

**L-7/145(160)/2008-CERC
CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

- 1. Dr. Pramod Deo, Chairperson**
- 2. Shri R. Krishnamoorthy, Member**
- 3. Shri S. Jayaraman, Member**
- 4. Shri V.S.Verma, Member**

In the matter of

Statement of Reasons in respect of the Central Electricity Regulatory Commission (fees and charges of Regional Load Despatch Centre and other related matters) Regulations, 2009.

ORDER

1 Background

1.1 INTRODUCTION

1.1.1 India is a country of large size and for the efficient, economical and integrated transmission and supply of electricity, and in particular to facilitate voluntary inter-connections and co-ordination of facilities for the inter-State, regional and inter-regional generation and transmission of electricity the power system in the country has been demarcated into five regional grids, namely, Northern, Southern, Western, Eastern and North-Eastern regions.

1.1.2 Regional Load Despatch Centres (RLDCs) are the apex bodies to ensure integrated operation of the power system in these five Regions by discharging the functions entrusted to them under Section 28 of the Electricity Act, 2003 (the Act)

1.1.3 National Load Despatch Centre (NLDC) has been constituted as per Ministry of Power (MoP) notification, New Delhi dated 2.3.2005 and is the apex body to ensure integrated operation of the national power system. The main functions assigned to NLDC are:

- Supervision over the Regional Load Despatch Centres.
- Scheduling and dispatch of electricity over the inter-regional links in accordance with grid standards specified by the Central Electricity Authority (CEA) and grid code specified by Central Commission in coordination with Regional Load Despatch Centres.
- Coordination with Regional Load Despatch Centres for achieving maximum economy and efficiency in the operation of National Grid.
- Monitoring of operations and grid security of the National Grid.
- Supervision and control over the inter-regional links as may be required for ensuring stability of the power system under its control.
- Coordination with Regional Power Committees for regional outage schedule in the national perspective to ensure optimal utilization of power resources.
- Coordination with Regional Load Despatch Centres for the energy accounting of inter-regional exchange of power.
- Coordination for restoration of synchronous operation of national grid with Regional Load Despatch Centres.
- Coordination for trans-national exchange of power.

- Providing Operational feedback for national grid planning to the Authority and Central Transmission Utility.
- Dissemination of information relating to operations of transmission system in accordance with directions or regulations issued by Central Government from time to time.

1.2 LEGAL AND POLICY FRAMEWORK

1.2.1 The Act, provides for levy and collection of fee and charges by the RLDCs as may be specified by the Central Commission. Sub-section (4) under section 28 of the Act provides as under:

“(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.”

1.2.2 Further, clause (k) under rule 4 of the National Load Despatch Centre Rules, 2004 provides as under:

“4. Functions of National Load Despatch Centre.- The National Load Despatch Centre shall be the apex body to ensure integrated operation of the national power system and shall discharge the following functions, namely:-

*....
(k) levy and collection of such fee and charges from the generating companies or licensees involved in the power system, as may be specified by the Central Commission.”*

1.2.3 Sub-section (1) and (2) under section 2 of the Electricity (Removal of Difficulty) Sixth Order, 2005 provides as under:

“2. Levy and collection of fees and charges for using transmission system.-

(1) The Regional Load Despatch Centre may levy and collect such fee and charges from the licensees using the inter-state transmission system as may be specified by the Central Commission.

(2) The State Load Despatch Centre may levy and collect such fee and charges from the licensees using the intra-state transmission system as may be specified by the State Commission."

1.2.4 In terms of clause (h) of sub-section (2) of section 178 of the Act, the Commission has been vested with the powers to make regulations, by notification, on the levy and collection of fee and charges under section 28.

The clause reads as under:

"(h) levy and collection of fees and charge from generating companies or transmission utilities or licensees under sub-section (4) of section 28"

1.2.5 In accordance with the provisions of the Act, the Commission issued a Draft "Central Electricity Regulatory Commission (fees and charges of Regional Load Despatch Centre and other related matters) regulations, 2009" for inviting suggestions/comments, vide L-7/145(160)/2008-CERC, dated 11.5.2009. The Commission received suggestions/ comments from the following.-

- (a) West Bengal State Electricity Transmission Company Ltd.
- (b) Madhya Pradesh Power Trading Company Ltd.
- (c) West Bengal State Electricity Distribution Company Ltd.
- (d) National Thermal Power Corporation Ltd.
- (e) Power Trading Corporation (India) Ltd.
- (f) Power Grid Corporation of India Ltd., and
- (g) Tehri Hydro Development Corporation Ltd.

1.2.6 Based on the comments, objections and suggestions received from the stakeholders, the draft regulation has now been modified.

1.3 APPROACH FOR DETERMINATION OF FEES AND CHARGES

1.3.1 Determination of fee and charges – Background

1.3.1.1 The five RLDCs were transferred to POWERGRID between 1994 and 1996. At this point of time, the SLDCs continued to be part of the bundled State Electricity Boards (SEBs). Earlier when the RLDCs were being operated by CEA, the funding for any capital expenditure and the subsequent Operation and Maintenance (O & M) expenses used to come from the budgetary support provided by the Central Government. This budgetary support got discontinued after the transfer of RLDCs to POWERGRID. Marginal improvements in RLDCs such as mini-SCADA, VSAT communication links etc., were taken up by POWERGRID on a reimbursement basis after discussion in the erstwhile Regional Electricity Boards (REBs). Investment by POWERGRID under the unified project Augmentation of the Control Centres at RLDCs/SLDCs level was taken up as a unified project by POWERGRID under the Unified Load Despatch and Communication (ULDC) project. The award for Northern Region and Southern region Control centres were placed sometime in January 1998 and these control centres were declared under commercial operation in mid-2002. Subsequently, the other control centres viz. in North-Eastern, Eastern and Western Regions were commissioned by 2006. All the five regional control centres commissioned by POWERGRID had a total outlay of close to Rs.1826 crore. In addition to the investments made by POWERGRID, investments in basic infrastructure to the tune of Rs. 219 crore at SLDCs were made by the respective States.

1.3.1.2 In July 1998, an ad-hoc arrangement to recover the O & M expenses by POWERGRID in RLDCs was made in consultation with CEA. POWERGRID started billing the constituent States of each region accordingly.

1.3.1.3 The amendment to the Electricity Supply Act 1948 with effect from 11.8.1998 through Section 55 (10) empowered the Appropriate Electricity Regulatory Commissions (ERCs), where established, or the Appropriate Government to specify the fees and charges payable to Load Despatch Centres. Therefore subsequent to the formation of the Central Electricity Regulatory Commission, POWERGRID approached this Commission for reimbursement of actual RLDCs' expenditure from 1998-99. The Commission ordered that the charges for 1998-99 and 1999-2000 would continue to be at the level fixed by CEA. For the period 2000-01 and onward, the Commission sought the advice of CEA. Based on CEA's study and subsequent hearings, the Commission specified the fees and charges payable to each RLDC from 2000-01.

1.3.1.4 In May 2003, based on a review application by the POWERGRID, the Commission approved the fees and charges payable to RLDCs for the period from 1.4.2000 to 31.3.2004, in exercise of the powers under Section 55 (10) of the erstwhile Electricity Supply Act, 1948. In the meantime, the Unified Load Despatch and Communication (ULDC) project of POWERGRID got commissioned and tariff petitions were filed gradually by POWERGRID before the Commission starting mid-2002 for recovery of initial investments made by POWERGRID.

1.3.1.5 The total capital investment by POWERGRID under the ULDC project was Rs. 1826.09 crore (which includes Rs.175.25 crore as grant to NER). A concept of 15-years levelised tariff was introduced by the Commission for recovery of equity and loan in this project.

Annual Recovery Factor (ARF) was worked out as:

$$\frac{i (1 + i)^n}{(1 + i)^n - 1}$$

Where, “i” = weighted average rate of interest and Return on Equity

“n” = no. of years or period

1.3.1.6 ARF as worked out for the debt portion and equity portion separately was multiplied by the absolute value of equity and debt to get the equated annual installments for recovery of debt and equity respectively. It was assumed that the assets would have a useful life of only fifteen (15) years.

1.3.1.7 Even as these petitions were being addressed by the Commission, the Electricity Act, 2003 (the Act) came into existence and these tariff petitions were treated as petition for fees and charges under section 28(4) of the Act. These replaced the fees and charges ordered by the Commission in May 2003.

1.3.1.8 The charges for recovery of the initial expenditure comprise following:

- Annual Recovery Charge- Loan

- Annual Recovery Charge- Equity
- O & M expenses @ 7.5% of the capital cost for the first two years subject to submission of actual expenses
- Interest on Working Capital (IWC) at a rate of interest corresponding to the Prime Lending Rate (PLR) of State Bank of India as on 1st April of the year in which the project is declared under commercial operation. IWC applicable on the following components:
 - Maintenance spares @1% of the historical cost
 - O & M expenses for one month
 - Two months receivables

1.3.2 Approaches for determination of fee and charges

1.3.2.1 In order to analyse various aspects for determination of fee and charges for RLDCs, it was essential to undertake comprehensive review of legal and regulatory framework. Several SERCs have specified regulations for determination of fee and charges for SLDCs. Most of the SERCs have followed the approaches of 'Annual Recovery Factor', as discussed under para 1.3.1.5 above, in specifying their regulation.

1.3.2.2 There is a marked difference between the generating stations and transmission licensees on one hand and the Load Despatch Centres on the other. The Load Despatch Centres are statutory bodies and are required to carry out specific tasks as assigned in the Act. The Load Despatch Centres are also debarred specifically by the Act from carrying out business in the field of generation or trading of electricity so that they can discharge their functions free from conflict of interest. Moreover, the tasks assigned to the LDCs are

specialised in nature. Considering the unique features and status of the LDCs, the fee and charges shall be determined by keeping the following in mind:

- (a) Recovery of total estimated expenses including Return on Equity
- (b) Truing up of the estimated expense with that of the actual expenses and refund/recovery of the difference
- (c) Creation of 'LDC development Fund'

2 General Principles

2.1 CONTROL PERIOD

The Control Period refers to the period for which the norms and methodologies outlined under these Regulations shall remain valid. In line with the 'CERC (Terms and Conditions of tariff) Regulation, 2009', a control period of five years from 1.4.2009 has been considered. The fee and charges to be determined as per the proposed regulations shall remain same for the control period and shall be trued up at the end of the control period.

2.2 STRUCTURE OF FEE AND CHARGES

The tariff structure for conventional projects comprises two parts – viz. fixed part and variable part. In case of Load Despatch Centers, all the expenses are of the nature of fixed costs. Accordingly, the 'annual charges' to be determined shall be in the nature of fixed cost.

2.3 DESIGN OF FEE AND CHARGES

2.3.1 Tariff design, in case of Load Despatch Centres, is one of the most important aspects in ensuring the cash-flow stream to the Load Despatch Centres and at the same time, protecting the interest of users by avoiding cost burden. Tariff should be designed in such a way that the system operator is able to meet all of its cash obligations and also can create sufficient resources for future up-gradation, augmentation and replacement of assets.

2.3.2 RLDCs are required to carry out the functions like monitoring of system parameters and security, ensuring the integrated operation of the power system grid in the region, daily scheduling and operational planning,

facilitating bilateral and inter-regional exchanges, etc. They are supposed to carry out these functions without being influenced by or biased in favour of any market player. Financial independence is of utmost importance to an organisation to work in an unbiased manner.

2.3.3 Accordingly, cost plus tariff has been considered for the purpose of determination of charges. As the charges are required to be determined upfront for the control period, the provision of truing up after the control period has been considered.

2.3.4 Initially Load Despatch Centres may face difficulties in raising money for their investment requirement towards technology upgradation and other facilities required for smooth functioning. The creation of 'LDC Development Fund' has been envisaged to take care of the investment requirement. The cost elements of fee and charges are of the nature of either servicing of capital cost or operating and maintenance cost. The charges on account of return on equity, interest on loan, depreciation and other income of the Regional Load Despatch Centre and National Load Despatch centre such as registration fee, application fee, short-term open access charges, etc shall be deposited to the LDC development fund. The Power System Operation Company shall be entitled to utilise the money deposited in the LDC development fund for loan repayment, servicing the capital raised in the form of interest and dividend payment, meeting stipulated equity portion in asset creation and margin money for raising loan from the financial institutions and funding R & D projects. The fund shall be reviewed by the Commission at regular interval.

2.3.5 The Load Despatch Centres perform two distinct functions in the form of system operator and market operator. Accordingly, the annual charges determined shall be recovered from the users in the form of system operating charges and market operating charges.

3 Financial Principles

3.1 CAPITAL COST AND ADDITIONAL CAPITALISATION

3.1.1 In a cost based regulation capital cost of the system is perhaps the most important parameter. The capital cost on the completion of the system is the starting point as the rate base for deciding the return on the investment made by the investor.

3.1.2 Different philosophies and practices have been followed in the different tariff periods in respect of determination of tariff for generating companies and transmission licensees. Prior to 1992 and during the period 1992 to 1997 and 1997 to 2001, the capital cost of the project used to be based on gross book value as per the audited accounts. The changes in the capital cost by the way of capitalization and FERV were also being accounted for and tariff was being adjusted retrospectively. This practice has been followed even during the tariff period 2004-09. Under the existing methodology of fixation of tariff for the period 2004-09, reliance is placed on the audited figures as certified by the Auditors of the companies and completion of supplementary audit by the CAG of India in case of Govt. owned companies. This takes considerable time resulting in allowing provisional tariff. Again in respect of additional capital expenditure for which the utilities can approach the Commission twice during the period 2004-09, there is considerable passage of time between completion of work and approaching the Commission for the award of tariff. This results in retrospective application of revision in tariff and also delay in reaching the finality with regard to tariff of the various units and stations. In order to provide a reasonable

amount of certainty to the entire exercise of tariff fixation and reduce the impact of provisional tariff as well as retrospective implementation of any revision, the Commission, for the tariff period 2009-14 introduced the concept of projected capital expenditure with a provision of truing up exercise. The Commission shall also rely on the audited statement of accounts, as the gross block in the books of accounts duly certified by the auditors is authentic and clearly indicates the actual capital expenditure including committed liabilities. The capital cost admitted is also limited to the amount actually paid, that is, the actual cash outgo.

3.1.3 In these regulations, for determination of fee and charges for RLDCs, the capital cost 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 shall be considered as the opening capital cost for determination of charges. The capital cost 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. The value of the assets not in use shall not form part of capital cost. The Commission shall carry out prudence check of the capital cost claimed before admitting the same. In addition, the system operator would be required to furnish the CAPEX Plan for the control period. The RLDCs/NLDC may claim additional capitalisation on the basis of this CAPEX Plan. The Commission shall consider the capital expenditure incurred or projected to be incurred after the date of commercial operation subject to prudence check of the CAPEX Plan. However,

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. bought after the date of commercial operation shall not be considered for additional capitalization for determination of fees and charges.

3.2 DEBT EQUITY RATIO

3.2.1 Financing plan of the project plays a predominant role in the determination of tariff. The existing tariff regulations for determination of tariff for generating companies and transmission licensees, applicable during the period 2004-09, contain provisions in regard to debt-equity ratio of the existing projects, new projects and apportionment of additional capitalization. It has been felt that the regulations should be simplified. The Commission, for the tariff period 2009-14, adopted a uniform capital structure with a debt-equity ratio of 70:30 for all the power projects i.e. whether it is initial project cost, additional capital expenditure or renovation & modernization case. However, if equity infused is less than 30%, actual amount of equity would be considered for tariff determination. In case of existing projects, the Commission decided not to disturb the capital structure of such projects, as approved by the Commission as on 31.3.2009. However, additional capital expenditure, if any, shall be serviced in the debt-equity ratio of 70:30.

3.2.2 In these regulations, for determination of fee and charges for RLDCs, 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. For an investment made on or after the date of transfer, the actual equity, subject to a maximum of 30%, shall be considered for determination of charges.

3.2.3 The equity invested in foreign currency shall be designated in Indian rupees on the date of each investment. 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.

3.3 RETURN ON EQUITY

3.3.1 The Commission, for determination of tariff for generating companies and transmission licensees, allowed rate of return on equity of 16% and 14% for the tariff period 2001-04 and 2004-09 respectively. The PLRs of State Bank of India during 2001 and 2004 were 11.50% and 10.25% respectively. But as on 1st January 2009, the PLR of State Bank of India is 12.25%. After considering the rise in the PLR of the public sector banks, 10-year G-Sec, etc and also in order to help the entities to build up sufficient internal accruals for the purpose of investment in capacity addition and to ensure better cash flow, for the tariff period 2009-14, the Commission has decided a marginal increase in the base rate of return on equity from 14% to 15.5%. The Commission, after considering

the views of all stakeholders decided to move to the system of pre-tax rate of return on equity from the existing post-tax rate of return on equity. Accordingly, the Commission has decided to allow pre-tax rate of return on equity to the utilities. The same shall be calculated by considering the applicable tax rate for the companies for the year 2008-09 as per the relevant Finance Act, as base rate.

3.3.2 There is a need of constant upgradation, augmentation and modernisation of the asset base of RLDCs. Considering an equity investment amounting to 30% of the future capitalisation, the Load Despatch Centres should have sufficient internal resources. Return on equity is one of the major sources of internal accruals. As such, the rate of return on equity allowed to the LDCs should be more than the rate of return on equity allowed to the generating companies and the transmission licensees. Hence the Commission considered a post-tax rate of return on equity at the rate of 16% to be grossed up at the prevailing tax rate.

3.3.3 In these regulations, the rate of return on equity shall be computed by grossing up the base rate of 16% with the normal tax rate for the financial year 2009-10 applicable to the Power System Operation Company. The rate of 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.

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.

3.4 INTEREST ON LOAN AND FINANCE CHARGES

3.4.1 The Commission, for calculation of interest on loan in determination of tariff for generating companies and transmission licensees, has been considering weighted average rate of interest as per their books of accounts of the utilities and normative repayment. For tariff period of 2009-14, the Commission has decided that the repayment for the respective year should be deemed to be equal to depreciation allowed for that year. Further, to encourage the entities to make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries, the Commission has proposed to allow sharing of the net benefit between the beneficiaries and the utilities in the ratio of 2:1. The weighted average rate of interest has to be worked out on the basis of actual loan portfolio of the generating company or transmission licensee. In the absence of actual loan portfolio in a particular year, the last weighted average rate of interest and in the absence of any loan, the weighted average rate of interest of the generating company or transmission licensee would be taken into account.

3.4.2 In these regulations, the normative loan outstanding as on 1.4.2009 or the date of transfer shall be worked out by deducting from the gross normative loan on that date, the cumulative repayment as admitted by the Commission up to 31.3.2009 or the date of transfer. The repayment for respective year of the

control period shall be deemed to be equal to the depreciation allowed for that year.

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

3.4.4 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. The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing. The finance charge paid by the system operator, after carrying out prudence check, shall also be allowed to be recovered from the users.

3.5 DEPRECIATION

3.5.1 In the tariff regulations for determination of tariff for generating companies and transmission licensees, applicable during the period 2001-04 and 2004-09, the depreciation rate was linked to the life of the assets. The Commission also

allowed Advance Against Depreciation (AAD) for meeting the loan repayment obligation. The AAD was allowed subject to certain conditions such as a ceiling of one-tenth of the normative gross loan. After repayment of the loan the remaining depreciable value was spread over the balance useful life of the assets. The Commission, for the tariff period 2009-14, as per the provision of Tariff Policy, discontinued the practice of allowing AAD. But in order to provide sufficient fund to the utilities, required for repayment of loan, the depreciation rates for different assets was delinked from the useful life of the assets and was so assigned as to arrive at a higher weighted average rate approximating 5.28%. Considering an average repayment period of 12 years, the remaining depreciable value after completion of 12 years of commercial operation is to be spread over the balance useful life of the assets.

3.5.2 Most of the assets of RLDCs are having shorter period of useful life and have nil salvage value. This is particularly so in the case of Information Technology and communication equipments and the softwares. The upgradation, augmentation and modernisation of the assets is a continuous process. As such, depreciation rate of the assets with higher depreciation rate and nil salvage value have been added to Appendix III.. The provision of spread over after a period of 12 years, as is available in case of determination of tariff for generating companies and transmission licensees, is not considered necessary in these regulations.

3.5.3 In these regulations, the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. 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, after prudence check.

3.5.4 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. Besides, assets fully depreciated shall be shown separately.

3.5.5 The salvage value of the assets (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. 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.

3.5.6 The weighted average rate of depreciation shall be calculated by applying the rates specified in the regulation to the assets. Depreciation shall be calculated annually based on Straight Line Method by applying the weighted average rate of depreciation.

3.6 O & M EXPENSES (EXCLUDING HUMAN RESOURCES EXPENSES)

3.6.1 In the draft regulations, O & M expenses were considered under four distinct sub-heads, namely, employees cost, repairs and maintenance expenses, administrative and general expenses and NLDC charges.

3.6.2 It has been well recognized the functions discharged by Load Despatch Centres as highly specialized and technical. Thus the services provided by the Load Despatch Centres are in the nature of knowledge services to be delivered by human beings having the required skills and capabilities. Even the best of technological tools provided in the form of SCADA/EMS and other offline support systems in the LDCs would require human skills and motivation for the tools to be utilized in the best manner. The Satnam Singh Task Force recognized that with the technological advancement the cost of load despatch technology would come down substantially and the cost of human resource would increase. Therefore the Task Force recommended that the employee cost should be considered independent of equipment related O & M and other administrative expenses. Accordingly, Human Resource expenses have been excluded from O & M expenses and considered separately.

3.6.3 National Load Despatch Centre is an entity distinct from the RLDCs. The Commission discussed the issue and decided that the power system operation company should file a separate petition to the Commission for determination of NLDC charges and corporate office expenses. Accordingly, NLDC charges and corporate office expenses have been excluded from O & M expenses and considered separately.

3.6.4 The O & M expenses shall comprise of the repairs and maintenance expenses and administrative and general expenses. The RLDCs have been a part of the Power Grid Corporation of India. Separation of accounts of the RLDCs from that of the PGCIL is still under way. In the absence of separate

audited operation and maintenance expenses of the RLDCs for a longer period it will not be proper to come to a normative O&M expenses for the RLDCs. Accordingly, the O&M expenses shall be allowed on the basis of the actual expenses of the past available data and methodology specified in the regulation.

3.6.5 O & M expenses (excluding human resource expenses) shall be derived on the basis of actual O & M expenses for the years 2004-05 to 2008-09, based on the audited balance sheets.

3.6.6 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.

3.6.7 The normalised O & M 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 O & M expenses at the 2008-09 price level respectively and then averaged to arrive at normalized average O & M expenses for the 2004-05 to 2008-09 at 2008-09 price level. The average normalized O & M expenses at 2008-09 price level shall be escalated at the rate of 5.72% to arrive at the O & M expenses for year 2009-10.

3.6.8 The O & M expenses for the year 2009-10 shall be escalated further at the rate of 5.72% per annum to arrive at permissible O & M expenses for the subsequent years of the tariff period.

3.7 HUMAN RESOURCE EXPENSES

3.7.1 As discussed above, under para 3.6.2, Human Resource expenses have been excluded from O & M expenses and considered as a distinct cost component.

3.7.2 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.

3.7.3 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. While determining tariff of the generation and transmission companies in the past, the employee incentives were not considered part of the employee cost as the Commission was of the view that these are to be paid out of the incentive amounts available to these companies on account of higher availability or scheduled plant load factors. The services provided by RLDCs/NLDC however fall in a different category. The Commission believes that employee incentives such as Performance Related Pay (PRP) need to be considered as part of the Human Resource expenses. However in a regulatory regime 100% pass through of such expenses would necessarily have to be linked to performance. For this purpose, the Commission would come out with suitable Key Performance Indicators (KPIs) for RLDCs/NLDC and the pass through of PRP expenses would be linked to the performance of the RLDCs/NLDC vis-à-vis these KPIs. This had been a recommendation of the Satnam Singh Task Force also.

3.7.4 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.

3.7.5 The human resource expenses for the year 2009-10 shall be further rationalized considering actual revised pay, if available. In case the actual revised human resource expenses is not available at the time of filing the petition, 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 O & M expenses for the year 2009-10.

3.7.6 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.

3.7.7 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.

3.8 INTEREST ON WORKING CAPITAL

3.8.1 The working capital, in respect of the RLDCs, shall cover O & M expenses excluding human resource expenses for one month, human resource expenses for one month, NLDC charges for one month, and receivables equivalent to two months of both the system operation charges and market operation charges as approved by the Commission.

3.8.2 Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009. 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.

3.9 NLDC CHARGES AND CORPORATE OFFICE EXPENSES

3.9.1 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. Interest on working capital shall not form a component of the NLDC charges as in the case of RLDCs.

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

3.9.3 NLDC charges and corporate office expenses shall be apportioned to the Regional Load Despatch Centre on the basis of the peak demand served (in MW) in the respective region as indicated in CEA's website for the preceding year.

4 Recovery of Fee and Charges

4.1 SYSTEM OPERATION CHARGES AND MARKET OPERATION CHARGES

4.1.1 The Gireesh Pradhan Committee report on “Manpower, Certification and Incentives for System Operation and Ring fencing Load Despatch Centres” discussed in details about the functions of Load Despatch Centres. The functions of Load Despatch Centres have been evolving with the integration of power systems, increase in electrical energy demand, growth in the economy and changes in technology, regulations, market design, administration and management of the power system. System Operation and Market Operation have been envisaged as the two prime functions of the Load Despatch Centres. .

4.1.2 In regard to the role of the Load Despatch Centres as System Operator, the report mentions that:

“2.3.1 Load Despatch Centres as System Operators Classical System

Operation involves operational planning, protection coordination, designing of safety net, assessment of transfer capability, generation/transmission facility outage coordination, frequency control, voltage control, issuing switching instructions, managing congestion in the transmission system, setting power order of HVDC stations, arming and disarming of System Protection Schemes, restoration of equipment post disturbances, grid disturbance analysis and such related activities for ensuring reliability of the power system. Precision and timing are vital in System Operation as a minor technical snag or a seemingly innocuous human error may lead to human casualty, equipment damage and/or blackout within seconds, resulting in severe social, economic and political implications. Thus, “Situational Awareness” (SA), presence of mind, fast decision-making and prompt action is essential for preventing supply interruptions or loss of resource optimization opportunities. Over the years, the complexity in System Operation has increased due to increase in system size, increase in the number of stakeholders and growing demand for electrical energy. Further, new threats in the form of cyber terrorism,

sabotage, natural calamities have now emerged. In future, the challenges before the System Operators would increase with the introduction of Distributed Generation (DG), increased sources of renewable energy etc. Future grids are expected to be “Intelligent Grids” with self-healing properties and tomorrow’s operator would be designing and operating such grids. These developments would lead to a significant increase in the challenges to be faced by system operators in the 21st century. Reliability of the electricity grids is the prime responsibility of the LDCs.”

4.1.3 As regards the role of the Load Despatch Centres as Market Operator, the report mentions that:

“2.3.2 Load Despatch Centres as Market Operators

Market Operation involves generation resource scheduling, managing renewable energy sources, providing common and equal information access to all market players, facilitating open access, seams management, metering system design, meter data collection, validation and processing, energy accounting and settlement, calculation of losses, pool account administration, market surveillance, analysis and other related activities. These functions gained prominence subsequent to the structural changes in sector and introduction of new market mechanisms such as the Availability Based Tariff (ABT), Open Access and Power trading. The LDCs of tomorrow would need to implement new market mechanisms that complement reliability. The complexity in market operation is already increasing due to an increase in the number of market players, evolving market mechanism and increased sophistication in market design. With growing commercial consciousness among the market players, market related activities and tasks, which were formerly done in an offline mode, have now become a time-constrained activity and moved into the online operation control centre. Moreover, as a “Market Operator”, the LDCs have to discharge their duties in a nondiscriminatory and transparent manner.”

4.1.4 The Commission also recognizes System Operation and Market Operation as two main services being provided by RLDCs. Accordingly, the annual charges shall be recovered from the users in the form of ‘System Operation Charges’ and ‘Market Operation Charges’.

4.2 APPORTIONMENT OF ANNUAL CHARGES

4.2.1 In order to recover the annual charges from the users in the form of system operation charges and market operation charges, the annual charges needs to be apportioned to the system operation charges and market operation charges on the basis of a pre-determined percentage.

4.2.2 As can be seen from the distinctive role of the Load Despatch Centres as System Operator and Market Operator, a major component of capital investments and O & M would be on account of the System Operation function. The CAPEX plan for RLDCs/NLDC would be primarily for the System Operation function. However there could be instances of infusion of funds for creation of assets relating to the Market Operation function also. The human resource deployment in the RLDCs/NLDC would be varying to suit the dynamic requirement of the power system and power market. The O & M expenses and human resource expenses at RLDCs comprise of various sub-elements like employees cost, Annual Maintenance Contracts (AMCs) for different equipments, rentals in respect of communication lines taken on lease, administrative and general expenses, etc. It may not be possible to arrive at a particular proportion for apportioning the cost to the system operation function and the market operation function.

4.2.3 Presently Load Despatch Centres shall primarily be engaged in system operation. As the power market is still in a nascent stage, only a small portion of their resources shall be utilised for the market operation function. Hence the Commission feels that 80% of the total revenue requirement shall be attributable

to system operation function and 20% shall be apportioned to market operation function.

4.2.4 The Commission may review this ratio of 80:20 from time to time, if necessary.

4.3 COLLECTION OF FEE AND CHARGES

4.3.1 Collection Of System Operation Charges

4.3.1.1 The sub-section (4) under section 28 of the Act provides that,
“(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.”

4.3.1.2 Clause (k) under section 4 of the National Load Despatch Centre Rules, 2004 provides that “levy and collection of such fee and charges from the generating companies or licensees involved in the power system, as may be specified by the Central Commission.”

4.3.1.3 Further , Sub-section (1) under section 2 of the Electricity (Removal of Difficulty) Sixth Order, 2005 provides that “The Regional Load Despatch Centre may levy and collect such fee and charges from the licensees using the inter-state transmission system as may be specified by the Central Commission.”

4.3.1.4 Sub-section (1) under section 183 of the Act, relating to 'Power to remove difficulties' provides that, "If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published, make such provisions not inconsistent with the provisions of this Act, as may appear to be necessary for removing the difficulty: Provided that no order shall be made under this section after the expiry of two years from the date of commencement of this Act."

4.3.1.5 As such, any order made by the Central Government under section 183 of the Act is not in lieu of the provisions of the Act but is in addition to the relevant provision, provided the addition is 'not inconsistent with the provisions of this Act'.

4.3.1.6 Accordingly, the Power System Operation Company shall be entitled to levy and collect fee and charges from users of the inter-State transmission system and power exchanges as specified in any other regulations. The term user is defined under Regulation 3(25) of the said Regulations as, 'user' means the generating companies, distribution licensees, buyers, sellers and inter state transmission licensees, as the case may be, who use the inter-state transmission network or the associated facilities and services of National Load Despatch Centre and Regional Load Despatch Centres".

4.3.2 Proportion Of Collection Of System Operation Charges

4.3.2.1 The users of system operation function can be categorised into three major heads, viz. inter-State transmission licensees, the generating stations and sellers and the distribution licensees and buyers. The System

operation charges shall be collected from inter-State transmission licensees, the generating stations and sellers and the distribution licensees and buyers in the proportion of 10%, 45% and 45% respectively.

4.3.2.2 The system operation charges shall be collected from the inter-State transmission licensees on the basis of the ckt.-km of the lines owned by them. The generating companies and sellers shall be charged in proportion to their installed or contracted capacity, as the case may be. The distribution licensees and buyers shall bear the system operation charges in proportion to the sum of their allocations and contracted capacities, as the case may be, as on the last day of the month prior to billing of the month.

4.3.3 Proportion Of Collection Of Market Operation Charges

4.3.3.1 The market operation charges shall be collected equally from all the users except inter-State transmission licensees.

4.3.3.2 The respective State Load Despatch Centre shall be the nodal agency for collection of charges in the State if the concerned Regional Load Despatch Centre, State Load Despatch Centre and the distribution licensees arrive at a mutual consensus to do so. The respective State Load Despatch Centre shall collect the system operation charges and the market operation charges from the distribution licensees within a state on behalf of the concerned Regional Load dispatch Centre and the same shall be deposited to the concerned Regional Load Despatch Centre.

4.3.4 Collection Of Registration Fees

4.3.4.1 All users whose scheduling, metering and energy accounting is to be coordinated by Regional Load Despatch Centre shall register themselves with the Regional Load Despatch Centre concerned by paying a one time fee of Rs 10 lakh (Rs. Ten lakh only).

4.3.4.2 The existing users shall register themselves with the Regional Load Despatch Centre concerned by filing an application along with the fees of Rs 10 lakh (Rs. Ten lakh only) within a month of coming into force of these regulations.

4.3.4.3 National Load Despatch Centre shall collect an amount of Rs.20.0 lakh (Rupees twenty lakh only) as one time registration fee from each power exchange for the purpose of registration.

5. Miscellaneous Provisions

5.1 The Power System Operation Company, through its respective RLDCs, shall raise the bill for the system operation charge and market operation charge on monthly basis.

5.2 LATE PAYMENT SURCHARGE

As in the case of tariff regulations for determination of tariff for generating companies and transmission licensees, in case the payment of any bill for charges payable under these regulations is delayed by a user beyond a period of 60 days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the system operator.

5.3 REBATE

As in the case of tariff regulations for determination of tariff for generating companies and transmission licensees, for payment of bills through letter of credit on presentation, a rebate of 2% shall be allowed. Where payments are made other than through letter of credit within a period of one month of presentation of bills, a rebate of 1% shall be allowed.

5.4 COST OF HEDGING AND FERV

As in the case of tariff regulations for determination of tariff for generating companies and transmission licensees, the Commission has decided to allow the cost of hedging of foreign currency exposure and FERV, to the extent hedging is not resorted to, as pass-through. The cost of hedging of foreign

exchange rate variation corresponding to the normative foreign debt, in the relevant year on year-to-year basis as expense in the period in which it arises shall be recoverable. The extra rupee liability towards interest payment and loan repayment against the foreign loan not being hedged, corresponding to the normative foreign currency loan, in the relevant year shall be permissible provided it is not attributable to the generating company or the transmission licensee or its suppliers or contractors. The cost of hedging and foreign exchange rate variation recoverable on year-to-year basis as income or expense shall be considered by the Commission at the time of truing up exercise.

6 Responses to Draft Regulation

6.1 RESPONSES

6.1.1 The Commission had issued the Draft “Central Electricity Regulatory Commission (fee and charges of Regional Load Despatch Centre and other related matters) regulation, 2009”, vide L-7/145(160)/2008-CERC dated 11th May 2009, inviting comments, suggestions and objections from the interested parties. Comments, suggestions and objections were received from following.-

Sl.	Respondents	Address	Letter No. & Date
(a)	West Bengal State Electricity Transmission Company Ltd. (WBSETCL)	Vidyut Bhavan, 9 th Floor, DJ-Block, Sector-II, Salt Lake, Kolkata-700091	No.CE/PE/CERC/239 dated 13.6.2009
(b)	Madhya Pradesh Power Trading Company Ltd. (MPPTCL)	Shakti Bhavan, Vidyut Nagar, Jabalpur-482008	No.05/01/304 dated 15.6.2009
(c)	West Bengal State Electricity Distribution Company Ltd. (WBSEDCL)		No.C/CERC/1948A dated 13.6.2009
(d)	National Thermal Power Corporation Ltd. (NTPC)	NTPC Bhavan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003	No.01:CD:P&S:704 D dated 15.6.2009
(e)	Power Trading Corporation (India) Ltd. (PTC)	2 nd Floor, NBCC Tower, Bhikaji Cama Place, New Delhi-110066	No.C/PTC/CD/CERC dated 15.6.2009
(f)	Power Grid Corporation of India Ltd. (PGCIL)	“Saudamini”, Plot No.2, Sector-29, Gurgaon-122001	No.CSO/CERC/09 dated 30.6.2009
(g)	Tehri Hydro Development Corporation Ltd. (THDC)	Bhagirathi Bhawan (Top Terrace), Bhagirathipuram, Tehri-Garhwal - 249001	No.THDC/RKSH/OMS/F-1471/2117 dated 3.8.2009

6.1.2 The Commission has considered and deliberated upon the comments, suggestions and objections received from by the respondents as discussed below.

6.2 DEFINITIONS

6.2.1 PGCIL, PTC and THDCL have proposed changes to some of the definitions in order to make the definitions broad based and unambiguous. In addition, PGCIL also proposed to add some new definitions. The suggestions and the action taken thereon are detailed in the succeeding paragraphs.

6.2.2 PGCIL had suggested that the word 'Power' may be added before 'System Operation Company'. The Commission agreed to the suggestion and as such, 'System Operation Company' has been replaced with 'Power System Operation Company'

6.3 APPLICATION FOR DETERMINATION OF FEE AND CHARGES

6.3.1 In the draft regulation, NLDC charges and corporate expenses were proposed to form part of the RLDCs application for determination of fee and charges. PGCIL suggested that NLDC may be allowed to file petition to the Commission for determination and collection of fee and charges. The Commission has accepted the suggestion and has accordingly made provision requiring the NLDC also to approach the Commission for determination of the charges. After the charges being determined by the Commission, the same shall be apportioned to the RLDCs for collection.

6.3.2 PGCIL also suggested that in-principle clearance of the CAPEX plan of NLDC and RLDCs may be given separately by the Commission. The Commission is of the view that the CAPEX plan can be approved by the Commission at the time of determination fee and charges. As such, the NLDC and RLDCs are not required to approach the Commission for in-principle approval of the CAPEX plan.

6.4 TRUING UP

6.4.1 MPPTCL and PGCIL suggested that the over-recovered/under-recovered amount arrived after truing up may be refunded or recovered to/from the users along with interest at the rate of short-term SBI PLR instead of adjustment. The Commission is in conformity with the suggestions and as in the case of the regulations for determination of tariff for generating companies and transmission licensees, the amount under-recovered or over-recovered, along with simple interest at the rate equal to the short-term Prime Lending Rate of State Bank of India as on 1st April of the respective year, shall be recovered or refunded by the users in six equal monthly installments starting within three months from the date of the tariff order issued by the Commission after the truing up exercise.

6.4.2 MPPTCL has suggested that the truing up exercise may be carried out every year. We do not feel that there is any need for increasing the frequency of truing up. The provision of recovery or refund along with interest takes care of the cost of servicing the excess fund lying in the hand of the RLDCs or the

users, as the case may be. Accordingly, we hold that there is no need to carry out the truing up exercise every year.

6.5 CAPITAL COST

6.5.1 MPPTCL had suggested that FERV may not be considered as a component of capital cost. In the case of regulations for determination of tariff for generating companies and transmission licensees, the Commission, has considered FERV as a component of capital cost. Any cost incurred, whether capital or revenue in nature, up to the date of commissioning of an asset forms part of the capitalised cost of the asset. Accordingly, it has been held that FERV up to the date of commercial operation shall form a part of the capital cost.

6.5.2 PGCIL had suggested that the Gross Block 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' instead of '1.4.2009' may be considered as the opening capital cost. We agree to this suggestion for the simple reason that transfer of assets from PGCIL to that of the Power System Operation Company was not completed by 1.4.2009. Accordingly, we hold that that it will be appropriate to consider 'the date of transfer' instead of '1.4.2009', wherever required.

6.5.3 PGCIL suggested that the provision for Additional Capitalisation, Initial Spares and Renovation & Modernisation be made in the regulation. As explained under para 3.1 above, the Commission included the provision of additional capitalisation. There will be a need of constant upgradation,

augmentation and modernisation of the Load Despatch Centres assets and the provision of additional capitalisation will take care of this need. As such the Commission is of the considered view that there is no need of incorporating a separate provision for renovation & modernisation in the regulation.

6.5.4 The useful life of most of the physical assets of Load Despatch Centres is very short. Moreover in most of the cases Annual Maintenance Contract (AMC) will be in place and this will take care of the requirement of spares. As such the Commission feels that there is no need of incorporating a provision for initial spares in the regulation.

6.6 LDC DEVELOPMENT FUND

6.6.1 PGCIL had suggested that 'LDC Development Fund' may be renamed as 'RLDC/NLDC Development Fund' so as to avoid confusion with any fund created for SLDCs. We do not apprehend any confusion over the name 'LDC Development Fund' as the Fund shall be maintained by the respective RLDC and shall be used as per the direction of the company.

6.6.2 PGCIL had further suggested that only the "registration fee", "application fee for short-term open access" and the "short-term open access charges" and '50% of surplus generated from consultancy and other value added services' may be deposited in to the LDC Development Fund. MPPTCL had also suggested that depreciation should be utilised for loan repayment. It had further suggested that application fees and registration fees should be utilised to optimize operation of SLDC/RLDC and the amount

so invested be excluded from capital cost. With regard to application fees and registration fees NTPC had suggested that the same be adjusted with the annual charges and net annual charges payable by users. PGCIL had suggested that the money deposited to the LDC development fund may also be allowed to be used for funding Research & Development projects and used for any other purposes with Commission's approval.

6.6.3 We have given our anxious consideration to the suggestion. LDC development fund has been created to take care of the capital requirement of RLDCs/NLDC out of internal resources or to raise outside debt. In case of new investment, the amount deposited into this fund shall be utilised to meet the equity obligation or as a margin money required to raise fund from the market to take care of the investment need. Moreover, investment related components of the annual charges should be deposited in the fund for further utilisation towards investment and financing loan repayment obligation. Accordingly, we do not consider it appropriate to accept the suggestions put forth by PGCIL. However, in order to bring more clarity, we direct that various charges like return on equity, interest on loan, depreciation and other income of the Regional Load Despatch Centre and National Load Despatch centre such as registration fee, application fee, short-term open access charges, etc that are required to be deposited in to this fund be specified in the regulation.

6.6.4 As discussed under para 6.6.3 above, the money deposited in the LDC development fund shall be allowed to be used for expenses of capital nature only. Amount realized towards depreciation shall be deposited in to this fund and

the Power System Operation Company shall be entitled to utilise the money deposited to the LDC development fund for loan repayment, servicing the capital raised in the form of interest and dividend payment, meeting stipulated equity portion in asset creation and margin money for raising loan from the financial institutions and funding Research & Development projects. The concern expressed by MPPTCL has been taken care of through clause (5) regulation 9.

6.5 ANNUAL CHARGES

6.5.1 Components of annual charges

PGCIL had suggested that 'Human resource expenses' and 'Any other expenses not covered above' may be considered as separate components of annual charge; 'communication', 'corporate office expenses' & 'statutory duties and taxes' as specific element under O&M expenses. As discussed under para 3.6.2 above, it has been decided to allow 'Human resource expenses' as a separate component of annual charge. We do not, however, find any justification for allowing 'Any other expenses not covered above' as a separate component of annual charge and 'communication', 'corporate office expenses' & 'statutory duties and taxes' as specific element under O&M expenses. This decision of ours is in tune with the procedure in vogue in the regulations for determination of tariff for generating companies and transmission licensees.

6.5.2 Return on equity

MPPTCL had suggested that rate of return on equity should be 14% on pre-tax basis. For the reasons sated in para 3.3.2 above, we have decided to allow 16% base rate of return on equity. The tax rate applicable for the FY2008-09 is

available. Accordingly, it has been decided to allow the same for the purpose of grossing up.

6.5.3 Interest on loan

MPPTCL and THDCL had suggested that sharing of benefits on refinancing and swapping of loan may be provided in the regulation. As discussed under para 3.4.1 above, in line with regulations for determination of tariff for generating companies and transmission licensees, it has been decided to allow the sharing of the net benefit on account of refinancing and swapping of loan between the beneficiaries and the utilities in the ratio of 2:1

6.5.4 Depreciation

PGCIL had suggested that salvage value of Information Technology equipments and Software should be nil and depreciation may be allowed on lease hold land. THDCL had suggested adding a new sub-clause specifying calculation of balance depreciable value as on 1.4.2009. As discussed under para 3.5.2 above, the concern of PGCIL in this regard has been taken care of by providing nil salvage value for Information Technology equipments and Software. Depreciation on lease hold land has already been considered in the schedule of depreciation rate. The suggestion of THDCL to add a new sub-clause specifying calculation of balance depreciable value as on 1.4.2009 has also been considered.

6.5.5 O&M expenses

6.5.5.1 MPPTCL had suggested that employees cost should be on actual basis, not on expected, as Sixth Pay Commission's report has been implemented and it should not include honorarium, ex-gratia, staff welfare expenses, etc. MPPTCL and NLDC also suggested various norms for repairs & maintenance expenses, administrative and general expenses, etc.

6.5.5.2 As discussed under para 3.7 above, human resource expenses shall be considered based on the actual cost of past years after normalizing 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.

6.5.5.3 As discussed under para 3.6 above, while calculating O&M expenses actual cost of past years after normalizing by excluding abnormal expenses, etc, if any, after prudence check shall be considered.

6.5.6 NLDC charges

PGCIL had suggested that NLDC charges may include corporate expenses and may be apportioned to RLDCs in equal proportion of installed capacity and annual energy consumption. In this regard, the Commission in its draft regulation had proposed that, *'National Load Despatch Centre expenses shall be apportioned to a Regional Load Despatch Centre in proportion to the projected inter-regional transmission capacity connected to the region concerned'*. The Commission is of the view that neither installed capacity nor annual energy consumption nor projected inter-regional transmission capacity might be the appropriate basis for allocation. The total installed generation capacity belonging

to a particular region may not be apportioned to that region. In a region, there may be transmission capacity that have not been used to the fullest capacity for various reasons. Also some regions may have more installed transmission capacity in order to provide redundancy as per Grid Code. Annual energy consumption in a region will not give the correct picture as transmission capacity depend upon other factors like pattern of energy consumption, viz. peak and off-peak hour consumption. Accordingly, it has been decided to apportion the NLDC charges to RLDCs on the basis of demand served in the respective regions.

6.6 APPORTIONMENT OF ANNUAL CHARGES

PGCIL had suggested that annual charges may be apportioned to system operation charges and market operation charges in the ratio of 80:20 and the Commission may review this proportion from time to time. This has been discussed under para 4.2 above. The capital assets of NLDC/RLDCs will not be used for the system operation function only. A small part of the capital assets will be utilised for carrying out the market operation function too. But with the evolving role of the NLDC/RLDCs and constant changes in the existing manpower setup and their utilisation for specific jobs, it is not possible to apportion the various elements of annual charges to system operation function and market operation function in a reasonable proportion at this point of time. Barring a small portion, the whole of the capital assets is utilised for the system operation function and so is the case with operation and maintenance expenses. Based on the prevailing conditions, it has been decided to apportion the annual charges to system operation function and market operation functions in a

proportion of 80:20. Needless to add that the Commission reserves the right to review this proportion from time to time.

6.7 COLLECTION OF SYSTEM OPERATION CHARGES AND MARKET OPERATION CHARGES

6.7.1 PGCIL had suggested that system operation charges may be collected from 'inter-State transmission licensees' (ISTL) instead of 'transmission licensees', and market operation charges should not be collected from ISTL as they are not market player and SLDCs may be made nodal agency for the purpose of collection of charges from the distribution licensees within the State. MPPTCL had suggested that system operation charges should be shared equally by all users. WBSETCL and WBSEDCL had suggested that collection of these charges on 'ckt-km' basis will be injustice to intra-State transmission licensees providing redundancy as per Grid Code. WBSETCL and WBSEDCL further suggested that collection of system operation charges and market operation charges from the distribution licensees is in contradiction with S.28 (4) of the Act. NTPC had suggested that in view of the 'Electricity (Removal of Difficulties) Sixth Order dated 8.6.2005', system operation charges and market operation charges and registration fee should not be collected from the generating stations. THDCL had suggested that market operation charges may be collected in the same manner as system operation charges .

6.7.2 These comments and suggestions have been discussed earlier under para 4.3 above. As stated therein, the SLDCs are responsible for monitoring and control of the intra-State transmission system and collect the fee and charges from the intra-State transmission licensees for the services they renders to

them. As such, the system operation charges shall not be collected from the 'intra-State transmission licensees' but from the 'inter-State transmission licensees. It has also been decided not to collect market operation charges from the 'inter-State transmission licensees' as they are not market player.

6.7.3 The benefits of system operation are mostly availed by the generating stations, sellers, distribution licensees and buyers. The inter-State transmission licensees are not required to pay market operation charges as they are not market players. Accordingly, it has been decided to continue with the same proportion for collection of system operation charges and market operation charges as was proposed in the draft regulation.

6.7.4 As per the final regulation, system operation charges will not be collected from the intra-State transmission licensees. Accordingly, the concern of the WBSETCL and WBSEDCL are taken care of. As regards the collection of the charges from the distribution licensees and generating companies, the same has been discussed under para 4.3 above. We do not find any justification for not collecting fee and charges from the distribution licensees and generating companies. Accordingly, we reject this suggestion.

6.7.5 We are in agreement with the suggestion that SLDCs may be made nodal agency for collection of charges from the distribution licensees within the State. However, we are equally concerned that there should not be any compulsion on the part of the SLDCs to carry out the task of collection of the fee and charges. This should be based on a mutual consensus between the concerned Regional

Load Despatch Centre, State Load Despatch Centre and the distribution licensees. Provision to this effect has been made in the regulation.

6.8 OTHERS

6.8.1 PGCIL had suggested that, as in the case of regulations for determination of tariff for generating companies and transmission licensees, the provision for rebate, late payment surcharge, etc should be considered. PGCIL had further suggested that in case of any payment default the same should be brought to the notice of the Commission. We have accepted the suggestion and the same have been incorporated at the appropriate place of the regulation.

6.8.2 MPPTCL had suggested that filing fees and publication expenses should be borne by RLDCs/NLDC. The provision in regards to recovery of application fees and publication expenses in the 'CERC (Terms and Conditions of Tariff) Regulation, 2009 is as under:

“42. Application fee and the publication expenses. The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the transmission customers, as the case may be.”

6.8.3 In the light of the above extracted provision we do not find any justification in the suggestion made. Under these regulations also, the application filing fee and the expenses incurred on publication of notices for approval of fee and charges, may in the discretion of the Commission, be considered as a part of the O&M expenses and shall be considered by the Commission at the time of truing up exercise.

6.8.4 MPPTCL had also suggested that, in case of the regulation on power to relax, 'after giving reasonable opportunity to those likely to be affected by such relaxation' may be added. The suggestion has been accepted and provision to the effect has been incorporated at the appropriate place of the regulation.

6.8.5 THDCL had suggested that a provision for recovery of fee and charges from the beneficiaries may be provided in the regulation. The suggestion is not within the scope of these regulations and therefore has not been acted upon.

7. Conclusion

Based on the above the regulations have been finalized and notified.

Sd/=	Sd/=	Sd/=	Sd/=
(V.S. Verma)	(S. Jayaraman)	(R. Krishnamoorthy)	(Dr. Pramod Deo)
Member	Member	Member	Chairperson

New Delhi, dated the 27th November 2009