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### MADHYA PRADESH POWER GENERATING COMPANY LIMITED (A GOVERNMENT OF M.P. UNDERTAKING) CIN-U40109MP2001SGC014882

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No. 07-12/CS-MPPGCL/CERC/CP/1023

Jabalpur, Date: 30/07/2018

To,

The Secretary Central Electricity Regulatory Commission, 3<sup>rd</sup> & 4<sup>th</sup> Floor, Chandralok Building, 36, Janpath, New Delhi - 110001.

Sub: CERC Terms and Conditions of Tariff for the tariff period starting from 01.04.2019 - Consultation paper thereof.

Ref: 1. Your Public Notice No. L-1/236/2018/CERC dated 24.05.2018. 2. Your Public Notice No. L-1/236/2018/CERC dated 13.07.2018.

As desired in the subject matter vide public Notices under reference, please find enclosed herewith the comments / Suggestions of MP Power Generating Company Limited as **Annexure** for kind consideration, please.

Encl:- As above(3copie)

Nkaji

(S. K. Saxena)

Chief Engineer (C.S.) **MPPGCL:** Jabalpur

Para No., Page No.	Consultation Paper	MPPGCL's Submission/Comments
Para No., Page No. Point No. 7.2.4 to 7.2.6, Page 23	The possible options for tariff structure could be to offer to the procurers having low demand a menu of options for ensuring dispatch by linking a portion of fixed charges with the actual dispatch and balance of AFC to availability. This will ensure optimum utilization of the infrastructure, as procurers will continue to procure power from the generating stations and the generator will get reasonable return without losing the demand. The tariff for supply of electricity from a thermal generating station could comprise of three parts, namely, fixed charge (for recovery of fixed cost consisting of the components of debt service obligations allowing depreciation for repayment, interest on loan and guaranteed return to the extent of risk free return and part of operation and maintenance expenses), variable charge (incremental return above guaranteed return and balance operation and maintenance expenses) and energy charges (fuel cost, transportation cost and taxes, duties of fuel).	MPPGCL's Submission/Comments The Three – Part tariff policy is not acceptable to us, as it is direct loss to the generator. The huge investment in power generation sector has been done by different companies which is at present are having huge liabilities. If Three – Part Tariff is introduced, then liabilities release period will increase considerably, as fewer amounts shall be recovered through Fixed Cost.
	The recovery of fixed component could be linked to target availability, whereas variable component could be linked to the difference between availability and dispatch. Fuel charges could be linked with dispatch.	

Para No. 7.4.1, Page 24	The two part tariff structure of hydro generating stations seems adequate in present scenario. However, in view of large capital cost, hydro generating stations often find it difficult to get dispatched due to resultant higher energy charges. In order to address this issue, for the hydro generating stations, the fixed charges and variable charges may need to be reformulated.	The existing system of Tariff should not be altered. In view of huge investment in large capital cost, on availability of Machines at least 50% Fixed cost is recoverable, irrespective of any constraint & Hydrological risk pertaining to Hydel Power Station.
Para No. 9.3, Page 28	The question is whether the annual fixed charges and energy charges are to be determined to the extent of the capacity tied up under Section 62 of the Act or for the entire capacity. One approach could be to determine the tariff of the generating station for entire capacity and restrict the tariff for recovery to the extent of power purchase agreement on pro-rata basis and balance capacity will be merchant capacity or tied up under Section 63, as the case may be.	Annual fixed charges and Energy charges are to be determined for the "Entire capacity" and not for part capacity.
Para No. 10.3, Page 29	Flexibility may be provided to the generating company and the distribution licensee to redefine the Annual Contracted Capacity (ACC) on yearly basis out of total Contracted Capacity (CC), which may be based on the anticipated reduction of utilization. Annual Contracted Capacity (ACC) may be treated as guaranteed contracted capacity during the year for the generating company and the distribution licensee and the capacity beyond the ACC may be treated as Unutilized Capacity (UC). The distribution licensee will have a right to recall Unutilized Capacity during next year and for securing such rights, some part of fixed cost, say 10-20% or to the extent of debt service obligations, may be paid;	At this juncture, the distribution licensee cannot redefine the Annual Contracted Capacity (ACC). This will defeat the very purpose of Long Term Power Purchase Agreements made with/by distribution licensee.

Para No. 10.5(a), Page 29	Extend the useful life of the project up to 50 years from existing 35 years and the loan repayment period up to 18-20 years from existing 10-12 years for moderating upfront loading of the tariff.	Extending the useful life of the hydro project upto 50 years from existing 35 years is acceptable. However the same should be always less than the Dam/ Reservoir life. The hydro projects which have already completed 30 to 35 years of life, all such capacity may be aggregated and bided out to the market price for determination of new tariff for extended period.
Para No. 11.9 Page 32	Higher capital cost allows the developer return on higher base of equity deployed. In the cost plus pricing regime, the developer envisages return on equity as per the original project cost estimation. The regulations allow compensation towards increase in cost due to uncontrollable factor so as to place the developer to the same economic position had this uncontrollable event not occurred. Therefore, in new projects, the fixed rate of return may be restricted to the base corresponding to the normative equity as envisaged in the investment approval or on benchmark cost. The return on additional equity may be restricted to the extent of weighted average of interest rate of loan portfolio or rate of risk free return. Further, incentive for early completion and disincentive for slippage from scheduled	The Equity employed in the project remains invested for the whole life of project and accordingly there is direct involvement of opportunity cost for the said period. Further, the project cost is subject to criteria of cut-off date, beyond which, only additions on specific counts are allowed. Moreover, the project cost at the inception stage is reduced on account of Liquidated damages on the part of Contractor / supplier which are recovered / deducted, towards delay/slippage in execution of project. In view of above, It is appropriate to continue with the existing approach of allowing RoE based on Fixed Rate for the whole life of the project. Presently, there is incentive of additional Return on Equity of 0.5% on
	commissioning can also be introduced.	timely completion of project. The same may be enhanced to attract and encourage the more investors.

Para 14.3 (iii) Page 35 & Para 14.6 (d)	The useful life of Hydro Stations, as specified in Tariff Regulation, 2009, is 35 years. However, the actual life of these Hydro stations may be much more than 35 years. For hydro stations allowing higher depreciation rates during first 12 years results in front loaded tariff. To keep the tariff on lower side, the depreciation rate for hydro stations could be spread over the entire useful life i.e. 35 years. Similarly for thermal stations, the life may be more than 25 years and the International experience in this regard needs to be looked into to bring further improvements.	The depreciation allowed in Tariff is considered for repayment of Principal amount through instalments. Generally the repayment period of project specific loan is around 12 years. Based on said philosophy, the depreciation rate for first 12 years is on higher side and the balance depreciation amount over and above 12 years is to be spread on balance life of the plant. The said judicious approach needs to be continued.
	Reassess life at the start of every tariff period or every additional capital expenditure through a provision in the same way as is prescribed in Ind AS and corresponding treatment of depreciation thereof;	The INDAS 16 requires reviewing useful life of asset at the end of every financial year and its prospective implication. In line with the IND-AS, specific guideline may be provided to reassess the life of additional capital expenditure at the fag end of useful life of unit and corresponding treatment of depreciation.
Para 15.2 Page No.37	An option could be to 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 Equity employed in the project remains invested for the whole life of project and accordingly there is direct involvement of opportunity cost for the said period. Accordingly, it is appropriate to continue with the existing approach of allowing ROE based at Fixed Rate for the whole life of the project.

Para 16.3 Page No.37	Further, for some of the old plants, the equity base has been maintained beyond 30% (upto 50%) for the purpose of fixed return to enable the developer to generate internal resource for further capacity addition. In view of availability of sufficient capacity in the market, there is a need for review of the same.	The proposed change is acceptable. Adequate capacity has been created. Now RoE be limited on Equity upto 30% of the project cost.
Para 17.2 Page No.38	Section 61 (d) of the Electricity Act, 2003 and Para 5.11 (a) of Tariff Policy 2016 have laid down broad guiding principles for determination of rate of return. These have mandated to maintain a balance between the interests of consumers and need for investments while laying down the rate of return. It is stipulated that the rate of return should be determined based on the assessment of overall risk and prevalent cost of capital. Further, it should lead to generation of reasonable surplus and attract investment for the growth of the sector. As per the Tariff Policy, the Commission may adopt either Return on Equity (RoE) or Return on Capital Employed (RoCE) approach for providing the return to the investors.	In the present market scenario, the Return on Equity approach is more appropriate for encouraging the investors and the same may please be continued.
Para 18.7 Page 41	<ul> <li>(a) Review the rate of return on equity considering the present market expectations and risk perception of power sector for new projects;</li> </ul>	(a) At present RoE @ 15.5% (Base Rate) is permitted based on CAPM Model and the same please be continued to encourage the investors.
	(b) Have different rates of return for generation and transmission sector and within the generation and transmission segment, have different rates of return for existing and new projects;	(b) The RoE for Generation sector needs to be continued @ 15.5% (Base Rate). Further, the Equity employed in the project remains invested for the whole life of project and thus there is direct involvement of opportunity cost for the useful life of project. Accordingly, it is

		appropriate to continue with the existing approach of allowing RoE based at Fixed Rate for the New as well as existing generation project.
<ul> <li>(c) Have different rates of return for thermal and hydro projects with additional incentives to storage based hydro generating projects;</li> <li>(d) In respect of Hydro sector, as it experiences geological surprises leading to delays, the rate of return can be bifurcated into two parts. The first component can be assured whereas the second component is linked to timely completion of the project;</li> </ul>		Yes, to encourage investment in new Hydro Projects, the Rate of RoE may please be kept higher than Thermal project to attract new investors. The investment made in Hydro Electric Project through equity remains on stake for useful life of the Hydro project, irrespective of other actives of the multipurpose Dam / reservoir. Accordingly the rate of RoE may please be kept same.
(e) Continue with pre-tax return on equity or switch to post tax Return on equity;	(e)	The present base rate of 15.5% for RoE shall be continued to be grossed up with actual Tax rate applicable to the generating company.
(f) Have differential additional return on equity for different unit size for generating station, different line length in case of the transmission system and different size of substation;	(f)	To encourage the investment in Supercritical Units, additional return of equity may be considered.
(g) Reduction of return on equity in case of delay of the project;	(g)	The project cost is reduced by an amount Liquidated damages recovered from suppliers towards delay in execution of project. Correspondingly the normative Equity amount also gets reduced. This in itself acts a penalizing factor towards delay in execution of project and does not burden the beneficiaries. Hence further reduction on account of RoE in not required.

Para 19.5 Page No.43	(a) Continue with existing approach of allowing cost of debt based on actual weighted average rate of interest and normative loan, or to switch to normative cost of debt and differential cost of debt for the new transmission and generation projects;	(a) Cost of debt is the cost actually incurred by the utility in the form of interest payments and upfront fee for raising finances through debt. Accordingly, existing approach of allowing cost of debt based on actual weighted average rate of interest and normative loan is quite judicious being scientific, therefore the same to be continued.
	<ul> <li>b) Review of the existing incentives for restructuring or refinancing of debt;</li> <li>c) Link reasonableness of cost of debt with reference to certain benchmark viz. RBI policy repo rate or 10 year Government Bond yield and have frequency of resetting normative cost of debt;</li> </ul>	(b) & (c) Presently, the costs associated with refinancing shall be borne by the Beneficiaries. The savings on interest shall be shared between the beneficiaries and utilities in the ratio of 2:1. The said arrangement is to encourage refinancing at cheaper rate of interest. It is suggested to further review the ratio of sharing saving from 2:1 to 1:1 (Fifty Fifty) to further encourage the generating companies in light of present scenario.
Para 20.3(b) &(e) at Page No.44	As stock of fuel is considered for working capital, a fresh benchmark may be fixed or actual stock of fuel may be taken.	Presently, Coal stock for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal stock storage capacity, whichever is lower, is considered for the purpose of working capital. In addition, Cost of coal for 30 days for generation corresponding to the normative annual plant availability factor is also considered. The existing arrangement is quite reasonable and shall be continued for the next control period.
	In view of increasing renewable penetration and continued low demand, the plant load factor of thermal generating stations is expected to be low. As per the present regulatory framework, the normative working capital has been provided considering target availability. In case of wide variation between the plant load factor	In the present surplus power scenario and increasing impact of renewable resources, the plant load factor of thermal generating stations is expected to be low. Accordingly, to provide cushion to the investors, the normative approach of linking working capital with target availability may be reviewed as the working capital is the minimal amount required to run the daily activities of the business efficiently.

	and the plant availability factor, the normative approach of linking working capital with "target availability" can be reviewed.	
Para 21.7 (a) (f) & (g) Page No.46	<ul> <li>(a) Review the escalation factor for determining O&amp;M cost based on WPI &amp; CPI indexation as they do not capture unexpected expenditure;</li> <li>.</li> <li>.</li> <li>.</li> </ul>	(a) A separate provision needs to be inserted for the unexpected expenditure, which can be exercised at the time of True up of respective years.
	(f) Have separate norms for O&M expenses on the basis of vintage of generating station and the transmission system.	(f) The O&M Norms for the vintage of generating station shall be relaxed due to high operational expenses.
	(g) Treatment of income from other business (e.g. telecom business) while arriving at the O&M cost.	(g) The Extra Ordinary Gazette Notification issued by Government of India, Ministry of Environment and Forest dated 3rd November 2009 in regard to the amendments made in THE ENVIRONMENT (PROTECTION) ACT, 1986 and THE ENVIRONMENT (PROTECTION) RULES,1986, provides for mandatory directives for utilization of Fly Ash (all category of Ashes) generated at the Thermal Power Plan.
		Accordingly, the Income from sale of Fly ash is a restricted income which is to be kept in a separate reserve and shall be utilized only for development of infrastructure or facilities, promotion and facilitation activities for use of fly ash until 100% fly ash utilization level is achieved ; thereafter as long as 100% fly ash utilization levels are maintained , the thermal power station would be free to

		utilize the amount collected for other development programmes.
		Thus the income from sale of Fly Ash does not fall under the purview of operating Income of the Generating Company & in no case it can be used for general revenue purposes. Henceforth the same should not be considered while calculating the O&M cost. Further, the income from sale of capital scrap/decapitalized assets is a capital receipt and shall not be considered while arriving at the
		O&M cost.
Para No. 22.8(a), Page 47	Take actual GCV and quantity at the generating station end and add normative transportation losses for GCV and quantity for each mode of transport and distance between the mine and plant for payment purpose by the generating companies. In other words, specify normative GCV loss between "As Billed" and "As Received" at the generating station end and identify losses to be booked to Coal supplier or Railways.	No normative GCV loss is available in existing regulatory norms 2014-19 between "As Billed" and "As Received", which is now felt quite essential.
Para No. 22.8(b), Page 48	Similarly, specify normative GCV loss between "As Received" and "As Fired" in the generating stations.	No normative norms GCV loss between "As Received" and "As Fired" in the generating stations in existing regulatory norms. However, in practice, the losses are found to be in the range of about 50 to 150 kcal/kg approx. has been observed, depending upon coal storage period/ quantity/ quality/ handling etc. Due to consideration to this aspect may also please be taken into account.
Para No. 22.8(c), Page 48	Standardize GCV computation method on "As Received" and "Air-Dry basis" for procurement of coal both from domestic and international suppliers.	This Standardize GCV computation method is in vogue.

Para No. 23.6, Page 49	Normative blending ratio may be specified for existing plant as well as new plants separately in consultation with the beneficiaries	Blending ratio with coal of imported origin may be fixed in accordance with the domestic coal quality, Station Heat Rate.
Para No. 24.5(a), Page 50	All cost components of the landed fuel cost may be allowed as part of tariff. Or alternatively, specify the list of standard cost components may be specified;	All cost components of the landed fuel cost should be allowed as part of tariff. Cost of coal in stock shall also be considered while assessing the landed cost.
Para No. 24.5(b), Page 50	The source of coal, distance (rail and road transportation) and quality of coal may be fixed or specified for a minimum period, so that the distribution company will have reasonable predictability over variation of the energy charges.	Due to huge gap in demand and supply of coal, the coal company supplying coal from all available sources as well as generator purchase coal from different mode such as Rail, Road, Belt, RCR/ Washery route, the quantity of which is not fixed. As such, it is generally not possible to fix source & quality of coal for any time period.
Para No. 26.3.12, Page 53	Shortage of domestic fuel affects availability of the plants and their scheduling. The existing norm for availability may therefore to be revisited. In the event of bridging gap through e-auction or imported coal (other than fuel arrangement agreed in purchase agreement), the need of prior consent of beneficiary, maximum permissible limit of blending etc. also need to be deliberated	The production and distribution of coal by coal companies and transportation system of railways is not felt in line at present with the increased installed capacity of thermal units. Hence, during coal shortage period, the Declared Capacity for whole day shall be taken to be equal to the maximum peak hour ex-power plant MW.
Para No. 26.3.16, Page 54	A regulatory option could be that the generating station shall only pay for coal "As Received" at the plant plus normative transmission loss of GCV and quantity as per CERC norms. This can be addressed in the Tariff Regulation by indicating GCV as "As Received at plant end" and customization of Form15 regarding the GCV.	<ul> <li>Presently ROM coal is being supplied to M.P Power Generating Power Limited by coal companies of CIL (SECL &amp; WCL) through rail/ rail cum road.</li> <li>As per the MOEF&amp;CC notification 2014, coal through washery circuit is also being supplied through rail.</li> <li>Therefore, during transit either through Rail or RCR, losses are more</li> </ul>

		<ul><li>than prescribed normative limits. As such, while determining normative transmission loss of GCV and quantity, the above aspect should be considered.</li><li>Further, power houses, located beyond distant say more than 750 Km, the transit loss is even more. As such, for such distantly located plants CERC should allow loss up to 1.5 %.</li></ul>
Para No. 26.6.1, Page 56	The existing Operational norms of Hydro generation include norms for auxiliary consumption, transformation losses and normative annual plant availability factor. Capacity Index as a measure of plant availability was implemented by 57 the Commission during tariff periods 2001-2004 and 2004-09. It was based on the concept that hydrology risk has to be borne by beneficiaries all the time. After consultation, capacity index concept was modified with the new concept of Normative Annual Plant availability Factor (NAPAF) during 2009-14 and continued during 2014-19 based on actual data. However, in case of a few hydro plants the same was revised. This is based on the premise that hydrology risk is to be shared by the generator & the beneficiary in the ratio of 50:50. There may be need for review of existing values of NAPAF based on actual PAF data for last 5 years.	Hydro Generation :- The NAPAF and design energy of hydro units may please be reviewed. Further, CERC has issued an order dtd. 20.12.2016 on petition no. 40/MP/2016 stated that petitioner has declared the capacity based on availability of machine and water availability, MPSLDC cannot restrict the PAFM on the ground that machines were not operated as per the directives of local authorities. In view of above order of Hon'ble CERC, now the PAFM cannot be restricted/ reduced on account of constraints imposed by WRD/ local administration, if both machine & water are available. It is also proposed to review the design energy of 25 year or more old plants on the basis of past generation due to silting & other time inducing charges in water storage.

Para 30.2	Further, as per the existing regulations, the rebate is	The rebate allowed by the Generating Company on the timely payment
	provided if payment is made within 2 days of	of Energy Bill is considered as part of Non Tariff income of the
	presentation of the bill. Valid mode of presentation of	beneficiaries by Electricity Regulatory Commissions, however the same
	bill, (email, physical copy etc.), authorised signatory,	is not allowed as expenditure of the Generating companies.
	definition of two days (working days or including	
	holidays) may need elaboration.	On the other hand, the Surcharge on delayed payment of Energy bills
		are considered as part of Non Tariff income of the generating company,
		however, the same is not allowed as Expenditure to the beneficiaries.
		Accordingly, both generating companies and beneficiaries are charged
		with the Income through Rebate or Surcharge, but the corresponding
		impact, by the way of their inclusion in expenditure is not permitted.
		Due to this unjustified phenomenon, both generating companies and
		beneficiaries are dual charged. Thus this ambiguity may please be
		addressed in upcoming regulations to encourage the timely payment of
		bills.
		0113.
		Further, Generating companies shall be allowed to offer different rates
		of rebate to beneficiaries to ensure payment security and encourage
		payment of bills by beneficiaries in time.
Para 32	Presently, generating companies and the transmission	Presently, the regulations provide specific procedure/formulae for
Page No.59	licensees are following different practice for raising bills	determining the Energy and Fixed Charges to be billed on beneficiaries.
	on the basis of tariff order. In order to avoid possible	It is to mention that the billing is carried out in accordance with the
	disputes in billing, it need to be consider as to whether	Power Purchase Agreement between the Generating Company and the

	standardization of billing process including formats, verification and timeline etc. may be done.	beneficiaries. The aforesaid approach needs to be continued in the next control period also.
Para No. 37.20, Page 68	Off-peak component of AFC: The generating station has to declare a PAF of 80% for the year, which allows recovery of 80% of the AFC. Any slippage to meet the above norm would result in reduction in 80% of AFC in proportionate manner.	<ul> <li>Proposed off peak component of AFC and peak component of AFC is not acceptable. The prevailing regulation may be continued.</li> <li>In present scenario, shortage of coal is a national issue and coal companies have not been able to supply committed quantity of coal as per FSA. Supply of coal also gets affected by constraints related with rail transportations. Similar so many unforeseen constraints are also felt frequently in generation of power.</li> <li>In view of above, it is very difficult to declare 95% DC during peak period.</li> </ul>

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