

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 91/2010

**Coram: Dr. Pramod Deo, Chairperson
Shri S.Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Hearing: 29.7.2010

Date of Order: 11.3.2011

In the matter of:

Approval under subsection (4) of section 28 of Electricity Act 2003 read with regulation 4 of Central Electricity Regulatory Commission (fees and charges of Regional Load Despatch Centre and other related matters) Regulations 2009 for NRLDC Charges (POSOCO Portion) for the control period 1.4.2009 to 31.3.2014

And

In the matter of:

Power Grid Corporation of India Ltd

.....Petitioner

Vs

NRLDC

Users under the category of Distribution Licensees and Buyers

1. CMD, UPPCL, Uttar Pradesh Power Corporation Limited, Shakti Bhawan, 14-Ashok Marg, Lucknow-226001
2. Principal Secretary, Government of J&K, Civil secretariat, Srinagar,J&K.
3. CMD, Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur-302005
4. Chairman, Punjab State Electricity Board, The Mall, Patiala-147 001
5. Managing Director, Haryana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula-134109.
6. CMD, Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi-110 002
7. Chairman, Himachal Pradesh State Electricity Board, Kumar House, Vidyut Bhawan, Shimla-171004
8. Managing Director, Power Transmission Corporation of Uttarakhand Limited, 7-B, Lane No-1, Vasant Vihar Enclave, Dehradun - 248 001.



9. Chief Engineer, Electricity Department, UT Chandigarh, Sector 9-D, UT Chandigarh-160019
10. Chief Electrical Engineer, North Central Railway, GM Office Building, Allahabad, UP.
11. Executive Director, NRTS-I, Power grid Corporation of India Ltd., B-9, Qutab Institutional Area, New Delhi-110016

(B) Users under the category of Generating Stations and Sellers

1. General Manager, Singrauli Super Thermal Power Station, Shakti Nagar, UP-231222
2. General Manager, Rihand Super Thermal Power Station-I, Rihand Nagar, UP-231223
3. General Manager, Rihand Super Thermal Power Station-II, Rihand Nagar, UP-231223
4. General Manager, Dadri National Capital Power Project, Dadri Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008
5. General Manager, Firoz Gandhi Unchahar Thermal Power Project-I, Unchahar, Distt. Raibareilly, UP
6. General Manager, Firoz Gandhi Unchahar Thermal Power Project-II, Unchahar,, Distt. Raibareilly, UP
7. General Manager, Firoz Gandhi Unchahar Thermal Power Project-III, Unchahar, Distt. Raibareilly, UP
8. General Manager, Dadri Gas Power Project, Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008
9. General Manager, Auraiya Gas Power Project(Gas Fired, RLNG Fired, Liquid Fired), Dibiyapur, Distt Etawah, UP-206244
10. General Manager, Anta Gas Power Project (Gas Fired, RLNG Fired, Liquid Fired), Distt. Baran, Rajasthan-325209
11. Station Director, Narora Atomic Power Station, Narora, Distt. Bulandshahar, UP-202389
12. Station Director, Rajasthan Atomic Power Station-B, Anu Shakti Vihar, Kota, Rajasthan-323303
13. General Manager, Bairasiul Hydro Electric Project, NHPC Ltd., Surangini, Distt. Chamba, HP-176317
14. General Manager, Salal Hydro Electric Project, NHPC Ltd, Jyotipuram, Distt. Udhampur, J&K-182312
15. General Manager, Tanakpur Hydro Electric Project, NHPC Ltd., Banbassa, Distt. Champawa, Uttrakhand-262310
16. General Manager, Chamera-I Hydro Electric Project, NHPC Ltd., Khairi, Distt. Chamba, HP-176310
17. General Manager, Uri Hydro Electric Project, NHPC Ltd., Mohra, Distt. Baramulla, J&K-193122

18. General Manager, Chamera-II Hydro Electric Project, NHPC Ltd., Karian, Distt. Chamba, HP-176310
19. General Manager, Dhauliganga Hydro Electric Project, NHPC Ltd., Tapovan, Dharchula, Pithoragarh, Uttrakhand-262545
20. General Manager, Dulhasti Hydro Electric Project, NHPC Ltd., Chenab Nagar, Distt. Kishtwar, J&K-182206
21. General Manager, Satluj Jal Vidyut Nigam Ltd. Power Project, Jhakri, Rampur, Distt. Shimla, HP-172201
22. General Manager, Tehri Hydro Development Corporation Ltd., Pragatipuram, Rishikesh, Uttrakhand-249201

(C) Users under the category of Inter State Transmission Licensees

1. Executive Director, NRTS-I, Power Grid Corporation of India Ltd., B-9, Qutab Institutional Area, New Delhi-110016
2. Director, Operations , Powerlinks Transmission Ltd., 10th Floor, DLF Tower-A, District Centre, Jasola, New Delhi-110044

... Respondents

The following were present:

1. Shri S.K. Soonee, CEO, POSOCO
2. Shri U.K. Tyagi, PGCIL
3. Shri N.S. Sodha, PGCIL
4. Shri Sunil Kumar, PGCIL
5. Shri M.M. Mondal, PGCIL
6. Shri Prashant Sharma, PGCIL
7. Shri R.K. Gupta, PGCIL
8. Shri Mahesh Kumar, PGCIL
9. Shri S.S. Raju, PGCIL
10. Shri V.V. Sharma, NLDC
11. Shri Debasis DE. NRLDC
12. Shri V.K. Agarwal, NRLDC
13. Shri D.P. Thakur, NRLDC
14. Shri M.L. Jadav, NPCIL
15. Shri P.K. Panchal, HPPC
16. Shri V.K. Padha, NTPC
17. Shri S.K. Meena, NHPC
18. Shri S.M. Siddiqui, THDC
19. Shri S.N. Singh, UPPCL

ORDER

This petition has been filed by Power Grid Corporation of India Ltd. on behalf of the Power System Operation Corporation Ltd. (POSOCO) for approval of the charges of Northern Regional Load Despatch Centre for the control period 1.4.2009 to 31.3.2014 under Sub-section (4) of Section 28 of Electricity Act 2003 (hereinafter referred to as "the Act") read with Regulation 4 of Central Electricity Regulatory Commission (fees and charges of Regional Load Despatch Centre and other related matters) Regulations 2009 (hereinafter referred to as "the RLDC fees regulations"). The petitioner has sought the following reliefs:

- (a) Approve the charges for NRLDC for the control period 2009-14 as per para 9 of the petition.
- (b) Approve the CAPEX
- (c) Allow the petitioner to bill and adjust impact of interest on loan due to change in interest rate on account of floating rate of interest applicable during 2009-14, if any.
- (d) Allow the petitioner to bill and recover Service Tax on RLDC charges separately from the respondents, if petitioner is subjected to such service tax.
- (e) Allow the petitioner to bill and adjust impact on HR expenses due to revision of pay in case of non-executives with effect from 1.1.2007 during 2009-14 period, if any, from the respondents.
- (f) Allow the petitioner to bill and adjust impact on transfer of building/part of building where NRLDC and other associated facilities are located



- (g) Approve the reimbursement of expenditure towards publishing of notices in Newspapers and other expenditure (if any) in relation to the filing of petition.
- (h) Allow Power Grid on behalf of POSOCO to raise bills and receive payments for NRLDC and allow POSOCO to raise bills and receive payments on commencement of business of POSOCO.
- (i) Allow petitioner to bill and recover Pre-incorporation expenses of POSOCO as one time charges from the users.
- (j) Pass such other order as the Hon'ble Commission deems fit and appropriate in these circumstances of the case and in the interest of justice.

2. POSOCO is a wholly owned subsidiary of Power Grid Corporation of India Ltd., the petitioner herein. POSOCO has been created as per the directives of Government of India as contained in letter No-41/20/2005-PG dated 4.7.2008 for independent system operation of the National Load Despatch Centre (NLDC) and Regional Load Despatch Centres (RLDCs). As per the said letter dated 4.7.2008, POSOCO shall discharge the following functions:

- (a) To supervise and control, all aspects concerning operations and manpower requirement of RLDCs and NLDC. All the employees and executives working with RLDCs and NLDC will be from the cadres of POSOCO.
- (b) To act as the apex organization for human resource requirement of NLDC and RLDCs,

- (c) To ensure planning and implementation of infrastructure required for smooth operation and development of NLDC and RLDCs,
- (d) To coordinate the functioning of NLDC and RLDCs,
- (e) To advise and assist state level Load Despatch Centres including specialized training etc.
- (f) To perform any other function entrusted to it by the Ministry of Power.

3. Section 27 of the Act provides that the Central Govt. shall establish a centre for each region to be known as Regional Load Despatch Centre having territorial jurisdiction as determined by the Central Govt. for the purposes of exercising the powers and discharging the functions under the Act. The RLDCs shall be operated by a Government company or authority or corporation established or constituted by or under any Central Act as may be notified by the Commission. Section 28 of the Act deals with the functions of the Regional Load Despatch Centre which is extracted as under:

“Section 28. (Functions of Regional Load Despatch Centre): --- (1) The Regional Load Despatch Centre shall be the apex body to ensure integrated operation of the power system in the concerned region.

(2) The Regional Load Despatch Centre shall comply with such principles, guidelines and methodologies in respect of the wheeling and optimum scheduling and despatch of electricity as the Central Commission may specify in the Grid Code.

(3) The Regional Load Despatch Centre shall –

(a) be responsible for optimum scheduling and despatch of electricity within the region, in accordance with the contracts entered into with the licensees or the generating companies operating in the region;

(b) monitor grid operations;

(c) keep accounts of quantity of electricity transmitted through the regional grid;

(d) exercise supervision and control over the inter-State transmission system; and

(e) be responsible for carrying out real time operations for grid control and despatch of electricity within the region through secure and economic operation of the regional grid in accordance with the Grid Standards and the Grid Code.

(4) The Regional Load Despatch Centre may levy and collect such fee and charges from the generating companies or licensees engaged in inter-State transmission of electricity as may be specified by the Central Commission."

4. Northern Regional Load Despatch Centre(NRLDC) is the apex body to ensure integrated operation of the Northern Regional Power System and is empowered to give such directions and exercise such supervision and control as may be required for ensuring integrated grid operation and shall, inter-alia, be responsible for carrying out real time operations for grid control and despatch of electricity over inter-regional links in accordance with the Grid Standards and the Grid Code.

5. Establishment of RLDCs and SLDCs was taken up by the petitioner as a unified project under the Unified Load Despatch and Communication (ULDC) project. Under this project Remote Terminal Units (RTUs) and associated equipment were installed at the substations, hardware and software systems were installed at control centres. Communication network system was laid for data/speech communication between substations and control centres. The ULDC scheme of NRLDC was declared under commercial operation with effect from 1.8.2002 at a total cost of ₹ 57134 lakh out of which the central sector portion was ₹ 26031 lakh.

6. The scope of work under ULDC scheme was as under:

(a) Establishment of Control Centres at Regional and State level for Supervisory Control and Data Acquisition (SCADA) and Energy

Management System (EMS) which includes Regional System Coordination Centre (RSCC), Central Project Coordination Centre and State Load Despatch Centres and sub LDCs.

- (b) Remote Terminal Units (RTUs) at various 400 kV/220 kV/132 kV substations and generating stations.
- (c) Adaptation work at substation and generating stations to meet the requirement of data acquisition through RTUs.
- (d) Associated dedicated communication network comprising fibre optic, microwave and PLCC terminals for state and central sector.
- (e) Auxiliary power supply system comprising Uninterrupted Power Supply (UPS) and 48 V DC power supply are provided at all the control centres at some wideband locations including control centres for communication equipment.
- (f) Other infrastructural facilities such as air-conditioning, fire-fighting, construction/renovation of buildings, etc.

7. Tariff for the NR-ULDC for the period up to 31.3.2009 was approved by the Commission vide its order dated 9.5.2006 in Petition No.139/2005 which were subsequently revised vide order dated 11.4.2008 in Review Petition No.133/2006 and order dated 29.1.2009 in IA No. 11/2008 in Petition No. 139/2005. The petitioner has submitted that the SCADA/EMS system commissioned at the time of commissioning was considered to be having life of 15 years. However, in view of the fast changing power sector scenario in India, implementation of ABT and fast obsolescence of technology has

resulted in shorter life span of the SCADA/EMS system installed under the ULDC scheme. It has been further submitted that Government of India constituted a Task Force under the chairmanship of Shri Satnam Singh, CMD, Power Finance Corporation of India Limited to look into the financial aspects of augmentation and up-gradation of Load Despatch Centre and issues related to emoluments for personnel engaged in System Operation. The recommendations of the Task Force regarding ownership of ULDC assets are as under:

- (a) Ownership of new RTUs should rest with the entities in whose premises these RTUs would be located. Regarding ownership of existing as well as work-in-progress RTUS in central sector stations and state sector stations, these could rest with the CTU and STUs/SEBs respectively as per the prevailing arrangement. However, in due course of time, modalities for their transfer to actual entities can be planned by mutual consent.
- (b) The responsibility of owning and providing the communication system from substation to the nearest control centre as well as between control centres should continue to be that of CTU or STUs/SEBs. However, in case of any special requirements, the LDCs can assess, plan and take on lease such communication system from other telecom service providers also.
- (c) The computer system along with software and peripherals located in the control centre building of NLDC/RLDCs and SLDC/Sub-LDCs should be transferred to respective entities managing these LDCs.

8. The petitioner has further submitted that the Task Force also recommended a life span of 5 to 7 years for the system in operation and 3 years for normal IT systems. Since the present system is under Annual Maintenance Contract with the Original Equipment Manufacturer up to September 2012, it would be just possible, to meet the grid operation requirement upto 2011 with some up-gradations in the present system and some optimization in terms of resources, and beyond that, the present system would have to undergo major up-gradation/replacement.

9. The petitioner has submitted that in line with the recommendations of the Task Force, the control centre at the regional level (RSCC) with SCADA and EMS functions alongwith the associated power supply, air conditioning and other infrastructure facilities would be transferred to the RLDC for discharging its statutory functions out of the scope of ULDC. For identifying the assets to be transferred, committees comprising the members of Central Transmission Utility and RLDCs were constituted and based on the report of these committees, the assets for transfer to POSOCO(NLDC and RLDCs) were identified and book values of the assets (gross block and net block) as on 31.3.2009 were finalized. The Board of Power Grid in its 235th meeting held on 15.4.2010 approved the book value of the assets to be transferred to POSOCO as on 1.4.2009 and it was also decided that book value of assets on 31.3.2009 would be further updated to 31.3.2010 before proceeding with the actual transfer to be effected from 1.4.2010. The petitioner has further submitted that separate accounts are being maintained as per the RLDC fees regulations based on the assets value as on 1.4.2009. Accordingly, the

petition has been filed for approval of fees and charges of NRLDC for the control period from 1.4.2009 to 31.3.2014. The petitioner has placed on record a copy of the certificate dated 5.5.2010 from the Chartered Accountant showing the segregation of assets and opening capital cost of assets in NR-ULDC as on 1.4.2009 for transfer to POSOCO(NRLDC) which is placed as Annexure-II to the Affidavit dated 28.5.2010.

10. The petitioner has claimed the following fees and charges:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	3537.59	3248.37	630.57	967.86	946.73
Interest on Loan	142.26	40.54	6.12	9.69	3.10
Return on equity	392.80	418.34	490.96	580.51	650.46
Interest on Working Capital	190.84	200.28	160.65	184.30	197.39
O & M Expenses Excluding Human Resource Expenses	1376.03	1450.51	1534.24	1630.48	1729.48
Human Resouce Expenses	1229.53	1456.42	1635.18	1835.14	2067.04
NLDC Charges	783.65	1027.87	1217.32	1390.76	1450.29
Total	7652.70	7842.33	5675.04	6598.74	7044.49

11. The petitioner has submitted the following details in support of its claim for interest on working capital:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
NLDC Charges	65.30	85.66	101.44	115.90	120.86
O & M Expenses Excluding Human Resource Expenses	114.67	120.88	127.85	135.87	144.12
Human Resouce Expenses	102.46	121.37	136.26	152.93	172.25
Receivables	1275.45	1307.05	945.84	1099.79	1174.08
Total	1557.89	1634.95	1311.40	1504.49	1611.32
Interest	190.84	200.28	160.65	184.30	197.39
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%

12. Replies to the petition have been filed by Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RRVPL) and Uttar Pradesh Power Corporation Ltd.

(UPPCL). RRVPNL has submitted that the claim of the petitioner is fully justified and within the ambit of law. UPPCL in its reply has submitted as under:

- (a) The date of transfer of assets has not been given by the petitioner, and therefore determination of charges for the period 1.4.2009 to 31.3.2014 would be premature at this stage.
- (b) Base rate of RoE has been taken as 16% as against 15.5% in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009. Though POSOCO has been calculating Return on Equity after considering MAT rate, in case of assets transferred to POSOCO, corporate tax of 33.99% has been considered which needs to be explained by the petitioner.
- (c) The petitioner has taken the rate of depreciation of SCADA software as 30%, SCADA hardware as 15% and IT equipment as 15%. The petitioner needs to explain whether these rates have been approved by the Commission.
- (d) Petitioner's prayer to adopt floating rates of interest is not tenable since no floating rate of interest has been contracted and CERC(Terms and Conditions of Tariff) Regulations, 2009 do not provide for the same.
- (e) There is no justification for escalation of HR expenditure since in the light of the Commission's order dated 11.2.2010 in Petition No.262/2009, base norms of 2007-08 has already been escalated

@ 5.72% per annum to reach 2009-10 price level which has further been escalated for subsequent years up to 2014 @5.72%.

The above objections have been considered in relevant parts of the order.

13. Having heard the representatives of the parties and examined the material on records, we proceed to dispose of the petition.

14. Considering the fact that the separation of POSOCO from PGCIL is in transition, we have decided that charges of POSOCO i.e. NLDC and RLDCs for the control period 2009-14 shall be determined by the Commission based on the petitions filed in accordance with the provisions of Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009. However, PGCIL shall bill the beneficiaries/users of Northern Region upto the date of transfer of assets to POSOCO (NRLDC) and after the transfer, billing shall be made on the beneficiaries/users by NRLDC.

CAPITAL COST

15. Regulation 6 of the RLDC fees regulations provides as under:

“(1) Capital cost for a Regional Load Despatch Centre shall include the expenditure incurred or projected to be incurred during the control period, including Interest During Construction (IDC) and financing charges, any gain or loss on account of Foreign Exchange Rate Variation (FERV) during construction, and Incidental Expenditure During Construction (IEDC) in line with the CAPEX plan:

Provided that the value of the assets not in use shall not form part of capital cost.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of charges:

Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, IDC, IEDC, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission:

Provided further that the capital cost appearing in the books of accounts of the Power System Operation Company for the respective Regional Load Dispatch Centre and National Load Dispatch Centre as on the date of transfer along with the approved CAPEX plan for the control period shall be the basis for determination of charges.”

16. The petitioner has submitted Auditor's certificate dated 5.5.2010 in support of its claim of capital cost as on 1.4.2009 amounting to ₹ 12615.41 lakh. The same has been considered for the purpose of calculation of fees and charges for the control period 2009-14.

17. Auditor's certificate dated 5.5.2010 shows an amount of ₹ 52.95 lakh against RTUs. However, in Form 6B, asset shown against the said amount of ₹ 52.95 lakh is Auxiliary Power Supply. The petitioner vide affidavit dated 31.3.2011 has clarified that the cost of Auxiliary Power Supply system has been inadvertently indicated as cost of RTUs in the Auditor's certificate. Accordingly, in our calculation, Auxiliary Power Supply has been considered instead of RTUs. Both assets fall under the same category and carry the same of rate of depreciation i.e. 5.28% and as such there is no impact on our calculation.

18. It is noticed that the capital expenditure projected by the petitioner includes cost of replacement of certain assets. However, the value of the assets not in use has not been removed from the capital base in accordance with proviso to Regulation 6(1) of RLDC fees regulations as quoted above.

The petitioner is directed to comply with the requirement of Regulation 6(1) of RLDC fees regulations and file the necessary details at the time of truing up of the fees and charges allowed under this order.

ADDITIONAL CAPITAL EXPENDITURE

19. Regulation 7 of the RLDC fees regulations provides as under:

“7. Additional Capitalisation. - (1) The capital expenditure incurred or projected to be incurred after the date of commercial operation may, in its discretion, be admitted by the Commission, subject to prudence check:

Provided that any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the date of commercial operation shall not be considered for additional capitalization for determination of fees and charges.”

20. The petitioner has submitted that capital expenditure (CAPEX) of ₹ 3946.84 lakh projected to be incurred during 2009-14 would be incurred for the following:

- (a) Modernisation of SCADA/EMS;
- (b) Upgradation of IT and Hardware for customised development of systems for market operation, common data based management, weather forecasting, system analysis;
- (c) Wide Area Measurement System and Phasor Measurement Unit; and
- (d) Building and other infrastructure.

21. The petitioner in its affidavit 25.6.2010 has submitted that the CAPEX for NRLDC has been planned in line with the RLDC fees regulations and the recommendations of G B Pradhan Committee and Task Force under Shri Satnam Singh. It has been submitted that the Task Force has recommended

a CAPEX of ₹ 74.35 crores for a typical load dispatch centre during the period 2009-14 with year-wise break up under the following major heads as under:

(₹ in lakh)

CAPEX AS PER THE RECOMMENDATIONS OF SATNAM SINGH REPORT							
S. No.	Item	2009-10	2010-11	2011-12	2012-13	2013-14	Total
1	Control Centre upgradation	920	1200	2650	350	350	5470
2	Off-line system	310	85	85	145	125	750
3	Infrastructure	450	280	145	185	155	1215
4	Total	1680	1565	2880	680	630	7435

22. The petitioner has submitted that the CAPEX plan has been approved by the management keeping in view the recommendations of the Task Force. The details of the year-wise CAPEX plan projected by the petitioner is as under:

(₹ in lakh)

Work/Equipment added after commercial operation	Amount capitalised / Proposed to be capitalized					
	2009-10	2010-11	2011-12	2012-13	2013-14	TOTAL
CAPEX Proposed by Petitioner						
SCADA	0.00	600.00	1100.00	1013.49	750.00	3463.49
R&D ACTIVITIES	0	5	5	5	5	20.00
IT SYSTEMS	20	44	175	85	15	339.00
TECHNICAL SERVICES	0.7	13.25	0.5	1.2	1.2	16.85
CIVIL WORKS	5	14.5	40	38	10	107.50
TOTAL	25.70	676.75	1320.50	1142.69	781.20	3946.84

23. The petitioner has provided the following justification for the CAPEX projected by it:

- (a) **Upgradation/Replacement of the New SCADA:** The SCADA/EMS system has been installed in 2002 at NRLDC and is covered under the maintenance contract till 2012. Due to fast technological up-gradation in the computer and IT industry, the hardware of the system supplied would be obsolete by the end of the AMC and it would be very difficult to have support for these old

hardware. RLDCs/SLDCs have to adopt new technology to cater to the responsibilities being entrusted to Load Despatch Centres. Hence LDCs are to be equipped with latest tools to facilitate secure and reliable grid operation. SCADA/EMS system at NRLDC will need up-gradation for integration of new State Load Despatch Centre along with 2 sub-LDCs coming up at Dehradun, Uttarakhand. Further, present SCADA/EMS system will need major upgradation/replacement before the current LTSA (long Term Service Agreement) is over by September 2012. Management approval for the estimates for replacement of SCADA system has been taken.

(b) **Procurement of IT system:** Procurement of new systems to augment IT infrastructure, replacement of obsolete systems have been planned, which are to be implemented in a phased manner to strengthen the IT systems and to meet the future challenges like web based software package to facilitate Open Access, to implement Automatic Meter Reading system, on line back up system and data repository. Further provision has been made for up-gradation of offline system study software, procurement of new compilers for system studies and other technical services such as power tracing methodology, cyber security measures etc. to improve the performance.

(c) **Technical Service/Replacement of DG set:** The DG set installed at NRLDC is very old and spares are not readily available. Further, the noise level is also to be controlled as per ISO certification process. NRLDC is planning to procure closed chamber DG set to minimize noise pollution.

(d) **Civil Renovation:** Shifting of cooling towers, phased renovation of annexe building and other civil infrastructure has also been planned and accordingly provision has been kept for the same.

(e) **R&D activities:** Some provision has been kept for R&D activity which NRLDC is planning to take up in future.

24. Subsequently, the petitioner, vide its affidavit dated 21.1.2011, has filed the detailed break-up of the CAPEX hardware and software component as applicable for the CAPEX projected for the control period 2009-14.

25. We have considered the CAPEX plan submitted by the petitioner in the light of the provisions of the RLDC fees regulations, the justifications adduced in support of the claim and the responsibilities entrusted to the RLDCs under the Act and various regulations of the Commission. In our view, the CAPEX plan submitted by the petitioner needs to be approved except the following expenditure:

- (a) From the details submitted, it is noticed that out of projected expenditure of ₹ 3463 lakh under the head SCADA /EMS system, an amount of ₹ 3263 lakh was towards replacement of SCADA/EMS and the remaining ₹ 200 lakh was towards up-gradation of existing SCADA to integrate with new SLDCs / sub-LDCs. On perusal of the documents placed on record by the petitioner, it is observed that administrative approval for ₹ 2513 lakh for the CAPEX plan for modernization of existing LDCs has been accorded. The petitioner has confirmed that the administrative approval pertains to the new SCADA/EMS system. Accordingly, the CAPEX for SCADA/EMS has been confined to the amount covered in the administrative approval for the system.
- (b) Further, it is observed that under the technical services head, technical books and journals etc. for an amount of ₹ 2.10 lakh has been projected to be capitalised during the year 2009-10 to 2013-14. Since the expenditure is covered under Administrative & General Expenses as part of O&M, the same has not been allowed. Similarly, an amount of ₹ 0.6 lakh projected for purchase of file cabinet, shelves, chairs etc. being covered under Administrative and General Expenses has not been allowed.
- (c) The petitioner has also claimed a CAPEX of ₹ 20 lakh on account of R & D expenditure proposed to be incurred in 2010-11 to 2012-13. Clause (3) of Regulation 9 of RLDC fees

regulations provides that POSOCO shall be entitled to utilize the money deposited in LDC Development Fund for funding R & D projects including other things. Therefore, proposed expenditure for R & D project has not been allowed under CAPEX.

- (d) In addition to the above, a sum of ₹ 35 lakh provided for other Misc work such as wall paneling etc. has not been allowed as the expenditure being of the nature of repair and maintenance is covered under O&M expenditure.

26. The summary of capital expenditure including CAPEX allowed to Northern Regional Load Despatch Centre is as under:

(₹ in lakh)						
Details	As on 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block	12615.41	12615.41	12635.41	13296.66	14606.66	15738.85
Additional Capital expenditure allowed		20.00	661.25	1310.00	1132.19	15.70
Capital cost allowed		12635.41	13296.66	14606.66	15738.85	15754.55

DEBT- EQUITY RATIO

27. Regulation 8 of the RLDC fees regulations provides as under:

“8. Debt-Equity Ratio. - (1) *The actual debt: equity ratio appearing in the books of accounts as on the date of transfer shall be considered for the opening capital cost of National Load Despatch Centre and Regional Load Despatch Centres.*

(2) *For an investment made on or after the date of transfer, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of charges:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation.- *The premium, if any, raised by the Power System Operation Company while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the capital expenditure, and funds created out of the LDC Development Fund as approved by the Commission shall be reckoned as paid up*

capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure.”

28. The details of debt-equity of assets as on 1.4.2009 claimed by the petitioner are as under:

Financial Package as on 1.4.2009		
Particulars	Amount (₹ lakh)	%
Debt	10998.76	87.18%
Equity	1616.67	12.82%
Total	12615.43	100.00%

29. The total capital cost as per the auditor's certificate is ₹ 12615.41 lakh.

In our calculation, debt & equity has been calculated as under:

Financial Package as on 1.4.2009		
Particulars	Amounts (₹ lakh)	%
Debt	10998.76	87.19%
Equity	1616.65	12.81%
Total	12615.41	100.00%

30. Debt-equity ratio of 70:30 has been adopted for the additional capital expenditure as well.

RETURN ON EQUITY

31. Regulation 12 of the RLDC fees regulations provides that,-

“12. Return on equity. - (1) Return on equity shall be computed in Rupee term on equity base determined in accordance with Regulation 8 of these regulations.

(2) Return on equity shall be computed on pre-tax base rate of 16% to be grossed up as per the sub-clause (3) of this regulation.

(3) The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the financial year 2009-10 applicable to the Power System Operation Company:

Provided that return on equity with respect to the actual tax rate applicable to the Power System Operation Company in line with the provisions of the relevant Finance

Acts of the respective year during control period shall be trued up at the end of the control period.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:-

Rate of pre-tax return on equity = Base rate / (1-t)

Where t is the applicable tax rate in accordance with sub clause (3).”

32. The petitioner has calculated the return on equity in accordance with the above regulation @ 24.239% per annum on the equity amount deployed as under:

(₹ in lakh)

Financial Year	2009-10	2010-11	2011-12	2012-13	2013-14
ROE	392.80	418.34	490.96	580.51	650.46

33. UPPCL has submitted that base rate of ROE has been taken as 16% as against 15.5% given in Regulation 15(4) of CERC (Terms and conditions of tariff) Regulations, 2009. It has been further submitted that the petitioner in cases of the tariff petitions of PGCIL has charged ROE after considering MAT rate, but in case of assets transferred to POSOCO, corporate tax of 33.99% has been considered. The petitioner has not filed any rejoinder. The issue was also raised by UPPCL in Petition No.83/2010 pertaining to the charges and fees of NLDC and POSOCO Corporate Office Expenses. Our decision on the issue is extracted as under:

“28. UPPCL has questioned the rate of return at 16% instead of 15.5% given in CERC (Terms and Conditions of Tariff) Regulations and calculation of ROE at normal corporate tax rate. It is clarified that the charges of NLDC and RLDCs are not being determined under CERC(Terms and Conditions of Tariff) Regulations, 2009 and the applicable rate of return is 16% as per RLDC fees regulations. As regards the applicability of tax rate, the petitioner was asked vide ROP dated 29.7.2010 to submit the documents in support of the claim of rate of tax for the purpose of grossing up the return on equity and the details of tax benefits available under Section 80IA of the Income Tax Act, 1961. The petitioner in its affidavit dated 25.8.2010 has submitted that the issue has been examined in consultation with Statutory Auditors of PowerGrid and it has transpired that since the responsibilities and functions performed by NLDC and RLDCs are not covered under Section 80IA of the Income Tax Act, 1961, prima

facie, the tax benefits under Section 80IA may not be available for NLDC and RLDCs. As regards the applicability of tax rate, it has been submitted that NLDC is under commercial operation with effect from 1.4.2009 and being a newly formed company, the applicability of tax rate to the company is not known, the corporate/normal tax rate was taken for computing the return on equity in the petition for fee and charges of NLDC. Moreover, para 3.3.3 of the Statement of Reasons of the RLDC fees regulations provides for computing return on equity on normal tax rate subject to truing up at the end of the control period. Accordingly, the petitioner has prayed that corporate/normal tax rate may be considered for computing ROE subject to truing up at the end of the control period. Since the rate of tax applicable to NLDC and RLDCs is not known, we are of the view that the rate of return should be calculated at normal/corporate tax rate to be trued up at the end of the control period. Accordingly, corporate tax rate has been considered for the purpose of computing the return on equity as a part of NLDC charges.”

The same approach has been adopted in the case of the present petition.

34. Return on Equity has been calculated at the normal/corporate tax rate in accordance with Regulation 12 of RLDC fees regulations as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	1616.65					
Addition due to additional capital expenditure	0.00					
Opening Equity	1616.65	1616.65	1622.65	1821.03	2214.03	2553.68
Addition due to additional capital expenditure		6.00	198.38	393.00	339.66	4.71
Closing Equity		1622.65	1821.03	2214.03	2553.68	2558.39
Average Equity		1619.65	1721.84	2017.53	2383.86	2556.04
Return on Equity (Base Rate)		16.00%	16.00%	16.00%	16.00%	16.00%
Tax rate for the year 2009-10	30.00%	33.990%	33.990%	33.990%	33.990%	33.990%
Rate of Return on Equity (Pre Tax)		24.239%	24.239%	24.239%	24.239%	24.239%
Return on Equity (Pre Tax)		392.59	417.36	489.03	577.82	619.56

INTEREST ON LOAN

35. Regulation 13 of the RLDC fees regulations provides that,-

“13. Interest on loan capital. - (1) *The loans determined in accordance with Regulation 8 shall be considered as gross normative loan for calculation of interest on loan.*

(2) *The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.*

(3) The repayment for respective year of the control period shall be deemed to be equal to the depreciation allowed for that year.

(4) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the respective Regional Load Despatch Centre:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the Regional Load Despatch Centre does not have actual loan, then the weighted average rate of interest of the Power System Operation Company as a whole shall be considered.

(5) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(6) The Power System Operation Company shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the users and the net savings shall be shared between the users and the Power System Operation Company, as the case may be, in the ratio of 2:1.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(8) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the users shall not withhold any payment on account of the interest claimed by the users and the Power System Operation Company during the pendency of any dispute arising out of refinancing of loan."

36. The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. It has been submitted that change in interest rate due to floating rate of interest applicable, if any, for the project may be allowed to be claimed or adjusted for the control period directly from the beneficiary. UPPCL has objected to the petitioner's prayer for adopting floating rate of interest. The petitioner in its affidavit dated 1.6.2010 has clarified that the rate of interest of proposed loans as shown in Form 5B have been taken notionally as per Bond XXX for the rate of interest only. The petitioner in its affidavit dated 25.8.2010, has further submitted that as the assets of NLDC and RLDCs have been funded by the World Bank, Power Grid has sought no

objection from the World Bank for transfer of assets on the ground that Power Grid will continue to repay the loans on back to back recovery from POSOCO. The petitioner has placed on record a letter dated 22.6.2010 from World Bank conveying its no objection to the arrangement on the understanding that transfer of the assets to POSOCO would not relieve Power Grid of its liability to the World Bank as specified in the Loan Agreement. POSOCO has made back to back arrangement with Power Grid to pay the annual repayment of principal and interest on loan. The petitioner has considered actual loans and the proposed loans for the computation of weighted average rate of interest for calculation of interest on loan.

37. In these calculations, interest on loan has been worked out as detailed below:

- (a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.
- (b) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.
- (c) Where moratorium period has been availed, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.
- (d) Weighted average rate of interest on actual loan worked out as per (a) above is applied on the notional average loan during the year to arrive at the interest on loan.

- (e) The interest on Loan has been calculated on the basis of rate prevailing as on 01.04.2009. Any change in rate of Interest subsequent to 1.4.2009 will be considered at the time of truing up.

38. Details of the interest on loan worked on the above basis is as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	10998.76					
Addition due to additional capital expenditure	0.00					
Gross Normative Loan	10998.76	10998.76	11012.76	11475.64	12392.64	13185.17
Cumulative Repayment upto Previous Year		5335.81	8881.50	11475.64	12392.64	13185.17
Net Loan-Opening		5662.95	2131.26	0.00	0.00	0.00
Addition due to additional capital expenditure		14.00	462.88	917.00	792.53	10.99
Repayment during the year		3545.69	2594.13	917.00	792.53	10.99
Net Loan-Closing		2131.26	0.00	0.00	0.00	0.00
Average Loan		3897.10	1065.63	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan		3.6400%	3.6400%	3.6400%	3.6400%	3.6400%
Interest		141.85	38.79	0.00	0.00	0.00

DEPRECIATION

39. Regulation 14 of the RLDC fees regulations provides for computation of depreciation in the following manner, namely:

“14. Depreciation. - (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset (excluding IT equipments and Software's) shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. The salvage value for IT equipments and Software's shall be considered as NIL and 100% value of the assets shall be considered depreciable.

(3) Land shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the capital cost of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-III** to these regulations for the assets of the Regional Load Despatch Centre.

(5) Assets fully depreciated shall be shown separately

(6) Value of the assets not in use or declared obsolete shall be taken out from the capital cost for the purpose of calculation of depreciation.

(7) The balance depreciable value as on the date of transfer shall be worked out by deducting the cumulative depreciation from the gross depreciable value of the assets appearing in the books of accounts of the Power System Operation Company for the respective Regional Load Despatch Centre and National Load Despatch Centre as on the date of transfer.”

40. Depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III as per Regulation 14 of the RLDC fees regulations. UPPCL has questioned the rate of depreciation for SCADA software at 30.00% and SCADA hardware at 15.00%. It is clarified that the claim has been made by the petitioner as per the depreciation schedule specified in RLDC fees regulations and the same has been accepted. Details of the depreciation worked out are as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		28.0838%	27.9292%	27.4939%	27.0281%	26.8423%
Depreciable Value (excluding IT equipments and softwares)	90%	289.00	291.03	308.80	339.40	354.25
Depreciable value of IT equipments and softwares	100%	12304.30	12642.67	13608.55	14795.64	15353.09
Total Depreciable Value		12593.30	12933.70	13917.35	15135.05	15707.34
Remaining Depreciable Value		7140.44	3935.15	1297.48	1217.70	572.30
Depreciation		3545.69	3621.31	1297.48	1217.70	572.30

OPERATION & MAINTENANCE EXPENSES

41. Regulation 15 of the RLDC fees regulations prescribes the following methodology for computation of operation and maintenance expenses:

“15. Operation and Maintenance Expenses (excluding human resource expenses). -

(1) Operation and maintenance expenses (excluding human resource expenses) shall be derived on the basis of actual operation and maintenance expenses for the years 2004-05 to 2008-09, based on the audited balance sheets. The O&M expenses shall be normalized by excluding abnormal operation and maintenance expenses, donation, loss-in-stock, prior-period adjustments, claims and advances written off, provisions, etc, if any, after prudence check by the Commission.

(2) The normalised operation and maintenance expenses, after prudence check, for the years 2004-05 to 2008-09, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2008-09 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2004-05 to 2008-09 at 2008-09 price level. The average normalized operation and maintenance expenses at 2008-09 price level shall be escalated at the rate of 5.72% to arrive at the operation and maintenance expenses for year 2009-10.

(3) The operation and maintenance expenses for the year 2009-10 shall be escalated further at the rate of 5.72% per annum to arrive at permissible operation and maintenance expenses for the subsequent years of the tariff period.”

42. The petitioner has claimed the following Operation & Maintenance Expenses:

	(₹ in lakh)				
Financial Year	2009-10	2010-11	2011-12	2012-13	2013-14
Operation and Maintenance Expenses	1376.03	1450.51	1534.24	1630.48	1729.48

43. The petitioner has submitted that O&M Expenses claimed include Repair and Maintenance of SCADA/EMS system, AC Plant, DG set and other charges towards water, power supply, housekeeping etc., and administrative and general expenses. As the details given in the petition for Repair & Maintenance Expenses and Administrative and General Expenses had some deviation from the norms as per the RLDC fees regulation, the petitioner was asked to submit the duly reconciled and audited details in the prescribed format viz. Form 7C (Repair & Maintenance Expenses) and Form 7D (Administrative and general Expenses) in the RLDC fees regulations and in accordance with regulation 15 thereof with the actual figures duly reconciled and audited for the period 2004-05 to 2008-09.

44. The petitioner vide affidavit dated 25.6.2010 submitted that the expenditure indicated for 2004-05 to 2008-09 in form 7C (Repair & Maintenance Expenses) are based on audited expenditure except the expenditure shown at Sr. No. 6 against others head. The cost mentioned in the form included the cost of AMC of SCADA equipment which is ₹ 983.54 lakh on normative basis for the year 2004-05 to 2006-07 and ₹ 491.7 lakh on

actual basis for 2007-08 as the AMC of SCADA was awarded w.e.f 1.10.2007. The payment for this was released in the same year for six months. It was also mentioned that the maintenance of SCADA equipment is the major cost component in overall R&M expenditure of NRLDC (POSOCO) and required to be considered while estimating the future expenditure and its reimbursement. Hence, the normative value has been taken to arrive at the indicative normalized R&M expenditure at the price level of 2009-10 inclusive of maintenance of SCADA equipments. Thus the normalized cost calculated as ₹ 1190.20 lakh. However, while calculating the R&M expenditure of 2009-10 of ₹ 1023 lakh has been taken which is lower than the normalized cost. Further, vide affidavit dated 11.11.2010 the petitioner submitted the revised Form 7 C for R&M expenditure removing the notional AMC charges for the period 2004-05 to 2006-07 and considering the actual AMC charges for SCADA till 2013-14. It was submitted that extension of AMC beyond September 12 is required because the new SCADA/EMS system is required to be integrated with that of SLDC which are expected to be implemented in different timeline by the States. This would necessitate continuation of old system beyond September, 12. Further, the new system is expected to run in parallel for some time with the existing system after commissioning to ensure reliability of the system and to take care of delay in implementing the new system.

45. Since the AMC cost is much higher than other expenditures under R&M, and is effective only from Oct 2007 in 2007-08, if the methodology as given in the regulations were adopted, the normalized R&M expenditure for 2009-14

would not be realistic. Keeping in view the difficulty, the normalized R&M for 2009-10 to 2013-14 has been calculated on the basis of actual expenditures during 2004-05 to 2008-09 excluding the AMC cost during 2007-08 and 2008-09, by applying the methodology given in the regulation. In addition to this R&M expenditure, the actual AMC cost incurred / proposed to be incurred during 2009-10 to 2013-14 has been allowed.

46. Regarding Administrative and general expenses the petitioner in the affidavit dated 25.6.2010 has submitted that the expenditure indicated for 2004-05 to 2008-09 are based on audited expenditure and the same has been normalized as per clause 15 of the RLDC fees regulations, which is ₹ 251.05 lakh at 2009-10 level. However, the petitioner has proposed ₹ 352.19 lakh at 2009-10 level as actual/projected expenditure. It was submitted that the increase was due to increase of watch and ward expenses and additional expenditure against insurance @ 1% against the POSOCO assets training expenses etc. It was also submitted that no separate auditor's certificate was available for the R&M expenditure and Administrative & General Expenditure during 2004-05 to 2008-09. However, audited combined balance sheet of NR-ULDC had been submitted vide affidavit dated 1.6.2010.

47. In its submission dated 11.11.2010, the petitioner has submitted the revised Form 7 D for Administrative & General expenses and it was reiterated that the expenditure towards watch and ward was high during 2008-09 as the effect of 6th Pay Commission was allowed and arrear was paid against CISF Security engaged at NRLDC.

48. The Administrative and General Expenses are calculated in accordance with the methodology given in the regulations based on the actual expenditure during 2004-05 to 2008-09.

49. The O&M Expenses allowed for the period from 2009-10 to 2013-14 period are given as under:

(₹ lakh)

	ITEMS	2009-10	2010-11	2011-12	2012-13	2013-14
	1	2	3	4	5	6
1	Repairs and maintenance expenses	995.48	996.70	997.98	999.34	1000.77
2	Administrative and general expenses, etc	250.93	265.28	280.45	296.50	313.46
3	Total O&M Expenses	1246.41	1261.98	1278.43	1295.84	1314.23

HUMAN RESOURCE EXPENSES

50. Regulation 16 of the RLDC fees regulations provides that the O&M expenses in respect of Human Resources shall be calculated as per the following methodology:

“16. Human Resource Expenses. - (1) Human resource expenses shall be derived on the basis of actual human resource expenses for the years 2004-05 to 2008-09, based on the audited balance sheets. The human resource expenses shall be normalized by excluding abnormal Human resource expenses, ex-gratia, VRS expenses, prior-period adjustments, claims and advances written-off, provisions, etc, if any, after prudence check by the Commission.

(2) The normalised human resource expenses, after prudence check, for the years 2004-05 to 2008-09, shall be escalated at the rate of 5.17% to arrive at the normalized human resource expenses at the 2008-09 price level respectively and then averaged to arrive at normalized average human resource expenses for the 2004-05 to 2008-09 at 2008-09 price level. The average normalized human resource expenses at 2008-09 price level shall be escalated at the rate of 5.72% to arrive at the operation and maintenance expenses for year 2009-10:

Provided that human resource expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of the employees of the Public Sector Undertakings to arrive at the permissible operation and maintenance expenses for the year 2009-10.

(3) The human resource expenses for the year 2009-10 shall be escalated further at the rate of 5.72% per annum to arrive at permissible human resource expenses for the subsequent years of the tariff period.”

51. The petitioner has submitted that Human Resource Expenses for NRLDC have been calculated taking the present employee cost to company (CTC) and escalating it @ 5.72% for the subsequent years as provided in the RLDC fees regulations. It has been further submitted manpower has been increased progressively to meet the shortfall which is in line with the G.B. Pradhan Committee Report and for meeting the functional requirements to discharge the following functions:

- (a) facilitating the reform process in the Indian Power Sector
- (b) expanding market option functions under power exchange, short term open access, medium term contracts, long term contracts
- (c) collection and disbursement of large funds
- (d) ancillary services
- (e) institutional building
- (f) capacity building of SLDCs
- (g) integration of renewable energy sources
- (h) any other functions assigned by Govt. of India and CERC from time to time

52. The petitioner has claimed the projected human resources expenses as under:

(₹ in lakh)

Financial Year	2009-10	2010-11	2011-12	2012-13	2013-14
HR Cost	1229.53	1456.42	1635.18	1835.14	2067.04

53. As the details given by the petitioner in form 7B towards HR expenses were not in accordance with the RLDC fees regulations, the petitioner was directed to submit the actual figures for the period 2004-05 to 2008-09 given in form 7B of the petition duly reconciled and audited and in accordance with the regulation 16 of the RLDC fees regulations. The petitioner, vide its affidavit dated 25.6.2010 has submitted that the figures given in the petition for 2004-05 to 2008-09 were actual figures. Substantial increase in HR expenses during 2006-07 and 2007-08 was attributed to ad-hoc payment on account of pay revision w.e.f. 1.1.2007. Increase in manpower and escalation as per the RLDC regulations based on Cost to Company (CTC) had been considered to arrive at HR expenses for 2009-14 period. The petitioner has proposed to calculate the HR expenses on the basis of CTC for the year 2009-10. The petitioner had submitted that provisions for ₹ 33.64 lakh, 157.26 lakh and 264.76 lakh have been made to meet the employee cost on account of wage revision/arrear in the years 2006-07, 2007-08 and 2008-09 respectively. Subsequently, the petitioner vide affidavit dated 11.11.2010, has submitted the revised HR Expenses based on the actual audited expenditure of 2009-10 and the escalation as per RLDC fees regulations. In the audited balance sheet for 2009-10 filed along with the affidavit, the HR expenses of NRLDC for the year 2009-10 have been shown as ₹ 1186.12 lakh.

54. In the calculation of HR expenses, the actual employee cost during 2004-05 to 2008-09 has been considered in accordance with the RLDC fees regulations. From the actual employee cost, the expenditure towards provisions and ex-gratia have not been allowed in accordance with the Clause (1) of Regulation 16 of RLDC fees regulations.

55. The petitioner has also claimed the HR expenses for estimated increased man power during the control period. It has been submitted that the manpower requirements have been projected as per the RLDC fees regulations and G.B. Pradhan Committee Report.

56. Regarding the increase in number of employees during the control period of 2009-10 to 20013-14, the petitioner has submitted that this increase is in line with G.B.Pradhan Committee Report where the requirement for skilled manpower has been recommended as under:

“3.1 Manpower requirement

The Load Despatch Centres have to function round-the-clock with suitably skilled manpower for System Operation, Market Operation, research, analysis, regulatory affairs, logistics (system data acquisition, Energy Management, communication, IT systems) and other establishment services to carry out the functions discussed in Section 2.3 of this report. A literature survey and a reality check of all the LDCs with the help of a survey were done to assess the manpower requirements. Considering the prevailing work load and the likely responsibilities that will arise in the future, an assessment of the staffing requirement for a typical LDC has been made and is placed at Annex-IX. The committee perceives the LDC as an executive oriented body with people predominantly from the field of Electrical Engineering supported by other faculties such as Electronics Engineering, Information Technology etc. Further, additional persons with Commerce, Economics, Humanities and Legal background would also be required to look after financial and legal aspects. It would be seen that on an average 60 to 70 skilled executives might be required in a typical LDC.”

57. We do appreciate the significance of the human resource especially in the context of RLDC/NLDC. In this connection, the following observation by

the Commission in the Statement of Objects and Reasons for the RLDC fees regulation is relevant:

“3.77 The Commission recognizes the increase in responsibilities of RLDCs/NLDC over the years starting with implementation of Availability Based Tariff (ABT), short term open access in inter-State transmission, integration of regional grids and the recent operation of multiple Power Exchanges. The operation of the Indian electricity grid would only become more and more complex necessitating demand for ancillary services. Integration of renewable energy sources and introduction of Renewable Energy Certificates (RECs) and its entire administration would be another major challenge. The RLDCs/NLDC would have to be strengthened considerably in terms of human resource to undertake these additional responsibilities. Such a situation has already been envisaged by the Pradhan committee. It is expected that the RLDCs/NLDC would factor these requirements suitably.”

58. In view of the above, the additional manpower requirement has been considered for calculation of HR Expenses during 2009-10 to 2013-14. The human resource expenses have been allowed as per the details given as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
HR-Expenses Based on 2004-05 to 2008-09 figures considering manpower at 2009-10 level	1113.90	1177.62	1244.98	1316.19	1391.48
HR Expenses-Additional Manpower	0.00	78.51	110.66	175.49	247.37
Total HR Expenses	1113.90	1256.13	1355.64	1491.68	1638.85
No. of Employees	90	96	98	102	106

INTEREST ON WORKING CAPITAL

59. Regulation 17 of the RLDC fees regulations provides as under:

- “17. Interest on Working Capital.-** (1) *The working capital shall cover :*
- (i) *Operation and maintenance expenses excluding human resource expenses for one month;*
 - (ii) *Human resource expenses for one month;*
 - (iii) *NLDC charges for one month; and*
 - (iv) *Receivables equivalent to two months of the system operation charges and market operation charges as approved by the Commission.*

(2) Rate of interest on working capital shall be on normative basis and shall be equal to the shortterm Prime Lending Rate of State Bank of India as on 1.4.2009.

(3) Interest on working capital shall be payable on normative basis notwithstanding that the Power System Operation Company has not taken any loan for working capital from any outside agency.”

60. While calculating the rate of interest on working capital, the State Bank of India Prime Lending Rate as on 1.4.2009 @ of 12.25% has been considered. It is clarified that as per Regulation 17(3) of RLDC fees regulations, interest on working capital is payable on normative basis notwithstanding the fact that the petitioner has not taken any loan from any outside agency for working capital.

61. Interest on working capital has accordingly been worked out as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
NLDC Charges	58.35	76.14	89.25	101.19	107.77
O & M Expenses Excluding Human Resource Expenses	103.87	105.17	106.54	107.99	109.52
Human Resource Expenses	92.83	104.68	112.97	124.31	136.57
Receivables	1220.23	1283.59	940.77	993.30	932.62
Total	1,475.28	1,569.57	1,249.52	1,326.79	1,286.48
Rate of interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	180.72	192.27	153.07	162.53	157.59

NLDC CHARGES

62. Regulation 18 of the RLDC fees regulations, provides as under:

“18. NLDC Charges and Corporate Office Expenses. - (1) To the extent applicable, NLDC charges shall be computed by following the methodology specified for computing annual charges of Regional Load Despatch Centres except interest on working capital.

(2) The Corporate Office Expenses, computed in accordance with the actual expenses incurred, shall be allowed by the Commission, after prudence check.

(3) NLDC charges and corporate office expenses shall be apportioned to the Regional Load Despatch Centre on the basis of the demand served in the respective region.”

63. In accordance with the above provision, NLDC charges as approved vide our order dated 14.2.2011 in Petition No. 83/2010 have been apportioned among the five Regional Load Despatch Centres to be recovered along with their fees and charges.

RLDC FEES AND CHARGES

64. RLDC fees and charges being allowed are summarized below:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	3545.69	3621.31	1297.48	1217.70	572.30
Interest on Loan	141.85	38.79	0.00	0.00	0.00
Return on Equity	392.59	417.36	489.03	577.82	619.56
Interest on Working Capital	180.72	192.27	153.07	162.53	157.59
O & M Expenses Excluding Human Resource Expenses	1246.41	1261.98	1278.43	1295.84	1314.23
Human Resource Expenses	1113.90	1256.13	1355.64	1491.68	1638.85
NLDC Charges & Corporate Office expenses	700.23	913.70	1070.95	1214.26	1293.20
Total	7321.40	7701.54	5644.60	5959.83	5595.73

PUBLICATION EXPENSES

65. The petitioner has sought approval for the reimbursement of expenditure in connection with the publication of notices in the newspaper and other expenditure relating to filing the petition. Since the expenditure has been incurred for meeting a statutory requirement, we allow the direct reimbursement of these expenses by the users/beneficiaries on pro-rata basis.

SERVICE TAX

66. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on RLDC charges separately from the respondents, if

the petitioner is subjected to service tax. At present, system operation is not subject to service tax. Therefore, the prayer of the petitioner is premature.

TRANSFER OF BUILDING

67. The petitioner has prayed to be allowed to bill and adjust impact on transfer of building/part of building of NRLDC and other associated facilities like staff quarters from Central Electricity Authority during 2009-14 period from the respondents. We notice that the expenditure has not been included in the CAPEX plan for 2009-14 and accordingly has not been considered during the control period.

PRE-INCORPORATION EXPENSES

68. The petitioner has prayed to be allowed to bill and recover the pre-incorporation expenses of POSOCO as onetime charges from the users. We have already approved reimbursement of pre-incorporation expenses by the users in our dated 14.2.2011 in Petition No. 83/2010. The expenditure will be proportionately recovered by the RLDCs from their users.

REIMBURSEMENT OF FEES AND CHARGES

69. The fees and charges allowed in this order shall be recovered by the petitioner on monthly basis in accordance with Regulation 26 of the RLDC fees regulations.

70. This order disposes of Petition No. 91/2010.

Sd/-
M.Deena Dayalan
Member

Sd/-
V.S.Verma
Member

Sd/-
S.Jayaraman
Member

Sd/-
Dr. Pramod Deo
Chairperson

