

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 95/2010

**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:8.3.2011

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 ERLDC 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

(A) Users under the category of Distribution Licensees and Buyers

1. Chairman, Bihar State Electricity Board, Vidyut Bhavan, Bailey Road, Patna –800 021
2. Chairman, Jharkhand State Electricity Board, Engineering Bldg, Dhurwa Road, Ranchi, Jharkhand.
3. Chairman, Damodar Valley Corporation, VIP Road, Bidhannagar, Kolkata
4. Chairman, West Bengal State Electricity Distribution Corporation Ltd, Bidyut Bhawan Salt Lake, Kolkata
5. Chairman, Grid Corporation of Orissa Ltd, Janpath, Bhubaneswar
6. Secreatry, Power Deptt, Govt of Sikkim, Power Deptt., Govt. of Sikkim, Kazi Road, Gangtok

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

1. General Manager Farakka Super Thermal Power Plant, NTPC, Farakka
2. General Manager Kahalgaon Super Thermal Power Plant

- I, NTPC, Kahalgaon.
- 3. General Manager Kahalgaon Super Thermal Power Plant – II, NTPC, Kahalgaon.
- 4. Executive Director, Talcher Super Thermal Power Plant, Stage – II, NTPC, Talcher
- 5. Chief Engineer (Elect) Teesta Hydro, Teesta – V Hydro Electric Project, NHPC, Singtam, East Sikkim
- 6. Chief Engineer Rangeet Hydro Electric Project, NHPC, P. O. Rangit Nagar, South Sikkim.
- 7. Chief Engineer Burla Power House, Orissa Hydro Power Corporation Ltd., Dist. Sambalpur, Burla - 768017
- 8. Chief Engineer Mejia Thermal Power Station, DVC, P.O. MTPS, Dist Bankura – 722183

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

- 1. Executive Director, ERTS – I, Alankar Place, Patna
- 2. General Manager, Powerlinks Transmission Limited, Vidyut Nagar, P.O. Satellite Township, Siliguri – 734 015

... 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 Devandra Kumar, ERLDC
- 12. Shri P. Pentayya, ERLDC
- 13. Shri M.G. Raoot, ERLDC
- 14. Shri V.K. Padha, NTPC
- 15. Shri S.K. Meena, NHPC
- 16. Shri R.B. Sharma, Advocate, BSEB

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 Eastern 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 ERLDC for the control period 2009-14 as per para 9 of the petition.
- (b) Approve the CAPEX as mentioned in para 8 of the petition.
- (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 ERLDC 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 Powergrid on behalf of POSOCO to raise bills and receive payments for ERLDC 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. and
- (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 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. Eastern Regional Load Despatch Centre (ERLDC) is the apex body to ensure integrated operation of the Eastern Regional Power System. ERLDC is empowered under Section 29(1) of the Act to give such directions and exercise and supervision and control as may be required for ensuring stability of grid operation and for achieving the maximum economy and efficiency of the power system in the Eastern Region. ERLDC is also 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 equipments were installed at the sub-stations, hardware and software systems were installed at control centres. Communication network systems were laid for data/speech communication between sub-stations and control centres. The ULDC scheme of ERLDC was declared under commercial operation with effect from 1.9.2005. The investment approval for the scheme was approved by the Government of India at an estimated cost of ₹ 29001 lakh including IDC of ₹ 6305 lakh which was subsequently revised to ₹ 39651 lakh including IDC of ₹ 5496 lakh consisting of central portion amounting to ₹ 38741 lakh including IDC of ₹ 5254 lakh and State portion of

₹ 991 lakh including IDC of ₹ 215 lakh based on 2nd Quarter 2002 price level.

6. The scope of work under ULDC scheme was as under:
- (i) 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.
 - (ii) Remote Terminal Units (RTUs) at various 400 kV/220 kV/132 kV substations and generating stations.
 - (iii) Adaptation work at substation and generating stations to meet the requirement of data acquisition through RTUs.
 - (iv) Associated dedicated communication network comprising fibre optic, microwave and PLCC terminals for state and central sector.
 - (v) 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. and
 - (vi) Other infrastructural facilities such as air-conditioning, fire-fighting, construction/renovation of buildings, etc.

7. Tariff for the ER-ULDC for the period up to 31.3.2009 was approved by the Commission vide its order dated 28.7.2009 in Petition No. 74/2006. 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 upgradation 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 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 January 2013, it would be just possible to meet the grid operation requirement upto 2014 with some upgradations in the present system and some optimization in terms of resources, and beyond that, the present system would have to undergo a major upgradation/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 1.4.2009 were finalized. The Board of Power Grid Corporation of India Ltd. 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 ERLDC for the control period from 1.4.2009 to 31.3.2014. The petitioner has placed on record a copy of the certificate dated 6.5.2010 from the Chartered Accountant showing the segregation of assets and opening capital cost of assets in ER-ULDC as on 1.4.2009 which is placed as Annexure-II to the Affidavit dated 1.6.2010.

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

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1187.50	1200.67	668.66	315.29	580.17
Interest on Loan	90.35	49.83	17.85	16.76	38.58
Return on equity	148.15	154.06	161.15	203.32	288.75
Interest on Working Capital	87.69	107.10	105.78	110.09	127.97
O & M Expenses Excluding Human Resource Expenses	266.79	625.22	660.58	698.83	738.80
Human Resource Expenses	1274.17	1453.42	1671.51	1909.78	2169.85
NLDC Charges and Corporate Office Expenses	313.13	410.71	486.41	555.71	579.50
Total	3367.77	4001.01	3771.94	3809.78	4523.61

11. The petitioner has also claimed the following as Interest on Working capital:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
NLDC charges	26.09	34.23	40.53	46.31	48.29
O & M expenses (excluding HR expenses)	22.23	52.10	55.05	58.24	61.57
Human Resource expenses	106.18	121.12	139.29	159.15	180.82
Receivable	561.30	666.83	628.66	634.96	753.94
Total	715.80	874.28	863.53	898.66	1044.62
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	87.69	107.10	105.78	110.09	127.97

12. Replies to the petition have been filed by NTPC and the Bihar State Electricity Board.

13. NTPC in its reply has submitted the following:
- (a) NTPC Ltd. is a legal entity and should be treated as the respondent in place of NTPC generating stations separately shown in the cause title. This is in conformity with the provisions of Section 28(4) of the Act which enables the Regional Load Despatch Centre to levy and collect such fees and charges from generating companies or licensees engaged in inter-State transmission of electricity as may be specified by the Commission. Moreover, under Section 62 read with Section 79 of the Act, tariff is determined with reference to the generating company. Regulation 24(1) and 3(25) of RLDCs fees and charges regulations define the term 'users' as generating companies. Therefore, the users of RLDCs are the generating companies and not the individual generating stations under the generating companies. Contrary to this position, PGCIL has identified the generating stations of NTPC in the Eastern Region as the separate respondents.
 - (b) The petitioner has prayed for allowing to bill and recover ₹ 127.09 lakhs as pre-incorporation expenses of POSOCO as one time charge from the users. The petitioner may clarify whether the pre-incorporation expenses are claimed as part or over and above the NLDC charges and corporate office expenses.
 - (c) O&M expenses for the generating stations as per the CERC (Terms and conditions of tariff) regulations, 2009 do not include any charges payable to RLDCs. The Commission may allow NTPC to

recover the RLDC charges from its beneficiaries in proportion to recovery of fixed charges.

14. BSEB in its reply has raised the following objections:

(a) The petitioner has proposed a capital expenditure of ₹ 2592.17 lakhs during the control period of 2009-14 including the cost for a new SCADA for replacing the existing SCADA at a cost of ₹ 1054.67 lakhs in 2013-14. The petitioner is required to assure the beneficiaries and the Commission that the system in place would take care of the new establishment in generation and transmission during 2013-14 and beyond.

(b) The petitioner has calculated the return on equity by ensuring the applicable tax rate of 33.99%. Since the petitioner is engaged in development of the infrastructure facilities in the transmission of power and accordingly is entitled for a tax holiday under Section 80 I A of the Income Tax Act, 1961. The petitioner has not submitted any information on the issue of tax holiday and has claimed a net rate of return on equity as 24.239% during the control period.

(c) While Regulation 17(2) of RLDC fees and charges regulations provides for calculation at short term prime lending rate of SBI, the petitioner has submitted a certificate with State Bank of India Advance Rate (SBAR) as 12.25%.

(d) The charges on account of human resource expenses have not been normalized by excluding abnormal human resource expenses.

- (e) With regard to reimbursement of expenditure towards publishing notices in newspapers and other expenditures in relation to filing of petition, there is no provision for reimbursement of such expenses under RLDC fees and charges regulations.
- (f) As regards the transfer of the building where ERLDC is operating including its staff quarters, it has been submitted that transfer of these assets would further increase the charges on the beneficiaries without any value addition to be provided by ERLDC. In any case, there is no indication in the petition that the de facto owner of the building i.e. Central Electricity Authority is pressing for such transfer.

15. We have considered the objections of NTPC and BSEB. Section 28(4) refers to the fees and charges to be charged from the generating company. Regulation 3(25) of RLDC fees regulations defines user to mean the generating companies among others who use the inter-State network or the associated facilities and services of National Load Despatch Centres. Thus, both the Act and RLDC fees regulations refer to generating companies as user. However, the generating companies use the inter-State network or associated facilities or services of NLDC and RLDCs in respect of the generating station under them. The size of the generating stations and the number of generating stations under a generating company vary from one another. Moreover, scheduling, metering and energy accounting by RLDCs are being done on the basis of generating stations. It is therefore logical that while the generating company as the legal entity is obligated under the Act

and the RLDC fees regulations to pay the fees and charges, such fees and charges should be with reference to the generating stations under it. We agree with NTPC that the generating stations need not have been made parties in the petitions as the generating companies are responsible for payment of fees and charges of the generating stations under them. NLDC and RLDCs are directed to implead the generating companies as respondents in the petitions filed by them under the RLDC fees regulations while taking care to mention the details of the generating stations under each generating company for which the fees and charges are proposed to be levied through the petition.

16. Other issues raised by NTPC and BSEB have been dealt with in relevant part of this order.

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

18. 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 tariff 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 Eastern Region upto the date of transfer of

assets to POSOCO (ERLDC) and after the transfer, billing shall be made on the beneficiaries/users by ERLDC.

CAPITAL COST

19. 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.”

20. The petitioner has claimed the following capital expenditure during 2009-14:

Expenditure upto	Balance estimated expenditure during 2009-14					(₹ in lakh)
	2009-10	2010-11	2011-12	2012-13	2013-14	Total estimated expenditure
31.3.2009	47.50	115.00	80.00	1080.00	1269.67	31.3.2014
4769.23						7361.40

21. The petitioner has submitted Auditor's certificate dated 6.5.2010 in support of its claim of capital cost as on 1.4.2009 amounting to ₹ 4759.09 lakh which includes ER-ULDC assets of ₹4611.68 lakh and ERLDC assets of ₹147.41 lakh. The capital cost of ₹ 4759.09 lakhs as on 1.4.2009 has been considered for the purpose of determination of fees and charges of ERLDC.

CAPEX of ₹ 2592.17 lakh projected by the petitioner has been considered under additional capital expenditure.

22. 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

23. 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.”

24. The petitioner has submitted that capital expenditure (CAPEX) of ₹ 2592.17 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.

25. The petitioner in its affidavit 26.6.2010 has submitted that the CAPEX for ERLDC 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

26. The petitioner has submitted that its CAPEX plan has been approved by the management keeping in view the recommendations of the Task Force.

The details of CAPEX plan are as under:

(₹ in lakh)

Heads of Expenditure	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Civil Renovations	0.00	25.00	20.00	0.00	0.00	45.00
Replacement of existing LT switchgear panel, Energy audit & management	0.00	45.00	0.00	0.00	0.00	45.00
Replacement of batteries of UPS and DCPS system	0.00	0.00	0.00	0.00	15.00	15.00
Implementation of communication system for back-up control centre	0.00	0.00	0.00	50.00	0.00	50.00
Upgradation/Replacement of the New SCADA	0.00	0.00	0.00	0.00	1054.67	1054.67
IT systems, software package for open access application, power exchange scheduling software, ERP, data ware house	47.50	45.00	60.00	150.00	0.00	302.50
R&D activity, pilot projects and system strengthening	0.00	0.00	0.00	880.00	200.00	1080.00
Total	47.50	115.00	80.00	1080.00	1269.67	2592.17

27. The petitioner has submitted the following justifications in support of its CAPEX plan for 2009-14:

- (a) **Civil renovation:** This includes renovation and modernization of office area of ERLDC and new lift at technical block at 14 Golf Club Road, Tollygunge, Kolkata. In this connection renovation work at 5th Floor of the administrative building is under progress. The balance work along with provision of new lift to be taken up shortly.
- (b) **Replacement of existing LT switchgear panel, Energy audit & Management:** The existing LT switchgear panel needs replacement as the same has not been replaced till date and is giving continuous trouble during day to day operation. Proposals are under consideration for carrying out the replacement work. Provision for conducting energy audit to assess and reduce utilization of natural resources to optimum level and to implement necessary infrastructure using renewable has planned to be taken up at ERLDC.
- (c) **Replacement of batteries of UPS and DCPS system:** Provision has been made for the replacement of the batteries of the UPS and DCPS system considering the life as 10 years. These batteries were installed under ULDC scheme in 2003.
- (d) **Implementation of communication system for back-up control centre:** Implementation of communication infrastructure to be provided for the back-up control centre. Provision has been made in the CAPEX for interface equipments required to be procured at the control centre end.

(e) **Upgradation/Replacement of the New SCADA:** The SCADA/EMS system has been installed in 2005 at ERLDC and is covered under the maintenance contract till 2013 as per present SCADA/EMS AMC agreement. 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 & reliable grid operation. Accordingly, a provision of ₹ 1054.67 lakhs has been kept for implementation of new SCADA at ERLDC. Management approval for the estimates for replacement of SCADA system has been accorded.

(f) **IT systems, software package for open access application, power exchange scheduling software, ERP, data warehouse:** 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. In this direction implementation of automations and modern techniques like web based software package to facilitate Open Access, web based scheduling software, Automatic Meter Reading system, on-line back-up system and data repository etc. have been planned. 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. ERP is under implementation at the corporate level and the same system would be shared by ERLDC for which a provision of ₹ 100 lakhs has been made.

(g) R&D activity, pilot projects and system strengthening:

Provision has been made for R&D activity, Pilot projects and system strengthening using advanced technologies under the CAPEX plan for ERLDC. This would enable development of improved system monitoring, visualization and schemes for grid security. The implementation of WAMS using synchrophasor technology at various strategic locations of ER-Grid has been approved by ERPC in the 14th ERPC meeting held on 11.6.2010. The project is envisaged to be completed in three phases. The first two phases is expected to be completed within a period of three years and the estimated cost has duly been approved by ERPC. The third phase of the project envisages strengthening of IT infrastructure at ERLDC for better visualization, monitoring of the system, equipping the control centre with high-end simulation techniques, applications, data mining & analytics and other R&D activities using PMU data has under the head of CAPEX plan.

28. Subsequently, the petitioner vide its affidavit dated 3.1.2011 has submitted the detailed break-up of hardware and software component as applicable for the CAPEX projected for the control period 2009-14.

29. 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) The petitioner has claimed an amount of ₹ 60 lakh during 2011-12 on account of implementation of power tracing methodology. In this connection, it is noted that we have accorded approval for funding of the project from the surplus in UI pool vide order dated 11.9.2008 issued on File No.20/10(6)/2007-CERC. Since funds have been made available from surplus in UI pool for this purpose, we are not inclined to allow CAPEX of ₹ 60 lakh during 2011-12 on account of implementation of power tracing methodology.

(b) The petitioner has also claimed a CAPEX of ₹ 80 lakh on account of R & D expenditure and pilot project proposed to be incurred in 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 is not separately allowed under CAPEX.

30. Asset-wise details of the additional capital expenditure allowed is enclosed as **Annexure** to this order. The summary of capital expenditure including CAPEX allowed to Eastern Regional Load Despatch Centre are as under:

Details	As on 31.3.2009	(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block	4759.09	4759.09	4806.59	4921.59	4941.59	5941.59
Additional Capital expenditure allowed		47.50	115.00	20.00	1000.00	1269.67
Capital cost allowed		4806.59	4921.59	4941.59	5941.59	7211.26

DEBT- EQUITY RATIO

31. 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.”

32. The following details of debt-equity of asset as on 1.4.2009 claimed by the petitioner in Form-4D have been considered as on the date of transfer:-

Particulars	Financial Package as on 1.4.2009	
	Amount (₹ in lakh)	%
Debt	4155.00	87.31%
Equity	604.09	12.69%
Total	4759.09	100.00%

33. Debt-equity ratio of 70:30 has been adopted for the additional capital expenditure and accordingly equity base for different years of the tariff period has been determined.

RETURN ON EQUITY

34. 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:-

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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

35. 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	148.15	154.06	161.15	203.32	288.75

36. BSEB has submitted that the petitioner which is engaged in development of infrastructure facilities in the transmission of power is entitled to Tax Holiday under Section 80 I A of the Income Tax Act, 1961, whereas the petitioner has calculated the return on equity by assuming the applicable tax

rate of 33.99%. 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 80 I A 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 Power Grid 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 and RLDCs. 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.

37. 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	604.09					
Addition due to additional capital expenditure	0.00					
Opening Equity	604.09	604.09	618.34	652.84	658.84	958.84
Addition due to additional capital expenditure		14.25	34.50	6.00	300.00	380.90
Closing Equity		618.34	652.84	658.84	958.84	1339.74
Average Equity		611.22	635.59	655.84	808.84	1149.29
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)		148.15	154.06	158.97	196.05	278.58

INTEREST ON LOAN

38. 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."

39. 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. 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 30.8.2010, 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.

40. In our calculations, interest on loan has been worked out on the basis of the following:

- (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 has been deemed to be equal to the depreciation allowed for that period.
- (c) As regards the moratorium period 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 1.4.2009. Any change in rate of Interest subsequent to 1.4.2009 will be considered at the time of truing up.

41. Details of the interest on loans have been worked out as under:

(₹ in lakh)						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	4155.00					
Addition due to additional capital expenditure	0.00					
Gross Normative Loan	4155.00	4155.00	4188.25	4268.75	4282.75	4982.75
Cumulative Repayment upto Previous Year		1111.78	2299.38	3499.56	4282.75	4882.78
Net Loan-Opening		3043.22	1888.87	769.19	0.00	99.97
Addition due to additional capital expenditure		33.25	80.50	14.00	700.00	888.77
Repayment during the year		1187.60	1200.18	783.19	600.03	988.74
Net Loan-Closing		1888.87	769.19	0.00	99.97	0.00
Average Loan		2466.04	1329.03	384.60	49.98	49.98
Weighted Average Rate of Interest on Loan		3.6400%	3.6400%	3.6400%	3.6400%	3.6400%
Interest		89.76	48.38	14.00	1.82	1.82

DEPRECIATION

42. 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”.

43. Depreciation has been calculated annually based on straight line method at rates specified in Appendix-III as per Regulation 14 of the RLDC fees regulations on the capital cost as per para 29 above. The petitioner has claimed depreciation rate of 2.39% for 'Auxiliary System Oil Cable' for Opening Capital Cost as on 1.4.2009 for expenditure of ₹ 6.57 lakh. As the item of Auxiliary System Oil Cable does not fall in any of the categories specified in Schedule-III, the same has been categorised under the Head 'Others' with rate of depreciation of 5.28%.

44. Details of the depreciation have been worked out as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation	24.8305%	24.6743%	24.5053%	24.2114%	23.8350%
Depreciable Value (excluding IT equipments and softwares)	304.31	338.73	379.23	410.73	439.98
Depreciable value of IT equipments and softwares	4444.72	4487.72	4510.22	4985.22	6087.56
Total Depreciable Value	4749.03	4826.45	4889.45	5395.95	6527.54
Remaining Depreciable Value	3549.39	2439.21	1302.03	600.03	1131.59
Depreciation	1187.60	1200.18	1208.50	600.03	1131.59

OPERATION & MAINTENANCE EXPENSES

45. 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.”

46. The petitioner has considered under Operation and Maintenance Expenses the expenditure to be incurred on repair and maintenance of SCADA/EMS system, AC Plant, DG set, other charges towards water, power supply, housekeeping etc. and administrative and general expenses. The petitioner has claimed the following O & M expenses as given overleaf.

(₹ in lakh)

Items	2009-10	2010-11	2011-12	2012-13	2013-14
Repairs and maintenance expenses	117.64	395.50	418.12	442.03	467.32
Administrative and general expenses	149.15	229.72	242.46	256.80	271.48
Total	266.79	625.22	660.58	698.83	738.80

47. The petitioner in its affidavit dated 26.6.2010 has submitted that the Repair and Maintenance (R&M) expenditure indicated for 2004-05 to 2008-09 in Form 7C are based on audited expenditure for the relevant years. For the year 2009-10, the figure has been arrived based on actual expenditure made for first half of the financial year and tentative expenditure for the next half of the year. It has submitted that as the paid annual maintenance (AMC) contract of SCADA/EMS for ER-ULD scheme started with effect from 2009-10 only, the tentative expenditure for the second half of 2009-10 includes a provision of ₹ 82.65 lakhs towards AMC of SCADA/EMS. The normalized R&M expenditure for 2009-10 to 2013-14 has been computed as per Regulation 15 of the RLDC fees regulations with additional provision of ₹ 299.00 lakhs for 2009-10 against the cost of SCADA/EMS. It has been further submitted that the maintenance of SCADA equipment is the major cost component in overall R&M expenditure of ERLDC (POSOCO) and is 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.

48. Regarding Administrative and General Expenses, the petitioner has submitted that the expenditure indicated in Form 7D of the petition are based on the audited expenditure for the period 2004-05 to 2008-09 and the same has been normalized as per Regulation 15 of the RLDC fees regulations.

49. It is seen from the documents placed on record that the AMC for SCADA/EMS was awarded on 15.1.2010 whereas the petitioner has claimed the AMC of ₹ 299.00 lakhs as notional AMC for the entire year 2009-10. For the purpose of calculation, AMC for 2009-10 has been taken on pro-rata basis and notional AMC of ₹ 299.00 for each of the year during 2010-14. For other items under R&M, the normalized R&M expenditure is calculated on the basis of actual expenditures during 2004-05 to 2008-09 and has been escalated as per the methodology given in Regulation 15 of RLDC fees regulations as quoted above.

50. The petitioner has made provision of additional expenditure of ₹ 70. 97 lakh as administrative and general expenses during 2010-11 as indicated in Form 7D which includes expenditure on insurance, legal expenses, audit fees, travelling expenses, watch and ward, seminars and workshops, training, financial charges and R&D expenses. These expenses fall outside the scope of the methodology provided for in Regulation 15 of RLDC fees regulations and accordingly not allowed.

51. Based on the above, the following O&M expenses have been allowed under O&M expenses:

(₹ in lakh)

ITEMS	2009-10	2010-11	2011-12	2012-13	2013-14
Repairs and maintenance expenses	98.16	323.75	325.17	326.66	328.24
Administrative and general expenses	147.08	155.46	164.33	173.69	183.59
Total	245.24	479.22	489.49	500.36	511.84

HUMAN RESOURCE EXPENSES

52. 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.”

53. The petitioner has submitted that Human Resource Expenses for ERLDC 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 entrusted to RLDCs:

- (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

54. 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	1274.17	1453.42	1671.51	1909.78	2169.85

55. In compliance with the direction of the Commission, the petitioner has submitted the revised calculation on HR expense vide its affidavit dated 26.6.2010. It has been submitted that HR expenses have been arrived at by considering the actual HR expenses for the period 2004-05 to 2008-09 and normalizing the same for the period 2009-10 to 2013-14 as per Regulation 16 of RLDC fees regulations. The revised HR expenses submitted by the petitioner as under:

(₹ in lakh)					
Financial Year	2009-10	2010-11	2011-12	2012-13	2013-14
Normalised HR expenses	1141.81	1207.12	1276.17	1349.17	1426.34

In accordance with the provisions of clause (1) of Regulation 16 of RLDC fees regulations, human resource expenses shall be normalized by excluding abnormal human resource expenses, ex-gratia, VRS expenses, VRS

expenses etc. after prudence check by the Commission. Accordingly, ex-gratia amounts of ₹ 5.52 lakh and ₹ 4.33 lakh during 2004-05 and 2005-06 respectively have not been allowed.

56. Regarding the increase in number of employees during the control period of 2009-10 to 2013-14, it has been 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. Considering the above the additional manpower requirement of ERLDC has been considered for calculation of Human Resource Expenses during 2009-14. The human resource expenses have been allowed as under:

(₹ in lakh)

HR-Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
HR-Cost Based on the norms as per Regulations 16 of RLDC fees regulations	1138.07	1203.17	1271.99	1344.75	1421.67
HR Cost for Additional Man-Power Requirement	0.00	72.48	168.58	275.43	393.96
Total HR-Expenses	1138.07	1275.65	1440.57	1620.18	1815.63
Number of employees (executive and non executive)	83	88	94	100	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. Interest on working capital has been calculated based on the following:

(a) O&M expenses except HR expenses: O&M expenses as allowed under para 48 above has been considered for one month on pro-rata basis.

- (b) Human Resource Expense: Human resource expenses as allowed under para 55 above has been considered for one month on pro-rata basis.
- (c) NLDC Charges for one month: Charges equivalent to one month of NLDC charges approved vide our order dated 14.2.2011 in Petition No. 83/2010 has been considered.
- (d) Receivables: Receivables equivalent to two months of system operation charges and market operation charges as determined under Regulation 20 of RLDC fees regulations.

61. 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.

62. Accordingly, interest on working capital has been worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
NLDC Charges	23.32	30.42	35.66	40.43	43.06
O & M Expenses Excluding Human Resource Expenses	20.44	39.94	40.79	41.70	42.65
Human Resource Expenses	94.84	106.30	120.05	135.02	151.30
Receivables	528.39	603.01	640.33	583.62	729.09
Total	666.98	779.68	836.83	800.76	966.10
Rate of interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	81.71	95.51	102.51	98.09	118.35

NLDC CHARGES

63. Regulation 18 (3) of the RLDC fees regulations provides for apportionment of the NLDC charges and corporate office expenses among the RLDCs as under:

“(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.”

64. 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

65. Fees and charges for Eastern Regional Load Despatch Centre allowed during the control period 2009-14 are summarized as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1187.60	1200.18	1208.50	600.03	1131.59
Interest on Loan	89.76	48.38	14.00	1.82	1.82
Return on Equity	148.15	154.06	158.97	196.05	278.58
Interest on Working Capital	81.71	95.51	102.51	98.09	118.35
O & M Expenses Excluding Human Resource Expenses	245.24	479.22	489.49	500.36	511.84
Human Resource Expenses	1138.07	1275.65	1440.57	1620.18	1815.63
NLDC Charges & Corporate Office expenses	279.79	365.09	427.92	485.18	516.73
Total	3170.33	3618.09	3841.96	3501.73	4374.53

PRE-INCORPORATION EXPENSES

66. 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.

PUBLICATION EXPENSES

67. 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

68. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission 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

69. The petitioner has prayed to be allowed to bill and adjust impact on transfer of building/part of building of ERLDC and other associate facilities like staff quarters from Central Electricity Authority during 2009-14 period from the respondents. BSEB has opposed the prayer on the ground that the transfer of such assets would further increase the charges on the beneficiaries without any value addition to be provided by ERLDC. We notice that the expenditure has not been included in the CAPEX plan for 2009-14 and accordingly cannot be considered during the control period.

70. 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.

71. This order disposes of Petition No. 95/2010.

Sd/-
(M.Deena Dayalan)
Member

Sd/-
(V.S.Verma)
Member

Sd/-
(S.Jayaraman)
Member

Sd/-
(Dr. Pramod Deo)
Chairperson