Interest p.a.
Weighted Average Rate of Interest p.m.
Monthly Recovery Factors - Loan
Monthly Capital Recovery Charge - Loan
Annual Capital Recovery Charge - Loan
Rate of Return on Equity p.a. (As per Regulation 2009)
Rate of Return on Equity p.m.
Monthly Recovery Factors - Equity
Monthly Capital Recovery Charge - Equity
Annual Capital Recovery Charge - Equity
Monthly Capital Recovery Charge - Total
Annual Capital Recovery Charge - Total

On Capital expenditure upto COD i.e.01.04.2013	2013-14
407.42	105.32
285.20	73.72
122.23	31.60
407.42	105.32
15.00000	14.50000
180.00	174.00
9.1775%	9.1775%
0.7648%	0.7648%
0.010249	0.010414
2.92	0.77
35.07	9.21
15.50%	15.50%
1.29%	1.29%
0.014340	0.014468
1.75	0.46
21.03	5.49
4.68	1.22
56.11	14.70

On Capital expenditure upto DOCO i.e.01.04.2013	2013-14
654.89	328.03
458.43	229.62
196.47	98.41
654.89	328.03
15.00000	14.50000
180.00	174.00
9.1775%	9.1775%
0.7648%	0.7648%
0.010249	0.010414
4.70	2.39
56.38	28.70
15.50%	15.50%
1.29%	1.29%
0.014340	0.014468
2.82	1.42
33.81	17.08
7.52	3.82
90.19	45.78

**Total Fee & Charges
(Annualized):**

Particular
Annual Capital Recovery Charge - Loan
Annual Capital Recovery Charge - Equity
Annual Capital Recovery Charge - Total
O&M Expenses
Interest on Working

2013-14
35.07
21.03
56.11
0.00
1.26

2013-14
56.38
33.81
90.19
0.00
2.03



Capital[†]				
Total Fee & Charges (Annualized)		57.37		92.22

Interest on Working Capital (Annualized)

Particular	2013-14	2013-14
Maintenance Spares	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00
Receivables	9.56	15.37
Total	9.56	15.37
Rate of Interest on Working Capital (SBI Base rate as on 01.04.2013 plus 350 points)	13.20%	13.20%
Total Interest on Working Capital (Annualized)	1.26	2.03

Allowable Fee & Charges (2009-14)

Particulars	2013-14	2013-14
Annual Capital Recovery Charge - Loan	17.54	28.19
Annual Capital Recovery Charge - Equity	10.52	16.90
Annual Capital Recovery Charge - Total	28.05	45.09
O&M Expenses	0.00	0.00
Interest on Working Capital[†]	0.63	1.01
Total Allowable Fee & Charges (2009-14)	28.68	46.11

Note: Additional Capitalisation after date of commercial operation shall be considered in the next period (As per prevailing practice in respect of ULDC petitions).



Weighted Average Rate of Interest on COD (for 2009-14)

(₹in lakh)

Loan	Amount of Loan as on DOCO	Rate of interest	Interest	Weighted Average Rate of Interest
XXXII	60.00	8.84%	5.30	
XXXIV	45.00	8.84%	3.98	
XXXV	100.00	9.64%	9.64	
XXXVI	75.00	9.35%	7.01	
XXXVII	35.00	9.25%	3.24	
XXXVIII	100.00	9.25%	9.25	
XL	197.02	9.30%	18.32	
XLI	55.00	8.85%	4.87	
XLII	105.00	8.80%	9.24	
Total Loan	772.02		70.85	9.1775%

