



COMMENTS & SUGGESTIONS ON THE CERC APPROACH PAPER ON TARIFF REGULATIONS FOR 2024-2029

Submitted by the Administrative Staff College of India

The Contents of this report is the joint effort of the Administrative Staff College of India (ASCI), Prayas (Energy Group) Pune and other stakeholders who participated in the Round-table discussion held on 24rd July 2023

Centre for Energy Studies
rajkiran@asci.org.in

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1. Executive Summary

The Approach Paper for CERC MYT Regulations for 2024-29 is a comprehensive document that outlines the various financial and operational aspects that impact tariff determination. The paper proposes possible regulatory options to ensure that the tariffs accurately reflect the actual costs of providing the service and incentivize utilities to improve their performance. In this brainstorming session, we will conduct a SWOT analysis and causal analysis of the paper to identify its strengths, weaknesses, opportunities, and threats and to understand the causal relationships between the various factors that impact tariff determination.

SWOT Analysis

Strengths: The paper provides a comprehensive analysis of the financial and operational aspects that impact tariff determination. - The paper proposes possible regulatory options to ensure that the tariffs accurately reflect the actual costs of providing the service and incentivize utilities to improve their performance. - The paper seeks suggestions from stakeholders to improve the current system and ensure that the tariffs accurately reflect the actual costs of providing the service.

Weaknesses: The paper is complex and technical, which may make it difficult for stakeholders to understand and provide meaningful feedback. - The paper does not provide a clear roadmap for implementing the proposed regulatory options. - The paper does not address the issue of cross-subsidies, which can distort the tariff structure and affect the financial viability of utilities.

Opportunities: The paper provides an opportunity to simplify the tariff determination process and make it more transparent and efficient. - The paper provides an opportunity to incentivize utilities to improve their performance and reduce costs. - The paper provides an opportunity to address the issue of cross-subsidies and ensure that the tariffs accurately reflect the actual costs of providing the service.

Threats: The implementation of the proposed regulatory options may face resistance from utilities and other stakeholders who may perceive them as unfair or biased. - The proposed regulatory options may not accurately reflect the actual costs of providing the service and may lead to under-recovery or over-recovery of costs. - The proposed regulatory options may not be feasible or practical to implement in the current regulatory environment.

Causal Analysis: - The financial and operational aspects of power projects have a significant impact on tariff determination. - The financial aspects include capital cost, depreciation, interest on loan capital, return on equity, working capital, interest on working capital, debt service coverage ratio, debt equity ratio, regulatory assets, regulatory liabilities, deferred tax assets and liabilities, income tax, dividend.

The aces of the possible approaches over the existing approach are that they would simplify the tariff determination process, reduce the need for detailed cost analysis, and incentivize utilities to improve their performance and reduce costs. This would lead to more efficient and cost-effective tariff determination, which would benefit both consumers and utilities.

The weaknesses of the possible approaches are that they may not accurately reflect the actual costs of providing the service, which could lead to underinvestment in the sector. Additionally, the normative approach may not be flexible enough to account for changes in the sector, while the performance-based approach may be difficult to implement and measure accurately.

Overall, the possible approaches to tariff determination proposed in the paper offer a more efficient and pragmatic approach to tariff determination, but they need to be carefully evaluated and implemented to ensure that they accurately reflect the actual costs of providing the service and incentivize utilities to improve their performance.

2. Introduction

The Centre for Energy Studies at the Administrative Staff College of India (ASCI) has independently reviewed the approach paper and prepared the comments. Later, we have collaborated with Prayas (Energy Group) Pune to organize a round-table discussion on the approach paper.

The discussion revolved around the proposed approach paper, which promises substantial transformations to the current tariff-setting mechanism. It includes numerous significant reforms with a focus on enhancing the efficiency of the tariff-setting procedures, minimizing regulatory risk for investors, and providing consumers with more transparent and predictable tariffs.

The round-table was conducted with the primary objective of garnering diverse perspectives from stakeholders that could potentially be impacted by these changes. The event saw an active participation of over 60 stakeholders, including representatives from power generators, distribution companies, and consumers, along with power sector specialists. The discussion was also telecasted Live on YouTube and has garnered 420 views.

During the discussion, several critical issues were highlighted and debated upon, including the need for a more transparent and efficient tariff-setting procedure and the potential challenges posed by climate change. Furthermore, the discussions underscored the importance of renewable energy in shaping the future of the power sector.

The insights and inputs from the participants were invaluable, providing a well-rounded perspective on the proposed tariff regulations. The comments and suggestions put forth in this report have been greatly shaped by the rich insights gained from the round-table discussion. It is therefore with great appreciation that the efforts and perspectives of each participant are acknowledged in this submission to the CERC on the Tariff Regulations for 2024-2029.

3. Context and Background

The Central Electricity Regulatory Commission (CERC) has released an approach paper on the terms and conditions of tariff regulations for the tariff period 2024-2029. The paper outlines the key aspects that the CERC will consider while determining tariffs for this period, including:

- Simplification of the tariff determination process
- Preserving and augmenting existing capacities
- Providing the necessary push to investments
- Regulatory certainty
- Incentivising efficient plant operations and sustainable development
- Encouraging development of hydro generation projects

The paper also seeks comments and suggestions from stakeholders on the earlier norms and any changes that may be required to compensate the generators to operate the plants in a flexible manner to support the grid.

The CERC's approach paper is a welcome step in the right direction. The power sector in India is at a critical juncture, with the need to balance the twin goals of ensuring reliable power supply to consumers and attracting investments in new generation capacity. The CERC's paper provides a thoughtful framework for achieving this balance.

The round-table which was organized by the ASCI was attended by various stakeholders and the following personnel have submitted the views orally and verbally.

- Mr G.V. Mahender, Ex-Member, CEA,
- Mr. Sree Kumar, Prayas (Energy Group) Pune
- Ms. Maria Chiriyal, Prayas (Energy Group) Pune
- Mr. D. Radhakrishna, Chairman, Tripura Electricity Regulatory Commission
- Mr. Y.V. Rao, Ex-Executive Director (OS), NTPC
- Mr. Deepak Kumar, Chief Engineer (Commercial), North Bihar Power Distribution Company Limited
- Mr. Nilanjan Chakrabarti, CESC
- Mr. H.T. Vivekananda S.E, IPC, TSPCC
- Mr. D. Ramanaiah Shetty, Deputy Director (Tariff Engineering), APERC
- Mr. Hemanth Madhab Sharma,
- Ms. Ashwini Chitnis, CSEP
- Mr. Indraneel Chatterjee, CESC

The CERC's approach paper is a good starting point for the discussion on tariff regulations for the 2024-2029 tariff period. We hope that the CERC may consider the comments and suggestions that have been received, and finalize a set of regulations that will help to ensure a reliable and affordable power supply for India in the years to come.

4. Detailed Comments and Suggestions

Detailed Comments and Suggestions are categorised into three parts, first part is the comments prepared by ASCI, second part is the comments from the Prayas (Energy Group) Pune as retrieved from the presentation shared during the round-table and third part is the minutes & comments received during the Round-table.

A. Comments by the Administrative Staff College of India (ASCI)

a. Approach for Tariff Determination

The proposed approaches are a significant departure from the existing cost-of-service approach, which has been in place for many years. The cost-of-service approach is based on the principle of full cost recovery, meaning that utilities are allowed to recover all of their costs, including capital costs, operating costs, and a reasonable return on investment. This approach has been criticized for being too inflexible and for not providing enough incentives for utilities to operate efficiently.

The proposed approaches are more performance-based, meaning that they are based on the actual performance of utilities. Under the proposed approaches, utilities would be allowed to recover their costs only if they meet certain performance standards. This would provide utilities with an incentive to operate more efficiently.

The two proposed approaches are:

Approach 1: Normative tariff

Under this approach, all components of the tariff would be determined on a normative basis, meaning that they would be based on predetermined standards. This would eliminate the need for utilities to file periodic tariff petitions, which would reduce regulatory burden.

Approach 2: Further simplification of the existing Performance Based Hybrid Approach

Under this approach, some components of the tariff would be determined on an actual basis, while others would be determined on a normative basis. This would provide a balance between flexibility and predictability.

Both of the proposed approaches have advantages and disadvantages. Approach 1 is more straightforward and would be easier to implement. However, it could be less flexible and could lead to less innovation. Approach 2 is more complex, but it could be more flexible and could lead to more innovation.

Overall, the proposed approaches represent a significant improvement over the existing cost-of-service approach. They are more performance-based, which would provide utilities with an incentive to operate more efficiently. They would also reduce regulatory burden.

Additional comments and analysis on the proposed approaches:

- The proposed approaches would be more transparent and predictable for consumers.
- The proposed approaches would be more conducive to competition in the power sector.
- The proposed approaches would be more sustainable in the long term.

The proposed approaches are a positive step forward for the power sector. They would make the sector more efficient and competitive, which would benefit consumers in the long term.

However, the proposed approaches could go wrong in the following aspects

Approach 1: Normative tariff

The normative tariff approach could be too inflexible and could lead to less innovation. For example, if the normative standards are not updated regularly, they could become outdated and no longer reflect the actual costs of operating a utility. This could discourage utilities from investing in new technologies or improving their operations.

Approach 2: Further simplification of the existing Performance Based Hybrid Approach

The Performance Based Hybrid Approach could be too complex and could be difficult to implement. For example, it could be difficult to determine which components of the tariff should be determined on an actual basis and which components should be determined on a normative basis. This could lead to uncertainty and confusion for both utilities and consumers.

In addition, both of the proposed approaches could be susceptible to gaming by utilities. For example, utilities could try to manipulate their performance in order to qualify for lower tariffs. This could be difficult to detect and could lead to higher costs for consumers.

Overall, the proposed approaches represent a significant improvement over the existing cost-of-service approach. However, they are not without their risks. It is important to carefully consider the potential drawbacks of these approaches before implementing them.

Additional thoughts on how the proposed approaches could go wrong:

- The normative standards could be set too high, which could lead to higher tariffs for consumers.
- The normative standards could be set too low, which could discourage investment in new technologies and improvements to operations.
- The regulatory framework could be too complex, which could make it difficult for utilities to comply with the new rules.
- The regulatory framework could be too rigid, which could prevent utilities from responding to changes in the market.

It is important to carefully consider these risks before implementing the proposed approaches. It is also important to have a strong regulatory framework in place to ensure that the new rules are implemented fairly and effectively.

b. Sustainable Transition

Projected demand by 2030 about 50 % more than current peak demand. Out of installed capacity how much is firm capacity available now and projected by 2030 and incentivisation non-solar hours for firm generation.

The current uniform rate for solar and non-solar hours AFC components is not fair to consumers or generators. Solar power plants have lower operating costs than non-solar power plants, so they should be able to charge a lower tariff. However, the current uniform rate does not allow for this. As a result, solar power plants are not able to recover their costs, and consumers are paying more for electricity than they need to.

The Approach Paper may develop a solar and non-solar hours AFC components ratio. This would allow solar power plants to charge a lower tariff during solar hours, when their operating costs are lower. This would be fairer to both consumers and generators. Consumers would pay less for electricity, and generators would be able to recover their costs.

Generating projects about 50000 MW are completing 25 years useful life by 2024. The paper may indicate, the generating capacity completing 25 years by end of control period.

c. Useful life of coal based thermal generating stations and transmission sub-stations may be increased to 35 years from the current specified useful life of 25 years

The Approach Paper's proposal to increase the useful life of coal-based thermal generating stations and transmission substations to 35 years is a welcome move. This would help to ensure that these assets continue to provide electricity to consumers, even as the country's demand for electricity grows.

However, it is important to ensure that these assets do not pose a threat to the environment. Therefore, it is essential that they undergo a mandatory environmental impact assessment (EIA) after 25 years. This EIA would help to identify any environmental risks posed by the assets, and to develop a plan to mitigate these risks.

If the EIA finds that the assets cannot be brought into compliance with environmental norms within a prescribed budget, then they should be decommissioned. This would ensure that the environment is protected, and that consumers are not exposed to health risks.

Here are some of the benefits of extending the useful life of coal-based thermal generating stations and transmission substations:

- It would help to ensure that these assets continue to provide electricity to consumers.
- It would help to reduce the cost of electricity for consumers.
- It would help to promote investment in the power sector.

However, there are also some potential risks associated with extending the useful life of these assets, including:

- The assets may become more inefficient over time.
- The assets may pose a greater risk to the environment.
- The cost of maintaining and operating the assets may increase.

It is important to carefully consider these risks before making a decision to extend the useful life of these assets. However, if the risks can be mitigated, then extending the useful life of these assets would be a positive step for the Indian power sector.

In addition to the EIA, it is also important to ensure that the assets are properly maintained and operated. This would help to reduce the risk of environmental pollution, and to ensure that the assets continue to operate efficiently.

Overall, the Approach Paper's proposal to extend the useful life of coal-based thermal generating stations and transmission substations is a positive step. However, it is important to carefully consider the risks involved, and to ensure that the assets are properly maintained and operated.

d. Whether clustering the components of AFC based on their nature to increase/decrease will allow better projections? Any other possible method to cluster the AFC components?

Clustering the components of AFC based on their nature to increase or decrease could allow better projections. For example, components that are likely to increase over time, such as O&M expenses,

could be clustered together. This would allow the regulator to develop a more accurate projection of future costs.

Other possible methods to cluster AFC components include:

- Clustering by cost category: This could include clustering components by capital costs, operating costs, and fuel costs.
- Clustering by risk level: This could include clustering components by their level of risk, such as low-risk components, medium-risk components, and high-risk components.
- Clustering by market volatility: This could include clustering components by their level of market volatility, such as components that are sensitive to changes in interest rates, fuel prices, or demand.

The best method for clustering AFC components will depend on the specific circumstances of the project or utility. However, clustering could be a useful tool for improving the accuracy of projections and for managing risk.

What other methodology can be adopted to determine the increasing/decreasing factors?

In addition to clustering, there are other methodologies that can be used to determine the increasing/decreasing factors of AFC components. These include:

- Time series analysis: This involves analyzing historical data to identify trends in the costs of AFC components.
- Econometric modeling: This involves developing mathematical models that can be used to predict future costs.
- Expert judgment: This involves relying on the expertise of industry experts to assess the future costs of AFC components.

The best methodology for determining the increasing/decreasing factors will depend on the specific circumstances of the project or utility. However, using a combination of methodologies can help to improve the accuracy of projections.

e. Whether the impact of additional capitalisation can also be allowed through the same indexation mechanism or through a separate revenue stream?

The impact of additional capitalization can be allowed through either the same indexation mechanism or through a separate revenue stream.

If the impact of additional capitalization is allowed through the same indexation mechanism, then the indexation factor would be adjusted to account for the additional capitalization. This would ensure that the tariff is adjusted to reflect the actual costs of the project.

If the impact of additional capitalization is allowed through a separate revenue stream, then the utility would be allowed to collect a separate charge for the additional capitalization. This would ensure that the utility is able to recover the costs of the additional capitalization.

The best approach for allowing the impact of additional capitalization will depend on the specific circumstances of the project or utility. However, using a combination of approaches can help to ensure that the tariff is fair and equitable.

f. Need to mandatorily award work and services contracts for developing projects under the regulated tariff mechanism through a transparent process of competitive bidding,

duly complying with the policy/guidelines issued by the Government of India as applicable from time to time.

Declaration of Commercial Operation and Commercial Operation Date:

The Declaration of Commercial Operation (COD) and the manner in which COD shall be declared are being separately dealt with by the staff of the commission in the CERC (Indian Electricity Grid Code) Regulations, 2023. This is a good thing, as it ensures that the COD and the manner in which it is declared are consistent with the Grid Code.

Capital Cost

The approval of capital costs is one of the most important aspects of the tariff determination process. The CERC has been approving the capital cost of projects on a case-by-case basis, which is dependent on the actual expenses incurred, duly certified by the auditors, and after carrying out due prudence on the reasonability of the expenses incurred. This is a sound approach, as it ensures that the capital costs are reasonable and that the utilities are not able to recover costs that are not actually incurred.

The CERC Tariff Regulations, 2009, introduced an enabling provision that allows utilities to seek approval of the capital cost of new projects on an anticipated basis. This is a helpful provision, as it can help utilities minimize the time gap between the commissioning of the project and the generation of cash flows by means of tariff.

Procurement of Equipment and Services:

Section 63 of the Electricity Act, 2003, mandates that tariff be determined based on competitive bidding. Section 62 is about the determination of tariffs under the cost-plus mechanism. However, it is imperative that even under Section 62, the procurement of equipment and services be carried out through competitive bidding.

This is because competitive bidding is the best way to ensure that the lowest possible prices are obtained for equipment and services. It also helps to ensure that the quality of equipment and services is high.

The Tariff Policy, 2016 lays emphasis on the utility and benefits of competitive bidding. Therefore, even for projects being developed under Section 62 of the Act, the works need to be executed following the transparent process of competitive bidding.

The Staff of the commission has also laid emphasis on the need to follow a transparent process of competitive bidding for the procurement of equipment and services. This is a good thing, as it ensures that the procurement process is fair and transparent.

In conclusion, the Declaration of Commercial Operation and Commercial Operation Date, Capital Cost, and Procurement of Equipment and Services sections of the document are well-written and comprehensive. They provide a clear and concise overview of the relevant regulatory requirements.

The Staff of the commission's approach to these issues is sound. The Staff of the commission is rightly focused on ensuring that the capital costs of projects are reasonable and that the procurement process is fair and transparent. These are important considerations, as they can have a significant impact on the cost of electricity for consumers.

- g. Efficient reference costs other than Investment Approval costs that can be considered for prudence checks.**

Other efficient reference costs other than Investment Approval costs that can be considered for prudence checks:

Benchmark cost

A benchmark cost is a cost that is used as a reference point for comparison. In the context of tariff determination, a benchmark cost could be used to compare the actual costs of a project to the costs of similar projects. This could help to ensure that the actual costs are reasonable.

However, as the document you provided states, there are several challenges associated with using a benchmark cost. For example, it can be difficult to find a truly comparable project, and the costs of projects can vary significantly depending on a number of factors, such as site conditions and technology choices.

Hard costs of recently commissioned projects

The hard costs of recently commissioned projects could be used as a reference point for prudence checks. This would be more reliable than a benchmark cost, as it would be based on actual costs from similar projects. However, it would still be important to consider the specific circumstances of each project, as the costs of projects can vary significantly even for projects with similar specifications.

A combination of benchmark cost and hard costs

A combination of benchmark cost and hard costs could be used as a reference point for prudence checks. This would allow for the benefits of both approaches, as it would be based on both actual costs and comparable projects. However, it would also be important to carefully consider the weighting of each approach, as this could have a significant impact on the results.

In conclusion, there are a number of challenges associated with using a reference cost for prudence checks. However, there are also a number of potential benefits. It is important to carefully consider the pros and cons of each approach before making a decision.

Additional comments and suggestions:

- The reference cost should be updated regularly to reflect changes in market conditions.
- The reference cost should be adjusted to account for the specific circumstances of each project.
- The reference cost should be used as a guide, not as a strict rule.

h. Ways to expedite the development of hydro generating stations especially the construction phase, and increase their commercial acceptability.

Ways to expedite the construction phase by adopting alternate ways of awarding construction contracts.

The current system of awarding construction contracts through cost-based competitive bidding with price escalation clauses has led to delays and cost overruns. Instead, the Staff of the commission could consider adopting alternate ways of awarding construction contracts, such as:

** Design-Build contracts: This type of contract would involve the contractor being responsible for both the design and construction of the project. This could help to reduce delays, as the contractor would be able to take a more holistic approach to the project.*

** Turnkey contracts: This type of contract would involve the contractor being responsible for the entire project, from design to construction to commissioning. This could help to reduce delays and cost overruns, as the contractor would be more incentivized to complete the project on time and within budget.*

Contract to execute the project to be awarded only when all the required clearances and permits are available as on zero date

One of the major reasons for delays in hydro projects is the lack of timely clearances and permits. The Staff of the commission could mention that all required clearances and permits be obtained before the contract to execute the project is awarded. This would help to ensure that the project can proceed without any delays.

Creation of Special Purpose Vehicle (SPV) for obtaining all mandatory approvals

The creation of a Special Purpose Vehicle (SPV) could help to expedite the approval process for hydro projects. The SPV would be responsible for obtaining all necessary approvals and permits, which would free up the developer to focus on the construction of the project.

Focus on quality and the implementation schedule

The Staff of the commission could incentivize developers to focus on quality and the implementation schedule by awarding higher returns on investments/equity for projects completed in a timely manner. This would help to ensure that developers are motivated to complete projects on time and within budget.

Higher return for dam/reservoir based projects and Pumped Storage Projects

Dam/reservoir based projects and Pumped Storage Projects are more complex and require a longer construction period than other types of hydro projects. The Staff of the commission could provide higher returns on investments/equity for these types of projects to incentivize developers to pursue them.

Levelized Tariff based one-time determination of tariff to remain uniform for useful life

The current system of tariff determination for hydro projects is based on the projected costs of the project. However, these costs can change significantly over the life of the project. The Staff of the commission could adopt a levelized tariff based one-time determination of tariff to remain uniform for the useful life of the project. This would provide more certainty for developers and investors.

Escalable tariff adjusted for year-on-year inflation

The tariff for hydro projects could be escalated to adjust for year-on-year inflation. This would help to ensure that developers are able to recover their costs and earn a reasonable return on investment.

Possibility to further increase the useful life

The useful life of hydro projects is typically assumed to be 30 years. However, with proper maintenance, the useful life of these projects could be extended. The Staff of the commission could consider allowing developers to increase the useful life of their projects, which would provide them with additional revenue.

Consideration of expenses towards Local Development/infrastructure for public outreach for better project acceptability as pass through in capital cost or one-time reimbursement.

The construction of hydro projects can have a significant impact on local communities. The Staff of the commission could consider allowing developers to pass through the costs of local development/infrastructure as part of the capital cost of the project. This would help to mitigate resistance to the project and facilitate its timely completion.

Incentivize the developer if it executes the project faster/ or ahead of schedule and vice-versa if it delays

The Staff of the commission could incentivize developers to execute the project faster/or ahead of schedule by providing them with a financial bonus. Conversely, the Staff of the commission could penalize developers if they delay the project. This would help to ensure that developers are motivated to complete projects on time and within budget.

- i. Historical Cost or Acquisition Value whichever is lower should be considered for the determination of tariff post approval of Resolution Plan. 2. Tariff provisions to be included to address the issue of the cost of debt servicing, including repayment, that were allowed as a part of the tariff during the CIRP process.**

Historical Cost or Acquisition Value whichever is lower should be considered for the determination of tariff post approval of Resolution Plan.

The historical cost or acquisition value, whichever is lower, should be considered for the determination of tariff post approval of Resolution Plan. This is because the tariff should be based on the actual costs incurred, and the acquisition value is the most recent and accurate estimate of the costs of the assets.

Tariff provisions to be included to address the issue of the cost of debt servicing, including repayment, that were allowed as a part of the tariff during the CIRP process.

The tariff provisions should be updated to address the issue of the cost of debt servicing, including repayment, that were allowed as a part of the tariff during the CIRP process. This is because the cost of debt servicing should not be passed on to consumers after the resolution plan is approved.

Here are some specific suggestions for how to address these issues:

The tariff regulations could be amended to explicitly state that the historical cost or acquisition value, whichever is lower, should be used for the determination of tariff post approval of Resolution Plan.

The tariff regulations could also be amended to include provisions that address the issue of the cost of debt servicing, including repayment, that were allowed as a part of the tariff during the CIRP process. These provisions could include a requirement that the cost of debt servicing be capped at a certain level, or that the cost of debt servicing be phased out over a period of time.

// The issue of capital cost for projects acquired post NCLT proceedings is a contentious one. On the one hand, financial institutions need to be compensated for their investment in these projects. On the other hand, consumers should not be burdened with the cost of asset premiums.

The Approach Paper proposes that the capital cost for projects acquired post NCLT proceedings should be determined on the basis of the acquisition value. However, this could lead to higher tariffs for consumers.

An alternative approach would be to cap the acquisition value at the historical value of the assets. This would protect consumers from paying too much for the assets, but it would also mean that financial institutions would not be fully compensated for their investment.

Ultimately, the decision of how to determine the capital cost for projects acquired post NCLT proceedings is a complex one. There are no easy answers, and the best approach will likely vary depending on the specific circumstances of each project.

Here are some of the factors that need to be considered when making this decision:

- The cost of the assets.
- The level of debt servicing that was allowed during the CIRP process.
- The interests of financial institutions and consumers.
- The need for certainty and transparency in the tariff determination process.

It is important to carefully consider all of these factors before considering about how to determine the capital cost for projects acquired post NCLT proceedings. The decision should be made in a way that is fair to both financial institutions and consumers, and that promotes investment in the power sector.

The capital cost for projects acquired post NCLT proceedings should be determined on a case-by-case basis, considering all of the relevant factors. This would allow for a more flexible approach that is fair to both financial institutions and consumers.

j. Changes in tariff forms and regulations, if any, to provide further clarity on the adjustment of LD

The current provisions specify that in the event that the delay is not attributable to the generating company or transmission licensee, the additional IDC and IEDC beyond SCOD shall be allowed and the total LD amount collected shall be deducted.

This seems reasonable, as the LD amount is intended to compensate the developer for any losses incurred due to delays that are not their fault. However, it is important to ensure that the LD amount is not excessive, as this could lead to higher tariffs for consumers.

In case the delay is fully or partially attributable to the generating station or transmission licensees the additional IDC and IEDC shall be disallowed completely or allowed partially on a pro-rata basis, and the LD amount shall be retained by the generating company or transmission licensee as the case may be.

This approach seems fair, as it allows the developer to retain some of the LD amount if the delay is partially their fault. However, it is important to ensure that the pro-rata calculation is fair and that the developer is not able to retain more LD than they are entitled to.

In view of the same, LD may be accounted for as specified by APTEL.

The APTEL guidelines on the treatment of LD should be followed. These guidelines provide a clear and fair framework for accounting for LD, and they should help to ensure that consumers are not overcharged.

In addition to above, it is further observed that in the CERC Tariff Regulations, 2019, difficulties have been faced in ascertaining the amount of liquidated damages (LD) to be retained by the generating stations and transmission licensees from the additional capitalisation claim made subsequently as

the amount of LD is being adjusted by these utilities from the balance payable and payment is made on net basis to such vendors.

This is a valid concern, as it is difficult to track the amount of LD that is being retained by the developer. The tariff forms be updated to require developers to provide more detailed information about the LD amount, including the reasons for the delay and the amount of LD that is being retained. This would help to ensure that consumers are not overcharged.

Overall, the current provisions on the treatment of LD are generally fair and reasonable. However, there are a few areas where the regulations could be improved, such as by requiring developers to provide more detailed information about the LD amount.

- *In addition, IDC treatment two approaches to be compared with different sensitivity say 10 % ,15% etc and impact to analyse better.*
- *Price variation in delay linking to regulatory condonation or not linking it to regulatory condonation or not allowing price variation in delay may be incorporated for comments.*
- *Price variation by hedging costs option may also be included as other option.*
- *Servicing impact of delay to be analysed including taxation impact, DSCR for financial institutions for additional funding of escalation amount can be another option.*
- *Section 63 projects installing FGD etc as Forced majeure treatment and approach to be analysed financing feasibility of additional capital infusion by developer or financial institution.*

k. Proposed approach and alternative options to standardise and simplify the norms for initial spares.

The current approach is too complex and fragmented. There are eleven separate categories and sub-categories for initial spares, which makes it difficult to track and manage. A single norm for green and brown field projects would simplify the process and make it easier to compare different projects.

The use of HV underground cables is not adequately addressed. There are no separate norms for initial spares for HV underground cables, which could lead to under-provisioning. This is a growing area of transmission, so it is important to have clear and adequate norms for initial spares.

The proposed approach is not risk-based. The proposed approach simply sets a single norm for each class of transmission asset. This does not consider the different risks associated with different assets. For example, a HVDC line is a more complex asset than a transmission line, so it would be reasonable to have a higher initial spares norm for HVDC lines.

The following are alternative options to standardise and simplify the norms for initial spares:

- Use a risk-based approach. This would involve setting different initial spares norms for different assets, based on the risks associated with those assets.
- Use a more flexible approach. This would allow utilities to choose the initial spares norm that is most appropriate for their particular project.
- Use a combination of the two approaches. This would involve setting a default initial spares norm for each class of asset, but allowing utilities to choose a higher norm if the staff of the commission believe it is justified.

A more risk-based approach would be the most effective way to standardise and simplify the norms for initial spares. This would ensure that the right amount of spares is provisioned for each asset, based on the risks associated with that asset.

l. Continued inclusion of delay on account of land acquisition as an uncontrollable factor and on the further inclusion of delay on account of forest clearances as an uncontrollable factor.

Pros of including delay on account of land acquisition as an uncontrollable factor:

- It is beyond the control of the project developer.
- It is a major cause of delay in commissioning of projects.
- The staff of the commission has been condoning the delay and allowing the associated cost to form part of the capital cost.

Cons of including delay on account of land acquisition as an uncontrollable factor:

- It could lead to higher tariffs for consumers.
- It could incentivize project developers to delay projects in order to increase their capital costs.

Pros of including delay on account of forest clearances as an uncontrollable factor:

- It is beyond the control of the project developer.
- It is a major cause of delay in commissioning of projects.
- The Staff of the commission has been condoning the delay and allowing the associated cost to form part of the capital cost.

Cons of including delay on account of forest clearances as an uncontrollable factor:

- It could lead to higher tariffs for consumers.
- It could incentivize project developers to delay projects in order to increase their capital costs.

Overall, there are both pros and cons to including delay on account of land acquisition and forest clearances as uncontrollable factors. The decision of whether or not to include these factors should be made on a case-by-case basis, considering the specific circumstances of each project.

Additional comments and suggestions:

- The definition of "uncontrollable factor" should be clear and unambiguous.
- The process for determining whether or not a delay is attributable to the project developer or transmission licensee should be transparent and fair.
- The Staff of the commission should monitor the impact of including these factors on tariffs and act if necessary.

m. Developers may make more efforts to control the delays

Option 1: To encourage rigorous pursuit of such approvals from statutory authorities, even if delay beyond SCOD on account of clearances and approvals that are condoned, some part of the cost impact (Say 20%) corresponding to the delay condoned may be disallowed.

Pros: This option would encourage developers to make more efforts to control delays, as they would know that they would not be able to recover the full cost of any delays that are not attributable to uncontrollable factors.

Cons: This option could lead to higher tariffs for consumers, as developers would need to pass on the cost of the delay to consumers.

Option 2: Alternatively, RoE corresponding to cost and time overruns allowed over and above project cost as per investment approval may be allowed at the weighted average rate of interest on loans instead of a fixed RoE.

Pros: This option would reduce the incentive for developers to delay projects, as they would not be able to earn a higher return on their investment.

Cons: This option could lead to lower tariffs for consumers, as developers would not be able to recover the full cost of any delays that are not attributable to uncontrollable factors.

Option 3: The current mechanism of treating time overrun may be continued, considering that utilities are automatically disincentivised if the project gets delayed.

Pros: This option would be the simplest to implement, as it would not require any changes to the current regulations.

Cons: This option would not provide any incentive for developers to control delays.

Overall, Option 1 is the best option, as it would encourage developers to make more efforts to control delays without significantly increasing tariffs for consumers. However, Option 2 is also good, if there is concern that Option 1 would lead to significantly higher tariffs.

In addition to the above, it is suggested that the Staff of the commission may consider the following measures to encourage developers to control delays:

- Increase the transparency of the process for obtaining clearances and approvals. This would help developers to identify and address any potential delays early on.
- Provide clear and concise guidance on the requirements for obtaining clearances and approvals. This would help developers to avoid making mistakes that could lead to delays.
- Provide a forum for developers to discuss their experiences with delays. This would help developers to learn from each other and to identify best practices for avoiding delays.

These measures would help to reduce delays and to keep tariffs as low as possible.

n. Suggested approaches and other alternatives in allowing additional capitalization

Approach 1: For generating stations that have already crossed the cut-off date as on 31.03.2024, the additional capitalization for such generating stations can be considered – Historical Expenditure – Vintage Class – No need for true-up (Allowance).

Pros: This approach would provide a fair and equitable way to compensate generating stations for the additional costs they incur after the cut-off date.

Cons: This approach could lead to higher tariffs for consumers, as the cost of additional capitalization would be passed on to consumers.

Approach 2: For generating stations whose cut-off date falls in the next tariff block (2024-29), or are expected to achieve COD after 31.03.2024, the additional capitalization for such generating stations can be considered – extending the cut-off date from the current 3 years to 5 years

Pros: This approach would provide more certainty for generating stations, as they would know that they would not be able to claim additional capitalization after the cut-off date unless in the case of Change in Law and Force Majeure.

Cons: This approach could lead to lower tariffs for consumers, but the developers cannot recover the costs

Overall, Approach 2 is the better option, as it would provide more certainty for generating stations and would not lead to higher tariffs for consumers.

In addition to the above, the following points are also suggested:

- The Staff of the commission should consider setting a cap on the amount of additional capitalization that can be claimed. This would help to ensure that the cost of additional capitalization is not passed on to consumers in an excessive way.
- The Staff of the commission should also consider providing more transparency around the process for determining the amount of additional capitalization that can be claimed. This would help to ensure that the process is fair and equitable.

These measures would help to ensure that the process for determining additional capitalization is fair and equitable, and that the cost of additional capitalization is not passed on to consumers in an excessive way.

o. Normative O&M Expenses and Capital Spares

Segregation of Normative O&M Expenses:

Staff of the commission's suggestion to segregate normative O&M expenses into two categories: employee expenses and other O&M expenses is appropriate. This would make it easier to track and manage these expenses, and it would also allow the Staff of the commission to provide more targeted relief in cases where there are specific cost pressures.

Norms for HVDC Stations:

The Staff of the commission's suggestion to simplify the norms for HVDC stations is appreciated. A single norm for all HVDC schemes would make it easier for utilities to plan and budget for these expenses.

O&M Norms for Special Cases:

Additional O&M expenses should be given for transmission assets being operated in the North Eastern and Hilly Regions. These regions face unique challenges, such as logistical difficulties and inadequate infrastructure, that increase the cost of O&M.

Inclusion of Capital Spares:

Staff of the commission's suggestion to include capital spares as part of normative O&M expenses is appreciated. This would streamline the approval process for spares, and it would also allow utilities to plan and budget for these expenses more effectively.

Alternatives to Streamline the Approval Process for Spares:

In addition to the Staff of the commission's suggestions, the following are the alternatives to streamline the approval process for spares:

- Establish a spares pool: The Staff of the commission could establish a spares pool that would provide utilities with access to a wide range of spares. This would reduce the need for utilities to procure spares on their own, and it would also make it easier for the Staff of the commission to monitor the cost of spares.
- Create a spares database: The Staff of the commission could create a spares database that would track the cost of spares over time. This would allow the Staff of the commission to identify trends in the cost of spares, and it would also help to ensure that utilities are not overpaying for spares.

In addition, the Approach Paper presents an analysis of the O&M data of power stations from 2019. However, the power sector is constantly evolving, and the O&M data from 2019 may not be representative of the current situation.

It would be helpful to include recent O&M data in the Approach Paper. This would give a better idea of the current costs of O&M, and would help to ensure that the tariffs are set fairly.

The Approach Paper could also include an addendum that would be updated periodically with new O&M data. This would help to ensure that the tariffs are always set based on the most recent information.

Including recent O&M data in the Approach Paper would be a valuable addition. It would help to ensure that the tariffs are set fairly and that both consumers and generators are protected.

Here are some of the benefits of including recent O&M data in the Approach Paper:

- It would give a better idea of the current costs of O&M.
- It would help to ensure that the tariffs are set fairly.
- It would help to protect consumers and generators.

However, there are also some potential challenges associated with including recent O&M data in the Approach Paper, including:

- The data may not be available.
- The data may be inaccurate.
- The data may be biased.

It is important to carefully consider these challenges before making a decision to include recent O&M data in the Approach Paper. However, if the challenges can be overcome, then including recent O&M data would be a positive step for the Indian power sector.

Overall, the inclusion of recent O&M data in the Approach Paper would be a valuable addition. It would help to ensure that the tariffs are set fairly and that both consumers and generators are protected.

p. Whether the current mechanism to exclude the expenses of Emission Control Systems may continue until these generating stations equip themselves with emission control systems as per the MoEF&CC notification dated 31.03.2021?

The current mechanism should be continued until more data is available on the actual operational performance and impact of emission control systems on auxiliary consumption. This is because the current data is limited, and it is not clear how the emission control systems will impact the power plant's performance in the long term.

The current mechanism should be modified to incentivize proper operation of emission control systems. This could be done by providing financial rewards for plants that operate their emission control systems efficiently.

The current mechanism should be reviewed once more data is available on the actual operational performance and impact of emission control systems. This will allow the Staff of the commission to make a more informed decision about whether to continue the current mechanism or to modify it.

Overall, the current mechanism to exclude these expenses is a reasonable approach. However, it is important to continue to monitor the situation and to adjust as needed.

Here are some of the benefits of continuing the current mechanism:

- It would provide certainty to generators and investors.
- It would avoid the need to make changes to the tariff regulations.
- It would allow for more data to be collected on the actual operational performance and impact of emission control systems.

Here are some of the benefits of modifying the current mechanism:

- It would provide incentives for generators to operate their emission control systems efficiently.
- It would help to ensure that the environment is protected.
- It would be more in line with the Staff of the commission's goal of promoting sustainable development.

In addition, the section 63 projects installing FGD etc. under Force majeure, approach to be analysed based on the financing feasibility of additional capital infusion by developer or financial institution.

q. Whether to continue the RoE approach or shift to RoCE approach.

RoE Approach:

The RoE approach has several advantages, including:

- It is relatively simple to calculate and understand.
- It is based on market data, which makes it more transparent.
- It is less sensitive to changes in interest rates.

However, the RoE approach also has some disadvantages, including:

- It does not take into account the cost of debt.
- It can lead to higher tariffs for consumers.

RoCE Approach:

The RoCE approach has several advantages, including:

- It takes into account the cost of debt and equity.
- It is more reflective of the actual cost of capital for utilities.
- It can lead to lower tariffs for consumers.

However, the RoCE approach also has some disadvantages, including:

- It is more complex to calculate and understand.
- It is less transparent, as the cost of debt and equity is not based on market data.
- It can be more volatile, as it is sensitive to changes in interest rates.

The RoCE approach is a more accurate and transparent way to calculate the return on investment for utilities. However, the RoE approach is simpler to understand and calculate, and it is more widely used in the industry. Ultimately, the decision of whether to use the RoE or RoCE approach is a complex one that should be made on a case-by-case basis.

Suggestions:

If the Staff of the commission decides to continue with the RoE approach, the following is suggested:

- The Staff of the commission should review the methodology for calculating RoE on a regular basis to ensure that it is still appropriate.
- The Staff of the commission should consider setting a cap on the RoE, to prevent utilities from earning excessive profits.

If the Staff of the commission decides to shift to the RoCE approach, the following is suggested:

- The Staff of the commission should develop a transparent methodology for calculating the cost of debt and equity.
- The Staff of the commission should monitor the RoCE of utilities on a regular basis to ensure that it is not excessive.

These suggestions would help to ensure that the return on investment for utilities is calculated in a fair and transparent way.

// In addition, Income tax 80 IA section tax holiday was available for old projects commissioned by FY 2019. Regime change has impact on tariffs modification in method of passing on impact needs to be changed in approach paper. Tax true up process may be incorporated as an alternative in approach paper.

Table 3 RoE approved for generating stations is not grossed up to Income tax. Please provide including tax comparison.

r. Interest on Loans

The Approach Paper should provide details of foreign exchange variation hedging practiced by utilities and the benefits to consumers in the past three years. This information would be useful to stakeholders who are interested in the tariff determination process. It would also help to promote transparency in the power sector.

s. Proposed approaches to interest on working capital

Working Capital Requirement:

The Staff of the commission's suggestion to retain the existing working capital norms is appreciated. These norms are efficient and have been in place for several years. There is no need to change them at this time.

Rate of Interest on Working Capital:

The Staff of the commission's suggestion to continue using MCLR plus 350 bps as the rate of interest on working capital is appreciated. This rate is based on market data and is more responsive to policy rate changes. This is the most fair and transparent way to calculate the interest on working capital.

Normative Working Capital and Interest Thereon:

It is worth exploring the possibility of determining annual fixed charges (AFC) on a normative basis. This would simplify the process of tariff filing and its determination, and it would also reduce the regulatory burden on generating and transmission companies.

Ways to Determine IoWC:

One way to determine IoWC without the need for periodic truing up would be to use a moving average of the MCLR. This would smooth out the fluctuations in the MCLR and would provide a more stable basis for calculating the interest on working capital.

Another way to determine IoWC would be to use a forward-looking rate of interest. This would take into account the expected future path of interest rates and would provide a more accurate estimate of the interest on working capital.

Either of these approaches would be a more efficient way to determine IoWC than the current method. The Staff of the commission is suggested to explore these options further.

t. Sharing of Gains

Ways to Increase Non-Core Revenues:

There are a number of ways to increase non-core revenues through optimal utilization of available resources. Some of these include:

- Leasing out land banks and other enabling infrastructure to third parties.
- Developing data centers on transmission assets.
- Promoting ecotourism.
- Selling advertising space on transmission assets.
- Providing consulting services to other utilities.

Modification in the Sharing Mechanism:

The current sharing mechanism for non-core revenues is based on a 50:50 split between the utility and the beneficiaries. This mechanism could be modified to incentivize utilities to generate more non-core revenues. For example, the sharing mechanism could be based on a sliding scale, with the utility receiving a higher share of the revenues as the amount of non-core revenues increases.

Overall:

There is a significant potential to increase non-core revenues through optimal utilization of available resources. The Staff of the commission is suggested to consider the proposed modifications to the sharing mechanism.

Here are some additional thoughts on the matter:

- The Staff of the commission could facilitate establishing a dedicated fund to support the development of non-core revenue opportunities. This fund could be financed by a small percentage of the non-core revenues generated by utilities.
- The Staff of the commission could facilitate provide technical assistance to utilities to help them identify and develop non-core revenue opportunities.
- The Staff of the commission could facilitate creating a marketplace for non-core revenue opportunities. This marketplace would allow utilities to share information about their non-core revenue opportunities and to connect with potential buyers.

u. Ways to simplify the tariff recovery process for hydro generating stations.

The Approach Paper is silent about the tariff determination after the initial project life in the BOO model. This is a significant omission, as it leaves open the question of how tariffs will be determined for these projects in the future.

There are a number of factors that need to be considered when determining tariffs for BOO projects after the initial project life. These factors include:

- The cost of maintaining and operating the project.
- The cost of replacing any assets that have reached the end of their useful life.
- The level of demand for electricity in the area served by the project.
- The level of competition from other power producers in the area.

It is important to develop norms for tariff determination that take all of these factors into account.

v. Peak & Off-peak tariff

Limiting Recovery Based on Daily Peak and Off-Peak Periods:

It would be advisable to limit the recovery based on daily peak and off-peak periods. This would make the system more responsive to changes in demand and would help to ensure that generators are available when they are needed most.

National Versus Regional Peak as a Reference Point for Recovery of Fixed Charges:

The reference point for recovery of fixed charges should be the national peak. This would ensure that all generators are incentivized to be available during the times when the grid is under the most stress.

Here are some specific suggestions on how to implement these changes:

- The Staff of the commission could establish a national peak demand schedule that would be used to determine the peak and off-peak periods for all generators.
- The Staff of the commission could require generators to maintain a specified target availability during the peak and off-peak periods.
- The Staff of the commission could set different fixed charges for the peak and off-peak periods.

These changes would help to make the peak and off-peak tariff system more effective and would help to ensure that generators are available when they are needed most.

Here are some additional thoughts on the matter:

- The Staff of the commission could also consider using a dynamic peak and off-peak tariff system. This would mean that the peak and off-peak periods would vary depending on the time of day and the level of demand.
- The Staff of the commission could also consider using a capacity market to allocate generation capacity during peak periods. This would ensure that there is enough generation capacity available to meet demand during peak periods.

These measures would help to improve the efficiency of the peak and off-peak tariff system and would help to ensure that the grid is reliable and resilient.

w. Other Comments:

Approach paper silent on monetization of assets and consumers perspective analysis.

B. Retrieved Content from the presentation made by Prayas (Energy Group) Pune

a. Improved Tariff Setting Process

Discouraging Section 62 projects and benchmarking tariffs

- Proposed: Significant new capacity is envisioned under Sec 62 with regulated tariffs
- Input: Encourage the competitively bid route for new projects and If Sec 62 is considered, benchmarking tariffs to recent comparable Sec 63 projects should be explored

Business plan for regulated capacity

- Input: Capital Investment Plan for regulated capacity under central generators
- Necessary for clarity, given long gestation periods of projects and the fast changing sector

Better indexation under Normative approach

- Proposed: Indexation based on Nth and N-1th year
- Input: Indices should be computed based on 5 past consecutive years, and lowest/average of the 4 should be used for indexation of future years

b. Efficient Sector Operations

GCV of fuel for ECR calculation to be on as billed basis

- Inputs: Norms should be revised such that ECR is calculated based on GCV as billed with permitted transit and stacking losses
- There are considerable slippages between loading and unloading point, consumer tariff is computed based on as received quality, impact of slippages passed through, passthrough of grade slippage impacts provides generators with little incentive to minimise loss

Ensure interest on loans is on project specific basis

- Proposed: Approval of IoL on WAROI of company instead of project specific IoL
- Inputs: Preferable to continue to adopt project specific IoL, since difference in interests of projects is on account of their respective risks, accounting based on WAROI could mask such differences

Treatment of RoE

- Proposed: Linking RoR with market interest rates, with market risk premium contributing to such computation
- Inputs: Section 62 projects have low risk and considering risk premiums as calculated from the stock market is not appropriate
- Proposed: Higher RoE considered for timely completion of hydro projects
- Inputs: Experiential evidence that higher RoE is insufficient to attract investments/curtail delays, timely completion of projects is the responsibility of the project proponent and delay in project completion could be deterred with lower RoE

c. Aiding a smooth Transition

Scrutinising capacity additions

- Proposed: Attracting fresh investments, replacing old capacity with newer coal-based capacity is considered
- Inputs: Optimisation of existing fleet should be implemented first, Capacity additions and replacements should be scrutinised
- Such new capacity will be capital intensive and increase cost of generation and could lead to resource lock-ins and/or fixed cost liabilities to their beneficiaries
- Proposed: Significant focus on hydro additions and de-risking such investment
- Inputs: Hydrological and socio-environmental risks should be accounted for, inordinate delays in construction should be scrutinised, de-risking investments should be cautiously carried out

PLF incentives during peak periods

- Input: PLF incentives for peak demand periods should be provided but made modest,
- Such action will incentivise non-pithead plants to procure low cost coal and since it is over and above RoE and completely passed through, it should be modest

Availability weightage during peak periods

- Input: Weightage of fixed cost payments for availability during peak hours could be increased, and this treatment could be extended to high demand seasons/months
- Peak period should be based on net load and not overall load, since this is when generation from thermal and hydro sources will be most required

Treatment of storage

- Input: BESS and PSP should be treated similarly, and mechanism for computation and recovery of capital expenditure and tariff should be clearly detailed
- Storage is likely to play a key role in the sector in the coming years (42 GW of BESS and 19 GW of PSP by 2030), but BESS not discussed
- Cost of setting up and utilising such storage will be passed on and the treatment of such cost impacts merit consideration

d. Ensuring Transparency

Provision of historic data

- Inputs: Good practise of providing exhaustive operational data along with the draft tariff regulations should be continued, toward ensuring transparency, accountability, and effective participation
- Proposed: Simplification of existing tariff formats
- Inputs: Submission of updated, thorough data by generators cannot be considered an overhead

Need for data transparency and periodic revision under Normative Approach

- Proposed: Relevant actual data called upon by Commission for revision of indexation of AFC excluding O&M component
- Inputs: Approach should be adopted only if generators are mandated to publish data periodically, which is lacking even now
- Proposed: AFC calculations for future control periods will be governed by Tariff Regs 2024
- Inputs: Periodic revision of tariff regulations are crucial toward reflecting relevant ground realities in a fast changing sector

e. Others

Treatment of ECS

- Inputs: To justify the intent of expenses and the proper operation of ECS, cost of ECS should be reimbursed subject to adherence to the norms
- ECS expenses could be excluded from consideration for MoD till the final deadline, after that supplementary costs should be allowed either on the basis of suitable certification from PCB or by mandating the publishing of CEMS data and scrutiny of the same

Input price of integrated mines

- Proposed: Continue existing computation of input price of mines
- Inputs: RoM price for captive mines should be capped at the CIL notified price since allotment of captive mines to power companies was carried out toward ensuring they could procure low cost coal

Extension of life to 35 years

- Proposed: Useful life of generation and transmission assets to be extended to 35 years
- Inputs: Good move, but duration of PPAs should not be deemed extended along with extension of life and R&M/special allowance undertaken after 25 years must be subject to scrutiny

C. Minutes and Comments Received during the Round-table

- Observations by the Panel
 - Mr. G.V. Mahender, Ex-Member, CEA, delivered a keynote address, highlighting that the Round Table marked the 25th Anniversary of CERC and acknowledged CERC's significant contribution to the Indian Power Sector. He emphasized that the Approach Paper is open to suggestions and comments, which will be incorporated into the Draft Regulations. Various key issues were outlined, including tax holidays, solar power, firm power capacity, peak demand, generation mix, and technical minimum of thermal plants.

- Mr. Sree Kumar from Prayas Energy Group emphasized the importance of consumer participation as the impact of these regulations ultimately affects consumers. He appreciated the government's focus on environmental caution and encouraged everyone to share their views on the Approach Paper.
- Comments by Participants:
 - D. Radhakrishna, Chairman, Tripura Electricity Regulatory Commission, stressed the importance of considering the impact of the Approach Paper on states.
 - Y.V. Rao, Ex-Executive Director (OS), NTPC, provided several recommendations, including continuing with the normative approach, segregating O&M expenses, and fixing norms for working capital based on future predictions.
 - Deepak Kumar, Chief Engineer (Commercial), North Bihar Power Distribution Company Limited, raised concerns about the focus on investments over consumer interests and suggested studying PPAs between beneficiaries and generators.
 - Nilanjan Chakrabarti, CESC, appreciated the focus on investments in generation and transmission and suggested separate O&M expenses for transmission projects in hilly regions and North Eastern states.
 - H.T. Vivekananda S.E, IPC, TSPCC, supported determining capital cost based on benchmarking and extending the cut-off date for claiming additional capitalization.
 - D. Ramanaiah Shetty, Deputy Director (Tariff Engineering), APERC, supported the hybrid approach, questioned the extension of the plant's life, and suggested using benchmarking for determining capital cost.
 - Hemanth Madhab Sharma expressed the opinion that RoE should be below 10%.
 - Ashwini Chitnis, CSEP, suggested using NFA approach instead of GFA approach and focusing on benchmarking the station Heat rate to reduce fuel costs.
 - Indraneel Chatterjee, CESC, supported benchmarking operational norms for PLF and PAF and recommended considering both GCV and moisture content for accurate values.
 - S. Suryapraksh Rao, Former Director (Commercial), erstwhile APCPDCL and Former Secretary erstwhile APERC:
 - Suggested that the approach of 'mitigation of risk perception to attract investments' may be flawed and policies should be oriented towards competition and reduction in cost of supply to consumers.
 - Recommended that Central Government should contribute substantially to the development of hydro power considering India's commitment to zero carbon emission by 2030.
 - Supported continuing the present dispensation of special allowance for extending the life of old generating stations.
 - Favored the Normative Tariff approach (Approach 1) and highlighted that the approach of sustainable transition for solar projects should consider extending the life expectancy to recover investments during non-solar hours.
 - Suggested that capital cost of generating stations and transmission substations should include additional capital cost for renovation and modernization to achieve maximum PLF/transmission capacity.
 - A. Sai Prasad Sarma, Rtd.OSD and Chief Engineer:

- Raised concerns about the practice of making Distribution companies pay penal charges for forecasting inaccuracies of Renewable Energy power plants.
- Recommended considering Renewable Energy forecasting inaccuracies up to a much lower percentage, limiting it to 10% to reduce the impact on Distribution companies.
- Supported the idea of enhancing the useful life of hydro power plants to increase their commercial acceptability.
- Proposed conducting in-depth studies to assess the likely impact of introducing electrical vehicles (EVs) on peak demand and power quality.
- Encouraged a transparent process of competitive bidding for work and services contracts for power projects under the Regulated Tariff mechanism.
- G. Sudershan, Consultant, ASCI:
 - Suggested considering upward/downward adjustments in the existing norms rather than adopting a normative tariff approach.
 - Recommended further simplification of the performance-based hybrid approach for tariff determination.
 - Advocated for increasing the life expectancy of thermal generating stations and transmission substations from 25 to 35 years.
 - Supported considering specific circumstances/reasons for uncontrollable factors affecting project timelines.
 - Favored reviewing the levelized tariff and depreciation and return on equity for renewable energy projects after 35 years.

5. Conclusion

The following are some key comments and suggestions, among others, received on the CERC's approach paper by ASCI's internal team and the stakeholders attended the round-table conference:

- The proposed regulations should give more weight to the need to incentivize efficient plant operations. This is particularly important in the context of the increasing share of renewable energy in the power mix, as these sources are often intermittent and require flexible thermal generation to support them.
- The proposed regulations should also consider the need to provide more regulatory certainty to investors. This would help to attract investment in new generation capacity, which is essential to meet the growing demand for electricity in India.
- The proposed regulations should be more specific about the changes that are needed to compensate generators for operating in a flexible manner. This would help to ensure that these changes are fair and equitable.
- The proposed Regulations should be backed by extensive historic data