

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)

3.1 Capital Cost

The Comments are invited in regard to following issues, namely_

- a) *Whether the tariff claim based on projected capital expenditure needs to be continued or replaced. If replacement is to be made, what would be the alternatives? Can we rely on earlier approach of 2001-04 or 2004-09 period of allowing tariff claim based on actual expenditure incurred due to considerable variations in projected capital cost vis-à-vis actual capital cost as on COD? Alternative or suggestions, if any.*

Comments/Suggestions

Sr. No.	Name or organization/ Stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission.	No comments.
A.2	Madhya Pradesh Electricity Regulatory Commission	Tariff may be provisionally determined based on the details and documents furnished by the Generating Company. Projected capital expenditure needs to be examined from different angles for determination of provisional tariff and final tariff. The reason is that the audited financial statements are not available with the Generating company. The actual expenditure incurred duly supported by a certificate of statutory auditor may be used for determination of tariff.
A.3	Uttar Pradesh Electricity Regulatory Commission	The tariff claim based on actual capital expenditure as per the balance sheet as was followed earlier during the control period 2004-09 should be reintroduced.
A.4	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The capital cost shall be based on actual expenditure, i.e., actual cash flow as on COD duly certified by the auditor after prudence check by the Commission. The generating companies/transmission licensees may file their application for provisional tariff six months prior to the projected COD. The capital cost for the provisional tariff shall be based on the actual expenditure incurred up to the previous financial year duly certified by the auditor.
B) Government Departments		

B.1	Govt. of Odisha	The capital cost of the project may be fixed as per projected capital expenditure arrived at based on benchmarks of the capital cost fixed by CERC or actual cost as on COD whichever is lower.
B.2	Government of Punjab, Dept. of Power	Tariff should be based on actual expenditure incurred and not on projected basis. Also, annual truing up as is being done by State Regulators may be done.
B.3	Govt. of Tripura, Dept. of Power	Projected expenditure based tariff petition may be allowed and an interim Order may be passed by CERC on the same. However, final tariff may be allowed based on actual expenditure after COD.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The present provision of tariff based on the projected capital expenditure should be continued.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	<ul style="list-style-type: none"> • The present Regulation for fixing the tariff on projected Capital Cost may be continued. • Especially for the hydro generating stations, the expenditure on procurement of dewatering pumps at a regular interval and expenditure on other tools & tackles and on asset of minor nature etc. are inevitable, which are not considered for the purpose of determination of tariff, being the O&M Nature expenditure. However, by virtue of being 'Assets' as per the definition of Accounting Standards, the expenditure against these items are also not admitted as actual O&M Expenditure in prudence check. In this regard, it is submitted that the recovery against such O&M Capital Items may please be allowed and passed through during the respective years, in addition to Annual Fixed Charges, so that there may not remain any non-performing asset in the books of accounts of the Power Stations. • Special Allowance in 'Lakhs per MW per year' basis, similar to thermal power stations should also be made admissible to hydropower generating stations.
C.3	Damodar Valley Corporation (DVC)	It may not be appropriate to change the existing methodology of tariff determination on cost plus basis for capital cost determination. The Commission should not alter these aspects for the generators already in existence and/or units to be commissioned during 2014-19.

C.4	Moser Baer Electric Power Ltd.	Tariff claim based on projected capital expenditure and thereafter adjusted to the extent of actual expenditure incurred should be continued.
C.5	National Hydroelectric Power Corporation (NHPC)	Existing approach should continue.
C.6	North Eastern Electric Power Corporation Ltd. (NEEPCO)	<p>“Projected capital expenditure” should be continued subject to prudence check for the purpose of determination of tariff (Annual Fixed Charges) for a generating station for the tariff period 2014-19. In this regard, the detailed justification is as follows:</p> <ul style="list-style-type: none"> ➤ Generators are able to plan and execute the works to maintain efficiency of their Plants, which in turn contribute to the benefit of its beneficiaries by way of sustaining the required Plant performance/generation. ➤ The tariff certainty for the period needs to be ensured and the tariff shock can be avoided. <p>Further, in the relevant regulations, admissibility of such expenditures may be clearly defined and should contain provision for protecting special/extra-ordinary issues, such as, expenditure required to protect the plant against damaging of underwater parts due to acidic nature of water in hydro station etc. For new projects, for which petition requires to be filed prior to its COD, projected Additional Capital expenditure till COD should be considered to avoid wide variation in final determination.</p> <p>In order to protect the interest of beneficiaries against the expenditures allowed to the generators but not executed, it is suggested that the regulation should contain provision for mandatory submission by the generators before the Central Commission at the end of every financial year within the tariff period. Such provision should communicate plant-wise projected capital expenditure allowed vs. actual execution and reason for deviation, if any.</p>
C.7	National Thermal Power Corporation (NTPC)	The tariff claim based on projected capital expenditure needs to be continued as it helps to minimize the impact/quantum of retrospective revision of tariff and thus provides tariff certainty to both beneficiaries and generators. The existing Regulation provides working of tariff 6 months prior to the anticipated date of CoD,

		thereby smooth switching over to O&M Stage. Also, it provides the mechanism for recovery/refund of under/excess tariff along-with interest which protects the interest of the parties in the eventuality of variation in projected capital expenditure vis-à-vis the actual expenditure at the time of truing-up.
C.8	Neyveli Corporation Lignite	Tariff based on projected capital expenditure may be continued so that the tariff petitions can be filed before COD of the plant. Since Net Fixed Assets (NFA) is being followed for NLC's existing power plants (except BTPP), additional capital expenditure on all counts should be allowed without restriction. Further, any exigency that arises during O&M period of the Plant may warrant forced/planned replacement of such high value spares and the regulations should provide for capitalization of very high value replacements like Turbine rotor, Generator rotor, etc. The additional capital expenditure incurred for successful and efficient operation should be allowed as in the earlier regulations prior to 2009-14 for major assets. However, Separate Compensation allowance provided in the Tariff Regulations 2009 may be continued in lieu of minor capital assets. In respect of vintage plants the compensation allowance should be appropriately enhanced for minor assets and other than minor capital assets may be allowed on actual expenditure basis.
C.9	Power Grid	The current mechanism in 2009-14 regulations for determination of provisional tariff should be continued with following modifications: <ul style="list-style-type: none"> • The scope of information in the petition for determination of provisional tariff should be reduced for faster dispensation of such petition. Such information related only to necessary approval of the project may be insisted for submission. • Rather than submitting the detailed formats, only limited information like anticipated date of Commercial Operation, management certificate regarding the capital cost detailing the actual expenditure incurred till date and projected expenditure till COD may only be insisted. • Application for determination of Provisional tariff to be submitted at least 1.5 month prior to the commencement of next billing cycle of POC and the application for determination of Final tariff to be submitted within two month after the DOCO of the transmission elements.

		<ul style="list-style-type: none"> • The detailed prudence check on the actual time and cost incurred on the projects can be dealt at the time of final determination of tariff. • The first year tariff of newly commissioned transmission project works out to be around 18% - 19% of the Project Cost based on current CERC norms. Considering the above, it is submitted that 95% of tariff may be considered as provisional tariff. This would help the beneficiaries in reducing their burden in future. Moreover, in case final tariff is lower than the provisional tariff, the transmission licensee shall refund/adjust the excess amount with interest. On the contrary, in case the final tariff is higher than the provisional tariff, the beneficiaries would be required to pay the differential tariff along with the interest. <p>Further, determination of final tariff involves submission of detailed formats which is followed by Technical Validation Sessions, Public hearings etc. which takes a lot of time. Under such circumstances, it is desirable to have an approval on the Provisional tariff of the transmission elements at least one month prior to the commencement of next billing cycle of POC.</p>
C.10	Power System Operation Corporation Ltd.	The present mechanism of allowing tariff claim on projected capital expenditure may be continued. Further, the computation of Point of Connection (PoC) Charges is being done on quarterly basis based on provisions of Regulations. All computations of PoC charges and Losses are based on projected COD of assets and projected monthly transmission charges (MTC). Hence, if tariff of transmission assets is not known in advance, PoC rates for the next quarter will not reflect the true picture.
C.11	Central Electricity Authority (CEA)	While filing the tariff petition, the Petitioner should submit the extract of the cost estimate as given in the DPR. In case, it is found that the completed cost of the project has escalated beyond the normal price rise and the reason for the same is poor project management, then the Commission will have the right to reduce the capital cost notwithstanding the actual capital expenditure shown in the audited books of accounts. Further, it is very difficult to do post facto analysis of the actual capital expenditure in case of hydro projects. Therefore, it is suggested that hydro project developers

		(both PSUs and IPPs) should file a petition before actually commencing the project for taking approval of the Commission for the appointment of consultant who will monitor the progress of the project and the actual expenditure thereof. The consultant would submit its report of progress and annual expenditure to CERC every year in the month of April. Within one month of the commissioning of the first unit of the hydro project, the consultant would submit its consolidated report of the time and cost overrun of the project along with recommendations.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co. Ltd.	<p>It takes about 4 months time in deciding the tariff petition as such the tariff petitions are filed 4 months prior to anticipated CoD. If tariff claimed is based on actual expenditure incurred, it will be on the reduced capital base for the reasons that considerable expenditure is incurred during the last 4 months of CoD. This will deprive the Generating Companies to recover the cost of funding on the expenditure incurred during the period of filing the petition and CoD till final tariff is granted.</p> <p>Therefore, the tariff claimed based on projected expenditure, which is presently prevailing, needs to be continued. However the issue of considerable variation in the project cost vs. actual capital cost as on CoD can be addressed and suitable compensation by way of interest charges can be made.</p>
D.2	APTRANSCO/APDISCO MS	Tariff should be claimed based on actual expenditure as on COD
D.3	Rajasthan Discom Power Procurement Centre	<p>Tariff should be based on actual expenditure as on COD.</p> <p>Annual Truing up is required.</p>
D.4	UPPCL	<ul style="list-style-type: none"> Tariff claim based on projected expenditure may not be continued because in the condition of financial crunch even the burden of provisional billing based on projected cost which is generally on the higher side as observed in the true up cases, is unbearable.

		<ul style="list-style-type: none"> • Will prefer actual cost and yearly true up
D.5	GRIDCO	The Capital cost of project may be fixed as per projected capital expenditure arrived at based on the benchmark of capital cost fixed by CERC or actual cost as on COD whichever is lower.
D.6	Tripura State Electricity Corporation Ltd.	No comments
D.7	Power Company of Karnataka Ltd.	The Capital cost shall be based on actual expenditure. Further, the Commission may grant the provisional tariff upto 95% of annual fixed cost of the project claimed in the application. The benchmark capital cost as notified by the Commission for the coal based thermal generating stations and transmission projects based on the technology allowing certain percentage of variation can be the ceiling limit. Any excess beyond this ceiling limit may be disallowed by the Commission.
D.8	Gujarat Urja Vikas Nigam Limited	CERC may consider the actual cost instead of projected cost as project cost keeps changing subsequently for number of times while beneficiary has to pay tariff based on projection sometimes for the assets which has never been procured. Moreover, tariff revisions are also taking place frequently.
D.9	Orissa Power Generation Corporation Ltd.	Tariff claim based on projected capex needs to continue.
D.10	Torrent Power	<p>1. The determination of provisional tariff under existing Regulation facilitates billing and settlement thereto between the beneficiary and the generator/ transmission company till the final tariff order is issued by the Commission. Therefore, Current procedure of determination of Provisional tariff based on projected capital expenditure needs be continued, as it would also provide certainty to the Project Developers.</p> <p>2. However, the consideration of Capital cost for determination of Tariff should be on accrual basis and should include undischarged liabilities as the beneficiaries are getting benefit immediately. Undischarged liabilities envisaged at the time of COD with reasonable time limit of payability need be considered for determination of Capital Cost.</p> <p>3. ROE during Construction Period should be allowed</p>

		<p>for being capitalised like IDC. If the same cannot be capitalised, the reasonable return on equity invested should be compensated to investors.</p> <p>4. Working capital margin should be considered as a part of Capital Cost.</p> <p>5. In respect of Gas based Power Plants with advance class machine, where Long Term Supply Agreement (LTSA) is mandatory, value of Equivalent Operating Hours (EOH) consumed under LTSA up to COD need be allowed as capital cost.</p>
D.11	Chhattisgarh State Power Distribution Co. Ltd.	<p>The capital cost should be determined based on actual expenditure incurred on date of CoD. The existing scheme of tariff determination on the basis of projected capital expenditure should be replaced as this has resulted into undue financial burden on the consumers of the beneficiary states. Further, despite the audited balance sheet of the generator being the basis for determination of capital cost, it should be subjected to prudence check since the auditor does not go into the details of the expenditure incurred, viz. its reasonableness, its justification and technical details benchmark cost ceiling.</p>
D.12	MP Power Management Company Ltd.	<p>Capital cost should be determined based on actual expenditure incurred as on date of CoD. Balance sheet should not be taken as the basis for capital cost for determination of tariff. The capital cost should be strictly based on bench mark norms prescribed/to be prescribed by Central Commission. The existing scheme of Tariff determination on the basis of projected capital expenditure needs to be replaced as this has resulted into undue financial burden on the consumers of the beneficiaries States. Considering the audited balance sheet of the developers as the basis for determination of capital cost, it is also required to be reviewed since, the auditor does not go into the details of the expenditure incurred viz. its reasonableness, its justification and technical necessity. To make the developer more accountable towards the capital cost, the existing system is to be reviewed and replaced with earlier system of actual cost on COD which should be within permissible tolerance limits of strict benchmarking norms of capital cost.</p> <p>Actual expenditure as on COD and also actual cost and yearly true up in case of Add. Cap shall be preferred.</p>
D.13	Maharashtra State Power Generation Co. Ltd.	<p>The capital cost should be on actual basis. Additional capitalization should be strictly scrutinized and the</p>

		work pending for completion and the expenditure should be disclosed during the prudence check of the capital cost.						
D.14	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	<p>By and large, substantial variation is seen in projected capital cost vis-à-vis actual capital cost due to various reasons. MSEDCL is of the view that final capital cost approval should be on the actual cost. However, it should be subject to Final Tariff Approval process.</p> <p>Further, additional capitalization provisions in the regulations need to be elaborated. It is proposed that additional capitalization on account of replacement of old equipments at fag end may not be allowed unless otherwise essential to run the equipment. All other operation and maintenance costs as well as renovation, modernization and replacement costs already form part of the O&M Cost Allowance and the special allowance for R&M. Further, it may also be noted that in the form of continuing depreciation after 12 years, additional funds are available to generating companies for making such investments.</p> <p>Further, considering that a large amount of private sector capacity addition is ongoing, the process needs to be changed substantially. It is proposed that the following process is adopted:</p> <table border="1"> <thead> <tr> <th>Around Financial Closure</th> <th>Construction Period</th> <th>Nearing or at COD</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> •Generating company approaches CERC for In-Principle Tariff Determination •Such tariff provides a cost indication to utilities as well as a benchmark •CERC's benchmark capital cost could be used to determine the tariff </td> <td> <ul style="list-style-type: none"> •CERC to also determine a construction period as part of the in-principle tariff approval •CERC determined escalation and inflation shall be a pass through during the specified construction period •Incentive in case of early completion in the form of higher returns </td> <td> <ul style="list-style-type: none"> •Generating company approaches CERC for Final Tariff Approval. •CERC determines final capital cost based on its judgement on reasons for cost and time over-run, if any </td> </tr> </tbody> </table>	Around Financial Closure	Construction Period	Nearing or at COD	<ul style="list-style-type: none"> •Generating company approaches CERC for In-Principle Tariff Determination •Such tariff provides a cost indication to utilities as well as a benchmark •CERC's benchmark capital cost could be used to determine the tariff 	<ul style="list-style-type: none"> •CERC to also determine a construction period as part of the in-principle tariff approval •CERC determined escalation and inflation shall be a pass through during the specified construction period •Incentive in case of early completion in the form of higher returns 	<ul style="list-style-type: none"> •Generating company approaches CERC for Final Tariff Approval. •CERC determines final capital cost based on its judgement on reasons for cost and time over-run, if any
Around Financial Closure	Construction Period	Nearing or at COD						
<ul style="list-style-type: none"> •Generating company approaches CERC for In-Principle Tariff Determination •Such tariff provides a cost indication to utilities as well as a benchmark •CERC's benchmark capital cost could be used to determine the tariff 	<ul style="list-style-type: none"> •CERC to also determine a construction period as part of the in-principle tariff approval •CERC determined escalation and inflation shall be a pass through during the specified construction period •Incentive in case of early completion in the form of higher returns 	<ul style="list-style-type: none"> •Generating company approaches CERC for Final Tariff Approval. •CERC determines final capital cost based on its judgement on reasons for cost and time over-run, if any 						
D.15	Kerala State Electricity Board (KSEB)	The capital cost as per the investment approval given by the competent authority shall form the basis for tariff determination. Any excess amount over and above the investment approval shall be allowed only after prudence check.						
D.16	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	<ul style="list-style-type: none"> • The CERC should take a stand that expenditure on non project capital expenses is not to be included in the projections. • The capital cost of the project shall be freezed for the 						

		<p>life time and the tariff determined based on the actual expenditure incurred as on COD to avoid front loading of the tariff and to avoid repayment of the difference in tariff with interest as envisaged in 2009-14 Regulations. This can well be achieved by limiting the additional capitalization once during the tariff period OR by freezing the capital cost for the life of the asset and revise the tariff on incurring the additional (left out works as on COD) expenditure once during the first tariff period of 5 years.</p> <ul style="list-style-type: none"> • In this regard, it is suggested that the tariff claim based on projected capital expenditure needs to be replaced with the earlier approach of 2001-04 period of allowing revision of tariff due to additional capitalization, limiting to the approved capital cost once during the tariff period. This will avoid payment of tariff upfront and truing up exercise at the end and curb the tendency of justifying the provisions already made.
D.17	Assam Power Distribution Company Ltd.	The provision in 2004-09 regulation may be considered with a provision for review at the end of control period.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jindal Power Ltd	Considering the fact the Commission only approves 60-80% of the tariff claimed by the developer as provisional tariff, the impact of change in capital cost owing to issues such as commissioning date etc. is already being incorporated by approving a lower provisional tariff than that claimed by the Petitioner. Therefore, the Commission has been requested to continue with the practice of tariff claim based on projected capital expenditure
E.2	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	The present mechanism of allowing capital cost on projected basis, before six months of COD may be continued, as the actual cost will not vary significantly from the projected cost in six months time. The projected capital cost on accrual basis may be considered to determine provisional tariff, subject to prudence check.
E.3	GMR Kamalanga Energy LTD	Present practice of tariff on provisional basis should continue. In the PPAs with the home state there is no mechanism for tariff determination till finalization by

		the appropriate electricity regulatory commission. Option of filing before 6 months of COD helps in getting a tariff for initial supply to the purchaser.
E.4	JINDAL STEEL & POWER Ltd.	Tariff claim based on projected capital expenditure i.e. six months in advance should be continued with.
E.5	Power Trading Corporation	The present mechanism of allowing capital cost on projected basis, before 6 months of COD may be continued. Since ordering of major equipment would have been completed when the generating companies come to CERC for approval, therefore, a ceiling cost may be fixed by CERC, not to be exceeded except for force majeure or change in law. Further, to give the benefit of early commissioning of individual units, the fixed charges for any unit prior to COD of the station as a whole may be allowed to be charged on prorata basis.
E.6	Moser Baer Projects Pvt. Ltd.	<p>CERC may find alternatives to the cost-plus-tariff determination of tariff for hydro. Accordingly, CERC may re-invigorates and encourage investment and enterprise in hydropower by providing a reward commensurate with the risks by allowing them a “Flat Tariff” for the purpose of PPAs for sale of 50% to 60% of generation, and the balance to merchant market at free-market prices, as experienced and seen over the last decade, to be highly variable to market charges and is not always higher than the cost-plus-tariff.</p> <p>Further, CERC may determine the “Flat Rate” on the basis of PPAs in the following ways:</p> <ul style="list-style-type: none"> • Develop a risk-index for all modes of electricity generation, and provide the permissible RoE duly adjusted for the risks taken if cost-plus-tariff regime is to continue for hydro. • CERC may consider a shift from cost-plus-tariff regime, towards a risk-indexed RoE or towards a price linked with the average of total and fully projected cost of generation from recently commissioned 5 thermal power projects. <p>The flat tariff for hydro so worked will remain stable for long/medium terms, whereas, the cost of generation from the benchmark thermal power plants would continue to rise due to inflationary labour cost, foreign exchange variations, transportation cost, cost of actual fuel supply, the actual PLF owing lower availability of water and cost for thermal power plants,</p>

		etc.
E.7	BSES Rajdhani Power Limited	The earlier approach of allowing tariff claim based on actual expenditure was a more prudent method and should be adhered to. Further, in case of delay in commissioning of the project, capital cost would increase on account of Interest During Construction (IDC), escalation in prices and increase in establishment charges and the same may be capitalized with allowance of time overrun.
E.8	BSES Yamuna Power Limited	<p>Tariff Claim based on 'Progressive Capital Expenditure' was a progressive regulations. CGU and CTU provide details of capital investment to be undertaken during the Control Period. Based on the details, CERC is able to undertake prudence check and beneficiaries are able to evaluate the cost benefit analysis of capital investment plan.</p> <p>From a tariff perspective 'claim based on projected capital expenditure' matches capital expenditure with consequent tariff increment. Using input of Tariff Petitions of CGU and CTU, Discoms can project their ARR more realistically. Otherwise tariff incidence for current period shall get deferred to future periods, along with interest.</p> <p>With regards to considerable variations in projected capital cost it is suggested that time and cost overrun issue in the implementation of project can be solved by using better forecasting and project management skill.</p>
E.9	Jaiprakash Power Ventures Ltd.	The existing practice of claiming tariff on projected capital expenditure need not be discontinued or replaced.
E.10	Association of Power Producers (APP)	<ul style="list-style-type: none"> The provisional tariff on projected capital cost allows for sale of power and recovery of tariff facilitating billing and settlement between the Beneficiary and the Generator/Transmission Company till a final tariff is determined by the Commission. <p>Further, capital cost should be on accrual basis including un-discharged liabilities as the beneficiaries are getting benefit immediately. Un-discharged</p>

		liabilities envisaged at the time of COD with reasonable time for payment are to be considered.
E.11	Rudraksh Energy	Initially Provisional Tariff be given based on Projected cost. Final Tariff be determined based on the Capital Cost as on COD of the project. Truing up should also be carried - out within a year of COD.
E.12	Bhavnagar Energy Company Ltd.	Tariff claim based on projected capital expenditure should be replaced by Actual expenditure incurred up to as on the date of commercial operation (COD) of the Generating Unit since projected cost is on estimate base while actual capital cost will have market driven factors during the span of 3 to 4 year of execution of the project.
E.13	Torrent Power	<p>1. The determination of provisional tariff under existing Regulation facilitates billing and settlement thereto between the beneficiary and the generator/ transmission company till a final tariff order is determined by the Commission. Therefore, Current structure of determination of Provisional tariff based on projected capital expenditure need be continued, since it would also provide certainty to the Project Developers. Capital Cost</p> <p>2. However, the consideration of Capital cost for determination of Tariff should be on accrual basis and should include undischarged liabilities as the beneficiaries are getting benefit immediately. Undischarged liabilities envisaged at the time of COD with reasonable time limit of payability need be considered for determination of Capital Cost.</p> <p>3. ROE during Construction Period should be allowed for being capitalised like IDC. If the same cannot be capitalised, the reasonable return on equity invested should be compensated to investors.</p> <p>4. Working capital margin should be considered as a part of Capital Cost.</p> <p>5. In respect of Gas based Power Plants with advance class machine, where Long Term Supply Agreement (LTSA) is mandatory, value of Equivalent Operating Hours (EOH) consumed under LTSA up to COD need be allowed as capital cost.</p>
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	Under the rate-of-return approach of regulation, allowing tariff claim based on ex-post consideration of

		<p>actual expenditure incurred is likely to lead to over-capitalization (the Averch-Johnson effect). Hence, the optimal approach is to continue with the projected capital expenditure, which is approved by the Commission, and allow some variation from projected capital expenditure based only on exogenous shocks to the project.</p> <p>The Commission needs to have benchmarks of capital expenditure for different types of regulated projects, in different types of locations. Such bench-marks can be obtained from observed per unit capital expenditure involved in projects. The average (not the best) per unit capital expenditure can be taken as the benchmark, which may then be revised for every regulatory cycle.</p> <p>The Commission should publish detailed rules/regulations on how and on what basis the actual capital costs may be allowed to exceed the projected capital cost. Such rules will help improve the certainty for investors. The present regulations (the 2009-14 tariff regulations) are too broad and not enough to ensure consistency and transparency in these decisions.</p>
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	<p>Tariff Claim based on Projected Capital Expenditure needs to be continued.</p> <p>Projected Capital Cost should form the basis for determination of provisional tariff since it is a measure of providing an initial base cost for determining provisional tariff till the final tariff up to the cut-off date / COD is established based on actual cost. However, there are no specific guidelines mentioned in the regulations regarding the timelines for approval of Provisional Tariff and final tariff from the date of submission of the application, which needs to be determined</p>
F.3	Electric Power Transmission Association	<p>The tariff petition should be filed by the project developer at the time of conducting project feasibility, based on estimated capex, when the project is approved at the Empowered Committee/Regional Standing Committee so that the users / beneficiaries have a reasonable view of the tariff impact of the project. The capex estimation process for this purpose should be done with reasonable accuracy and the tariff/ capex approved in the Empowered Committee / Regional Standing Committee should be binding and</p>

		<p>no major variations should be allowed in the same. Only in circumstances, which are unforeseen and for reasons attributable to factors beyond the control of the developer, should an increase upto 5-10% of the estimated tariff be allowed. The decision to allow the variation in capex and hence in the tariff should be taken by CERC on a case to case basis after hearing the merits of each case.</p> <p>It would be imperative to ensure that costs are controlled in the most efficient manner, else this would result in a scenario where the transmission tariffs in the country would increase multiple fold, resulting in unfair burden on the end consumer. This would enable the transmission system beneficiaries to obtain a reasonable view of future tariffs fairly at the time of project inception. Any project which puts undue financial burden on the beneficiaries, can be modified at the inception stage itself.</p>
G) Individual /Public Group/ Any others		
G.1	Shri R.B.Sharma	(i) The tariff claim based on projected capital expenditure needs to be replaced and we can rely on earlier approach of 2004-09 period of allowing tariff claim based on actual expenditure incurred.
G.2	Dr. Ashok Kundapur	Projected Capital Expenditure should be taken. But delays on account of procedural lapses of Government Departments, like licensing, release of imported materials, land acquisition, including power cuts in the region (which would hamper the construction activities, etc.) has to be given due consideration. Further, a qualified and experienced Engineer of CERC should be in a position to sit on judgment over this issue.
G.3	Mallika Sharma Bezbaruah	Initial Capital Expenditure could be arrived at by the following criteria: a) In case of a Generating Station/Transmission System for which Tariff Orders were issued by CERC, the capital cost as admitted in those cases will be the initial capital expenditure. b) In cases, where tariff petitions are filed for the first time before the Commission and no other Tariff Notification/Order exists, the actual capital expenditure as on CoD based on audited accounts of the company may be considered subject to prudence check by the Commission

		<p>Further, the tariff based on projected capital cost should be avoided. It is because if the tariff is made on the basis of projected capital cost and if the generating utilities and transmission licensees could not spend the entire amount, then the past consumers are levied higher tariff and the prospective consumers are levied lesser tariff, which is against the tariff principles. Further, there should not be mid-term revisions of the Tariff Regulations.</p> <p>Further, under u/s 64 of the Act, the process of tariff determination could not be completed without participation of the consumers. Therefore, harsh provision for payment, eg. filing fees, etc. must be relaxed so that consumers across the country can participate.</p> <p>Further, the Central Commission while fixing up the tariff for Central Utilities must also consult the respective State Utilities and the states that are the immediate beneficiaries from the projects.</p>
G.4	Shri Arun Kumar Dutta	<p>Tariff may be decided on Projected Capital Cost on normative basis. In case of variation on higher side this may be suitably revised. However the true up shall be done after COD with the prudence check to ascertain the reason of variation attributable to project. In case variations due to reduction in capital cost, efficient Project Management etc. 1% of the cost saved may be allowed as incentive.</p>

b) Whether to standardize the construction period? If so, what should be the period? Should the existing provision of allowing IDC on equity infusion above desired level be continued? Is there a need to relook at the existing provision based on experience of considerable delays resulting into higher IDC on actual basis compounded by allowance of IDC on equity infusion above threshold limit?

Should IDC for equity infusion above desired level be allowed till the date of capitalization (COD) along with actual IDC in case of allowance of time over run OR should such IDC be capped up to scheduled construction time period decided upfront?

Sr. No.	Name of organizations/ Stakeholders	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission.	No comments.
A2	MPERC	The Construction period may be standardized to avoid increase in capital cost on account of IDC, escalation in prices and increase in establishment charges. The delays on account of vendors/contractors may be excluded from the standardized construction period and the liquidated damages may be deducted accordingly. Before inserting the provisions for standardization of construction period, the zero date or the starting date of the project needs to be defined explicitly.
A.3	Uttar Pradesh Electricity Regulatory Commission	The construction period as envisaged at the time of executing PPA between the Generator and Beneficiaries should be strictly observed except in very exceptional circumstances. No IDC should be allowed for the period of slippage beyond the agreed date of Commercial operation with the condition that ratio of equity and debts including IDC shall be strictly followed as agreed upon at the time of execution of PPA. In no case equity should be allowed beyond 30% of the total capital expenditure.
A.4	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The construction period may be standardized only for the purpose of incentives to the generating companies in case of completion of the project before its schedule. The RoE is permitted on the normative equity and the excess equity is treated as loan for the purpose of tariff determination and, therefore, the equity infusion above the normative should be

		<p>treated as loan and IDC on this excess equity may be permitted.</p> <p>Further, midterm review of the benchmark may be undertaken to account for the change in market scenario (packed order books of vendors invariably result in delay in executions while shallow books lead to mobilization of ample resources). Along with construction period, the fund flow should also be benchmarked. Any time overrun or frontloading of expenses should be allowed only after due deliberation with reasons to recorded in writing.</p>
B) Government Departments		
B.1	Govt. of Odisha	<p>Must be standardized.</p> <p>IDC must be capped upto the schedule construction period as per the standard fixed.</p>
B.2	Gujarat Urja Vikas Nigam Limited	<p>Must be standardized.</p> <p>Projects will be completed within time frame and consequently there will be reduction in time and cost overrun.</p>
B.3	Government of Punjab, Dept. of Power	<p>Yes. Any additional cost due to time overrun should be to developer's account only. Further, Construction period may be fixed keeping in view the schedule of similar projects completed within the immediate past (5 years) and also time considered in the financial approval. The amount related to IDC on equity infusion above desired level shall be treated towards debt.</p>
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	<p>There should not be any standardization of construction period of hydroelectric project.</p>
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	<p>Each hydro project has its own challenges with unique features & geology and accordingly, standardization of construction period may not be pragmatic.</p>
C.3	Damodar Valley Corporation (DVC)	<ul style="list-style-type: none"> • The IDC of each & every Project should not be standardized. If standardization of construction period is required at all, the same to be done region wise taking in to account all necessary parameters. • IDC shall be computed notionally for the total cash stream utilized irrespective of whether it is equity or debt and to be capitalized at the appropriate financial rate on the date of COD.

		<ul style="list-style-type: none"> • The impact of local socio political issues, clearances from statutory bodies, physical possession of land, delay in obtaining FSA, Railway clearances etc. must be taken care of in finalizing IDC impact on project cost. • Unavoidable delay in commissioning of associated facilities like building of Rail Infrastructure, water corridor, colony etc. occurs mainly due to local disturbances & socio political environment of eastern region. Capitalization of associated facilities within original scope of work up to four to five years beyond the cutoff date may be considered to be allowed.
C.4	Moser Baer Electric Power Ltd	<ol style="list-style-type: none"> 1. Standardization of construction period and normative IDC is appropriate for thermal power plants but the same is not suitable for hydro projects as each hydro project is unique in its feature. 2. Construction period and IDC component for hydro project should be considered on actual basis and not on the basis of standardized norms. 3. Capping the IDC to scheduled construction period would further discourage and impede the implementation of hydro project where time over run and cost run do occur.
C.5	National Hydroelectric Power Corporation (NHPC)	<ul style="list-style-type: none"> • There should not be any standardization of construction period for hydro projects, as it is project specific and completion of hydro projects vary from project to project due to various reasons which are mostly beyond the control of the developer, as mentioned below: • Geological surprises, Local opposition, Interstate dispute, Militancy, Natural Calamity, Difficult / inaccessible potential sites, Non-availability of contractors • Delaying the hydro project is not in the interest of the project developer as at present no return is allowed during construction period. • Any attempt to standardize IDC on normative

		basis will vitiate the investment climate in hydro sector
C.6	IL & FS Energy	Existing methodology may be continued.
C.7	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Central Electricity Authority while issuing its concurrence for project predetermines the time allowed for completion of the project duly considering all of its parameters/features etc. Accordingly, "Construction period" is proposed for the particular project on case to case basis keeping in view various genuine unforeseen constraints faced by the generating company during project construction period. However, any extension in construction period requiring additional time deviating from the allowed time by CEA may be scrutinized by appropriate authorities so that the generator is suitably protected for such deviation due to no fault on its part. Thus, it is proposed not to standardize the construction period. Further, the IDC should be allowed for the entire schedule construction time with provision for allowing the same upto the extended construction time, if any, which have occurred due to the reasons not attributable to the generators. Thus, the existing provision of allowing IDC on equity infusion above desired level should continue. Moreover, considering the long gestation period particularly for the Hydro Projects, it is suggested to adopt a suitable methodology to protect the return on normative equity infusion made by the generators during the construction period.
C.8	National Thermal Power Corporation (NTPC)	"Construction period" is proposed for the particular project on case to case basis keeping in view various genuine unforeseen constraints faced by the generating company during project construction period. In accordance with the data available at the CEA website, there was a wide variation in the execution time of various projects. Thus, it is proposed not to standardize the construction period. Further, repayment installment may be due before the start of commercial operation. In case the repayment are rescheduled by the lenders by altering the initially agreed terms then the interest cost including rescheduling charges will increase, which will increase IDC. Thus, the existing provision of allowing IDC on equity infusion above desired level should continue to be allowed till COD.

C.9	Central Electricity Authority (CEA)	<p>It would be more equitable if equity is treated as notional loan during the construction period, i.e. prior to the COD. The period for which equity will be treated as loan during construction period should be normative so that the developers remain keen to complete the project in time.</p> <p>Further, it is suggested that the normative gestation period of transmission projects for the purpose of equity during construction period may be taken as 2½ years for transmission projects, 4 years for thermal projects and 5-6 years for hydro projects. The interest on the equity during construction phase may be calculated at a normative rate of 8%. As per the present practice, equity and loan is to be deployed <i>pari passu</i>.</p>
C.10	North Eastern Region Power Committee	<p>The introduction of mandatory ICB for the main plant packages/major packages may be reviewed. Such provision may adversely affect the indigenous manufacturers. ICB should not be mandatory and may be considered on case to case basis, particularly when the indigenous manufacturers are not in a position to meet the commissioning schedule of the project. Moreover, in case of international bidders, the after sales & service and availability of required spare parts are the matter of concern. Proper care should be taken during formulation of specification, as discussed during the interactive session with NER stakeholders at Shillong. Therefore, more elaboration in respect of ICB is required so that the owner/purchaser do not face difficulty after commissioning of the project.</p>
C.11	Power Grid	<p>Considering the real time constraints and variation in timelines for individual projects, it is submitted that the timelines for projects should not be standardized and the actual timelines should be examined individually on a prudence check basis.</p> <p>The equity infusion above the stipulated level may be treated as normative debt and IDC be allowed accordingly. Further, IDC for equity infusion above stipulated level be allowed till the date of capitalization (COD) along with actual IDC in case of allowance of time over run.</p>
C.12	Neyveli Lignite Corporation	<p>It may not be possible to standardize the construction phase as construction period involves so many factors like, new technology, suppliers' default, national/ international/ political factors like</p>

		<p>recession, litigation, environment factors, land acquisition, rehabilitation of land evictees, fuel linkage vis a vis fuel availability on time. Standardization of Construction period with the provision of normative IDC will create adverse impact if the construction period is extended. Hence the construction period and IDC as approved by GOI/ Board may be allowed.</p> <p>Under the above circumstances, there is no need to relook at the existing provision based on experience of considerable delays resulting into higher IDC on actual basis compounded by allowance of IDC on equity infusion above threshold limit. The existing provision of allowing IDC on equity infusion above desired level may be continued and IDC for equity infusion above desired level be allowed till the date of capitalization along with actual IDC. However, if at all construction time period is to be retained, the following aspects have to be taken into consideration:</p> <ul style="list-style-type: none"> • The time Schedule for commissioning of Lignite fired Thermal Power generating Units need to be distinguished from coal Fired Thermal Power Project and longer time period should be given for lignite based power plants because of the higher quantum of works involved in the Steam Generators, which is also in the critical period of the project time cycle. <p>Longer time period is necessary for the CFBC based Units, since the work involved in a 250 MW CFBC boiler is almost equal to that in a 500 MW coal fired conventional boiler. Moreover, huge quantity of refractory application takes considerable time period for this work alone.</p>
D)State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Pragati Power Corporation Ltd.	<p>Honorable Commission should also take note of the reasons of delays which are beyond the control of individual entities while deciding construction efficiency and normative IDC to bring efficiency in construction .Construction period may be standardized. However while deciding limits of Construction period ,Normative IDC etc, Equity infusion by developer should also be considered. As developer does not earn anything on Equity deployed during construction period, any delay in construction delays the earning on equity, so reasonable delays should be suitably compensated.</p>

D.2	Madhya Pradesh Power Generation Co. Ltd.	<p>The standardization of the construction period may result in loss to the Government Companies which are suffering from the system constraints resulting delay in completion of project within time schedule. Therefore the construction period may be standardized only for the purpose of incentives to the Generating Companies in case of completion of the project before its schedule.</p> <p>The RoE is permitted on the normative equity and the excess equity is treated as loan for the purpose of tariff determination and therefore the equity infusion above the normative should be treated as loan and IDC on this excess equity can be permitted.</p>
D.3	APTRANSCO	IDC for standardized construction period only. Interest rate should also be standardized
D.4	Rajasthan Discom Power Procurement Centre	<p>Yes.</p> <p>Additional cost due to time overrun should be to developer's account only. Construction period may be fixed keeping in view the data of similar projects completed within the immediate past and time considered in the financial approval.</p>
D.5	UPPCL	<p>Yes.</p> <p>In that case if there is time over run the burden of additional IDC and cost overrun all to be borne by the developer.</p> <p>(i) the period may be worked out on the basis of actual figures where there has been no time over run w.r.t. the schedule of Commissioning as per Investment Approval issued by the Board of Directors.</p> <p>(ii) (ii) Yes since the amount is to be treated as debt. (iii) In case where construction period is standardized, capping of I.D.C. is an automatic consequence. This will limit IDC on equity infusion above the threshold limit. (iv) In such case if there is Cost Over Run due to Time Over Run the burden of additional IDC will not be borne by the beneficiaries.</p>
D.6	GRIDCO	The construction period must be standardized as per the Appendix-2 of Terms & Conditions of Tariff for 2009-14. As advance technology is being practiced, the construction period may be considered to be

		<p>suitably reduced. IDC must be capped up to the scheduled construction time period as per the standards fixed.</p>
D.7	Tripura State Electricity Corporation Ltd.	<p>A standard construction period may be specified based on the past experience. In any case, the benefit as envisaged in National Electricity Policy and Tariff Policy shall be made available to beneficiaries. Further, IDC should be capped at certain level considering the normative construction period and also should be restricted on higher equity infusion.</p>
D.8	Power Company of Karnataka Ltd.	<p>The construction period may be standardized only for the purpose of incentives to the generating companies in case of completion of the project before its schedule. The RoE is permitted on the normative equity and the excess equity is treated as loan for the purpose of tariff determination and, therefore, the equity infusion above the normative should be treated as loan and IDC on this excess equity may be permitted.</p>
D.9	Orissa Power Generation Corporation Ltd.	<ul style="list-style-type: none"> • Construction period cannot be standardized as it varies from project to project. However, benchmarking could be provided. Further, IDC should be allowed to be recovered on the basis of actual, subject to prudence check for time overrun. In order to incentivize developers for executing projects within the declared construction period, incentive for early commissioning which is 0.5% additional on RoE, needs to be revised to 1%.
D.10	Chhattisgarh State Power Distribution Co. Ltd.	<p>The construction period should be standardized to ensure the construction efficiency and eliminate the possibility of time overrun and consequential cost overrun. Further, the existing provision of allowing IDC on equity infusion above desired level should be discontinued. Based on the capital cost of project and construction period, normative IDC may be prescribed and the same may be considered for determination of capital cost. No further allowance should be allowed.</p>
D.12	MP Power Management Company Ltd.	<p>The construction period should be standardized. This will ensure the construction efficiency and eliminate the possibility of time over run and consequential cost overrun. The existing provision of allowing IDC on equity infusion above desired level is to be discontinued. Based on the capital cost of project, normative IDC may be prescribed and the same may be considered for determination of capital cost.</p>

		Further, it is submitted that only normative IDC may be considered and no allowance be allowed for equity infusion above desired level to curb such practice.
D.13	Maharashtra State Power Generation Co. Ltd.	To avoid delay in projects which has direct impact on the capital cost, interest during construction (IDC) may be allowed only under force majeure conditions.
D.14	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	A standard construction period may be specified. However, while approving the final capital cost, the Commission needs to consider reasons for delay, if any. Delays on account of gross under-performance of any agencies should be on the account of developers and generator should be penalized in proportion to the delay. LD clause may be incorporated. Further the IDC should be capped at certain level considering the normative construction period and also should be restricted on higher equity infusions.
D.15	Kerala State Electricity Board (KSEB)	Since the equity infused has opportunity cost, it is desirable to allow IDC on the equity, but only at the weighted average interest till the COD. Further, the capital cost as per the investment approval given by the competent authority shall form the basis for tariff determination. Any excess amount over and above the investment approval shall be allowed only after prudence check. There shall be penalty for time overrun on account of avoidable reasons and also there shall be incentive for those who complete the project in time.
D.16	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	<ul style="list-style-type: none"> • The present regulation of allowing additional 0.5% ROE on equity employed in case of completion of the project within the time allowed by the Commission is also to be discontinued in view of the fact that the each project is a tailor made one and no reasonable time line could be specified in general. • However, assuming that CERC continues with the existing ROE approach, allowing IDC on equity infusion above desired level (30%) is not correct and acceptable. • The IDC for the time overrun period should be allowed only on selective cases and should be shared by the promoter and the beneficiaries in certain ratio depending on the extent of

		responsibility to be owned by the parties concerned.
D.17	Assam Power Distribution Company Ltd.	IDC should be limited to Standard construction period with review at the end of construction period.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Athena Infraprojects Private Ltd.	<p>(i) Construction period especially in case of hydro projects should not be standardized and rather be decided on case- to-case basis by the Commission. Further, the Commission should also be empowered to approve revision in commissioning schedule at any stage prior to COD.</p> <p>(ii) Notional IDC by way of return on total equity and not merely on equity above threshold level should be allowed to be capitalized from the date of each equity infusion, similar to IDC for debt allowed from each disbursement. Further, such provision should extend upto the actual construction period and not the scheduled construction time period, so long as delays are not attributable to the developer.</p>
E.2	Jindal Power Ltd	It is difficult to standardise the construction period for hydro projects. The tariff Policy provides flexibility to Appropriate Commission to fix longer time period for construction of large hydro projects of capacity more than 500 MW. The Commission has also prepared Draft Guidelines for scrutiny and approval of Commissioning Schedule of hydro-electric power generation projects. Therefore, the Commission has been requested to approve construction period for hydro projects more than 500 MW on case to case basis rather than defining a standardized construction period. Therefore, IDC should be continued to be approved on actual basis. In any case, the Commission undertakes prudence check and approves IDC only on account of uncontrollable factors in case the project incurs any time/cost overrun. Further, the Commission has been requested to grant relaxation or additional concessional period of 18 months as special dispensation in construction period for projects based in Northern Eastern region
E.3	GMR Kamalanga Energy LTD	Construction period depends on various external factors (like environmental clearance, government approvals, land acquisition, financial closure etc., the most critical being land acquisition). Practically no

		<p>specific time can be specified for construction period. However, if Commission wants to headway in this direction it should be calculate from point in time when 80% of land (other than forest land) identified for the project is handed over to the developer and where project requires forest land, some flexibility in construction period should be allowed given the cumbersome process of stage-I and stage-II forest clearance and rights of tribals.</p>
E.4	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	<p>The concept of standardization of Construction period may not be introduced as in today's environment; every project developer faces many unforeseen challenges regarding land acquisition, environmental and forest clearance, connectivity arrangement etc. In most of the cases, delays occur due to uncontrollable factors on part of the project developer. Considering this, standardisation of construction period might drive away much needed investment in this sector. The delay in construction period may be analysed later and may be allowed or disallowed considering the merit of the case.</p> <p>Allowing IDC on equity above normative equity may be continued. Additional equity also carries an opportunity cost and allowing IDC on it is required to recover such opportunity cost. Such measures are essential to encourage much needed investment in the sector. Also cases like Generation project being ready but the evacuation network not being ready may not be considered as delay and Fixed Cost Recovery from COD so determined may be allowed. IDC prior to such determined COD may also be allowed in such cases.</p>
E.5	Athena Infraprojects Pvt. Limited	<p>i) Standardization is practical only for similar situations. Construction period especially in case of hydro projects should not be standardized (because no two hydro projects have similar Civil and Mechanical works, tunnel, dam, pressure shaft, penstock, unit size) and rather, be decided on case-to-case basis.</p> <p>ii) Notional IDC by way of return on total equity and not merely on equity above threshold level should be allowed to be capitalized from the date of each equity infusion, similar to IDC for debt allowed from each disbursement. Further, such provision should extend upto the actual construction period and not the scheduled</p>

		<p>construction time period, so long as delays are not attributable to the developer.</p>
E.6	JINDAL STEEL & POWER Ltd.	<ul style="list-style-type: none"> • It is difficult to standardize the construction period for hydro projects. • Approve construction period for hydro projects more than 500 MW on case to case basis rather than defining a standardized construction period. • IDC should continue to be approved on actual basis. • Grant relaxation or additional concessional period of 18 months as special dispensation in construction period for projects based in Northern Eastern region.
E.7	BSES Rajdhani Power Limited	<p>The construction period of the plants should be standardized and the loss incurred due to increased cost should be allocated between the generating company and the consumer so as to optimize the costs incurred in project execution. In case of delay in commissioning of the project, capital cost would increase on account of Interest During Construction (IDC), escalation in prices and increase in establishment charges and the same may be capitalized with allowance of time overrun.</p> <p>Further, in case of mismatch between COD of generating station and its associated transmission system, any additional cost burden of transmission due to delay of generation projects shall be recovered from the delaying generating company.</p> <p>Further, IDC should be capped at the desired level, i.e., at 70:30 ratio and should be allowed only for the period upto the scheduled date of commissioning (COD). Any further allowance creates an incentive for the project developer to delay the COD and continue earning the ROE on IDC.</p>
E.8	BSES Yamuna Power Limited	<p>Activity based time line for different activities in implementation of a project would be a highly desirable step.</p> <p>Further, existing provision of allowing IDC on equity infusion above desired level should be continued. Allowing IDC on equity infusion above the normative levels is consistent with the overall scheme</p>

		<p>of Regulations as the amount invested as equity above the normative equity component is considered as 'normative loan' Regulations have to be consistent. Further, once equity infusion above desired level is classified as normative debt consistent with the Regulations, creating further limits would not be desirable.</p> <p>Further, inefficiencies in project implementation cannot be passed on to beneficiaries. Segregation of delays in 'controllable' and 'uncontrollable' would bring out reasons for delay in project implementation.</p>
E.9	Athena Demwe Power Limited	<p>While deciding the construction schedule of hydro projects on case-to-case basis, CERC should take into consideration the schedule approved by CEA as well as the provisions of EPC contract. Further, the Commission should also be empowered to approve revision in Commissioning Schedule, if any, after the COD, to the extent any increase in the approved construction period is not attributable to the project developer.</p> <p>Further, Notional IDC by way of return on total equity and not merely on equity above threshold level should be allowed to be capitalized from the date of each equity infusion, as it is allowed in case of IDC for debt from each disbursement. Such provision should also extend upto the actual construction period and not the scheduled construction time period, so long as delays are not attributable to the developer.</p>
E.10	Jaiprakash Power Ventures Ltd.	<p>The construction period should not be standardized as it varies from site to site specially for hydro power stations. Further, existing provision of allowing IDC on equity infusion above desired level should be continued.</p>
E.11	Torrent Power	<p>The benchmarking of Construction period would also be dependent on the use of technology, type of plant, lead time for supplies of, turbine/ boiler and other Plants & Equipments (BOP) etc from the manufacturer of such equipments. Therefore, benchmarking of construction period shall not be purposeful unless all of these</p>

		issues are properly addressed and resolved.
E.12	Electric Power Transmission Association	<p>Construction period needs to be standardized. 3 years is a reasonable time frame to execute any transmission project and that should be the ideal time by which the project should be delivered. IDC should be calculated on a normative basis considering a 3 year construction timeframe and be capped. In exceptional circumstances, IDC allowed should be allowed to exceed the normative IDC by 5-10%.</p> <p>On a normative basis, the IDC as a proportion to project cost works out to 12-14% for projects of tenures ranging from 28 months to 36 months. The same ratio may be stipulated as normative IDC.</p> <p>No IDC on equity infusion above the threshold should be allowed. This is because currently, the transmission developer (PGCIL) is not constrained financially or otherwise to raise and infuse debt capital into the project, in case there is any shortfall.</p>
E.13	Association of Power Producers (APP)	<ul style="list-style-type: none"> • Construction period is dependent on various factors which are unique for each project and therefore standardization of the construction period is not desirable. Therefore, Commission may consider indicating a benchmark construction period for thermal projects from the date of financial closure/notice to proceed to CoD as a reference only. • The existing provision of allowing IDC on equity infusion above the desired level should be continued in order to reflect the cost of equity in the project cost, which is a fair approach. • Capping IDC based on construction period decided upfront would severely add to the risks of the projects and would discourage investors. In case construction period is standardised or specified (contrary to our above suggestion), actual IDC should be allowed, where the time over run is not in the control of the project developer. In case IDC is capped, LD should not be credited to project cost. <p>Further, in order to improve the performance during construction period, incentive for early commissioning, which is 0.5% additional RoE now irrespective of the time saved, needs to be revised and linked with the number of months of early commissioning (Incentive in Paisa/kWh x No of months of early commissioning).</p>

E.14	Rudraksh Energy	<ul style="list-style-type: none"> Construction period may be standardized. IDC can be allowed up to 6 months more than the standard period, if delay is due to valid reasons. Standard construction period should be worked out based on the similar projects completed during the last 5 years.
E.15	Bhavnagar Energy Company Ltd.	<p>Construction period for Unit capacity 250MW Lignite based CFBC technology may be:</p> <p>(i) 42 Months for 1st Unit Greenfield project from the zero date.</p> <p>(ii) Subsequent units at an interval of 04 months each.</p> <p>Accordingly, IDC may not be capped up to scheduled construction time period decided up front since rate of interest can't be constant for entire period of execution as it is fixed based on RBI policy.</p>
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	<p>Standardizing the construction period on limiting the IDC for equity infusion are not good solutions to the problem of delays. Some of the delays may be because of exogenous or non-controllable factors. It is not fair to standardize the construction period if there are exogenous or non-controllable factors affecting the length of the construction period. Similar argument can be made for IDC for equity infusion as well.</p> <p>The construction period should be estimated ex-ante, based on the understanding of the context (type of project, and its location). There should be penalties for delays if they were because of controllable factors.</p> <p>It is important that the Commission publish detailed rules/regulations on how and what grounds such decisions will be taken, so that there is minimal arbitrariness in the decision. Broad statements of regulation are not enough, and detailed rules are required to minimize arbitrariness.</p>
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Construction period determined by Commission in Tariff Regulations starts with Investment approval by Board, which may be amended to date of Financial

		<p>Closure. Construction period w.r.t. Financial Closure Date can be standardized. However, it cannot be standardized w.r.t the Board approval date/ effective date (MOU/LOI/PPA date). This is because the development phase of the projects can vary depending on the size, location, time required for obtaining various local and State / Central governments' clearances, land acquisition, R&R, State policies, etc.</p> <p>Allowing IDC on equity infusion above desired level should be continued and IDC should not be capped. In order to improve the performance during construction period, incentive for early commissioning, which is 0.5% additional RoE now irrespective of the time saved, needs to be revised and linked with the number of months of early commissioning (Incentive in Paisa./kWh x No of months of early commissioning) Also, the Central Commission is requested to approve construction period for hydro projects more than 500 MW on case to case basis rather than defining a standardized construction period. Therefore, IDC should be continued to be approved on actual basis. In any case, the Commission undertakes prudence check and approves IDC only on account of un-controllable factors in case the project incurs any time/cost overrun.</p> <p>In case the Central Commission considers it prudent to standardize the construction period even for hydro projects less than 500 MW, the Commission should grant relaxation or additional concessional period of 18 months as special dispensation in construction period for projects based in Northern Eastern region.</p>
F.3	EPTA	<p>Construction period needs to be standardized. 3 years is a reasonable time frame to execute any transmission project and that should be the ideal time by which the project should be delivered. IDC should be calculated on a normative basis considering a 3 year construction timeframe and be capped. In exceptional circumstances, IDC allowed should be allowed to exceed the normative IDC by 5-10%.</p> <p>On a normative basis, the IDC as a proportion to project cost works out to 12-14% for projects of tenures ranging from 28 months to 36 months. The same ratio may be stipulated as normative IDC.</p>

		No IDC on equity infusion above the threshold should be allowed. This is because currently, the transmission developer (PGCIL) is not constrained financially or otherwise to raise and infuse debt capital into the project, in case there is any shortfall.
G) Individual /Public Group/Any others		
G.1	Shri R.B.Sharma	There is need to standardize the construction period. The timeline specified in Appendix-II needed improvement. There is no concept of IDC on equity portion of capital even if the equity infusion during construction period is above desired level and hence cannot be allowed. IDC on the debt portion of capital in the event of time over-run may be allowed only under force majeure conditions
G.2	Shri Arun Kumar Dutta	Construction period must be standardized and IDC shall be limited to that period of Tariff. For the delay beyond normative period no IDC can be allowed. Further, equity infusion cannot invite IDC. This can be considered during Prudence check after the COD. Therefore, no equity above threshold shall be allowed for tariff.

- c) *Can the benchmark capital cost as specified by Commission be considered for the purpose of normative capital cost or it requires further strengthening? Suggestions/comments on periodical review of benchmark capital cost.*

Sr. No.	Name of Organizations/ Stakeholders	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission.	No comments.
A.2	MPERC	The benchmark of capital cost for 250 MW capacities may also be specified.
A.3	Uttar Pradesh Electricity Regulatory Commission	Benchmark capital Cost should be reviewed periodically so that the improvement in technology and price index of the material cost may be fully taken into the consideration.
A.4	Chhattisgarh State Electricity Regulatory Commission (CSERC)	A limited flexibility on project to project basis may be allowed. For prudence check of such variances, expertise of CEA may be utilised. Further, midterm review of Capital Cost benchmarks may be undertaken to account for the change in market

		scenario.
B) Government Departments		
B.1	Govt. of Odisha	Yes. There should be ample provision to review it in consultation with stakeholders.
B.2	Government of Punjab, Dept. of Power	Benchmark capital cost as specified by the Commission may be considered for normative capital cost. Such benchmark may be reviewed from time to time. However, true up has to be done finally on the basis of actual expenditure.
B.3	Govt. of Tripura, Dept. of Power	Benchmark capital cost as specified by the Commission may be considered for normative capital cost.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	It is neither practicable nor desirable to benchmark the capital cost. Each project is unique with respect to its geology, geography, accessibility, rehabilitation scope etc. Therefore, benchmarking is simply not a practical solution.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	Each hydro project has its own challenges with unique features & geology and accordingly, benchmarking Capital Cost may not be pragmatic
C.3	Damodar Valley Corporation (DVC)	Benchmark capital cost may be re-specified by Commission to be considered for the purpose of normative capital cost and may also specify the benchmark construction period as a guiding factor. Escalation factor may be considered at the time of fixing benchmarking cost which may be specified for every financial year of the tariff period 2014-19. The benchmark capital cost & construction period may be used by the developer & contractor during finalization of the contract as normative capital cost to improve efficiency in timely development of cost effective project. Normative capital cost specified by the commission needs to be strengthened before using it for any commercial purpose. In case of time over-run and cost over-run by a project beyond control of the Organisation or its contractor, the Commission should consider additional Capital Cost after due diligence as may be submitted through tariff petition with proper justification.
C.4	Moser Baer Electric Power Ltd	Capital cost of hydro project should not be benchmark and should be considered as actual cost incurred on project.
C.5	National Hydroelectric	Benchmarking capital cost for hydro projects is

	Power Corporation (NHPC)	neither possible nor desirable as these projects are disparate in many aspects including geology, geography, topography, infrastructure etc. Therefore, Benchmarking of capital cost should not be introduced for hydro projects.
C.6	IL & FS Energy	Benchmark Capital Cost may be used as Normative Capital Cost to induce efficiency in procurement of Plant & Machinery. It is our humble submission that the Commission may first devise a methodology for periodic review of the 'Benchmark Capital Cost' with stakeholders.
C.7	North Eastern Electric Power Corporation Ltd. (NEEPCO)	<p>Benchmark capital cost approved by the Central Commission vide its Order dated 04.06.2012 for Thermal Power station with coal as fuel for unit sizes of 500/600/660/800 MW and vide its Order dated 28.02.2013 for Solar PV Power projects are based on various issues/models prevailing/available during the study period. Considering fast change in technology, financing patterns, volatile debt market, location of projects etc, the norms specified while determining benchmark capital cost requires to be strengthened with periodical review.</p> <p>However, for hydro power generating stations, benchmarked capital cost has no relevancy, since risk is project specific and, therefore, consideration of benchmark capital cost as normative for the purpose of determination of tariff is likely to have negative impact on project viability and will discourage the investors. Further, if the benchmark capital cost is adopted in spite of the deficiencies mentioned above, then the power stations located at NE region would have higher capital cost than that for rest of India due to various practical reasons, such as geological conditions, additional transportation cost due to remoteness, additional security expenses etc resulting in enhanced capital cost.</p>
C.8	National Thermal Power Corporation (NTPC)	The concept of benchmarking capital cost for normative capital cost may not be possible in India presently.
C.9	Power Grid	On account of the project specific additionalities and variation in project cost due to external factors, the cost of the project needs to be examined under the current prudence check mechanism and the

		benchmark capital cost should not be considered for the purpose of determination of tariff.
C.10	Neyveli Lignite Corporation	The capital cost incurred upto COD is hitherto recoverable subject to approval of competent authority. The existing procedure may be continued and Bench Mark /Normative Capital Cost need not be resorted to. However, if at all Benchmark cost is to be considered, it may be considered only as reference value instead of as normative cost of the project, since the project cost varies with reference to specific requirements of each project.
D)State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co. Ltd	The capital cost of the project is the site specific and varies depending on the cost of land, R&R and many other factors, therefore determination of tariff on normative capital cost is not feasible.
D.2	APTRANSCO	The capital cost varies year by year based on the power market conditions. Hence capital cost benchmark should be fixed based on latest tenders finalized by Public sector and Private Sectors plants.
D.3	Rajasthan Discom Power Procurement Centre	Yes. True up has to be done finally on the basis of actual expenditure.
D.4	UPPCL	Bench mark capital cost as specified by Commission may be considered for normative capital cost. Such bench mark may be reviewed from time to time. However true up has to be done finally on the basis of actual expenditure
D.5	GRIDCO	The benchmark capital cost as specified by CERC may be considered for the purpose of normative capital cost and there should be ample provision to review it (if required) in consultation with the stakeholders
D.6	Tripura State Electricity Corporation Ltd.	The capital cost benchmarking exercise should only be taken up after analysis of past records, i.e. control period 2001-04, 2004-09 and 2009-14.
D.7	Orissa Power Generation Corporation Ltd.	Benchmarked Capital costs data needs to be trued up with data from recent bids and from industry every year and should be escalated for inflation every 6 months.
D.8	Chhattisgarh State Power Distribution Co. Ltd.	Benchmark capital cost specified by the Commission should cover all type and configuration of plant and transmission system. However, true up should be done finally on the basis of actual allowable

		expenditure.
D.9	MP Power Management Company Ltd.	Bench Mark capital cost requires to be further strengthened and expansion to cover all type and configuration of plant and transmission system. Scope should be enhanced to cover costs in other countries too. However true up has to be done finally on the basis of actual expenditure.
D.10	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	It is suggested that Capital Cost benchmarking exercise may be undertaken twice in a year based on the completed projects for each of the majority size of the projects. CERC should seek detailed capital cost from developers in order to further strengthen/update the capital cost data including issues/ hurdles related to construction and details of time and cost over.
D.11	Kerala State Electricity Board (KSEB)	It may be difficult to benchmark the capital cost of major generation and transmission projects because it depends on the site conditions, land availability, technology adoption, type of fuel, etc. However, the cost of plant and machinery of a generation project can be standardized for each type of project- coal based/gas based etc with suitable indexation for inflation during the subsequent years etc. Further, the capital cost of transmission projects can also be standardized with indexation for inflation.
D.12	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The benchmark capital cost of the project by the Commission can only be a guiding factor for the capital cost of the project and can at best be considered for the purpose of checking reasonableness of the cost projected / petitioned by the promoter.
D.13	Gujarat Urja Vikas Nigam Limited	The Commission may benchmark capital cost for various types of projects and link it to the index to capture the escalation. Further, the benchmark capital cost or actual capital cost whichever is lower should be considered for tariff determination.
D.14	Assam Power Distribution Company Ltd.	Benchmark capital cost should be basis of estimation with a provision of review after COD.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	Benchmark capital cost specified by the Commission may kindly be revisited as there has been significant inflationary trend in the economy and devaluation of currency
E.2	GMR Kamalanga Energy LTD	While framing these norms CERC took data from NTPC/NHPC/Centrally owned power plants.

		Capital cost Benchmarking should strictly be limited to hard cost and data should be obtained from all power plants in the country. Norms should provide flexibility to allow cost beyond normal inflation and normal currency depreciation.
E.3	BSES Rajdhani Power Limited	The benchmark capital cost considered by CERC is generally higher than the one discovered through competitive bidding and this has also been highlighted by CERC vide D.O. No. 2/8/Policy (Statutory Advice)/2009-CERC dated September 16, 2010. Further, cost plus based projects should be benchmarked keeping in mind the capital cost for competitively bid projects. Even the market determined price in the power market is much lower than the long term power available to the Discoms. Therefore, there is a need to review the benchmark capital cost on a yearly basis to bring in prudence in project commissioning.
E.4	BSES Yamuna Power Limited	Benchmark capital cost is important for enquiry into reasons for variations for project cost overruns. However, it may be difficult to consider benchmark capital cost to be normative capital cost, ignoring actual expenditure in totality.
E.5	Jaiprakash Ventures Ltd. Power	The benchmark capital cost as specified by the Commission should only be used as a guiding factor for approving the capital cost and not for limiting the actual capital cost.
E.6	Torrent Power	Benchmarking of capital cost is not feasible in the current scenario due to issues related to deployment of different technologies by Project Developer, significant difference in capital cost depending on location of Project, type of cooling Towers, water arrangements, Customs duty on imported goods versus taxes and duties on domestic equipments, forex rate variation etc. Also equipments and construction costs vary considerably within the period of 5 years (which is Tariff Control period) due to cyclic changes in the global market. Therefore, there is no need of adopting benchmark of capital cost and all projects must be required to follow ICB process for awarding the main plants and equipments.
E.7	Bajaj Energy Pvt. Ltd.	The benchmark for capital cost for 45/50 MW CFBC technology based plants using coal as fuel should be

		fixed separately.
E.8	Association of Power Producers (APP)	<ul style="list-style-type: none"> • Benchmark hard cost, with various packages could be specified based on the actual cost data for recently commissioned (say last 5 years) projects (bid and cost plus). The benchmark costs should be reviewed and escalated for inflation based on composite indices and updated annually taking into consideration the new projects commissioned. • There are variables which impact benchmarking of capital cost like deviations in the project requirements, market reputation of developer/commercial factors, location of project, vulnerability of fuel supply scenario, adoption of advance class technology, frequent changes in conditions of MoEF/SPCB, adoption of different technologies for different plants and several packages not included in the hard cost such as land, MGR, railway siding, unloading equipment at jetty, rolling stock, locomotive, transmission line at tie-point. These aspects make it difficult to fix up the benchmarking of capital cost. Therefore, it would be prudent to approve the project capital cost on case to case basis and not on normative/benchmark basis.
E.9	Rudraksh Energy	<ul style="list-style-type: none"> • Review of Benchmark Capital cost should be done based on the actual cost of similar projects arrived through Truing- up.
E.10	Bhavnagar Energy Company Ltd.	<ul style="list-style-type: none"> • As an alternative to bench mark for capital cost should be allowed based on reasonability of the actual capital expenditure, financing plan, IDC-interest during construction, use of efficient technology, time and cost overrun due to remote location, infrastructural facilities available at location, local environment, cooling water availability and mobilization of manpower at such location etc.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	No comments
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Further strengthening of benchmarking capital cost is required for the purpose of tariff determination. Benchmark Capital Cost was computed by CERC based on the data available in 2010. Thereafter, the

		base parameters have undergone significant change. Hence, it is prudent to re-assess the benchmark parameters. Benchmarking Capital Cost may not be appropriate at this point of time till it is further strengthened. Periodic revision in benchmarking capital cost is required for this purpose with composite indices.
F.3	Electric Power Transmission Association	Normative capex, 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 capex should be determined and reviewed on the basis of data obtained for all projects in the country on a biannual basis and not solely on the basis of estimates provided by PGCIL.
G) Individual / Public Group/ Any others		
G.1	Shri R.B.Sharma	The periodical review of benchmark capital cost may be appropriate. Normative capital cost of the project is a dangerous proposition. However the Capital cost for the purpose of determination of tariff of the project shall be the lower of the benchmark capital cost and the actual cost of the project.
G.2	Dr. Ashok Kundapur	Benchmark cost deserves periodical revision and strengthening on the basis of inputs from various sources. Cost of installations of Coal, Wind or Solar should not be applied for all alternate energy harnessing devices.
G.3	Shri Arun Kumar Dutta	Benchmark Cost shall be considered for normative Cost. However the benchmarking needs revision in every 3 years based on prudence check of various projects to arrive at the most economic benchmark. Further, cost must be at the minimum so as to have minimum impact on tariff. RBI cost index may be suitably adopted for a prudence check.
G.4	Shri R.P. Goenaka	Benchmark capital cost specified by the Commission may kindly be revisited as there has been significant inflationary trend in the economy and devaluation of currency. Determination of normative capital cost on the basis of such benchmark capital cost may not be done as significant changes in Capital Cost may occur because of reasons entirely beyond control of the

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- d) *Whether to review the permissible limit of initial spares for transmission projects? Whether permissible initial spares can be specified as percentage of original project cost or plant and machinery cost and what should be the methodology to determine it? Suggestion on separate initial norms for the ICT, switchable line and bus reactors, switchable variable capacitor (SVC) , Bay equipment, transmission line and Fixed Series Compensation (FSC) & fixed line reactors.*

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	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The cost of initial spares forms part of the Supply Contract. This should be, therefore, continued to be allowed as an element of the Capital Cost.
B) Government Departments		
B.1	Govt. of Odisha	Matter may be referred to CEA. However, initially certain percentage of original project cost may be allowed which may be compared with actual figures and lower one may be taken.
B.2	Gujarat Urja Vikas Nigam Limited	Initial spares should be specified as percentage of plant and machinery rather than project cost.
B.3	Government of Punjab, Dept. of Power	Permissible limit of initial spares for transmission projects may be based on actual in the past period say 5 years.
B.4	Govt. of Tripura, Dept. of Power	Permissible limit of initial spares should be based on average utilization during previous period and norms should be reviewed in order to improve efficient utilization of spare parts.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Initial spares should be allowed up to 3% of capital cost as the cost of spares of latest technology based equipments such as GIS, GIB, SCADA, CCS, etc is quite high.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	No Comments.
C.3	DVC	The cost of the initial spares forms part of the Supply Contract. This should be, therefore, continued to be allowed as an element of the Capital Cost.
C.4	National Hydroelectric Power Corporation (NHPC)	The limit should continue to be linked with Capital Cost. Gas Insulated Switchgear (GIS) is used in

		<p>most of the hydro projects due to space constraint. As hydro projects also have GIS, it is expected that initial spares be allowed up to 3% of capital cost.</p>
C.5	National Thermal Power Corporation (NTPC)	<p>Various transmission equipments, such as, ICT, bus reactor, bay equipment, line reactor and EHV transformer are installed in generating stations' switchyard and are grid interface of the power plants. The provision of initial spares of the above equipment permitted for transmission licensees should be allowed in case of generating stations also and should accordingly be factored into allowable capital spares. Allowance of capital spares for similar equipments need to be consistent and should be independent of ownership, location and type of business.</p> <p>Further, in accordance with Clause 9 (2) (v) of Tariff Regulations 2009-14, the capital expenditure incurred by transmission Licensee can be capitalized on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system. However, generating stations which have installed similar equipments in their switchyards and more critical equipments like Generator Transformers, that have no redundancy whatsoever, are not covered under such a clause. A generating station may need to make expenditures which has become necessary for successful and efficient operation of generation system including switchyard which is part and parcel of the evacuation of generation and are interface with the Grid / Transmission. Even the expected life of such equipment located in a power plant gets changed due to prevailing grid behaviour & parameters (voltage, frequency and impulse/surge etc.). Therefore, necessity of allowing such equipment post cut-off date does not change merely because of the equipment being located in power plant or transmission system or vice versa.</p>

		Therefore, the norms as finalized for such equipments in case of transmission may be extended to generating stations also in view of similar nature of equipments.
C.6	Power Grid	Allowance of spares as per the mutually agreed list would be the ideal manner of deciding the quantum of spares (in numbers). In case the same is not considered, the norms should be based on an overall cap on the project cost as 2% in line with the principle adopted in 2004-09 Regulations with specific considerations towards higher allowance as detailed in the submissions above.
C.7	Neyveli Lignite Corporation	Not Applicable.
D) State Sector (Generators / Transmission Cos./ Distribution Cos./ SEBs/ SLDCs)		
D.1	APTRANSCO	Based on expert study on actual consumption of spare parts, certain percentage on total cost of project is suggested.
D.2	Rajasthan Discom Power Procurement Centre	It may be based on actual in the past period say 5 years
D.3	UPPCL	Permissible limit for initial spares for Transmission Projects as decided by the Commission for 2009-14 period be revised in terms of cost of plant and machine. STUs and CTUs may be asked to submit the data regarding percentage of spares against these items however it may not be allowed to be more than 5% of the capital cost.
D.4	GRIDCO	Matter may be referred to CEA for their views on methodology to be followed for permissible limit on initial spares. However, initially certain percentage of original project cost may be allowed which may be compared with the actual figure and the lower one may be taken into consideration
D.5	Tripura State Electricity Corporation Ltd.	For better reliability, quality service, the norms may be revised provided the beneficiary should get due advantage/benefit.
D.6	Power Company of Karnataka Ltd.	The permissible initial spare shall be as a percentage of plant and machinery cost and not on the total project cost in respect of generating station. Separate initial spares norms for ICT, switchable line and bus reactors, switchable variable capacitor (SVC), Bay equipment, transmission line and Fixed Series Compensation (FSC) & fixed line reactors may be framed in respect of transmission system.
D.7	Orissa Power Generation	<ul style="list-style-type: none"> Initial spares costs should also include initial

	Corporation Ltd.	spares towards MGR, coalmine fixed infrastructure, etc. Further, the cost of initial spares may be trued up every year based on inflation.
D.8	Chhattisgarh State Power Distribution Co. Ltd.	The required spares should be specific which are required upto COD and their cost should be allowed for capitalization. Accordingly, rest should be covered in O&M.
D.9	MP Power Management Company Ltd.	Initial spares are capitalized based on percentage of original project cost. Original project cost, generally, consist of various other items like cost of the land, IDC, cost of civil construction, margin money and IEDC etc., and, hence, it is neither reasonable nor logical to capitalize initial spares as percentage of original project cost. It is suggested that the Central Commission may obtain the recommended quantum and amount of necessary spares required for smooth and efficient functioning of the plant from recognized vendors of the plant and machinery. This data can be utilized to decide the amount capitalization of initial spares or else the Commission may constitute a task force to examine the inventory of initial spares around or as on the date of commercial operation of the plant to assess the actual inventory and its amount.
D.10	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	<ul style="list-style-type: none"> It can be standardized on a Region/State basis for the specific tower design, conductor size, ICT Voltage ratio and capacity, Reactors (Switchable bus and line) and capacitors. Allowing as a percentage of the capital cost in respect of transmission line and ICT etc., would only increase the cost of idle inventory and thus the tariff payable. Accordingly, the existing spares can be pooled and kept in a central location to be transported to the place of requirement at short notice is suggested instead of admitting as a percentage of capital cost. CERC shall provide an exhaustive list of initial spares category-wise in order to avoid excess capitalization and the list may be reviewed periodically based on the failures.
D.11	Assam Power Distribution	The permissible limit of initial spares shall be as

	Company Ltd.	per manufacturer's recommendation and past period average for existing assets.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	No comments
E.2	Jaiprakash Power Ventures Ltd.	The permissible limit of initial spares may be specified by the Commission. However, the limit should be relaxed specially for hydro power stations because hydro projects are highly susceptible to multi variations in river content/flow.
E.3	BSES Yamuna Power Limited	Comments will be offered once actual data for use of initial spares is furnished.
E.4	Torrent Power	The imposition of limit may not be so effective and if to be made applicable, the same to be as % of Project cost. This is applicable more particularly when there is substantial rupee depreciation and the spares are to be imported. The requirement of Initial Spares as stated above are more relevant to advance class machines spare parts which are mostly imported. The fact of aging of plant and machinery and the consequent effect of spare parts need also to be considered.
E.5	Association of Power Producers (APP)	<ul style="list-style-type: none"> • The permissible limit for initial spares should be specified as percentage of hard cost of plant & machinery and not the project cost because the project cost may have various other components (IDC, pre-development cost etc.) which do not have any relation with the cost of spares. • With regard to the cap on initial spares, benchmarking should cover technological advancement. The limit of initial spares should include strategic spares, insurance spares so as to enable the generator achieve 85% availability. The details of these types of initial spares are to be based on recommendation of OEM. • Current limit is inadequate to cater to the need and the limit to be increased to 8% of Project Cost. This is more particularly when there is substantial rupee depreciation and initial spares as above are relevant to advance class machines are mostly imported. <p>Separate norms should be prescribed for specific equipment considering the criticality and should be fixed based on experience of recent projects</p>

		executed by PGCIL and global standard practices.
E.6	Rudraksh Energy	Cost of spares be prescribed as per percentage of plant and machinery cost based on actual during the past 5 years for similar projects.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	<p>Since, it is difficult to project initial spares based on ground-up analysis, in our view the methodology for setting permissible limit of initial spares should be based on the benchmarks observed in the sector. For similar transmission projects in India, the Commission should study the observed spares, and take the average (or a number just below the average) as the benchmark. If there is not much diversity in the observed numbers in the sector in India, the Commission should study international benchmarks, which is justified because of increasing convergence of technology. If it is a new type of project, benchmarks may be based on similar projects in other countries. This would nudge the sector to improve efficiency.</p> <p>In addition, it is important that the Commission carefully evaluate the claims on spares, to ensure that these claims are not being made to add to the profits of the firm.</p> <p>The Commission should publish detailed rules on how and what grounds decisions on spares will be taken, so that there is minimal discretion and arbitrariness in the decision.</p>
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Existing provisions may be continued.
G) Individual /Public Group/ Any others		
G.1	Shri R.B.Sharma	<p>The capitalization of initial spares which are provided to take care of mandatory and insurance spares requirements at the time of commissioning of the project and to arrange for its financing. Under these circumstances there is case for downward review the permissible limits of initial spares for generation and transmission projects. The permissible initial spares can be specified as percentage of plant and machinery cost. The initial spares are only for limited purpose only during commissioning and this should not be mixed with maintenance spares for which adequate provision</p>

		<p>is made under O&M expenses. As the need for initial spares is only during the commissioning of the project, the additional capitalization on spares may not be allowed after the commissioning of the project. The need of initial spares for various transmission equipments may be left at the discretion of the transmission licensee within the overall limits provided in this case.</p>
G.2	Shri Arun Kumar Dutta	<p>Initial spares can be determined/arrived at based on actual consumption of several stations/Authority to avoid any extra spare. Spare cost as percentage of original cost must be avoided because of huge rise in the cost due to various reasons and various items like civil works, land acquisitions etc. Cost of spares cannot be related to enhanced cost.</p>

e) *Whether to make ICB mandatory for the procurement of main plant packages/ major packages and competitive bidding for the other packages to ensure competitiveness of prices ?*

Sr. No.	Name of organizations/ Stakeholders	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	Yes. Such bidding may be international competitive bidding for estimated cost of package beyond specific value as permitted by the Govt of India and below this value it may be national competitive bidding except for petty purchases.
A.2	MPERC	ICB may not be made mandatory for procurement of main plant packages/ major packages. However this issue may be examined on the basis of what has been considered while fixing the benchmark capital cost by CERC.
A.3	Uttar Pradesh Electricity Regulatory Commission	International Competitive bidding should be made mandatory for all major generation projects to facilitate the most reasonable and competitive capital cost.
A.4	Chhattisgarh State Electricity Regulatory Commission (CSERC)	ICB should not be made mandatory as the power sector projects are mission critical and the cost has an intangible component of reliability. Further, with limited players in arena, ICB are also subject to manipulations.
B) Government Departments		
B.1	Govt. of Odisha	ICB is a welcome step forward.
B.2	Gujarat Urja Vikas Nigam Limited	Awarding contracts through ICB should be imperative for bringing capital cost reduction, thereby benefitting stakeholders.
B.3	Government of Punjab, Dept. of Power	Yes, ICB should be mandatory for the procurement of main plant packages/major packages/other packages. Further, ICB should be mandatory for projects planned on turnkey basis.
B.4	Govt. of Tripura, Dept. of Power	The ICB should be optional.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	For the procurement of main plant and equipment such as turbines, generators etc. ICB may be insisted.

C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	Many other policies of GoI like 'Mega Power Policy' for Thermal & Hydro Power development mandates to follow the ICB by the entity. Accordingly, ICB pattern of tendering for major packages is already in place in most of the PSUs. Hence, the same may be made mandatory for the procurement of main plant packages/ major packages and competitive bidding for the other packages to ensure competitiveness of prices.
C.3	Damodar Valley Corporation (DVC)	The tendering process may be kept at the discretion of the generator even for main plant package. Scope for exercising option may be allowed to the generator to decide on tendering mode whether under ICB, DCB, limited tender or on negotiation basis as the case may be. Therefore, ICB route for procurement of Main Plant Package may not be considered mandatory
C.4	National Hydroelectric Power Corporation (NHPC)	NHPC is already following ICB / competitive bidding for all the major contracts.
C.5	IL & FS Energy	We welcome the idea of introducing ICB. In our view, ICB shall also enable getting access to foreign credit which would have a positive impact on the cost of debt.
C.6	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Decision regarding type of competitive bidding - Domestic or International - is decided by management of the respective Power Generating Companies based on various parameters/ factors, such as, size of the contract, technical requirement, financing source/pattern, GOI guidelines etc. The aforesaid decisions are generally taken by the company management/Board based on their best judgment/due diligence with the intention to ensure competitiveness in prices as well as for achieving optimum benefit to its stakeholders. Accordingly, it is suggested that ICB should not be made mandatory for the procurement of main plant packages/ major packages etc. The generating companies may be permitted to decide on the same based on case to case basis. Further, in case ICB is made mandatory, then the Central Commission should consider for fixing a threshold limit, beyond which ICB route should be compulsory.
C.7	National Thermal Power	Although efforts are made to award /procure

	Corporation (NTPC)	main plant and other major Balance of Plant (BOP) packages through competitive bidding, mandating the same through the tariff regulations may sometimes delay award of the projects and thus may increase cost, particularly when the entire project is not awarded through a single EPC contract. Therefore, the procurement of main plant / major packages through ICB and other packages through competitive bidding may not be made mandatory through Regulations.
C.8	Power Grid	<p>ICB should not be made mandatory and actual implementation procedure should be left to the discretion of the licensee based on the following rationale:</p> <ul style="list-style-type: none"> i. POWERGRID has been following a well laid down procurement policy which ensures both transparency and competitiveness in the bidding process. The Domestic Competitive Bidding (DCB) process being followed for procurement of majority of equipment and packages is similar in nature to ICB process. ii. The ICB is being resorted to where the multilateral funding is involved or when there are limited vendors within India. iii. Transmission equipment market in India is quite developed and DCB ensures price competitiveness without increasing the overall FOREX fluctuation risk. iv. Moreover, POWERGRID being a Govt. enterprise has the obligation for indigenous development of manufacturer as well as to adhere to Govt. of India guidelines in vogue. <p>Accordingly, Central Commission can lay down the guidelines for the procurement process subject to existing rules, regulations and guidelines issued by Govt. of India as applicable to CPSU. However, actual manner of implementation may be left at the discretion of POWERGRID. Further, the guidelines shall not be applicable for procurement of proprietary items.</p>
C.9	Neyveli Lignite Corporation	ICB for the procurement of main plant packages I major packages and competitive bidding for the

		other packages may be made mandatory. At present, this facility is very much required for successfully commissioning the power projects
C.10	North Eastern Region Power Committee (NERPC)	ICB may be considered on case to case basis and should not be mandatory
D)State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Pragati Power Corporation Ltd	International Competitive Bidding (ICB) for the main plant packages/ major packages and for the all remaining packages should be based upon life time cost. The life time cost will ensure efficient design and layout of plant and equipments. This will result in reduced cost of maintenance, Operational Energy consumption reduction etc. Generally the power plant design and layout are not undertaken taking into consideration of Energy consumptions. A slight change in design and layout results in large amount of in-house energy saving. The conventional design changes and retrofitting has resulted into reduction in energy consumption in Existing power plants, requiring no Equipments for meeting certain process feeds. Therefore in place of cost based bidding ,the bidding should also focus on most efficient design and layout, with criterion of evaluation of cost of equipment, maintenance cost and operational and operation energy required during life time cost etc in total The Project lay out should also be got certified by Accredited Energy of BEE, Government of India or a Panel of Energy Efficiency professional Alternatively Honorable Commission may also form a panel of experts to finalize guidelines for Energy efficient design of coal and Gas etc, based power plants suitable for typical locations in India. No design and Layout of plant and Equipments should be allowed to be build other than approved. This will help in setting the Norms of operational Parameters in a scientific way and cost of retrofitting at later stages for PAT and Other Regulation of Energy conservation will be suitably addressed at design stage only.
D.2	Madhya Pradesh Power Generation Co. Ltd	ICB can be made mandatory for the procurement of main plant packages (BTG packages). However it will be worth to have competitive bidding for other packages
D.3	APTRANSCO	ICB and EPC methodology is suggested.

D.4	Rajasthan Discom Power Procurement Centre	Yes
D.5	UPPCL	Yes. However if ICB is made mandatory then it may supersede the bench mark of capital cost
D.6	GRIDCO	International Competitive Bidding for main plant packages is a welcome step forward to have competitive prices in view of tariff being determined based on competitive bidding for all upcoming projects.
D.7	Tripura State Electricity Corporation Ltd.	ICB should not be made compulsory. Considering the risk of exchange rate fluctuation as well as complexity of international transactions, price preference may be given to domestic supply.
D.8	Power Company of Karnataka Ltd.	ICB can be made mandatory for the procurement of main plant packages /major packages of plants whose tariffs are determined on cost plus basis to ensure competitiveness of prices and efficiency.
D.9	Orissa Power Generation Corporation Ltd.	<ul style="list-style-type: none"> • ICB should not be mandated as it never guarantees the best price.
D.10	Chhattisgarh State Power Distribution Co. Ltd.	ICB should be made mandatory beyond certain level of expenses. However, some mechanism is required to be developed to prevent cartelling by Bidders.
D.11	MP Power Management Company Ltd.	ICB should be made mandatory for the procurement of main plant package / major packages and competitive bidding for other packages to ensure competitiveness of prices. There should be minimum five number of bidder to consider a bid successful. To prevent cartel, some mechanism should be prescribed.
D.12	Maharashtra State Power Generation Co. Ltd.	ICB should be made mandatory for main plant/major package to ensure competitiveness.
D.13	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	To bring in efficiency, transparency and further competitiveness, ICB should be made mandatory. However, considering the risk of exchange rate fluctuations as well as complexity of international transactions, price preference may be given to domestic suppliers.
D.14	Kerala State Electricity Board (KSEB)	ICB should be made mandatory for main plant/major package, however, the beneficiaries shall be shielded from the risk of 'Foreign Exchange Rate Variation (FERV).
D.15	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The existing procedure itself calls for floating ICB for procurement of main plant packages and open tender for other packages. TANGEDCO opines

		that the same procedure may continue for the tariff period 2014-19.
D.16	Assam Power Distribution Company Ltd.	Yes
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	If cost plus tariff approach is followed, then ICB for major components is a necessity
E.2	BSES Rajdhani Power Limited	ICB can be made mandatory for the procurement of main plant packages /major packages of plants whose tariffs are determined on cost plus basis to ensure competitiveness of prices and efficiency. Model bidding documents should be issued to ensure consistency in all procurements.
E.3	BSES Yamuna Power Limited	Mandatory ICB where pricing is based on life cycle costing would help in reducing prices. Contract terms of ICB need to make it mandatory to provide capital spares during initial useful life (25 years). Thus, it is imperative that concept of life cycle costing with maintenance support be built into procurement planning process.
E.4	Torrent Power	ICB should be made mandatory for the main plant and packages. The process of local competitive Bidding (LCB) may be adopted for the other packages wherever possible.
E.5	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	International Competitive Bidding may be made mandatory only for main plant packages and may be applicable for all project developers. For packages like Balance of Plant / Intake water system etc. domestic players are likely to be cost effective.
E.6	Association of Power Producers (APP)	<ul style="list-style-type: none"> • ICB could be made mandatory provided the packages are clearly defined. However, having specified benchmark costs, Commission may evaluate if ICB will add additional value.ICB may be considered for Main Plant/ EPC packages and may not be mandated for other major packages as sourcing of indigenous equipments would be beneficial for Generators. • The provisions should also stipulate norms such that the BTG manufacturers should also invite ICB, in case they wish to set-up TPP. It shall help in creating a level playing field. <p>However, bidding should provide for selection of a vendor based on quality and cost and not only on lowest cost. Some of the key issues against the</p>

		competitive bidding of the packages are unrealistic commitment, poor post-commissioning services and time consuming process. Therefore, competitive bidding should not be mandatory for various project packages.
E.7	Rudraksh Energy	ICB should be made mandatory
E.8	Bhavnagar Energy Company Ltd.	Tender process by ICB route may be considered as appropriate for main plant package as other packages to ensure competitive Price.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	<p>This will depend on the market structure. If for certain packages, there is a significant competition, competitive bidding should ensure competitiveness of prices, but if the competition is low, this approach would not yield efficient results. The Commission should take a two-pronged approach:</p> <ul style="list-style-type: none"> • For packages for which there is evidence of a competitive market, the Commission should mandate ICB, and the process of conducting the ICB should be laid down by the Commission. • For other packages, though the ICB may be mandated, the Commission should also set benchmarks or yardsticks based on observed prices. If there is not much diversity of prices in India, the Commission should study benchmarks in other countries. For package with non-competitive markets, the Commission's emphasis while setting benchmarks should be on nudging the projects to procure the packages on lower prices. In such markets, negotiation plays an important role in deciding the price.
F.2	Electric Power Transmission Association	Procurement of generation & transmission under competitive bidding has been made mandatory, under which all costs/ risks need to be factored into project cost at the time of bidding and zero tariff variations are allowed post bid as per the Standard Bidding Documents. 10 projects have already been awarded under this route and both

		private and public utilities (including PGCIL) have secured projects under this route. Accordingly, getting an accurate estimate of capex/ tariff before commencement of project is not difficult for developers (including PGCIL).
F.3	Federation of Indian Chambers of Commerce and Industry (FICCI)	ICB can be mandated for Main Plant packages only. ICB may not be mandated for other major packages as sourcing of indigenous equipments would be beneficial for generators. The provisions should also stipulate norms such that the BTG Manufacturers should also invite ICB, in case they wish to set-up Thermal Power Plant. It shall help in creating a level playing field.
G) Individual /Public Group/ Any others		
G.1	Mallika Sharma Bezbaruah	The cost plus tariff should be applicable only to the existing projects. Regarding the projects under construction and new projects, all projects under Central Govt. must come under Tariff Bidding system after December 6, 2011. This will bring competition and efficiency in the power sector for the interest of consumers.
G.2	Shri Arun Kumar Dutta	In case of single bid, retendering must be done to arrive at a competitive price. The tender conditions must be transparent to the bidders to avoid any contingency condition and tender need to be suitably evaluated to arrive at the minimum cost and cost of maintenance post COD.
G.3	Shri Shanti Prasad	Yes. Such bidding may be international competitive bidding for estimated cost of package beyond specific value as permitted by the Govt of India and below this value it may be national competitive bidding except for petty purchases.

f) Suggestions/comments on the existing methodology followed for the trial operation of generating station and transmission system. Furnish alternative methodologies followed by State generating stations, Central generating stations and others, if any. Suggestions on addressing the issue of trial operation and commissioning of the project when a generating station is ready but cannot be operated due to non availability of load or evacuation system. Similarly, suggestion on the issue of acceptance of COD of transmission line if the generating projects are not commissioned or the work under the scope of Generating agency was not completed.

Sr. No.	Name of organizations/ Stakeholders	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	<p>Trial performance test at rated load should be considered prerequisite for declaring COD of the generating unit except for run of river, solar and wind power plant and transmission system.</p> <p>In case of transmission lines – 72 hours with no fault or infringement of specified safety clearances to ground and grounded objects and no visible corona should be considered adequate.</p> <p>Where transmission system is not energized to design system voltage but are operated at lower system voltage capital cost to be considered should be actual capital cost reduced in the ratio of system voltage at which energized to system voltage for which design. Balance cost need be differed to be consider only when line and its bay equipments are energized to design system voltage</p>
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	<p>Trial operation should be more clearly defined. For generating stations it should be minimum 72 hr operation at 90% average MCR (out of which minimum of 50% time blocks of 15 minutes the plant should be operated at 100% MCR) with successful achievement of Aux. consumption, Sp. Oil and SHR yardsticks as specified in the regulations. The maximum period from synchronization to COD shall continue to be six months.</p>
B) Government Departments		
B.1	Govt. of Odisha	<p>Trial operation and commissioning of the project when generating station is ready but cannot be operated due to non-availability of full load or evacuation system. It should be ensured that</p>

		generating companies have fulfilled their responsibilities as per section 10 of EA, 2003. Further there should be act of sync so that there is less scope for anyone to be defaulter and thus the defaulter has to bear the extra burden.
B.2	Gujarat Urja Vikas Nigam Limited	In line with generating stations, commissioning and testing procedures for transmission system may also be defined. Further in case of mismatch between commissioning dates of generating unit or transmission lines, beneficiaries are paying either the fixed charge or transmission charge without availing power supply. Therefore, alignment of commissioning dates of both generating unit and associated transmission system should be done or they should indemnify each other for delay.
B.3	Government of Punjab, Dept. of Power	The defaulter, i.e., generator or transmission licensee will bear the AFC of the other party till the default remains.
B.4	Govt. of Tripura, Dept. of Power	The existing methodology followed for trial operation of generation station and transmission system may continue.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	ONGC Tripura Power Company Ltd (OTPC)	At times the generator is not able to achieve COD due to non-availability of full load or evacuation system. In such cases the generator may be allowed to conduct trial run at reduced loads and declare the COD of the project at full installed capacity of the project
C.2	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The existing methodology followed for depreciation of COD of a generating unit station is adequate and therefore, should be continued.
C.3	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	A penal mechanism needs to be devised to check the passing of IDC of such delayed periods to the beneficiary in particular and the general public at large.
C.4	Damodar Valley Corporation (DVC)	Trial run for the purpose of COD (but not for contractual agreement with supplier/contractor) may be considered successful provided: Unit generates continuously for minimum period of 14 days at least at technical minimum level. Unit generates continuously at 100% load with a

		<p>make up of not more than 1% and APC less than equal to the design value at least for 24 hours.</p> <p>All the major equipment/system essentially required for full load operation be continuously available for 14 days prior to declaration of COD.</p> <p>Therefore units may be allowed to run at full load up to six months after the coal synchronization date of the last unit. The beneficiaries need to take this power at appropriate UI rate.</p> <p>If there is a mismatch for a period of one month or more between the DOCO of Transmission system and COD of generating station, the loss incurred by generator/transmission utility is required to be made good by the transmission utility/generator utility for which appropriate provision to be kept in the regulation.</p>
C.5	National Hydroelectric Power Corporation (NHPC)	The existing methodology for declaring COD of the hydro generating stations should continue.
C.6	Southern Region Power Committee	72 hours full load trial run should be necessary for thermal units
C.7	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Generator may face problem for trial operation due to non-availability of load. In that case if regulatory coverage is there, generator would be able to successfully complete their trial operation after completion of the work under the scope of generating agency and the transmission agency..
C.8	National Thermal Power Corporation (NTPC)	The present regulations provides for declaration of COD after demonstrating maximum continuous rating (MCR) or installed capacity through a successful trial run after notice to all beneficiaries. Moreover, the present Regulations provides for incentive / disincentive on Fixed Charge recovery thereby ensuring that these generators ensure the availability of units once declared COD. The above prescribed methodology for commissioning and declaration of commercial operation is being followed by NTPC. The existing methodology is well established and accepted and therefore may be continued. Further, in case of mismatch between COD of generating station and its associated transmission system, Commissioning of generation

		and its associated transmission may be dealt in accordance with the relevant agreements entered between the parties and may be excluded from the tariff regulations.
C.9	Power Grid	<p>The definition of COD should be changed to consider the practical constraints in charging of lines and trial operations. The proposal definition is:</p> <p><i>Date of Commercial Operation (DOCOC):</i> <i>“An element of the Project shall be declared to have achieved COD at 00:00 hours of the following day after the connection of the Element with the Interconnection Facilities or 00:00 hours of the following day after the date on which it is declared by the Transmission licensee to be ready for charging but is not able to be charged for reasons not attributable to the Transmission licensee”.</i></p> <p>The above definition will reduce the IDC and IEDC during the intervening period, thereby reducing the capital cost of the project to that extent.</p>
D) State Sector (Generators / Transmission Cos./ Distribution Cos./ SEBs/ SLDCs)		
D.1	Madhya Pradesh Power Generation Co Ltd	Existing methodology of declaring CoD after successful trial run needs to be modified. CoD should be linked to running of unit at MCR or installed capacity for continuous period of 48 or 72 hours. Since running of unit continuously at MCR or installed capacity is technically not feasible, the average load based on the energy generated during the period under consideration may be considered for declaring CoD. In case where the generating station cannot be operated at full load and is backed down due to system constraints the backing down may be considered as deemed generation for calculation of average load
D.2	APTRANSCO	If the generating station could not achieve the COD within the stipulated time and the applicable evacuation system is commissioned, the penal charges shall be borne by the generator only and vice versa.
D.3	Rajasthan Discom Power Procurement Centre	The defaulter will bear the AFC of the other party till the default remains. Commission needs to bring about a study to evaluate the cost benefit analysis of such scheme.
D.4	UPPCL	The defaulter will bear the AFC of the other party till the default remains.

D.5	ONGC Tripura Power Company Ltd (OTPCL)	Such cases the generator may be allowed to conduct trial run at reduced loads and declare the COD of the project at full installed capacity of the project.
D.6	Tripura State Electricity Corporation Ltd.	Back to back agreement between generating company and transmission utility involving RPCs need to put in place while approving the capital cost of the project.
D.7	Power Company of Karnataka Ltd.	<ul style="list-style-type: none"> • Commissioning test should be carried out in the presence of Independent Engineers along with beneficiary representative in accordance with Good Industry Practice for determining the compliance of the power station with specification and standards. The tests shall be as specified in the performance test code of American Society of Mechanical Engineer Standards. A completion certificate/provisional certificate jointly signed by the Independent Engineers and the Generating Company shall have to be issued to the beneficiary for the acceptance of the Commercial Operation Date. Similarly in case of transmission system, the commission tests shall be in accordance with IS /IEC and completion / provisional certificate jointly signed by the Independent Engineers and the Transmission Licensee shall have to be issued for the acceptance of the Commercial Operation Date. • In case of non-availability of load or an evacuation system, the Scheduled COD can be treated as a deemed COD. On availability of load/evacuation system commissioning tests should be conducted by the generating company/transmission licensee by issuing 7 days' notice to the Independent Engineer and Representative of the Beneficiary under information to Load Dispatch Centre. During the testing if the test values are not as per the stipulated values, then the capacity charges/transmission charges paid by the beneficiary from the date of deemed COD shall be reimbursed along with interest by the Generating Company/Transmission Licensee as the case may be. In case of delay of commissioning of Generating Station due to

		<p>non-commissioning of evacuation system by the Transmission Licensee or vice-versa the generating company/transmission licensee shall pay the penalty to the Beneficiary as liquated damages. The modality for payment of penalty and methodologies are to be incorporated in the Tariff Regulations.</p>
D.8	Orissa Power Generation Corporation Ltd.	<ul style="list-style-type: none"> • In case of transmission licensee fails to make arrangement for transmission evacuation within the stipulated time, then it should be treated as deemed generation and the developer should be suitably compensated with the capacity charges and applicable penalties under fuel supply arrangement. The delay in commissioning due to issues in evacuation may lead to increase in IDC and other Project components. Hence, a methodology needs to be formulated to compensate the developer with the capacity charges and any penalties under fuel supply arrangement due to such issues.
D.9	Chhattisgarh State Power Distribution Co. Ltd.	<p>The procedure adopted by RLDC and CTU to supply the electricity to Generator during trial operation under UI, are in violation of section 12, 28 and 38 of Electricity Act, 2003, therefore, the same should not be encouraged.</p> <p>Generation projects and associated transmission system has to be developed simultaneously. If generation project has been commissioned, but the evacuation system is still under development stage or vice versa, in that case burden of fixed cost should be passed on to the Generator or Transmitter that is defaulter whatever may be the reasons otherwise COD should not be declared.</p>
D.10	MP Power Management Company Ltd.	<p>Investment approval for generation and associated transmission project may be granted by the same agency designated for this work. Generation project and associated transmission system should be developed in consonance. If generation project has been commissioned or ready for commissioning but the evacuation system is still under developmental stage or vice versa in both the cases the burden should not be passed on beneficiaries. In cases where agencies are different then the defaulter i.e. generator or Transmission Licensee will bear the AFC of the other party till the default remains.</p>
D.11	Tamil Nadu Generation	<p>The existing method of declaring commercial</p>

	and Distribution corporation limited (TANGEDCO)	operation of the generating unit on successful completion of capacity test may be continued. If the full evacuation facility is not ready, the fixed charges should be borne by the transmission agency till the evacuation arrangement is complete in all respects. On the other hand, if the transmission line and evacuation arrangement is ready and the generator is not ready then, the annual transmission charges for the asset is to be borne by the generator and is not a pass through in any form on the beneficiaries. Further, the practice of CERC awarding Deemed commercial operation status as in the case of Kudankulam Transmission scheme, Neyveli TPS-I Expansion etc., and passing on the transmission charges on the beneficiaries without availing any benefit has to be discontinued.
D.12	Assam Power Distribution Company Ltd.	The existing provision may continue
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Athena Infraprojects Private Ltd.	CERC could evolve a compensatory mechanisms, wherein the Generator is suitably compensated for loss of generation for the period the plant could not operate due to unavailability of evacuation system, by making the transmission licensee liable, to compensate the generation losses/revenue at a rate determined by CERC.
E.2	Moser Baer Electric Power Ltd	Existing methodology should be continued. However, the failing party (in terms of COD) needs to be penalized.
E.3	Power Trading Corporation	Since the transmission scheme is isolated from generation scheme after introduction of Point of Connection charges, there is no need for compensating the one (Transmission Utility) for the fault of other (Generator).
E.4	Athena Demwe Power Limited	A compensatory mechanism may be evolved, wherein the Generator is suitably compensated for loss of generation for the period the plant could not operate due to unavailability of evacuation system, by making the Transmission licensee liable, to compensated the generation losses/revenue at a rate determined by CERC.
E.5	BSES Yamuna Power Limited	The risk of delays in project execution either by CGU or by CTU is of the developer. Legally cost of delay by counterparty should be indemnified by the counterparty. Indemnification clause should form part of the Contract terms. Developer needs to

		explore insurance route to assess and quantify cost of 'projection execution risk'. Since counterparty 'project delay in execution' is a business risk, cost for same should be borne by the developer as part of risk premium given to the developer.
E.6	Torrent Power	<p>The Commission should address the following issues while defining CoD:</p> <p>(A) In case of non-availability of Load It is submitted that in a scenario when the generating station is ready but cannot be operated due to non availability of load or evacuation facility, the commissioning of Project may be given priority for infirm power injection subject to the grid security.</p> <p>(B) In case of non-availability of evacuation system It is submitted that in a scenario of non-availability of evacuation system the Commission may extend relaxation in granting the COD on consideration of merit of each case and on consideration of merit of each case on appropriate evaluation of the cost implication</p>
E.7	Association of Power Producers (APP)	<ul style="list-style-type: none"> • CoD as defined under current regulations should continue. However, it is noticed that in many PPAs, contrary to above, number of hrs of operations for trial run have been specified. In such cases, the plants should be accorded Must Run status by RLDCs during the trial run period. Certificate from lender's engineer may be considered as appropriate confirmation that generating station is ready to be declared for COD. • In case the Power Station is ready but the Procurer/Transmission Licensee fails to make arrangement for the transmission evacuation within the stipulated time, then it should be treated as deemed generation and the developer should be suitably compensated. The delay in commissioning due to non availability of load or issues in evacuation may lead to increase in IDC and other Project Cost components. • Integrated planning of Transmission sector and Generation Business should be promoted. Inter-regional transmission capacity should be improved. Fast track clearance is required for transmission projects.
E.8	Rudraksh Energy	Deemed generation/transmission in the form of Compensatory Package can be considered to give

		<p>relief to the Generator/transmitter under such circumstances to be borne by the defaulter.</p> <ul style="list-style-type: none"> •
E.9	Bhavnagar Energy Company Ltd.	<p>Trial operation of generating stations: Trial operation of generating stations is normally considered as under:</p> <ul style="list-style-type: none"> • 72 Hours continuous trail operation at full load to demonstrate the rated capacity of the unit with the designated fuel. • When a generating unit is ready with trail operation but cannot be operated due to non-availability of load demand or evaluation system, it is suggested that in such case, generating unit may be considered as "deemed availability unit for continuous on load operation with the grid." <p>Further, Looking to the complexity of Lignite based generating unit with CFBC technology and considering @ 1.5 to 2 years of stabilization period for such units after synchronisation with the grid, it is suggested that for declaring COD of the Unit, operationalisation may not be considered. Governing mode of RGMO (Restricted Governing Mode of Operations) may not be considered as a per-requisite at least up to stabilization period as outlined above.</p>
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	No comments.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	<p>In case the Power Station is ready but the Procurer/ Transmission Licensee fails to make arrangement for the Transmission Evacuation within the stipulated time, then it should be treated as deemed generation after inspection by representative of Beneficiaries and Independent Engineer and the developer should be suitably compensated. The delay in commissioning due to non-availability of load or issues in evacuation may lead to increase in IDC and other Project Cost components. Till the associated Transmission system is commissioned, the Generation project should be reimbursed for capacity charges.</p> <p>Further, there should be high level of co-ordination between the Generating station and Transmission system for evacuation of project considering the</p>

		<p>symbiotic relation.</p> <p>Further, the transmission system's COD should be accepted once it is charged at designed nominal voltage and withstood even when the Generation plant is not ready. In any case the flow of power thought the Transmission system is not only dependent on injection by the associated Generation plant but also depends upon grid conditions at that particular time. However, there is a great need for fast tracking statutory clearances required for Transmission Projects</p>
G) Individual /Public Group/ Any others		
G.1	Dr.Ashok Kundapur	This issue needs special attention. If Load evacuation system (of SEBs) is not ready on time, the producer should suitably compensated for the losses in revenue.
G.2	Shri Arun Kumar Dutta	Trial operation period be restricted to 3 months for generating unit and 1 month for transmission projects. The cost of infirm power produced during trial run shall be reduced from the capital cost after adjusting the fuel cost. For generating station unable to start trial operation as per commission schedule due to inability of evacuation by transmission system, ROCE & expenses shall be borne by transmission unit and such expenses shall not be included in tariff. This shall be vice versa for commissioning schedule of transmission unit and the cost of delay shall be borne by the generating utility but such cost shall not be put to Tariff.
G.3	Shri Shanti Prasad	<p>Trial performance test at rated load should be considered prerequisite for declaring COD of the generating unit except for run of river, solar and wind power plant and transmission system.</p> <p>In case of transmission lines - 72 hours with no fault or infringement of specified safety clearances to ground and grounded objects and no visible corona should be considered adequate.</p> <p>Where transmission system is not energized to design system voltage but are operated at lower system voltage capital cost to be considered should be actual capital cost reduced in the ratio of system voltage at which energized to system voltage for which design.</p>

		Balance cost need be differed to be consider only when line and its bay equipments are energized to design system voltage
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g) Suggestions on the pre-requisite for completion of data telemetry and communication facilities for declaring COD of transmission system and operationalization of RGMO for declaring COD of generating station.

Sr. No.	Name of organizations/ Stakeholders	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	A transmission line is incomplete if data telemetry and communication facility is not commissioned but it is a fact that line can operate satisfactorily without these (except for the communication facility required for protection). Their cost is small compared to total cost. If Cod of line is not considered on account of this deficiency, it will lead to addition of IDC and higher tariff. It would be proper to accept COD of line with deficiency and on account to the deficiencies and to force the licensee to complete these facilities, ROE for the period of deficiency may be reduced by 1%. Same principle may be followed where power station is commissioned with entire auxiliaries (including standby) not in position or substation is commissioned without bus couplers or buses and lesser transformer capacity and non commissioning of Restricted Governor Mode of Operation(RGMO)
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	In state sector, such restriction shall result in further delay in COD, which will not be in the interest of any stakeholder. Further, such restriction will act in contradiction to current approach of charging depreciation from the date when the asset is effectively 'put to use'. Alternatively, such restriction may be imposed in the first control period for 400 kV and above lines and generating sets of 500 MW (or station capacity-1000 MW) and above. For lower capacity sets/lines and sub stations, such restriction may be considered in next control period as these lines/sets do not pose that severe risk to the grid stability.
B) Government Departments		
B.1	Govt. of Odisha	IEGC (Indian Electricity Grid code) may be followed.

B.2	Government of Punjab, Dept. of Power	Commission needs to bring about a study to evaluate the cost benefit analysis of such scheme.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Implementation of RGMO/telemetry system should not be considered as pre-requisites for declaration of COD of a generating unit/station.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	Agreed.
C.3	Damodar Valley Corporation (DVC)	RGMO of new Machine can be put on operation only when all other units in the grid (200 MW or above) are also operating in RGMO mode. However, commission may kindly consider waiving mandatory RGMO up to 250 MW units.
C.4	National Hydroelectric Power Corporation (NHPC)	It is not advisable to delay the commissioning and COD of the hydro generating stations by making RGMO / Telemetry a pre-requisite on this account since these are very small issues.
C.5	Southern Region Power Committee	Completion of data telemetry and communication facilities before declaration of COD and transmission lines and generating station must be a prerequisite. Operationalization of RGMO for declaring COD of generating station must also be a prerequisite.
C.6	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The pre requisite for operationalization of RGMO for declaring CoD may be considered in case of Thermal power plant. However, in case of Hydro Power plant the pre requisite should be for unit capacity of more than 10 MW.
C.7	National Thermal Power Corporation (NTPC)	Machines are not supplied with RGMO logic by Original Equipment Manufacturer (OEM). RGMO is a retrofit in the control scheme of the plant, incorporated by appropriate modifications in CMC (Coordinated Master Control). This retrofit can be carried out by C&I engineers, after the complete control systems are commissioned and tuned. Retrofitting RGMO requires a long period of time on steady load to tune control systems that may not be possible before COD. Hence, RGMO logic should not be treated as a pre-condition for COD.
C.8	Power Grid	From the perspective of exchange of information and stable operations of the grid, efforts should be made to bring the telemetry in place prior to declaration of COD. However, in case of practical constraints being faced in

		<p>particular transmission elements; the Regulations may be made flexible to relax the submission of all information through telemetry system in the interim till the systems for flow of information are put in place. The utility may be allowed to declare the COD with such relaxed requirements for submission of information.</p>
<p>C.9</p>	<p>Power System Operation Corporation Ltd.</p>	<p>It would be a welcome step for making it a pre-requisite condition of completion of data telemetry and dedicated communication facilities (not through GPRS, which is found to be unreliable, has inherent latency and not suitable for real time operation) of all elements for declaring COD of transmission system as well as generating stations.</p> <p>Further, during the commercial operation of the transmission/generation asset, certain percentage of fixed charges (say 0.5 % - 1 %) may be linked to the availability of the telemetry data of all the associated elements at respective Regional Load Despatch Centre (RLDC). Since it would be difficult to capture / establish intermittency of data availability, to start with non-availability of data for 72 hours or more may only be considered.</p> <p>Making pre-requisite condition of operationalisation of FGMO, or RGMO, for declaring COD of generating station would be a progressive step in maintaining the security and reliability of the power system as well as help in the implementation of deviation settlement mechanism as envisaged by the Central Commission. In this regard, declaration of DC by generators may be done after ensuring necessary margin beyond the MCR to perform FGMO or RGMO response, as mandated in the IEGC Regulations and other relevant orders of CERC. Also, during the commercial operation of the generation asset, certain percentage of fixed charges (say 1%) may be linked to the response of the generating unit calculated on the basis of SCADA values according to the Approved Procedure for Assessment of FRC of Control areas in Indian Power system.</p> <p>In case of hydro power units of 50 MW and above, recovery of certain percentage of fixed charges may be linked to ability to operate in synchronous condenser mode.</p>

C.10	Neyveli Corporation Lignite	Generally all the equipments required for data telemetry and communication will be made ready by the Generating Station before declaration of COD. The data is transported up to Data Collection Centre facility provided by CTU and it is responsibility of CTU to transmit the data further to RLDC. Declaration of COD by Generators shall not be stalled on account of any failure of other agencies like CTU. RGMO could be fine tuned and put in operation only after validating all control loops and needs lot of testing & trial operations. The RGMO will be effective only if all the Boiler operating parameters are well within the specified norms and coal/lignite quality is good. In the above circumstances, RGMO should not be a precondition for declaration of COD for new Generating Station.
D)State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co. Ltd	The pre requisite for operationalisation of RGMO for declaring CoD may be considered in case of Thermal power plant. However, in case of Hydro Power plant the pre requisite should be for unit capacity of more than 10 MW.
D.2	APTRANSCO	All should be ready by COD.
D.3	Rajasthan Discom Power Procurement Centre	Cost benefit Ratio analysis need to be seen before making any expenditure. The benefit of higher efficiency should be shared equally with the beneficiary.
D.4	UPPCL	Commission needs to bring about a study to evaluate the cost benefit implementation of such scheme.
D.5	Tripura State Electricity Corporation Ltd.	The communication facility and data telemetry plays a vital role for Grid Management. Therefore, the necessary action has to be undertaken as per IEGC Grid Code before COD of a project.
D.6	Power Company of Karnataka Ltd.	The pre-requisite for completion of data telemetry and communication facilities may be considered for declaring COD of transmission system. Further, operationalisation of RGMO may be considered for declaring COD of generating station.
D.7	Orissa Power Generation Corporation Ltd.	<ul style="list-style-type: none"> RGMO operation should be mandated for only base load plants and during normal operations. It should not be mandated for declaring COD.
D.8	Chhattisgarh State Power Distribution Co. Ltd.	Data telemetry and communication facilities should be mandatory for transmission lines before declaration of its COD. Similarly, operationalization in RGMO mode for Generators for declaring COD should also be

		mandatory.
D.9	MP Power Management Company Ltd.	The Commission may float an approach paper to evaluate the cost benefit implications of such scheme to all the stake holders
D.10	Maharashtra State Power Generation Co. Ltd.	Without completion of telemetry and communication system and their availability at SLDC/RLDC, the generating stations and the transmission systems may not be allowed commercial operation. Without restricted governing operation mode, no generating station shall be allowed commercial operation.
D.11	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	Completion of data telemetry and communication facilities should be a pre condition for declaring COD of the transmission asset and operationalisation of RGMO for declaring COD of generating station.
D.12	Gujarat Urja Vikas Nigam Limited	CERC may make it mandatory that data, telemetering and communication to RLDC/NLDC/SLDC shall be in place before putting transmission/generating system into commercial operation.
D.13	Assam Power Distribution Company Ltd.	Yes
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jindal Private Ltd	Since the installation of telemetry and communication network at the RLDC/CTU end of the transmission network is beyond the scope of the generator. Therefore, we would like to submit before the Commission that delay in installation of data telemetry and communication infrastructure at the RLDC/NLDC/SLDC/CTU end of the transmission network should not be linked to declaration of COD of the generating station.
E.2	Moser Baer Electric Power Ltd	No comments
E.3	BSES Yamuna Power Limited	CERC needs to conduct a study to evaluate cost benefit of implementation of such scheme.
E.4	Torrent Power	The suggestion on pre-requisite criteria of completion of data telemetry and communication facilities by RGMO for declaring COD, may not be appropriate at this point of time. Power market is in developmental stage and is yet to be fully developed and under that scenario, such a mandate shall unduly constrain the developer and may also lead to delay in COD. It may be more prudent to introduce such mandate in the next control period. Further, it is essential that before COD of the plant, communication facilities (Data and Speech) with State

		and Regional Load Dispatch Centre involving safe operation of the Plant need be implemented. RGMO should be included as an authority being part and parcel of the completion of Unit Characteristic test during commissioning.
E.5	JINDAL STEEL & POWER Ltd.	Delay in installation of data telemetry and communication infrastructure at the RLDC/NLDC/SLDC/CTU end of the transmission network should not be linked to declaration of COD of the generating station.
E.6	Association of Power Producers (APP)	Pre-requisite of the operationalisation of RGMO for declaring COD, may not be appropriate at this point of time. Power market is in development stage and such a mandate shall unduly constrain the developer and may also lead to delay in COD. It may be more prudent to introduce such mandate in the next control period.
E.7	Rudraksh Energy	Completion of communication facilities should be pre-requisite for declaring COD.
E.8	Bhavnagar Energy Company Ltd.	Looking to the complexity of Lignite based generating unit with CFBC technology and considering @ 1.5 to 2 years of stabilization period for such units after synchronisation with the grid, it is suggested that for declaring COD of the Unit, operationalisation may not be considered. Governing mode of RGMO (Restricted Governing Mode of Operations) may not be considered as a per-requisite at least up to stabilization period.
F) Other Organizations/Individual /Public Group/Any others		
G.1	Shri Arun Kumar Dutta	COD of transmission utility and generating utility shall be notified suitably in advance.
G.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Pre-requisite of the Operationalization of RGMO for declaring COD, may not be appropriate at this juncture of time. Power market is in development stage and such a mandate shall unduly constrain the developer and may also lead to delay in COD. It may be more prudent to introduce such mandate in the next control period.
G.3	Shri Shanti Prasad	A transmission line is incomplete if data telemetry and communication facility is not commissioned but it is a fact that line can operate satisfactorily without these (except for the communication facility required for protection). Their cost is small compared to total cost. If Cod of line is not considered on account of this

		<p>deficiency, it will lead to addition of IDC and higher tariff. It would be proper to accept COD of line with deficiency and on account to the deficiencies and to force the licensee to complete these facilities, ROE for the period of deficiency may be reduced by 1%. Same principle may be followed where power station is commissioned with entire auxiliaries (including standby) not in position or substation is commissioned without bus couplers or buses and lesser transformer capacity and non commissioning of Restricted Governor Mode of Operation(RGMO)</p>
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- h) Suggestions to deal with capital expenditures made by generator to achieve targets of the efficiency improvement under the Perform, Achieve & Trade (PAT) scheme. Comments on type of expenditure to be considered as necessary for successful operation and efficient operation in case of hydro and transmission system.*

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	Chhattisgarh State Electricity Regulatory Commission (CSERC)	With introduction of PAT scheme, the fixation of norms has entered into dual zone. It should be sorted out on priority.
B) Government Departments		
B.1	Govt. of Odisha	The results achieved on account of capital expenditure incurred by the generator for implementation of PAT scheme may be shared in the ratio of 75:25 (%) between beneficiary and generator.
B.2	Gujarat Urja Vikas Nigam Limited	Before taking any decision regarding additional capitalization on account of efficiency improvement under PAT, cost benefit analysis should be shared with beneficiaries. Thereafter, additional capitalization under PAT should be undertaken.
B.3	Government of Punjab, Dept. of Power	Cost Benefit Analysis need to be seen before making any expenditure. The benefit of higher efficiency should be shared equally with the beneficiaries.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Pragati Power Corporation Ltd	This issue needs to be addressed in light of PAT schemes and targets set by BEE for Individual power plants. As even the power plants which lived their useful or having old technology, are at verge of closure have been given targets which cannot be achieved without large amount of capital expenditure. There is need to address the R&M type additional capital expenditure and its suitability for older power plants which are going to retire or have outlived their life to meet the efficiency improvement targets under the Perform, Achieve & Trade (PAT) scheme.
C.2	Tehri Hydro Development	Any additional works/services which are necessary for efficient & successful operation of the plant, but not

	Corporation Limited (THDC Ltd.)	<p>included in the original scope of work may please be allowed.</p> <p>Capital expenditure incurred after the cutoff date on account of deferred liabilities, which is covered in the original scope of work may also be allowed.</p> <p>The minor assets such as tools & tackles, appliances, spares which are not allowed to be capitalized for the purpose of tariff, these may be allowed as part of O&M expenses.</p>
C.3	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	The recovery against such O&M Capital Items may be allowed and passed through during the respective years, in addition to Annual Fixed Charges, so that there are no non-performing assets in the books of accounts of the Power Stations. Further, the Special Allowance in 'Lakhs per MW per year' basis, similar to thermal power stations should also be made admissible to hydropower generating stations.
C.4	National Hydroelectric Power Corporation (NHPC)	All capital expenditures incurred to keep in fine fettle, the plant, machinery, dam and the people operating them should be allowed. The continuous generation of design energy and normative availability despite the continuous erosion of plant & machinery and silting of reservoir itself is an indicator of efficiency being infused by the generating station as a result of these expenditures instead of allowing a breakdown or major deterioration of the system by not catering to the genuine additional capex needs of the station.
C.5	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The capital expenditure incurred to achieve the targets fixed by BEE under PAT scheme or any other scheme and towards compliance of statutory /regulatory requirement notified by MoEF or any other Government agency should be allowed to be recovered from tariff.
C.6	National Thermal Power Corporation (NTPC)	Since various schemes already implemented for efficiency improvement have consistently been disallowed in tariff by the Commission with the consideration that the benefits are not being passed on to the beneficiaries. Therefore, the costs involved and benefits of efficiency improvement should be left to the generating companies. As further targets are likely to be set in 2015-16, the generating companies should be given opportunity of approaching the regulator based on technological improvements necessary / feasible.

		Further, the Central Commission has allowed additional capitalization on account of work which has become necessary for successful and efficient operation in hydro generating stations, transmission system and gas stations. However, in case of gas stations this provision has been provided beyond 15 years from COD. But such a provision has not been provided for the coal stations. Recently, the Commission had proposed such provision for coal stations in the draft Third Amendment of Tariff Regulations 2009-14. In coal stations, high pressure and temperature parts require constant maintenance and replacement after a certain time. Therefore, coal stations should necessarily be allowed additional capitalization on account of successful and efficient operation in view of much higher operating risk.
C.7	Power Grid	Additional capitalization needs to be allowed in the assets as, detailed above, under the conditions which are beyond the control of POWERGRID and special allowance in form of additional O&M may be allowed to POWERGRID where Additional Capitalization/R&M is not being undertaken.
C.8	Neyveli Lignite Corporation	Capital expenditure incurred to achieve the targeted efficiency under PAT scheme may be fully allowed in the next regulation period of 2014-2019.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Madhya Pradesh Power Generation Co Ltd	The capital expenditure incurred to achieve the targets fixed by BEE under PAT scheme or any other scheme and towards compliance of statutory /regulatory requirement notified by MoEF or any other Government agency should be allowed to be recovered from tariff.
D.2	APTRANSCO	The expenditure for the improvement under the PAT scheme should be borne by the generator or CTU only because the beneficiaries are paying huge amounts of incentives to the availabilities above threshold levels as fixed by CERC from time to time.
D.3	Rajasthan Discom Power Procurement Centre	Cost benefits ratio analysis need to be seen before making expenditure. The benefit should be shared equally with beneficiaries. Further if the generator fails to achieve the normative bench mark of operation fixed by the Commission then the special allowance may be withdrawn.
D.4	UPPCL	In case when the generator gets Energy Efficiency Certificate for operating above the bench mark fixed by

		PAT, the benefit may be shared in the ratio of 50:50 between the generator and the beneficiary. In other case of under achievement of the bench mark fixed by PAT the generator will solely bear its burden since the generator has already been paid in terms of R&M or Special Allowance.
D.5	GRIDCO	The results achieved on account of capital expenditure incurred by the Generator for implementation of PAT scheme, may be shared in the ratio of 75:25 (%) between the beneficiary and the generator
D.6	Orissa Power Generation Corporation Ltd.	<ul style="list-style-type: none"> Expenditure incurred under PAT should be allowed as additional capital expenditure and recovery through fixed charges s.t. prudence check and cost benefit analysis. There should be advance approval of such schemes before implementation.
D.7	Chhattisgarh State Power Distribution Co. Ltd.	CERC should ensure that capital expenditure to achieve target efficiency improvement is genuine. Then only after prudence check same should be allowed to be capitalized. The benefit so accrued should be shared in the ratio of 25:75 between the generator and beneficiary.
D.8	MP Power Management Company Ltd.	In case when the generator gets Energy Efficiency Certificate for operating above the bench mark fixed by PAT, the benefit may be shared in the ratio of 50:50 between the generator and the beneficiary. In other case of under achievement of the bench mark fixed by PAT the generator will solely bear its burden since the generator has already been paid in terms of R&M or Special Allowance.
D.9	Maharashtra State Power Generation Co. Ltd.	If Additional capital expenditure on any efficiency improvement programme is capable of supporting the additional capital expenditure, then generators can adopt PAT themselves.
D.10	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	If the Commission considers adding the additional expenditure made towards PAT scheme to the capital cost, then the benefit accrued through the PAT scheme should be passed on to the beneficiaries.
D.11	Assam Power Distribution Company Ltd.	Core Business marginal related expenditure should be allowed to retain capacity/energy of the existing plant.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	No comments
E.2	BSES Rajdhani Power Limited	PAT scheme is designed in such a manner that the projects undertaken for improving the energy efficiency of the plants payback for themselves. Therefore no

		additional capitalization under PAT should be separately allowed.
E.3	BSES Yamuna Power Limited	Beneficiaries should be made aware of the cost benefit of PAT scheme and its impact on cost of discoms.
E.4	Torrent Power	Capex for efficiency improvement under PAT scheme may be considered as an additional capital expenditure incurred and be part of capital cost. The amount of capital expenditure can be determined through the help of CEA and based on collection of data and analysis of the quality of data so obtained from existing power plants, under the PAT scheme.
E.5	Association of Power Producers (APP)	<p>Capex for efficiency improvement under PAT scheme may be considered as an additional capital expenditure incurred during the period while determining the capital cost. There should be a list of PAT schemes for each control period and a benchmark capital cost for each PAT scheme. This amount can be determined by CEA based on data obtained from existing power plants for improvement in efficiency under the PAT scheme.</p> <p>As the first phase of PAT scheme is under implementation, it may be difficult to establish the benchmark capital costs as recommended above for the control period 2014-19. Alternatively, capital expenditure under PAT scheme may be considered as part of O&M Exp under separate head for the period 2014-19. Benchmarking shall be considered while formulating regulations for 2019-2023 based on the data collected during 2014-19</p>
E.6	Rudraksh Energy	Reasonable capital expenditure should be allowed to achieve the targets of efficiency improvement under Perform, Achieve & Trade (PAT) scheme and if not achieved, such expenditure should be disallowed.
E.7	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	Provision for allowing additional capitalisation on account of measures taken to comply with the norms specified under Perform-Achieve-Trade Scheme, notified under The Energy Conservation Act, 2001 may kindly be incorporated in the Regulations.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	From the Commission's point of view, the capital cost under the PAT scheme is justified only if it adds value to existing generator in a manner that it enhances output for it more than the same capital cost would have achieved if it was used in setting up a new generator. The unit of analysis here is the additional capital being generated per additional rupee spent as capital cost.

		<p>The additional capital expenditure under the PAT scheme should be subjected to a cost-benefit analysis before being allowed and included in capital cost. If the efficiency gains justify the planned expenditure in terms of efficiency improvements per additional rupee spent, it should be allowed. Here also, publishing benchmarks for efficiency gains under PAT scheme will be useful.</p> <p>The Commission should publish detailed guidelines on how capital cost for PAT scheme will be allowed, so that there is greater certainty for firms planning such investments, and there is minimal discretion in the decisions.</p>
G) Individual / Public Group / Any others		
G.1	Dr.Ashok Kundapur	Increasing efficiency results in lowering of price. This aspect need to be looked into and suitably taken care of.
G.2	Shri Arun Kumar Dutta	Capital expenditure approved to achieve target of the efficiencies improvement under (PAT) shall be done after cost benefit analysis and expenditure to be realized within the shortest period or balance life with the existing Tariff with suitable modification for the capital expenses. This shall be applicable for hydrogenation and transmission system also.

- i) *Suggestions/comments are invited on aspects to be covered in truing up of capital cost.*

A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electricity Regulatory Commission	No comments
A.2	Uttar Pradesh Electricity Regulatory Commission	As the initial tariff is proposed based on actual cost at the time of filing of the petition, therefore the truing up of capital cost should be allowed for the fixation of reasonable tariff on the basis of audited accounts of the generating company.
A.3	Chhattisgarh State Electricity Regulatory Commission (CSERC)	Truing up of all cost components must be done on annual basis. The sharing of gains and losses should be symmetric and preferably it should be by 50-50. UI income of generator (after deducting for fuel cost) should also be shared with beneficiary in the same way.
B) Government Departments		
B.1	Govt. of Odisha	Aspects to be covered in truing up of capital cost: (i) Actual expenditure incurred as per accounts (ii) Actual IDC (iii) Financing charges (iv) Gain /loss on account of FERV (v) Penal charges in case the generating stations deviate from standardized construction period.
B.2	Government of Punjab, Dept. of Power	If the generator fails to achieve the normative benchmark of operation fixed by the Commission then the special allowance may be withdrawn.
B.3	Govt. of Tripura, Dept. of Power	Benefit of fully depreciated value of equipment should be adjusted while considering additional capitalization.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Any capital expenditure which is allowed by the commission in a particular year if deferred from the admitted year then it should be allowed in the year in which the expenditure has been incurred.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	The concept of truing up as per 2009 regulation at periodical interval shall be effective for advance planning, visibility of future cash flow for both generators as well beneficiaries, the same may be continued.
C.3	National Hydroelectric Power Corporation (NHPC)	Capital expenditure allowed by CERC but has been incurred in the year other than the year for which it was allowed or deferred for following years by the generating station it should be considered in year of

		expenditure
C.4	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The present procedure of truing up of capital expenditure considering the same actually incurred during the tariff period based on application filed by the generating companies within next 07 (seven) months after completion of the tariff period should continue. In addition to actual capital expenditure allowed, it is proposed that the Commission should consider the actual "Weighted average rate of interest" based on loan repayment during the said truing up period. However, the present provision of allowing the generating companies to file application before the Commission one more time within the tariff period for revision of Annual Fixed Charges (AFC) should continue.
C.5	National Thermal Power Corporation (NTPC)	The disposal of tariff as well as the true up petition takes almost the same time as same resources is required for both tariff & true up petition or both utilities as well as the Commission. After completion of the year and finalization of the Books of Accounts, the Utility (Generating or Transmitting Company), in order to simplify the process, may be allowed to adjust the yearly tariff based on the Auditor's Certificate in respect of the expenditure projected and materialized vis-à-vis the expenditure approved by the Commission. Also, adjustment in tariff shall be made on account of floating rate of interest on loans and FERV adjustments where generating company is allowed to compute and bill without referring to CERC and only in case of any dispute, the Commission may be approached. Commission may cap the tariff adjustment up to the level of projected capital expenditure till the end of the respective year. This will be fair for the Utilities as well as the beneficiaries, since the interest payment /recovery can be minimised and the tariff paid by the beneficiaries will also be adjusted on year on year basis and will improve their cash outflows in case of projected capital expenditure materializing due to other issues. In any case, the tariff thus recovered by the generating company will be subjected to prudence check of the Central Commission at the end of the tariff period.
C.6	Power Grid	The present practice of truing up may be continued. It is further proposed that the petition for determination of final tariff will be filed two month after the date of commercial operation. The tariff shall be worked out based on unaudited actual Capital Expenditure and balance Projected Capital Expenditure. The balance

		<p>Projected Capital Expenditure may undergo revision upward or downward.</p> <p>Accordingly, the Commission may consider the following at the time of approving the Provisional Tariff Order: <i>“Provided in case the actual capital expenditure is lower than the approved provisional expenditure, the utility shall have the flexibility to charge lower tariff from the consumers based on such actual cost till the final tariff gets approved by the Commission”</i></p>
C.7	Neyveli Lignite Corporation	<p>Actual capital additions may be allowed at the time of truing up, considering the vintage, nature of the plant (lignite based Plant), etc. During truing up exercise at the beginning of the next tariff period actual Gross Fixed Assets including common assets (as certified by Auditor) may be reckoned and depreciation already recovered through tariff in the previous years may be reckoned to arrive at NFA as opening balance, to enable to cover common assets thro' tariff.</p>
D) State Sector (Generators / Transmission Cos. / Distribution Cos. / SEBs / SLDCs)		
D.1	APTRANSCO	<p>The Commission may consider for actual only for arriving the capital cost after completion of the year in spite of projections towards additional cost expenditure</p>
D.2	Rajasthan Discom Power Procurement Centre	<p>No comments</p>
D.3	UPPCL	<p>No comments</p>
D.4	GRIDCO	<p>Aspects to be covered under truing up of Capital Cost:</p> <ul style="list-style-type: none"> (i) Actual Expenditure incurred as per accounts. (ii) Actual IDC paid. (iii) Financing Charges. (iv) Gain/Loss on account of FERV on normative loan (as approved by the Commission) up to the COD, as mentioned in tariff regulation for 2009-14. (v) Penal Charges if any, in case the Generating station deviates from the standardized construction period. (vi) Truing-up of capital cost should take into consideration the controllable and uncontrollable cost factors.
D.5	Tripura State Electricity Corporation Ltd.	<p>Additional capitalization aspect in Regulation needs to be elaborated. Additional capitalization on account of old equipment may not be allowed. Further, it may also be noted that in the form of continuing depreciation after 12 years, additional funds are available to generating company for making such investment.</p>

D.6	Orissa Power Generation Corporation Ltd.	<ul style="list-style-type: none"> Capital cost shall be trued up with prudence check rather than following a benchmark only. Rather, benchmark cost can be used as reference.
D.7	Chhattisgarh State Power Distribution Co. Ltd.	Truing up of actual cost should be subject to benchmark cost and the minimum of the same should be allowed.
D.8	MP Power Management Company Ltd.	<p>All factors viz., capital cost, applicable rate of tax, rate of interest on loan, cost and calorific value of primary and secondary fuel, actual quantity of fuel consumed etc., affecting in determining the cost of electricity, in any manner, should be covered in truing up exercise. Past experience shows that generally the power producers do not maintain the inventory allowed to them by Central Commission while computing the amount of interest on working capital. It is suggested that while conducting truing up of exercise the average inventory of primary and secondary fuel should be calculated and amount of interest on working capital should be revised accordingly.</p> <p>Further if the generator fails to achieve the normative bench mark of operation fixed by the Commission then the special allowance may be withdrawn.</p>
D.9	Maharashtra State Power Generation Co. Ltd.	The truing up provision may be discontinued.
D.10	Kerala State Electricity Board (KSEB)	The revision of capital cost during truing up process may not be admitted.
D.11	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	TANGEDCO submits that additional capitalization in respect of existing projects need not be allowed as in the case of IPPs.
D.12	Assam Power Distribution Company Ltd.	No comment.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	BSES Rajdhani Power Ltd.	It is imperative to perform the prudence check of energy charges billed by the generation companies as there is a wide variance between the landed price of primary fuel (LPPF) and the calorific value of primary fuel (CVPF) and the resultant energy charges billed.
E.2	BSES Yamuna Power Limited	The scope of truing up needs to be extended to O&M expenditure also. This is consistent with truing up of ARR for state utilities - generation, transmission and distribution.

E.3	Torrent Power	<p>1. Capital cost needs to be trued-up with reference to prudence check.</p> <p>2. The additional capital cost incurred due to circumstances beyond control of the generator, examples of some of which are stated below need also be considered as additional capex at the time of truing up.</p> <ul style="list-style-type: none"> a) Impact due to introduction of new regulation of MoEF/SPCB (Say Zero Liquid Discharge from the Station) or requirement of installation of additional instruments b) (TOC) and Communication link to SPCB etc c) Cost incurred for unexpected findings during Overhaul of Gas Turbine/Steam Turbine/Generator <p>3. It is submitted that the truing up exercise may be done for additional capital expenditure only as the other parameters are provided on normative basis or is linked with the project cost. Further, the truing up may be done based on the overall impact of such additional capital expenditure i.e. time difference between the cost and recovery (receivable with working capital or at the cost of debt or equity).</p>
E.4	Association of Power Producers (APP)	<p>Capital cost shall be trued-up with prudence check rather than following a benchmark only. Benchmark capital cost can at best be used as reference only and any over run may be examined and allowed based on prudence check. Flexibility in time-frame may be considered w.r.t. the merit on case-to-case basis and the true-up provisions may be strengthened to ensure inclusion of project cost over-run. In addition the true-up of additional capital expenditure may be allowed at the end of each year of the tariff period, particularly from the second control period of any project. Timely true-up can prevent tariff shock to the beneficiaries and at the same time allow timely cash flow to the Generator.</p>
E.5	Rudraksh Energy	<p>Truing - up should be carried out based on audited accounts and field reports by deputing the team of Experts.</p>
E.6	Bhavnagar Energy Company Ltd.	<p>Generating Company may be allowed discretion to make an applicable at least for one more time during the</p>

		control period for revision of tariff with the details about capital expenditure and additional capital expenditure incurred for the subject period.
E.7	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	While determining tariff, the actual Capital Cost, determined by the Commission, based on various details provided, subject to prudence check, must be considered on entirety. Ad-hoc deduction, without any proven inefficiency, may be avoided.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	If the difference between actual and projected capital cost was because of controllable factors, the firm and its investors should bear the burden of these additional costs, and ultimately it would be charge on their profits. For consistent application of these principles, it is important that the Commission publish detailed guidelines on truing up of capital cost, so that there is minimal discretion in the decision.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Projects may get delayed beyond the permitted period due to external reasons/unforeseen circumstances. Hence, flexibility in time-frame may be considered w.r.t. the merit on case-to-case basis and the true-up provisions may be strengthened to ensure inclusion of Project Cost over-run. Increase in Interest on Working Capital should also be considered for truing up of capital cost. Further, truing up of capital cost should be based on audited financial accounts.
G)Individual /Public Group/Any others		
G.1	Dr.Ashok Kundapur	This can best be settled through detailed discussions on suggestions and comments received from stakeholders.
G.2	Shri Arun Kumar Dutta	Capital cost should be trued up within 2 years to avoid huge backlog. Efforts must be made that all capital expenses are maintained within the approved capital cost. Unnecessary escalation with RBI cost indices shall be avoided. However RBI indices shall form a guideline white truing up of expenditures.