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BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Filing No.________

Case No. ________

IN THE MATTER OF — Comments and suggestions to the Consultation Paper on Terms and Condition of Tariff Regulations for Tariff Period 1.4.2019 to 31.3.2024

के. वि. वि. आयोग
23 JUL 2018
प्राप्त हुआ
हस्ताक्षर

AND

IN THE MATTER OF — Torrent Power Limited (TPL)
"Samanvay", 600, Tapovan,
Ambawadi, Ahmedabad – 380 015

.........APPLICANT

35 (पी.पु.)

INDEX

......FILED BY

Torrent Power Ltd

Ahmedabad

Date: 13.07.2018

Represented by Chetan Bundela

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7	**Tariff Design: Generation and Transmission**	
	<u>Options for Regulatory Framework (Thermal Generating Stations)</u>	
7.2.4	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.	Our suggestion is to continue with the existing two-part tariff structure. **Rationale to continue with existing two part tariff structure** • In this regard, TPL-G would like to state that the generation projects are capital-intensive investment that requires stable policy guidelines as far as the revenue stream is concerned. The proposed three-part tariff design is a radical change that will further deteriorate financial position of generating company. Further, at point no. 4.7 (page no. 13) of the consultation paper it has been derived that per unit FC of coal based plants reduce over a period of time, which is the basic tariff philosophy of cost plus structure. Hence, it can be
7.2.5	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	

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	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).	inferred that the philosophy of improving operational efficiency with assurance of cost recovery has been effective. The same holds true for existing gas based plants as well excluding the issues regarding fuel availability. The consultation paper rightly points out the very fact that per unit FC has increased due to lower offtake. The same has increased due to lack of fuel availability at competitive price and not because of high-energy rates. In fact, the gas-based plants helps immensely in grid management. In addition, it is worthwhile to note that the generator can assure availability of plant and PLF is not in the control of the generator. Therefore, the premises under which change to three-part tariff is being contemplated is highly misplaced. We would rather like to point out that one of the major issue that the power sector is facing is with respect to low availability of gas. We request the Hon'ble Commission to introduce changes that could
7.2.6	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.	

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		mitigate such exigent circumstances rather than punish generator for the factors that are beyond their control. • We would further like to state that it is wrong to compare supply of power under the long-term contract with changing market dynamics. It may be noted here that the generating stations have delivered power under the two-part tariff structure during the earlier control periods wherein the market rates were very high, as compared to aggregate rates approved by the regulators, leading to substantial benefits to the consumers. Further, it may also be noted that long-term supply by its inherent nature provides for a consistent and stream lined cost that provides stability for investors, users/ beneficiaries and other associated agreements. Hence, such economic position is very critical for securing and maintaining other commitments i.e. debt financing,

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		transmission and fuel supply agreement, short-term financing, long-term service and supply agreement etc. Any change in this settled economics will duly affect other subsequent arrangements. • We would further like to state that the proposal to bifurcate RoE, O&M and Interest on Working capital (IoWC) for deriving three-part tariff is highly irreverent. Major part of O & M Cost is fixed in terms of maintaining availability of Plant. Linking of O & M Cost to PLF under three part tariff structure will result into under recovery of O & M Cost which will reduce the equity return to developer. Similarly, like O & M expenses, IoWC is also fixed in terms and is needed to keep the plant under readiness to generate. In addition, bifurcating existing ROE into two part viz Risk free return and Risk bearing return and then linking of Risk bearing

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		return with actual dispatch will only further increase the negative effect on the return available to developers. • Needless to mention, the investment requirement in generation was huge and is to be maintained for fairly longer period. Hence, it is utmost important to have clear visibility of cash flow. Therefore, it is important to provide a stable/reliable tariff framework that could ensure a reasonable distribution of risks, which make power sector projects attractive and financeable. The generating assets are most stressed assets in the loan portfolios of banks and on the balance sheet of major companies in the power sector. If the economic position of such assets are further changed then the same would have cascading impact. • Thus, we request the Hon'ble Commission to continue with

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		the current tariff structure and despite the aforesaid strong reservations, if three-part tariff structure is to be adopted then the same shall be adopted for new power projects only.
8	**Deviation from Norms**	
	Options for Regulatory Framework	
8.4	Possible option could be to develop for incentive and disincentive mechanism for different levels of dispatch and specifying the target dispatch expanding the scope of Regulation 48 above.	• We submit that the existing tariff regulations allows generator to recover cost of supply for achieving operational efficiency in the form of availability of plant. Hence, the cost of supply decided by the existing tariff regulations is actually bottom for the generator below which it will lead to under recovery. i.e. ROE is based on risk free return plus return considering the risk taken by developer, interest on loan is linked to actual weighted average rate of interest, O & M Cost is based on historical data - considering inflationary factors, etc. This does not provide any scope for further reduction in tariff. In view of the above, there is no need to introduce competition

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		for tariff decided under section 62 of the Electricity Act, 2003. Further, this approach can be difficult to implement when there are multiple off-takers from a single plant. • The fundamental fact is that a power plant is set up to generate electricity and not to keep it idle. Further, we would like to submit that the dispatch is actually not in the control of the generators. Therefore, the incentive/disincentive to be linked with actual dispatch is not reasonable. In view of this, we request to keep incentive/disincentive linked with the plant availability.
9	**Components of Tariff**	
	Options for Regulatory Framework	
9.3	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	• In this regard, TPL-G would like to state that it would be very difficult to segregate capital cost of the plant on per MW basis. On the other hand, the existing approach of determining

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	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.	tariff for 100% capacity will not have any impact on the recovery of AFC from beneficiaries as the same is recovered on pro-rata basis. Further, such approach may result in duplication of efforts, if untied capacity is tied up after the approval of tariff. • Hence, we propose to continue with the existing provision to determine tariff on 100% capacity irrespective of tied up capacity under section 62.
10	**Optimum utilization of Capacity**	
	<u>Options for Regulatory Framework (Coal based Thermal Generation)</u>	
10.3	(a) 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	• In this regard, TPL-G would like to state that this is in direct contraventions to the sanctity of executed/ operationalised PPAs already in place. It is humbly submitted that the same

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	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;	may not come under the purview of tariff determination process.
	(b) Such unutilized Capacity may be aggregated and bidded out to discover the market price of surplus capacity. The surplus capacity may be reallocated to the distribution licensee at market discovered price	

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	<u>Options for Regulatory Framework (Gas based Thermal Generations)</u>	
10.7	Scheduling and dispatch of gas based generating station may be shifted to regional level with the primary objective of balancing. After meeting the requirement of designated beneficiaries, the regional level system operator can use it for balancing power at the rate specified by the generating companies. Alternatively, all the gas based generating station capacities may be pooled at regional level. After meeting the requirement of designated beneficiaries, the balance generation may be offered for balancing purpose as and when required.	• In this regard, TPL-G would like state that it welcomes such proposal at the same time requests the Hon'ble Commission to maintain existing scheduling and dispatch process. The Hon'ble Commission may expand the scope of Ancillary Service Regulations by including the generators under the control area of SLDC. Hence, the generators may be given an option to offer such balancing service from the capacity available after meeting the requirement of designated beneficiaries. The specified rate may be kept at equal to or higher than the Normative Energy Charge. This is requested to be used as GRID integration tool and all generation should be pooled and fixed charges may be recovered through central agency like POSOCO.
11	**Capital Cost**	

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	Options for Regulatory Framework	
11.8	One of the options is to move away from investment approval as reference cost and shift to benchmark/reference cost for prudence check of capital cost. However, the challenge is absence of credible benchmarking of technology and capital cost.	• TPL-G kindly requests the Hon'ble Commission that the detailed comments forwarded against Para 37, on the issue of benchmarking of capital cost later in this submission, please be considered against Paras 11.8 & 11.9 as well.
11.9	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	

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	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 commissioning can also be introduced.	
13	**Financial Parameters**	
13.1	The performance based cost of service approach, a combination of actual cost and normative parameters has been evolved for the Tariff regulations. Components like return on equity, operation & maintenance expenses and interest on working capital have been specified on normative basis whereas cost of debt has been	• We submit to continue with existing hybrid approach that has been effective on balancing operational efficiency (by specifying normative parameters) with assurance of cost recovery (by allowing actual rate of interest on normative debt).

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	allowed based on actual rate of interest on normative debt. The normative parameters are expected to induce operational and financial efficiency. While continuing with the hybrid approach, more weightage may be provided for normative parameters to induce greater efficiency during operation as well as in development phase.	
14	**Depreciation**	
	Options for Regulatory Framework	
14.6	a) Increase the useful life of well-maintained plants for the purpose of determination of depreciation for tariff;	• We would like to state that depreciation helps the entity in meeting with its repayment obligation. Any mismatch in the depreciation being allowed in tariff and actual repayment of loans affects the entity's cash flow negatively. It is worthwhile to note that current rates of depreciation allowed by the Hon'ble Commission are adequate to service the
	b) Continue the present approach of weighted average useful life in case of combination, due to gradual commissioning of units;	
	c) Consider additional expenditure during the end	

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	of life with or without reassessment of useful life. Admissibility of additional expenditure after renovation and modernization (or special allowance) to be restricted to limited items/equipment;	present debt repayments. Increase in useful life of the asset will result into deferment of the recovery of depreciation under AFC. Any such deferment and thus reduction in depreciation will adversely affect the repayment capacity of developer and will have negative impact on its debt servicing capacity. Reassessment of life at the start of every tariff period is not technically feasible/ required for the reasons that useful life of the power plant has already been technically defined. Further, it may be noted that useful life of gas based plant is already increased to 25 years from earlier life of 15 years. Whereas, the technology obsolescence rate has also increased and has led to lower effective life specifically for gas based power plants. Hence, it is requested that additional capital expenditure during fag end of life should be added to the net block of assets till date and total amount should be depreciated over the extended life of the project. Further, the
	d) 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;	
	f) Reduce rates which will act as a ceiling.	
	g) Continue with the existing policy of charging depreciation. However, the Tariff Policy allows developer to opt for lower depreciation rate subject to ceiling limit as set by notified Regulation which causes difficulty in setting floor rate, including zero	

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	rate as depreciation in some of the year(s).	treatment of weighted average useful life in case of combination due to gradual commissioning of units should continue. • Thus, we request the Hon'ble Commission to continue with the current rates adopted for depreciation as per the CERC (T&C of Tariff) Regulations, 2014.
15	**Gross Fixed Asset (GFA) Approach**	
	<u>Option for Regulatory Framework</u>	
15.2	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.	• In this regard, TPL-G submits that the consultation paper contemplates a concept of reducing depreciation, over and above 70% repayment of loan, from GFA to arrive at a new base to compute debt and equity. The projects have been commissioned keeping the parameters set at the then prevailing time. Changing of such criteria mid-way through the life of the project would impact financial health of the

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		project and may have detrimental effect on the viability of the entity. Further, the generation assets are fraught with various challenges such as lower off take, fuel availability, variability in load, technology obsolescence, pending payment etc and change in approach at this stage may have detrimental effect on the investments in the sector. Moreover, projects that have completed 20-25 years of life as per the GFA concept would have availed full depreciation whereas the projects that have been commissioned in the past 8-10 years would suffer from such changes. Thus, such changes would distort the level playing field between the existing developers. Therefore, any revision in GFA concept will have adverse impact on large-scale investment committed in the sector. • Therefore, TPL-G requests the Hon'ble Commission to continue the existing approach of GFA and if any change in

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		the said concept is to be introduced, same may be introduced for new projects and not for projects already commissioned.
16	**Debt:Equity Ratio**	
	Options for Regulatory Framework	
16.4	For future investments, modify the normative debt-equity ratio of 80:20 in respect of new plants, where financial closure is yet to be achieved.	• In the current economic scenario, which has large amounts of distressed assets in the power sector, developers are finding it difficult to raise finance for power projects. With the proposed changes of further tightening of the norms, as suggested in the consultation paper, the risk on developer increases and returns are expected to come down which will make the lenders more cautious towards lending in power sector. It may happen that lenders propose to reduce their exposure in the projects to make the project viable for funding. Hence, the ratio of 80:20 would become financially unviable to the developers especially when the additional equity above normative is being considered as loan. On the

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		other hand, it may also happen that lenders increase the rates of lending in return of additional lending. It is worthwhile to note that increase in interest rates would negate out the impact of having lesser equity, even with reduced returns, and would increase the tariff eventually. Rather than increasing the exposure of lenders, and putting them under further risk, it is suggested that developer who is putting incremental equity above normative should be allowed the actual level of equity in tariff. As it not only incentivises the private players by giving them adequate return from investing in the power projects, it would also reduce the overall burden on the lenders and thus on economy in general which is saddled with stressed power assets.
17	**Return on Investment**	
17.4	Comment and suggestions are invited from the	• We are of the view that Return on Equity approach should be

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	stakeholders on the continuation of fixed rate of return approach or alternatives, if any	continued. • Benchmarking of ROCE is difficult in current unstable Indian financial markets. Any variation in cost of debt would add to the risk profile of the developer. Hence, the ROCE approach should not be considered. • Under ROCE approach the benefits of reduction in interest does not pass on to the beneficiaries. • The existing ROE approach avoids regulatory uncertainty for investment to be made or planned and also allow to pass on benefit to beneficiaries in terms of refinancing of debt. • In case of ROCE approach, ROCE should be calculated from the date of financial closure to COD and accumulated ROCE up to COD should be added in total capital employed. If

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		ROCE approach is to be employed, cost of equity should be higher than cost of Equity in ROE approach considering higher risk in ROCE approach. The risk premium should be worked out accordingly. The ROCE approach would depend on volatile debt and equity market conditions. Unpredictable market conditions are likely to affect the cash flows and could make lenders vary of lending debt to projects. • We, therefore, suggest to continue with the existing approach of ROE.
18	**Rate of Return on Equity**	
	<u>Options for Regulatory Framework</u>	
18.6	According to CEA, the capacity addition is no more a major challenge and adequate installed	• Economic slowdown, change in Interest Rates and

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	capacity (along with currently under installation) exists to meet the demand for the next 8-10 years. Further, the rate of interest has also come down in recent times. Therefore, there is market dynamics which favours reduction of rate of return. However, any such reduction will have negative impact on the equity already invested in the existing and under construction projects, creating further financial stress on such projects. Different rate of return for new projects (where financial closure is yet to be achieved), may be thought of, with different rates for generation and transmission projects.	uncertainties w.r.t. land acquisition, etc. have led to an increase in the level of risks for the Developers. Factors like construction period, risks associated with the projects and the need to incentivize new investment should determine project returns. The generation assets are 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. Further, there would be additional burdens like (a) lower off take, (b) increased stress on machines due to variation in dispatch, (c) future R&M to be funded through equity only and (d) change in environment law and grid requirement leading to additional expenses (over & above R&M). In prevailing natural gas scarcity scenario most of the gas based plants are remain stranded since the COD (except during E-bid RLNG scheme), so any reduction at current stage will left such generators to very bad situation. Further,
18.7	(a) Review the rate of return on equity considering the present market expectations and risk perception of power sector for new projects;	

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	(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;	in addition, power projects with a gestation period of over 4 years get no return during this period. The current rate of return on equity of 15.5% just about gives adequate premium over the incurring costs. In addition, higher ROE should be given to the developers considering no return is given during gestation period and prevailing high uncertainty and risk in the Indian power sector. Hence, the existing RoE of 15.5% needs to be revised upwards. • Further, regarding the issue of post-tax or pre-tax RoE, it is humbly submitted that the Hon'ble Commission allows pre-tax RoE after by applying tax rate. We submit that the post-tax RoE is a methodology for reimbursement of income Tax which is complex. When the unit or the plant is part of any generating company or the transmission company carrying on many businesses apart from the Regulated business, the
	(e) Continue with pre-tax return on equity or switch to post tax Return on equity;	
	(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;	
	(g) Reduction of return on equity in case of delay of the project;	

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		Income tax liability should be computed on a standalone basis. However, the proposed change may give different income tax liability, attributable to such generating unit on a standalone basis, which would have been required to be paid, had the generating unit been a separate business. Therefore, TPL-G requests the Hon'ble Commission to continue the existing approach as it removes the above-mentioned complexities to segregate the "Income Tax paid" in "Core" and "Non-core" business activities, which is required to claim reimbursement of tax from Beneficiaries under the proposed "Post tax" approach.
19	**Cost of Debt**	
19.4	While allowing the cost of debt as pass through, options available for regulatory framework are either to consider normative cost of debt based on market parameters or actual cost of debt based on	• In this regard, TPL-G submits that benchmarking of debt will be difficult since the debt market in India is still in developing stage. Further, cost of debt is decided by the lenders based on

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	loan portfolio. As the tariff is determined for multi-year period and cost of debt varies based on changing market conditions, linking cost of debt to market parameters such as MCLR & G-sec will bring a degree of unpredictability. The regulatory approach evolved so far has been to allow the cost of debt based on actual loan portfolio. This does not incentivize the developers to restructure the loan portfolio to reduce the cost of debt. The current incentive structure may need review to encourage developers to go for reduction of cost of debt.	a range of consideration including specific risk profile of the project, credit rating of agencies, etc. Allowing normative rate of interest will lead to under or over recovery of interest cost. Hence, the present practice of passing on actual interest rate should be continued as it allows any variation in interest, including benefits of reduced rates, to be passed on to the end user. • We welcome the suggestion regarding revisiting the current incentives available for restructuring of the loan portfolio. Currently the benefit of refinancing is directly available to beneficiary, by way of reduction in AFC, but there is not enough incentive available to generation entity to exercise this option. Such change would encourage more entities to work on refinancing options and would help in reducing the burden
19.5	(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	

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	for the new transmission and generation projects;	on the end users.
	b) Review of the existing incentives for restructuring or refinancing of debt;	
	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;	
20	**Interest on Working Capital**	
	<u>Options for Regulatory Framework</u>	
20.3	(a) Assuming that internal resources will not be available for meeting working capital requirement and short-term funding has to be obtained from banking institutions for working capital, whose interest liability has to be borne by the regulated entity, IWC based on the cash credit was followed during previous tariff period. Same approach can	• In this regard, TPL-G submits that generator raises invoice on beneficiary after finalisation of SEA that are normally finalised by SLDC within 10 days after completion of month. This means generator gets late payment surcharge only after completion of 70 days from the end of supply month. Hence, it is requested that receivables equivalent to 70 days of

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	be followed or change can be made.	capacity charges and energy charge for sale of electricity may be considered for computation of IoWC. • It is also requested to allow at least fifteen days fuel stock of LNG to gas based generator. Due to shortage of domestic gas, Gas based generators are forced to import and keep a stock of LNG. Due to increased penetration of renewable generation, the variation in load has increased. The Hon'ble Commission has also recognised importance of gas based power plants for balancing needs of the grid. • In addition, the frequent ramp up/ ramp down leads to further stress on machine leading to requirement of higher maintenance and maintenance spares. The spares and maintenance contract of gas turbines are generally required to be availed from original equipment manufacturer (OEM) due
	(b) As stock of fuel is considered for working capital, a fresh benchmark may be fixed or actual stock of fuel may be taken.	
	(c) While working out requirement of working capital, maintenance spares are also accounted for. Since O&M expenses also cover a part of maintenance spares expenditure, a view may be taken as regards some percentage, say, 15% maintenance spares being made part of working capital or O&M expenses.	
	(e) 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	

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	considering target availability. In case of wide variation between the plant load factor and the plant availability factor, the normative approach of linking working capital with "target availability" can be reviewed.	to proprietary nature of the technology and lack of work force equipped to manage such technology. Major part of cost of such components and spare parts are payable in foreign exchange and thus are very costly. In addition, forex variation vis-à-vis rupee also has impact on the escalation of O&M expenditure. Further, maintenance contracts attract fixed expenditure in nature. It is humbly submitted that such maintenance contracts are required to maintain high availability of the plant and are not only linked with the PLF. These above-mentioned costs also provides high reliability and availability that is well known. Needless to mention, such high reliability and availability are also becoming important due to increased penetration of renewable generation. Based on the above, it is humbly submitted that the Hon'ble Commission may consider higher spares and O&M cost towards providing IoWC rather than reducing such

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		parameters.
21	**Operation and Maintenance expenses**	
	Options for Regulatory Framework	
21.7	(a) Review the escalation factor for determining O&M cost based on WPI & CPI indexation as they do not capture unexpected expenditure;	• In this regard, TPL-G would like to state that irrespective of scheduling by the beneficiaries, generator is required to ensure availability of the plant to enable beneficiaries to schedule the energy as and when required. Needless to mention, such high reliability and availability are also becoming important due to increased penetration of renewable generation. The Hon'ble Commission has also recognised importance of gas based power plant for balancing needs of the grid. Further, lower PLF along with frequent ramp up/ ramp down to cater the grid requirement leads to higher stress on machine performance which results into higher O & M
	(d) Review of O&M expenses of plants being operated continuously at low level (e.g. gas, Naptha and R-LNG based plants).	
	(f) Have separate norms for O&M expenses on the basis of vintage of generating station and the transmission system.	
	(g) Treatment of income from other business (e.g. telecom business) while arriving at the O&M cost.	

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		Cost. • O&M expenses are also expected to increase specifically for gas based plants due to (a) fast change in technology including obsolesce of parts / technology, (b) retention of limited & experienced manpower in India, and (c) LTSA/LTMA cost. It may be noted that all such costs are to be incurred for maintaining high availability irrespective of actual offtake. In reality, the O&M expenses for generating stations are increasing significantly year on year at a higher rate. It is well known that O&M is important for generating stations as proper O&M will help to minimise outages and increase the availability of the Plant. TPL-G would like to submit that it is able to maintain high level availability as a result of prudent O & M practices. Further, it may also be noted that there is no incentive for maintaining 100%

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		availability against 85% target availability. However, the plants are still being maintained at almost 100% availability. Based on the same, it is humbly submitted that the Hon'ble Commission may consider providing incentive for higher availability. However, such high availability for grid balancing need can only be met with adequate and remunerative O&M expenses. • Hence, TPL-G earnestly request to consider the actual expenses of current control period as the basis for determination of O&M expenses for the next control period. • It is further requested that separate norms for O & M expenses should be considered keeping in view the age of the project and technology adopted by the developers. Spares involving preventive maintenance and more particularly the spares

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		which are to support for longer life of the plant also needs to be allowed under O & M norms. • TPL-G would further like to submit that in case of gas based power plants there is no major other income hence the same should not be considered into the base O & M cost. • Accordingly, TPL-G requests the Hon'ble Commission to kindly review the O&M expenses applicable to TPL-G.
25	**Fuel - Alternate Source**	
	<u>Options for Regulatory Framework</u>	
25.2	(a) Stipulate procedure for sourcing fuel from alternate source including ceiling rate;	• In this regard, TPL-G would like to state that in case of non-availability of domestic fuel, in particular for gas based power plant, generator should be given flexibility to import LNG. Further, if beneficiary do not agree to alternate fuel contracts despite the plant being technically available then generating

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		units should be considered deemed available to the extent of the technical availability for recovery of fixed costs.
26	**Operational Norms**	
	Station Heat Rate	
26.3.3	In the present scenario, most of the coal/lignite/gas based thermal power plants are running at low utilization (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, the existing heat rate norms for the new and existing generating stations are required to be reviewed along with the need for margin. The norms of heat rate will be over and above the heat rate guaranteed by the OEM based on actual performance data during the last five years.	• In this regard, TPL-G would like to state that the adverse current scenario for power sector such as slow growth in electricity demand, large-scale installation of renewable and availability of cheap power at power exchange, etc. has resulted into lower schedule of power by beneficiaries and fluctuations in generation. The same has further increased stress on the performance of the generating stations. Large-scale addition of renewable capacity and availability of cheaper power at IEX has resulted into lower PLF and frequent load variation. Lower PLF along with frequent Ramp up/Ramp down to cater the grid requirement leads to higher

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26.3.4	The heat rate is a crucial parameter as it has substantial impact on tariff. The gain/savings on account of heat rate are to be shared with the beneficiaries. Therefore, heat rate is required to be specified giving due consideration to all relevant factors including shortage of domestic coal supply in the country. The heat rate norms would also required to be seen in the light of efficiency improvement targets achieved by the generating stations under the PAT scheme. The heat rate norms varies with the passage of useful life of the project due to degradation and therefore, the norms specified based on the recently commissioned plants may not be attainable by older plants.	stress on machine performance that results into higher Heat Rate and auxiliary consumption. • In view of the same, it is requested to increase the normative Heat Rate by 25 Kcal from the existing levels. In addition, it is requested that revised operating norms may only be specified for new generating stations that are to be commissioned after 1st April, 2019.
26.3.5	The existing regulations provides for calculation of Gross Station Heat rate for new stations based on	

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	Designed Heat Rate with margin of 4.5%. This margin specified for gross station heat rate is based on recommendation of the Central Electricity Authority	
26.3.6	Approach for determination of station heat rate may need review including the criteria for specifying heat rate of old plants, continuation of relaxed norms for specific stations and possible changes required in the existing norms given in Tariff Regulation 2014-19.	
	Auxiliary Energy Consumption	
26.3.8	The existing norms of auxiliary consumption of coal based generating station varies from 5.25% for unit size of 500 MW and above to 8.5% for 200 MW series units with steam driven boiler feed pumps and electrically driven boiler feed pumps	• In this regard, TPL-G would like to state that the adverse current scenario for power sector such as slow growth in electricity demand, large-scale installation of renewable and availability of cheap power at power exchange, etc. has

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	and relaxed norms for specific generating stations of smaller size. Auxiliary consumption for gas based generating station varies from 1.0- 2.5% depending on open or combined cycle operation. The existing norm of auxiliary consumption of lignite based generating station is 0.5% more than coal based generating station with electrically driven feed pump and 1.5% more if the lignite fired station is using CFBC technology. The auxiliary consumption does not include colony power consumption and construction power consumption.	resulted into lower schedule of power by beneficiaries and fluctuations in generation. The same has further increased stress on the performance of the generating stations. Large-scale addition of renewable capacity and availability of cheaper power at IEX has resulted into lower PLF and frequent load variation. Lower PLF along with frequent Ramp up/Ramp down to cater the grid requirement leads to higher stress on machine performance that results into higher Heat Rate and auxiliary consumption. • In view of the same, it is requested to increase the normative Aux norms from the existing levels. In addition, it is requested that revised operating norms may only be specified for new generating stations that are to be commissioned after 1st April, 2019.
26.3.10	Generating stations which have less auxiliary consumption than the norms, are able to declare higher availability by making adjustment of difference between actual (lower) and normative auxiliary consumption. Further, colony	

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	consumption is not a part of auxiliary consumption w.e.f. 1.4.2014 and therefore, the same cannot be accounted for against auxiliary consumption while declaring availability. Methodology of declaring availability after reduction of normative auxiliary consumption and colony consumption need elaboration.	
	Normative Annual Plant Availability	
26.3.11	In control period 2014-19, the target availability has been determined based on the data available for the past years. The recovery of fixed charges was linked to availability. The availability of 85% is specified with exceptions of specific plant wise availability. The existing availability norms are uniform for all the generating stations. Now with the increase of private participation, access to	• In this regard, TPL-G would like to state that in case of shortage of domestic fuel, in particular for gas based power plant, the normative availability should be aligned with the quantity of domestic availability of fuel. In case of alternate arrangement of fuel by generator, if beneficiary do not agree to alternate fuel contracts despite the plant having technical available then units should be considered deemed available to

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	imported fuel by private developers and technological improvement may have improved the availability. The issue of different availability norms for existing and new plants can be contemplated.	extent of the technical availability for recovery of full fixed costs. Like PLF, PAF should also be calculated for the entire plant and we propose to continue with existing provision of calculating PAF of entire plant for recovery of AFC from beneficiary.
26.3.12	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.	
26.3.13	As per present regulatory framework, the recovery of annual fixed charges is based on cumulative availability during the year. There may be a	

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	chances of declaring lower availability during the peak demand period when the beneficiaries may be required to resort to procurement from short term market to meet their demand. However, during low demand period, the generating station may declare higher availability so as to achieve the target cumulative availability on annual basis to recover the full annual fixed charges. In this process, the beneficiaries may not get the electricity when required at the time of high demand.	
26.3.14	In case of partly tied up capacity, the plant availability factor for whole plant may not be relevant. The consideration of merchant capacity for the purpose of plant availability declaration is not relevant.	
26.3.15	The existing norms of annual plant availability may	

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	need review by considering fuel availability, procurement of coal from alternative source, 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;	
27	**Incentive**	
	Options for Regulatory Framework	
27.5	(a) Review linking incentive to fixed charges in view of variation of fixed charges over the useful life and on vintage of asset - Need for different incentives for new and old stations;	• As per the existing regulations, gain on ECR is being shared between beneficiaries and generator in the ratio of 40:60. It is to be shared on monthly basis. We request the Hon'ble Commission to allow for sharing gain on annual basis. Like sharing of gain, beneficiary should also share in losses. Further, drawl of power is not within the control of the
	(b) Different incentive may be provided for off peak and peak period for thermal and hydro generating stations. Differential incentive	

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	mechanism for storage and pondage type hydro generating stations may also be considered.	generator. Generator can only ensure and control availability of the plant. Considering the criticality of plant availability, incentive should be linked with Normative Annual Plant Availability instead of Normative Plant Load Factor.
	(c) Review the incentive and disincentive mechanism in view of the introduction of compensation for operating plant below norms.	
	(d) Review the norms for availability of transmission system.	
28	**Implementation of Operational Norms**	
28.2	Comments and suggestions of stakeholders are invited whether the operational norms of the new tariff period should be implemented from the effective date of control period irrespective of issuance of the tariff order for new tariff period.	• TPL-G would like to submit that as specified at Point No. 16 of Table 13 of the Consultation Paper revised Operating norms for any new control period should not be made applicable to the existing plants. • If the norms are changed, then it would be desirable that new norms are implemented along with tariff order for new tariff period.

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29	**Sharing of gains in case of Controllable Parameters**	
29.1	The present regulatory framework provides for sharing of gains between generating company and beneficiaries in 60:40 ratio on account of improvement in controllable factors such as Station Heat Rate, Auxiliary consumptions, secondary fuel oil consumption, refinancing of loan and the true up of primary fuel cost. Subsequent to above, the compensation mechanism has been introduced for operation in CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2016. The compensation mechanism aims to provide compensation if generating plant is operated at improved norms than ones specified in the amended IEGC Regulations of 2016. In view of the	• We propose to continue with the existing ratio 60:40 for sharing of gain between generator and beneficiaries, on monthly basis, on account of improvement in controllable factors such as Station Heat Rate and Auxiliary consumption. • It is also requested that along with the gains, beneficiary should also share in loss because of deterioration in normative parameters. As the same may happen due to frequent ramp-up/ramp-down to support the renewable sources, which are being promoted for the benefit of all the stakeholders.

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	compensation mechanism, it needs to be considered as to whether the ratio of sharing of benefit may be reviewed.	
29.3	Further, different generators adopt different methodology for sharing of gain, say on monthly or annual basis. Thus, procedure for the monthly reconciliation or annual reconciliation mechanism may need to be prescribed.	
30	**Late Payment Surcharge & Rebate**	
30.1	The present regulatory framework provides for late payment surcharge at the rate of 1.50% per month for delay in payment beyond a period of 60 days from the date of billing. In view of the introduction of MCLR, the rate of late payment surcharge may need to be reviewed. One option is to add some premium over and above MCLR.	• In this regard, TPL-G would like to state that 2% rebate is allowed for payment within 10 days. We request to reduce the same in view of revision in late payment surcharge and change in interest in working capital. In addition, to have deterrent effect, it requested to revise late payment surcharge to 2% per month for delay in payment beyond a period of 60

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30.2	Further, as per the existing regulations, the rebate is provided if payment is made within 2 days of presentation of the bill. Valid mode of presentation of bill, (email, physical copy etc.), authorised signatory, definition of two days (working days or including holidays) may need elaboration.	days from the date of billing.
31	**Non-Tariff income**	
31.1	The tariff determination under Section 62 of the Act follows the principle of cost of recovery which inter-alia provides the reimbursement of cost incurred by the generating company or the transmission licensee. The income on account of sale of fly ash, disposal of old assets, interest on advances and revenue derived from telecom business may be taken into account for reducing O&M expenses. Present regulatory framework	• We propose to continue with existing provision as in case of gas based power plant there is no major other income.

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	does not account for other income for reduction of operation & maintenance expenses. However, in case of transmission licensee, the income earned from telecom business are adjusted in the billing separately. The principle of treatment of other income as applicable in case of transmission can be extended for the generation business.	
37	**Alternative Approach to Tariff Design**	
	Normative Tariff by Benchmarking of Capital Cost	
37.6	Views and comments are therefore being solicited on the following questions: a. Would it be advisable to undertake econometric analysis to arrive at benchmark capital cost? b. What are the variables that should be considered for the purpose of determining Capital Cost on	• In one of the options of alternative approach to tariff design, the consultation paper discusses benchmarking of the capital cost. We understand that this proposed benchmarking of capital cost is meant only for future projects and not for the existing projects (as per Table 13 of the Consultation Paper).

Para No.	Options provided in the Consultation Paper	Comments
	normative basis? **c.** Any other methodology for benchmarking the capital cost for generation and transmission projects?	The existing projects have been financed & commissioned by the Developers/ FIs based on the then prevailing financial criteria. Changing of such criteria mid-way through the life of the project would impact financial health of the project and will have issues on the viability of the entity. Therefore, same should not be changed.
	Normative Tariff by fixing AFC as a percentage of Capital Cost	
37.9	In this regard, views/ comments are solicited on the following:- a. Whether it is a good idea to determine AFC as percentage of Capital Cost on normative basis? b. What could be the possible methodology to establish the relation between AFC and Capital Cost so that it meets the interests of both buyers and sellers?	• Due to various factors like availability of quality Contractors, Skilled manpower, vulnerability of Fuel supply scenario, adoption of advance technology, continuous changes in conditions of MOEF/SPCB, site conditions, etc., it is difficult to bench mark Capital Cost for generating stations. Benchmarking of capital cost is not feasible in the current scenario due to issues related to deployment of different technologies by Project Developer, significant difference in capital cost depending on the location of
	Normative Tariff by fixing each component of AFC as a percentage of total AFC	

Para No.	Options provided in the Consultation Paper	Comments
37.17	In this context comments/ observations of stakeholders are invited on the following points. a. Whether clustering the components of AFC based on their nature to increase/ decrease in order? Any other possible method to cluster the AFC components? b. What methodology should be adopted to determine the escalable (increasing)/ non-escalable (decreasing) factors? c. Whether escalable (increasing) / non-escalable (decreasing) factors should remain same for all plants/transmission systems (or) they be separate for each of the plants/transmission systems based on vintage / capacity / fuel type/ fuel linkages etc. d. Whether isolation of "Additional Capitalization"	Project, type of cooling Towers, water arrangements, Customs duty on imported goods versus taxes and duties on domestic equipment, forex rate variation, etc. If such factors were normalised to arrive at benchmark cost then also few entities would stand benefited from such generalisation while others would be at loss. In addition, equipment and construction costs vary considerably within the period of 5 years (which is the Tariff Control period) due to cyclic changes in the global market & economic scenario of the country. Hence, the whole concept would not be helpful especially in generation projects wherein investment gets attracted based on certain criteria that are now being changed. This would only send wrong signal to the investors in the power sector. Further, thermal power is going to be needed to support even the future base load growth. It may kindly be noted that any project gets financed based on

Para No.	Options provided in the Consultation Paper	Comments
	as a separate stream of revenue would provide for recovery of AFC on a normative basis in realistic terms? e. Alternatively, do you suggest any other methodology to treat "Additional Capitalization" for determination of AFC on normative basis? f. Whether applicability of change in tariff principles in each control period for the new plants would allow regulatory certainty to the existing plants? g. Alternatively, is there any other methodology to minimize the impact on AFC on account of change in control period?	certainty of future cash flow and investments required to fund the project. For the reasons detailed hereinabove, the capital cost of project may be higher than the benchmarked capital cost. In such scenario, the investor will have no option but to bear the losses and investor will not be willing to take such additional risk. This will impact the future investment in the power sector. • Further, projects are being developed on the basis of International Competitive Bidding (ICB) process. These projects are being awarded on a competitive basis after following due process. Therefore, the competitiveness and cost effectiveness duly gets factored in for the projects that follow well-established process of ICB for awarding of main plants and equipments.

Para No.	Options provided in the Consultation Paper	Comments
		• Also, the consultation paper talks about other options of considering Annual Fixed Cost (AFC) as per centum of capital cost or fixing components of AFC as per centum of total AFC. In this regard, we would like to state that such options would lead to generalisation of AFC, which as discussed in the para above, could put some entities at an advantageous position over others. In addition, generalisation of cost would not factor the changes in the AFC components such as inflation and its effect on O&M expenses, variation of interest rates, etc. It would also be difficult to generalise cost for projects already commissioned, as depreciation would have to be adjusted as per the life of the assets. Similarly, the applicable interest rate would be different. Changing such fundamental principles would also alter the level playing field between projects that have completed most of its useful life and the ones commissioned afterwards.

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		All of this would eventually lead to unpredictable return to the investors. This will affect the financial viability of the current projects which have been executed as per the then prevailing regulations. In addition, estimating viability of future projects having unpredictable returns would become a huge hurdle, which would negatively affect the process of raising capital. All of these would eventually work towards hindering the growth of the sector rather than achieving the progress that the Hon'ble Commission is striving through multi-fold measures across the board. • Hence, it is requested to consider AFC and capital cost as incurred with adequate prudence check.