Summary of the comments and suggestions received on Approach Paper on Terms and Conditions of Tariff Regulations for the tariff period 1.4.2014 to 31.3.2019

(Ref No. 20/2013/CERC/Fin(Vol-I)/Tariff Reg/CERC Date: 25th June'2013)

3.10 Operation and Maintenance Cost

a) Comments on adequacy of the existing O&M norms with regard to the O&M requirement and resultant cash flows. Whether to review the existing O&M norms? (To be viewed in the context of availability of margins.

Sr. No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Chhattisgarh State Electricity Regulatory Commission (CSERC)	Existing norms need to be reviewed due to following reasons: ➢ The experience in the state shows that the actual expense is less than half of the cost derived from normative computation. ➢ In case of thermal generation, the water cost needs to be segregated from the O&M cost. The water tax rate is uncontrollable and differs from state to state hence it appears improper to consider it as part of O&M cost. Simultaneously, it is recommended that the norm for water consumption may be added in the operational norms to ensure efficiency in the system. Such move will also help environment protection. ➢ In case of hydro generation, for the existing plants the current method may continue.
B) Government Departments		
B.1	Govt of Odisha	Yes
B.2	Government of Punjab, Dept. of Power	O&M cost needs to be reviewed as the existing norms are higher in comparison with state utilities operating at higher efficiency for eg. NLC units operating in Rajasthan is allowed O&M expenses @Rs 24 Lakh per MW whereas for similar project of M/s RajWest @Rs 16 Lakh per MW.
B.3	Govt. of Tripura, Dept. of Power	Existing O&M norms with regard to the O&M requirement and resultant cash flows are quite adequate in meeting the O&M expenses. Further, O&M cost should be fixed at lower percentage of escalation rate.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The O&M expenses for the new hydro stations should be raised to minimum 3% of Capital Cost. At the time of truing up, the actual O&M expenses should be allowed as otherwise, it as eroding the ROE.

		For working out the O&M expenses, the R&R cost should not be included as R&R cost is substantial in case of storage type Hydro Projects which require more expenditure on the maintenance of the reservoir and related works.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	In case of hydro generating station, during the initial 5 years of CoD, the normative O&M Charges have been allowed @ 2% of the Original Cost (Excluding R&R Cost). In case of NHDC's Indira Sagar Project, the R&R Cost forms nearly 40% of the cost of power component. Thus, there has been under-recovery on account of O&M Expenses as compared to actual O&M expenditure during such initial periods of O&M Stage. To overcome such eventuality of under-recovery, the Normative O&M Expenses to be allowed subject to truing –up on the expiry of 5 years and the actual O&M Expenditure during initial period may be allowed to be recovered by the entity after exercising the requisite prudence check, in a like manner as being allowed subsequent to expiry of 5 years.
C.3	Damodar Valley Corporation (DVC)	O&M should be partly normative and partly based on actual according to controllable and non-controllable items. Establishment cost is a controllable item should be normative based on actual trend and escalation factor. In Public Sector next pay revision will be effective on the next regulation period, so an additional escalation factor should be considered while determining norms. Un controllable items like Ash Evacuation, CISF expenditure, consumption of stores including overhauling, etc. should be linked with actual expenditure at the end of each year for prudence check by the Commission and accordingly tariff rate will be changed. The amount specified by GOI need to be admitted under additional capitalisation without the application of further prudence by the Commission.
C.4	National Hydroelectric Power Corporation (NHPC)	For new hydro stations, (i) Installed capacity below 200 MW, O&M expenses should be fixed as minimum 4% of capital cost, (ii) Installed Capacity 200 MW to 600 MW, O&M expenses should be fixed as minimum 3% of capital cost, (iii) Installed Capacity 600 MW to 1200 MW, O&M expenses should be fixed as minimum 2% of capital cost, and (iv) Installed Capacity above 1200 MW, O&M expenses should be fixed as minimum 1.5% of capital cost, If above methodology is not accepted then it is suggested that concept of truing up of actual O&M expenses after 3 years and at the end of tariff period be introduced.

C.5	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Considering the unique location and topography which determine the nature of a hydro power station, the existing O&M norms for calculation normative O&M expenses based on last 05 (five) years actual O&M expenses (excluding abnormal expenses) should continue. However, it is suggested that adequate provision for inflation may be provided on O&M norms. For new hydro power stations, which have not completed its 05 years of operation as on 01.04.2014, the allowable percentage (presently 2%) on its Capital Cost for determining normative O&M expenses for the 1st year of operation requires to be reviewed for upward revision considering the inflation trend. Similarly, the existing normative O&M expenses (lakh per MW) for the thermal power stations require to be reviewed for upward revision. Thermal power stations with small gas turbine as well as stations located in N.E. Region should be protected with higher norms.
C.6	National Thermal Power Corporation (NTPC)	The fixation of O&M Cost basically consists of two parts: (a). Fixation of base O&M Cost for the first year of the tariff period, and (b). Determination of escalation factor for the tariff period. While fixing the base rate of O&M cost for the 2014-19 tariff period, CERC should consider the following: ➢ Separate provision for water charges: It is suggested that base water charge and other such statutory charges should be separated from the O&M Cost and recovered based on actual like taxes, duties, cess etc. ➢ Variable pay in the Base Cost: It is suggested that Performance Related Pay (PRP) is part of compensation package of the employees and is considered in the CTC (Cost to Company) package of the employees (vide point (ii) of Annexure IV of DPE guidelines dated 26.11.2008), it should be allowed as part of employee expenses in tariff. Besides, variable pay (Performance Related Pay) being part of the compensation package necessary for achieving targets of the organisation set out by the Government and a tool to encourage individual employee's performance, is a legitimate expense and cost to company and should be considered as part of the employee expenses in a cost plus tariff approach while fixing the O&M norms. ➢ Escalation rate to be used for base O&M Cost fixation: During fixation of norms for 2009-14 Tariff Period, the average O&M expenses of 2004-05 to 2007-08 period was escalated at the average escalation rate of this period to arrive at the O&M expenses at 2008-09 level and then a 50% hike was given on account of pay revision of employees to arrive at the 2009-10 O&M expenses. It is felt that this approach may not result in correctly setting

		the base rate for the new tariff period. It is suggested that, while determining the O&M cost base for the next tariff period, instead of average escalation rates, actual escalation rates of the relevant years should be considered for escalating the average O&M cost to arrive at the first year O&M cost figures of the next tariff period. CERC should use the O&M cost data of 2008-09 to 2012-13 period to arrive at the average O&M expenses. This average O&M expense should be escalated with the actual annual inflation indices of the relevant period (in this case inflation indices of 2010-11, 2011-12, 2012-13 etc.) to arrive at the O&M cost for the year 2014-15. This would be the base O&M cost for the 2014-19 tariff period, which would be escalated at the proper escalation rates to arrive at the O&M cost norms for the subsequent years of the 2014-19 tariff period. ➢ Issue of Pay Revision: During framing of Tariff Regulations for 2009-14 Tariff Period, Commission had allowed 50% increase in employee cost due to pay revision. It is suggested that on similar lines, 50% increase in employee cost may be factored in while fixing the O&M norms for the year 2016-17 onwards. However, the same shall be subject to adjustments based on the actual impact of pay revision to be implemented based on the guidelines to be issued by Dept. of Public Enterprises, Govt. of India. ➢ Fixation of O&M Cost Norm for Gas stations: The machine size for older vintages is lower and spares are nor easily available. Therefore the norm of O&M expenses for such machines should be higher as compared to the machines with newer vintage. ➢ In O&M expenses also there should be provision for Change in Law
C.7	Neyveli Lignite Corporation	Existing O&M norm is not sufficient to cover the actual O&M expenditure. The actual O&M expenses incurred is more than the normative expenses allowed by CERC. The employee wages are fixed based on the guidelines received from the DPE and the payment of DA raise is also inevitable. Hence, restricting the employee cost to a certain extent is considered as not reasonable and requires a review. Additional statutory obligations in the form of Sustainable Development etc. further add to the O&M expenses. Therefore the O&M expenses to be allowed for the next period should be sufficient to recover the amount. Further, wage revision for executives if any also has to be covered in entirety because any such amount will be in line with the DPE. The escalation based on previous actual may

		be allowed.
C.8	Power Grid	The existing methodology for working out the normative O & M expenses appears to be appropriate. So far as truing up of O & M expenses is concerned, there may not be a requirement for consideration of true-up under normal circumstances. However, the Regulations should be flexible to allow the utilities to approach the Commission for consideration of any one time/recurring expense that was/could not be envisaged at the start of the control period. Further, with regard to the rates for different transmission elements, following is submitted: • The O&M rates for D/C transmission lines should be double as compared to S/C transmission lines. A justification is enclosed as Annexure– A. • The O&M rates for HVDC Substation are station specific in the present Regulation 2009. In absence of norms for newly added stations, difficulties are being faced in claiming O&M expenses. It is proposed that Commission may specify O&M norms of generic nature for HVDC stations based on station capacities and voltage class. • Furthermore, AC lines with conductor configuration of Hexagonal/Octagonal are likely to be commissioned during 2014-19. O&M expenses for same needs to be discussed while deciding the tariff norms.
C.9	Central Electricity Authority (CEA)	CEA has advised Power Grid to strengthen and ring fence the CTU. In this regard, the approach to tariff should clearly specify that CTU accounts and function will be clearly segregated and a separate tariff petition should be filed for the same on the pattern of RLDCs.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co Ltd	• O&M expenses include Employee cost, A&G expenses and Repair & Maintenance (R&M). Under the present regulation, the Operation & Maintenance Cost is considered as a part of AFC and has been linked with the availability. The State Government Generating Companies which are running the old power plants are unable to run plants at the availability norms fixed by the State Regulator. As such they are unable to recover the full O&M cost. • Further the Employee cost, A&G expenditure are not dependant on plant availability, besides in the old power stations the R&M cost is significantly high. Therefore, the linking O&M with the availability is increasing losses to the State Generating Companies. Since these expenditures are not linked to the availability, therefore, O&M expenses should not be made a part of the Annual Fixed Charges. O&M expenses should be recovered once minimum

		availability, targets are achieved. Minimum availability may be fixed at as last/previous year APAF achieved.
D.2	Rajasthan Discom Power procurement Centre	O& M expenses needs to be reviewed as the existing norms are on higher side if compared with state utilities operating at higher efficiency.
D.3	Uttar Pradesh Power Corporation Ltd. (UPPCL)	The O&M norms have been fixed based on actual expenditure and permissible escalation. **Therefore O&M norms are quite adequate.** The Commission may **direct the generators and Transmission Licensees to give actual data of O&M for 2009-13 to compare the same with the provisions of the Tariff Regulations 2009**.
D.4	GRIDCO	Existing O & M norms to be reviewed
D.5	Tripura State Electricity Corporation Ltd.	The review of earlier control period should be undertaken to exclude the abnormal O&M cost which was allowed due to employee pay revision etc. to arrive at a reasonable O&M cost. No additional benefit should be allowed under normative O&M expenditure.
D.6	Gujarat Urja Vikas Nigam Limited	CERC may determine O&M cost as per procedure followed in the existing control period with due prudence check. Further, CERC may also consider the norms specified by State Regulators, if they are better.
D.7	Pragati Power Corporation Ltd	If higher efficiency is planned and its benefits are to be shared with the beneficiary, Generator may incur higher cost for such maintenance in terms of long tern service/ maintenance contract (LTSA/LTMA) for which the generator should be compensated adequately.
D.8	Orissa Power Generation Corporation Ltd.	O&M costs should be benchmarked with similar projects and practices followed. Further benchmarking of such costs should be done after taking into account the operating life of the project, present cost of operation and true up every year based on actual inflation.
D.9	Chhattisgarh State Power Distribution Co. Ltd.	Earlier the O&M norms were fixed based on actual expenditure for the period from FY 2004-05 to FY 2007-08 with an escalation factor based on WPI & CPI arrived at the base year. Same procedure may also be adopted here for determining O&M norms for control period from FY 2014-19. Now, average of actual O&M expenditure for the period from FY 2008-09 to the period for which data is available, may be calculated and escalation factor considering prevailing WPI & CPI data (in 40:60) may be applied to arrive at O&M expenses for the base year FY 2014-15.
D.10	MP Power Management Company Ltd.	The O&M norms have been fixed based on actual expenditure and permissible escalation. Therefore, it is the appropriate time to check the adequacy of O&M norms. It is felt that the O&M recovered from the beneficiaries is much higher in comparison to the actual O&M expenses incurred by the generator. The Commission may direct the generators and Transmission Licensees to give actual data of

		O&M expenses for FY 2009-13 to compare and check level of recovery with respect of the provisions of the Tariff Regulations, 2009 and suitable corrective measures may be incorporated to limit the recovery of normative O&M expenses nearer to actual levels.
D.11	Maharashtra State Power Generation Co. Ltd.	As the O&M expenses are based on norms, it is normal tendency with the generating companies and the transmission licensee to economize on the O&M expenses, which is not a good trend. The Commission may true up the O&M expenses within the overall limits of the norms and any saving on O&M expenses shall be shared equally with the beneficiaries.
D.12	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	It is suggested that existing norms may be continued with review considering balance life of assets and past expenditure trend. No additional benefit to be allowed under normative O&M expenditure.
D.13	Kerala State Electricity Board (KSEB)	The RPI-X methodology has been recommended, where 'X' can be linked to pre-specified expected efficiency gains.
D.14	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	The existing O&M norms based on normalized actual expenses during the preceding five year may be continued.
D.15	Assam Power Distribution Company Ltd.	Existing norms may continue.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	O&M should be determined based on fixed Rs. per MW and not on the basis of percentage of project cost as specified for hydro by CERC.
E.2	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	There is a need for upward revision of the existing O&M norm as new equipment like desalination plant; Flue-Gas De-sulfurisation units etc. are becoming essential for proper operation of the plant. Also there is a need for additional O&M cost to comply with Perform-Achieve-Trade scheme notified under The Energy Conservation Act, 2001.
E.3	GMR Kamalanga Energy LTD	RPI-X would be a new concept in the country requiring massive data inputs from different generators. A separate detailed paper may be floated by the Commission. The present normative O&M approach may kindly be continued to avoid regulatory risk.
E.4	Jindal Steel & Power Ltd.	The Commission may determine the O&M expenses at the rate of 2% for new generating station or may specify O&M expenses taking into consideration the location and other technological aspects. Commission may ask for the actual data from the new generating stations which have commissioned in last three years to set up the base norms for the O&M expenses.

E.5	Jaiprakash Power Ventures Ltd.	In case of some small developers, their project size is so small that apportioning of such expenses on to its small project breaches the limit prescribed by the CERC and thus they have to suffer due to under recovery of their O&M cost. Therefore, the aforementioned concern of small developers must be considered while framing O&M norms for the new tariff period.
E.6	Association of Power Producers (APP)	• O&M norms need to reconsidered keeping in view the age of the project and different norms should be set for different projects depending upon the age profile. Revised norms should further provide for meeting the efficiency targets under the PAT scheme. • Additional O&M cost for blending should also be included. For certain projects with extra ordinary factors (long length of railway siding, transmission line or water pipeline etc) resulting in higher O&M should also be considered subject to approval by the Commission. • It is suggested to increase O&M cost for CFBC based Power Plant by about 20 % to support achieving the specified normative availability. • Further, Long Term Service Agreement (LTSA)/Long Term Maintenance Agreement (LTMA) cost (atleast @Rs 17-18 lakh /MW) needs to be allowed separately for gas based plants with advanced class machines and such cost must be over and above the normal O&M Cost under proposed Tariff Regulations 2014-19.
E.7	Rudraksh Energy	O&M norms should be based on site of the plant. Normally O&M may be @ Rs 20 Lakh per MW, however may be higher for small projects and lower for large size projects. Norms for Nos. of persons per MW, per Sub -station and length of line may also be considered.
E.8	Torrent Power	1. O&M needs to be reviewed and considered keeping in view the age of the project and different norms should be set for different projects depending upon the age profile. O&M value should be escalated further considering the targets under PAT scheme. 2. The current norms for O&M cost requirement are absolutely insufficient and the following items of cost need be considered in the proposed regulation. a. LTSA/LTMA cost needs to be determined and allowed separately for Gas Based Plants with advanced class machines and such cost must be over and above the normal O&M Cost under proposed Tariff Regulations 2014-19. The merit and rational of allowability of LTSA/LTMA cost as separate cost has already been recognized by CERC in various Orders. b. In case of plants, which are on the coast and where Desalinated water has been either allocated by

		competent Authority or its use has been mandated by MoEF/SPCB, a higher operational cost must be allowed separately since such water is very costly. c. Spares involving preventive maintenance and more particularly the spares which are to support for longer life of the plant need be specifically allowed under O&M norms. d. the escalation factor should be revised based on inflation index.
(F)Other Organizations/Institutions/Banks/Investors		
F.1	Federation of Indian Chambers of Commerce and Industry (FICCI)	• Escalation should be based on inflation in WPI and CPI. Further, there is need for preventive maintenance and recommended replacement of spares for longer life of plant. Hence, norms require upward revision. • Additional O&M cost for blending should also be included. • Further, CERC may consider providing separate normative for chemicals Water charges shall be reimbursed at actuals in addition to O&M Cost
F.2	Electric Power Transmission Association (EPTA)	• Normative O&M, as notified by the Commission, needs to be reviewed on a regular or annual basis. For this, CEA / CERC should nominate engineers / electrical inspectors who would obtain data from all the projects (public and private) being executed in the country at a particular point of time. Normative O&M should be determined and reviewed on the basis of data obtained for all projects in the country and not solely on the basis of estimates provided by PGCIL.
(G)Individual /Public Group/Any others		
G.1	Shri R.B.Sharma	As the O&M expenses are based on norms, it is normal tendency with the generating companies and the transmission licensee to economize on the O&M expenses which is very dangerous trend. The Commission may true up the O&M expenses within the overall limits of the norms and any saving on O&M expenses be shared equally with the beneficiaries.
G.2	Dr. Ashok Kundapur	Provisions already made regarding O&M appear to be adequate, except for the fact that the rates specified for Solar PV should not be made applicable for other mode of alternate energy harnessing. For example, O&M for harnessing energy from ocean could be more. Again under this category too, rates may differ from Tidal to Wave energy harnessing. Rates presented by the Developers may be verified further for authenticity, before accepting them. As of now, CERC has permitted an escalation of 5.72% on O&M expenses and this may need further review from time to time, and can be linked to inflation.

G.3	Mallika Sharma Bezbaruah	In the MYT Regulations for Tariff Period 2004-09, the O&M costs were escalated as per variations of CPI and WPI w.r.t the last five years ending March 31, 2004. Again for the period 2009-14, the average of the last five years were escalated for the same Period w.r.t CPI and WPI variations for the period 2004-09 and the baseline cost of 2009-14 was made. As such, the escalations for the same period was made twice which was wrong and against the interest of consumers. Therefore, the same should be corrected and the O&M cost must be trued up before making the benchmark. Further, in case of salary component the Central Commission provided the 6th Pay Commission salary to the employees of Central Utilities. However, the employees are paid much more than the 6th Pay Commission allowed. Therefore, such expenses should be trued up and excess should be disallowed.
G.4	Shri Arun Kumar Dutta	Existing O&M norms needs review and norms of most efficient power station, private/public sector, shall be adopted. For companies with below norms shall have to improve efficiency adequately to reach to the normative level within 3 years. Availability of plant in all cases must be set at 90%. Hydro utilities norms shall be fixed separately based on availability. Transmission utility must have availability above 99%. In case of over achievement suitable incentive as part of savings up to 10% may be allowed.

b) Comments on CERC O&M norms as compared to similar norms set by SERCs. Is the variation in CERC norms justified for reasons like better performance in terms of higher availability etc ?

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The higher availability justifies higher incentive and not the higher O&M. Further, experience shows that availability is higher when forced outages are lower. Regarding transmission line availability it is also noted that the existing norm for transmission line availability is quite easily achievable with much lower O&M cost.
B) Government Departments		
B.1	Government of Punjab, Dept. of Power	O&M cost needs to be revisited looking to the actual expenditure incurred and O&M charges being allowed by SERCs for the plants operating at the same level. This is also applicable for the transmission and hydro stations. Other aspect is to check No. of person/MW/Substation/length of line, etc.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	(No comments submitted by THDC)
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Included in 3.10 (a) above)
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Most of the SERCs approve tariff on yearly basis and accordingly, the normative O&M expense is computed based on the allowable O&M expenses for the preceding year escalated by a suitable percentage. Since CERC follows MYT and normative O&M expenses depends on preceding 05 years allowable O&M expenses, it is suggested that the normative O&M expenses during the tariff period should be factored with inflation rates prevailing during the period.
C.4	National Thermal Power Corporation (NTPC)	From the analysis of the O&M norms issued by SERCs, the following emerges: a. Most of the SERCs such as UP, MP, Chhattisgarh, Gujarat etc are allowing water charge as a separately pass through element, over and above the O&M expenses. b. Some SERCs have allowed complete pass through of the

		pay revision of employees. c. Some SERCs like MPERC, CSERC are using actual inflation indices (weighted average of WPI, CPI) on year-on-year basis to calculate the escalation rate to be used on the base O&M cost for determining the O&M norm in a tariff period. Hence it is suggested that in line with the norms of the SERCs, CERC should consider on the above.
C.5	Power Grid	The geographies and the voltage level of POWERGRID assets and STUs assets grossly differ. Therefore, O&M norms by SERC cannot be compared with those issued by CERC.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Rajasthan Discom Power procurement Centre	O & M charges needs to be revisited looking to the actual expenditure incurred and O & M charges being allowed by SERCs for the plant at same level.
D.2	Uttar Pradesh Power Corporation Ltd. (UPPCL)	Norms set by SERC cannot be compared with CERC because there is variation in size and technology of projects. Higher availability cannot be sole criteria for allowing relaxed operational norms
D.3	Tripura State Electricity Corporation Ltd.	There is a need to bring efficiency factor in terms of higher availability.
D.4	Orissa Power Generation Corporation Ltd.	SERC should follow CERC norms. However, they may capture state specific plan performances.
D.5	Chhattisgarh State Power Distribution Co. Ltd.	Norms Set by SERC cannot be compared with CERC, because there is variation in size and technology of projects. Lower availability should be the criteria for allowing relaxed O&M norms for generators.
D.6	MP Power Management Company Ltd.	Norms set by SERC cannot be compared with CERC because there is variation in size and technology of projects. Higher availability cannot be sole criteria for allowing relaxed operational norms and excess recovery to O&M norms should be shared in the ratio of 75:25 between beneficiary and generator.
D.7	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	It is observed that most of the SERCs follow CERC Regulations. However, as mentioned, there is need to bring in efficiency factor.
D.8	Kerala State Electricity Board (KSEB)	The RPI-X methodology has been recommended, where 'X' can be linked to pre-specified expected efficiency gains.
D.9	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	ATE has ruled that the O&M require revision only if the index falls below 4.8% or above 7.2% in as much as the mandate stipulates absorption by the generating/ transmission companies up to ±20%. The Appeal before Supreme Court also did not give relief to the beneficiaries. Hence, TANGEDCO submits that the normalized O&M expenses based on actual expenses for the past five years be allowed with a fixed annual escalation.

E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	BSES Yamuna Power Limited	Norms set by SERC cannot be compared with CERC because there is variation in size and technology of projects. Higher availability cannot be the sole criteria for allowing relaxed operational norms.
E.2	Association of Power Producers (APP)	SERC should generally follow CERC norms. However, there are variations on account certain factors such as annual escalation rate. While the annual escalation rate in MYT Regulations of SERCs is linked to escalation in WPI and CPI indices with appropriate weights assigned to them, the CERC's Tariff Regulations 2009 have specified an annual escalation rate of 5.72% for coal fired thermal generating stations. This creates deviation in the O&M norms for similar sized Units irrespective of the age. Therefore, there is need of re-alignment of O&M norms specified by SERCs vis-a-vis the Commission. However, SERCs may capture state specific plant performances and specify plant specific O&M norms.
E.3	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	Escalation rate may be linked to WPI & CPI variation. In last few years, the country has seen unforeseen inflationary trend. It becomes difficult for any operator to survive in such an environment unless some protection is given to combat against such inflationary trend. CERC may devise and publish an index on half yearly basis or may adopt escalation factors for payment notified in pursuance of Clause 5.6, (vi) of Ministry of Power Notification dated May 19, 2005. Therefore, provision may be built-in for recovery of any increase in statutory levies/ duties/ cess/ taxes etc. Suitable provision may be provided for recovery of license fees at actuals.
F) Other Organizations/Institutions/Banks/Investors		
F.1	Federation of Indian Chambers of Commerce and Industry (FICCI)	Presently norms of state Regulators are conservative compared to CERC norms. This anomaly should be removed. It is suggested that operating norms of power plants of similar size and technology should be uniform irrespective whether power plant is covered by CERC or State Regulator. It would help in standardization and will reduce ambiguities and litigations.
G) Individual /Public Group/Any others		

c) ***Comments on the requirement of mid-term review of normative O&M cost. How to deal with variations in O&M cost during the tariff period? Is there a need for introduction of truing up after specifying normative parameters?***

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	No. Review should be considered during tariff period. However, O & M expenses has increased due to extra ordinary condition like rise in wages etc. and their cumulative impact on commencement of tariff period, due to which there is increase by say 10%. Therefore, mid-term reviews may be considered. There should not be truing up of O & M expenses.
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The midterm review to take into account the actual inflation vis-àvis the projected inflation is preferable. Further truing up of O&M cost shall be helpful as it will align the regulatory estimates to realistic numbers. It may be interesting to note that with blending of coal, the ash in coal comes down and it not only increases the performance but also results in significant reduction in Repair and Maintenance cost. As O&M costs are also influenced by additional capital expenses, technological advances and uncontrollable factors such as quality of coal, true up of such costs with a sharing mechanism with beneficiary (preferably 50-50) should be considered.
B) Government Departments		
B.1	Govt. of Odisha	Yes, O & M should be allowed on actual basis with a ceiling.
B.2	Government of Punjab, Dept. of Power	Once truing up on annual basis is implemented (as being done by SERCs there will not be any need for it).
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	No need of mid-term review and truing up can be done as per the existing methodology after incorporating the above submission pertaining to O&M expenses.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Included in 3.10 (a) above)
C.3	National Hydroelectric Power Corporation	Truing up of O&M expenses is very much required as the under recovery of O&M expenses seriously affect the profit and effective ROE of the generator.

	(NHPC)	
C.4	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Mid-term review of O&M norms during the tariff period may result in revision of AFC as well as bills raised the beneficiaries. Frequent revision of bills is not in favour of beneficiaries too, since they can't recover the same from the consumers retrospectively. It is suggested that the same should be taken care of through truing up exercise after completion of the tariff period along-with truing up application on Capital Cost.
C.5	National Thermal Power Corporation (NTPC)	Variable pay (Performance Related Pay) should be included as a part of the employee cost and the escalation rates to be used for arriving at the base rate should be the actual escalation rate in the relevant years and not the average escalation rate. Further, the escalation of O&M cost during the tariff period should be based on the actual escalations of the inflation indices. Thus, the weightage of WPI and CPI should be 80% and 20% respectively for calculating the escalation rate.
C.6	Neyveli Lignite Corporation	Midterm review of the O&M norms is required. If Normative O&M is fixed, there is a need for truing up with the actual O&M expenditure incurred.
C.7	Power Grid	The existing methodology for working out the normative O & M expenses appears to be appropriate and there is no need of mid-term review of normative O&M expenses. However, the Regulations should be flexible to allow the utilities to approach the Commission for consideration of any one time/recurring expense that was/could not be envisaged at the start of the control period. Further on similar lines, the impact of pay revision is proposed to be recovered in the manner as detailed below. • In the interim a notional percentage may be considered for capturing the likely impact of pay revision • Regulations should provide for pass through of pay revision impact at the time of truing up in the subsequent year as and when the decision of a pay revision is finalized • Pay revision to be considered retrospectively from the year from which such an increase is proposed. • Carrying cost may further be allowed for any over recovery or under-recovery of amount during the interim period.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Rajasthan Discom Power procurement Centre	Once truing up on annual basis is implemented (as being done by SERCs) mid-term review will not be needed.
D.2	Uttar Pradesh Power Corporation Ltd. (UPPCL)	Yes. It may be fixed as per the actual data of O&M furnished by the generating companies during the midterm review.

		Actual data certified by Statutory Auditors for each component of O&M may be obtained.
D.3	GRIDCO	Mid-term review of normative O & M should be done.
D.4	Tripura State Electricity Corporation Ltd.	No mid-term review is essential. But the truing up for past control period shall have to be undertaken to determine the efficiency and performance.
D.5	Gujarat Urja Vikas Nigam Limited	The true up should be at time of tariff determination and limited for item which is beyond control of utilities and which are not on account of any inefficiency/default of utility. Further, O&M shall be determined for control period and not on annual basis.
D.6	Pragati Power Corporation Ltd	Many times, O & M costs are linked with exchange rate (like Long Term Service Agreement/Long Term Maintenance Agreement). This is typically applicable in case of advance class gas Turbines. The issue of LTSA and LTMA needs to be suitably addressed
D.7	Orissa Power Generation Corporation Ltd.	Mid-term review of O&M costs should be considered based on changes in people and related costs, environmental costs, mandatory CSR costs, etc. Escalation in O&M should be linked to WPI and CPI and to be trued up every year.
D.8	Chhattisgarh State Power Distribution Co. Ltd.	Review of normative O&M expenses is subject to final true-up, hence, there is no need to mid -term review. Further, there a need for introduction of truing up after specifying normative parameters subject to true up with prudence check on expenses made.
D.9	MP Power Management Company Ltd.	Normative O&M may be fixed as per the actual data of O&M expenses furnished by the generating companies during the midterm review. Actual data certified by the Statutory Auditors for each component of O&M expenses may be obtained.
D.10	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	No mid-term review is required.
D.11	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	No midterm revision is suggested on truing up
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jaiprakash Power Ventures Ltd.	The provision of mid-term review of normative O&M may be adopted if there is a need on account of very high inflation only. However, there shouldn't be truing up of the O&M cost else it would shift the methodology from normative to actual.
E.2	BSES Yamuna Power Limited	Norms are like standards which cannot be reviewed on frequent basis. Against these normative norms, actual performance needs to be assessed on yearly basis. If there is an increase on account of uncontrollable factor, the utility

		needs to be compensated. Similarly, if there is a gain on account of uncontrollable factor, it should be passed on to consumers. Similarly, if there is a loss on account of controllable factor, it should be borne by Utility. If there is a gain on account of controllable factors, it should be retained by the Utility. This would be in line with MYT implementation at state.
E.3	Association of Power Producers (APP)	• It is very difficult to precisely estimate the operational and financial performance for a 5 year long tariff period. Therefore, a mid-term review of normative O&M expenses is necessary. A mid-term review during the tariff period will allow the actual stock-check of the performance and allow for re-estimation or correction for the balance tariff period based on market conditions. • Truing up is not advisable as it will not promote optimisation in O&M expenses. • The LTSA cost and O&M Cost of gas based power plant with advance class machines should be allowed separately. Such cost varies abruptly during the tariff period. The variation is mainly due to maintenance schedule vis-a-vis alignment of maintenance cycle to other equipments. Other factors which contributes to the variation in cost of O&M cost of gas turbine are PLF, Availability (which are again depending upon fuel availability) CPI, WPI, OEM indexation etc. Under the circumstances it is proposed that the provision of indexation is to be introduced for various major items of O&M expenses.
E.4	Torrent Power	Under proposed Regulation 2014, the O&M Cost of Gas Based Plant should limit for advance class machines separately over and above the normal O&M cost. In addition there may be variation due to change in maintenance schedule as well as alignment of maintenance cycle to maintenance plan of other equipments. Other factors which contribute to the variation in cost of O&M cost as well as LTSA cost of Gas turbine are PLF, Availability (which are again depending upon fuel availability), CPI, WPI, OEM indexation etc. Accordingly, the provision of indexation should be introduced for various major items of O&M expenses including LTSA/LTMA cost.
E.5	Bhavnagar Energy Company Ltd.	Mid-term review of normative O&M is required to take care of unforeseen events.
F) Other Organizations/Institutions/Banks/Investors		
F.1	NIPFP	In the current approach, there is a case for mid-term review and truing up of costs, especially if the actual costs are higher because of non-controllable reasons. If the indexation approach is taken, there will be no need for truing up the costs.

F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Mid - term review of O&M cost may be adopted to address the issues of high variation in prices of employee cost, water charges, etc. Further, truing up of O&M cost is not advisable, as it will not promote optimisation of O&M expenses
G) Individual /Public Group/Any others		
G.1	Shri Arun Kumar Dutta	Annual truing up is suggested for accuracy and transparency.
G.2	Shri Shanti Prasad	No. Review should be considered during tariff period. Futher, there should not be truing up of O & M expenses.

d) Methodologies to determine escalation factor for determining O&M cost. In case escalation factor is determined based on WPI & CPI indexation, the weight age of WPI & CPI to determine the escalation rate. What would be the escalation rate for normative O&M on year on year basis methodologies suggested?

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The biggest share in O&M cost is of Employee cost. It relates to CPI. Further, Repair and Maintenance has one component related to labour cost (which is more closely related to CPI than WPI). Thus the WPI: CPI mix may be reviewed and more weightage (say 50%) may be assigned to CPI.
B) Government Departments		
B.1	Govt of Odisha	Escalation rates shall also be as per the actual average figure from year to year with a ceiling.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The existing methodology of determining O&M expenses and escalation factor thereon should be continued with the provision of truing up.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Included in 3.10 (a) above)
C.3	National Hydroelectric Power Corporation (NHPC)	Existing methodology of determining O&M expenses and escalation factor should continue with truing up at the end of tariff period
C.4	North Eastern Electric	The existing procedure of calculating escalation factor based

	Power Corporation Ltd. (NEEPCO)	on WPI and CPI should continue. However, the said rate of escalation should be subject to adjustment for actual inflation during the tariff period.
C.5	National Thermal Power Corporation (NTPC)	The escalation of O&M cost during the tariff period should be based on the actual escalations of the inflation indices. Thus, the weightage of WPI and CPI should be 80% and 20% respectively for calculating the escalation rate.
C.6	Neyveli Lignite Corporation	O&M cost may be determined based on CAGR of actual expenses for the past. It works out to 12% for 2009-14 Tariff Period.
C.7	Power Grid	It is observed that employee cost constitute more than 2/3rd of the O&M expenditure. Under this head, the salary of employees escalates at about 18% every year due to increase in DA annual increment and promotion. The other factors like repair and maintenance, spares etc may escalate at the rate prescribed in the Regulation. Accordingly, the weighted average increase in O&M cost works out to more than 10%. It is submitted that the annual escalation rate may be fixed considering the above aspects.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Rajasthan Discom Power procurement Centre	-
D.2	Uttar Pradesh Power Corporation Ltd. (UPPCL)	The following formula of escalation is suggested:- Escalation Factor = $(0.7x(WPI)_n/(WPI)_1 + 0.3(CPI)_n/(CPI)_1)$ where $(WPI)_n$=Wholesale price index in the n^{th} year $(WPI)_1$= Wholesale price index in the 1^{st} year $(CPI)_n$= Consumer price index in the n^{th} year $(CPI)_1$= Consumer price index in the 1^{st} year
D.3	GRIDCO	O & M should be allowed on actual basis with a ceiling. Escalation rates shall also be as per the actual average figure from year to year with a ceiling.
D.4	Tripura State Electricity Corporation Ltd.	WPI: CPI escalation may be allowed in the ratio of 50: 50 subject to truing up of expense on year to year basis.
D.5	Orissa Power Generation Corporation Ltd.	O&M costs may be benchmarked to WPI and CPI percentages and may be set every year. Further, data on CPI and WPI may be gathered based on projection from reputed consultants.
D.6	Chhattisgarh State Power Distribution Co. Ltd.	Present practice of using WPI and CPI data for last five years may be considered for arriving at escalation rate. However, abnormal inflation during few of the months should not be considered while arriving at escalation rate. As far as,'weightage of WPI and CPI is concerned, same may be considered in the ratio of 40:60 as in practice.

D.7	MP Power Management Company Ltd.	While determining the escalation factor for determining O&M cost, it is suggested that the Commission may obtain actual O&M expenses from the generators across the country and for previous four years from FY 2009-10 to FY 2012-13 and after normalization of O&M expenses, the rate of annual increase in actual O&M expenses may be worked out. The same may be compared with the WPI and CPI and a realistic approach may be adopted to determine the escalation factor.
D.8	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	It is suggested that O&M expenses comprise of Employee, A&G, and R&M expenses and considering any particular escalation factor may affect either parties financially. Hence, it is suggested that WPI: CPI escalation to be allowed in the ratio of 50:50 which would also ensure that all expenses/ elements related to escalation are appropriately covered.
D.9	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The escalation factor can be based on the average of annual actual escalation in the past five years as was done in 2004-09 Regulation.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	Escalation should be worked out based upon historical rise on price or linked with WPI and CPI indexation. CERC must published long-term projection for O&M and its escalation on year to year basis. This may help project proponent to present realistic O&M cost for appraisal by lenders. In accordance with the Terms and condition of tariff determination for 2009-14, the O&M expense incurred for hydro projects in the 35Th year of operation will be 6.63 times of the O&M expenses incurred in the first year of operation (escalation rate 5.72% p.a.). Lenders and investors consider the same escalation rate (provided in Tariff regulations for 5 year period) to obtain the O&M trajectory for full plant life. This again acts as a hindrance to evaluate a project and calculate its cash flows in the later years of operation. In this regard, it is suggested that Long Term O & M data of the projects that have been in operation for more than 15 years be analyzed and the ratio of the O & M expenses over a project life be determined that would enable the developers to arrive at a realistic approximation of the O & M expenses to be incurred by in its full life.
E.2	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	Escalation rate may be linked to WPI & CPI variation. In last few years, the country has seen unforeseen inflationary trend. It becomes difficult for any operator to survive in such an environment unless some protection is given to combat against such inflationary trend. CERC may devise and publish an index on half yearly basis or may adopt escalation factors for payment notified in pursuance of

		Clause 5.6 (vi) of Ministry of Power Notification dated 19.05.2005 Provision may kindly be built-in for recovery of any increase in statutory levies/duties/cess/taxes etc. Suitable provision may kindly be provided for recovery of license fees at actual
E.3	Jaiprakash Power Ventures Ltd.	The data available with CERC with respect to the O&M cost of various projects (at least for last 5 years) could be analysed and an average escalation may be provided. Alternatively, the weightage of WPI and CPI for determining the escalation rate may be made project specific
E.4	BSES Yamuna Power Limited	The escalation rate should be such that actual figures should be as near to projected figures as possible. In absence of availability of actual O&M data, it is not possible to comment of weightage factors of WPI and CPI to determine the escalation rate.
E.5	Association of Power Producers (APP)	• Weight of CPI & WPI should be based on the actual break up of O&M expenses and should be different for different businesses. Like in transmission line that do not have a substation, major component of O&M will be manpower cost and hence CPI should have more weightage. Composite index should consider WPI, CPI and variations in wage revision, water charges, etc. • Instead of considering the data of last 5 years for O&M, the data for last 2 years should be considered to reflect the fluctuations observed in the labour cost. The weightage can remain same (60% for WPI, 40% for CPI) as determined by CERC for the control period of 2009-14.
E.6	Bhavnagar Energy Company Ltd.	The determination of tariff for new project only for the first year based on financial and operational norms prevailing on COD with a provision of periodic revision of fixed components of the fixed cost to take in to account changes on O&M Cost, depreciation, interest on loan etc., @ 20% to 25% towards O&M components' of the AFC may be treated as an escalated component. Escalation rate may be determined year on year basis based on WPI & CPI. Remaining 75% to 80% of AFC may have digressions curve to take in to account depreciation interest on loan rate.
E.7	Torrent Power	Instead of considering the data of last 5 years for O&M, the data for last 2 years should be considered to reflect the fluctuations observed in the labour cost. The weightage can remain same (60% for WPI, 40% for CPI) as determined by CERC for the control period of 2009-14.
C.8	IL & FS Energy	It is our humble submission that in view of unexpected variation in O & M, the year on year escalation rate may be reviewed for any adjustment in the AFC. The Commission

		may decide to continue specifying the O&M cost for the entire tariff period, the Commission may also consider including labor index (In addition to WPI & CPI) for industrial workers. Also, the impact of pay revision due in the 7th pay commission (due from 2016 onwards) may be considered for fixing the O&M expense escalation beyond 2016.
F) Other Organizations/Institutions/Banks/Investors		
F.1	NIPFP	The decision on index depends on the composition of O&M. If labour costs are the main costs (say, 80-90% of total O&M), CPI is a good index for the purpose, and if industrial inputs are the main costs, WPI (manufacturing) can be used. If there is an even share of these in costs, the indexes can be weighted based on the share of these components in the total O&M costs.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Escalation should be based on composite index. Composite index should consider WPI, CPI and water charges, etc.
G) Individual /Public Group/Any others		
G.1	Shri Arun Kumar Dutta	It is observed that WPI and CPI are on higher side. Since power utilities are mostly insulated with market fluctuation, therefore, element of 30% WPI and 20% on CPI may be considered. Coal prices are not volatile and do not follow WPI. Spares of the equipment also do not escalate like CPI. Salary component can be suitably escalated and reviewed in the true up. Gas power station shall adopt the gas supply rate fixed by the govt.

e) Efficacy of the method of determining O&M cost based on the percentage of Capital Expenditure (CC) for new hydro projects. Alternatives to develop O&M Cost norms for the Hydro generating stations?

Comments/Suggestions

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions) – NIL		
B) Government Departments		
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Please see the detail at 3.10(a) which calls for increase in the percentage for O&M expenses.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Included in 3.10 (a) above)
C.3	National Hydroelectric Power Corporation (NHPC)	The existing provision of providing O&M expenses for new hydro generating stations are not adequate and needs to be increased.
C.4	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The existing percentage should be reviewed for upward revision considering the inflation rates. Further, risks associated with the hydro projects located in N.E. Region should be properly factored. However, the existing methodology of determining normative O&M expenses for hydro projects should continue.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Uttar Pradesh Power Corporation Ltd. (UPPCL)	It can be examined on the basis of comparison with actual O&M cost of HEPs. O&M cost needs to be assessed under separate component viz salary, administrative and general expenses and repairs and maintenance. Only repairs and maintenance has a direct linkage with the capital cost. Other components bear no linkage with the capital cost thus O&M cost should not be based on the percentage of capital cost in case of HEPs
D.2	Chhattisgarh State Power Distribution Co. Ltd.	It can be examined on the basis of actual O&M cost of HEPs. O&M cost of HEP should be considered with reference to repairs and maintenance cost only, as the same has a direct linkage with the capital cost. Other elements viz. salary, administrative and general expenses should not be considered.
D.3	MP Power Management Company Ltd.	It can be examined on the basis of comparison with actual O&M cost of HEPs. O&M cost needs to be assessed under separate component, viz. salary, administrative and general expenses and repairs and maintenance. Only repairs and

		maintenance has a direct linkage with the capital cost. Other components bear no linkage with the capital cost, thus, O&M cost should not be based on the percentage of capital cost in case of HEPs.
D.4	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	O&M cost as percentage of capital cost is not correct as the O&M cost for a new project will be more because of the higher capital cost, even though the expenses on this head is minimum during the initial period. Hence, O&M cost should be based on actual of the past period after eliminating any abnormalities.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jindal Power Limited	The Commission may determine the O&M expenses at the rate of 2% for new generating station or may specify O&M expenses taking into consideration the location and other technological aspects. The Commission may ask for the actual data from the new generating stations which havebeen commissioned in last three years to set up the base norms for the O&M expenses
E.2	BSES Yamuna Power Limited	O&M cost needs to be assessed under separate components – salary, administrative and general expenses and repairs & maintenance. Only repairs & maintenance has a direct linkage with capital cost. Other components bear no direct linkage with capital linkage. Thus O&M cost should not be based on the percentage of capital expenditure.
E.3	Association of Power Producers (APP)	Present provision is fine as generalised norms for hydro project based on their capacity (as thermal plants) will not be practically possible owing to different size/design of project components for projects having similar capacity (tunnel, dam etc.). Variation in capital expenditure reflects the impact of variation in size/ design of project components and O&M based on capital expenditure should continue. Total hard cost/ capital expenditure on plant, machinery & civil work could be considered in place of total project cost.
F) Other Organizations/Institutions/Banks/Investors		
F.1	Federation of Indian Chambers of Commerce and Industry (FICCI)	O&M cost for existing Projects may be derived from past data and for the new Projects, existing provision of percentage of capital expenditure may be continued.
G) Individual /Public Group/Any others		
G.1	Arun Kumar Dutta	For hydro units O&M cost cannot be based on capital expenditure which involves civil works. Maintenance of turbine needs some expenditure since the initial warranty period of the supplier/manufacturer is substantial. The trend of expenses may be examined to arrive at the O&M expenses of the unit. However, these O&M expenses shall be unit based and cannot be universally applied, however, it shall be reasonably uniform for the industry. For transmission utility, only the cost of spares for one and a half month and

		employees expenses for one month may be part of O&M along with A&G expenses for one month.

f) ***Suggestions on development of a model for specifying the O&M norms which reflects optimum operational efficiency? Whether to introduce the concept of RPI-X for the limited purpose of O&M as discussed in above para 3.10.2(ii).***

Comments/Suggestions

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	RPI-X methodology should be considered so that high O & M due to over staffing, inefficiency in operation etc. are reduced
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The operational efficiency should be linked with the incentive mechanism and not the O&M cost. The employee cost and the administrative costs are more or less fixed costs unrelated to operational efficiency. With standard repair and maintenance schedules, even the repair and maintenance cost remain fixed, hence adoption of RPI-X concept may not be realistic.
B) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The existing method fairly takes care of interests of all stakeholders.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Included in 3.10 (a) above)
C.3	National Hydroelectric Power Corporation (NHPC)	Escalation need not be linked with efficiency (RPI-X) method
C.4	National Thermal Power Corporation (NTPC)	The current methodologies followed by CERC can be said to be a variant of RPI-X method, except that the RPI (Retail Price Index) factor or the inflation rates are currently based on the past trend of inflation indices. This approach should be slightly modified so that the escalation rates are based on the actual inflation rates, as we have seen wide variation in the

		inflation rates causing significant under recovery by the regulated entities. Hence the approach of determining the base O&M cost based on the past actual and providing escalations as per current escalation rates would be appropriate for Indian context.
C.5	Power Grid	Given the nature of CPSUs, it may be difficult to reduce the normative O &M expenses and it may be imprudent to make such framework which increases the risks towards recovery of legitimate expenses despite the fact that the utilities have been able to achieve the performance parameters set by the Commission.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Uttar Pradesh Power Corporation Ltd. (UPPCL)	There is absolutely no need on incentivizing O&M on account of operational efficiency since the capacity charges already have incentive item in terms of AFC which includes O&M charges also.
D.2	Tripura State Electricity Corporation Ltd.	Based on the past norm and actual expense, efficiency factor may be introduced for future control period.
D.3	Orissa Power Generation Corporation Ltd.	Escalation factor based on WPI and CPI should be periodically reviewed.
D.4	Chhattisgarh State Power Distribution Co. Ltd.	There is absolutely no need on incentivizing O&M expenses on account of operational efficiency, since, the capacity charges already have incentive item in terms of AFC which includes O&M charges also.
D.5	MP Power Management Company Ltd.	There is absolutely no need on incentivizing O&M expenses on account of operational efficiency, since, the capacity charges already have incentive item in terms of AFC which includes O&M charges also.
D.6	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	O&M norms need to have operational efficiency factor similar to the model applicable to distribution licensees. Based on the part norms and actual expenses, efficiency factor needs to be developed for future control period.
D.7	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	It will be difficult to fix the expected efficiency of all the projects as the efficiency will vary with the vintage of the station. Therefore, the Commission shall come out with a methodology for fixing the expected efficiency uniformly for all the stations.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jindal Power Limited	The Commission may determine the O&M expenses at the rate of 2% for new generating station or may specify O&M expenses taking into consideration the location and other technological aspects. The Commission may ask for the actual data from the new generating stations which have commissioned in last three years to set up the base norms for the O&M expenses
E.2	BSES Yamuna Power Limited	There is a need to harmonize MYT regulations at centre and state Regulations. Concept of truing up based on controllable

<table>
<tr><td></td><td></td><td>and uncontrollable factors is well established and needs to be introduced in Central Regulations.</td></tr>
<tr><td>E.3</td><td>Association of Power Producers (APP)</td><td>• Escalation factor based on combination of WPI & CPI seems to be a good idea. Deducting a constant efficiency factor from escalation factor will have compounding impact and may not yield desired results.
• Further, it may not be a possible to precisely workout the normative efficiency factor as it would widely vary amongst all Generating Companies or Transmission Licensees, and also, there is a need to first establish the adequacy of the existing Norms of O&M Expenses. If such efficiency norms are set, the Project developers shall face severe financial implications on not achieving these targets. Sample computation showing the impact on O&M Expenses on not achieving efficiency gains, as shown below.

Tretment of O&M Expenses considering non-achievement of Ef
Particulars | UoM | FY 15 | FY 16
O&M Expenses with Efficiency Gains | Rs Crs | 100.00 | 107.60
Escalation Factor (RPI) | % | 0.00% | 8.60%
Efficiecny Gain (X) | % | 0% | 1.00%
Normative O&M Expenses w/o Efficiency Gains | Rs Crs | 100.00 | 108.60
Financial Impact (if X is not achieved) | Rs Crs | 0.00 | -1.00</td></tr>
<tr><td>E.4</td><td>Torrent Power</td><td>Escalation factor or indexation based on combination of WPI & CPI is proposed.</td></tr>
<tr><td colspan="3">F) Other Organizations/Institutions/Banks/Investors</td></tr>
<tr><td>F.1</td><td>NIPFP</td><td>Yes, this is the best approach for revising O&M annually.</td></tr>
<tr><td>F.2</td><td>Federation of Indian Chambers of Commerce and Industry (FICCI)</td><td>The value of X varies with the size, configuration, technology and vintage of the plant and will be difficult to determine. Instead any gains on account of saving in O&M cost would act as incentive for Developers who will try to further improve efficiency of plant on their own initiative.
O&M expenses need to be escalated based on composite index. Composite index should consider WPI, CPI and water charges, etc.</td></tr>
<tr><td colspan="3">G)Individual /Public Group/Any others</td></tr>
<tr><td>G.1</td><td>Shri Arun Kumar Dutta</td><td>RPI may be introduced suitably reducing WPI and CPI as per actuals and may be further reduced by X which is the efficiency factor not less than 2% annually.</td></tr>
<tr><td>G.2</td><td>Shri Shanti Prasad</td><td>RPI-X methodology should be considered so that high O & M due to over staffing, inefficiency in operation etc. are reduced</td></tr>
</table>

g) ***Treatment of income from other business and other income like interest on deposits, advances etc. while arriving at the O&M cost? Further, treatment of offsetting revenues generated out of telecom business (by way of laying optical fibre composite overhead ground wire) from annual transmission charges. Suggestion on treatment of license fees, taxes and duties.***

Comments/Suggestions

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The share of Income from other business (as per provisions of ACT) shall be deductable from ARR, as non tariff income. CSERC has adopted this approach from very beginning. Taxes and duties such as ED, Cess and water tax differ from state to state and they are direct tax on generation, hence the current practice of allowing them as direct pass through to the beneficiary should continue. However, it is submitted that all other taxes and duties, license fee, petition filing fee, publication fee etc are part of A&G cost, hence may not be considered separately.
B)Government Departments		
B.1	Government of Punjab, Dept. of Power	Income Tax provision as existing i.e. on ROE only- on actual basis may only be considered, whereas, other taxes, duties, etc. may be made as pass through. Further, license fee should not be charged from the beneficiaries. Further, concept of offsetting of revenues of telecom business from annual transmission charges needs to be reviewed.
B) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Existing approach may be continued.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Included in 3.10 (a) above)
C.3	National Hydroelectric Power Corporation (NHPC)	Such micro regulation is not at all required and existing approach of O&M expenses should be continued
C.4	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Allowable normative O&M expenses for a power project should be based on gross expenses incurred by the generator for operation & maintenance of the Plant. Other non operating income, such as, interest/dividend etc. should not be set off for the purpose of arriving at allowable O&M

		expenses. However, revenue generated out of telecom business should be set off, provided that the said activity has been carried on through manpower engaged in core business. Licensee fee, taxes, duties etc. which are part of O&M expenses for Core business should be allowed at actual.
C.5	National Thermal Power Corporation (NTPC)	In case of NTPC, O&M expenses is determined on the basis of the audited accounts of the individual stations. Other incomes such as interest on deposits are not part of income of the stations; therefore such incomes do not go into the base O&M cost decided for the generating stations.
C.6	Neyveli Lignite Corporation	Other income should not be considered in O&M cost. License fees, taxes and duties should be paid extra.
C.7	Power Grid	The aforesaid expenses are incidental to the core transmission function and therefore should be allowed as pass through. Further, the licensees should be allowed to retain the non-tariff income on account of the aforesaid submissions.
C) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Rajasthan Discom Power procurement Centre	Concept of offsetting of revenues of telecom business from annual transmission charges needs to be reviewed, if the investments in telecom business are generated out of depreciation recovered in access of loan amount.
D.2	Uttar Pradesh Power Corporation Ltd. (UPPCL)	Since the beneficiaries pay tax for income on core business their appears no reason for any contribution from the income on other items to O&M kitty. Income tax may be made a pass through in tariff instead of grossing it with the base rate of return on ROE. Other taxes if applicable may be made a pass through in the tariff.
D.3	Tripura State Electricity Corporation Ltd.	Non tariff/Misc income should be considered while computing working capital margin.
D.4	Power Company of Karnataka Ltd.	While arriving at the O&M cost the income from the other sources like interest on deposits / advance / revenue generated out of telecom business/laying optical fiber etc., shall be deducted and for the subsequent period the escalation factor is to be determined based on WPI and CPI indexation in line with escalation considered in the bid route for the existing projects.
D.5	Gujarat Urja Vikas Nigam Limited	Income from other business activities (say telecom) needs to be adjusted against O&M.
D.6	Orissa Power Generation Corporation Ltd.	O&M expenses should be restricted to only power plant and related operations. Further, income from other business should not be considered.
D.7	Chhattisgarh State Power Distribution Co. Ltd.	Income from other business and other income like interest on deposits, advances etc. should be deducted from total expenses. Further, It is non-tariff income, hence, offsetting of revenues of telecom business from annual transmission charges may

		be continued. Income tax may be made a pass through (50%) in tariff instead of grossing it with the base rate of return on ROE. Other taxes, if applicable, may be pass through on actual.
D.8	MP Power Management Company Ltd.	Concept of offsetting of revenues of telecom business from annual transmission charges may be continued. Income tax may be made a pass through in tariff instead of grossing it with the base rate of return on ROE. Other taxes if applicable may not be made to pass through in the tariff and shall be borne by the generators themselves being the part of O&M expenses.
D.9	Maharashtra State Power Generation Co. Ltd.	The income from other business like telecom and other income like interest on deposits, advances, etc. be factored in the O&M expenses as well as in the capital cost suitably.
D.10	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	It is submitted that all non tariff / miscellaneous income from the projects need to be considered while computing working capital requirement so as to have realistic scenario.
D.11	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	Treatment of income from other business like Interest on deposit, advance, revenue generated from other non-core activities should be excluded while normalizing the actual O&M for the previous period. The reimbursement of license fees should not be encouraged as it isfree levied by the Commission for the Corporate to be in the business. Further, service tax should not also be passed on to the end user under the pretext that taxes and duties are always excluded in tariff.
D) **Private Sector (Generators/Transcos./Distribution Cos)**		
E.1	Jindal Power Limited	The Commission may determine the O&M expenses at the rate of 2% for new generating station or may specify O&M expenses taking into consideration the location and other technological aspects. The Commission may ask for the actual data from the new generating stations which have commissioned in last three years to set up the base norms for the O&M expenses
E.2	BSES Rajdhani Power Ltd.	Income from other business shall be shared @50% through tariff and income through interest on deposits shall be taken 100% for rationalization of tariff. The other business of Genco/Transco are on account of the base business and the benefit should be shared equally with the consumers.
E.3	Jaiprakash Power Ventures Ltd.	There is no need of treating other income while arriving at O&M cost because this may make tariff determination complicated.
E.4	BSES Yamuna Power Limited	Concept of offsetting of revenues of telecom business from annual transmission charges needs to be reviewed, if the investment in telecom business are generated out of depreciation recovered in excess of loan amount. The concept of retaining depreciation funds in excess of debt capital was to build investment capacity of utility. Now consumers of

		power by paying higher tariff are inadvertently subsidizing other business of the utility.
E.5	Association of Power Producers (APP)	All non-operating expenses should be separated while working out O&M expenses.
E) Other Organizations/Institutions/Banks/Investors		
F.1	**NIPFP**	The regulation should cover only activities related to the regulated project. If a firm is in other businesses, it should not affect the tariff decision of the Commission. For costs that are common or shared across businesses, the firm should be mandated to apportion the costs to different businesses as per the accounting standards.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	The income from other businesses, interest and deposits/advances should not be considered for calculating ARR and should be treated independently. It is suggested that present practice in this respect may be continued.
F) Individual /Public Group/Any others		
G.1	Dr.Ashok Kundapur	Income from other sources should be treated separately. Developers can be directed to launch different entities to deal with such income. Besides, Income Tax Act has made suitable provisions to consider such incomes. Taxes & duties etc would be the concern of IT departments.
G.2	Shri Arun Kumar Dutta	Income on other business, if accrued monthly, shall be offset against O&M cost and revenue generated from telecom business shall be offset against general expenses. However, an incentive factor of 5% of the net profit from such business may be allowed to the employees as incentive. License fee must be borne by the utility from the net profit. Taxes and duties may be suitably attributed.