KERALA STATE ELECTRICITY BOARD LIMITED

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KSEB/TRAC/CG/Tariff Regulations 2019-24/ 2018-19/4705 2.8.2018

To

The Secretary,
Central Electricity Regulatory Commission,
4th Floor, Chanderlok Building, 36, Janpath,
New Delhi 110 001.

Sir,

Sub: Comments of KSEBL on the consultation paper on Terms and Conditions of Tariff Regulations for the tariff period 1.4.2019 to 31.3.2024 – reg:

Ref: Consultation paper on Tariff Regulations 1-4-2019 to 31-3-2024.

KSEBL may submit the following comments on the consultation paper on Terms and Conditions of Tariff Regulations for the tariff period 1.4.2019 to 31.3.2024 for kind consideration.

Item No.7. Tariff Design: Generation and Transmission

1. Three part tariff structure for Generation (Paragraph 7.2.1 to 7.2.6)

KSEBL Comments:

1. The proposal is highly welcomed as it will relieve the DISCOMS from paying full fixed charges for the normative availability, when there is no or less schedule.
2. It will prompt DISCOMs to have more long term PPAs in view of the reduced risk associated with this portfolio. The burden on DISCOM arising from long term contracts will be reduced to a certain extent and DISCOMs will get flexibility of scheduling low cost generation to reduce the overall cost of power purchase, ultimately benefitting the consumers.
3. It is requested that following may also be considered under this proposal:
    i. The target availability for recovery of first portion, i.e. fixed charge may be limited to 60%, which is the present average PLF of thermal stations.

ii. Operation & Maintenance expenses may also be divided and only 50% of these expenses may be included under 'Fixed charge' portion and the balance 50% may be included under 'variable charge'.

iii. 'Interest on Working Capital' may be included under 'variable charge' portion only.

iv. Risk free return may only be included under fixed charges and return above guaranteed return may be included under variable charge.

v. All the revenue expenses related to ash handling and ash disposal in case of coal based plants may be included under 'Fuel charges' in addition to fuel cost, transportation cost, taxes and duties of fuel.

vi. The expenditure on water charges and capital spares may also be divided and apportioned between 'fixed charges' and 'variable charges' in the ratio of 50:50.

vii. It may be made clear that a user who does not schedule any energy from the plant may be made liable to pay only the 'fixed charges'.

viii. Incentive may be allowed only if PLF exceeds 85%.

2. **Regulatory framework for thermal generating stations older than 25 years: (Paragraph 7.3.1 to 7.3.4)** : In the case of thermal generating stations older than 25 years following comments are offered:

i. The useful life of these plants may be extended if the plant is capable of operating economically without huge capital investment after renovation. Renovation and Modernisation and Life Extension of existing old power stations is an effective option to achieve additional generation from existing units at low cost and short gestation period.

ii. In the case of R&M, the accumulated depreciation should be deducted to arrive at the Net Capital Base for the purpose of tariff determination during the extended period of useful life of the asset.

iii. R&M of generating units should be undertaken after due consultation with beneficiaries considering cost benefit analysis.

iv. R&M for life extension between 15 to 20 years shall only be admitted.

v. R&M proposal should be made on the basis of R&M study duly approved by competent authority.

3. **Hydro generating stations – Tariff Structure (Paragraph 7.4.1 to 7.4.2)**

To reduce the fixed cost of hydro stations, it is requested that following may also be additionally considered in addition to the proposal of Hon'ble Commission.

i. Operation & Maintenance portion of the fixed cost may be divided and only 50% of these expenses may be included under 'Fixed charge' portion and the balance 50% may be included under 'variable charge'. 'Interest on Working Capital' may be included under 'variable charge'.
ii. Risk free return may only be included under fixed charges and return above guaranteed return may be included under variable charge.

4. **Inter-State Transmission System – Tariff Structure (Paragraphs 7.5.1 to 7.5.3)**

The proposal of Hon'ble Commission to introduce two part tariff structure for transmission is welcomed. Following remarks are submitted on the proposal:

i. It is difficult to identify which transmission systems correspond to evacuation and which corresponds to common transmission system/system strengthening and this will always lead to litigations.

ii. Therefore it is recommended that the fixed cost of the transmission system may consist of debt service obligations, interest on loan, guaranteed return and part of O&M expenses and variable charge may include sum of incremental return above guaranteed return, part of operation and maintenance expenses and interest on working capital.

iii. It is also requested that there may be a procedure in the Regulation for monitoring the level of utilization of inter-state transmission assets. The procedure may periodically review the actual scenario of usage of transmission assets with the scenario that existed at the planning stage, the variations and the reasons. The reasons for variation may be analyzed and the entity who caused the variation may be made responsible for the financial burden due to this variation. This mechanism will help in achieving optimal utilization of transmission assets.

iv. In the case of high capacity corridors, the optimal utilization of the asset occurs only after several years and therefore back loading of tariff may be adopted in transmission tariff design.

5. Renewable Energy Generation –Tariff structure (Paragraph 7.6.1 to 7.7.1)

The proposal of the Hon'ble Commission to introduce two part tariff for renewable energy is welcomed considering the large penetration of renewable and the grid parity achieved. The cost of energy storage systems are now being seen as a separate cost and distorts the real price of renewable energy. It is requested that Hon'ble Commission may through Regulations mandate hybrid renewable plants including solar, wind and storage systems to facilitate dispatchable power from all such plants and necessary provisions may be included in the Regulation.

The components of fixed and variable charges in the tariff may be as proposed for hydro generation.

In the case of integration of renewable with coal/lignite based thermal plants, following comments are offered:

1. Option under 7.6.4 (a) is preferred.
2. The purchase from such coal/lignite based thermal plants may be allowed to account for the RPO of the procurer.

6. Deviation from Norms (Paragraph 8.1 to 8.5)

Hon'ble Commission has proposed to introduce an incentive or disincentive mechanism for different levels of dispatch. In this matter it is submitted that the proposal of Hon'ble Commission to introduce three part tariff structure has the mechanism of incentive/disincentive inbuilt in it and therefore there is no requirement for separate norms for incentive/disincentive for different levels of dispatch.

7. Components of tariff (Paragraph 9)

9.2 AFC of stations whose capacity is not fully tied up:

It is remarked that for generating stations whose full capacity is not tied up, the tariff may be determined for the entire capacity tied up under section 62 of the Act and restrict the tariff for recovery to the extent of power purchase agreement on pro-rata basis and balance capacity may be merchant capacity tied up under section 63.

It is requested that the methodology for calculation of Plant Availability Factor of generating stations whose capacity is not fully tied up may be specified in the new Regulations.

8. **Optimum utilization of capacity (Paragraph 10)**

Coal based Thermal generation

The proposal made by Hon'ble Commission under paragraph 10.3 has the following disadvantages.

i. The proposal is very complicated and its implementation will be difficult.
ii. The full cost recovery of a generator in case of non utilization by the original beneficiary will be a question since sale at market discovered price may not help in recovering full cost.
iii. Further, the generator will not be able to recover the cost if there are no offtaker for the unutilized capacity.
iv. The proposal for paying additional payment of 10-20% or to the extent of debt service obligation for recalling unutilized capacity will lead to additional expenditure for DISCOMs and additional revenue for the generator.
v. Further, the proposal may lead to litigations.
vi. Therefore, the proposal may not be implemented.

It is requested that the present scheme of URS may be continued. The generator may given liberty to sell URS in the market. To reduce the burden of DISCOMs from full fixed charge payment in case of surrender, the following may be considered:

In case allocation from a generating station is surrendered by a DISCOM and if there are no other offtakers, the fixed charge payable by the DISCOM to the generator shall be only 50% of the fixed charge of the generator. This is considering the fact that if the plant is not scheduled, the O&M charges and Interest on working capital required is less.

<u>Hydro Generation</u>

10.5(a) Presently, the hydro tariff is higher due to higher capital cost involving civil works and land cost. For reduction of tariff of hydro plants, it is suggested that the useful life of the hydro plants may be extended to 50 years. Extending loan repayment period upto 18-20 years from existing 10-12 years will decrease the level of upfront loading of the tariff.

10.5(b) Following comments are offered on the proposal of making hydro stations as regional stations for balancing the grid:

1. Scheduling of hydro stations owned by States at regional level for balancing requirement will upset the load generation balance of the State DISCOMs. Therefore only regional hydro stations or central generating stations whose tariff is regulated by the Central Commission may be included under this regime. The aspect may be clarified in the Regulation.

2. The cost sharing of the hydro plant when it is scheduled as a balancing system may be in proportion to the RE injection by the utilities.

3. As per the proposal, some part of the fixed charge liability to the extent of 10-20% against the use of flexible operation and pumped operations may be apportioned to the regional beneficiaries as reliability charges. In this matter, it is submitted that such apportioning shall be made only in the ratio of Renewable capacity of the States as such charges are necessitated due to huge penetration of RE.

Gas based thermal generation

10.7 The second alternative is recommended. The cost sharing of the gas plant when it is scheduled as a balancing system may be in proportion to the RE injection by the utilities.

9. Capital Cost (Paragraph 11)

The capital cost of generation/transmission projects are found to increase considerably on account of 'time and cost over run'. Hence, if the entire capital cost is considered for tariff determination, the efficiency achievement by the developers during construction phase cannot be assured. Hence it is recommended that,

i. Benchmarking of capital cost of generating Stations/transmission need to be evolved especially considering the fact that cost discovered in competitive bidding is very low. Such benchmark cost may be finalized through consultation with all stakeholders and may be made available in public domain.

ii. There shall be penalty for time over run on account of avoidable reasons, and incentive for completing the project in time. The variation between

benchmark capital cost and the actual cost may be allowed only in case of force majeure situations.

iii. The delay in getting statutory approvals/clearances, delay in land acquisition, delay on the part of contractor etc may not be allowed while approving the capital cost.

iv. Additional capitalization after 'Cut off date' may be allowed only for meeting undischarged liabilities, deferred works, works required as per court orders. All other capital expenses may be met through compensation or special allowance.

v. It is often seen that the generators are misusing the provision of extension of cut off date and claiming additional capitalization which are not allowed after 'cut off date' It is requested that the provision for extension of 'cut off date' may be removed from the Regulation.

vi. The generator/ transmission licensee opting for R&M instead of replacing the old assets shall clearly establish that, R&M would be more beneficial compared to the replacing the old assets. It is requested that the R&M proposals without any specified life extension shall not be approved. The R&M with life extension between 15 to 20 years shall only be admitted.

vii. Financial liability for delay in commissioning of generation/transmission may be defined clearly in the Regulations to avoid litigations. Payment of transmission charge liability for partial commissioning of generating stations (i.e. only few units commissioned) whereas transmission system is completed ready may also be clearly specified in the Regulations.

viii. It is suggested that Hon'ble Commission may move from 'Investment Approval' to 'Benchmark capital cost' as basis for tariff. Any allowance over benchmark cost may be allowed only for increase in cost due to pre-defined force majeure situations. For benchmarking of technology, it is suggested that Central Electricity Authority may issue benchmark standards for the equipments and the technology for the thermal and hydro plants. For benchmarking capital cost it is requested that in addition to hard cost, there shall be benchmark for financing cost, interest during construction, taxes and duties, right of way charges, cost of Rehabilitation & Resettlement etc. Benchmarking of capital cost may be carried out based on the cost discovered in competitive bidding. Benchmark capital cost may be reviewed every five years to take in to consideration financial parameter variations.

ix. The cost of plant and machinery of a generation project can be standardized for each type of project- coal based/ gas based etc with suitable indexation

for inflation during the subsequent years etc. Further, the capital cost of transmission projects can also be standardized with indexation for inflation.

x. 'International competitive bidding' may be mandatory for the procurement of main plant packages/ major packages, however the beneficiaries shall be shielded from the risk of 'Foreign Exchange Rate Variation (FERV).

xi. It is requested that the normative equity base for allowing fixed rate of return may be restricted to the actual equity as per the Investment approval or equity as per benchmark norms whichever is lower.

10. Renovation & Modernisation (Paragraph 12)

The generator/ transmission licensee opting for R&M instead of replacing the old assets shall clearly establish that, R&M would be more beneficial compared to the replacing the old assets. It is requested that the R&M proposals without any specified life extension shall not be approved. The R&M with life extension between 15 to 20 years shall only be admitted.

11. Financial Parameters(Paragraph 13)

In the present Regulations, the capital cost is based on actual whereas the norms exist only for RoE, O&M and IoWC. It is requested that while moving to the next tariff Regulations, following may also be considered in addition to the existing norms.

1. Capital cost may be allowed only considering the benchmark capital cost as ceiling.
2. Mandatory clause for swapping higher interest rate of loan with low interest rate loans may be stipulated.
3. All the other norm may be fixed on normative basis as existing in the present Regulations.

12. Depreciation (Paragraph 14)

1. The useful life of generating stations/transmission system stipulated in the Regulations may be extended considering the fact that many of the generation/transmission assets can operate efficiently beyond useful life with minimum capital addition. Therefore it is economical to carry out R&M and extend the useful life of the projects. The useful life of thermal generating stations may be extended upto 35 years and that of hydro stations and transmission system may be extended upto 50 years.

2. With R&M, the useful life may be reassessed. It is suggested that the useful life of the hydro stations may be fixed as 50 years considering the actual operating pattern of existing hydro stations. The hydro stations of KSEBL having life around 50 years are operating efficiently. The transmission assets are capable of operating beyond 35 years. Therefore it is suggested that the useful life of hydro stations and transmission systems may be re-assessed.

3. In case of R&M, the depreciation shall be up to extended life of asset. Special Compensatory Allowance may be discontinued. Additional expenditure after Renovation & modernization may be restricted to limited items/equipments.

4. The existing treatment of weighted average useful life in case of combination of units, due to gradual commissioning of units, should be allowed to continue.

5. Further, Regulatory method can be derived wherein life gets reassessed at the start of every tariff period or every additional capital expenditure through a provision in the same way it is prescribed in accounting standard.

13. Debt:Equity ratio (Paragraph 16)

KSEBL feels that there is a need to re-look in the present Debt: Equity ratio of 70:30 considering the maturity in the financial market and availability of debt with competitive interest rates. It is submitted that a normative debt: equity ratio of 80:20 is most appropriate instead of 70:30.

14. Return on Investment (Paragraph 17)

RoE approach may be continued.

15. Rate of Return on Equity (Paragraph 18)

1. The need for higher rate of RoE required may be reviewed in the present regime of low cost of financing and huge generation addition in the Country.

Higher rate of Return on Equity has been allowed in the Regulations to promote investment and achieve sufficient generation capacity in the Country. The Country was able to achieve this with the installed capacity of the Country is around 330GW as on 22-1-2018. Hence the need for continuing higher RoE with the aim of promoting investment need to be reviewed especially taking into consideration the fact that DISCOMs are suffering from huge financial crisis.

In addition to the above, the cost of financing has come down drastically to the range of 8.35% for the year 2016-17 from the previous control period value of 12-

13%. Therefore, it is requested that the rate of return on equity may be fixed at 14% considering the prevailing cost of financing.

2. KSEBL feels that there is no need for a differential rate of return for the various projects and the same normative RoE can be made applicable for generation, and transmission projects as the market rate and risk premium for the above mentioned projects are not different.

3. Considering the rapid decrease in interest rates, it is suggested that the Rate of Return on Equity for new projects may be made lower than old projects.

4. The proposal for dividing RoE of hydro projects into two parts is welcomed.

5. The proposal for having differential additional return on equity for different unit sizes and different length of transmission lines is welcomed.

6. It is suggested that along with additional RoE for early commissioning of the project, a disincentive for delay in commissioning may also be included.

7. It is also submitted that pre-tax RoE basis will not motivate the generators/licensees to take efforts for reducing tax burden. Therefore it is requested that post tax RoE with tax reimbursement on actual may be adopted in the new Regulations. It is also requested that pass through provision of Income Tax may be made applicable only for the first portion of RoE which is guaranteed. For differential of RoE on normative basis and guaranteed return, the developer shall bear IT liability.

16. Cost of debt (Paragraph 19)

The present mechanism of allowing recovery of cost of debt on actual basis will not put the onus on the generator/transmission licensee to restructure the debt to avail low interest rate loans. Therefore it is suggested that cost of debt may be ceiled with reference to benchmark viz. RBI policy repo rate or 10 year Government Bond yield with frequency of resetting normative cost of debt.

17. Interest on Working capital (Paragraph 20)

1. Norms on Working Capital:

1) Special norms for working capital are not available in the existing Regulations for naptha based plants. There is a requirement for fixing separate norms for working capital for naptha based plants in view of the following:

i. Naptha plants are very rarely scheduled due to high variable cost.

ii. Naptha price is highly volatile and hence fixing working capital for the entire control period based on a fixed naptha price prevailing during the start of the control period will lead to excessive profiteering or loss for the generator. Hence there need to be a separate methodology for fixing norms.

iii. Since naptha plants are very rarely scheduled, there is no need for working capital on normative basis as allowed for other continuously operating plants.

iv. The present Regulations allow 105 days of cost of fuel for pit head stations and 120 days for non-pit head stations . The need for allowing such huge working capital especially for naptha based plants and stranded plants. The same may be reviewed.

v. KSEBL is paying huge fixed charge to naptha based RGCCPP plant of NTPC because of absence of separate norms for naptha based plants.

vi. It is suggested that naptha based plants may be allowed Interest on Working Capital **based on actual stock** . Further, the plants may be allowed working capital based on actual generation rather than normative availability.

2. Penalty for not maintaining normative stock

As per the prevailing regulations, the Generators has to maintain fuel stock for 1 ½ month operation at the target availability and the beneficiaries has been providing interest for the cost required for the fuel stock. However, most of the Central Generating Stations are not maintaining the adequate coal stock as envisaged in the regulations and are not scheduling as per contracts. In order to compensate the short fall in contracted power from the CGS, the beneficiaries are forced to procure energy from alternate sources including exchanges at excessive rates. Hence KSEB request that, the provision in working capital may be brought down considering the actual fuel stock for the last one year.

3. Exclusion of Depreciation, RoE and one month O&M cost from working capital

Prevailing regulations allow interest on the two months receivable including capacity charges. The non cash flow expenditure including the depreciation and RoE also forms part of the working capital. It is recommended that the

non cash expenditure including the depreciation and RoE may kindly be excluded from the working capital requirement.

Since the O&M costs are separately allowed as part of the fixed cost and two monthly receivable automatically covers two months O&M expenses, there is no need to consider the one month O&M expenses and maintenance of spares as part of the working capital.

4. **Inclusion of maintenance spares from Working capital:** Maintenance spares are already included under O&M. Therefore allowing maintenance spares in the working capital will lead to duplication of claims.

5. Working capital for thermal stations may be allowed based on target PLF of 60% rather than the target availability of 85% considering the low PLF of plants.

19. **Operation and Maintenance Expenses (Paragraph 21)**

21.7(a) The present methodology of fixing O&M based on WPI and CPI index with an efficiency factor is most appropriate for O&M norms. Any unexpected expenditure or one time expenses which are not covered under O&M may be allowed over and above after prudence check.

21.7(b) No separate provision is required to be allowed for addressing the impact of installation of pollution control system and mandatory use of treated sewage water by thermal plants.

21.7(c) In the matter of O&M cost for new hydro projects, it is submitted that the present mechanism of fixing a percentage of capital cost is appropriate. However, since new stations incur less O&M cost the percentage may be fixed as 2% of the capital cost.

21.7(d) In the case of plants operating continuously at low PLF, the O&M norms may be fixed at 50% of the O&M norms of other plants. In the case of naptha plants, the plant is very rarely scheduled. The overhauling requirement of the plant is a function of the hours of operation. Thus, when the plant is almost idling only the essential employee cost needs to be considered for recovery.

21.7(f) In the matter of allowing separate norms O&M norms based on vintage, it is suggested that the present method for allowing O&M norms may be continued.

21.7(g) The income from other business if any may be deducted from O&M expenses while arriving at the O&M norms. The income on account of sale of fly ash, disposal of old assets, interest on advances etc may be used for reduction of O&M expenses.

20. Fuel-Gross Calorific Value (Paragraph 22)

1) The proposal of Hon'ble Commission to introduce normative figures for transit loss between mine end and receiving end for GCV is welcomed. It is requested that loss above the normative figures may be borne by the coal supplier or generator and may not be passed on to the beneficiaries.

2) The loss of GCV from the receiving end to firing end shall be borne by the generator since the variation of GCV from receiving end to firing end is fully under the control of the generator.

3) Mandatory provision for measurement of GCV 'as received' may be made in the Regulations. Penalty clause for non adherence to the same may be included.

4) The computation of GCV may be standardized and there shall be provisions in the Regulations for mandatory disclosing of the details of GCV measurement with supporting details.

5) The existing procedure of merely submitting Form-15 for claiming energy charges is not enough. It is requested that there shall be a clear procedure in the Regulation stipulating mandatory disclose of all details pertaining to the claim of energy charges. Source wise quantity, GCV etc are required to ascertain the claims of plants having linkage from more than one mine.

21. Blending of Imported coal (Paragraph 23)

The proposal of Hon'ble Commission to introduce normative blending ratio for existing plant and new plant is welcomed. It is suggested that these normative figures may be made ceiling limits giving generators flexibility within this ceiling ratio.

It is also suggested that the differential ceiling limits may be fixed depending on the range of energy charge. For lower energy charge stations, the blending ratio can be set higher and for higher energy charge stations, the blending ratio may be set low so that the increased energy charge by way of blending imported fuel is reasonable and will not burden the beneficiaries.

22. Fuel-Landed Cost(Paragraph 24)

1. Regulation 30(8) of the existing Regulation stipulates the landed cost of fuel as the price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail / road or any other means, and, for the purpose of computation of energy charge, after considering normative transit and handling losses as percentage of the quantity of coal or lignite dispatched by the coal or lignite supply company during the month. The above provision does not provide clarity on the exact charges that can be included under landed cost of fuel.

   The generators like NTPC and Maithon are loading 'other charges' related to sampling and transportation under 'landed cost of fuel' which are not defined in the Regulations, leading to litigations. Hence it is requested that a clear list of items that can be included under 'landed cost of fuel' may be specified and standardized so that litigations can be avoided.

2. Further, provisions may be included to make the generator mandatorily provide the details, failing which beneficiaries are empowered to withhold the payment without liability of interest for delay.

3. It is also suggested that there shall be mandatory provisions in the Regulations to disclose the details of sourcing of fuel and the price in advance to the beneficiaries so that the beneficiaries can make a decision on the merit order dispatch of the plants.

23. Fuel – Alternate Source(Paragraph 25)

As per the existing Regulations, the generators are allowed to use alternate source of fuel supply in case of fuel shortage without consent of the beneficiaries. As per Regulation, prior consultation with beneficiaries is required only if the energy charge rate exceed 30% of the base energy charge rate or 20% of energy charge rate of the previous month. These percentages fixed are very high and is often misused

by the generators. The generators intentionally do gaming by availing high cost alternate source of fuel without consent of beneficiaries, by keeping the fuel price from alternate supply just below the above percentages. The variable cost of April, May and June 2017 of Simhadri STPS-II was very high because of the above reason.

It is requested that the ceiling limits fixed for alternate fuel may be lowered and it is suggested that preferably percentage increase may be fixed slab wise depending on the range of energy charge. For lower energy charge stations, the percentage increase allowed can be set higher and for higher energy charge stations, the percentage increase may be set lower so that the increased energy charge by way of using the alternate supply is reasonable and will not burden the beneficiaries. Following slab rate are suggested:

For stations with energy charge upto Rs.2.00/unit : prior consultation is required if the energy charge rate exceed 20% of the base energy charge rate

For stations with energy charge upto Rs.3.00/unit : prior consultation is required if the energy charge rate exceed 10% of the base energy charge rate

For stations with energy charge upto Rs.4.00/unit : prior consultation is required if the energy charge rate exceed 5% of the base energy charge rate

It is also requested that clear procedure for sourcing fuel from alternate supply may be specified including the ceiling rate. The procedure may be linked with the methodology for flexibility in utilization of domestic coal for reducing the cost of power generation, as per notification no. CEA/Plg/FM/1/37/2016/779-836 dated 8.06.2016 and the provisions regarding implementation of 'SHAKTI POLICY'.

24. **Operational norms (Paragraph 26)**

Station Heat Rate: Relaxed norms for station heat rate may be made applicable only as per the detailed procedure approved by Hon'ble Commission. It is further submitted that the heat rate of the new plant may be fixed considering the advancement in technology and manufactures specifications.

Auxiliary Energy Consumption: As per the regulations of Hon'ble Commission, colony consumption cannot be included under Auxiliary Consumption. However, the power consumption of colonies of many stations of NTPC are accounted under Auxiliary Energy Consumption. It is requested that a clear procedure for accounting

the colony consumption of generating stations and transmission substations may be specified in the Regulations.

It is further requested that the Regulation may make clear that only ex-bus capacity after declaring normative auxiliary consumption shall only be declared for availability.

Normative Annual Plant Availability

To avoid gaming of generators by declaring low availability during peak demand period and higher availability during low demand period, it is suggested that Commission may fix a normative ratio of monthly maximum to minimum availability based on the availability of fuel and other operating conditions.

Transmission Losses: The transmission loss has significant impact on the power purchase cost of DISCOMs. Reduction of transmission loss will reduce the power purchase cost of DISCOMs. However, DISCOMs have no control on the Transmission Loss. Therefore it is suggested that the Regulations may provide for a normative level of transmission loss with trajectory for improving the same. There shall be a prorate reduction in RoE if normative transmission losses are not maintained.

Incentive: It is submitted that the proposal of Hon'ble Commission to introduce three part tariff structure has the mechanism of incentive/disincentive inbuilt in it and therefore there is no requirement for separate norms for incentive/disincentive.

25. **Implementation of operational norms (Paragraph 28)**

It is requested that the implementation of operational norms for the new tariff period shall be implemented from the effective date of control period irrespective of issuance of the tariff order for new tariff period.

26. **Sharing of gain on account of controllable parameters (Paragraph 29):**

In the existing Regulations, there is no prescribed methodology for annual reconciliation of sharing of controllable parameters. Hence generators are adopting different methodologies for annual reconciliation. Therefore it is requested that a firm methodology of conducting annual reconciliation of sharing of gains may be prescribed in the forthcoming Regulation to avoid ambiguities.

27. **Standardization of billing process (Regulation 32):**

The proposal of introducing a standardization procedure for billing including details required for admitting the claims, timelines for processing and actions to be initiated in case of default in submitting the details, is welcomed.

The existing Regulations provides for rebate if payment is made within 2 days of presentation of bills. Regulation does not deal with the issue of 'holidays' coming within these '2 days'. Since payments cannot be effected during bank holidays, it is requested that definition of 'day' in the Regulation may be modified as 'business day'.

Electricity duty payable for auxiliary consumption: At present , NTPC is billing electricity duty for the actual Auxiliary consumption which is in excess of the normative values fixed in the Regulations. Since Auxiliary consumption is a controllable parameter and any value above the normative is not allowed as pass through, the extent of electricity duty payable by the beneficiaries for the auxiliary consumption may be specified in the Regulations.

28. **Tariff mechanism for pollution control system(Regulation 33):**

It is requested the CEA may be entrusted to evolve benchmark capital cost and benchmarking of technology for capital expenditure for additional capitalization required for implementation of pollution control system so that minimum tariff impact is passed on to the beneficiaries.

Since the above capital expenditure will create a huge financial impact on the DISCOMs, a regulatory intervention of reducing the impact in tariff may be taken.

1. It is suggested that rate of RoE for such capital expenditure may be limited to the interest rate of loan.
2. The debt:equity ratio may be limited to 80:20 for such capex.
3. The depreciation and interest on loan obligations for the capex may be extended to the entire useful life of the project.

29. **Renewable Generation by existing Thermal Generating Stations (Regulation 34):**
In the case of integration of renewable with thermal plants, following comments are offered:

1. Two part tariff for renewable may be adopted.

In the case of integration of renewable with coal/lignite based thermal plants, following comments are offered:

3. Option under 7.6.4 (a) is preferred.

4. The purchase from such coal/lignite based thermal plants may be allowed to account for the RPO of the procurer.

30. Commercial Operation or Service Start Date (Regulation 35):

The procedure for delay in commissioning of generating station/transmission system is defined in the Regulations. The generator may be made to bear the pro-rata transmission charges, if there is delay in commissioning of any generator unit which are scheduled co-terminus with respective transmission system commissioning. This may be made mandatory in the Regulations.

It is requested the procedure for declaration of commercial operation date of renewable energy stations may also be stipulated in the Regulations. The procedure for declaration of renewable energy stations pooled with existing or new conventional stations may be stipulated in the Regulations.

In the case if a transmission system/generating station is ready but the Power Purchase Contract has not commenced, the recovery of the cost of generation/transmission system will be stranded. In such cases, there need to be a procedure for declaration of CoD and recovery of cost. It is suggested that market opportunities for recovery of cost may be adopted till the start of PPA.

31. Alternative approach to Tariff Design (Regulation 36):

Normative tariff by benchmarking of capital cost:

In the case of thermal plants, Hon'ble Commission has stated that apart from existing and under construction plants, no more new coal based plants are required in the industry till 2027. Therefore , adopting benchmark capital cost for thermal plants is a viable option. The cost of hydro stations depends on terrain. Since most of the hydro stations are in almost similar terrain, there is possibility of evolving a benchmark capital cost.The cost of transmission system can be easily benchmarked with the past cost analysis. For arriving at the benchmark capital cost, the cost of plant and machinery needs to be standardized by CEA based on the cost incurred by efficient plants in the Industry. The cost of land and land /RoW compensation varies widely across states. Therefore benchmarking costing may be made applicable for plant and machinery.

Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer