Issues and Suggestions on CERC Tariff Regulations 2019-2014		
Clause No.	CERC Draft Paper	Suggestions
30	**Return on Equity:** ROE shall be computed at a base rate of 15.5% for thermal generating station, transmission system and run of the river hydro station and at the base rate of 16.5% for storage type hydro generating stations including pumped storage and run of the River generating station with Pondage.	It is known fact that Hydro Projects takes 10-12 years for completion in best scenarios without surprises (3 years investigation and DPR, 1.5 years in CEA, 1.5-2.5 years in Environment & Forest, 4-6 years of construction). **This time is twice/thrice to construction of Thermal Projects and 5-10 times for construction of solar projects**. As such the net Incremental Rate of Return (IRR) is much less in Hydro Generating station. Despite the **Long Gestation Period, hurdles like delay in clearances, risks (Construction, Social, Political) in developing Hydro power projects in remote areas, the developer does not accrue benefit as compared to investment in other sectors.** Along with above, **a very low rate of return makes Hydro Power least attractive to invest.** The benefit of ROE in comparison is only 1% (15.5% to 16.5%), which does not reflect and equate net Incremental Rate of Return for all generation and transmission based projects. Due to this, the Hydro Power Projects does not attract investment and the vast potential remains un-utilized. Hon'ble CERC must take this into cognizance and should not stick to this old clause of dis-incentivizing Hydro Projects. **To make similar IRR among generation projects, the ROE for Run of the River with Pondage, Pumped Storage and Storage Hydro Projects should be increased at least 3-4% from existing 16.5%. This shall not only balance the disparity made earlier but also tend to increase investments and make Hydropower viable which is required to stabilize the grid**. This is also in line with the ***Tariff Policy which entails suitable regulatory formwork to incentivize Hydro projects.***
30	**Return on Equity:** No Incentive for Early commissioning in 2019-2024 regulations. This was present in earlier regulations.	Although, given the present scenarios of electricity availability, one may not consider it in present regulations; however, **given the constraints and need for flexible power, it shall be very much prudent for Hydro Projects. No one wants slippage in generation from flexible power (which was more than 50% in last Five Year Plan) when so much of Solar and Wind Power are augmented in Grid. As Such Hon'ble CERC may review and keep and early commissioning incentive for Hydro Projects.**
8(7)	**Tariff Determination:** CERC tariff regulations Clause 8 (7) mentions that for power projects with irrigation, Flood Control etc., only	While Hon'ble CERC must have considered who shall bear the cost of other component while framing these regulations in consultation with the Ministry of Power. However, in the present circumstances, the projects with

	the power component shall be considered for the Tariff determination.	Twin objectives of Flood Moderation and Power generations are stressed owning to this clause. **The issue of Flood Moderation is mandated by Govt. of India while the projects were scrutinized for DPR concurrences in CEA/CWC.** Both CEA & CWC agreed that cost of Flood Moderation should be compensated. **However, what should be the mechanism to compensate is yet to be defined.** This resulted into a catastrophic situation, in particular to private developers who have invested a lot of money for allocation of these projects. **During allocation, it was not specified that these projects shall also cater for Flood Moderation**. ***Had it has been specified upfront , No private Project Proponent should have invested their hard earned money in these projects***. ***We believe Hon'ble Commission shall not sideline this issue by putting it to MOP, and they would review this case and may clearly mention in the Tariff regulation that for the project with only flood moderation and Power Generation the cost of Flood moderation needs to be borne/compensated by the concerned ministry who has mandated it.***
18(5)(c)	**Capital Cost : The following shall be excluded from the capital cost of existing and New projects**: *In case of hydro generating station any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the state Government following a transparent process;*	Hon'ble commission may refer to **Hydro Policy 2008** wherein it was **specifically mentioned under 10.1 (f), "*In order to enable the project developer to recover the costs incurred by them in obtaining the project site, he would be allowed a special incentive by way of a Merchant Sale of up to a maximum of 40% of saleable energy".*** However in present scenario; **the average market clearing price for 2017 is ranging between 2.5-3.0 Rs. / kWh** which are way less than the present day Tariff of Hydro projects ***as such the provision of recovery of upfront cost for obtaining the project sites is eventually failed in present circumstances.*** **Unfortunately present Tariff Policy/CERC regulations still does not allow this allotment expenditure cost to be pass through in tariff computation despite knowing the present status of Merchant Sale Market and the reason on paying upfront premium.** ***Moreover DISCOMS are more inclined to short term PPA and are reluctant to have Long term PPA for Hydro Projects.*** **60% Long term PPA is mandatory for Hydro Projects. Unless these Long Term PPAs are in Place In present circumstances, it becomes difficult for revival**

		of Hdyro Projects ***It is also known that some states charged between 15-30 lakhs per MW to allocate hydro sites and also charged free power @ 18% -30% (around 15^h year onwards). The developers finally have to return the projects back to State Govt. as they become unviable due to delays in clearances/Local Issues/Basin Studies etc.*** ***We firmly believe that Hon'ble commission shall not consider it as State issue to be considered by respective state. Instead, since Hon'ble commission shall be passing order for tariff determination, therefore the Hon'ble commission may please review and include the cost of allocation of project site for the tariff determination for Hydro Projects.***
18(5)(e)	Capital cost: **Capital Cost : The following shall be excluded from the capital cost of existing and New projects**: e) Any Grant received from Central or state govt. or any statutory Body or authority for the execution of the project which does not carry any liability of repayment.	To attract investors & promote Hydro Power Development, Hydro Policy 2008 introduced Mega Power Benefits. Mega Power Benefits entails import of capital equipment free of Custom Duty and deemed exports benefits as per EXIM Policy would be extended to developers. In addition State Governments were requested to exempt supplies made to Mega Power Plants from Sales tax and Local Levies. State Governments Like Arunachal Pradesh has accordingly stated this clause in their State Hydro Power Policy. We all are aware the benefits in terms of Tariff, this Mega Power Benefit shall give particularly to the Hydro Projects which uses extensive construction materials/equipments. However, **Mega Power Benefits were terminated since 2012, by which most of the Hydro Projects were allocated to Developers.** **Over and above Tax free Holiday of 10 years as mentioned in Hydro Policy 2008 was also abolished from April 2017.** **To ADD on the GST** is introduced from July 2017 wherein firstly the **GST is to be paid for procurement of Equipments & Materials (ranging from 5%-28%) and then again for composite contract @ 18% as the abetment@60% which was available earlier is now removed.** **Hydro Policy 2008 has clearly mentioned that these measures and the economies of scale in Mega Projects would substantially bring down tariffs.** **However, on actual side, the Tariffs of Hydro Projects**

		have increased substantially due to termination of Mega Power Benefits, Tax Holidays and due to GST effect. Considering the magnitude of Construction equipments/construction Materials, Logistical Issues for being in remote areas, the effect of termination of Mega Benefits/Tax Holidays & Induction of GST (28% in Cement) is much more in Hydro Projects than in other projects. Hon'ble Commission cannot ignore the fact that this resulted into stressing Hydro Projects and eventually many projects are stuck. No new project is coming up for construction despite 27000 MW projects concurred by CEA. As such Hon'ble Commission may please review the above aspect specifically for Hydro Projects. **Considering that Hydro Projects are Renewable projects we would request Hon'ble Commission in consultation with MoP should bring same GST in Hydro projects as for Solar and Wind.**
65	Note 3: FEHS: Free energy for home state, in percent and shall be taken as 13% or actual whichever is less.	Hon'ble commission may consider the following; Under Clause 5.7 (iii) **Tariff policy specifically says to stagger the Free Power component** as decided by the State Government, however, barring one, no state Govt. has introduced this. **The loading of free power upfront adds significantly to the tariff.** As mentioned above Developers pays upfront money (and/or free power above 13%) along with upfront free power @ 13% from the generation. **However, these additions impact the tariff in present days leading to declining hydro power**. Hon'ble Power Minister has also called for staggering the free power in hydro projects and has mentioned that this shall be considered in the upcoming Hydro Policy. **We request Hon'ble commission, in consultation with MoP, to make it mandatory for states to defer the Free Power component for initial 12 years which shall be subsequently compensated in balance life as specified by CERC regulations. This shall add on to make the tariff viable and create interest of developers leading to prosperity of remote locations where the project is being planned.** The Tariff regulations and tariff policy can bring in the revival of Hydro Power Development which at present is the need to cater for flexible power and grid stability.
54	Energy charge in excess of above shall be billed at ninety paisa per	One of the ways to incentivize Hydro Projects is to allow the sale of energy over and above design energy at par

	kWh only.	with the design energy rates. This shall help revival of hydro projects to some extent
17	Debt : Equity as 70: 30	**Considering the large Capital Investment and other issues mentioned above, we request Hon'ble commission to review the present debt: equity ratio of 70:30 and propose that Hydro projects should have debt equity ratio of 80: 20.** Further, Banks are reluctant to fund Hydropower projects and presently many banks have exhausted their sectorial limits. We request Hon'ble Commission, in consultation with MoP/MoF/RBI to make Hydro Power sector as a PRIORITY LENDING with loan re-payment to 18-20 years. Unless the PPA and Financial closure issues are sorted out, the revival of Hydro Projects looks bleak as such Hon'ble Commission may please take Suo-Motu cognizance to resolve PPA & financing issues related to Hydro Projects.
	OTHER IMPORTANT ISSUES FOR REVIVAL OF FEXIBLE POWER WHICH IS THE NEED OF THE HOUR	
Various	**Long Term PPA for Hydro Projects**	***Section 42 of Draft Electricity Act mentions that distribution Licensee/Supply Licensee shall tie up long term / medium term PPA to meet the average annual demand of the area it has obligation to serve.*** ***Section 5.4(c) of Tariff Policy stipulates that for Tariff determination, the Hydro Projects should have firmed up Long term PPA up to 60% or more of total saleable design energy.*** However, DISOMS/ Procurers are reluctant to sign up LT PPA for Hydro Projects and Statistics confirm this. This leads to non-finalization of Financial Closure of the hydro projects and ultimately to non-viability of projects. **We request Hon'ble Commission, in consultation with MoP, to specifically mention in Tariff Policy (also in Electricity Act), the percentage of Long Term/ Medium Term which a distribution Licensee/Supply Licensee must have in its portfolio.** **This shall encourage Long Term PPAs and discourage procurers to procure power from short term PPAs.**
	Purchase Obligations for Hydro Power	While Tariff Policy stipulates "Time of the Day Metering", however it is also a fact that unless Smart Meters are installed, it would not be possible to have

		TOD metering. It may take couple of years for these smart meters to be installed. ***Tariff Policy/ CERC tariff regulations stipulates Renewable Purchase Obligations, however to revive the Hydro Power Projects, there is urgent need of Separate Hydropower Purchase Obligation*** **We request Hon'ble Commission, in consultation with MoP, to issue mandatory Hydro Power Purchase Obligations so as to revive the Hydropower Sector**. It is not out of place to mention that ***Hydropower projects bring many ancillary benefits which never gets compensated.*** They bring energy/water Security. Recent example of a commissioned project in J&K where the cost of Hydro project was too high, still we were able to make that project in a strategic location within the possible time.
	Infrastructure Cost / Land & Forest Cost / R&R Cost	While all forums acknowledge that the hydro projects which are allotted and are in process of development are in very remote areas with minimal infrastructure. Infrastructure is required to be created which leads to an increase in capital cost. **The National Electricity Plan formulated by CEA has rightly suggested that Infrastructure Cost from the Hydro Project may be excluded for determining Tariff**. MOP proposal for revival of hydro projects also mooted that the cost of enabling infrastructure shall be funded through **Hydropower Development Fund.** However, there is no such fund created as on date. **The total cost of R&R along with Land & Forest compensations is highest in Hydro projects** which has big impact on cost. While this is a good thing for local stakeholders, however from power procures angle, this leads to increase the cost & Tariff. More so the process of obtaining clearances is such that the pre-construction period always exceeds the estimated time approved by CEA while according DPR clearance to the project. However, CERC in its draft paper of tariff computation has not considered these aspects. We would request Hon'ble Commission to kindly review this notify MoP who may **create Hydro Power Development Fund (HDF) which should include these costs (Enabling Infrastructure, Land, Forest, R&R) etc. and should be provided to developers upfront.**

		This shall drastically reduce the tariff of Hydro Projects, which is one of the objectives for tariff determination.
	CERC regulation for grant of connectivity, Long term access dated 17th February 2017	As per **CERC regulation for grant of connectivity, Long term access dated 17th February 2017**, a hydro generating station of capacity 250 MW and above, the dedicated transmission line from generating station to the pooling station shall be developed owned and operated by the applicant generating Company. CTU shall plan the system such that maximum dedicated transmission length does not exceed 100 km from switchyard of generating station till the nearest pooling station. This regulation has significant effect on the projects (>=250MW) which were concurred by CEA before 2017 (≈18000 MW) wherein such transmission cost have not been considered in the project cost. This regulation has also increased the cost of Hydro projects concurred after this regulation. As earlier the transmission lines were planned and executed by CTU for Hydro projects (>=250 MW). It is to mention all other renewable sources (Solar & Wind) are exempted from transmission access and use charges. **We request Hon'ble Commission to reconsider this new regulation and let CTU plan and execute the transmission lines from Hydro Projects >250MW. Also it is requested to exempt Hydro Projects being Renewable, from the Transmission and Wheeling Charges as was done for Solar and Wind projects.**
	Equity contribution by Partner State	Many hydropower projects are under development in JV between Private Sector & State Sector. However, in many cases, private partner needs to contribute 100% towards project expenses since due to paucity of funds State Govt. does not contribute its equity funding. To complete the project in time, equity contribution from all partners is necessary. Banks are reluctant to fund. **As such, we request Hon'ble Commission, in consultation with MoP to devise the ways to fund the equity contribution of State Governments**

Development of Hydropower projects in present scenario is a herculean task .The Present regime of hurdles like no Infrastructure owing to remoteness, Clearance delays, , Increased Land Acquisition

rates (due to new Land Act), Risks (Construction, Social, Political), longer Gestation period, lower rate of return, no clear policies, passing the buck mode adopted by authorities etc. does not make Hydropower an attractive investment. The Tariff policy has specifically mentioned under clause 5.8 that the appropriate commission shall provide suitable regulatory framework for developers of Hydro Electric Projects for using long term financial instruments in order to reduce the tariff burden in initial years.

The above requests are based upon the tangible situations for past 10 years of declining trend of Hydro Power. As such it is requested that Hon'ble Commission may consider these above requests pertaining to Hydro Power and allow relief so as to develop the balancing need of the Country.