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)

3.7 Return on Equity (RoE)

a) ***Whether there is a need to review the existing level of return on equity keeping in view of the existing market condition and expected return by regulated entity? What should be the return on equity?***

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electric Regulatory Commission	No comments
A.2	Uttar Pradesh Electricity Regulatory Commission	In 2009-14 Regulations, the Return on Equity was allowed @ 15.5%. As such there is no need to increase it.
A.3	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The rate of ROE may be reviewed at the start of every control period.
B) Government Departments		
B.1	Govt of Odisha	There is a need to review the existing level of return on equity considering the beta factor of power sector, keeping other factors constant and by using Capital Asset Pricing Model (CAPM)
B.2	Government of Punjab, Dept. of Power	There is a need to define and quantify components of risk premium.
B.3	Govt. of Tripura, Dept. of Power	ROE should be 14%.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	All kind of Hydro-Electric project should be uniformly given an additional ROE of 2% over and above the rate to be fixed by the commission for the period 2014-19.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	➢ The pre-tax RoE @ 18.5 % may be allowed to all hydro-generating stations looking to the long gestation periods and blocking of equity during construction stage in form of CWIP, besides risk involved due to geological surprises and tough/ remote locations. ➢ The concept of passing of Income Tax as was being followed during control period 2004-09, needs to be restored.

C.3	Damodar Valley Corporation (DVC)	It is appropriate that the return on equity is allowed at a fixed rate as being done for the present. Considering the present requirement of resources for the growth of the power sector in the country, it would be appropriate to enhance the existing base rate of return to 20% and shall be computed on pre-tax basis by grossing up the base rate with the normal tax rate. In case of 80IA benefit has been availed by any project the same should not be assessed individually rather overall Corporate Tax rate should be considered for base rate to be grossed up for Rate of Return calculation.
C.4	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Existing return on equity requires to be revised upward for the projects located in N.E. Region, particularly for the hydro projects, keeping in view the high risk on account of remoteness/poor infrastructure facility available to start execution, uncertain geological problems, Difficult terrains of operations, Unforeseen delays in project implementation and Adverse law & order problems in certain areas/locations. Therefore, ROE for Power Projects in NE Region should be 16% (Pre Tax) for Thermal Power Projects and 18% (Pre Tax) for Hydro Power Projects due to high investment risk involved on the part of the investors.
C.5	National Thermal Power Corporation (NTPC)	Considering the scenario of increasing interest rates, CERC should allow at least 18% ROE. Further, to take care of loss of ROE during the construction period, a 2% margin should be provided. Hence linking the expected ROE to the benchmark rate also presents a case for at least 20% Return on Equity.
C.6	Neyveli Lignite Corporation	Bank PLR for the period from 2009-201 3 ranges from 11 75% to 14.75% in SBI and in other PSU Banks it ranges from 11.5% to 15%. The Interest rate of 10 year Govt. Securities is in the range of 7.5%. Considering the above interest rates, the Return on Equity may be raised to 18% and an additional 0.5% for timely completion of the project. Further, Return on Equity has to be provided during construction period also. Further, ROE of 0.5% has been taken out from 16% and the same is extended for timely completion of the project in case of new projects. Time delays occur due to many reasons - market conditions, order book position of the firms etc., notwithstanding the best efforts taken by the generators through all possible avenues available and this is beyond the control of the generators. Hence, it is suggested that the same may be removed from the Regulations. The generator should not be made to suffer on many grounds for one deviation.

<table>
<tr><td>C.7</td><td>Power Grid</td><td>In accordance with CAPM, the expected ROE is in the range of 19.37% to 20.46% (post tax) as given in the table below:
<table>
<tr><th>Scenarios</th><th>Equity βe</th><th>Cost of equity</th></tr>
<tr><td>Equity βe : Levered beta computed taking Debt equity ratio as per the book value</td><td>0.86</td><td>8.08% + 0.86 * (21.27% – 8.08%) = 19.43%</td></tr>
<tr><td>Equity βe : Levered beta computed taking Debt equity ratio as per the Market capitalization</td><td>0.94</td><td>8.08% + 0.94 * (21.27% – 8.08%) = 20.46%</td></tr>
<tr><td>Equity βe : Levered beta as per the market returns</td><td>0.85</td><td>8.08% + 0.85 * (21.27% – 8.08%) = 19.37%</td></tr>
</table></td></tr>
<tr><td colspan="3">D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)</td></tr>
<tr><td>D.1</td><td>Madhya Pradesh Power Generation Limited</td><td>The Return on Equity should be linked to Debt market conditions, Risk factors involved and construction period. This will give better environment to attract investment as compared fixed rate of return over the entire tariff period.</td></tr>
<tr><td>D.2</td><td>APTRANSCO / APDICSOM</td><td>Govt. of India Rate plus 5% as return on equity</td></tr>
<tr><td>D.3</td><td>Rajasthan Discoms Power Procurement Centre</td><td>There is need to define and quantify components of risk premium.</td></tr>
<tr><td>D.4</td><td>Uttar Pradesh Power Corporation Ltd. (UPPCL)</td><td>There is need to define and quantify components of risk premium</td></tr>
<tr><td>D.5</td><td>Tripura State Electricity Corporation Ltd.</td><td>RoE rate should be rolled back to 14% as the country has achieved significant capacity addition at the current rate of ROE.</td></tr>
<tr><td>D.6</td><td>Gujarat Urja Vikas Nigam Limited</td><td>Considering the risk perception of fixed rate of return, CERC may keep a Fixed Rate of Return for the tariff control period instead of linking the rate of return to market in order to have simplicity and avoidance of disputes.</td></tr>
<tr><td>D.7</td><td>Orissa Power Generation Corporation Ltd.</td><td>Considering the gestation period of 4-5 years, the ROE becomes nearly equal to cost of debt. The ROE should be increased from 15.5% to sufficiently incentivize the developers. It would be atleast 500 basis points above the SBI PLR rate.</td></tr>
<tr><td>D.8</td><td>Chhattisgarh State Power Distribution Co. Ltd.</td><td>The existing level of return on equity should not be increased further. Further, linking expected rate of return to market (through CAPM method) is also not advisable as the capital market has witnessed huge volatility not representing the true pricing of equities.</td></tr>
<tr><td>D.9</td><td>MP Power Management Company Ltd.</td><td>There is an urgent need to define and quantify components on the basis of which the rate of return on equity is being determined. It is suggested that the level of return being earned by other business entities may be examined to determine the rate of return. The rate should be such that the investor may be able to earn at least the prevailing rate of interest being offered by the banks and additional component to counter the risk factor.</td></tr>
<tr><td>D.10</td><td>Maharashtra State Power Generation Co. Ltd.</td><td>The present system of ROE should continue with the modification that the benefits under Section 80IA of the Income</td></tr>
</table>

		Tax Act 1961 should be passed on to the beneficiaries and to the ultimate electricity consumer.
D.11	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Many generating companies in the country have enhanced capacity at the current rate of RoE as such it appears to be reasonable. Therefore, it does not warrant any change.
D.12	Kerala State Electricity Board (KSEB)	The present practice of working out the pre-tax equity by grossing up of tax rate may be continued.
D.13	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	In view of the existing rate of interest for the loans, TANGEDCO suggested that the existing base rate of 15.5% may be continued for the tariff period 2014-19, by working the rate of return as per Capital Asset Pricing Model. Further, ROE works out to 15% with a Risk Free Return of 7.4% for RBI bonds, market return of 15% and Beta factor 1.0. Hence there seems to be no justification for increasing the present Base Rate of 15.5%.
D.14	Assam Power Distribution Company Ltd.	Marginally above the cost of debt.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jindal Power Limited	ROE @ 16.5% p.a. translates to equity IRR far lower than 12-13% in case of hydro power projects. Financial viability of the hydro projects.Thus, the Commission is requested to allow the premium on return on equity for hydro power projects corresponding to the carrying cost on equity invested.
E.2	Moser Baer Electric Power Ltd	Yes, In view of compounded risk associated with hydro power plant .ROE for hydro project to be increased by 5% to 6% as allowed for renewable projects by CERC.
E.3	BSES Rajdhani Power Ltd.	In the present scenario, where procurement of power is to be done through competitive bidding, allowance of 16% ROE for cost plus based projects does not cater any purpose. For cost plus based plants there is hardly any risk and the return provided for such low risk is phenomenally high. Further, Corporate tax of the company should not form part of the tariff.
E.4	Jaiprakash Power Ventures Ltd.	The existing level of return on equity should be reviewed upwards keeping in view the existing high interest rates prevailing in Indian market.
E.5	BSES Yamuna Power Limited	There is a need to define and quantify components of risk premium.
E.6	Association of Power Producers (APP)	• Equity IRR for thermal generation project based on the provisions of Tariff Regulations 2009 works out to 13.19% which is similar to prevalent SBI PLR. • Rate of return on equity may be linked with SBI base rate. The current rate of return on equity of 15.5% gives only 3% premium over the base rate. This premium is inadequate

		considering the risks and the uncertainties being faced in the power sector. In addition, power projects with a gestation period of over 4 years get no return during this period. Accordingly, the equity premium should be atleast 600 basis point above the base rate. Therefore, the return on equity should be around 18%. • The SBI Benchmark PLR has increased from 11.75% as of June 2009 to 14.45% in Feb 2013, while the return on equity has remained fixed at 15.5%. Accordingly, with more than proportionate increase in risks, the rate of return on equity should also be increased by about 3% from the current 15.5%. Increase of 3% in the current RoE would give equity IRR of 15.5%.
E.7	Rudraksh Energy	The existing approach should be continued.
E.8	Torrent Power	1. ROE should be reviewed periodically based on existing market conditions and should be adjusted for risk premium applicable for a regulated entity. Economic slowdown, increase in Interest Rates and other uncertainties w.r.t. fuel, along with other issues like Land Acquisition, R&R, etc. which leads to the increase in the level of risks for the Developers need be suitably addressed. 2. In this regard, the sector specific issues like fuel availability, project clearances, improvement of financial health of the state Discoms, stability of government policies (domestic policies) etc need also be attended so that the risk profile does not deteriorate. 3. The power sector in general requires fresh investments and therefore fixed Rate of Return must be retained.
E.9	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	The present approach of fixed ROE (over GFA) for the entire MYT period may be continued. Fixed ROE over the entire MYT period will help in attracting much needed investment in the sector, which is suffering from great uncertainties regarding fuel, land, environment, evacuation and payment issues.
F)	**Other Organizations/Institutions/Banks/Investors**	
F.1	National Institute of Public Finance & Policy (NIPFP)	The standard Capital Asset Pricing Model (CAPM) helps answer this question by estimating the reasonable rate of return on equity. • Since very few power companies are listed, and for each category (generation, transmission, etc), we won't find a number of listed companies, it would be appropriate to list a large number of comparable firms from other countries, calculate Beta values for them, and take their median as a global estimate for beta. This can be then adjusted based on factors relevant for India.

		Once the estimate has been obtained, it can form the basis of the decision on return on equity. Moreover, since there is a need to encourage investment in this sector, using a return on equity that is 1-2% higher than that obtained from the CAPM would make the sector attractive to the investors.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	The economy slowdown, increase in Interest Rates, Financial health of Discoms and fuel uncertainties, along with other issues like Land Acquisition, R&R, etc. have led to an increase in the level of risks for the Developers. In order to attract more investment in Power Sector, RoE may be increased further. Base RoE should be in the range of 17%-18%, with a higher level for hydro power projects. In 2009, SBI BPLR was around 12% against the current rate of 14%. RoE should be further increased to commensurate with prevailing interest rates
G) Individual /Public Group/Any others		
G.1	Shri R. B. Sharma	The present system of return on Equity (ROE) should continue with the modification that the benefits under Section 80 IA of the Income Tax Act, 1961 should be passed on to the beneficiaries and to the ultimate electricity consumer.
G.2	Dr.Ashok Kundapur	One of the CERC document suggests 20% ROE, but many other documents mention only 16.5 %. To attract more investors and to generate sufficient resources for further growth in the sector, ROE should be in the range of 25% for the first 10 years and 28% to 30% for the rest of the plant life. ROE of 23% and 28% would be better especially for Renewable Energy sector. If the developers are able to supply power at Grid parity–this could be a further incentive, as it would act as double attraction – for the Developers as well as Investor.
G.3	Mallika Sharma Bezbaruah	The Central Commission provided more than the RoE recommended by CRISIL during the consultative paper for the MYT Regulations formulated during 2001-04 Tariff Period (first CERC Tariff Regulations). CRISL recommended normative 12% ROE if debt-equity ratio is 70:30 and 16% if debt-equity ratio is 75:25. However, the Central Commission adopted an ROE of 14% at debt: equity ratio of 70:30.
G.4	Shri Arun Kumar Dutta	Return on equity should be pegged at 12% because of existing financial gloom/downturn.

b) The fixed rate of return over the entire tariff period as per the existing practice should be adopted or provision for mid-term review can be introduced. If the fixed rate of return is adopted, then what could be the rate of return?

Sr.No.	Name of organization/stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electric Regulatory Commission	No comments
A.2	Uttar Pradesh Electricity Regulatory Commission	Present system in fine.
A.3	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The rate of ROE may be reviewed at the start of every control period.
B) Government Departments		
B.1	Govt of Odisha	There **should be provision for mid-term review** of rate of return.
B.2	Government of Punjab, Dept. of Power	Midterm review of rate of return on equity may not be done
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The fixed rate of return should be continued uniformly throughout the control period in order to have regulatory certainty.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Same as (a) above)
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Mid-term review of the fixed rate of return should be adopted for better transparency and benefits to both the generators (investors) as well as beneficiaries. However, such revised rate, which effects the allowed AFC, should be effective from the first month of a particular financial year within the tariff period for avoiding billing complicacies. The suggested rate of return is 16% (Pre Tax) for Thermal Power Projects and 18% (Pre Tax) for Hydro Power Projects located in North Eastern Region.
C.4	National Thermal Power Corporation (NTPC)	The Return on equity should be revised periodically taking into account the current developments in the industry's risk-return profile and changing market conditions.
C.5	Neyveli Lignite Corporation	Mid-term review may be adopted

C.6	Power Grid	The fixed rate of return over the entire tariff period as per the existing practice should continue.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	APTRANSCO / APDISCOM	Mid- term review may not be necessary because variable Govt. of India Lending Rate plus 5% as return on equity
D.2	Rajasthan Discoms Power Procurement Centre	Mid term review should not be adopted.
D.3	Uttar Pradesh Power Corporation Ltd. (UPPCL)	Mid term review of rate on return on equity **is not agreed.**
D.4	Tripura State Electricity Corporation Ltd.	Rate of Return should be fixed as the investment decision is taken considering the ROE applicable at the date of such decision.
D.5	Power Company of Karnataka Ltd.	Fixed rate of return on equity may be continued till the normative debt portion is cleared. Once the normative debt is fully paid, the depreciation spread over the balance life of the project shall be adjusted against equity portion and the ROE is applicable for the adjusted equity. Adjusted Equity = Equity allowed by the commission – Average Depreciation calculated based on the balance of the asset to be depreciated divided by the balance life of the project. Further, while grossing up of tax rate on ROE the benefit of 80IA may be taken into consideration and appropriately the benefit shall be factored in ROE.
D.6	Orissa Power Generation Corporation Ltd.	The existing practice should be continued as it ensures cash flows.
D.7	Chhattisgarh State Power Distribution Co. Ltd.	To avoid tariff uncertainty mid-term review of rate of return on equity is not agreed. Prevailing rate of return is adequate.
D.8	MP Power Management Company Ltd.	To avoid tariff uncertainty mid term review of rate on return on equity is not agreed. While determining the rate of return the safeguarding of the interest of the consumers should be ensured.
D.9	Maharashtra State Power Generation Co. Ltd.	The fixed rate of return over the entire tariff period as per existing practice may be adopted.
D.10	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Rate of return should be fixed as the investment decision is taken considering the RoE applicable at the date of such decision. Further, all other financial costs (interest cost, taxes etc) are a pass through.
D.11	Kerala State Electricity Board (KSEB)	There is no need for a differential rate of return for the various projects and the same normative ROE can be made applicable for generation and transmission projects as the market rate and risk premium are not different for the same.
D.12	Tamil Nadu Generation	TANGEDCO is of the opinion that the ROE fixed for the

	and Distribution corporation limited (TANGEDCO)	tariff period should be firm and there is no need for mid-term review.
D.13	Assam Power Distribution Company Ltd.	Rate may be fixed uniform for entire period.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Jindal Power Limited	The Commission is requested to allow fixed ROE over a control period. Further, the Commission is requested to approve an additional premium for hydro projects over base ROE as per the formula proposed above, considering higher risk being borne by them.
E.2	Moser Baer Electric Power Ltd	It is suggested to continue with fixed rate of return.
E.3	BSES Rajdhani Power Ltd.	As per the CAPM model, considering 10 Year Govt. Bond Risk Free Return at 8% and beta of 1.0, the market premium allowed for ROE should not be more than 2%.
E.4	Jaiprakash Power Ventures Ltd.	The provision of mid-term review of rate of return during the tariff period may be adopted. However, it should only be used as a tool to attract the investment, i.e. any downward revision in rate of return will result in regulatory uncertainty.
E.5	BSES Yamuna Power Limited	Frequent revision in RoE over the tenure on control period would defeat the basic objective of Multi Year Tariff Period, i.e. bringing regulatory certainty to investors in the power sector.
E.6	Association of Power Producers (APP)	Existing practice should be continued as midterm review of the fixed rate of return on equity will increase the uncertainty in predicting cash flows which will be used by the Banks/Financial Institution to take their lending decisions and pricing of Funds. Because of the uncertainty in the rate of return, lenders would demand additional risk premium which in turn will increase the cost of debt and impact the consumers.
E.7	Bhavnagar Energy Company Ltd.	Mid-term review of ROE could be helpful to take care of market fluctuation.
E.8	Torrent Power	1. Existing practice should be continued as midterm review of the fixed rate of return on equity will increase the uncertainty in forecasting cash flow requirement to be provided to the Banks/ Financing Institutions. 2. ROE should be able to meet the expectation of investors and generate adequate resources for addition to generation capacity and ROE to be at least 18.5% comprising of: a. Risk Free rate 7.5% b. Risk Premium 10% c. beta factor 1.10%

		Total Fixed Rate of Return - 18.5%
E.9	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	'The ROE computed using CAPM model (combined ROE for generation and transmission sectors) comes out to be around 18% considering both public and private sector Companies. ROE for Transmission might be kept at this level as there is no fuel related risk. Risks related to environmental / forest clearance and land acquisition are also substantially less compared to the generation sector. However, this figure does not adequately capture the risks associated with Generation segment and particularly for private sector players. The sector is still dominated by Public Sector Enterprises, whose stocks are much less volatile compared to other stocks of this sector and market capitalization of such companies are much higher compared to their peers from private sector. Thus any indices invariably get skewed towards .such Public Sector Enterprises. A reasonable estimate of ROE for private players using CAPM model works out to around 24%.
F) Other Organizations/Institutions/Banks/Investors		
F.1	**National Institute of Public Finance & Policy**	Though the CAPM can be applied on a real time basis, it need not be used in a manner that requires frequent tariff revisions. The method can be used to estimate reasonable return on equity for a regulatory period. After that, the tariff needs to be revised only if there is a significant shift in one of the components. The Commission should make detailed regulations for defining what constitutes a material change in the environment to warrant a revision of the rate of return. It should also publish regulations on the periodic review of the rate of return. Though the return on equity may not change during the tariff period, other variables going into the tariff decision might change, and they may necessitate a change in tariffs.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Existing provision of fixed return may be retained.
G) Individual /Public Group/Any others		
G.1	Shri R. B. Sharma	The fixed rate of return over the entire tariff period as per existing practice may be adopted.
G.3	Mallika Sharma Bezbaruah	The mid term revisions of the Tariff Regulations must be avoided.
G.4	Shri Arun Kumar Dutta	Fixed rate of return may be adopted @ 2%.

c) Whether return should be linked to market conditions considering the risk factor? If the Return on Equity is to be linked to market conditions, considering the risk factor? If the Return on Equity is to be linked to market conditions, criteria to be adopted for arriving at the rate of return need to be addressed.

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electric Regulatory Commission	No comments
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The rate of return may be linked to the weighted average pooled rate of interest with defined risk premium.
B) Government Departments		
B.1	Govt of Odisha	Yes, and by adopting suitable scientific model criteria for arriving at a suitable rate of return. Reduction of ROE in view of the profit of the regulated entities and risk premium in operation of the projects may be examined
B.2	Government of Punjab, Dept. of Power	Return may not be linked to market conditions.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	THDC Ltd.	The existing uniform ROE should be continued throughout the control period in order to have regulatory certainty.
C.2	NHDC Ltd.	(Same as (a) above)
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The return should not be linked to market conditions. Return linked with market conditions is floating in nature, which brings uncertainty and discourages the investors for investing in power sector which is associated with high risk. Further, considering the fluctuating debt market, the market linked return is against growth of the sector. In case, if the Return on Equity is linked to market conditions, the same should be a combination of Fixed and Variable return and the investors should be assured of a reasonable fixed return on investment, sufficient to meet their expectations.
C.4	Neyveli Lignite Corporation	Return need not be linked to market conditions.
C.5	Power Grid	The Commission may consider the scientific methods such as the CAPM for estimation of the Return on equity
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	APTRANSCO/ APDISCOM	The Govt. of India Lending rates vary from time to time based on the market conditions. Return on equity may be adopted based on the weighted average of previous six months GoI Rate

D.2	Rajasthan Discoms Power Procurement Centre	Yes. Base rate=PLR+Risk premium%------(i) (i) Sum of ROE over the life of the equipment at the base rate=Sum of ROE over the life of the equipment at the rate of PLR=Sum of ROE at PLR during the construction period---(ii) (ii) Risk premium=Base rate of return as per equation (ii)-PLR.
D.3	Uttar Pradesh Power Corporation Ltd. (UPPCL)	No.
D.4	Tripura State Electricity Corporation Ltd.	Rate of Return should be fixed as the investment decision is taken considering the ROE applicable at the date of such decision.
D.5	Orissa Power Generation Corporation Ltd.	Rate of return on equity may be linked with SBI base rate over & above 600 basis point as on 1st April of the first year of the tariff period subject to minimum of 18%. Also, RoE may be considered during construction period.
D.6	Chhattisgarh State Power Distribution Co. Ltd.	Linking rate of return with market risks will lead to uncertainty as capital market in India is very volatile.
D.7	MP Power Management Company Ltd.	Fixed rate of return for the control period should be prescribed as per the prevailing Regulations and the rate should not be linked to the market condition. At the time of determining the rate the prevailing bank rate plus small amount of this premium should only be considered.
D.8	Maharashtra State Power Generation Co. Ltd.	Linking the return to market conditions in a shortfall conditions would not be the desirable feature and hence opposed.
D.9	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Rate of return should be fixed as the investment decision is taken considering the RoE applicable at the date of such decision. Further, all other financial costs (interest cost, taxes etc) are a pass through.
D.10	Assam Power Distribution Company Ltd.	Return on Equity should be linked with financial market condition.
D.11	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The formula of working out rate of return as per Capital Asset Pricing Model takes into account the present market conditions namely the prevailing market interest rate for unsecured loans.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Moser Baer Electric Power Ltd	Yes Suggested criteria to be adopted for arriving at the rate of return are as followings: (i) Factors of cost of equity should be as follows (a) Risk free rate (b) Equity market risk premium c) Project risk premium

		(ii) Project risk are majorly based on following factors: (a) Construction period(higher in case of hydro) (b) Location and terrain. (c) Types of sources – hydro thermal transmission. Project risk should also be considered as major factor in addition to market risk while computing normative ROE.
E.2	BSES Yamuna Power Limited	Cost based approach to tariff fixation is to insulate business from market risk. Linking ROE to market conditions is against the concept of cost based tariff. Generators should focus on business of power generation and improve efficiencies rather than living in day to day uncertainties.
E.3	Association of Power Producers (APP)	Rate of return on equity may be linked with SBI base rate over & above 600 basis point as on 1st April of the first year of the tariff period subject to minimum of 18%. Also, RoE may be considered during construction period.
E.4	Bhavnagar Energy Company Ltd.	Mid-term review of ROE could be helpful to take care of market fluctuation.
E.5	Torrent Power	1. Rate of Return on equity may be linked to basis points over SBI base rate as on 1st April of each FY, subject to minimum base rate of 18.5%. Also, ROE during construction period should be considered. 2. Under current scenario, Fuel price and Foreign Exchange rate are highly volatile. In order to make the generator eligible for sale of power under competitive Bidding, fixed ROE will enable the generator to compute the quotation correctly. Currently ROE is not linked to market risk due to the fact that data available for power sector is insufficient and is not aligned to market scenario
F)	**Other Organizations/Institutions/Banks/Investors**	
F.1	National Institute of Public Finance & Policy	The risk factors in the market get captured in the components of CAPM. If there are risks specific to the power sector in India, they should be captured in the estimation of Beta.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Power plant investment is highly capital intensive and it is not appropriate to link the return to market conditions. It is always difficult to determine the impact of various market conditions/parameters on Return and any predetermined formula would lead to contagious and subjective interpretation. Developers would like to know the exact return before making any decision on capital intensive projects and would like to take call on market factors by themselves rather than decided by some predetermined formula which may or may not affect each developer equally.

G) Individual /Public Group/Any others		
G.1	Shri R. B. Sharma	There is need to review the existing level of return on equity and the same should be 14% as was prevailing in the tariff period 2004-09 being reasonable and equitable to both the parties. There is no risk in the cost plus mechanism of tariff setting and thus no need to define risk premium.
G.2	Shri Arun Kumar Dutta	There is no risk factor in power sector which is monopolistic and hence no market link condition is relevant.

(d) ***Can the component of risk premium be defined and quantified based on available financial information which needs to be added in the overall return?***

Sr. No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electric Regulatory Commission	No comments
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The risk premium may vary from 2-3% depending upon the market conditions.
B) Government Departments		
B.1	Government of Punjab, Dept. of Power	Yes, Risk premium may be defined as follows: Base rate = PLR + Risk Premium %...........(i) Sum of ROE over the life of the equipment at the base rate = Sum of ROE over the life of the equipment at the rate of PLR + Sum of ROE at PLR during the construction period. ……….(ii) Risk Premium = Base rate of return as per equation (ii) - PLR
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	For hydro sector, the various uncertainties to the extent they can be quantified can be defined and adequately build in.
C.2	Narmada Hydroelectric Development Corporation Ltd.	(Same as (a) above)

	(NHDC Ltd.)	
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Considering the volatile debt market, risk/uncertainties associated with the implementation of power projects, long construction period etc, defining and quantifying the component of risk premium accurately to ascertain overall return seems to be difficult.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	APTRANSCO / APDISCOM	Return on equity for tariff year based on GoI rate
D.2	Rajasthan Discoms Power Procurement Centre	No.
D.3	Uttar Pradesh Power Corporation Ltd. (UPPCL)	Yes. Base rate = PLR+Risk premium % ----- (i) Sum of ROE over the life of the equipment at the base rate = Sum of ROE over the life of the equipment at the rate of PLR + Sum of ROE at PLR during the construction period----(ii) Risk premium = Base rate of return as per equation (ii) – PLR.
D.4	Tripura State Electricity Corporation Ltd.	Rate of Return should be fixed as the investment decision is taken considering the ROE applicable at the date of such decision.
D.5	Chhattisgarh State Power Distribution Co. Ltd.	Power sector investment is based on long term investment hence variable return on account of risk is not recommended.
D.6	MP Power Management Company Ltd.	The component of risk premium can be defined and quantified based on available financial information which needs to be added in the overall return
D.7	Maharashtra State Power Generation Co. Ltd.	There is need to review the existing level of return on equity and the same should be 14% as was prevailing in the tariff period 2004-09 being reasonable and equitable to both the parties. There is no risk in the cost plus mechanism of tariff setting and thus no need to define risk premium.
D.8	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Rate of return should be fixed as the investment decision is taken considering the RoE applicable at the date of such decision. Further, all other financial costs (interest cost, taxes etc) are a pass through.
D.9	Assam Power Distribution Company Ltd.	Component of risk premium may not be considered in regulation based Tariff.
D.10	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The formula of working out rate of return as per Capital Asset Pricing Model defines the component of risk premium and quantify the same based on available financial information.
E) Private Sector (Generators/Transcos./Distribution Cos)		

E.1	Jindal Power Limited	We request the Commission to include the risk premium in the ROE for the hydro projects especially projects located in the north-eastern region due to topographical and other infrastructure challenges posed by this terrain
E.2	BSES Yamuna Power Limited	There is a need to define and quantify components of risk premium.
E.3	Association of Power Producers (APP)	• ROE should be such that developer earns Real Risk Premium (inflation adjusted) over and above the Risk Free Rate. The Indian equity market is not that well developed to represent the fundamentals of the power sector as such β (for power sector) is not truly reflective of specific risks associated with the sector and/or power sector companies. Therefore, it may not be proper to use CAPM methodology at present. • CAPM is an accepted method for factoring risk and arriving at the approximate RoE which is scientific. However, risk profile of all power sector companies is not the same. Risk varies on the basis of customer of the Generator. In that case Equity Return must be linked to an index that is absolutely determinable.
E.4	Moser Baer Electric Power Ltd	Yes
E.5	Torrent Power	1. ROE should be such that developer earns Real Risk Premium (inflation adjusted) over and above the Risk Free Rate. 2. CAPM is an accepted method for factoring risk and arriving at the approximate ROE which is scientific. However Risk Profile of all Power sector companies is not the same. Risk varies on the basis of customer of the Generator (some DISCOMS are still healthy while others are in distressed financial conditions). In that case, Return on Equity must be linked to an index that needs to be absolutely transparent and practical. 3. CAPM model which may be considered should cover (a) Risk free rate of 7.5% based on 10 year G-SEC (b) Equity Beta 1.1% (c) Risk premium 10% and (d) the rate of return around to be 7.5 + 1.1 x 10 = 18.5%. In addition CAPM is more appropriate as utilities in future will depend on financial market for raisinq capital.
F) Other Organizations/Institutions/Banks/Investors		
F.1	**National Institute of Public Finance & Policy**	Risk premium has two components: the equity risk premium (ERP) for the market as a whole, and the Beta for the specific firm. As discussed above, ERP can be estimated using historical data. Unlevered beta can be obtained from a set of comparable firms, and then it can be relevered using either the normative approach that CERC uses, or using real Debt to

		Equity ratio in the firm.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Do not agree
G) Individual /Public Group/Any others		
G.1	Shri Arun Kumar Dutta	Needs no action.

(e)	***Whether there is a need for differential rate of return for generation projects (hydro and thermal) or transmission projects? What are the factors to be considered for arriving at differential rate of return?***	
Sr. No.	**Name of organization/ stakeholder**	**Comments/ Suggestions**
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electric Regulatory Commission	No comments
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	The differential return shall be based on the year of commissioning. With linkage to cost of debt, another linking with the type of project – Gen./ Transmission may not be feasible.
B) Government Departments		
B.1	Government of Punjab, Dept. of Power	There is no need for differential rate of return for generation projects (hydro and thermal) or transmission projects
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	In order to have an optical mix of thermal and hydro, the sector needs to be given special dispensation by having a higher rate of return considering the risk factor etc.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Same as (a) above)
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	Keeping into consideration the location, construction methodology, time period required for construction, compliance requirements etc, the differential rate of returns should be decided and made applicable for Hydro and Thermal Power Projects. The hydro Power Projects should have more rate of return in comparison to the Thermal Power stations. The hydro Projects located in N.E. Region should be allowed with better rate of return in comparison to rest of the country.
C.4	National Thermal Power Corporation (NTPC)	The thermal power stations encounter certain operational risk which are unique and not faced by other segments of power sector. Some of the risks are: ➢ Coal availability, ➢ Raised normative performance level (target availability) from 62.79 % to 85% within a period of 8-9 years along with the shortage of fuel, ➢ Environmental Management/ Ash Disposal Related Issues ➢ Ash management and Land acquisition for ash dyke during operation stage Hence, there is a case for thermal power generators to be compensated for the higher operational risks by increasing the ROE further by at least 2.0% to 2.5%.

<table>
<tr><td>C.5</td><td>Power Grid</td><td>There should not be differential rate of return for generation projects and transmission projects as given in the table below:
<table>
<tr><th>Parameters</th><th>POWERGRID</th><th></th><th>NTPC</th><th></th></tr>
<tr><td>Mandated ROE</td><td>Basic</td><td>15.5%</td><td>Basic</td><td>15.5%</td></tr>
<tr><td>Scope of Incentives w.r.t ROE</td><td></td><td></td><td></td><td></td></tr>
<tr><td>(a) Constructed related</td><td>CERC Timeline</td><td>0.5%</td><td>CERC Timeline</td><td>0.5%</td></tr>
<tr><td>(b) Operation related</td><td>Availability (Max. 100%)</td><td>1.5%</td><td>Availability (>85%)</td><td>2%</td></tr>
<tr><td></td><td></td><td></td><td>UI</td><td>2%</td></tr>
<tr><td></td><td></td><td></td><td>Fuel</td><td>3 – 4%</td></tr>
<tr><td>Maximum ROE</td><td></td><td>17.5%</td><td></td><td>24%</td></tr>
</table>
Source: HSBC Global Research Report 14th January 2011</td></tr>
<tr><th colspan="3">D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)</th></tr>
<tr><td>D.1</td><td>APTRANSCO/ APDISCOM</td><td>For Hydro and Nuclear projects – Govt. of India Lending Rate plus 6%.
For Thermal projects (Coal) – Govt. of India Lending Rate plus 5%.
For Interstate Transmission lines – Govt. of India Lending Rate plus 4%.
Gas projects – Govt. of India Lending Rate plus 3.5%.</td></tr>
<tr><td>D.2</td><td>Rajasthan Discom Power Procurement Centre</td><td>Not applicable</td></tr>
<tr><td>D.3</td><td>Tripura State Electricity Corporation Ltd.</td><td>Lower ROE for transmission projects may be introduced due to shorter period of construction as well as operating risk.</td></tr>
<tr><td>D.4</td><td>Orissa Power Generation Corporation Ltd.</td><td>ROE should be different for generation projects or transmission projects.</td></tr>
<tr><td>D.5</td><td>Chhattisgarh State Power Distribution Co. Ltd.</td><td>In view of more risks involved in hydro sector, prevailing return of 1% more than that of thermal project should continue in order to attract more investment in hydro sector.</td></tr>
<tr><td>D.6</td><td>MP Power Management Company Ltd.</td><td>There is no need for differential rate of return for generation projects (hydro and thermal) or transmission projects.</td></tr>
<tr><td>D.7</td><td>Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)</td><td>The commission may introduce a lower RoE for transmission projects due to shorter period of construction as well as less operating risks.</td></tr>
<tr><td>D.8</td><td>Kerala State Electricity Board (KSEB)</td><td>There is no need for a differential rate of return for the various projects. The same normative ROE can be made applicable for generation and transmission projects as the market rate and risk premium are not different for the same.</td></tr>
<tr><td>D.9</td><td>Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)</td><td>Differential rate may be considered for the Hydro stations to mitigate the risk involved in these projects.</td></tr>
<tr><td>D.10</td><td>Assam Power Distribution Company Ltd.</td><td>Generating sector should get more return considering the primary nature of investment.</td></tr>
<tr><th colspan="3">E) Private Sector (Generators/Transcos./Distribution Cos)</th></tr>
<tr><td>E.1</td><td>Athena Infraprojects Private Ltd.</td><td>It is well known that the Hydro potential of the country needs to be exploited at an accelerated pace (due to huge benefits), for which entrepreneurs must be given enough incentives to invest into this clean method of perennial</td></tr>
</table>

		generation. Recognizing this fact, CERC has recently taken steps in the right direction and marginally increased the ROE enabling faster growth of the hydro sector. It would be consistent to adopt a differential rate of return for hydro projects, thermal projects and transmission projects. In fact, considering the higher gestation period of hydro projects at 7 years as against 4 years construction period for thermal projects , for achieving thermal equivalent IRR (of approximately 13%), the current ROE needs to be increased to 20% for hydro projects for achieving this parity.
E.2	Lanco Power Ltd.	ROE for Hydro Projects to be at least 2% more than Thermal Projects.
E.3	Athena Demwe Power Limited	A differential rate of return for hydro projects, thermal projects and transmission projects may be introduced. In fact, considering the higher gestation period of hydro projects at 7 years as against 4 years construction period for thermal projects, for achieving thermal equivalent IRR (of approx. 13%), the current ROE needs to be increased to 20% for hydro projects for achieving this parity.
E.4	Jaiprakash Power Ventures Ltd.	Yes, there is a need for differential rate of return for generation projects, specially for hydro as the hydro projects are very complex due to geographical & topographical condition of the sites.
E.5	BSES Yamuna Power Limited	Once the risk components are defined, risk for different projects (transmission/hydro, etc.) will be determined automatically.
E.6	Association of Power Producers (APP)	ROE should be different for different businesses (like hydro, thermal, Gas transmission) as each one of them presents different risk profile. Factors like construction period, risks and the need to incentivize new projects should determine project returns.
E.7	Torrent Power	1. ROE should be different for different business as each one of them have different risk profile. Factors like construction period, risks and the need to incentivize new projects should determine project returns. 2. The transmission asset is either getting pooled under POC regulations or are being associated with the generating station. The Hydro based generating station also aligned to other associated purposes i.e, irrigation, flood control, etc. and the regulations provide provisions specifically for Hydro based Generating Station and the same covers dispatch, generation and recovery of cost of the Hydro based Generating Station. 3. Accordingly, the risk of operating thermal power plant is higher compared to the transmission and hydro power

		stations. Therefore, hiqher ROE may be provided for thermal power plants
E.8	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	ROE of 24% computed using CAPM model for private companies reflects the associated risks of Generation segment. Project developers today encounter significant uncertainties regarding availability of fuel, environmental / forest clearances and land acquisition issues, poor financial health of many distribution utilities etc. Thus ROE mentioned above, computed as per CAPM methodology, along with some additional return may be provided to the generation sector. Some additional return may kindly be provided to Hydro-electric power projects considering significant hydrological risks associated with such projects.
F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance & Policy	In the CAPM model, the only factor that differs across different types of firms is the Beta. Beta for different firms can be different. There can be difference in the unlevered asset Beta across firms in different businesses. Within a business, the relevered equity Beta can be different because of differences in leverage.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Compared to Thermal, investment in hydro and transmission segments is not satisfactory and therefore it is suggested that Commission should consider increasing the return for Hydro and Transmission projects to about 18 % atleast to provide incentive to the growth in Transmission viz-a-viz Generation and Hydro viz-a-viz Thermal. Higher return for Hydro project is justified due to high level of uncertainty in Hydrological and Geological risks, lack of necessary infrastructure at hydro power project sites, long gestation period of 7-8 years.
G) Individual /Public Group/Any others		
G.1	Arun Kumar Dutta	Return on equity on transmission and hydro generation project should be kept same as thermal because all of them work with monopolistic environment. There is no need to allow higher return to hydro power or transmission unit. Where tax benefit is already applicable, further benefit shall be denied. All reporting of tax liability/payment can be suitably made to maintain transparency and avoid excessive ROE.

f) Whether the working out of pre-tax return on equity by grossing up of tax rate should be reviewed? In case of grossing up of tax rate, what should the treatment of 80IA benefit? Should the base rate be grossed up by actual tax paid in respect of a project and not the corporate tax of the company? Should separate reporting of the tax liability calculated by developers of generators/transmission service providers be insisted for each quarter, so as to ensure that the ROE is not excessive than intended?

Sr.No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Chhattisgarh State Electricity Regulatory Commission (CSERC)	Tax rate shall be grossed up in cases where there is genuine expectation of accrual of profit. If a plant has underperformed in the previous year and there are reasons to believe that it may not earn operational profits in the ensuing year too, then such grossing up may not be allowed. Further with exemption of 80 IA, the benefit should be passed on to the beneficiaries and MAT credit transfer should also be accounted for. The grossing up of tax is a mechanism of protecting the investor's interest in the form of tax free gains, however it should not deteriorate into a system of ensuring higher than intended returns to the investors.
B) Government Departments		
B.1	Government of Punjab, Dept. of Power	• Actual Income Tax should not be grossed up with ROE. It should be a pass through item. Otherwise Working Capital will increase because the IT is grossed up with base rate of return on equity. • Further, IT should be grossed up with the base rate of return on equity from DOCO for a period of 10 years. • Further, separate reporting of the tax liability calculated by developers of generators/transmission service providers should be insisted for each quarter, so as to ensure that the ROE is not excessive than intended.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	Existing Regulations may be continued. Further, it is submitted that deferred tax liabilities as and when they materialize, may be reimbursed.(This was existing in 2004-09) Regulation).
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Same as (a) above)
C.3	North Eastern Electric Power Corporation Ltd. (NEEPCO)	The existing pre tax return on equity by grossing up ROE with applicable MAT/Corporate Tax Rates should continue. The aforesaid approach has removed the difficulty to segregate the Income Tax paid into Core and Non-core business activities,

		which is required for claiming reimbursement on the beneficiaries under the "Post tax" approach. Further, the tax is inbuilt in ROE and project-wise income tax paid segregation is not required. For Companies availing 80IA benefit, the effective tax rate should be reduced accordingly for the purpose of "Grossing up" of ROE, so that very purpose of the said Income Tax Provision passed on to the beneficiaries & consumers.
C.4	National Thermal Power Corporation (NTPC)	The existing pre tax return on equity by grossing up ROE with applicable MAT/Corporate Tax Rates should continue.
C.5	Neyveli Lignite Corporation	Existing pre-tax return by grossing up with the normative tax rate may be continued. Since the tax burden passed on to the beneficiaries is restricted only to the extent of equity portion, the tax holiday benefit under section 80IA should be available to the Generator only and not to be passed on to the beneficiaries. Further, the grossing up of ROE with actual tax paid will discourage the developer. Income tax is at present grossed up on the normative equity content and on the normative parameters. The existing system of grossed up tax may continue. Further, separate reporting of the tax liability is not required.
C.6	Power Grid	The following alternative proposals may also be considered if Pre-tax rate of Return is allowed to be continued during the coming tariff block: • Grossing up the base rate of return on equity at the maximum applicable rate of tax or tax expanses (including Deferred Tax), irrespective of the tax rate applicable to the utilities or • If the base rate of return on equity is allowed to be grossed up at the applicable tax rate say, MAT rate, the Deferred Tax liabilities as and when it materializes needs to be reimbursed.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	APTRANSCO/ APDISCOM	Tax should be pass through
D.2	Rajasthan Discom Power Procurement Centre	Yes. IT should not be grossed up with ROE. It should be a pass through item. Otherwise Working Capital will increase because the IT is grossed up with the base rate of return on equity. <u>No income tax should be grossed up with the base rate of return on equity from DOCO for a period of 10 years.</u>

		No. IT should not be grossed up with the base rate of return on equity. Actual tax may be made a pass through in tariff.
D.3	Uttar Pradesh Power Corporation Ltd. (UPPCL)	Yes. IT should not be grossed up with ROE. It should be a pass through item. Otherwise Working Capital will increase because the IT is grossed up with the base rate of return on equity. No income tax should be grossed up with the base rate of return on equity from DOCO for a period of 10 years. No. IT should not be grossed up with the base rate of return on equity. Actual tax may be made a pass through in tariff. Yes.
D.4	Tripura State Electricity Corporation Ltd.	The income tax of any project developer should be met from the surplus generated from their business and should not be passed through to the beneficiaries.
D.5	Gujarat Urja Vikas Nigam Limited	CERC may cap the recovery of income tax by generator/transmission utility to be lower of actual or tax calculated on ROE multiplying applicable rate.
D.6	Orissa Power Generation Corporation Ltd.	The practice of working out pre-tax return on equity by grossing up the tax rate should be continued.
D.7	Chhattisgarh State Power Distribution Co. Ltd.	There is a long term pending demand of beneficiaries that income tax should not be a pass through completely. Therefore, Commission should consider that atleast 50% tax liability should be borne by the generators so as to reduce the liability partially. Further, tax should not be grossed up with the base rate of return on equity. Actual tax (50%) may be made though in tariff. Further, separate reporting of the tax liability calculated by developers of generators/transmission service providers should be insisted for each quarter, so as to ensure that the ROE is not excessive than intended.
D.8	MP Power Management Company Ltd.	Pre-tax return on equity should be reviewed and tax should not be grossed up with ROE. As was the practice prior to the control period 2009-14 the tax should be a pass through item. Otherwise Working Capital will increase because the tax is grossed up with the base rate of return on equity. Further, income tax should not be grossed up with the base rate of return on equity. Actual tax may be made as pass through in tariff. There should separate reporting of the tax liability calculated by developers of generators/transmission service providers be insisted for each quarter, so as to ensure that the ROE is not excessive than intended. Further, the base rate of return on ROE should be reduced in view of the profit being earned by the regulated entities and risk premium in

		operation of project
D.9	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Only actual tax should be a pass through subject to the following limitations. • Procurers should pay tax only on the return on equity and not on super-normal returns due to incentive or efficiency or merchant sales or other businesses. • The generating companies should be asked to determine plant wise applicable tax so that there is no cross subsidy across beneficiaries.
D.10	Kerala State Electricity Board (KSEB)	The present practice of working out the pre-tax equity by grossing up of tax rate may be continued.
D.11	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	APTEL based on the appeal filed by Kerala State Electricity Board, has ordered to return the tax collected vide their order dated 03.07.2013 in Appeal No. 250/2012. The present regulation should clearly state how the tax holiday benefit is passed on to the beneficiaries under 80 IA in the context of allowing Grossed up post tax return. For tax purposes, the actual grossed up tax should be reimbursed instead of allowing grossing up of corporate tax on ROE. Therefore, it is advisable to ask for separate reporting of the tax liability of the Generating/Transmission service providers for each quarter so as to ensure that grossed up tax is not excessive than intended. This may be supported by IT assessment Orders at a later date.
D.12	Assam Power Distribution Company Ltd.	Tax should only be limited to core activity of the companies.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Athena Infraprojects Private Ltd.	As the regulation already allowed grossing up of the return on equity with applicable tax rate, be it MAT or corporate Tax rate, any amendments in this regard is not required.
E.2	Jindal Power Limited	In post tax return mechanism, the investors are also protected against variations in income tax provisions and at the same time, the benefits are passed on to consumers. It is recommended that the earlier mechanism of post tax returns should continue and tax should be allowed in tariff at actual instead of grossing up. For determining the tariffs at the beginning of the year, the tax component may be considered based on estimates, which should be adjusted, based on the actual tax liability at the end of the year.
E.3	Moser Baer Electric Power Ltd	Yes
E.4	BSES Yamuna Power Limited	According to Section 61 of EA 2003, one of the principles for tariff determination is 'recovery of cost in a reasonable manner'. It was observed that in current Tariff Regulations, 2009, inadvertently recovery on account of income tax is in excess of amount of income tax actually paid by the Utilities.

		Again as a matter of principle, no one can make profit from taxation. Over recovery cannot be made under the head income tax. Principle for grossing up suggested by FOR for Discoms takes care of various anomalies.
E.5	Association of Power Producers (APP)	The practice of working out pre-tax return on equity by grossing up the tax rate should be continued. During the period when 80IA benefit is available to a project, the grossing up could be done by using the MAT rate instead of corporate tax rate. In other words, the base rate should be grossed up by actual tax paid in respect of a project and not the corporate tax of the company as a whole. This is more equitable and avoids mismatches. However, the taxes recovered through this way should be trued up with the actual taxes paid either at the end of the year or end of control period. Alternatively, taxes may be reimbursed at actuals on a quarterly basis in addition to the RoE. However the additional tax liability of the Generator due to efficiency gains etc should also be reimbursed by the beneficiaries.
E.6	Torrent Power	1. The existing practice of working out pre-tax return on equity by grossing up the tax rate should be continued. During the period, when 801A benefit is available the grossing up could be done by using the Corporate rate instead of MAT tax since the actual tax amount of the investors is more. 2. The tax payable on other incomes is not passed on to the consumers. 3. If ROE is made post-tax, Generator will not be able to retain the benefit of tax holiday permissible under the Income Tax Act. With this background, Commission may allow continuance of ROE on pre-tax basis for another 5 years so that generator can get benefit of tax holiday.
E.7	Calcutta Electric Supply Corporation Limited (CESC Ltd.)	The present mechanism of computing ROE on a pre-tax basis using normative tax rate may be continued as it may not be possible to compute project wise effective tax due to consolidations at corporate level. Present grossing up provides for a transparent mechanism. Also grossing up is necessary to ensure post tax return to the tune of ROE. Further, in view of 80 IA section and other tax provisions, it would be easier to compute the tax using normative tax rate.
F)	**Other Organizations/Institutions/Banks/Investors**	
F.1	National Institute of Public Finance & Policy	Deduction under 80IA is a benefit given by the government to firms investing in certain sectors. The money saved by this reduction in tax liability should eventually accrues to the investors or owners of the firm. If the post-tax return on equity is grossed up based on actual tax paid, it would nullify the

		benefit given by the government. So, the ensure the benefit is not nullified, and the benefit given by the government is maintained, it would be advisable to use the corporate tax rate to gross up the post-tax return on equity.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	The earlier mechanism of post tax returns should continue and tax should be allowed in tariff at actual instead of grossing up. For determining the tariffs at the beginning of the year, the tax component may be considered based on estimates, which should be adjusted, based on the actual tax liability at the end of the year.
G) Individual /Public Group/Any others		
G.2	Shri Arun Kumar Dutta	The ROE should be kept below 12% and no risk premium should be envisaged.

g) *Is there a case for reduction of ROE level in view of the profit of the regulated entities and risk premium in operation of project?*

Sr. No.	Name of organization/ stakeholder	Comments/ Suggestions
A) Autonomous Bodies (JERCs/SERCs/Other Commissions)		
A.1	Rajasthan Electric Regulatory Commission	No comments
A.2	Chhattisgarh State Electricity Regulatory Commission (CSERC)	ROE should be linked to the weighted average cost of debt and further there should be a proper mechanism (say 50:50) of gains through performance improvement and UI. This will also reduce the tax burden.
B) Government Departments		
B.1	Government of Punjab, Dept. of Power	Keeping in view huge profits made by most of the Central Sector Power Generating Utilities, the base rate of ROE needs to be reduced at Govt. securities level rate.
C) Central Sector (Generators/Transmission Cos./ NLDCs/RLDCs)		
C.1	Tehri Hydro Development Corporation Limited (THDC Ltd.)	The ROE should be such that it allows additional surplus for the growth of the sector. Already, Power sector is facing constraints in investments. Therefore, any reduction will make it further unattractive.
C.2	Narmada Hydroelectric Development Corporation Ltd. (NHDC Ltd.)	(Same as (a) above)
C.3	National Thermal	It is well known that though a lot of capacity has been created

	Power Corporation (NTPC)	in the recent past; there is lot of difficulties on the operational front, particularly for the thermal generators. The sector is currently fraught with several risks such as non-availability of fuel, chances of default of the customers, delay in project clearances, despatch of power etc. Hence there is a greater need to encourage investment in the power sector to ensure its growth, which would be beneficial for the entire economy. Reducing ROE would certainly give a wrong signal to the investors. Therefore, the Return on Equity should be estimated following the CAPM approach, which is estimated to be around 20.11%.
C.4	Neyveli Lignite Corporation	No. The ROE should cover increase in cost due to Inflation and replacement value.
C.5	Power Grid	A reduction of rate of return in the sector will make it unattractive and will severely impact the required investments.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Rajasthan Discom Power Procurement Centre	The base rate of return on ROE may be reduced if some SERCs have allowed it below 15.5% or 14.5% whichever is lower.
D.2	Uttar Pradesh Power Corporation Ltd. (UPPCL)	The base rate of return on ROE may be reduced if some SERCs have allowed it below 15.5% or 14.5% whichever is lower.
D.3	Orissa Power Generation Corporation Ltd.	The ROE should not be reduced keeping in view the time and considerations based on which investment decisions are made.
D.4	Chhattisgarh State Power Distribution Co. Ltd.	If possible the base rate of return on ROE should be reduced in view of the profit being earned by the regulated entities and risk premium in operation of project.
D.5	MP Power Management Company Ltd.	The base rate of return on ROE should be reduced in view of the profit being earned by the regulated entities and risk premium in operation of project
D.6	Kerala State Electricity Board (KSEB)	The present practice of working out the pre-tax equity by grossing up of tax rate may be continued.
D.7	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The Commission has to consider rationalization of these parameters in line with the Regulations in force prior to 2009.
E) Private Sector (Generators/Transcos./Distribution Cos)		
E.1	Athena Infraprojects Private Ltd.	It is suggested that existing RoE approach may be continued. However, if Commission decided to adopt ROCE approach, it is suggested that ROCE should be applicable from the date of award of the project based on capital employed during each period and the ROCE upto COD should be capitalized as IDC. Further the rate of ROCE should be determined by CERC and should binding on all the State Regulatory Commissions.
E.2	Jindal Power Limited	We humbly request the Commission that the profit reported by public sector undertakings should not be considered as basis for determining rate of return (ROE) for new power projects,

		particularly hydro power projects by private sector entities.
E.3	BSES Yamuna Power Limited	The matter needs to be assessed on principle basis and not on absolute basis. Further, model for Base Return with Risk premium for various components needs to be developed. Any increase or decrease would be factored automatically.
E.4	Association of Power Producers (APP)	• Project investment decisions are taken at a specific time keeping in view investment, construction and operational risks and returns visible/perceived at that time. As projects move from construction to operation the risks may reduce. Such risk reduction is factored by the developer making the investment decision. • Currently, the country is facing the scenario of shortage of fuel. The shortage of fuel makes it difficult to run the plant at base load on a consistent basis. Since the investment decision was based on the parameters approved, the question of lowering of RoE does not arise.
E.5	Jaiprakash Power Ventures Ltd.	Reduction of ROE is not feasible keeping in view the present distressed market scenario, interest rates and risk faced by the developers.
E.6	Torrent Power	Currently, the Power Sector is facing multiple structural issues, regulatory issues and the problem of non-availability of fuel at affordable price. Project developers are unable to earn their assured returns. These problems have significantly increased the risk profile of Power Sector Investments and in such a scenario; investments need to be stimulated by way of increasing the ROE.
F)	**Other Organizations/Institutions/Banks/Investors**	
F.1	National Institute of Public Finance & Policy (NIPFP)	The ROE calculated by the Commission should go into determining the weighted average cost of capital, which in turn would go into determination of tariff to be charged. If the production or sales are higher than projected, the excess profits should be either carried forward to the next period, and contribute to lower tariffs in the next period, or the tariffs in the current period should be revised downwards to reflect the increase in product or sales. This is assuming there is no variable incentive for performance. Since the Commission uses a hybrid approach, it could consider permitting higher returns if the performance exceeds projection.
F.2	Federation of Indian Chambers of Commerce and Industry (FICCI)	Due to various uncertainties associated with power project development and operation related to fuel, transmission, statutory approvals, it is suggested to enhance the return on equity for power sector rather than reducing the same.