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31st July, 2018

Shri Sanoj Kumar Jha Secretary, Central Electricity Regulatory Commission, Chanderlok Building, Janpath, New Delhi- 110001

Sub: Terms and Conditions of Tariff for the tariff period commencing from 1st April, 2019 – Consultation Paper thereof.

Dear Sir,

- This is with reference to CERC public notice No. L-1/236/2018/CERC dated 24th May, 2018 inviting comments/suggestions on the draft consultation paper regarding Terms and Conditions of Tariff for the tariff period commencing from 1st April, 2019.
- 2. Please find attached our detailed comments/suggestion on the above-subject draft consultation paper for your kind consideration.

Thanking you,

Yours faithfully,

Urnesh Agrawal

Senior Vice President and Head Strategy

Reliance Power Limited

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Comments/suggestions on Consultation Paper on Terms and Conditions of Tariff Regulations

Sr	Reference	Proposed in Consultation Paper		Comments/suggestion
1.	7.1. Thermal	Three part tariff structure- The recovery of fixed	1.	Proposed three part tariff structure is contradicting the tariff
	Generating Stations-	component could be linked to target availability,		policy including proposed recent amendments in tariff policy
	Tariff Structure	whereas variable component could be linked to the		as it proposes to continue two part tariff structure for all long
		difference between availability and dispatch. Fuel		term and medium term tariff as reproduced below for ready
		charges could be linked with dispatch.		reference :
				"6.2 Tariff structuring and associated issues
				(1) A two-part tariff structure should be adopted for all
				long-term and medium-term contracts to facilitate Merit
				Order dispatch. According to National Electricity Policy,
				the Availability Based Tariff (ABT) is also to be introduced
				at State level. This framework would be extended to
				generating stations (including grid connected captive
				plants of capacities as determined by the SERC). The
				Appropriate Commission shall introduce differential rates
				of fixed charges for peak and off peak hours for better
				management of load within a period of two years."
			2.	While the tariff policy suggests regulatory certainty, frequent
				directional changes to regulations may not be a healthy
				approach as it would negatively impact investors' confidence
				in the sector
			_	
			3.	Three part tariff has an inherent issue of under recovery of

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2.	8. Deviation from Norms	Develop incentive and disincentive mechanism for different levels of despatch and specifying the target despatch expanding the scope of Regulation 48 above	guaranteed returns on the investments. • Splitting the return on equity into guaranteed return to the extent of risk free return and incremental return above guaranteed return will lead to under recovery of expected return • O&M expenses are of fixed in nature and it does not vary much with the energy schedule 4. We request the Commission to continue the proven two part tariff approach. In addition, considering the overall coal shortage scenario, reduction in fixed charge due to coal unavailability should be waived off till the coal supply situation in the country improves. 1. In the current environment where coal shortage scenario is significantly impacting the ability of the generators to perform, it may not be prudent to develop a mechanism wherein generator is allowed to provide incentive over and above target despatch. Rather the incentive should be linked to plant availability as it is within the control of the generator. Once coal supply situation improves, these issues may be debated.
3.	37.3. Alternative approach to Tariff design for new	Capital cost of a project should be benchmarked based as the first move towards a normative regulation; and thereafter, Annual Fixed Charge	Categorisation of fixed cost under two broad categories "Scalable/Increasing" and "Non-Scalable/Decreasing" is difficult in the current situation on account of the following:
	projects	(AFC) should be derived as a pre-specified percentage of capital cost.	Significant variation in applicable benchmark interest rate from time to time

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		2. Components of Fixed Cost could be categorized	b. Lack of common benchmark and hence interest rate
		under two broad categories viz., "Scalable /	varies from project to project irrespective of the fact that
		Increasing" and "Non-Scalable / Decreasing" - the	the projects have similar risk profile. Further financial
		former to be escalated at an escalation rate and the	institutions like REC and PFC have significantly different
		latter to be decelerated at a rate to be determined	mechanism than the banks for charging interest rates.
		by the Commission.	c. Elements of O&M cost also varies significantly from one
		3. "Additional Capitalization" could be treated as a	state to another depending on the local costs / charges.
		separate stream of revenue on annuity basis.	2. Benchmarking of capital cost requires a detailed methodology
			for determining the framework and timely review of the same.
			In this context, it may be worthwhile to mention that the
			exercise undertaken by the Hon'ble Commission in 2010
			never reached finality and report is still available as a draft
			report only till date. Benchmarks can be used a reference but
			would be difficult to use the same for tariff determination.
			3. We have already significant issues with competitive bidding
			projects where such classification of tariff structure was
			allowed. Further it becomes difficult to evaluate impact of
			change in law and force majure in ensuring regulated rate of
			return in such tariff structure.
			4. In view of above, categorisation of fixed components as
			escalable and non-escalable should not be pursued.
4.	10.3. Optimum	1. Flexibility to Distribution Company and Generating	1. The proposed concept is in the broader interest of the sector;
	utilization of	Companies to decide the Annual Contracted	however, the implementation needs to ensure that the
	Capacity	Capacity (ACC) out of the total Contracted Capacity	existing long-term contractual arrangements are not
		(CC). The difference between CC and ACC may be	disturbed. Please note that the long-term contracts / counter-

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		treated as Unutilised Capacity (UC) for the year. 2. A market for UC may be discovered by aggregating all the UCs and demands and carrying out an auction process. 3. Original distribution company to pay a part of the fixed charges to ensure sustainability – say to the extent of 10-20% or debt service, etc. to ensure than the capacity comes back to him next year	party profile are the key elements for securing finance for the investments. 2. Hence there should be no change in the commercial processes for the generators and the initial counterparty to the PPA is responsible for all contractual obligations including off-take of power and timely payment of dues. 3. There would be a need to put in place an elaborate procedure and timelines for conducting the process by a central agency with adequate administrative authority to ensure commercial discipline. The commission may separately evolve the same through public consultation.
5.	11.8-11.9. Capital cost for new projects, additional capex, etc.	 Move away from investment approval as reference cost to benchmark/reference cost for prudence check In case of any cost overrun the return on equity will be fixed at the benchmark level and rest of the equity, if any will be compensated at weighted average debt cost Incentive for early commissioning as well as disincentive for slippage from scheduled commissioning to be introduced 	1. As we have already brought out above, benchmarking can be used a regulatory tool for prudence check, it would not be prudent to use the same for tariff determination process. We would request the commission to review this in line with the experience it had while evolving the same in 2010. Further, the 2010 exercise relied heavily on information from public sector regulated entities, now with significant capacity addition outside the regulated route; it may be difficult to build a reference database for benchmarking process with appropriate level of accuracy for tariff determination process.
6.	14.6. Depreciation	 Increase the life of well maintained plants for the purpose of determination of depreciation for tariffs Extend useful life of the transmission and hydro assets to 50 years and thermal assets to 35 years Reassess life at the start of every control period / 	 In existing tariff regulation, depreciation is linked with the repayment of the loan. The rate of depreciation of 5.28%, for majority of assets, was worked out considering 70% loan, 90% salvage value and 12 years of loan tenure.

Sr	Reference	Proposed in Consultation Paper		Comments/suggestion
		every additional expenditure through a provision in the same way as is prescribed under Ind AS and corresponding treatment to depreciation. 4. Continue the present approach of weighted average useful life for multi-unit plant 5. Reduced rates which will act as a ceiling. 6. Continue with the existing policy.	3.4.5.	It may be noted that Advance Against Depreciation (AAD) has been discontinued with the revised depreciation rates. It is difficult to secure long-term finance beyond 12 years considered for deriving the depreciation rates and hence increasing the life and hence recovery of depreciation without addressing the issue of availability of debt finance with higher tenor will destabilise the sector. The benefits of increase in life of projects needs to be provided to the utilities/consumers by extending the tenor of PPA on expiry automatically and thereby providing cheaper power after the expiry of initial period.
7.	15 Gross Fixed Assets (GFA) Approach	Base the returns on the modified gross fixed assets arrived at by reducing the balance depreciation after repayment of loan in respect of original project cost		The implementation of Return on Capital Employed (ROCE) approach requires stable and mature financial markets for success. The conditions are not yet ripe for such a transition.
8.	16.4. Debt/Equity ratio for new plants	Modify debt equity ratio of 80:20 for new projects	1.	With the recent developments with respect to the stress in the sector, it will be difficult to achieve financial closure for new projects with 80:20 debt equity ratio, hence the existing norm of Debt: Equity ratio of 70:30 may be continued for new investments
9.	17. Return on Investments	1. Comments and suggestions are invited from the stakeholders on the continuation of fixed rate of return approach or alternatives, if any.		In line with the comments provided in Item 7, it is suggested that existing RoE approach shall be continued
10.	18.7. ROE	 Review the current RoE considering the present market expectations and risk perception of new projects Different rates for existing projects and new projects Continue with pre-tax return on equity or switch to 	 1. 2. 3. 	by the principles enumerated under Tariff Policy with reference to Rate of Return.

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		post tax return on equity 4. Reduction in return on equity in case of delay of the project	"The Central Commission would notify, from time to time, the rate of return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the SERCs also."
			 The risks in the sector have gone up significantly from 2014 on account of demand uncertainty, coal shortage and regulatory / policy uncertainty in a supply surplus situation. In view of the increase in risks for investment in the sector, the return on equity should be commensurately increased to attract fresh investments into the sector. We would request the commission to provide appropriate levels of RoE to ensure that the sector attracts requisite
11.	19.4-19.5. Cost of debt	Continue with existing approach of weighted average cost of debt Link it with more reflective MCLR, G-sec or RBI repo rate with frequency for re-setting Incentivise lowering of cost of debt through restructuring and refinancing	amount of fresh investments required. 1. In absence of a mature, uniform and effective debt benchmark, we would request to continue with the existing approach of weighted average cost of debt.
12.	20.3. Interest on WC	 A fresh benchmark for stock of fuel may be developed or actual to be considered for computing Working Capital As maintenance spares are considered part of maintenance expenses as well, a view needs to be taken about the % of maintenance spares that needs to be considered for computing working capital In view of higher penetration of renewable, low demand and consequent low PLF for power plants, target availability for the purpose of computing working capital needs to be reviewed. 	However, norm on receivables needs to be revised from 2

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			payment of receivables. On an average basis, payments from Discoms are being made after two to three months period from the date of invoice. 3. With this backdrop, it is sincerely requested to the Hon'ble
			Commission to kindly consider the receivables for the purpose of working capital to three months considering the actual time period required by distribution utilities to make payment to the Generating Stations and also the fact that distribution utilities are completely averse to pay any late payment surcharge.
			Interest rate on Working Capital
			4. While the proposed transition to MCLR is in line with the market changes, adequate spread needs to be provided to ensure that it reflects the actual costs incurred by the utilities.
13.	21.7. O&M expenses	 Review the escalation factor for determining O&M expenses as WPI& CPI indexation do not capture unexpected expenditures Address the impact of installation of pollution control system and mandatory use of treated sewage water by thermal plant on O&M cost. Separate norms for O&M expenses on the basis of vintage Treatment of income from other business (fly ash sales, etc.) while arriving at the O&M costs 	 Adequate provisions to be made for allowance of unexpected O&M expenses as brought out by the discussion paper. It may be noted that the plants are required to spend considerable amount on O&M related to FGD and RO water treatment plant. The costs incurred on these counts may please be allowed in O&M expenses separately. Additional O&M expenses shall be allowed for Ash disposal expenses to comply with the MoEF notification The income from other business, wherever applicable, needs to be provided as a separate item and should not be merged with O&M costs.
14.	22.8. Fuel – GCV	Specify normative GCV loss between "As Billed" and "As Received" at the generating station end and identify losses to be booked to Coal Supplier	GCV loss between "As Billed" and "As Received" 1. It will be a noble idea if "As Billed" and "As Received" GCV could eventually become the same. However, in current

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		and Railways 2. Specify normative GCV loss between "As Received" and "As Fired" in the generating stations 3. Standardize GCV computation method on "As Received" and "Air-Dry" basis for procurement of coal both from domestic as well as international suppliers	scenario it doesn't appear to be working due to following reasons: a. CIL is a monopoly supplier which controls "As Billed" GCV based on grading of its coal mines, keeping in mind its financial interest. b. A mechanism is already in place to align the "As Billed" and "As Loaded" GCV in the form of 3rd party sampling by CIMFR and final payment settlement to CIL by way of credit/ debit notes. Despite sincere attempts, CIL has refused to accept the mechanism aligning "As Billed" at mines and "As Received" at plant end.
			 Notwithstanding, it will be a welcome move if the difference of GCV loss between "As Billed" and "As Received" at the generating station can be shared between coal supplier and railways as it is they, who are responsible for delivering the quality of coal which is billed to the consumer. GCV loss between "As Received" and "As Fired" It is understood that CEA vide letter dated 20.03.2018 has recommended to Hon'ble Commission to consider a margin between "As Received" and "As Fired" of 85-100 kCal/kg for pit head generating stations and 105-120 kCal/kg for non-pit head generating stations. Hon'ble Commission may consider the CEA

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			recommendations and allow a GCV tolerance between "As
			Received" and "As Fired".
			Further, standardize GCV computation method on "As Received"
			and "Air-Dry" basis.
			 It is desirable to have a standardised computation methodology on "As Received" basis for procurement of coal both from domestic as well as international suppliers. It is important to be seen that it is "As Received" GCV which delivers ultimate quantifiable heat value to determine the electricity tariff. Therefore, it should be mandated that all coal procurements, whether domestic or imported, be undertaken only on the basis of "As Received" basis.
15.		Given fuel shortage, normative blending ratio may	Hon'ble Commission may appreciate the fact that the
	23.6. Blending of coal	.b. blending of he specified for existing and new plants senarately	blending ratio depends on the boiler design and
	Jour		characteristics of the domestic and imported coal.
			2. Inter play of all these factors determines the extent of
			blending possible. It is also important to know the
			characteristics of imported coal as well as domestic coal in
			advance to examine the compatibility based on key
			characteristics for boiler design. Hence, the blending ratio will
			vary from one plant to another. 3. Considering the shortage in domestic coal blending of
			Considering the shortage in domestic coal blending of imported coal with domestic coal needs to be allowed to the
			extent of shortage in coal supply by companies under linkage.
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16.	24.5. Fuel – Landed Cost	All cost components of the landed fuel cost may be allowed as part of tariff, else, specify the list of standard cost semponents.	company, we would request the commission to appreciate
		standard cost components	the current coal supply situation and coal linkage

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		2. The source of coal, distance (rail and road transportation) and quality of coal may be fixed for a minimum period, so that the distribution company will have reasonable predictability over variation of the energy charges	2. Generators are forced to take decisions in an unplanned manner owing to the shortage of supply from Coal India.
17.	25.2. Fuel- Alternate Source	Stipulate procedure for sourcing fuel from alternate sources including ceiling rate Rationalise formulation in view of the change in energy rates and coal costs	 Procedure for sourcing coal from alternate source is already in place, the problem is in implementation by Distribution utilities/ ERCs. Distribution utilities are not allowing procurement of coal from alternate sources despite the well laid down procedure of procurement is already in place. In some instances, it is allowed subject to some arbitrary price cap. Utilities/ ERCs further added to the woes of generator by disallowing coal cost from alternative sources for the past period for which coal has been purchased and energy supplied. On the other hand, if the coal is not purchased from alternate sources, then utilities / ERCs penalise in terms of lower recovery of fixed charges. In view of above, it is suggested that the commission provides adequate clarity on the issues and builds enforcement mechanisms to ensure that genuine alternate fuel purchases are not disallowed.
18.	26.Operating Norms	 Need to review the operating norms in view of the low PLF operation of machines in the existing environment including that for building appropriate margin Shifting of fixed cost recovery from annual cumulative availability to a lower periodicity, such as, monthly, quarterly or half-yearly Heat Rate 	Heat Rate

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		3. In the present scenario, most of the coal/lignite/gas based thermal power plants are running at low utilisation (PLF) levels due to various reasons including shortage of coal/gas, lower demand etc. Machines working at lower PLF have adverse impact on the operational norms and hence, existing heat rate norms for the new and existing generating stations are required to be reviewed along with the need for margin.	Units are often being forced to operate at part load. Similarly Units are also being forced to operate at part load due to poor/non-off take of power by distribution utilities which results
		Specific Secondary Fuel Oil Consumption 4. With contribution from renewable generation increasing in the grid, thermal power plants are facing frequent regulations of supply and operations at lower PLF up to technical minimum. The consumption of secondary fuel oil would change on account of nature of operations. Auxiliary Energy Consumption 5. Methodology of declaring availability after reduction of normative auxiliary consumption and colony consumption need elaboration.	 in higher SHR. 4. Hence, Hon'ble Commission needs to evolve a mechanism to true up the SHR based on actual operating situations as brought out above. Auxiliary Energy Consumption 5. The norms for auxiliary power consumption in the existing Regulations 14-19 were decided based on the CEA recommendations and the past performance of the generating stations. But the colony and construction power were not considered to arrive at the existing norms during such exercise.
		Normative Annual Plant Availability 6. The existing norms of annual plant availability may need review by considering fuel availability, procurement of coal from alternative sources other than designated fuel supply agreement, shifting of fixed cost recovery from annual cumulative availability basis to a lower periodicity, such as monthly or quarterly or half yearly;	6. Electricity Act 2003 has also considered the Colony of any Generating Station to be an integral part of the Station itself.

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		Transit & handling losses 7. The Commission had specified norm of 0.2% for the pit head station and 0.8% for the non-pit head stations as loss in transit & handling. The same may have to reviewed based on the actual data of the past period.	Auxiliary Consumption levels. The Commission may therefore consider for an upward revision of the norms after considering colony of various Generating Stations. Normative Annual Plant Availability 9. Considering the shortage in domestic coal, reduction in fixed charges due to lower availability on account of coal shortage needs to be removed.
			Transit & handling losses 10. The transit and handling losses for non pit head stations should be revised and should be linked to the distance between the fuel source and generating station. The losses would vary depending upon the distance of coal travel and therefore cannot be uniform for all non pit head stations.
			11. The transit loss in case of imported coal used in power stations which are located in hinterland locations has to be higher as the coal travels a very long distance via rail from the port, in most cases over a distance more than 750 Kms. As suggested above, there could be different norms based on the distance of travel of the imported coal up to the power station.

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19.	27. Incentive	 Review linking incentive to fixed charges over the useful life and on vintage of asset – Need for different incentive for new and old stations Different incentives for peak and off-peak period for thermal power plants Review the incentive and disincentive mechanism in view of the introduction of compensation for operating plants below norms 	 Currently incentive is linked with PLF. It may be noted that PLF is related to schedule generation which is under control of beneficiary which generator has no control on it. In the current situation of coal shortage, incentive should be linked to plant availability to incentivise the effort made by generator to maintain higher availability.
20.	28. Implementation of Operational Norms	Whether operational norms of the new tariff period should be implemented from the effective date of control period irrespective of issuance of tariff order for new tariff period	New norms should be implemented only after receiving the order from the respective regulatory commission in order to avoid any confusion in implementation of tariff regulations.
21.	29. Sharing of gains	Review existing 60:40 sharing ratio in light of the Compensation mechanism introduced for Operation under CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2016. Procedure for sharing of gains and losses – monthly reconciliation or annual reconciliation	 Regulatory framework for tariff determination ought to provide sufficient certainty to investors in the sector and should not change key principles from one period to another. The investors – licensees or generators – invest in the sector with long term goals and thus require the regulatory framework affecting their returns to remain sufficiently certain over a long period of time. Frequent fluctuations in key principles negatively affecting returns of the business invariably hurt investor sentiment as has also been brought out in the ATE judgment dated 28 November, 2013 in Appeal No. 104 of 2012. Sharing of gains should be held on an annual basis to keep

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			the process simple
22.	30. Late payment Surcharge & Rebate	 Review linking late payment surcharge to MCLR instead of existing 1.5% per month of delay Rebate is applicable if payment is made in two days from presentation of bill. Valid mode of presentation of bill, authorized signatory, definition of two days (working days or including holidays) may need elaboration 	 The provision with respect to the late payment surcharge is to discourage distribution utilities from making delays in payment and not provide an alternate source of funding and hence the rate cannot be linked to MCLR. Instead the penal rate of 1.5% per month needs to be continued. It may be noted that substantial delay in receiving payment from distribution utilities creates cash flow problems for the generators leading to defaults in loan repayments.
23.	31. Standardisation of billing Process	 Standardisation of billing process including formats, verification may be done to avoid possible disputes Wherever electricity duty is applicable on auxiliary consumption, it needs to be specified whether the same is applicable based on normative or actual auxiliary consumption 	Standardisation of billing process will help all the stakeholders and reduce the scope for disputes
24.	33.3. Tariff mechanism for Pollution Control System	 Principle of bringing the generator to same economic condition if considered as change in Law Technical specification based on the difference in actual emission and revised emission, proposed technology, construction period, phasing plan for shutdown during the period Change in auxiliary consumption and O&M expenses due to implementation of pollution control equipments 	 We would request the commission to consider the costs involved (both capital costs as well as operating costs) and set benchmark for recovery for all projects without linking the same to existing tariff. There should be clearly demarcated principles for costs and recovery for the investments in Pollution Control System. The recovery on account of this may be segregated from the main tariff determination process for the first control period and separate capacity charge and O&M recovery may be fixed for all the projects.

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25.	34. Renewable 1. The generation by prov	The revised Tariff Policy dated 28th January 2016 provides for setting up of renewable energy capacity by existing coal based thermal power	the boundary or separately should be left to the generator as
	Generation Station	station. If the renewable facility is established in concurrence with the existing buyers, then the power from plant shall be allowed to be bundled and tariff for such generation shall be allowed as pass through by Appropriate Commission. 2. One option is to establish the renewable facility within the existing facility and bundle power before the delivery point and the second option is to establish the facilities separately and pool power beyond the delivery point. In both cases the annual changes shall be determined using separate set of principles 3. Scheduling and dispatch shall be as per thermal power generation – target availability and dispatch may be pre-specified 4. The rate of return, land cost, O&M cost for such renewable capacity needs to specified separately	per the options available.
26.	35. Commercial Operation or Service Start Date	Addressing the shortcomings in existing methodology for trial run of generating station and trial operation for transmission element through appropriate regulatory mechanism	There have been significant disputes on this issue in the recent past and genuine CoDs have been unreasonably denied on account of difference in understanding of the issues involved. We
		2. 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	would request the Commission to discuss the issue at length through a separate paper and provide clear and unambiguous

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		or evacuation system 3. Pre-requisite of completion of data telemetry and communication facilities for operationalization of RGMO for declaring COD of generating station 4. Linking of commercial operation date with scheduled commercial operation or schedule commencement date of the Power Purchase Agreement or Long Term Access Agreement respectively 5. Linking of commercial operation date of the transmission system with the commissioning of the generating units or stations 6. Separation of commercial operation date of the unit or stations from the service start date under the contract	
27.	36. Energy Storage System	 Energy storage system can be a part of generation or transmission depending on the application The annual fixed charges for the storage facility can be determined based on ramping rate, auxiliary consumption, Return on Equity, Interest on loan, Depreciation, Operation and Maintenance costs and Interest on Working Capital 	Energy storage is an emerging area and hence we would request the commission to encourage the investments in energy storage by providing higher returns considering the envisaged risks.