MAHAVITARAN
Maharashtra State Electricity Distribution Co. Ltd.
(A Govt. of Maharashtra Undertking)
CIN: U40109MH2005SGC153645

Maharashtra State Electricity Distribution Co. Ltd.
**Office of the Director (Commercial)**
'Prakashgad', 6th Floor, Station Road, Bandra (E), Mumbai-400 051.
**Tel.:** (P) 26476743 **Extn:** 2066, (O) 26474211
**Email:** directorcomm@mahadiscom.in • **Website** : www.mahadiscom.in

**Ref.** No. MSEDCL/Comments/CERC/Tariff/ 018283 Date: 30 JUL 2018

To,
The Secretary,
Central Electricity Regulatory Commission,
3 rd & 4th Floor, Chandralok Building,
36, Janpath, New Delhi -110 001.

**Sub:** Comments on consultation paper for Terms and Conditions for the tariff period commencing from 01st April,2019

**Ref:** CERC Public notice vide L01/236/2018/CERC dated 24.05.2018

Respected Sir,

This is with reference to CERC's public notice under reference with regard to seeking comments and suggestions of the stakeholders on Terms and Conditions of Tariff Period commencing from 1st April, 2019. MSEDCL heartily welcomes Hon'ble CERC's steps with positive gestures for involving Discoms which is a major stakeholder in the process of tariff determination.

In this regard, the comments/ suggestions of Maharashtra State Electricity Distribution Company Ltd are enclosed herewith. It is kindly requested that the same may please be taken on record and be while deciding the principles and methodologies to be adopted for tariff determination during the next tariff period commencing from 01.04.2019.

Thanking You,

Yours Faithfully,

(Satish Chavan)
Director (Commercial)

**Copy s.w.r.to:**
Chairman & Managing Director, MSEDCL, Corporate office Mumbai.

**Table 1 : CERC's Consultation Paper**

| **Clause No.** | **Options for Regulatory Framework** | **MSEDCL Observation/ Comments/ Suggestion** |
|---|---|---|
| **3.5 – 3.8** | **Cost of supply**<br>It may be seen from Table 3 and Table 4 above that the cost of purchase of power that constituted about 71% (=341*100/476) of the cost of supply of electricity in 2009-10 has come down to 63% (=438*100/691) in 2015-16. This implies that other costs viz. the operational cost of distribution utilities, including AT&C losses, have increased at a higher rate. | In contrary to CERC's observation, It is observed from the data available with MSEDCL that the average cost of supply has increased and the power purchase cost as a percentage of average cost of supply has reduced over the years. This doesn't imply that the power purchase cost of the discoms has reduced. The increase in average cost of supply is primarily attributed towards servicing the interest payment against loans taken for creation of additional distribution infrastructure under various schemes for improving reliability and extending supply to uncovered rural consumers. |
| **5.7.1 – 5.7.2** | **Renewable energy generation**<br>On account of various policy measures taken, at Central as well as State level to encourage the renewable penetration, the electricity generation from intermittent energy sources (wind, solar, tides) is gaining momentum. Now the renewable sources coupled with storage or suitable balancing power mechanism are seen as potential substitute to the conventional sources. The feed-in-tariff structure seems suitable when the contribution of renewable sources in the grid was lower as it would not create distortion. But with increasing penetration of renewable energy, this may not be the case and even feed-in tariff structure may even lead to economic inefficiency.<br>When the share of renewable generation is low in the grid, the renewable generation may get exemption from scheduling and regulations, as the variations can be met from other source of generation. But as the share of renewable generation increases in the grid, the distribution companies may require to regulate its supply. In case of likely regulation of supply of the renewable generation, the entire tariff of the renewable generation (which is of the nature of fixed cost) is compared with the marginal cost of the other generation (excluding the fixed cost component), for merit order. Therefore, the | As observed by the commission, the FIT regime would promote inefficiencies. Also, the National Tariff policy, 2016, talks about promoting competitive bidding regime instead of cost-plus. This is a step in the right direction for promoting discipline and prudence among utilities for achievement of low cost power for all. Hence, MSEDCL strongly recommends for migration towards competitive bidding regime. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | tariff structure of renewable generation poses specific challenges in operation and for merit order considerations. | |
| **5.8.1 – 5.8.3** | **Gross calorific value**<br>In the entire value chain from mine end to generating station end, the loss of GCV can take place on account of grade slippage at mine end, during transportation (transit with railway) and during storage (at generating stations). The generating companies generally have no control over the grade/GCV of coal received at their generating stations. There are several cases of grade slippages between the mine mouth and at the site of generating stations. Further, there is loss in GCV during transport of coal through Railway. Therefore, the generator may receive coal of lower GCV than what is billed by the coal companies. These are beyond the control of the generating companies. | MSEDCL suggests benchmarking of specific coal consumption (Kg/ kWh) considering all the parameters which may affect electricity generation of the specific/ unit/ station/ technology to avoid the complications and to simplify the procedure for fuel cost ascertainment. |
| **5.9 (a)** | **Provisions of revised tariff policy, 2016**<br>Clause 5.2 provides exemption to the existing generating companies from competitive bidding to carry out one time expansion of 100% of the existing capacity with a view that the benefit of the infrastructure cost of existing project should be passed on to consumers through tariff. While allowing expansion as per the provision of the Tariff Policy, the Commission has to ensure that the benefit in reduction of costs due to sharing of infrastructure of existing project should be passed on to the consumers. The regulation will need to incorporate provisions of regulatory oversight: | The determination of tariff for additional capacities installed under expansion of existing infrastructure should be less than the discovered average tariff under competitive bidding regime of the last three years considering that the existing synergies (both operational and financial) could be captured. |
| **7.2.1 – 7.2.6** | **Thermal Generating Stations –Tariff Structure**<br>(i.) Linking a portion of fixed charges with the actual dispatch and balance of AFC to availability<br>(ii.) 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 | (i.) MSEDCL opposes three-part tariff structure as it would bring unnecessary complications in the tariff structure without delivering any benefits.<br>(ii.) There was already three part tariff structure applicable in Maharashtra. It was observed that the generating stations were allocating certain components of variable charges into different categories (other variable charges) and as only the variable charge component is considered as a criteria to determine MOD, Plants even with higher variable costs were getting scheduled translating into higher power purchase cost for MSEDCL. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | balance operation and maintenance expenses). Energy charges (fuel cost, transportation cost and taxes, duties of fuel)<br>(iii.) 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 | (iii.) MSEDCL pointed out this issue with MERC and consequently this was abolished.<br>(iv.) In case the Commission decides to implement three-part tariff structure, then MSEDCL suggests laying down clear demarcation and definition of various charges. |
| **7.3.1 -7.3.4** | **Thermal Generating Stations – Older than 25 years**<br>(i.) Replacement of inefficient sub critical units by super critical units<br>(ii.) Phasing out of the old plants<br>(iii.) Renovation of old plants<br>(iv.) Extension of useful life | (i.) The analysis and treatment to the older plants should be done on case to case basis as they remarkably differ on various parameters. Further, it is worth to note that performance of a unit does not necessarily deteriorate much with age, if proper O&M practices are followed.<br>(ii.) As most of these have already recovered depreciation and completed loan repayments, they may have advantage from financial consideration. Further, their O&M cost could also be low. Hence, older plants with competitive variable costs should not be closed.<br>(iii.) Hence, the decision should be taken on case to case basis and in consultation with the discom/ beneficiary. |
| **7.4.1 – 7.4.2** | **Hydro Generating Stations –Tariff Structure**<br>The fixed component may include debt service obligations, interest on loan and risk free return while the variable component may include incremental return above guaranteed return, operation and maintenance expenses and interest on working capital. The annual fixed cost can consist of the components of return on equity, interest on loan capital, depreciation, interest on working capital; and operation and maintenance expenses. | (i.) The scheduling of dispatch of power is done on the basis of variable cost and not fixed cost. Hence, the statement that power from hydro generation facilities doesn't get scheduled owing to higher capital cost (which is reflected under fixed cost charge in tariff structure) is not correct.<br>(ii.) MSEDCL requests further clarity on reformulation strategy for tariff structure. |
| **7.5.1 – 7.5.6** | **Inter-State Transmission System - Tariff Structure**<br>(i.) Transmission tariff can be on two-part basis, wherein the first part can be linked with the access service and second part can be linked with the transmission service<br>(ii.) The tariff for transmission of electricity on inter-State transmission system can consist of fixed components and variable components.<br>a) The fixed components may consist of either (i) annual fixed cost | (i.) MSEDCL strongly opposes two-part tariff structure as almost the entire cost associated with transmission of power is of fixed nature<br>(ii.) The transmission companies would not be able to recover the fixed charges if the access charges are kept low. Similarly, the transmission company may not be able to recover capex in case the players only book capacity and then doesn't wheel power.<br>(iii.) Instead, there should be a differentiation between short term and long term transmission of power. Transmission of power for short term shall be charged |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | of some of fixed transmission system designated for access and immediate evacuation, (ii) annual fixed cost of the evacuation transmission system or (iii) part of annual fixed cost of the entire transmission system consisting of debt service obligations, interest on loan, guaranteed return;<br>b) The variable components may consist of either (i) common transmission system or system strengthening scheme excluding immediate evacuation transmission system, (ii) common transmission system excluding evacuation transmission system or (iii) sum of incremental return above guaranteed return, operation and maintenance expenses and interest on working capital.<br>(iii.) The recovery of fixed component can be linked to the extent of access (Transmission Access Charge) and variable component can be linked to the extent of use, to be recovered in proportion to the power flow (Transmission Service Charge). The fixed component may be linked to evacuation system or on normative basis based on aggregate transmission charges of the identified transmission system under the contract. The variable component may be linked with yearly transmission charges based on actual flow or actual dispatch against long term access. | at a rate higher than transmission of power for long term since the long term consumers are the ones who contributes in the development of transmission infrastructure. |
| **7.6.1 – 7.7.1** | **Renewable Energy Generation – Tariff Structure**<br>(i.) Two-part tariff structure comprises fixed component (debt service obligations and depreciation) and variable component (equal to marginal cost i.e O&M expenses and return on equity) - fixed component as feed-in-tariff (FIT) and variable component equal to capacity augmentation such as storage or back up supply tariff.<br>(ii.) In case of integration of the renewable generation with the coal/ lignite based thermal power plant, the following may be the alternatives.<br>a) The renewable generation may be supplied through the existing tariff for the contracted capacity of thermal power plant under PPA. In this alternative, the tariff of renewable generation may replace | (i.) The intention of introducing two-part tariff structure is noble, however, MSEDCL submits that two-part tariff structure holds relevance only for those generating facilities where there is a cost associated with fuel consumption i.e. for biomass and bagasse based power plant.<br>(ii.) However, MSEDCL proposes single-part tariff structure for renewable facilities where there is no cost associated with the consumption of fuel like those of wind, solar, hydro based power plant as almost the entire cost associated with electricity generation is of fixed cost in nature for such facilities.<br>(iii.) A mechanism should be devised in order to schedule power from such facilities under MOD.<br>(iv.) ROE shall not be categorized as variable in nature and must be part of fixed cost.<br>(v.) MSEDCL strongly opposes bundling of renewable power with that of |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | the energy charges;<br>b) Tariff of renewable generation may be combined with the fixed and variable components of the thermal generation to the extent of contracted capacity under PPA. The operational norms of conventional plants may require revision such as higher target availability for recovery of fixed charges, higher plant load factor for recovery of incentive<br>c) The tariff for supply of power from renewable generation and thermal power generation may be recovered separately. The operational norms for recovery of tariff may have to be specified separately. | conventional power as States may already have capacity tie-ups with various renewable energy developers to meet RPO obligations. Further, with increasing share of renewable power in the generation mix, the distribution companies shall require to regulate its supply and any integration of renewable power with that of conventional power may take away the flexibility that lies with the discoms for balancing of power.<br>(vi.) In case the commission intends to integrate RE generation with that of conventional, then the regime should migrate from RPO to RGO.<br>(vii.) Considering that the must-run status should prevail for renewable power generating facilities, appropriate compensation structure should be formulated in case of imposition of backing down. Facilities under cost-plus regime shall be compensated as per the actuals while facilities under competitive bidding regime shall be compensated as per the contractual terms with the procurer. |
| **8.1 – 8.5** | **Deviation from norms**<br>The present market framework involves the competition for power procurement for securing power purchase agreement. Once the power purchase agreement is secured, there is no framework for competition of dispatch.<br>Possible option could be to develop for incentive and disincentive mechanism for different levels of dispatch and specifying the target dispatch | (i.) MSEDCL welcomes the proposed mechanism as it shall foster competition and translate into effective utilization of installed capacity. However, it would hold relevant only when any price escalation isn't allowed during true-up.<br>(ii.) The proposed mechanism would bring in benefits only if the generators take a hit on their ROE to get their plant capacities scheduled.<br>(iii.) Further, the commission should take into account such mutually agreed terms during true-up.<br>(iv.) MSEDCL suggests defining timelines for fixation of MOD and devising predefined mechanism for scheduling power. All the concerned stakeholders should be informed in a transparent manner without taking away their operational freedom.<br>(v.) MSEDCL observes that in a condition of near monopoly, there's no competition in transmission business. |
| **9.1 – 9.4** | **Components of tariff**<br>Annual fixed charges and energy charges are to be determined to the extent of the capacity tied up or for the entire capacity. | (i.) Computation of annual fixed charges on pro-rata basis and not for the entire capacity is the prevailing practice.<br>(ii.) MSEDCL doesn't find any problem with the current practice and is not clear with what is to be addressed in this matter. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| **10.1 – 10.3** | **Optimum utilization of Capacity**<br>**Coal based thermal generation**<br>(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 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;<br>(b) Such unutilized Capacity may be aggregated and bided out to discover the market price of surplus capacity. The surplus capacity may be reallocated to the distribution licensee at market discovered price. | (i.) MSEDCL welcomes the provision as this would not only help increase utilisation levels of generating company but also encourage discoms to get into long term PPA.<br>(ii.) The arrangement would translate into considerable savings on fixed charges if demand is ascertained in the appropriate manner. Further, the arrangement provides the flexibility of recalling the capacity if the demand seems to increase.<br>(iii.) MSEDCL suggests that the cost associated with securing the right for recalling the unutilized capacity should not be more than 20% of the fixed cost associated with the surrendered capacity or else the same surrendered capacity would be re-allocated through open access or exchanges to the discoms at a cost substantially higher than the contracted tariff.<br>(iv.) MSEDCL proposes surrendering of unutilized capacities on monthly basis which would be declared for the entire year in advance.<br>(v.) Further, discoms should have the right of recalling the foregone capacity after 3 months with prior notice of one month. |
| **10.4 – 10.5** | **Optimum utilization of Capacity**<br>**Hydro generation**<br>(i.) 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.<br>(ii.) Assign responsibility of operation of the hydro power stations and pumped mode operations at regional level with the primary objective for balancing. For this purpose, the scheduling of the hydro power operation (generation and pumped mode operation) may have to be delinked from the requirements of designated beneficiaries with whom agreement exists. The power scheduled to the hydro generation can be dispatched to designated beneficiaries through banking facility so that flexibility in scheduling can be achieved for balancing purpose and to address the difficulties of cascade hydro power station. Some part of fixed charge liability to | (i.) MSEDCL welcomes taking up activities to extend the useful life and loan extension period. Extension of useful life and term period of loan would translate into depreciation and loan repayment effectively being spread out for a larger period. This would moderate the upfront loading and make hydel power attractive.<br>(ii.) MSEDCL presumes that the balancing of power at regional level is supposed to be done through central generating facilities and not through state owned facilities. In case the state facilities are also to be considered in the proposed balancing mechanism, then the states shall have the right to utilize the entire quantum of electricity equivalent to those generated from state facilities at the state periphery as and when required to balance the electricity supply.<br>(iii.) State requires to balance their load which already encompasses day variation and seasonal variation through existing hydro generation facilities. Also, hydro generation facility helps manage peak load as it has very less start up time and can be ramped up easily.<br>(iv.) Further, integration of renewable power which encompasses large variations |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | the extent of 10-20% against the use of flexible operation and pumped operations may be apportioned to the regional beneficiaries as reliability charges | would be difficult in case of lesser balancing power at the disposal of states.<br>(v.) Hence, MSEDCL requests CERC to reconsider the proposal of assigning the responsibility of operation at regional level and not at state level. However, MSEDCL proposes the idea of balancing the load requirement through creation of additional capacities. Further, banking shall also be allowed in that case. |
| **10.6 – 10.8** | **<u>Optimum utilization of Capacity</u>**<br>**<u>Gas based thermal station</u>**<br>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. | (i.) MSEDCL presumes that the balancing of power at regional level is supposed to be done through central generating facilities and not through state owned facilities. In case the state facilities are also to be considered in the proposed balancing mechanism, then the states shall have the right to utilize the entire quantum of electricity equivalent to those generated from state facilities at the state periphery whenever required to balance the electricity supply.<br>(ii.) State requires to balance their load which already encompasses day variation and seasonal variation through existing ga generation facilities. Also, gas generation facility helps manage peak load as it has very less start up time and can be ramped up easily.<br>(iii.) Further, integration of renewable power which encompasses large variations would be difficult in case of lesser balancing power at the disposal of states.<br>(iv.) Hence, MSEDCL requests CERC to reconsider the proposal of assigning the responsibility of operation at regional level and not at state level. However, MSEDCL supports the idea of balancing the load requirement through creation of additional capacities. Further, banking shall also be allowed in that case. |
| **11.1 - 11.10** | **<u>Capital cost</u>**<br>(i.) 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.<br>(ii.) 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 | (i.) MSEDCL welcomes this proposal. Even the new tariff policy encourages competitive bidding to bring in the necessary prudence which is lacking in the cost-plus regime.<br>(ii.) The approval of Capital Cost is the most critical aspect of tariff determination and hence inefficiencies on account of power producers shall not be allowed to pass through to the beneficiary discoms.<br>(iii.) Higher capital cost allows the developer return on higher base of equity deployed. Determination of capital cost based on the actual cost as per the balance sheet of the regulated entities doesn't incentivize developers for |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | 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 commissioning can also be introduced**.** | taking cost cutting measures, hence, benchmarking of technology and capital needs to be done. Further, CERC shall take a note of the number of cases in which the commission has allowed a pass through of cost escalation to the discoms and hence the very idea of benchmarking the cost got failed.<br>(iv.) Hence, compensation towards increase in cost due to factors owing to any change in law should only be considered and not any other acts except force majeure condition.<br>(v.) Introduction of incentive mechanism for early completion and disincentive for slippage from scheduled commissioning seems to be the right measure to curtail cost. Further, the quantum of penalty for slippage from the scheduled time, cost and scope should be enough to enforce discipline on the developers. |
| **12.1 – 12.7** | **Renovation & Modernisation**<br>The R&M of transmission system could include Residual Life Assessment of Sub-Station and Transmission Lines, Upgradation of sub-station and transmission line, System Improvement Scheme (SIS) and replacement of equipment. The Commission may allow Renovation & Modernisation (R&M) for the purpose of extension of life beyond the useful life of transmission assets. Alternatively, the Commission may allow special allowance for R&M of transmission assets. Such provision will enable the transmission companies to meet the required expenses including R&M on completion of 25/35 years of useful life of sub-station/transmission line without any need for seeking resetting of capital base. | (i.) R&M activities may prove to enhance the life of the asset with benefits far exceeding the entailed cost. However any such cost-benefit analysis and impact on tariff with justifications needs to be done, and any R&M activities activity should be taken up after the consent of discoms.<br>(ii.) Further, such benefits shall be shared accordingly in consultation with the discom/ beneficiary. |
| **13.1 – 13.2** | **Financial parameters**<br>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 allowed based on actual rate of interest on normative debt. The normative parameters are expected to induce operational and financial efficiency. | (i.) The normative parameters are expected to induce operational and financial efficiency.<br>(ii.) All the financial parameters shall be arrived at on the basis of normative value. Further the hybrid approach would bring in unnecessary discussion with respect to weights to be allocated to normative and actual values |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | 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. | |
| **14.1 – 14.7** | **Depreciation**<br>(i.) Increase the useful life of well-maintained plants for the purpose of determination of depreciation for tariff;<br>(ii.) Continue the present approach of weighted average useful life in case of combination, due to gradual commissioning of units;<br>(iii.) Consider additional expenditure during the end 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;<br>(iv.) 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;<br>(v.) Extend useful life of the transmission assets and hydro station to 50 years and that of thermal (coal) assets to 35 years and bring in corresponding changes in treatment of depreciation.<br>(vi.) Reduce rates which will act as a ceiling.<br>(vii.) 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 rate as depreciation in some of the year(s). | (i.) Increasing the useful life would not only lead to better utilization of assets but will also mean easing the otherwise front loaded tariffs.<br>(ii.) Establishing the useful life and residual value for computation of depreciation is must. Further, depreciation is a major component of annual fixed cost and has a bearing on the tariff set. Any change in the way depreciation is computed would affect the discoms.<br>(iii.) The present approach of weighted average for calculation of useful life seems to be fine considering the gradual commissioning of units would take place.<br>(iv.) Admissibility of additional expenditure after renovation and modernization should be restricted to limited items and further ascertainment of extension of useful life in lieu of additional expenditure incurred in R &M should be established to compute allowable depreciation.<br>(v.) The useful life or residual value of any specific asset shall be established for computing depreciation<br>(vi.) Increase in the useful life translates into effective reduction in depreciation rates |
| **15.1 – 15.3** | **Gross fixed assets**<br>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. | (i.) MSEDCL welcomes the suggestion.<br>(ii.) In view of present demand growth rate and availability of commissioned and under construction capacity, no new coal based capacity may be required till 2027. The internal resources.<br>(iii.) The returns on modified gross fixed asset would not create enough internal resources generation by way of depreciation to be reutilized for further capacity addition |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| **16.1 – 16.5** | **Debt-Equity ratio**<br>Modifications for normative debt-equity ratio from 70:30 to 80:20 in respect of new plants, where financial closure is yet to be achieved | (i.) MSEDCL welcomes the proposed debt-equity ratio.<br>(ii.) The proposed exchange would bring in the necessary discipline and prudence on behalf of equity investors with respect to irrational capacity additions |
| **17.1 – 17.4** | **Return on investments**<br>ROE or ROCE | (i.) A balance between the interests of consumers and need for investments shall be maintained while laying down the rate of return.<br>(ii.) Since fixed rate of return on equity has evolved as an acceptable approach and the same has been followed by most of the State Electricity Regulatory Commissions, ROE methodology should prevail. |
| **18.1 – 18.8** | **Return on Equity**<br>(i.) Review the rate of return on equity considering the present market expectations and risk perception of power sector for new projects;<br>(ii.) 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;<br>(iii.) Have different rates of return for thermal and hydro projects with additional incentives to storage based hydro generating projects;<br>(iv.) 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;<br>(v.) Continue with pre-tax return on equity or switch to post tax Return on equity;<br>(vi.) 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<br>(vii.) Reduction of return on equity in case of delay of the project | (i.) In the light of reduced bank interest rate and seeing the historical trend, the return on equity needs to be reduced and needs to be capped at 14%.<br>(ii.) Further MSEDCL suggests lower return on equity considering that the market and regulatory space has matured over the years and the pertaining risk has mitigated to large extent.<br>(iii.) In line with additional returns given to incentivize the project developer for timely completion, a penalizing mechanism shall also be formulated for delay in project completion. Penalty on return for delay in completion of projects would encourage prudence on behalf of developers |
| **19.1 – 19.6** | **Cost of debt**<br>Normative cost of debt based on market parameters or actual cost of debt based on loan portfolio. | (i.) The present approach of giving the cost of debt a pass through in tariff does not provide incentive to the utility to lower the cost of borrowings which has a detrimental effect on discoms power purchase cost.<br>(ii.) MSEDCL proposes calculation of cost of debt on normative basis by linking cost of debt to market parameters such as MCLR & G-sec |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | | (iii.) Further, there should be a ceiling rate equal to 150 bps above the existing MCLR rate.<br>(iv.) The entities should be penalized in case they don't adhere to the laid guidelines within the specified timelines.<br>(v.) Provisions of resetting the normative cost of debt on a frequent basis shall be kept to gauge and incorporate market sentiments<br>(vi.) Sharing of benefits in the ratio of 2:1 between the generating/ transmission entities and discoms on whatever benefits is accrued on account of restructuring/refinancing of loans |
| **20.1 – 20.4** | **Interest on working capital**<br>(i.) 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 be followed or change can be made.<br>(ii.) As stock of fuel is considered for working capital, a fresh benchmark may be fixed or actual stock of fuel may be taken.<br>(iii.) 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.<br>(iv.) Maintenance spares in IWC which is also a part of O&M expenses results in higher IWC for new hydro plants with time and cost overrun. For old hydro stations, the higher O&M expenses due to higher number of employees also yield higher cost for "Maintenance Spares" in IWC. Therefore, option could be to de-link "Maintenance Spares" in IWC from O&M expenses<br>(v.) 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 | (i.) Working capital requirements on account of fuel stock shall be done on annual average daily basis for last two years. Further, the commission should also consider the same methodology for working capital computation during true-up.<br>(ii.) Normative working capital should be linked with PLF and not PAF considering the wide gap between the two. Further, the gap is expected to become wider owing to increasing contribution of renewable sources in energy mix. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | normative working capital has been provided 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. | |
| **21.1 -21.8** | **O&M expense**<br>(i.) Review the escalation factor for determining O&M cost based on WPI & CPI indexation as they do not capture unexpected expenditure;<br>(ii.) Address the impact of installation of pollution control system and mandatory use of treated sewage water by thermal plant on O&M cost.<br>(iii.) Review of O&M cost based on the percentage of Capital Expenditure (CC) for new hydro projects;<br>(iv.) Review of O&M expenses of plants being operated continuously at low level (e.g. gas, Naptha and R-LNG based plants).<br>(v.) Rationalization of O&M expenses in case of the addition of components like the bays or transformer or transmission lines of transmission system and review of the multiplying factor in case of addition of units in existing stations;<br>(vi.) Have separate norms for O&M expenses on the basis of vintage of generating station and the transmission system. Treatment of income from other business (e.g. telecom business) while arriving at the O&M cost. | (i.) Escalation in O&M Expenses based on WPI and CPI indexation is a transparent way to ascertain the percentage increase in O&M expense. However, pay revision/ pay hike component after a particular period should also be considered/ incorporated separately.<br>(ii.) Reviewing of O&M expenses of plants being operated continuously at low level is necessary considering the rationale that lower utilization translates into lower expense.<br>(iii.) Categorizing expenditure into different baskets (expected and unexpected) would invite manipulations and further discourage prudence on behalf of developers in allaying such expenses. |
| **22.1 - 22.9** | **Gross calorific value**<br>(i.) 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. Similarly, specify normative GCV loss between "As Received" and "As Fired" in the generating stations. | (i.) Instead of getting into all these intricacies, MSEDCL suggests benchmarking of specific coal consumption (Kg/ kWh) considering all the parameters which may affect electricity generation of the specific unit/ station/ technology to avoid the complications and to simplify the procedure for fuel cost ascertainment.<br>(ii.) In case, the commission intends to go ahead with process of standardisation of fuel cost components then MSEDCL proposes standardizing GCV computation method on "As Billed' basis for procurement of coal both from domestic and international suppliers.<br>(iii.) Energy Charge constituting about 60-70% of the total cost of generation tariff |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | (ii.) Standardize GCV computation method on "As Received' and "Air-Dry basis'' for procurement of coal both from domestic and international suppliers. | has major impact on cost to end consumers. Hence, any cost of slippage in grade of coal between the loading point and the site of generating station needs to be looked at in terms of risk allocation between the coal company, railways and the generating stations. |
| **23.1 – 23.6** | **Fuel: Blending of imported coal**<br>Normative blending ratio may be specified for existing plant as well as new plants separately in consultation with the beneficiaries. | (i.) Heavy reliance on coal from alternative sources would translate into substantial increase in energy charges affecting the power purchase cost for discoms.<br>(ii.) In the context of erratic supply of coal from domestic sources, MSEDCL supports arrangements from alternative sources of coal, however, any such step shall be taken with prior consent of discoms/ beneficiary. |
| **24.1 – 24.6** | **Fuel: Landed cost**<br>(i.) 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;<br>(ii.) 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. | (i.) MSDECL welcomes the proposal of standardizing the cost components and also suggests standardization in the format in which the generators should give information regarding fuel cost to the procurers. The discoms should also have the right to seek any other relevant information from the generators regarding fuel as and when required.<br>(ii.) The generators should intimate the discoms as early as one month before any change in variable cost (more than 5%) owing to any or several reasons (change in source, change in mode of transport, internal handling etc.) is envisaged.<br>(iii.) Standardization of components of fuel cost and capping on the variation of prices and further verification of the same would decrease the wide fluctuations in tariffs. |
| **25.1- 25.3** | **Fuel: Alternate sources**<br>(i.) Stipulate procedure for sourcing fuel from alternate source including ceiling rate;<br>(ii.) Rationalize the formulation keeping in view the different level of energy charge rates, as the fuel cost has increased since 1.4.2014. | (i.) Heavy reliance on coal from alternative sources would translate into substantial increase in energy charges affecting the power purchase cost for discoms.<br>(ii.) In the context of erratic supply of coal from domestic sources, MSEDCL supports arrangements from alternative sources of coal. Blending shall only be allowed at the prior consent of discom/beneficiary. |
| **26.3.1 – 26.3.6** | **Operational Norms**<br>**Station Heat Rate (Thermal generating stations)** | (i.) The heat rate is a crucial parameter as it has substantial impact on tariff<br>(ii.) The heat rate norms is required to be seen in the light of efficiency improvement targets to be achieved by the generating stations. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | (i.) The existing regulations provides for calculation of Gross Station Heat rate for new stations based on Designed Heat Rate with margin of 4.5%.<br>(ii.) 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 | (iii.) The operational norms should be progressive in nature and should be revised from time to time. The utilities may take up any investment if required to meet the norms, however, guidelines should be fixed for adherence to the timelines, scope and cost. In case the generator fails to achieve the target within the agreed terms then penalty should be imposed.<br>(iv.) The gain/savings on account of improvement in heat rates should be shared with the beneficiaries |
| **26.3.7** | **Operational Norms**<br>**Specific Secondary Fuel Oil Consumption (Thermal generating stations)**<br>Reduction in specific secondary fuel oil consumption norms may adversely affect the boiler operations under different operating conditions including partial loading of units due to fuel shortage conditions. With contribution from renewable generation increasing in the grid, thermal power plants are facing frequent regulations of supply and operations at lower PLF up to technical minimum. The consumption of secondary fuel oil would change on account of nature of operations. | (i.) Benchmarking of consumption rate would induce operational discipline among power plant operators.<br>(ii.) Separate benchmarking of operational parameters such as specific secondary fuel oil consumption in accordance with the consumption pattern of last 10 years for power plants based on different technologies is suggested.<br>(iii.) The operational norms should be progressive in nature and should be revised from time to time. The utilities may take up any investment if required to meet the norms, however, guidelines should be fixed for adherence to the timelines, scope and cost. In case the generator fails to achieve the target within the agreed terms then penalty should be imposed.<br>(iv.) The gain/savings on account of improvement in efficiency should be shared with the beneficiaries |
| **26.3.8–26.3.10** | **Operational Norms**<br>**Auxiliary energy consumption (Thermal generating stations)**<br>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 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. | (i.) Norms for APC shall not only be based on the unit capacity but also on the technology on which the unit is based.<br>(ii.) The operational norms should be progressive in nature and should be revised from time to time. The utilities may take up any investment if required to meet the norms, however, guidelines should be fixed for adherence to the timelines, scope and cost. In case the generator fails to achieve the target within the agreed terms then penalty should be imposed.<br>(iii.) The gain/savings on account of improvement in efficiency should be shared with the beneficiaries |
| **26.3.11 – 26.3. 15** | **Operational Norms**<br>**Normative annual plant availability (Thermal generating stations)** | (i.) There have been numerous cases where generating stations have been found to declare lower availability during the peak demand period and higher availability during low demand period so as to achieve the target cumulative |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | • Different availability norms for existing and new plants<br>• Effect of shortage of domestic fuel on plant availability and allowable blending as per the consent of beneficiaries<br>• The existing norms of annual plant availability may 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 | 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. Consequently the discoms are required to procure power from short term markets in order to fulfil its demand. This translates in to discoms paying open access charges as well as the fixed cost for procuring power which results in financial burdening.<br>(ii.) MSEDCL welcomes CERC proposal for introduction of different availability norms for existing and new plants. Shifting of fixed cost recovery from annual cumulative availability basis to a lower periodicity is a good step considering the erratic status of plant availability owing to several factors such as fuel supply, inappropriate O & M among others.<br>(iii.) MSEDCL agrees with the proposal of Commission regarding blending of fuel, however, Prior consent of beneficiary must be required in case blending of fuel is required and variable cost is changing more than 5%.<br>(iv.) Also, the declaration of plant availability of generating units should be based upon the coal stock defined by CEA |
| **26.3.16 – 26.3.19** | **Operational Norms**<br>**Transit & Handling losses (Thermal generating stations)**<br>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 Form- 15 regarding the GCV | (i.) Instead of getting into all these intricacies, MSEDCL suggests benchmarking of specific coal consumption (Kg/ kWh) considering all the parameters which may affect electricity generation of the specific unit/ station/ technology to avoid the complications and to simplify the procedure for fuel cost ascertainment.<br>(ii.) Cost of slippage in grade of coal between the loading point and the site of generating station needs to be looked at in terms of risk allocation between the coal company, railways and the generating stations. The quantity of losses in transit attributed to theft and inefficiencies should not be passed to beneficiaries. |
| **26.4.1 – 26.4.3** | **Thermal generation (coal washery rejects based)** | No comment |
| **26.5.1 – 26.5.5** | **Transmission availability factor**<br>(i.) Existing approach for computation of Transmission system availability and weightage factors to be applied for outage hours for transformer and reactors;<br>(ii.) Review of the incentive formula for HVDC bi-pole and HVDC back-to- | (i.) At present, the incentive structure doesn't take into account the unavailability of a particular transmission line and instead considers the percentage availability on totality basis. The transmission companies gets incentivised even when large population of a particular region are deprived of reliable and quality power because of breakdown of the transmission line. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | back stations at par with AC system;<br>(iii.) Specify appropriate region (import or export) for certifying the availability of Inter-regional links (AC and HVDC line) for the purpose of incentive and recovery of annual fixed charges; and<br>(iv.) Review of the existing methodology or procedure for computation of availability, monthly availability and cumulative availability | Hence, MSEDCL proposes changes in the incentive mechanism and suggests to take into account the percentage availability of each transmission corridor. Further, MSEDCL proposes imposition of penalty in case the corridor is not available beyond the set percentage availability target.<br>(ii.) Looking at the recent advancement in technologies, the availability of transmission infrastructure has improved considerably. Hence, the incentive percentage linked to availability needs to be reviewed and should be lowered to 0.5% for HVDC as well as AC systems. |
| **26.5.6 – 26.5.9** | **Transmission losses**<br>(i.) Introduction of norms for inter-state transmission losses based on factors within control and international benchmarks.<br>(ii.) The existing approach for operational norms and level of Normative Annual Transmission Availability Factor (NATAF) may be reviewed. The weightage factor to be applied for arriving outage hours for calculating NAFM of transformer and switchable reactor of substation element may also be deliberated upon | (i.) It is the prime responsibility of transmission companies to improve the network infrastructure and curb inefficiencies. Any form of incentivisation has a cost bearing which ultimately gets passed to discoms and thereby burdening the consumers through higher tariff.<br>(i.) Stringent norms should be set with regards to curbing the transmission losses over the control period and penalties should be imposed for non-adherance to the set target within the specified timelines. |
| **26.6.1 – 26.6.3** | **PAF for Hydro generation plants**<br>Review of existing values of NAPAF based on actual PAF data for last 5 years | (i.) Looking at the recent technological advancements and huge investments in creating the infrastructure and R&M activities, the targets for PAF should be set on a on a higher side.<br>(ii.) Further, apportioning of risks associated with hydrology between the generator and the beneficiary reduces the risk burden on the discoms. |
| **27.1 – 27.6** | **Incentive**<br>(i.) Introduction of differential incentive for plant availability during peak and off peak periods. On the same consideration, there may also be a need for higher incentive for the storage and pondage type hydro generating station providing peaking support.<br>(ii.) As regards transmission system, incentive is being recovered only through monthly formula of billing and collection of transmission charges. In the absence of clear provision regarding reconciliation of annual transmission charges and incentive with monthly billing, the concept of NATAF specified by the Commission in Tariff Regulations, | (i.) MSEDCL opposes the provision of incentivising hydro generation facilities for generation of electricity taking place because of discharge of water for irrigation or drinking purposes which comes under water resource department. However, penalties should be imposed in case the hydro generation facilities aren't able to generate during peak periods.<br>(ii.) Incentivizing transmission systems norms should be made more stringent as proposed above in clause 25.<br>(iii.) There have been numerous cases where generating stations have been found to declare lower availability during the peak demand period and higher availability during low demand period so as to achieve the target cumulative availability on annual basis to recover the full annual fixed charges. In this |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | 2014 requires review<br>(iii.) In view of the introduction of the compensation mechanism for operating plants below norms i.e.83-85%, there may be a need to review the incentive and disincentive mechanism with reference to operational norms. | process, the beneficiaries may not get the electricity when required at the time of high demand. |
| **28.1 – 28.2** | **Implementation of operational norms**<br>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 | (i.) MSEDCL strongly proposes implementation of operational norms of the new tariff period from the effective date of control period.<br>(ii.) The benefits of the improved operational norms get passed to beneficiaries only after time lag of few months, hence the operational norms of the new tariff period should be implemented from the effective date of control period irrespective of issuance of tariff order. |
| **29.1 – 29.3** | **Sharing of gains in case of Controllable Parameters**<br>(i.) In view of the compensation mechanism, it needs to be considered as to whether the ratio of sharing (60:40 to generators and the beneficiaries) of benefit may be reviewed.<br>(ii.) 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 | (i.) As the entire downside risk is passed on to the beneficiary discoms, hence, similar treatment shall be given to any upsides on account of improved operational parameters.<br>(ii.) MSEDCL proposes the commission vide IEGC code ($4^{th}$ amendment) regulation, 2016 which provides compensation against deteriorated parameters of SHR, APC, and SFOC in case of plants running at lower PLF. Hence, any benefit accrued on account of improved operational parameters should be completely passed on to the beneficiaries.<br>(iii.) Any realised gains shall be reconciled on a quarterly basis. |
| **30.1 – 30.** | **Late Payment Surcharge & Rebate**<br>(i.) 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.<br>(ii.) 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 | (i.) MSEDCL suggests linkage of late payment surcharge with MCLR rates along with premium of 150 bps.<br>(ii.) It has been observed that the invoices are submitted late evening which defeats the very purpose of availing rebate through early payment as the processing<br>(iii.) MSEDCL proposes that the count of two days should be in the form of working hours i.e. 48 Hrs. from the time of receipt of invoices |
| **31 .1 – 31.2** | **Non-tariff income** | (i.) MSEDCL welcomes this step. 100% non-tariff income should be passed on to the discoms since each and every cost incurred in generation of power under |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | 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 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. | cost-plus regime is paid off by the procurer, therefore on similar principles, any benefit accrued on account of monetisation of asset should be passed on to the beneficiaries. |
| **32.1 – 32.2** | **Standardization of Billing Process**<br>Whether standardization of billing process including formats, verification and timeline etc. may be done | MSEDCL welcomes such standardization process. This would help avoid confusion and streamline the process |
| **33.1 – 33.4** | **Tariff mechanism for Pollution Control System (New norms for Thermal Power Plants)**<br>Recovery of the investment made during operation period in the form of additional capitalization through redesigning or retrofitting of plant and related operational costs require a mechanism in the tariff regulations | (i.) MSEDCL proposes facilitation of creation of pollution control systems through the green fund already created by GOI by levying clean energy cess.<br>(ii.) Discoms are already stressed and any further pass through of costs would further deteriorate their financial.<br>(iii.) CERC through CEA may propose government of India to compensate the generating utilities towards creation of pollution control systems so as to reduce the burden on discoms and thereby end consumers.<br>(iv.) Further, any installation of pollution control equipments should be done with the prior consent of discoms. |
| **34.1 – 34.4** | **Renewable Generation by existing Thermal Generation Stations**<br>(i.) The power from such plant shall be allowed to be bundled and tariff of such renewable energy shall be allowed as pass through by the Appropriate Commission.<br>(ii.) Scheduling and dispatch of such conventional and renewable generating plants shall be done separately<br>(iii.) The target availability and dispatch level, in this case, maybe pre-specified which may be 2% higher for every 10% renewable capacity addition and the annual fixed charges for the thermal project and renewable project maybe combined for deciding the tariff | (i.) MSEDCL strongly opposes bundling of renewable power with that of conventional power as state may already have capacity tie-ups with various renewable energy developers to meet RPO obligations.<br>(ii.) Further, with increasing share of renewable power in the generation mix, the distribution companies shall require to regulate its supply and any integration of renewable power with that of conventional power may take away the flexibility that lies with the discoms for balancing of power.<br>(iii.) In case the commission intends to integrate RE generation with that of conventional, then the regime shall migrate from RPO to RGO (Renewable Generation Obligation). |
| **35.1 – 35.5** | **Commercial Operation or Service Start date** | (i.) In order to stream line the process of declaring commercial operation date in |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | (i.) Addressing the shortcomings in existing methodology for the trial run of generating station and trial operation for transmission element through appropriate regulatory mechanism;<br>(ii.) Issue of trial operation and commissioning of the project when a generating station is ready but cannot be operated due to non-availability of load or evacuation system;<br>(iii.) Issue of acceptance of COD of transmission line if the generating project or upstream/ downstream transmission assets are not commissioned;<br>(iv.) Pre-requisite of completion of data telemetry and communication facilities for declaring COD of transmission system and operationalization of RGMO for declaring COD of generating station<br>(v.) Linking of commercial operation date with schedule commercial operation or schedule commencement date of the Power Purchase Agreement or Long Term Access Agreement respectively;<br>(vi.) Linking the commercial operation date of the transmission system with the commissioning of the generating units or stations;<br>(vii.) Separation of the commercial operation date of the unit or stations, the transmission element or system from the service start date under the contract. | case of the delay and to make aware the parties upfront about the consequences of delay, provisions could be made for demarcation of responsibilities or for Indemnification Agreement<br>(ii.) In case of any delay by any of the utilities (Genco/ Transco) which hinders the operation of other utility, then any penalty/ charges/ burden on account of such delays shall be levied from that utility<br>(iii.) Clear definition of COD of systems and associated system facilities would avoid any dispute related to billing of charges. |
| **36.1 – 36.7** | **Energy storage system**<br>(i.) Storage facility as a part of inter-state transmission system may be subjected to regulatory approval while storage facility as a part of the generating capacity may be as per the consent of the procurer for availing storage facilities.<br>(ii.) The annual fixed charges of energy storage system may be determined separately as per pre-specified operational and financial norms by the Commission<br>(iii.) The annual fixed charges of the storage facility at the generation site can be determined based on ramping rate, auxiliary consumption, Return on Equity (ROE), Interest on Loan, Depreciation, Operation & Maintenance cost and Interest on Working Capital | Unless the storage system is technologically and commercially established, any charges attributable to storage systems should be compensated through PSDF fund (PSDF funds are meant to promote newer technologies). |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| **37.3 – 37.6** | **Normative tariff by benchmarking of capital cost**<br>(i.) Would it be advisable to undertake econometric analysis to arrive at benchmark capital cost?<br>(ii.) What are the variables that should be considered for the purpose of determining Capital Cost on normative basis?<br>(iii.) Any other methodology for benchmarking the capital cost for generation and transmission projects? | (i.) MSEDCL welcomes CERC's proposal for benchmarking the capital cost.<br>(ii.) Benchmarking of cost components would encourage power producers to act prudently and take up cost cutting measures<br>(iii.) MSEDCL understands that the benchmarking procedure would involve undertaking rigorous study and component-wise analysis. |
| **37.7 – 37.9** | **Normative Tariff by fixing AFC as a percentage of Capital Cost**<br>(i.) Whether it is a good idea to determine AFC as percentage of Capital Cost on normative basis?<br>(ii.) 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? | (i.) The option of Normative Tariff by fixing AFC as a percentage of Capital Cost seems appropriate in present context and same may be taken up with CERC accordingly. Further the capital cost needs to be benchmarked to keep a check on rising capital cost because of internal inefficiencies of generating and transmission companies.<br>(ii.) Further, possible methodologies using large samples should be explored to establish the relation between AFC and Capital Cost |
| **37.10 – 37.17** | **Normative Tariff by fixing each component of AFC as a percentage of total AFC**<br>(i.) Whether clustering the components of AFC based on their nature to increase/ decrease in order? Any other possible method to cluster the AFC components?<br>(ii.) What methodology should be adopted to determine the escalable (increasing)/ non-escalable (decreasing) factors?<br>(iii.) 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.<br>(iv.) Whether isolation of "Additional Capitalization" as a separate stream of revenue would provide for recovery of AFC on a normative basis in realistic terms?<br>(v.) Alternatively, do you suggest any other methodology to treat "Additional Capitalization" for determination of AFC on normative basis?<br>(vi.) Whether applicability of change in tariff principles in each control | (i.) MSEDCL welcomes this proposal as it would help ascertain the exact nature of cost centre and fix the allocation of capital to such centre.<br>(ii.) Benchmarking of cost components would encourage power producers to act prudently and take up cost cutting measures.<br>(iii.) The arrangement would require large pool of resources and time on conducting component wise prudence check. Further, clustering of cost centres would be required to be done on the basis of their nature (increasing/decreasing/constant).<br>(iv.) Further, escalable (increasing) / non-escalable (decreasing) factors needs to be defined separately for facilities depending upon life of plant and other factors. |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | period for the new plants would allow regulatory certainty to the existing plants?<br>(vii.) Alternatively, is there any other methodology to minimize the impact on AFC on account of change in control period? | |
| **37.18 – 37.21** | **Principles of Cost Recovery - Approach towards Multi-Part tariff**<br>(i.) 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.<br>(ii.) Peak component of AFC: The remaining 20% of the AFC is recoverable from the beneficiaries, if the generating station achieves a PAF of 95% for the peak period, say of 4 months. During the currency of peak period, adherence to the norm of 95% PAF will be reconciled on monthly basis and slippages from this norm i.e. 95% upto the limit of 80%, would result in reduction in higher peak AFC for that month | (i.) The proposed mechanism for differential peak and off-peak recovery of fixed charges seems to hold good for the procurers. There have been numerous cases where generating stations have been found to declare lower availability during the peak demand period and higher availability during low demand period 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. Consequently the discoms are required to procure power from short term markets in order to fulfil its demand. This translates in to discoms paying open access charges as well as the fixed cost for procuring power which results in financial burdening.<br>(ii.) MSEDCL strongly proposes for introduction of system of differential AFC recovery linked to peak and off-peak months for each generating stations. Further, the proposed mechanism differentiates between peak and off-peak months and not between peak and off-peak hours. With considerable expected renewable capacity addition in the system, there will be huge demand variation within a day. Thus, having a differential peak and off-peak tariff on day as well as month basis holds importance. The same will also be in line with Tariff Policy which clearly mentions that the Commission shall introduce differential rates of fixed charges for peak and off-peak hours.<br>(iii.) Further, MSEDCL proposes PAF to be 95% for peak period of 6 months instead of 4 months<br>(iv.) Also, the plant availability should be based upon the availability of coal/ fuel as per the CEA norms. |
| **38.1** | **Transparency in Billing and Accounting of Fuel**<br>The regulatory approach of pass through of coal cost to the procurer directly on the basis of certification has been well adopted. | (i.) MSEDCL proposes for submission of actual bills of coal invoices as well as credit notes for grade slippages etc, and transportation cost so as to ensure the real transaction and bring in further transparency.<br>(ii.) Presently the same practice is followed for passing on the change in law for |

| Clause No. | Options for Regulatory Framework | MSEDCL Observation/ Comments/ Suggestion |
|---|---|---|
| | | bills of IPPS |
| **39.1 39.2** | **Relaxation of Norms**<br>The present regulatory framework provides for specifying normative operational parameters. However, there may be situations where the normative level due to the site specific features such as FGD, Desalination plant, increase in length of water conductor system etc may lead to power consumption in excess of the norms. In such situations, the present regulatory framework provides for relaxation of norms | Discoms are already under stressed condition and any further pass through of cost would deteriorate their financial health. |
| **40.1 – 40.3** | **Merit Order Dispatch**<br>The merit order operation is important for economic operation of the plants and optimum despatch of economic resources. The consideration of other factors such as distance of transportation, secondary fuel oil consumption may provide the option to distribution utility to optimize the despatch. Present merit order is based on the fuel cost of the past data, with time lag of up to two-three months in billing cycle. | (i.) MSEDCL proposes to standardize regulations on MOD w.r.t the parameters that governs the derivation of costs such as variable cost, change in law components, FAC, percentage transmission losses and charges etc.<br>(ii.) While preparing MoD, the incentive given on attainment of cumulative normative availability should also be considered.<br>(iii.) Instead of determining the MoD on the basis of past dates having time lag of almost 2 months in the billing cycle i.e on the basis of (n-2) , the current month’s projected rates should be considered with an allowance of 3%. |