ORISSA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
UNIT-VIII, BHUBANESWAR - 751 012
****

Present: Shri B. K. Dash, Chairperson
Shri K.C. Badu, Member
Shri B.K. Misra, Member

Case No.133/2009

In the matter of: Setting out the principles of the Multi Year Tariff (MYT) for the second control period from 01.04.2008 to 31.03.2013.

AND

In the matter of : Director (Tariff), OERC, Bidyut Niyamak Bhavan, Unit-VIII, Bhubaneswar **… Petitioner**

Vrs.

1. Western Electricity Supply Company of Orissa Ltd. (WESCO)
2. North Eastern Electricity Supply Company of Orissa Ltd. (NESCO)
3. Southern Electricity Supply Company of Orissa Ltd. (SOUTHCO)
4. Central Electricity Supply Utility (CESU)
5. Shri R.P. Mahapatra
6. Balasore Alloys Ltd.
7. Shri Gobardhan Pujari
8. Rourkela Chamber of Commerce and Industry, Rourkela
9. GRIDCO
10. Govt. of Orissa
11. OPTCL **… Respondents**

For the petitioner: Dr. M.S. Panigrahi, Director (Tariff), OERC

For the respondents: Shri A.K. Bohra, CEO (Com) and Shri G.B. Swain, DGM (Finance), REL , CSO, Bhubaneswar.
Shri B.P. Mohapatra, CFO, CESU
Shri R.C. Mishra, Sr. GM (Finance), GRIDCO
Shri D. Saha, CGM (F), OPTCL
Shri R.P. Mohapatra for Balasore Alloys Ltd.
Shri Gobardhan Pujari, Advocate
Shri Subrat Patnaik, President, Rourkela Chamber of Commerce and Industry, Rourkela
Shri S.C. Mohanty, Legal Consultant, Govt. of Orissa.

Date of Hearing: 06.09.2010 **Date of Order: 28.02.2011**

O R D E R

1. The staff of the Commission prepared a consultative paper setting out the principles of Multi-Year Tariff (MYT) for the second control period from 01.04.2008 to 31.03.2013. The principles were based on the Commission's earlier order No.8/2003

dtd.18.06.2003 on the Long Term Tariff Strategy (LTTS) defining principles for the first control period from 01.04.2003 to 31.03.2008. The Commission registered this as the Case No. 133/2009 with Director (Tariff) as the designated petitioner. The Commission invited comments and suggestions from all the stakeholders on the consultative paper.

2. The Commission in its order dated 18.06.2003 in Case No.8/2003 notified guiding Principles for determination of ARR of Distribution Licensees in the State on a long term basis. The order, inter alia, defined the objectives and principles for Long Term Tariff Strategy (LTTS). These guiding principles are in conformity with Electricity Act, 2003. The principles of LTTS were set out for the control period from 01.04.2003 and was to end on 31st March, 2007 with base year as FY 2002-03 and the first year of the control period i.e. FY 2003-04 was treated as transition year. The control period was further extended for another year and ended on 31st March, 2008.

   The Commission in its concluding observation of the said order dtd.18.06.2003 observed the following:

   Without prejudice to the above, the Commission reserves the right to make any amendment to this order consistent with the objective of the OER Act 1995, and the Electricity Act, 2003.

   The LTTS order setting out principles for the first control period 01.04.2003 to 31.03.2008 has elapsed and hence there is a need to redefine these principles in the MYT framework for the next control period i.e from FY 2008-09 to FY 2012-13, the second control period.

3. Control period: The control period shall begin from 1st April, 2008 and shall end on 31st March, 2013. The ARR for first three years of the control period i.e. FY 2008-09, FY 2009-10 and FY 2010-11 has already been pronounced as per the approved principle for the first control period i.e. from 01.04.2003 to 31.03.2008. The principles for the present order would accordingly be applicable for remaining two years i.e FY 2011-12 and FY 2012-13. Licensees in the meantime have filed the ARR petitioner for FY 2011-12.

4. Base Year: The Commission shall determine the values for the base year based on the available audited accounts for the relevant years and other factors as considered appropriate by the Commission. The values of the various components of the ARR would further be based on the nature of item whether controllable or uncontrollable in nature.

5. Commission broadly agrees with the petitioner to continue with the same principles as enunciated in the LTTS order of 18.06.2003 applicable for the first control period for the second control period also. The minor changes made in principles which have been adopted for the first control period (2003-04 to 2007-08) made during finalization of ARR for the past years i.e. 2008-09 to 2010-11 this control period have also been taken care of for the remaining period of second control period (FY 2011-12 and 2012-13).

6. **Statutory Provisions**

   a) Electricity Act, 2003

Section 61- The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-
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(f) ***multi year tariff principles;***

(i) the National Electricity Policy and tariff policy:

b) National Electricity Policy

5.4.4 Conducive business environment in terms of adequate returns and suitable transitional model with predetermined improvements in efficiency parameters in distribution business would be necessary for facilitating funding and attracting investments in distribution. ***Multi-Year Tariff (MYT) framework*** *is an important structural incentive to minimize risks for utilities and consumers, promote efficiency and rapid reduction of system losses. It would serve public interest through economic efficiency and improved service quality. It would also bring greater predictability to consumer tariffs by restricting tariff adjustments to known indicators such as power purchase prices and inflation indices. Private sector participation in distribution needs to be encouraged for achieving the requisite reduction in transmission and distribution losses and improving the quality of service to the consumers.*

c) National Tariff Policy

Para 5.3

(h) ***Multi-Year Tariff***

1) Section 61 of the Act states that the Appropriate Commission, for determining the terms and conditions for the determination of tariff, shall be guided inter-alia, by multi-year tariff principles. The MYT framework is to be adopted for any tariffs to be determined from April 1, 2006. The framework should feature a five-year control period. The initial control period may however be of 3 year duration for transmission and distribution if deemed necessary by the Regulatory Commission on account of data uncertainties and other practical considerations. In cases of lack of reliable data, the Appropriate Commission may state assumptions in MYT for first control period and a fresh control period may be started as and when more reliable data becomes available.

2) In cases where operations have been much below the norms for many previous years the initial starting point in determining the revenue requirement and the improvement trajectories should be recognized at "relaxed" levels and not the "desired" levels. Suitable benchmarking studies may be conducted to establish the "desired" performance standards. Separate studies may be required for each utility to assess the capital expenditure necessary to meet the minimum service standards.

3) Once the revenue requirements are established at the beginning of the control period, the Regulatory Commission should focus on regulation of outputs and not the input cost elements. At the end of the control period, a comprehensive review of performance may be undertaken.

4) Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, *taxes and cess, variations in power purchase unit costs including on account of hydro-thermal mix in case of adverse natural events.*

5) Clear guidelines and regulations on information disclosure may be developed by the Regulatory Commissions. Section 62 (2) of the Act empowers the Appropriate Commission to require licensees to furnish separate details, as may be specified in respect of generation, transmission and distribution for determination of tariff.

d) OERC (Terms and Conditions for determination of tariff) Regulations, 2004.

Regulation 5(f)

*The Commission may require a long term business plan from each Licensee for adopting **the multi year tariff regime**, which the licensee shall scrupulously comply.*

e) OERC (Conduct of Business) Regulations, 2004

Regulation 54. Multi year tariff principles and guidelines.

1) *The Commission may adopt MYT principles for matters relating to calculation of revenue requirement of the transmission or the distribution licensees and the tariff determination including on aspects of investments, reduction of loss levels, other efficiency gains to be achieved, the revision in charges, charges in tariff structure, pass through of identified element of costs and such other matter as the Commission may by a general or special order direct.*
2) *The Commission may, as and when considered appropriate, issue guidelines for filing statement of revenue calculations and tariff proposals for periods of more than one financial year and unless waived by the Commission, the licensee shall follow such guidelines issued by the Commission.*

7. The objections/comments/suggestions were invited from the stakeholder to put forth their views and opinions on the consultative paper based on the earlier LTTS order of the Commission dtd.18.06.2003. The views/objections received by the Commission have been summerised and are discussed below issue-wise :

7.1 **Operation and Maintenance Cost**

(A) <u>Employee Cost</u>

Views of GRIDCO

Employee cost should be treated as uncontrollable cost as remuneration structure payable to employees is based on wage settlement award, State Govt's pay revision order and DA as per movement of inflation, WPI and CPI.

Views of WESCO, NESCO and SOUTHCO

Employee cost is subject to Pay Commission recommendations, inflation, load growth, attrition rate etc. The Commission, therefore, may consider such factors and allow employee expenses for the control period.

Views of CESU

i. There is a huge expansion of the network and consumer base due to large scale electrification of BPL households under RGGVY programme.

ii. In order to manage such addition, employee cost would rise substantially due to large scale deployment of manpower and usual increase of Employee cost of existing man power. Employee cost thus can't be termed as controllable

Views of Rourkela Chambers of Commerce

Enhancement due to revisions may be allowed but must be linked to efficiency improvement.

(B) Repair and Maintenance Expenses

Views of WESCO, NESCO and SOUTHCO

The expenses be continued to be allowed at the present rate of 5.4% of GFA. The assets added under RGGVY and Biju Gram Jyoti to be considered while determining R&M expenses and depreciation since no revenue subsidy is forthcoming from the State Government in this regard.

Views of CESU

i) With the addition of additional infrastructure built up under RGGVY scheme, the present tariff principle of allowing @5.4% of the Opening Gross Fixed Assets is inadequate.

ii) The R&M expenses not utilized in a particular year due to shortfall in cash flow may be allowed as Regulatory Assets for the future years.

Views of Shri Gobardhan Pujari

The Commission allows R&M @5.4% of Gross assets, which is on the higher side. This should be allowed in the following manner.

Buildings	-	1%
Plant and Machineries	-	2%
Other assets	-	5%

Alternatively, on gross basis this may be allowed @2% of the total gross fixed assets.

(C) A&G Expenses

Views of WESCO, NESCO and SOUTHCO

i) To consider an increase in A&G linked to CPI and WPI in the proportion of 60:40 on actual A&G expenses to account for inflation.

ii) In addition to it, additional increase should be allowed for undertaking various initiatives towards loss reduction measures and to meet future load growth.

Views of CESU

i) OERC allows 7% increase in the A&G cost which is not adequate to address additional expenditure required to manage the increased level of operation and new activities like energy audit, IT intervention, customer care etc.

ii) Additional increase of 13 lakh new consumers under RGGVY would contribute to exponential rise in A&G expenses.

iii) Commission may allow additional 100% rise on the base year level in addition to 7% towards inflation correction.

7.2 **Provision for bad and doubtful debts**

Views of WESCO, NESCO and SOUTHCO

Commission may consider the bad and doubtful debts equivalent to collection inefficiency so as to enable DISCOMs to recover their entire costs.

Views of Shri R.P.Mohapatra

i) Bad & Doubtful Debt may be reduced to 1.5% of total annual billing in the ARR.

ii) The current collection figure of 99% should be based on revenue billed less bad debt as per actual or 1.5% of the revenue billed whichever is less.

Views of CESU

Actual collection efficiency should be taken as base for the start of the control period which can go upto the desired level of 98% by the end of control period with gradual improvement. The shortage percentage may be considered as provision for Bad and Doubtful debt.

Views of Shri Gobardhan Pujari

No bad and doubtful debt shall be allowed as it encourage non-performance.

Views of Rourkela Chambers of Commerce

Bad and Doubtful Debt may be reduced to 1% by the end of control period and finally to 0.25% in next control period.

7.3 **Depreciation**

Views of WESCO, NESCO and SOUTHCO

Depreciation to be considered in the straight line method and allowed as per rates notified by the CERC.

Views of Rourkela Chambers of Commerce

Depreciation claimed in audited accounts and in ARR to be clearly furnished.

7.4 **Financing cost of working capital/short term loans**

Views of GRIDCO

These cost should be treated as uncontrollable since these are dependent on Bank Prime Lending Rate (BPLR).

Views of WESCO, NESCO and SOUTHCO

To allow the interest on working capital linked to the prevailing Prime Lending Rate (PLR) for short term borrowing on SBI as on April 1 of the relevant year.

Views of CESU

Financing cost are subject to market risk due to lending on floating rate of interest. Fixed interest also undergo changes due to reset clause after 3 years. Financing cost is, therefore, always market driven and subject to interest rate fluctuation risk. This cost should, therefore, be considered as an uncontrollable factor.

Views of Rourkela Chambers of Commerce

A capital may be provided on the interest cost on short-term loans which should not exceed the interest rate being paid to consumers on security deposit or bank rate which ever is higher.

7.5 **Financing cost on long term liability**

Views of WESCO, NESCO and SOUTHCO

To approve the variation in the actual capital expenditure vis-à-vis approved capital expenditure at the end of each year.

Views of Rourkela Chambers of Commerce

DISCOMs may be directed to infuse sufficient equity in order to bring the debt-equity ratio to 2:1 by the end of control period. Equity infusion would bring about sense of belonging and efficiency improvement.

7.6 **Return on equity**

Views of WESCO, NESCO and SOUTHCO

To approve 16% post-tax on the Original equity investment as well as any additional investment made in the DISCOMs out of business cash flows.

Views of Shri Gobardhan Pujari

Since the DISCOMs are neither investing nor performing well, the return of 16% may be linked to investment and performance.

7.7 **Trading of power**

Views of Government of Orissa and GRIDCO

i) GRIDCO serves as the nodal agency for meeting the power demand of the State. If DISCOMs are allowed to sell the power to any entity outside the State, it will reduce the supply of power available to GRIDCO and in consequence reduce the supply to the State Consumer.

ii) Since there is large gap between the demand and availability of power in the State, the spirit of introducing competition in the power sector through trading as envisaged in Electricity Act, 2003 would be defeated.

iii) DISCOMs may indulge in artificially creating a lower demand ignoring supply quality and cheaper power to State Consumes and indulge in trading of power.

iv) Thrust should be in capacity addition so as to match demand and supply. DISCOMs should perform their core business of distribution of electricity and allowing them to trade in electricity would distract them from their core business.

Views of Shri R.P. Mohapatra

i) DISCOMs may be permitted to procure power from any source towards the incremental power requirements beyond the approved level of the power purchase.

ii) DISCOMs, however, should not be allowed to sell the incremental power which is the difference between the quantum of power allocated by the

Commission and the actual consumption in the licensee's area. DISCOMs may be allowed to trade power sourced from other than GRIDCO to outside the State.

Views of Rourkela Chambers of Commerce

The gains and losses from Trading shall be excluded while computing ARR. The cost of power for additional demand may be permitted in ARR. Any uncontrollable reason for power purchase may be considered as a part of ARR.

7.8 **Cross subsidy**

Views of Shri R.P.Mohapatra

Projection towards revision of cross-subsidy from year to year on a transparent basis to be made.

Views of Rourkela Chambers of Commerce

Target for reducing cross-subsidy should be fixed on year to year basis and this is to be brought to zero level in due course of time. Since HT consumers have no option to opt for power from Captive Power Plant, the HT tariff should be revised downward on year to year basis.

7.9 **Distribution loss & AT & C loss levels**

Views of WESCO, NESCO and SOUTHCO

i) There exists a wide gap between actual and target AT&C loss. This is going to further increase because of the addition of LT network of rural and BPL category. There is, therefore, need to revisit loss figures of previous years.

ii) The loss estimation at the time of privatization and loss reduction trajectory as reported in SAR were underestimated which was later admitted by the World Bank in its mid-term report. Thus tariff in the initial years were set on assumed losses which led to under recovery in cost and there was no subvention from State Govt.

iii) The loss reduction is also linked to required investment under APDRP, which is absent in case of Orissa. The opening loss level thus needs to be determined on realistic basis.

Views of Shri R.P.Mohapatra

Commission approves the percentage of distribution loss for DISCOMs but has not taken any measures for non-performance. DISCOMs have also failed to liquidate outstanding arrears of GRIDCO in permitted 120 installments. DISCOMs have also been claiming for escrow relaxation resulting in further reduction of payments to GRIDCO.

Views of Rourkela Chambers of Commerce

i) Separate target for T&D loss and Billing/collection efficiency may be fixed. Billing/collection efficiency may be fixed at 99% during this control period and during next control period increased to 99.9%.

ii) Non-achievement of AT&C target not to be accommodated in the ARR. AT&C target may be fixed after comparison with better performing states and all-India average.

Views of CESU

i) These losses are not in control of the utility, since the sales mix of CESU would undergo a tremendous change due to the following uncontrollable factors:

ii) Reduction in HT sales due to shortage of power to the extent of 50% or more. Exponential growth in LT sales due to RGGVY.

iii) Baseline for AT&C losses should be revised taking FY 2008-09 as base year for this control period for fixing the target of AT&C losses.

7.10 **Quality of supply and consumer service standard**

Views of Shri R.P.Mohapatra

In absence of correct data following is suggested:

i) SAIDI, SAIFI & CAIDI is determined from the dump Report of the DTR meter, which will show the minimum number and durations of interruptions, but will indicate substantially correct data in the initial phases.

ii) The voltages and transformer failure can also be sourced from this Dump Reading.

iii) For new connections, metering, billing errors and consumer service, the Commission may take into account the records of the DISCOMs. However, instead of annual statement, the DISCOMs may be asked to file monthly data in this regard.

Views of Rourkela Chambers of Commerce

Standards to be provided by OERC and provision for incentives and penalties for achievement and non-achievement. Report of consumers' satisfaction survey may be made public. The system and procedure for taking feedback from institutional consumers may be made public.

7.11 **Regulatory Asset**

Government of Orissa View

Principle regarding creation of RA and its amortization/adjustment in tariff may be specified.

Views of WESCO, NESCO and SOUTHCO

In line with Tariff Policy para 8.22 regarding the creation of Regulatory Assets, the Commission to consider the impact of truing up as Regulatory Asset and should be allowed to recover the same in three years with carrying cost. The carrying cost to be considered as simple interest at the rate equal to short-term prime lending rate of State Bank of India on the 1st April of the concerned/respective year on amortized amount.

7.12 **Load management**

Views of Rourkela Chambers of Commerce

i) The present definition of peak time needs revision and should be limited to the evening hours load.

ii) Two part tariff may be applicable to all types of categories to enforce discipline, to improve the load factor and minimize the consumption during peak hours.

iii) Staggering of load through staggered holidays has to be through Govt. regulation with direction of OERC in order to improve load factor and reduce peak demand.

7.13 **Truing up principles**

Views of WESCO, NESCO and SOUTHCO

i) Truing up of GRIDCO: To direct the formation of Power Sector Reform Fund in line with the Deepak S. Parekh recommendations, where in all the past liabilities can be parked and serviced through a cess over a period of 20 years. The loss of the sector prior to the formation of the DISCOMs should not be passed on as a burden to DISCOMs either through the Tariff or through restructuring.

ii) Truing up of other Entities: To true up the actual UI income earned by GRIDCO at the end of the year and pass on the same to DISCOMs so as to clear all past dues and losses on account of factors beyond their control. This would enable the DISCOMs to protect the consumers from the tariff shocks.

iii) Adjustment Mechanism: Performance review shall be carried out every year and true up of expenses and revenues should be carried out as part of performance review based on proposed treatment of controllable and uncontrollable factors. Any impact of uncontrollable factor should be allowed as pass through during annual performance review.

7.14 **Incentive**

Views of CESU

Performance Incentive:

i) As per the present arrangement, the entire collection goes to the escrow account of GRIDCO and hence there is little motivation for enhanced collection. There should, therefore, be a mechanism to plough back the benefit by allowing 50% of the amount collected over and above current BSP and the network cost to be retained by the utility.

ii) Additional Power Purchase – Under the single buyer model the additional energy demand shall be arranged by the aggregator (GRIDCO). There should be a running formula for fuel price adjustment in excess of 5% to prevent tariff shock, which is an uncontrollable factor.

iii) Applicability of the MYT principle – The period may begin from 1st April, 2010 and end on 31.03.2015. Else the control period may be for 3 years period starting from 01.04.2010 to 31.03.2013.

7.15 **Other issues**

Views of WESCO, NESCO and SOUTHCO

i) Sales Variation: The variations in sales are beyond the control of DISCOMs and the impact of open access is difficult to assess while projecting sales. Hence sales variation may be treated as uncontrollable cost.

ii) Fuel and power purchase cost Adjustment mechanism should be there for recovery of these costs at regular monthly or quarterly intervals as these costs are not in control of DISCOMs.

Commission's Observations

8. Commission has taken into consideration the views and opinions expressed by the objectors and the stakeholders. Commission has also taken into consideration the past performance of the DISCOMs under the first control period while finalizing this order. Against the aforesaid backdrop the approach to MYT framework with associated principles would be as follows:

9. In line with the principles defined for the first control period, the costs have been allocated on the basis of the risk elements involved in controlling the cost :

a) The Network and Financial costs and Aggregate Technical & Commercial (AT & C) losses are considered as controllable. Any financial loss arising from performance falling short of the targets are not recoverable through tariff. Any gain arising from performing better than targets will not be adjusted in ARR and can be retained by DISCOMs in the manner as prescribed in OERC (Terms and Conditions for Determination of Tariff) Regulation, 2004 at 5(5)(H) regarding profit sharing.

b) Uncontrollable costs are those which are beyond the control of licensee and would be allowed as pass through in the ensuing ARR. The uncontrollable costs are

- Fuel cost charges that affect the cost of power purchase
- Inflation
- Exchange rate variation
- Force majeure condition such as changes in the laws of the land, judicial pronouncements, Govt. policies and directions and economy wide influences.

Commission defines the following elements of cost as Controllable or uncontrollable nature for the second control period in the same line as that of first control period.

Summary of Controllable and Uncontrollable costs

Sl No.	ARR Item	Controllable / Uncontrollable Cost
1	Employee Cost	Controllable
2	Repair and Maintenance	Controllable
3	Administrative & General Expenses	Controllable
4	Interest and Finance Charges	Controllable
5	Depreciation	Controllable
6	Return on Equity	Controllable
7	Non-tariff income	Controllable
8	Power Purchase Costs	Uncontrollable
9	Fuel Costs	Uncontrollable
10	Taxes on Income	Uncontrollable
11	Inflation	Uncontrollable
12	Exchange rate variation	Uncontrollable
13	Force Majeure Conditions	Uncontrollable

c) Commission in the first control period defined the Performance targets with an aim to improve the viability of the Orissa Power systems. Commission classified the performance target relating to the following parameters:

- Quality of supply and consumer service standards
- Aggregate Technical and Commercial loss (AT & C) and
- Network costs

These parameters of performance targets would continue to be applicable for the second control period also. These parameters are dealt in detail in para 5.4 of the LTTS order dated 18.06.2003, however these are briefly discussed below:

10. **Quality of supply and consumer service**

10.1 Objectors in their submission have submitted that in absence of correct data for monitoring quality and consumer service dump report of the DTR may be used for data on voltage and transformer failure. To monitor effectively new connections, metering, billing errors and other consumer services DISCOMs may be asked to submit monthly data. The report of consumer satisfaction survey and feedback shoul be made public.

10.2 The quality of supply and customer service would be used to evaluate performance of licensees rather than input. The Commission shall undertake the following initiatives to benchmark and monitor quality of supply and customer service. The initiative involves recording and monitoring of select quality parameters on a regular basis.

10.3 The Licensees will establish suitable systems to track performance against the quality parameters listed below:

a) Interruptions: It shall cover the following quality parameters on 11 kV and 33 kV networks, namely:

- System Average Interruption Duration Index (SAIDI)

  This represents the average time each consumer is interrupted. SAIDI is expressed by the following formula:

$$\mathrm{SAIDI} = \left\{ \frac{\sum \text{Consumer Interruption Durations}}{\text{Total number of Consumers served}} \right\}$$

- System Average Interruption Frequency Index (SAIFI)

  This represents the average number of interruptions per consumer SAIFI is expressed by the following formula:

$$\mathrm{SAIFI} = \left\{ \frac{\text{Total No. of Consumer Interruptions}}{\text{Total number of Consumers served}} \right\}$$

- Consumer Average Interruption Duration Index (CAIDI)

  This represents the average interruption duration or average time to restore service per interrupted consumer. CAIDI is expressed by the following formula:

$$\mathrm{CAIDI} = \left\{ \frac{\text{Sum of Consumer Interruptions}}{\text{Total number of Consumers Interruptions}} \right\} = \frac{\mathrm{SAIDI}}{\mathrm{SAIFI}}$$

b) Voltage: Voltage variations and number / extent of excursions beyond the range permitted in the Overall Performance Standards set by the Commission.

c) Transformer Failure: Number of Distribution Transformers (DTR) failures as percentage of total DTRs in service and time taken for replacement.

d) New Connections: Average period of fully compliant applications for new connections pending with the Licensee for domestic, commercial and industrial categories.

e) Metering: Percentage of non-working / defective meters, separately for domestic, commercial and industrial categories.

f) Billing Errors: Number of billing errors identified and/or reported and prompt rectification.

g) Consumer Service: Bill payment facilities and Consumer service facilities introduced and percent of consumers availing such services;

11. **Aggregate Technical & Commercial loss.** Commission recognizing the importance of computation of AT&C loss concept first defined this in the LTTS order. This AT&C loss has been found to be useful in assessing and capturing both technical and commercial losses. Commission would therefore continue to assess the performance of the utilities on the basis of AT&C loss reduction trajectory during the second control period also:

11.1 The AT & C loss is decided to be used as the benchmark to assess the performance of the licensees during the control period. AT & C losses should be computed by each voltage category.

11.2 The AT & C loss combines three different but interconnected performance criteria, namely billing efficiency, collection efficiency and T & D loss. It is computed through the following formula

$$\text{AT\&C Loss (\%)} = \left\{ \left(1 - \frac{\text{Units Billed}}{\text{Units Input}} \right) X \frac{\text{Revenue Collected}}{\text{Revenue Billed}} \right\} \%$$

11.3 The Commission shall approve the improvements to be made in the AT & C losses by the licensees during the control period and this would be monitored voltage-wise. Metering of all 33/11 KV feeders and LV side of distribution transformers should be completed to measure performance.

11.4 The distribution loss at a particular voltage level shall be the difference between the energy injected into the distribution system at that voltage level and the sum of energy sold to all its consumers at that level and the energy delivered to level below that level. Energy sold shall be the sum of metered sales and assessed un-metered sales, if any, based on approved norms.

11.5 The licensee shall segregate losses into technical loss (i.e. ohmic/core loss in the lines, substations and equipments) and commercial loss (i.e., unaccounted energy due to metering inaccuracies/inadequacies, pilferages of energy etc.), supply voltage-wise and consumer category-wise.

11.6 The Commission shall approve loss target for each year of the control period. The Commission shall also fix targets, both long-term and short-term, for loss reduction to bring down the loss level gradually to acceptable norms of efficiency.

11.7 The Commission may encourage incentive and disincentive schemes for the staff of the utilities linked to the reduction of losses, as per the provision of para 8.2.1(2) of the Tariff Policy.

11.8 In case the actual distribution loss exceeds the normative loss level approved by the Commission, such excess loss shall be to the account of the distribution licensee.

11.9 In case the actual distribution loss is less than the approved loss level, such savings shall be shared between the distribution licensee and the consumers in the ratio as provided in the Regulation 5 (5)(H) of the OERC (Terms Conditions for Determination of Tariff) Regulation, 2004 i.e. one third declared as dividend but not paid to the shareholder be treated as equity, one-third to be returned to be consumer by way of reduction in the consumer base as rebate and one-third be kept as tariff balancing reserve.

11.10 No adjustment in the ARR shall be made during the control period on account of actual achievement of total system losses or collection efficiency being different from these performance targets or the resulting impact of such difference on the cost to licensees within the control period. This would be reviewed in the beginning of the next control period.

12. **Network costs**

Commission in the LTTS order defined these cost components and how those would be treated during the first control period. These costs are expected to be managed by the licensees and would be allowed for the control period ex-ante in line with the LTTS order for the second control period also. These principles are discussed as below:

O & M Costs

Employee Cost – DISCOMs in their submission have submitted to allow Employee cost as uncontrollable cost instead of controllable cost as per first LTTS order, since it is subjected to pay commission recommendation, wage board revision, inflation, load growth, attrition rate, large scale deployment of manpower due to large scale rural electrification etc. Some objectors submitted that revisions may be allowed but linked to efficiency. Commission after considering all the facts and submissions decides to treat the Employee cost as controllable cost for the second controllable period also. Employee costs would be allowed in the ARR after prudent check by the Commission. Employees costs have to be linked to improved efficiency and higher compensation can't be claimed without earning through improvement in performance efficiency.

Wages and salaries during the control period would include the base year values of Basic pay, Grade Pay and dearness allowance escalated for annual salary increments and inflation based on Govt. notification. Terminal liabilities would be provided based on a periodic actuarial valuation in line with the prevailing Indian accounting standards. The financial impact of any award by Govt. of India/Govt. of Orissa shall be taken care of in subsequent year in truing up.

Repair and Maintenance (R&M) - R&M is being allowed @ 5.4% applied on the opening Gross Asset Value as per the principle enunciated in the first LTTS order for the first control period. DISCOMs have submitted that such rate towards allowance of R&M may be continued however this also be allowed for the assets added under RGGVY scheme. Some objectors submitted that R&M cost at the rate of 5.4% of the GFA is on the higher side this may be revised asset wise separately or alternatively may be allowed 2% of GFA. It is observed that during the first control period DISCOMs have not been able to spend the amount allowed by the Commission in the ARRs. Considering the fact that R&M is an important activity to maintain the fragile network and also to take care of the massive addition of assets, Commission decides to continue to allow the R&M expenses at the rate of 5.4% of Gross Fixed Assets.

As regards allowing of R&M expenses towards assets added under RGGVY and BGJY schemes, the said added assets are still owned by Govt. of Orissa and are yet to be transferred to the respective distribution companies. As per the principle of LTTS for the first control period R&M is allowed at the rate of 5.4% of the Gross fixed Assets of the distribution companies. It is, therefore, imperative that such assets are transferred to the distribution companies first and thereafter R&M would be allowed on those added assets. In view of such a scenario the Commission decides to continue to allow the R&M expenses at the rate of 5.4% of GFA only on assets owned by the respective distribution companies.

Administrative and General (A&G) – A&G expenses was allowed @ 7% escalation over the base year value in ARR during the first control period. DISCOMs in their submission have submitted to link it to CPI and WPI in proportion of 60:40 on actual A&G expenses. A&G should also be allowed for undertaking various initiatives towards loss reduction measures and growth due to RGGVY programme. The Commission in this regard observes that A&G expenses should be incurred prudently and only for the activities required for the purpose incidental to the activity and functions of the DISCOMs. The Commission, however, in addition to the normal A&G expenses of 7% also allows additional expenses for activities such as IT automation, call center and expenses toward energy police station. In view of the submissions and facts the Commission would continue to allow normal Administrative and General Expenses @7% escalated over the base year value during the second control period also. In addition to above Commission would also allow expenses in addition to the normal A&G expenses for special measures undertaken by the DISCOMs towards reduction of AT&C losses and improving collection efficiency, after prudent check.

No adjustment in ARR shall be made on account of actual values being different from these performance targets for the O & M costs during the control period.

13. **Bad & Doubtful debt**

Bad and Doubtful debts are allowed as a percentage of Sales revenue. During the previous control period (FY 2002-03 to 2007-08) Commission allowed Bad and Doubtful debt @ 2.5% on the sales revenue. DISCOMs in their submission have pleaded to consider the bad and doubtful debts equivalent to collection inefficiency. Objectors have however submitted not to allow any bad and doubtful debt as it encourages inefficiency which should be reduced to 1% by the start of the control period gradually going down to 0.25%.

Commission have however deviated and allowed Bad and Doubtful debt in the ARRs during the current control period FY 2008-09 to FY 2012-13 in the following manner:

FY 2008-09: 2.5% of the total annual revenue billing

FY 2009-10: 2% of the total annual revenue billing

FY 2010-11: 2% of the total annual revenue billing in HT and LT sales.

The Business Plan order of the Commission in case nos. 41, 42 & 43 of 2007 & case no.22 of 2008 order dated 20.03.2010 have approved collection efficiency of 99% for FY 2011-12 and FY 2012-13 the balance two years of the control period. In light of these facts and submissions made thereof Commission in the remaining two years of the control period Commission shall allow on normative basis Bad and Doubtful debt of 1% of the total annual revenue billing in HT and LT sales only.

14. **Capital Expenditure**

Capital investments cover expenditure on fixed asset augmentation and interest to meet variety of needs such as Load growth, reduction of losses, maintenance of network, improvement of voltage profile, quality of supply, system reliability, metering, communication, computerization etc.

In line with the LTTS order for the fist control period, the Commission during the second control period would approve the capital investment plans for ongoing and future investments. Adjustments in the ARR shall be made for variations in actual and forecast values and the impact of such variations on the ARR at the end of the control period.

Licensee could retain financial benefit arising out of savings in financing costs due to faster implementation at lower costs because of better project management or procurement practices. Financial losses on account of time and cost overrun to be on account of the licensees only.

15. **Depreciation**

Depreciation is linked to the useful life of the assets, calculated on the straight line method. Objectors have submitted to allow depreciation at the rates notified by the CERC and depreciation claimed in the ARR and audited account is to be clearly mentioned. The value base shall be the historical cost of the asset.

The Hon'ble High Court of Orissa in its order dtd. 28.02.2003 and modified order dtd.14.03.2003 directed that the depreciation is to be calculated for the pre-upvalued assets at the pre-1992 rates as notified by the Govt. of India. Accordingly the depreciation in the ARR during the past three years of the control period FY 2008-09, FY 2009-10 and FY 2010-11 was calculated as per the above direction of the Hon'ble High Court.

In view of the directives of the Hon'ble High Court, the depreciation during the balance years of the current control period would be calculated and allowed on the pre-upvalued assets at pre-1992 rates as notified by the Govt. of India.

Any variation between projected and actual cost would be adjusted at the end of control period based on the actual asset.

The residual life of the asset shall be considered as 10% and depreciation shall be allowed upto maximum of 90% of the historical capital cost of the asset. The asset considered for depreciation should be commensurate with the approved investment plan and capitalization schedule for each year of the control period.

Depreciation shall not be allowed on assets funded by consumer contribution (i.e. any receipts from consumers that are not treated as revenue) and capital subsidies/grants. Provision for replacement of such assets shall be made in the capital investment plan.

16. **Financing costs of long term liabilities**

During the first control period the Commission allowed interest on the approved capital investment plan. Adjustments in ARR are made for variations in actual and forecast values of interest costs on loans raised for financing capex. DISCOMs in their submission for the second control period submitted that variation in the actual capital expenditure and approved capital expenditure shall be adjusted at end of the year. Objectors have submitted that DISCOMs should bring in sufficient equity in order to bring the debt equity ratio to 2:1 by end of the second control period.

In view of the submission and principles adopted for the first control period Commission decides in-principle to allow the interest on the approved capital expense in the ARR. Adjustment in ARR shall be made on account of variation in forecast and actual value of interest cost on loans raised for financing capital expenditure in truing up. No adjustments would be made normally to the interest cost relating to loans existing at the beginning of the control period except in circumstances if there are changes on account of Government policy or securitization of the past dues.

17. **Financing costs of short term loans/cash credits for working capital**

The Commission during the first control period allowed Working capital as the shortfall in collection beyond the target set for collection efficiency minus amount approved towards bad and doubtful debt. DISCOMs have submitted to link the interest on working capital to the prevailing Prime Lending Rate (PLR) for short term borrowing on SBI as on April 1st of the relevant year. DISCOMs further submitted that this cost should be considered as uncontrollable factor since financing cost is market driven and subject to interest rate fluctuation.

The Commission for the remaining years of the second control period has set collection efficiency of 99% for all the four DISCOMs in it's Business plan order dated 20.03.2010. As per the principle in the LTTS order for first control period, the amount of working capital is the approved shortfall in collection minus amount approved towards bad and doubtful debt. For FY 2011-12 and 2012-13 the approved collection efficiency target is 99%. The remaining 1% would be treated as Bad and Doubtful debt. Hence there is no allowance for working capital for these years in the second control period. The Commission, therefore, do not consider any requirement towards working capital.

18. **Shareholder returns**

The Commission allowed 16% return on equity on the approved equity capital infusion during the first control period. WESCO, NESCO and SOUTHCO submitted to approve 16% return post tax on the original equity investment as well as any additional investment made in the DISCOMs out of business cash flow. Objectors submitted that since DISCOMs have not invested any additional equity and their performance is not satisfactory the return of 16% may be linked to investment and performance.

The Commission observes that return on equity incentivises the investor for the equity infusion to the business. A return of 16% suitably covers the risk associated with the distribution business. The Commission after considering of all the facts would continue to allow 16% return on equity on the approved equity capital infusion. Adjustments on account for variations between the actual and approved values of equity capital shall be made in the ARR subsequently in truing up.

19. **Sales and power purchase**

The Commission approves the forecast of power purchase and power purchase costs for each year of the control period. The Commission have approved sales and purchase for each year of the second control period applicable to each DISCOMs in the Business Plan order dated 20.03.2010. In line with the LTTS order for the first control period these forecasts would not normally undergo annual revision, except in the case of variations in excess of 10% in the quantum of purchase of electricity, caused due to exceptional circumstances.

20. **Costs arising out of Force-Majeure conditions**

In the event of large variations in demand or supply of electricity in excess of 20% due to extreme or disruptive weather conditions, cyclones, earthquakes etc., the Commission after review of its impact on the entire tariff structure may allow in the ensuing year or create regulatory asset to be recovered over a few years

21. **Revised Forecast**

The Commission considers the submission made by the DISCOMs in the ARR and may allow revising the forecast sales and purchase. The Commission subject to variations in excess of 10% in the quantum of purchase of electricity may consider revising forecasts for reasonableness and consistency before approving ARR.

22. **Trading of Power**

The Electricity Act, 2003 recognizes trading as a distinct licensed activity and distribution licensees require no separate license for trading of electricity. Govt. of Orissa and GRIDCO in their submissions have vehemently opposed allowing DISCOMs to sell the power to any entity outside the state which would result in reducing the power availability to state when there is large gap between the demand and power availability. DISCOMs should perform efficiently their core business of distribution of electricity. Objectors submitted that DISCOMs may only be allowed to trade power sourced other than from GRIDCO and not allowed to trade the incremental power beyond the approved level of power purchase.

The Commission after considering the submissions made and provisions there of in the Electricity Act, 2003 intends to introduce competition in Bulk Supply by allowing the Distribution Licensees to procure their incremental power requirements i.e. beyond the approved level of power purchase from any source. Purchasing power directly by the licensee would initiate the multi-buyer market as envisaged in the Electricity Act, 2003. This would also help Licensee to improve its capacity to schedule and dispatch energy and make accurate forecast for power purchase and sales so essential for implementing Availability Based Tariff (ABT) in the state.

The Commission also intends to allow the licensees to sell the incremental power to any entity outside the state subject to the proviso that the losses and gains arising there from shall not form a part of the licensee’s revenue requirement.

Any gains or losses on account of such procurement and supply of incremental power shall not be considered towards ARR.

23. **Procedure and Review**

The control period shall begin from 1st April, 2008 and shall end on 31st March, 2013. These MYT principles shall apply to the ARR determination of the DISCOMs in the state of Orissa from 1st April, 2008.

The base years for the MYT principles is deemed to be taken for FY 2008-09 to 2010-11 as the ARR for the intervening years from 2008-09 to 2010-11 have already been pronounced taking the LTTS principles and enunciated herein have already been taken into consideration. The Business Plan order of DISCOMs for five years from the period FY 2008-09 to FY 2012-13 is also in accordance with the LTTS principles has already pronounced in the Business Plan Order for FY 2008-09 to 2012-13 dtd. 20.03.2010 in Case Nos. 41, 42 & 43 of 2007 & Case No.22 of 2008.

24. **Periodic Reviews during the control period and future projections**

The Commission shall make periodic reviews of the licensee’s performance during the control period to address any practical issues, concerns or unexpected outcomes that may arise and in general to assess the efficacy of the MYT principles. If any changes occur in the structure of electricity sector due to legislation Commission may make appropriate modifications to the MYT principles as and when required.

25. **Applicability of the MYT principles**

These principles are deemed to have been applied to four DISCOMs in Orissa from 1st April 2008 and shall remain in force until a subsequent amendment or revision is necessitated.

The DISCOMs shall file their ARR for FY 2012-13, based on the above MYT principles. Since DISCOMs have already filed ARR for FY 2011-12 the commission would consider the principles setout in this MYT order while approving the ARR for FY 2011-12.

26. Summary of MYT principles now approved in this Order are here as under:

(a) Quality of supply and consumer service standard – These parameters would be used to evaluate performance of licensees rather than input. The licensees would have to establish suitable system to track performance against the quality parameters listed in this Order.

(b) The AT&C loss shall be used as the benchmark to asses the performance of licensee during the control period.

(c) Distribution Loss and Collection efficiency approved by the Commission in the Business Plan order dated 20.03.2010 would be considered for computing ARR of the Licensees. No adjustment in the truing up would be made on account of the distribution loss being more or collection efficiency being less than the approved parameters respectively.

(d) Employee cost is considered to be as controllable cost and linked to efficiency. Terminal liabilities would be allowed as per valuation by independent actuary. The financial input of any award by Govt. of India/Govt. of Orissa shall be taken care in truing up.

(e) Repair and Maintenance expenses would be allowed at the rate of 5.4% of Gross Fixed Assets (GFA) only on assets owned by the distribution company.

(f) Administrative and General Expenses would be allowed @7% escalation over the base year value in ARR. Additional A&G would also be allowed for special measures undertakes by the DISCOMs towards reduction of AT&C losses and improving collection efficiency.

(g) Bad and Doubtful debt would be allowed of 1% of the total annual revenue billing in HT and LT sales for FY 2011-12 and FY 2012-13.

(h) Depreciation- In view of the direction of the Hon'ble High Court the depreciation would be calculated and allowed on the pre-upvalued assets at pre-1992 rates as notified by Govt. of India.

(i) Financing cost of long term liabilities – The interest would be allowed on the approved capital expense in the ARR. Adjustment would be made on account of variation between forecast and actual value of interest cost on loan in truing up.

(j) Working Capital: No working capital would be allowed for FY 2011-12 and 2012-13 as the collection efficiency has been fixed at 99% and Bad & Doubtful debt at 1%.

(k) Shareholders return (ROE) – ROE would be allowed @16% on approved equity capital infusion.

(l) Sales and power purchase- Sales and purchase of power would normally be allowed as per such approval in the Business Plan Order dated 20.03.2010. Variations in excess of 10% in the quantum of purchase of electricity, caused due to exceptional circumstances would only be allowed for revision during the control period.

(m) Force Majeure Condition: In the event of large variations in demand or supply of electricity in excess of 20% due to extreme or disruptive weather conditions, cyclones, earthquakes etc., the Commission after review of its impact on the entire tariff structure may allow in the ensuing year or create regulatory asset to be recovered over a few years

(n) Trading of Power. Licensees would be allowed to sell the surplus power if any to any entity outside the State subject to the condition that the losses and gains on such account shall not form part of the licensee's ARR and trading would not be made without meeting the state demand approved by the Commission in the respective ARRs.

(o) Controllable and uncontrollable costs would be as indicated in para 9(b) which is extracted below:

Sl No.	ARR Item	Controllable / Uncontrollable Cost
1	Employee Cost	Controllable
2	Repair and Maintenance	Controllable
3	Administrative & General Expenses	Controllable
4	Interest and Finance Charges	Controllable
5	Depreciation	Controllable
6	Return on Equity	Controllable
7	Non-tariff income	Controllable
8	Power Purchase Costs	Uncontrollable
9	Fuel Costs	Uncontrollable
10	Taxes on Income	Uncontrollable
11	Inflation	Uncontrollable
12	Exchange rate variation	Uncontrollable
13	Force Majeure Conditions	Uncontrollable

27. Accordingly the case is disposed of.

Sd/-	Sd/-	Sd/-
(B. K. Misra)	**(K.C. Badu)**	**(B. K. Das)**
Member	**Member**	**Chairperson**