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)

3.3 Depreciation

The Comments are invited in regard to following the issues, namely_

a) ***Whether the treatment of weighted average useful life in case of combination, due to gradual commissioning of units, shall continue or alternatives if any ?. Can additional expenditure during fag end of life be considered for the re-assessment of useful life? Can additional expenditure after Renovation and modernization (or special allowance) be restricted to limited items/equipments? Can a regulatory method be derived wherein life gets reassessed at the start of every tariff period or every additional capital expenditure through a provision in the same way it is prescribed in accounting standard?***

Sr. No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	No comments
A2	Uttar Pradesh Electricity Regulatory Commission	The existing treatment of weighted average useful life in case of combination of units, due to gradual commissioning of units, should be allowed to continue as otherwise the depreciation will be charged unit wise while the generation data in course of time are worked out plant wise instead of unit wise. However in respect of R&M schemes the depreciation equivalent of 90% of the proposed investment on R&M may be spread over the period during which the cost of such capital investment is proposed to be recovered.
A.3	Chhattisgarh State Electricity Regulatory Commission (CSERC)	• The weighted average useful life should continue, subject to the condition that the units are commissioned within a reasonable span of time. However, in case commissioning is spread over long period, then alternative methods have to be resorted. • Life redetermination at the beginning of every tariff period may not be practicable and rational, however in case of any add cap, the effective life should at least be extended to the end of that control period. • Further, the reassessment can be taken up on redetermination of capital cost on approval of

		every high (say more than 10% of existing GFA in the first 10-15 years, 20% in 15-20 years and more than 25% at the fag end) capital expenditure.
B) Government Departments		
B.1	Govt of Odisha	(A) As per the existing depreciation schedule, the rate of depreciation should be linked with the life of the assets and the useful life of the assets should be increased at least by another 5 years, as these assets have been giving service for more than useful life specified in the existing schedule of depreciation. (B) Thus, the loan repayment period may also be extended to 15 years / 18 years or even more as long tenure loans are now available in the domestic as well as international financial markets. (C) In case of existing projects, the balance depreciable value as on 01.04.2014, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.03.2014 from the gross depreciable value of the asset.
B.2	Gujarat Urja Vikas Nigam Limited	• Considering the weighted average life for depreciation would be more simple and feasible instead of separate unit wise. • Further, in case of R&M, the depreciation shall be up to extended life of asset. Moreover, the project which are availing Special Compensatory Allowance in lieu of R&M shall not be allowed depreciation, alternatively, Special Compensatory Allowance shall have to be discontinue.
B.3	Government of Punjab, Dept. of Power	• Treatment of weighted average useful life in case of combination, due to gradual commissioning of units should be continued. • Additional expenditure during fag end of life can be considered for the re-assessment of useful life. Further, additional expenditure after Renovation and modernization (or special allowance) can be restricted to limited items/equipments. • Further, Regulatory method can be derived wherein life gets reassessed at the start of every tariff period or every additional capital expenditure through a provision in the same way it is prescribed in accounting standard
B.4	Govt. of Tripura, Dept. of Power	Treatment of weighted average useful life in case of combination, due to gradual commissioning of units should be continued. Additional expenditure during fag end of life may not be considered for the re-assessment of

		useful life. However, additional expenditure after Renovation and modernization (or special allowance) can be restricted to limited items/equipments under the prevailing circumstances. Further, reassessment of life period at start of every tariff period and provision of capital expenditure thereon will may not be feasible. The assessment of every additional expenditure in line of accounting standard is a better option.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	• A uniform rate of depreciation for entire project assets linked to repayment of debt be adopted. Accordingly, rate of depreciation may be kept at 5.83% (70% of debt/12 years of normative loan repayment period) for the initial period of 12 years. The balance value of the asset could be allowed to be depreciated over the residual life, duly considered the salvage value. • While computing the tariff, miscellaneous assets and many other items are not considered but it is suggested that they may also be covered while working out depreciation as they are also funded through equity and debt. • The value of newly installed replacement be allowed to be depreciated over the balance period of life of the plant/power station as a whole e.g. if the equipment is replaced in 31st year, then the cost of the new equipment should be allowed to be depreciated in the remaining 4 years of the useful life of the plant/generating station.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	➢ The present Regulation of Weighted Average useful life in case of combination, due to gradual commissioning of units, may be continued. ➢ The useful life of generating station needs to be reassessed after Additional Capital expenditure on renovation & modernization. ➢ The reassessment beyond existing useful life of generating station may be derived on pro-rata basis of additional capital expenditure incurred on such Renovation & Modernization to the original cost normalized to the level of year under reference. e.g. In the 20th Year of its life, if additional capital expenditure 'X' is incurred on R& M Works and whereas the Original Project Cost normalized upto the 20th year is 'Y', then the useful life 'Z' in case of thermal generating station may be reassessed as: $Z = 25 (1+ X/Y)$ years

		➢ The depreciation should be allowed to be charged over the extended life of the Assets.
C.3	Damodar Valley Corporation (DVC)	• Enhanced rate of depreciation within 5 years after repayment of Loan will help power utilities in mobilizing resources from the existing capacities for capacity addition. • In case of Add Cap allowed by Commission (other than R&M Cost) at the fag end of useful life the amount should be recovered within next 5 years or rest of useful life period whichever is higher in addition to normal depreciation to overcome the un-certainty of recovering the full amount. In case the useful life expires in less than 5 years period, the amount should be allowed to recover within the rest of useful life.
C.4	National Hydroelectric Power Corporation (NHPC)	Existing normative useful life may be continued.
C.5	North Eastern Electric Power Corporation Ltd. (NEEPCO)	• Different units of a power projects are commissioned on different dates due to various practical reasons. In some cases, such time gaps are too wide. This is more practical for medium/large sized power projects with multi units. Accordingly, the existing treatment of weighted average useful life in case of combination, due to gradual commissioning of units, should be discontinued. The useful life for unit along with related assets required to operate the same should be considered from date of its commissioning. For any addition to the power project on commissioning on subsequent units, assessment of useful life of the project as a whole and charging of depreciation there-on should be governed by the Accounting Standard-6 issued by the ICAI. • Further, any capital expenditure during fag end of life can be considered for re-assessment of useful life of the project provided such expenditure results in "Renovation and Modernization" thereby extending its operating life beyond normative life. Otherwise, such expenses require to be treated as "Add Cap" for maintaining Plant efficiency during its normative life. Since purpose of the Modernization & Renovation is for extending project operating life beyond its normative life, the same should not be restricted to limited items/equipments. In general such re-assessment should be carried on at the fag end of the project life requiring substantial expenditure for

		extending its operating life beyond normative life. Accordingly, it is suggested that no such project life reassessment is required except in special cases, where the project is facing specific problems, such as, geological/water contamination etc, which are beyond control of the generating company, but a great threat to its continued survival & efficient operation.
C.6	National Thermal Power Corporation (NTPC)	• The present methodology in practice of arriving at station COD based on weighted average COD of individual units may be continued. • In case of additional expenditure during fag end of life, the depreciation on account of the additional capital expenditure may be serviced over a period equal to its loan repayment period. Therefore, re-assessment of useful life on this account would not be required. Further, it may not be practically feasible to cover all capex items under R&M or Special Allowance. Capital expenditure towards development of ash dyke, ash handling system including cost of land that may be required after 25 years and any expenditure required for BOP equipments/facilities would need to be considered separately as the same cannot be factored into R&M for BTG. Besides, provision of compensatory allowance available to coal based stations needs to be extended beyond 25 years as expenses for which compensation allowance is given would also continue to be required after R&M. It is therefore suggested that add-cap provisions applicable beyond cut-off date till end of useful life needs to be extended to apply to the extended life after R&M. • For the extended life minor assets in nature of Miscellaneous Bought Out Assets (MBOA), Vehicles, Fire Fighting equipment and systems, medical equipments, safety equipment etc also need to be considered along with the compensatory allowance. • Further, reassessing life at the start of every tariff period/every additional capital expenditure would lead to inconsistency and add to regulatory uncertainty .
C.7	Neyveli Lignite Corporation	Weighted average useful life may be considered in case of combination since tariff is calculated for station as a whole. Additional expenditure during fag end may be incurred for replacement of certain assets or newly added in order to maintain the production and there is no need for reassessment of Life. Also as any additional expenditure is incurred only when it is essential it need not be restricted to limited items after R&M. As per the accounting Standard, there are two types of capitalization, one is new asset capitalization and other

		one is value addition to the existing asset. In the case of new addition the depreciation is charged based on the life of that asset and in the case of value addition to the existing asset, it has to be depreciated within the life of the main asset. However, both the types of capital expenditure may be allowed to be depreciated over the balance useful life of the plant. *Some of the plants like IPS I of NLC are being run even after 25 + 15 years of service. Such plants are kept in service only after ascertaining the safety of the Units by way of RLA study etc., and hence the tariff regulations should take cognizance of the needs of such plants. There should be recognition of the efforts taken to keep the plants in service for such longer period.
C.8	Power Grid	The current arrangement of treatment of weighted average useful life in case of combination, due to gradual commissioning of units/transmission elements, should continue. Further, additional capitalization cannot be the basis of enhancement of useful life. Rather, the same can only be expected after detailed R & M programs are conducted in which significant capital expenditure is incurred on replacement of equipments. Further, Additional expenditure after Renovation and modernization (or special allowance) should be considered based on prudence check and should not be restricted upfront in the Regulations. The life of assets should not be re-assessed at the start of every tariff period in the same way it is prescribed in the accounting standards.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co. Ltd	• If there is significant amount of additional expenditure incurred at or near to end of useful life of generating unit there is a need to reassess the useful life to claim the depreciation on additional capital expenditure incurred. • It is not practicable to restrict the items/equipment for R&M or for special allowance. Re assessment of life at the start of every tariff period or at every additional capital expenditure is not technically feasible for the reasons that useful life of the power plant has already been technically defined. As such there is no need to reassess the life of the plant at the start of every tariff period.
D.2	APTRANSCO	Assessment at the end of life whether to carry out renovation or not, on case to case basis
D.3	Rajasthan Discom Power	i) Should be continued.

	Procurement Centre	ii) Yes iii) Regulatory method should be derived.
D.4	Uttar Pradesh Power Corporation Ltd. (UPPCL)	i) The weighted average rate in case of combination due to gradual commissioning of units may be continued. ii) Yes iii) In case of additional capital expenditure only weighted average useful life may be determined
D.5	GRIDCO	• The rate of depreciation should be linked with the life of the assets and the useful life of the assets should be increased at least by another 5years, as these assets have been giving service for more than useful life specified in the existing schedule of depreciation. • Thus, the loan repayment period may also be extended to 15 years / 18 years or even more as long tenure loans are now available in the domestic as well as international financial markets. • In case of existing projects, the balance depreciable value as on 01.04.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.03.2014 from the gross depreciable value of the asset.
D.6	Power Company of Karnataka Ltd.	• The treatment of weighted average useful life in case of combination, due to gradual commissioning of units/assets may be continued. Mismatch, if any, in the depreciation amount will be factored at the time of filing the petition for next tariff period, or as an alternative, the generating company/transmission licensee may raise the difference and same shall be recovered from the beneficiaries. In case of any disputes, the parties may approach the Commission through an application. • Regulatory method should be derived for extension of the life of the project after additional expenditure towards renovation and modernization. The life needs to be reassessed at the start of every tariff period. In case incentive is separately allowed on exceeding targeted availability any unrecovered depreciation due to the disincentive may be allowed in the next tariff period. • Further, the treatment of additional capitalization at the fag end of the project life after allowing the compensatory allowances is subject to extension of useful life without compensating the performance. In case compensation allowances is to be allowed for the

		generating stations / transmission system, a feasibility report has to be submitted to CEA for approval of techno commercial clearances thereafter the Commission may allow the compensation allowances.
D.7	Orissa Power Generation Corporation Ltd.	• The treatment of weighted average useful life in case of commissioning due to gradual commissioning of units should continue as it provides for revenue. Additional capital expenditure during fag end of life should be added to the net block of assets till date and total amount should be depreciated over the extended life of project. R&M expenditure should be allowed in full and not limited to few items/equipment. • Depreciation should be linked to the original useful economic life of the asset and as per accounting norms. Also, practice of 10% salvage value needs to be discontinued and 5% salvage value as per accounting norms needs to be considered.
D.8	Chhattisgarh State Power Distribution Co. Ltd.	Weighted average useful life method may be continued for different units of the same power plant. Use life of the plant must be reassessed while allowing additional capital expenditure during fag end of life and useful life may be extended accordingly. Further, additional expenditure after R&M must be restricted to only limited pre-specified equipments. A regulatory method should be derived wherein life of the plant gets reassessed.
D.9	MP Power Management Company Ltd.	Adoption of weighted average, useful life, method in case of combination due to gradual commissioning of unit is a time tested method and may be continued. Further, useful life of the plant must the reassessed while allowing additional capital expenditure during fag end of life and useful life may be extended accordingly. After R&M, the additional capital expenditure must be restricted to only limited pre-specified equipments.
D.10	Maharashtra State Power Generation Co. Ltd.	The treatment of weighted average useful life in case of combination, due to gradual commissioning of units can be changed from unit to the generation station provided all the units are commissioned within a period of 2 years.
D.11	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Depreciation on renovation and modernisation may be allowed if undertaken as per above suggested comments. If allowed, capex on R&M schemes should be calculated separately from the rest of the plant. The rate may be determined considering useful life with consideration for loan tenure (12 years). In case, the rate is lower (as applicable to the rest of the plant after 12 years) it would be a disincentive for generators to go for R&M. No amount may be allowed as unrecovered depreciation and further the generators should be penalized for lower availability with no recovery on capacity charge.

D.12	Kerala State Electricity Board (KSEB)	Claiming depreciation on the old assets and the assets created under R&M works may be treated separately to avoid confusion and ambiguity. Further, the additional expenditure incurred even during fag end of useful life may be admitted provided that it would have resulted in extending the useful life by 15 to 20 years and the developer/project proponent shall furnish sufficient details including cost benefit analysis to substantiate their claims. Further, if the plant availability is less than the target availability, there shall be a corresponding reduction in fixed charges and if the plant availability is more than the target availability, incentives are allowed to the generators and transmission licensees. Since, depreciation is a necessary component of fixed charges, as and when disincentive is allowed to the generator/transmission licensees in the form of reduction in fixed cost, then there shall be proportional reduction on the recovery of depreciation also. Since the disincentive is being allowed on account of the failure from the part of generator for making the plant available, the unrecovered depreciation due to disincentive cannot be allowed.
D.13	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	• The salvage value of 10% retained based on the capital cost incurred on commissioning the project is very meager compared to the value of the scrap that would fetch on scrapping the asset. Hence, it is suggested that the depreciation recovery may be limited to actual debt taken for the project and serviced in the initial period of 12 to 13 years depending on the term loan tenure. The accumulated depreciation is limited to the gross loan for the project and allowed only upto the end of debt service period. • The rate of depreciation for the various assets linking with its useful life may be continued as per Annexure III of 2009 Regulation. Reassessment of useful life of such assets should be done at the time of scrapping of the plant and due credit to be given to the salvage value. • The expenditure of R&M and special allowance should be limited to selective item and on assessment of the remaining life of the asset. • A regulatory method may be derived to reassess the useful life period of the asset at the start of every tariff period based on the additional capital expenditure incurred as prescribed in According Standard.
D.14	Assam Power Distribution Company Ltd.	Assets of generating stations should be considered unit-wise for the purpose of calculation of depreciation to avoid the complicacy.
E) Private Sector (Generators/Transcos./Distribution Cos)		

E.1	Jindal Power Ltd.	The depreciation reserve created falls short by nearly 1.5-2% p.a. so as to fully meet the debt service obligation for the hydro project developer, as mandated under the National Electricity Policy. This results in reducing the effective return on investment for the hydro project by 1.5%-2%, causing hydro projects to be financially unattractive for investments as compared to thermal power projects.Therefore, the Commission has been requested to provide for advance against depreciation (AAD) for hydro projects to meet their debt obligation.
E.2	Moser Baer Electric Power Ltd	(i) Depreciation rates should be adjusted in such a manner that 100 % loan repayment can be made within repayment period. (ii) It is requested to reinstate the provision of ADD or make a provision for the depreciation amount commensurate with respect to the loan repayment amount. (iii) Total applicable annual depreciation amount can be calculated by taking weighted average of depreciable amount of all units. (iv) In case of R& M and in case of additional capital expenditure, the useful life of plant should be reassessed to the extend that the depreciation rates applicable are not reduced from the existing rates and additionally the depreciation rates should be adjusted for meeting the debt obligation on account of raising finances for the additional capital expenditure in plant. (v) The interest on additional capital expenditure should be considered in determining the tariff in the same manner as interest on long term loan for developing the plant.
E.3	Shree Suryanarayan Power Generation Ltd.	For finding out the cost of power generation 100% (10% per year for 10 years as generally tenure of loan is 10 years) depreciation may be considered. This will recover debt plus equity. Hence question of Debt: Equity ratio will not matter. Once the debt plus equity are covered, cost of power generation will be less. The depreciation of the additional expenditure on capital equipments due to R&M even at the fag end may be considered 100% as per accounting system. As 'PLUS' factor (profit) on initial investment has been recommended to be considered, the developer will have enough flexibility on such expenditure to this choice.
E.4	JINDAL STEEL & POWER Ltd.	Unlike thermal power projects wherein major capital cost component is the Plant & machinery cost, the major capital cost component for hydro projects is the civil cost.

		Civil cost component contributes nearly 70-75 % of the aggregate project cost only 25% of capital cost is attributed to plant & machinery cost. Therefore, considering the weightage of cost of civil structures and cost of plant & machinery for a hydro project and depreciation rate provided by the Commission, the weighted average depreciation rate for hydro projects works out to around 3.83 to 4.5 % considering debt service obligation of 70 % of the capital cost and repayment period of 12 years, the annual debt service obligation works out to 5.83% To provide for advance against depreciation (AAD) for hydro projects to meet their debt obligation.
E.5	BSES Rajdhani Power Ltd.	Additional capital expenditure at the fag end of project life should be considered only if the useful life of asset is modified to such an extent that depreciation rates are justifiable. Further, R&M should be considered for projects which do not involve the over-hauling of main plant package and should be restricted to a certain percentage of the historical cost of plant. Beyond this range, the project should be opened up for private participation so as to achieve efficient R&M and maximum life extension.
E.6	BSES Yamuna Power Limited	• Concept of weighted average life should continue as gradual commissioning of units is a norm and not an exception. • Scope of additional capital expenditure allowed under current Regulations is very limited for thermal stations post provision of compensation allowance. CERC may as part of Regulations specify the time period within which additional capital expenditure will be incurred. Further, CERC may also specify that any scheme of additional expenditure over a threshold limit (e.g. Rs. 10 Crore) shall form part of R&M scheme of the plant after 15 years of initial life of the plant. • Reassessment of life post 15 years should form part of R&M scheme. Implementation of R&M scheme by Utility should be made a controllable factor, with utility being made responsible for implementation of scheme. In event of non-implementation, suitable disincentives should be factored in Regulations.
E.7	Jaiprakash Power Ventures Ltd.	The depreciation rate should be increased to 5.83% p.a. considering the repayment tenure of 12 years and 70% loan so that there is no shortage of cash for repayment.

E.8	Association of Power Producers (APP)	• The treatment of weighted average useful life in case of combination due to gradual commissioning of units should continue. Additional capital expenditure during fag end of life should be added to the net block of assets till date and total amount should be depreciated over the extended life of project. R&M expenditure should be allowed in full and not limited to few items/ equipment. • Frequent revision in depreciation will result in uncertain cash flows and this will create problem in arranging finance for the project. Therefore, it may not be desirable to reassess life and recomputed depreciation at start of every tariff period. • In case of CCGT, the life of blades is only 5 to 6 years. Hence depreciation shall be charged over life of the equipment/ major component. • Alternatively, depreciation may be linked to debt repayment rather that linking it to useful life of the asset. • Generally the loan tenure is such that a depreciation of 7-8% is needed to generate cash to repay the loan per year. Therefore, it is suggested to reassess the depreciation rate which need be enhanced and the salvage value to be at 5%. The depreciation table need be revised/ amended.
E.9	Rudraksh Energy	Regulatory method should be derived for life extension with additional capital expenditure and provide depreciation corresponding to life extension & expenditure.
E.10	Torrent Power	1. The treatment of weighted average useful life in case of combination, due to gradual commissioning of units, should continue. Additional capital expenditure during fag end of life of the Asset should be added to the net block of assets and total gross Block should be depreciated over the extended life of project. 2. Alternatively, depreciation may be linked to debt repayment rather that linking it to useful life of the asset. Generally the loan tenure is such that a depreciation of 7-8% is needed to generate cash to repay the loan per year. 3. In that case, it is suggested to reassess the depreciation rate which need be enhanced with salvage value to be at 5%. The depreciation table and rate as per Tariff Regulation 2009 need be revised/amended.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance and Policy (NIPFP)	The weighted average useful life makes sense of combined units, but it creates a problem because different components may have different lives. This problem can be solved if the components can be separated and salvage

		value can be separately calculated for each such components, at the end of the weighted average useful life (say, 12 years). This way the Commission can avoid changing the approach, while also accounting for different useful lives of components in a combination. Additional expenditure during the fag end of life can be considered for the re-assessment of useful life if such expenditure contributes to extension of useful life. This expenditure should be capitalized and depreciated over the balance life. Additional expenditure after renovation and modernization (or special allowance) should be restricted to the minimum, because renovation and modernization and truing up of capital cost should take care of most expenditure of the project. The Commission can reassess life at the start of every tariff period or every additional capital expenditure. All such events in the previous regulatory cycle that might affect the life must be considered in such an assessment. These include: renovation and modernization expenditures, wear and tear in the regulatory cycle (compared to expected wear and tear), replacement expenditure, etc. The Commission should do so to make sure that the regulations are in line with the economic (financial and operational) reality of the project.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Weighted average useful life in case of combination may be continued as per the existing provisions as it helps to meet repayment of debt linked with commissioning of each unit. Sometimes lenders prefer to structure the debt repayment schedule with COD of each unit as the gap between various units may be quite substantial and the Project has also started generating revenue. This will also facilitates in lower tariff to beneficiary due to savings in interest cost on repayments of loan. R&M expenses do not always enhance the life of the project but lead to improved performance and efficiency. so expenditure incurred for life extension projects should only be insisted for re-assessment of life of the plant. It is not advisable to restrict R&M /Special allowance to limited items/equipment of the plant, it should be allowed as long as it contributes to improve the performance/efficiency of the plant. The very purpose of depreciation is to meet repayment of debt. Regulation provides for normative debt equity ratio of 70: 30. The repayment is normally scheduled for 12 years but depreciation allowed during first 12 years works out 63.36 % only (5.28%*12) leading to inadequate funds to meet debt obligation by 6.64%. Thus, the

		depreciation rate may be escalated to match repayment schedule. In case of mismatch in depreciation vs. Repayments, promoters are resorting to bullet payments at the end of the tenures. Such bullet repayment mechanism attracts higher interest rate adversely affecting tariff. The project proponent may be incentivised for raising higher debt say 75% or 80% of project cost, this would reduce tariff component as debt being cheaper source of funds. The Commission is requested to provide for advance against depreciation (AAD) for hydro projects to meet their debt obligation.
G) Individual /Public Group/Any others		
G.1	Shri R.B.Sharma	The treatment of weighted average useful life in case of combination, due to gradual commissioning of units can be modified by changing the useful life definition. The definition can be changed from unit to the generating station provided all the units are commissioned within a period of two years. Additional capital expenditures should be avoided and only R&M be allowed after completion of the useful life. No additional capital expenditure should be allowed after the R&M expenses. Such regulatory laxities promote organizational laxities while undertaking R&M activities. No regulatory method is needed for reassessment of useful life at the start of tariff period.
G.2	Dr. Ashok Kundapur	Calculations based on LCOE regime show that the same depreciation is not sufficient and some part of profit before tax also need to be added to this depreciated amount to clear the debt installments. This leaves practically no funds for paying the dividends on equity for some years.. Alternatively, methods have to be evolved such that dividends can be paid at least from two year of operation and the industry generating Power can retain some profits.

b) In case of re-assessment of useful life, can depreciation be charged over the balance life of the assets along with the original written down value up to 90% value OR Add cap and original amount depreciate over revised/reassessed useful life of asset. ?

Sr. No.	**Name of organization/ stakeholders**	**Comments/ Suggestions**
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	No comments
A.2	Uttar Pradesh Electricity Regulatory Commission	Original amount of Depreciation may be spread over the re-assessed useful life of the plant and the additional amount incurred on R&M scheme may be recovered in the rest of the life originally assessed plus the further period of extension in life of the plant based on RLA study.
A.3	Chhattisgarh State Electricity Regulatory Commission (CSERC)	In case of re-assessment of useful life, depreciation should be charged over the revised balance life of the assets along with the written down value up to 90% of revised GFA. However, if a part of add cap is related to package based renovation, which is expected to increase the useful life for a considerable period, the schedule rate should be applied for the first 12 years and then the balance shall be depreciated over the balance extended life.
B) Government Departments		
B.1	Govt of Odisha	As mentioned in (a) above
B.2	Government of Punjab, Dept. of Power	Add cap and original amount can be depreciated over revised/reassessed useful life of asset.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The useful life once determined should remain fixed to avoid any regulatory uncertainty. Hence, in case of R&M resulting into life extension, reassessment of life would be necessary.
C.2	National Hydroelectric Power Corporation (NHPC)	NHPC is not in favor of reassessment of useful life of the assets. Useful life once determined should remain fixed to avoid regulatory uncertainty.
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	In case of reassessment of useful life, the balance depreciation should be charged over the remaining life of the project.
C.4	National Thermal Power Corporation (NTPC)	Depreciation can be charged over the balance life of assets along with the original written down value up to 90%. Depreciation of original assets up to 90% value can be as per its original life of 25 years. Depreciation of assets capitalized after 20 years may be recovered over the period matching with its loan repayment period which is

		presently about 10 years.
C.5	Power Grid	There should not be any re-assessment of life of the assets.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co. Ltd	Reassessment of useful life is not suggested therefore no comments. The additional expenditure permitted by the Commission during the useful life may be depreciated over the balance life of the assets. In case useful life is less than 5 years, the additional capital expenditure can be permitted only in areas where there is life extension.
D.2	APTRANSCO	1. No automatic renovation expenditure. Renovation expenditure on case to case basis.
D.3	Rajasthan Discom Power Procurement Centre	Add cap original amount can be depreciated on the revised useful life.
D.4	Uttar Pradesh Power Corporation Ltd. (UPPCL)	The weighted average life of the plant takes care of this issue.
D.5	Power Company of Karnataka Ltd.	Reassessment of the life shall be based on the recommendations of CEA. Useful life of the sub stations and transmission lines may be fixed at 35 years and Reassessment of the life of the generating stations needs to be made.
D.6	Orissa Power Generation Corporation Ltd.	• The original amount should be allowed as depreciation over the original estimated life of asset. Any additional expenditure along with net block of assets as on date may be allowed to be depreciated over the balance re-assessed useful life.
D.7	Chhattisgarh State Power Distribution Co. Ltd.	Only new assets should be depreciated for the extended life and not the already depreciated amount of the existing assets.
D.8	MP Power Management Company Ltd.	Pre-specified useful life could be revised and extended after reassessment of useful life for spread over of balance depreciation.
D.9	Maharashtra State Power Generation Co. Ltd.	No reassessment of useful life has been proposed.
D.10	Kerala State Electricity Board (KSEB)	If the plant availability is less than the target availability, there shall be a corresponding reduction in fixed charges and if the plant availability is more than the target availability, incentives are allowed to the generators and transmission licensees. Since, depreciation is a necessary component of fixed charges, as and when disincentive is allowed to the generator/transmission licensees in the form of reduction in fixed cost, then there shall be proportional reduction on the recovery of depreciation also. Since the disincentive is being allowed on account of the failure from the part of generator for making the plant available, the unrecovered depreciation due to

		disincentive cannot be allowed.
D.11	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The depreciation to be charged on Add Cap and R&M works shall be linked with the remaining useful life of the asset and if it is done at the fag end of the life of the plant, then the salvage value of the add cap and R&M shall be more than 10% based on the remaining useful life of such replaced item.
D.12	Assam Power Distribution Company Ltd.	Residual value and Add cap may be considered with reassessed useful life.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	As mentioned in (a) above
E.2	BSES Rajdhani Power Ltd.	In case of re-assessment of useful life depreciation should be allowed over the revised/re-assessed life of the project on the salvage value of plant and the additional capitalization allowed.
E.3	BSES Yamuna Power Limited	Depreciation needs to be computed on balance useful life, whether original or reassessed.
E.4	Shree Suryanarayan Power Generation Ltd.	100% depreciation (10% per year for loan tenure of 10 years) may be considered for meeting the cost of generation. Once the debt plus equity is recovered, cost of power generation will be less. In accordance with accounting system, the 100%depreciation of the additional expenditure on capital equipments due to renovation and modernization may be considered even at the fag end.
E.5	Association of Power Producers (APP)	The original amount should be allowed to be depreciated over the original estimated life of the asset. Any additional capital expenditure along with the net block of assets as on date may be allowed to be depreciated over the balance re-assessed useful life.
E.6	Bhavnagar Energy Company Ltd.	Fixed Cost like depreciation may not be linked with actual generation efficiency unlike O&M cost, as normal wear & tear has to be there irrespective of actual efficiency.
E.7	Torrent Power	1. The original cost of Asset less salvage vale of 5% should be allowed to be depreciated over the loan repayment period. Any additional capital expenditure along with the net block of assets as on date may be allowed to be depreciated over the balance reassessed useful life.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance and Policy (NIPFP)	If the useful life is re-assessed, depreciation can be charged over the balance life as per the re-assessed life. For example, if the balance life based on earlier assessment is 5 years, and the new assessment shows that the useful life is extended by 10 years, and the total

		balance life is 15 years, depreciation would be charged over 15 years. This would mean that the depreciation charge per annum for the existing assets would come down, but there may be additional depreciation for assets that may have helped extend the useful life. Depreciating down to 90% value is a good thumb rule, but there may be exceptions. Some components may have a higher or lower residual value. This percentage should be reviewed periodically.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	It is suggested that original written down value may be continued to be charged over original balance life of the assets while additional capital expenditure for R&M shall be charged over reassessed life of the plant.
G) Individual /Public Group/Any others		
G.1	Shri R.B.Sharma	No reassessment of useful life has been proposed as above. There is need to revise the useful life not only the transmission assets but also the generation assets which may be enhanced to 35 years.

c) Can unrecovered depreciation due to disincentive be allowed to be recovered particularly when incentive is being separately allowed on exceeding target availability? Does incentive allowed includes any portion of depreciation in it ?

Sr. No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	No comments.
A.2	Uttar Pradesh Electricity Regulatory Commission	Unrecovered depreciation due to disincentive cannot be allowed to be recovered since the incentive is allowed separately on exceeding the target availability.
A.3	Chhattisgarh State Electricity Regulatory Commission (CSERC)	With the present billing formula, the disincentive/incentive due to under/over generation comes in the form of under/over recovery of fixed cost. The fixed cost includes depreciation component, hence apparently no separate provision may be needed.
B) Government Departments		
B.1	Govt of Odisha	No comments.
B.2	Gujarat Urja Vikas Nigam Limited	Any depreciation remained unrecovered due to disincentive should not be allowed to recover.
B.3	Government of Punjab, Dept. of Power	Unrecovered depreciation due to disincentive cannot be allowed to be recovered particularly when incentive is being separately allowed on exceeding target availability.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Unrecovered depreciation due to uncovered disincentive may be allowed. If annual fixed cost (AFC) is not recovered fully it may lead to under recovery of depreciation. Depreciation is to be allowed to account for diminution in value of asset, not only due to usage, but also due to efflux of time. Hence, in a situation calling for incidence of disincentive also, normative depreciation applicable for the year needs to be allowed.
C.2	National Hydroelectric Power Corporation (NHPC)	Existing methodology of no adjustment in depreciation amount due to incentive and disincentive should continue.
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The recovery of unrecovered depreciation may be allowed. Further, incentive allowed includes some portion of depreciation in it.
C.4	National Thermal Power Corporation (NTPC)	Any un-recovered depreciation should continue to be allowed to be recovered after useful life. Further, the depreciation provided presently to the developer is not sufficient for repayment of loans since the present loan tenure available is around 12 years only including construction period - leaving only 8-9 years for repayment after COD. Accordingly, the rate of depreciation should be enhanced to cover the repayment

		of loan within 8-9 years. Alternatively, Advance against Depreciation needs to be considered in the wake of present loan tenure available.
C.5	Neyveli Lignite Corporation	Unrecovered depreciation due to disincentive may be allowed to be recovered since otherwise the depreciation recovered would fall short of the 90% limit. Further, incentive cannot be considered as recovery of depreciation, return on equity etc.
C.6	Power Grid	Depreciation should be calculated under the normal tariff determination process and should not be linked to the incentive/disincentives. Therefore, unrecovered depreciation due to disincentive should be allowed to be recovered.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co. Ltd.	The unrecovered depreciation due to non-achievement of target availability should be allowed to be recovered at the normative depreciation rate in case the plant runs after useful life.
D.2	APTRANSCO	No recovery of un recovered depreciation
D.3	Rajasthan Discom Power Procurement Centre	No
D.4	Uttar Pradesh Power Corporation Ltd. (UPPCL)	No. Incentive is expressed in terms of AFC which also includes depreciation. Therefore when PAFM is more than NAPF the generator gets incentive which takes care of this situation.
D.5	Orissa Power Generation Corporation Ltd.	• Depreciation should be allowed to be recovered even in the case of disincentive.
D.6	Chhattisgarh State Power Distribution Co. Ltd.	Unrecovered depreciation due to disincentive should not be allowed to be recovered. When generator is not able to achieve NAPF, then it shall not be entitled for any relaxation. Further, incentive is inbuilt in AFC which also includes depreciation. When PAFM is more than NAPF the generator gets incentive which takes care of such situation. Therefore, no further relaxation in tariff should be allowed.
D.7	MP Power Management Company Ltd.	Unrecovered depreciation due to disincentive shall not be allowed to be recovered. When generator is not able to achieve NAPF, the he shall not be entitled for any relaxation. Further, incentive is expressed in terms of AFC which also includes depreciation. Therefore when PAFM is more than NAPF the generator gets incentive which takes care of this situation. Tariff is a complete package and no such violations should be allowed in piece meal.
D.8	Maharashtra State Power	No amount for unrecovered depreciation due to

	Generation Co. Ltd.	disincentive should be allowed as it would amount to reward of pay for inefficiency.
D.9	Kerala State Electricity Board (KSEB)	If the plant availability is less than the target availability, there shall be a corresponding reduction in fixed charges and if the plant availability is more than the target availability, incentives are allowed to the generators and transmission licensees. Since, depreciation is a necessary component of fixed charges, as and when disincentive is allowed to the generator/transmission licensees in the form of reduction in fixed cost, then there shall be proportional reduction on the recovery of depreciation also. Since the disincentive is being allowed on account of the failure from the part of generator for making the plant available, the unrecovered depreciation due to disincentive cannot be allowed.
D.10	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	If Commission considers the unrecovered depreciation due to disincentive be allowed to be recovered particularly then the depreciation collected through the incentive has to be added to the cumulative depreciation
D.11	Assam Power Distribution Company Ltd.	Net of incentive/disincentive should be considered for calculation of NAV.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	As mentioned in (a) above
E.2	BSES Rajdhani Power Ltd.	Norms for incentive shall be reviewed and made more stringent.
E.3	Association of Power Producers (APP)	Present mechanism of incentive is based on fixed cost. Depreciation being one of the constituents of fixed cost gets included in the incentive or disincentive. Disincentive should not include depreciation or debt repayment because they are unavoidable costs to be paid to lenders. Depreciation should be allowed to be recovered even in the case of disincentive. However, in the event, disincentive for any particular year includes depreciation then, the depreciation so unrecovered should be allowed to be recovered in the next year in the form of additional incentive, if the actual availability meets or exceeds target availability.
E.4	Bhavnagar Energy Company Ltd.	Higher rate of depreciation / advancement of depreciation may be allowed due to higher capital cost involved and higher debt for better repayment capacity.
E.5	Torrent Power	1. It is submitted that the allowable amount of components of Fixed cost i.e. O&M cost, Maintenance Spares, Fuel Cost, Receivable etc are based on normative principles. The actual amount of expenditure of elements of abovementioned Fixed Cost may exceed the amount

		derived under normative parameters. In that case, the incentive formula would help reduce the gap between actual and normative amount stimulating the generators to generate power above the normative availability. Further, such norms are not to be relaxed as the plant becomes older, when the actual cost of operation increases in comparison to normative allowability and the incentive amount undergoes reduction. 2. Further, it may be noted that the current incentive formula does not provide for reduction in availability due to Force Majeure (i.e. conditions beyond the control of the generators). Therefore, it is suggested that any unrecovered depreciation over the period of five years (Tariff Order Period) should be added to the remaining asset value and should be depreciated over the balance useful life of the plant. 3. In view of above, it is submitted that the incentive be calculated based on Annual Fixed cost of which the depreciation is one constituent. However, in a situation where the Depreciation could not be recovered by investor for reason beyond its control, the recovery of unrecovered portion of depreciation is not the additional recovery of fixed cost but the compensation for the loss.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance and Policy (NIPFP)	Yes, if the incentive (and disincentive) is being allowed separately, unrecovered depreciation should be allowed to be recovered. This should be done only prospectively.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Depreciation should be allowed to be recovered even in the case of disincentive as they are unavoidable costs to be paid to lenders
G) Individual /Public Group/Any others		
G.1	Shri R.B.Sharma	No amount for un-recovered depreciation due to disincentive be allowed as it would amount to reward or pay for inefficiency.

d) Whether there is a need to revise the useful life of transmission assets?

Sr. No.	Name of organization/ stakeholders	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	No comments
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	For review of useful life of transmission assets, component wise approach for substation, lines, and transformers may be considered in one group and the other items such as breaker / CT PT/ relays may be treated in a differential manner. In this regard, CEA opinion (including study of state distribution network) in the matter may be helpful.
B) Government Departments		
B.1	Govt of Odisha	As mentioned in (a) above
B.2	Gujarat Urja Vikas Nigam Limited	CERC may collect information and decide suitably after analysis
B.3	Government of Punjab, Dept. of Power	There is a need to revise the useful life of transmission assets.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Power Grid	Considering the aforesaid practical constrains, the life of assets should not be revised.
C.2	North Eastern Region Power Committee	The useful life of substations and transmission lines, as specified in Tariff Regulations i.e. 25 years and 35 years respectively may be reviewed as it has great impact on tariff. In fact the useful life of substations and transmission lines is usually much more than 25 years and 35 years, respectively. Over the years the advancement in technology has contributed to increase in service life of major equipment/material of substation/transmission lines. In a number of situations, the GIS technology and hybrid technology are preferred to the conventional Air Insulated Substation (AIS) as it provides number of advances including longer useful life. Similarly in case of the transmission lines, the lattice system towers are being designed for 50 years return period for EHV lines upto 400 kV, 150 years return period for EHV lines above 400 kV & 400 kV multi circuit lines (more than two circuits) and 500 years return period for river crossing/special towers. This is as per the requirement of Indian Standards (IS: 802). In view of above the enhancement in useful life of transmission assets may be considered. The useful life of AIS, Gas Insulated Substation and transmission lines may be increased to at least 30 years, 35 years and 40 years, respectively.

D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	APTRANSCO	1. On case to case basis.
D.2	Rajasthan Discom Power Procurement Centre	Yes
D.3	Uttar Pradesh Power Corporation Ltd. (UPPCL)	No. Any increase in useful life of the Transmission line will reduce depreciation and increase the burden of IOL which is undesirable
D.4	Tripura State Electricity Corporation Ltd.	There is a need to revise the useful life of transmission/generating assets to avail the benefit of reduced tariff after the assets have been fully depreciated. Thereafter, performance link recovery of cost of depreciation should be undertaken considering techno-commercial viability of the assets.
D.5	Orissa Power Generation Corporation Ltd.	• No comments
D.6	Chhattisgarh State Power Distribution Co. Ltd.	There is no need to revise the useful life of transmission assets.
D.7	MP Power Management Company Ltd.	Useful life of the transmission assets may be revised upwards without reducing the recovery of depreciation in first twelve years equivalent to loan component.
D.8	Maharashtra State Power Generation Co. Ltd.	There is need to revise the useful life not only the transmission assets but also the generation assets which may be enhanced to 35 years.
D.9	Kerala State Electricity Board (KSEB)	There is every need to reassess the value of the transmission assets for the purpose of deciding the rate of depreciation.
D.10	Assam Power Distribution Company Ltd.	A study may be considered based on experience of existing assets.
D.13	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The RSTPS-I Transmission Scheme which was commissioned during 1984-86 will complete 30 years of useful life by 2014-16. Similarly, the ICTs and CBs have exceeded the useful life of 25 years considered for the fixation for the fixation of rate of depreciation. The assets owned by TANTRANSCO are very old and have exceeded useful life of 40 years. Hence, there is a need to reassess the useful life of the Transmission assets (namely towers, conductors, ICTs, breakers, etc.) for the purpose of deciding of deciding the rate of depreciation.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	BSES Rajdhani Power Ltd.	BSES Rajdhani Power Ltd. submitted that the useful life of transmission assets shall be benchmarked with other countries. For eg., UK and Australia have transmission asset life cycle of around 50 years. The useful life of electronic items like PLCCs etc may be on lower side but the overall life of transmission assets shall be

		reconsidered.
E.2	BSES Yamuna Power Limited	Commission should undertake a detailed review prior to any such revision.
E.3	Association of Power Producers (APP)	The useful life of 35 years considered for transmission lines is already a very long period. There is no need to revise the useful life of the transmission assets. Revision during operations should be allowed against R&M only.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance and Policy (NIPFP)	No comments.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	The existing provisions of 35 years life of Transmission line and 25 years of Substation are practical and reasonable and there is no need to revise the same.
G) Individual /Public Group/Any others		