



**COMMENTS AND
SUGGESTIONS OF NHPC ON
DRAFT CENTRAL
ELECTRICITY REGULATORY
COMMISSION (TERMS AND
CONDITIONS OF TARIFF)
REGULATIONS 2024**

NHPC Limited



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Comments on Draft CERC Tariff Regulations 2019-24

Contents

Chapter 1: Preliminary.....	3
Definitions.....	3
1. Capital Spares	3
2. Force Majeure	3
3. Carrying Cost	4
4. Long Term Customers	4
Chapter 3: Procedure for Tariff Determination	6
1. Application for Determination of Tariff.....	6
2. Determination of Tariff.....	6
3. Determination of Tariff – timeline for billing of differential AFC	8
Chapter 6: Computation of Capital Cost.....	11
1. Capital Cost.....	11
2. Capital Cost for NCLT Projects.....	13
3. IDC and IEDC – Prudent Phasing of Funds up to COD.....	13
4. IDC and IEDC – Statutory Clearances	14
5. Controllable and Uncontrollable Factors.....	16
6. Initial Spares.....	18
Chapter 7: Additional Capital Expenditure	20
1. Additional Capital Expenditure.....	20
2. Additional Capital Expenditure- Developing Local Infrastructure	20
3. Additional Capital Expenditure- Replacement of Assets.....	21
4. Additional Capital Expenditure – Project acquired through NCLT Process	22
5. Additional Capital Expenditure – Decapitalization	22
6. Additional Capitalization on account of Renovation and Modernization.....	24
Chapter 8: Computation of Annual Fixed Cost.....	25
1. Return on Equity	25
2. Return on Equity for storage hydro generating stations	26
3. Tax on Return on Equity.....	31
4. Interest on Loan	36
5. Depreciation	38
6. Interest on Working Capital (Statutory Charges)	43
7. O&M Expenses	43
Chapter 10: Computation of Capacity Charges and Energy Charges	48
1. Computation of Capacity Charges and Energy Charges	48
2. Incentives.....	48
3. Incentives for ROR Hydro generating Station	50
4. Saleable Scheduled Energy	51
5. Rate of energy for saleable schedule energy beyond saleable Design Energy	52

Chapter 12: Norms of Operation	54
Norms of Operation for Hydro Generating Stations (Draft Regulation 71)	54
Chapter 13: Scheduling, Accounting and Billing	57
Chapter 15: Miscellaneous Provisions	58
1. Loss of Capacity Charges during a state or nationwide strike or force majeure conditions such as flash flood.....	58
2. Deviation from ceiling tariff	58
3. Public Procurement through Competitive Bidding.....	59
4. Award of Arbitration	59
5. Tariff norms required for Pumped Storage Projects (PSP)	61

Chapter 1: Preliminary

Definitions

1. Capital Spares

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

3(12) 'Capital Spares' means spares individually costing above Rs. 20 lakhs, which is maintained by the generating company or the transmission licensee over and above the initial spares.

Our Comments/Suggestions

We are of the opinion that the option proposed by the CERC to include all the capital spares below Rs. 20 lakhs as a part of O&M expense is a welcome step as it will smoothen the process of procuring capital spares and reduce the regulatory burden while filing the petition for the approval of capital spares as most of the capital spares cost lies below Rs. 20 lakh. Therefore, we request the Hon'ble Commission to continue with the same provisions in the final regulations.

2. Force Majeure

CERC Tariff Regulations, 2019

3(25). Force Majeure' for the purpose of these regulations means the events or circumstances or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

Draft CERC Tariff Regulations, 2024

3(32) 'Force Majeure' for the purpose of these regulations means the events or circumstances or combination of events or circumstances, including those stated below, which prevent the generating company or transmission licensee from completing or operating the project, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

Our Comments/Suggestions

1. We welcome the Hon'ble Commission's approach of including operational period as part of force majeure and we request the Commission to continue the same in the final regulation.

2. Additionally, in the last control period, the world faced one of the largest global pandemic i.e. COVID19, and as a consequence all the business operations were impacted in one form or another. Keeping in mind the impact of the pandemic not only on the construction activities but also on the operations, **we would request the Hon’ble Commission to add ‘Pandemics’ as part of force majeure** as the event was clearly way beyond the control of the utility and its impact could not have been avoided.

3. Carrying Cost

CERC Tariff Regulations, 2019

NO Provision

Draft CERC Tariff Regulations, 2024

NO Provision

Our Comments/Suggestions

The Hon’ble Commission has already defined the rate of Carrying Cost i.e. 1 year SBI MCLR as on 1st April of relevant year plus 100 basis points under Regulation 10 of the draft Tariff Regulations. However, for the sake of clarity, we request the Commission to also define the same under Definitions section. The following definition may be added to the final regulations:

“Carrying Cost’ means the one year marginal cost of funds based lending rate (MCLR) of the State Bank of India (SBI) issued from time to time plus 100 basis points, to be applicable on the refund or recovery of the difference between the trued up/final tariff and final/interim tariff;”

4. Long Term Customers

CERC Tariff Regulations, 2019

NO Provision

Draft CERC Tariff Regulations, 2024

(50) 'Long-Term Customer' shall have the same meaning as 'Long Term Customer' as defined in the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium term Open Access in inter-State Transmission and related matters) Regulations, 2009;

Our Comments/Suggestions

The definition of Long Term Customer has been linked with the definition of 'Long Term Customer' as defined in the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium term Open Access in inter-State Transmission and related matters) Regulations, 2009. CERC Connectivity Regulations 2009 have been repealed upon

the implementation of CERC GNA Regulations 2022. Thus, presently the definition of Long Term Customers is not defined in any Regulations and therefore, needs to be defined in CERC Tariff Regulations 2024 as under:

“(50) Long-Term Customer” means a person who has been granted long-term access and includes a person who has been allocated central sector generation that is electricity supply from a generating station owned or controlled by the Central Government;”

Chapter 3: Procedure for Tariff Determination

1. Application for Determination of Tariff

CERC Tariff Regulations, 2019

9(1) The generating company or the transmission licensee may make an application for determination of tariff for new generating station or unit thereof or transmission system or element thereof in accordance with the Procedure Regulations within 60 days of the anticipated date of commercial operation:

Provided also that where interim tariff of the generating station or unit thereof and the transmission system or element thereof including communication system has been determined based on Management Certificate, the generating company or the transmission licensee shall submit the Auditor Certificate not later than 60 days from date of granting interim tariff.

Draft CERC Tariff Regulations, 2024

9(1) The generating company or the transmission licensee may make an application for determination of tariff for a new generating station or unit thereof or transmission system or element thereof in accordance with these Regulations within 90 days from the actual date of commercial operation:

Provided that for a new generating station or unit thereof or transmission system or element thereof, the applicant, through a specific prayer in its application filed under Regulation 9(1) of these regulations, may plead for an interim tariff, and the Commission shall consider granting interim tariff from the date of commercial operation during the first hearing of the application.

Our Comments/Suggestions

We agree with the Commission's view of regulatory overburden in the existing provisions due to multiple revisions in the tariff filings based on anticipated COD. The provision of filing the tariff petition within 90 days of the actual COD will allow the utilities to solidify the financials and file the petition as per actual data, thereby reducing the regulatory compliance on account of multiple revisions in tariff filing. **Therefore, we request the Hon'ble Commission to continue with the same in the final regulations.**

2. Determination of Tariff

CERC Tariff Regulations, 2019

10(3) If the information furnished in the petition is in accordance with these regulations and is adequate for carrying out prudence check of the claims made, the Commission may consider granting interim tariff in case of new projects.

Draft CERC Tariff Regulations, 2024

10(3) If the information furnished in the petition is in accordance with these regulations, the Commission may consider granting interim tariff of up to ninety per cent (90%) of the tariff claimed in case of new generating station or unit thereof or transmission system or element thereof during the first hearing of the application:

Provided that in case the final tariff determined by the Commission is lower than the interim tariff by more than 10%, the generating company or transmission licensee shall return the excess amount recovered from the beneficiaries or long term customers, as the case may be with simple interest at 1.20 times of the rate worked out on the basis of 1 year SBI MCLR plus 100 basis points prevailing as on 1st April of the financial year in which such excess recovery was made.

Our Comments/Suggestions

- The provision of allowing recovery of up to 90% interim tariff during the first hearing is a welcome step. However, we would request the Commission to include provisions **to hear such petitions within 60 days of filing of petition** in order to start provisional recovery of the tariff till the time Commission comes out with a final tariff order.
- We would also like to highlight that the tariff petitions are filed as per the provisions of the Tariff Regulations after due diligence. Therefore, a possibility of more than 10% difference between the final tariff and interim tariff is quite meagre.
- However, the Commission may have different point of view while allowing the expenses especially in the cases where there is substantial time overrun or cost overrun. It is pertinent to note that for the cases where the Commission has decided to not condone the delay in commissioning of the projects, the difference between the final tariff and interim tariff may come out to be more than 10% and in such cases, the utilities will have to bear the burden of disallowances in Annual Fixed Cost along with the additional carrying cost of 1.2 times which will impact the project feasibility and profitability.
- Further, with the proposed provision of filing of tariff within 90 days after the actual COD, the petition will be filed as per the actual financials as on COD along with the projected additional capital expenditure (ACE) for the control period. In such a scenario, the chances of variation in AFC during the COD year between the interim and final tariff will be negligible, however, there is a small possibility of variation in ACE only.
- Therefore, we request the Commission to allow the refund of excess amount recovered from the beneficiaries or long-term customers with simple rate at the rate of 1-year SBI MCLR plus 100 basis points prevailing as on 1st April of the financial year in which such excess recovery was made.

In view of above, we request the Hon'ble Commission to modify the provisions of Regulation 10(3) of draft CERC Tariff Regulations 2024 as under:

(3) If the information furnished in the petition is in accordance with these regulations, the Commission may consider granting interim tariff of up to ninety per cent (90%) of the tariff claimed in case of new generating station or unit thereof or transmission system or element

thereof during the first hearing of the application, **which shall be held within first 60 days of filing of tariff petition:**

Provided that in case the final tariff determined by the Commission is lower than the interim tariff by more than 10%, the generating company or transmission licensee shall return the excess amount recovered from the beneficiaries or long term customers, as the case may be with simple interest ~~at 1.20 times of~~ at the rate worked out on the basis of 1 year SBI MCLR plus 100 basis points prevailing as on 1st April of the financial year in which such excess recovery was made.

3. Determination of Tariff – timeline for billing of differential AFC

CERC Tariff Regulations, 2019

10(7) The difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the bank rate prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments.

Draft CERC Tariff Regulations, 2024

10(7) Subject to Sub-Clause (8) below, the difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the 1 year SBI MCLR plus 100 basis points prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments.

Provided that the bills to recover or refund shall be raised by the generating company or the transmission licensees within 30 days from the issuance of the Order. Provided further that such interest, including that determined as per sub-clause (8) of this regulation shall be payable till the date of issuance of the Order and no interest shall be allowed or levied during the period of six-monthly instalments.

Provided further that in case where money is to be refunded and there is a delay in the raising of bills by the generating company or transmission licensees beyond 30 days from the issuance of the Order, it shall attract a **late payment surcharge** as applicable in accordance with these regulations.

Our Comments/Suggestions

The Commission has proposed to raise the refund / recovery bills of differential AFC within 30 days of the date of issuance of the order.

As per clause 8(13) of CERC Notification dated 12.03.2014 for the tariff period 2014-19:

“The amount under-recovered or over-recovered, along with simple interest ...shall be recovered or Refunded...within three months from the date of the tariff order issued by the Commission”.

Although, CERC Notification dated 07.03.2019 for the tariff period 2019-24 is silent about timeline for truing-up billing. Accordingly, truing-up is being done by NHPC at the earliest but not later than 90 days from the date of issuance of truing-up order by CERC.

However, under clause 10(7) of CERC draft Notification dated 04.04.2024 for the tariff period 2024-29,

‘... the bills to recover or refund shall be raised by the generating company or the transmission licensees within 30 days from the issuance of the Order.’”

In this regard, we would like to submit that billing of truing-up order issued by CERC along with interest and sending it to beneficiaries with all calculations and annexures within 30 days from the issuance of the Order is very difficult due to following reasons:

1. While receiving truing-up & provisional orders (presently for ten years), we have to calculate 12 monthly bills for each year, say for ten years, i.e. approx. 120 bills for each beneficiary (even if order is for five years, it becomes 60 bills for each beneficiary). Most of the Power Stations have 17-18 beneficiaries and each monthly bills to each beneficiary makes it 120*17 i.e. 2040 bills (1020 bills even in case of order for truing-up is of five years).
2. Apart from that interest is to be calculated on each monthly bill as mentioned above from the date of bill to order date. Calculating interest on each bills also require lot of time keeping volume of work involved in this respect.
3. It is pertinent to mention here that, some truing-up orders also allows recovery of other reimbursement like: additional O&M; capital spares; GST; arbitration interest; etc., along with truing-up order. That too has to be raised within stipulated timeline as per CERC truing-up order.
4. Further, if more than one order is issued within a month or within short span of time, it becomes even more challenging to complete the billing in all respect within stipulated timeline as per CERC order.

In view of above it requested that bills to recover or refund along with interest to be raised and sending it to beneficiaries with all calculations and annexures by generating company may be allowed for at least 60 days from the issuance of the Order.

Further, Hon’ble Commission in the draft Regulation has proposed that no interest shall be levied after the date of issuance of order and no interest has been allowed for the six months recovery period. This approach will result in loss of working capital interest to the generating companies. Therefore, it is proposed to allow the recovery of differential tariff in six equated monthly installments (EMI) instead of equal monthly installments.

Therefore, second provision of Regulation 10(7) of draft CERC Tariff Regulations, 2024 may be modified as under:

*“10(7) Subject to Sub-Clause (8) below, the difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the 1 year SBI MCLR plus 100 basis points prevailing as on 1st April of the respective year of the tariff period, in six **equated** monthly instalments.*

*Provided that the bills to recover or refund shall be raised by the generating company or the transmission licensees within **60 days** from the issuance of the Order.*

*Provided further that in case where money is to be refunded and there is a delay in the raising of bills by the generating company or transmission licensees beyond **60 days** from the issuance of the Order, it shall attract a late payment surcharge as applicable in accordance with these regulations.”*

Chapter 6: Computation of Capital Cost

1. Capital Cost

CERC Tariff Regulations, 2019

7. Sale of Infirm Power: Supply of infirm power shall be accounted as deviation and shall be paid for from the regional deviation settlement fund accounts in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014:

Provided that any revenue earned by the generating company from supply of infirm power after accounting for the fuel expenses shall be applied in adjusting the capital cost accordingly.

Draft CERC Tariff Regulations, 2024

19.(2)(g) Adjustment of revenue due to the sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 6 of these regulations;

Our Comments/Suggestions

- After implementation of DSM Regulations, 2022, generating stations are not allowed to inject infirm power in the grid without scheduling. Scheduling of power is allowed after declaration of COD. As such generating station is left only option to sell the infirm power through power exchange. Therefore, charges of power exchange needs to be adjusted from revenue of infirm power.
- In view of above Regulation-19(2)(g) is proposed as under:

“19(2)(g) Adjustment of revenue due to the sale of infirm power earned **after deducting fuel cost, power exchange/trader charges and other incidental expenses for sale of power in power exchanges etc.**, if any, prior to the date of commercial operation as specified under Regulation 6 of these regulations;”

CERC Tariff Regulations, 2019

19 (4). The capital cost in case of existing or new hydro generating station shall also include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer’s 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

Draft CERC Tariff Regulations, 2024

19(4) The capital cost in case of existing or new hydro generating stations shall also include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer's 10% contribution towards the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(c) Expenditure incurred towards developing local infrastructure not exceeding Rs. 10 lakh/MW in the vicinity of the power plant approved in original scheme if funding is not provided for under “Budgetary Support for Flood Moderation and for Budgetary support for enabling infrastructure”.

Our Comments/Suggestions

- As per the draft regulations, expenditure up to Rs. 10 lakh/MW incurred towards developing local infrastructure in the vicinity of the hydro power plant, as approved in the original scheme, will be included as a part of the capital cost for both existing and new hydro generating plants. However, the Commission has not addressed expenses incurred for developing local infrastructure outside the originally approved scheme. Sometimes, such expenditures are not envisaged at the time of DPR creation and has to be expensed beyond the original scope in order to alleviate the local disturbances. Further, the allowance should be available for the complete life of the plant since in many hydropower plants various law & order issues arise post commissioning of the plant.
- Hydro Projects are located in interior far flung areas in hilly terrain and landslides, hill slope collapses, road blocks particularly during monsoon season because of heavy rains and unprecedented floods cause severe setbacks in construction leading to time and cost over-runs. Non-availability of approach road to Project site leading to cost overrun and increase in overall project cost.
- Therefore, the Commission may consider the phasing of the funds provided in the above provision as per the following to ensure availability of such funds over the life of the asset:
 - Allowing 60% of the total provision before COD since such expenditure is expected to be higher during the construction of the project due to RoW issues, law & order issues, forest clearances, etc.
 - Allowing 40% of the total provision after COD to ensure the availability of the fund to resolve any law & order issues, local agitation that may arise during the course of its life. Further, such amount may be allowed post prudence check only.
- For local area development, the utilities usually consider it based on historical experience. Further, it is not possible to envisage the activities on which such expenditure will be done and are usually done post assessment of the needs of the local population such as Road and Transportation Infrastructure, Utilities Infrastructure like water supply, electrical infrastructure and sewage system etc. Therefore, it is requested to modify the above to include the works which are carried out beyond the scope.
- In view of above, the draft regulation may be modified as under:

“19.4.(c) Expenditure incurred towards developing local infrastructure not exceeding Rs. 10 lakh/MW in the vicinity of the power plant beyond the scope to the funding provided for roads and bridges under “Budgetary support for enabling infrastructure” and for flood moderation under “Budgetary Support for Flood Moderation”

Provided that 60% of eligible amount may be utilized during construction phase of the generating station and 40% of eligible amount may be utilized during operating life of the generating station.

Provided that such funds shall be allowed only if the funds are spent through Indian Governmental Instrumentality / State Governmental Instrumentality.”

2. Capital Cost for NCLT Projects

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

19.(5) For Projects acquired through NCLT proceedings, the following shall be considered while approving Capital Cost for determination of tariff:

(a) For projects already under operation, historical GFA of the project acquired or the acquisition value paid by the generating company, whichever is lower;

(b) For considering the historical GFA for the purpose of Sub-Clause (a) above, the same shall be the capital cost approved by the appropriate commission till the date of acquisition;

Provided that in the absence of any prior approved cost of an Appropriate Commission, the Commission shall consider the same on the basis of audited accounts subject to prudence check;

Provided further, that in case additional capital expenditure is required post-acquisition of an already operational project, the same shall be considered under the provisions of Chapter 7 of these Regulations;

(c) In case any under construction project is acquired which is yet to achieve commercial operation, the acquisition value or the actual audited cost incurred till the date of acquisition, whichever is lower, shall be considered. and;

(d) any additional capital expenditure incurred post-acquisition of such project up to the date of commercial operation of the project in line with the investment approval of the Board of Directors of the generating company or the transmission licensees shall also be considered on a case-to-case basis subject to prudence check.

Provided that post commercial operation, any additional capital expenditure shall be allowed under the provisions of Chapter 7 of these Regulations.

Our Comments/Suggestions

The inclusion of provisions related to the computation of capital cost for the projects acquired post NCLT proceedings is a welcome step and therefore, we request Commission to include the same in final regulations as well. Further, these regulations will streamline the process of acquiring stressed projects and will attract more interest in such projects.

3. IDC and IEDC – Prudent Phasing of Funds up to COD

CERC Tariff Regulations, 2019

21(1) Interest during construction (IDC) shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds up to SCOD.

Draft CERC Tariff Regulations, 2024

21 (1) Interest during construction (IDC) shall be computed considering the actual loan and normative loan after taking into account the prudent phasing of funds up to actual COD:

Provided that IDC on normative loan corresponding to excess equity over 30% of funds deployed shall be allowed only in case the actual infusion of equity on a quarterly basis is more than 30% of total funds deployed on a pari-passu basis.

Provided further that in case IDC on normative loan is to be allowed prior to infusion of actual loan, rate of interest for computing such IDC shall be equal to 1-year SBI MCLR as prevailing on 1st April of the respective year.

Provided further that IDC on normative loan, post infusion of actual loan shall be computed based on WAROI for that respective quarter.

Our Comments/Suggestions

The proposed provisions would take into consideration the IDC on normative loan portion till the time actual loan is infused and it is a welcome step.

The Commission also proposes that the IDC on normative loan, post infusion of actual loan shall be computed based on WAROI for that respective quarter. It is important to note that, many a times, the loans availed by the hydro generating utilities are from the GOI and are availed at a subsidized interest rate (sometimes even at 0%) either to make the projects feasible or on account of National importance of such projects. It is crucial to note that the same interest rates cannot be used for the calculation of interest rates on the Normative Loans as it will result in sub-par carrying cost for extra equity infused by the generating company.

It is therefore suggested to exclude the interest rates of subsidized loans for calculation of WAROI while calculating the IDC on normative loan or to continue with the norms of 1-year SBI MCLR as prevailing on 1st April of the respective year.

It is therefore requested to either modify the third proviso of Regulation 21(1) of draft CERC Tariff Regulations, 2024 as under:

*“Provided further that IDC on normative loan, post infusion of actual loan shall be computed based on WAROI for that respective quarter **excluding subordinate debt or concessional loan**”*

Or **delete the third proviso** and **modify the Second proviso** of Regulation 21(1) of draft CERC Tariff Regulations, 2024 as under:

“Provided further that in case IDC on normative loan is to be allowed, rate of interest for computing such IDC shall be equal to 1-year SBI MCLR as prevailing on 1st April of the respective year.”

4. IDC and IEDC – Statutory Clearances

CERC Tariff Regulations, 2019

21(5) If the delay in achieving the COD is attributable either in entirety or in part to the generating company or the transmission licensee or its contractor or supplier or agency, in such cases, IDC and IEDC beyond SCOD may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be retained by the generating company or the transmission licensee, as the case may be.

Draft CERC Tariff Regulations, 2024

21.(5) If the delay in achieving the COD is attributable either in entirety or in part to the generating company or the transmission licensee or its contractor or supplier or agency, in such cases, IDC and IEDC due to such delay may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned vis-à-vis total implementation period and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be retained by the generating company or the transmission licensee, in the same proportion of delay not condoned vis-à-vis total implementation period.

Provided that in case of activities like obtaining forest clearance, NHA Clearance, approval of Railways, and acquisition of government land, where delay is on account of delay in approval of concerned authority, in such cases maximum condonation shall be allowed up to 90% of the delay associated with obtaining such approvals or clearances.

Our Comments/Suggestions

Hydroelectric power projects often face delays due to the process of obtaining various statutory clearances such as forest clearance, NHA Clearance, approval of Railways, and acquisition of government land. NHPC has always endeavored towards a proactive approach in getting the statutory clearances as delays in such statutory approvals are not in the interest of NHPC owing to delayed commissioning of the projects, reduction in the effective RoE of the project and consequent recovery of the tariff.

A simple illustration would explain the impact of delay in clearances on NHPC

Illustration: Suppose a hydroelectric project was supposed to be completed over a span of 6 years. However, due to delay in statutory clearances, the project was completed in 7 years. The impact of delay of 1 year would result in decrease in effective RoE from 12.12% to 11.59%.

Thus, delay in projects due to statutory clearances impacts the profitability of the projects and such disallowances would further stress the profitability of the projects even though such delays are not attributable to the generating company.

It is also pertinent to note that these statutory bodies work independently and at their pace even after rigorous follow ups. Therefore, we request the Commission to consider full delay in obtaining forest clearance, NHA Clearance, approval of Railways, and acquisition of government land, where delay is on account of delay in approval of concerned authority, for allowing of IDC and IEDC as such delays are unequivocally beyond the control of the entity

responsible for the project execution. Hence, we request the Hon'ble Commission to remove the first proviso of Regulation 21(5) of draft CERC Tariff Regulations, 2024.

5. Controllable and Uncontrollable Factors

CERC Tariff Regulations, 2019

22. *Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors for deciding time over-run, cost escalation, IDC and IEDC of the project:*

(1) *The "controllable factors" shall include but shall not be limited to the following:*

a. *Efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or change in law or force majeure events; and*

b. *Delay in execution of the project on account of contractor or supplier or agency of the generating company or transmission licensee.*

(2) *The "uncontrollable factors" shall include but shall not be limited to the following:*

a. *Force Majeure events;*

b. *Change in law; and*

c. *Land acquisition except where the delay is attributable to the generating company or the transmission licensee.*

Draft CERC Tariff Regulations, 2024

22. *Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors for deciding time overrun, cost escalation, IDC and IEDC of the new projects:*

(1) *The "controllable factors" shall include but shall not be limited to the following:*

a. *Efficiency in the implementation of the new projects not involving an approved change in scope of such new projects, change in statutory levies or change in law or force majeure events; and*

b. *Delay in execution of the new projects on account of contractor or supplier or agency of the generating company or transmission licensee.*

(2) *The "uncontrollable factors" shall include but shall not be limited to the following:*

a. *Force Majeure events;*

b. *Change in law; and*

c. *Land acquisition except where the delay is attributable to the generating company or the transmission licensee.*

Our Comments/Suggestions

- The Commission in the concept paper had suggested to include the delay on account of getting the forest clearance as the Uncontrollable parameters. However, the same has not been included in the final regulations.
- We would like to highlight that the Hydroelectric power projects in India often face delays due to the process of obtaining forest clearance. The clearance is required because the construction and operation of hydroelectric projects can involve the clearance of forest land and the potential impact on the environment and wildlife. The forest clearance process aims to assess and mitigate these impacts while ensuring sustainable development.

- Therefore, we request the Commission to include delay on account of forest clearance in the list of Uncontrollable factors along with Force Majeure and Change in Law. Since the delays faced by hydro projects in obtaining forest clearance can vary depending on the specific project, location, and regulatory processes involved. The continued inclusion of delay on account of land acquisition as an uncontrollable factor and on the further inclusion of delay on account of actual time taken for forest clearances as an uncontrollable factor will support the feasibility of the hydro generation projects.
- Further, NHPC is facing severe delay for clearance of trees on forest land even after obtaining forest clearance, which again has to be approved from the concerned statutory authority. It is therefore, requested to also consider delay in getting the forest land cleared as part of the uncontrollable factors.
- Presently, the contractual delays or delays on account of contractor are included in controllable factors, however, we request the Commission that such delays should be dealt on case-to-case basis and contractual delays on account of hydro power developers should be considered under uncontrollable factors.
- In the current scenario, any delay on account of contractor is a part of controllable factors and time overrun in such a scenario is not condoned. Central generating stations follows the various guidelines for the award of the work as laid down by Government of India. Thus, while awarding work utmost care is taken in technical and financial evaluation. Notwithstanding, there can be instances where the contractor fails to execute the work and abandon the contract. Subsequently, being a central generating station, NHPC has to again follow the complete process of award of work which results in time overrun. Moreover, the technical and financial competent contractors for hydro power development are very few in number which also makes the process of award of work a time consuming one.
- The following table highlights the impact of delay due to forest clearance and contractual delays on various project of NHPC:

Plant Name	Type of Delay	Delay	Issue
TLDP IV	Forest Clearance	3 months	Due to non-felling of trees and non-removal of tree logs, the excavation activities for powerhouse and TRC on left bank could not be taken up. As the cutting of trees and removal of wooden logs was the responsibility of forest department, NHPC has continuously persuaded forest division for early felling of trees in order to early execution of works. However, till October 2007, the said cutting and removal of tress could not be completed by the forest department. Considering the flood 2007 period as overlap with this delay, net 3 months has been considered as delay on this account. This delay in felling of trees hampered the excavation activities of the Power House and TRC which further impacted the overall completion of the project.

CVPP Pakal Dul Hydro Electric Project	Forest Clearance	5 months	Delay was caused even after multiple requests to the State Forest Corporation, the removal of felled trees and sleepers, which are lying Within the area of road construction up to D/T inlet, Coffor Dam was not completed and led to a delay of more than 5 months
TLDP IV	Contractual	159 days	No work could be executed due to multiple labor strikes in the period between 21.01.09 to 30.08.10 and led to a delay of 159 days.
CVPP Pakal Dul Hydro Electric Project	Contractual	14 days	Labor Strike due to demand of implementation of payment of wages in accordance with Central Wages at CVPP Pakal Dul Hydro Electric Project

Thus, keeping in view the huge impact due to delay in forest clearance or contractual delays have on the completion of the Project, Hon'ble Commission is requested to include Forest Clearances under uncontrollable factors and consider contractual delays on case to case basis. Therefore, Regulation 22 of draft CERC Tariff Regulations 2024 may be modified as under:

“22. Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors for deciding time overrun, cost escalation, IDC and IEDC of the new projects:

- (1) The "controllable factors" shall include but shall not be limited to the following:*
 - a. Efficiency in the implementation of the new projects not involving an approved change in scope of such new projects, change in statutory levies or change in law or force majeure events; and*
- (2) The "uncontrollable factors" shall include but shall not be limited to the following:*
 - a. Force Majeure events;*
 - b. Change in Law;*
 - c. Land acquisition except where the delay is attributable to the generating company or the transmission licensee; and*
 - d. **Forest Clearance including felling of trees and clearing of land by Forest Authorities.***

Delay in execution of the new projects on account of contractor or supplier or agency of the generating company or transmission licensee shall be dealt on case-to-case basis to determine whether the delay was within or beyond the control of the generating company or transmission licensee.”

6. Initial Spares

CERC Tariff Regulations, 2019

23. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to the following ceiling norms:

Draft CERC Tariff Regulations, 2024

23. *Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to following ceiling norms:*

Our Comments/Suggestions

The current CERC Regulations 2019 allows a ceiling of 4.00% of Plant and Machinery cost for initial spares of hydro generating stations. Generally, certain mandatory spares are supplied along with the mother plant equipment, by the supplier, as part of the major contract packages. As such, the cost of the same is included in the cost of mother plant equipment, and the segregation of cost of spares from the cost of mother plant is not possible. In such scenarios, the Hon'ble Commission has assumed the initial spares to be procured up to the ceiling limit along with the mother plant equipment and doesn't allow to procure required initial spares within the cut-off date.

Therefore, it is proposed that initial spares of amount of 2.00% of plant and machinery cost, may be allowed separately for the cases where proper segregation of spares provided along with the mother plant is not available.

Therefore, Clause 23 of draft CERC Tariff Regulations, 2024 may be modified as under:

“23. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to following ceiling norms:

.....

Provided that:

- i.
- ii.
- iii.
- iv. ***Where proper segregation of value of spares provided along with the mother plant is not available, initial spares upto ceiling limit of 2% of plant and machinery cost is allowed separately.”***

Chapter 7: Additional Capital Expenditure

1. Additional Capital Expenditure

CERC Tariff Regulations, 2019

25.(1)(f). Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

Draft CERC Tariff Regulations, 2024

“25(1)(d). Payment made towards liability admitted for works within the original scope executed prior to the cut-off date;

.....
25.(1)(f). Works within original scope executed after the cut-off date and admitted by the Commission, to the extent of actual payments made; and”

Our Comments/Suggestions

As per the draft CERC Tariff Regulations 2024. CERC shall only approve Additional Capital Expenditure within the original scope of work and incurred after the cut-off date to the extent of actual payments made. However, any additional capital expenditure approved before the cut-off date but discharged after it, in the form of liabilities, has not been considered as part of the Additional Capital Expenditure after the cut-off date. **Hence, it is proposed that the liabilities as and when discharged after the cut-off dates should also be included along with the actual payments made after the cut-off date.**

“25.(1)(f). Works within original scope executed after the cut-off date and admitted by the Commission, to the extent of actual payments made and liabilities discharged; and”

2. Additional Capital Expenditure- Developing Local Infrastructure

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

24(1) (f) In the case of the hydro generating station, expenditure incurred towards developing local infrastructure in the vicinity of the power plant not exceeding Rs. 10 lakh/MW if funding is not provided for under “Budgetary Support for Flood Moderation and for Budgetary support for enabling infrastructure.

Provided that such funds shall be allowed only if the funds are spent through Indian Governmental Instrumentality;

Our Comments/Suggestions

- As per the proposed, expenditure up to Rs. 10 lakh/MW incurred towards developing local infrastructure in the vicinity of the hydro power plant, as approved in the original scheme, will be included as a part of the capital cost for both existing and new hydro generating plants. However, the Commission has not addressed expenses incurred for developing local infrastructure outside the originally approved scheme. Sometimes, such expenditures are not envisaged at the time of DPR creation and has to be expensed beyond the original scope in order to alleviate the local disturbances.
- In this regard it is to submit that such type of expenditure is generally be incurred by existing power station due to unprecedented natural calamities (force majeure events) in the power station areas on the request of local administration. Parbati-III PS had incurred expenditure of approx. Rs.2.68 crore and Rs.3.73 crore on account of construction of Bailey bridge at Sainj and downstream flood protection work respectively through Government under deposit work basis due to recent unprecedented rain and flood during July-2023. Local administration is still insisting to release the funds for restoration of roads which destroyed due to recent flood in the vicinity of Power station. Power station is required to meet such imminent expenditure out of O&M expense which are in addition to sanctioned O&M expenditure by the CERC and unforeseen in nature also. However, such expenditures are in the nature of enabling assets which are essentially required for the smooth operation of the Power Station.
- Therefore, it is proposed that this aspect may also be included under “Additional Capitalization beyond the original scope” so that the Power Station should not be stressed upon due to this.
- Therefore, we request the Hon’ble Commission to consider including expenses incurred for developing local infrastructure up to Rs. 10 lakh/MW near the power plant, to be carried out outside the original scheme, as part of the capital cost for both existing and new hydro generating plants.
- Accordingly, the following regulation may also be included under “**Additional Capitalization beyond the original scope**”

“In the case of the hydro generating station, expenditure incurred towards developing local infrastructure in the vicinity of the power plant not exceeding 40% of Rs. 10 lakh/MW shall be reimbursed separately after prudence check during operation stage of the plant if funding is not provided for under “Budgetary Support for Flood Moderation and for Budgetary support for enabling infrastructure.

Provided that such funds shall be allowed only if the funds are spent through Indian Governmental Instrumentality / State Governmental Instrumentality.”

3. Additional Capital Expenditure- Replacement of Assets.

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

25(2) Provided that any claim of additional capitalization with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met by Generating company and Transmission licensee through normative O&M charges only.

Our Comments/Suggestions

- For replacement or upgradation of assets, NHPC has replaced some of the equipment mainly on account of technological obsolescence, for example upgradation to the SCADA systems, where the existing communication equipment had not completed the useful life and such systems cost beyond the limit of Rs. 20 lakhs and should be considered as a part of the Capital Cost itself.
- We agree with the Commission's approach and request the Commission to continue the same for the final regulation with the provision of allowing replacement of assets with cost more than Rs. 20 lakhs on account of technological obsolescence.

4. Additional Capital Expenditure – Project acquired through NCLT Process

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

26(1) (i) Any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be, including the works required towards projects acquired through NCLT process. The claim shall be substantiated with the technical justification and cost benefit analysis.

Our Comments/Suggestions

The inclusion of provisions related to the additional capital expenditure for the projects acquired post NCLT proceedings is a welcome step and therefore, we request Commission to include the same in final regulations as well. Further, these regulations will streamline the process of acquiring stressed projects, bringing them to the optimum level of operations and will attract more interest in such projects.

5. Additional Capital Expenditure – Decapitalization

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

26(3) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with

corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized.

Provided that in cases where an asset forming part of a scheme is de-capitalized and wherein the historical value of such asset is not available, the value of de-capitalization shall be computed by de-escalating the value of the new asset by 5% per year until the year of capitalization of the old asset subject to a minimum of 10% of the replacement cost of the asset.

Our Comments/Suggestions

- NHPC is of the view that in case of asset where value of old individual asset is not available, the value of old asset may be decapitalized by de-escalating the gross value of the new asset using the Cost Inflation Index (CII) issued by Income Tax Department, Government of India as submitted by the generating company at the time of filing the tariff petition as the same methodology is followed in preparation of annual accounts as well which shall be provided at the time of filing of petition. This will provide a common link between decapitalization in books of accounts and computation of capital cost for determination of tariff
- Further, it is suggested that, whenever there is decapitalization of an asset due to technology obsolescence or life not being commensurate with the life of the power plant, the remaining depreciation of the asset, excluding its salvage value, should be permitted for recovery. Therefore, this remaining depreciation amount should be included when calculating the overall depreciation. This approach ensures that the depreciation associated with the asset's remaining useful life is accounted for, contributing to a more accurate assessment of total depreciation expenses.
- For example: In a power station, there can be replacement of SCADA system during 11th year of operation due to technological obsolescence, then the depreciation recovered of the initial amount shall be only 50%. Thus, 40% of the cost invested (excluding 10% salvage value) at the time of COD shall never be recovered as per the proposed draft regulations.
- Therefore, Regulation 26(3) of draft CERC Tariff Regulations 2024 may be modified as under:

“In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized.

Provided that the remaining depreciation of the asset excluding salvage value which could not be recovered due to decapitalization of asset shall be added to the remaining depreciation in the year of decapitalization which shall be recovered by the generating company or transmission licensee during useful life of the project.

*Provided that in cases where an asset forming part of a scheme is de-capitalized and wherein the historical value of such asset is not available, the value of de-capitalization shall be computed by de-escalating the value of the new asset by **using the Cost Inflation Index (CII) issued by Income Tax Department** until the year of capitalization of the old asset subject to a minimum of 10% of the replacement cost of the asset.”*

6. Additional Capitalization on account of Renovation and Modernization

Our Comments/Suggestions

- In the draft regulations, operational life of hydro generating stations has been defined as 50 years. {Regulation-3(88)}
- Hydro generating stations are allowed additional capitalization in fag end (last five years of useful life) on proposed life extension. {Regulation-33(8)}
- In regulation-27(1), hydro generating company is allowed to undertake Renovation and Modernization for the purpose of life extension beyond ‘originally recognized useful life’. This needs to be revised to ‘**originally recognized useful life or operational life**’.
- From combined reading of regulation-33(8) and regulation-26, it seems hydro generating station is not allowed additional capitalization after useful life without going into R&M.
- Further, how tariff of hydro generating station shall be decided by the Hon’ble Commission after completion of useful life till completion of operational life or start of R&M. The same needs to be incorporated in the final regulations.

Chapter 8: Computation of Annual Fixed Cost

1. Return on Equity

CERC Tariff Regulations, 2019

30.(2). Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Draft CERC Tariff Regulations, 2024

30.(3). Provided that return on equity in respect of additional capitalization beyond the original scope, including additional capitalization on account of the emission control system, Change in Law, and Force Majeure shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India plus 350 basis points as on 1st April of the year, subject to a ceiling of 14%;

Our Comments/Suggestions

- The additional capitalization that is carried out on account of Change in Law and Force Majeure are essential and has to be prioritized over other projects for compliance and continuity purposes. Therefore, the reduction in RoE for such capital expenditure will demotivate the entities and may lead to delay in compliance with the relevant laws.
- Further, the additional capital expenditure on account of Force Majeure is way beyond the control of the generating utilities and are usually incurred due to reasons enlisted under the Force Majeure Definition. Therefore, allowing lower return on such expenditure will penalize the utilities without any fault of their own.
- The additional capitalization carried out either due to change in law or force majeure etc. or for successful and efficient operation of the power plant. In any condition, this expenditure is an investment towards asset creation, which is unavoidable, and such investments should be allowed to earn a fair rate of return. Therefore, the equity investment on account of additional capitalization beyond the original scope, including additional capitalization on account of Change in Law and Force Majeure cannot be treated any differently from equity investment during construction.
- The equity invested is also inherently riskier than debt and there is a natural expectation of higher return on the equity invested in any commercial business. Further, additional capital expenditure is mostly carried out through equity infusion and the current regulatory regime caps the equity investment at 30%, further reducing the return. Therefore, reducing the RoE for additional capitalization would significantly discourage equity investment.

- Thus, it is suggested that the return on the entire equity, invested at any stage of the project should be allowed at the consistent rate of 15.5%/16.5%/17%.

2. Return on Equity for storage hydro generating stations

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

30.(3). Return on equity for new project achieving COD on or after 01.04.2024 shall be computed at the base rate of 15.00% for the transmission system, including the communication system, at the base rate of 15.50% for Thermal Generating Station and run-of-river hydro generating station and **at the base rate of 17.00% for storage type hydro generating stations;**

Our Comments/Suggestions

The Commission in the Explanatory Memorandum for the CERC Tariff Regulations 2024 has suggested the following:

“The Commission observes that there is a difference between the risks involved in the commissioning and operationalization of generating and transmission assets. It is also observed that for the same Rate of Return, the effective IRR (Internal Rate of Return) is different for projects with different gestation period. The Commission has carried out a detailed analysis of effective IRR for projects with different gestation period ranging from 3 to 10 years. It is observed that, with an increase in gestation period, the effective IRR reduces and, therefore, in order to have uniformity, the Commission has proposed a differential Rate of Return. The gestation period of a typical transmission project is around 2-3 years as compared to around 4-5 years for a thermal generating station and around 7 years for storage based hydro station. The Commission therefore proposes to allow RoE of 15% for new Transmission Projects, 15.50% for thermal generating stations and ROR based hydro generating stations and 17% for storage based hydro generating stations, including PSPs.”

We agree with the Commission’s view of allowing differential RoE for different utilities on account of varying gestation period and risk profile. We have done the following analysis based on Commission’s guidelines:

Effective RoE for Hydropower projects in India

For construction of Hydropower projects in India, there is a significant delay in start of scheduled operation. Considering the prevalence of delays in mind, we have considered two scenarios for calculation of effective RoE. Scenario 1 considers a construction period of 5 years for a ROR project and scenario 2 considers a construction period of 7 years for a ROR project with storage. Both the scenarios consider the useful life of the project as 40 years.

Scenario 1: Hydro generating Station IRR Calculation with ROE mentioned in Regulations (15.5%)

Assumptions:

Project Construction time - 6 years

Useful life – 40 years

Equity infusion during construction period as follows:

In Rs. Crores

Year	1	2	3	4	5	6
Initial Equity	0	10	20	35	50	75
Additional equity	10	10	15	15	25	25
Final equity	10	20	35	50	75	100
Average equity	5	15	27.5	42.5	62.5	87.5

Year	1	2	3	4	5	6	746				
Inflow/	-	-	-	-	-	-	15.5	15.5	15.5	15.5	15.5
Outflow	10.00	10.00	15.00	15.00	25.00	25.00	%	0%	0%	0%	0%
w	%	%	%	%	%	0%					
IRR	12.122%										

Scenario 2: PSP IRR Calculation with ROE mentioned in Regulations (17%)

Assumptions:

Project Construction time - 7 years

Useful life - 40 years

Equity Infusion during the construction period as follows:

In Rs. Crores

Year	1	2	3	4	5	6	7
Initial Equity	0	10	20	30	45	60	80
Additional equity	10	10	10	15	15	20	20
Final equity	10	20	30	45	60	80	100
Average equity	5	15	25	37.5	52.5	70	90

Year	1	2	3	4	5	6	7	8.....47					
Inflow/	-	-	-	-	-	-	-	17.	17.	17.	17.	17.	17.
w/Outflow	10.0	10.0	10.0	15.0	15.0	20.0	20.0	00	00	00	00	00	00
	0%	0%	0%	0%	0%	0%	0%	%	%	%	%	%	%

IRR	12.331%
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Effective RoE for Thermal Generation projects in India

Assumptions:

Project Construction time - 4 years

Useful life – 25 years

Equity infusion during construction period as follows:

In Rs. Crores

Year	1	2	3	4
Initial Equity	0	20	50	80
Additional equity	20	30	30	20
Final equity	20	50	80	100
Average equity	10	35	65	90

Year	1	2	3	4	6.....29				
Inflow/Outflow	-	-	-	-	15.50%	15.50%	15.50%	15.50%	15.50%
	20.00%	30.00%	30.00%	20.00%					
IRR	12.134%								

Effective return for a thermal generation project comes at 12.134% considering no return during the construction period. This return is comparable to the return for hydropower projects, even though the gestation period and risks involved are considerably higher in hydropower projects.

Effective RoE for Transmission Utilities

Assumptions:

Project Construction time - 3 years

Useful life – 35 years

Equity infusion during construction period as follows:

Year	1	2	3
Initial Equity	0	40	80
Additional equity	40	40	20
Final equity	40	80	100
Average equity	20	60	90

Year	1	2	3	6.....38						
Inflow/Outflow	- 40.00%	- 40.00%	- 20.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
IRR	12.694%									

Effective return for a transmission project comes at 12.694% considering no return during the construction period. This return is higher than the return for hydropower projects, even though the gestation period and risks involved are considerably higher in hydropower projects.

Further, the hydro generating projects usually have a longer gestation period on account of resettlement of existing population and long list of statutory approvals, which will again deplete the effective IRR for the projects bringing them down below the levels of transmission and thermal generation utilities.

Effective RoE to match Hydro generating stations with that of Transmission Utilities

Scenario 5: Hydro generating Station IRR Calculation: ROE back calculated to match IRR with Transmission

Assumptions:

Project Construction time - 5 years

Delay – 1 year

Useful life - 40 years

Equity Infusion during the construction period as follows:

Year	1	2	3	4	5	6
Initial Equity	0	10	20	35	50	75
Additional equity	10	10	15	15	25	25
Final equity	10	20	35	50	75	100
Average equity	5	15	27.5	42.5	62.5	87.5

Year	1	2	3	4	5	6	7	8.....46					
Inflow/Outflow	- 10.0 0%	- 10.0 0%	- 15.0 0%	- 15.0 0%	- 25.0 0%	- 25.0 0%	16.37 %	16. 37 %	16. 37 %	16. 37 %	16. 37 %	16. 37 %	16. 37 %
IRR	12.683%												

To match the IRR of hydropower stations with the IRR of transmission utilities, an RoE of 16.37% for Hydropower stations is expected at minimum as depicted in the scenario above as compared to current regulation where RoE given is 15.5%.

Effective RoE to match storage type hydro stations with that of Transmission Utilities

Scenario 6: Hydro generating Station IRR Calculation: ROE back calculated to match IRR with Transmission

Assumptions:

Project Construction time - 7 years

Delay – 1 year

Useful life - 40 years

Equity Infusion during the construction period as follows:

Year	1	2	3	4	5	6	7	8
Initial Equity	0	10	20	30	45	60	75	90
Additional equity	10	10	10	15	15	15	15	10
Final equity	10	20	30	45	60	75	90	100
Average equity	5	15	25	37.5	52.5	67.5	82.5	95

Year	1	2	3	4	5	6	7	8	9.....47					
Inflow/	-	-	-	-	-	-	-	-	19.6	19.6	19.6	19.6	19.6	19.6
Outflow	10.0	10.0	10.0	15.0	15.0	15.0	15.0	10.0	2%	2%	2%	2%	2%	2%
w	0%	0%	0%	0%	0%	0%	0%	0%						
IRR	12.680%													

To match the IRR of hydro generating stations with the IRR of transmission utilities, an RoE of 19.62% for projects with storage is expected at minimum as depicted in the scenario above as compared to current draft regulation where RoE given is 17%.

- We have computed the IRR for Hydro generating stations, Thermal generating stations and the transmission sector to understand whether the RoE suggested for hydro generating stations is at par with other utilities considering the additional risk involved in hydro generation.
- **We agree with the Commission’s approach of increasing the RoE base rate, however, we request the Commission to increase the RoE to 16.5% for ROR type hydro generating stations and 18.5% for RoR with pondage and storage type hydro generating stations because the IRR computed based on current provisions result in similar return for all three utilities.**

- RoE to all utilities, including hydro and thermal generators, irrespective of “different gestation/completion time and associated risks” involved in project execution is nearly same. Hydro project face considerable risk on account of remoteness/poor infrastructure facility available, Geological surprises, Social, Political, natural Calamities, law and order problems & other risks. **The rate of RoE on hydroelectric projects should necessarily factor all such risks to provide reasonable return to the developers of the projects. The current RoE of 17% will fail to attract private developers to come forward for development of the hydroelectric projects. Thus, there is a need to increase the RoE on hydroelectric projects to attract investment for the development of hydroelectric projects and shall be applicable to existing hydro generating stations as well to generate enough revenue to invest in the sector.**
- Further, it is proposed that Hon’ble Commission may consider defining a separate Rate of Return on equity for Mega Hydro-electric projects as these projects have a construction period of 10+ years and the effective RoE for these mega hydroelectric projects reduces drastically. For illustration, effective RoE of the plant having construction period of 9 years and RoE of 17% comes out to be only 11.42%. and if there is a delay in construction for a period of 1 year, then the effective RoE comes out to be 11.15%.
- Further, **to match the IRR of hydro generating stations with the IRR of transmission utilities considering initial construction period of 9 years and delay of 1 year, RoE of 20.29% for mega hydroelectric projects is expected at minimum.**
- In view of above, following modification is proposed in Regulation 30(3) of draft CERC Tariff Regulations 2024:

*“30.(3). Return on equity for new project achieving COD on or after 01.04.2024 shall be computed at the base rate of 15.00% for the transmission system, including the communication system, at the base rate of 15.50% for Thermal Generating Station and run-of-river hydro generating station, **at the base rate of 18.5% for storage type hydro generating stations and 19.5% for mega hydroelectric projects having scheduled construction period of more than 8 years**”*

3. Tax on Return on Equity

CERC Tariff Regulations, 2019

31 (3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed

up rate on return on equity after trueing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.

CERC Tariff Regulations, 2024

31(3) The generating company or the transmission licensee, as the case may be, shall true up the effective tax rate for every financial year based on actual tax paid together with any additional tax demand, including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. Further, any penalty arising on account of delay in deposit or short deposit of tax amount shall not be considered while computing the actual tax paid for the generating company or the transmission licensee, as the case may be.

Provided that in case a generating company or transmission licensee is paying Minimum Alternate Tax (MAT) under Section 115JB, the generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year with the applicable MAT rate including surcharge and cess.

Provided that in case a generating company or transmission licensee is paying tax under Section 115BAA, the generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year with the tax rate including surcharge and cess as specified under Section 115BAA.

Provided that any under-recovery or over recovery of grossed up rate on return on equity after trueing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on a year to year basis.

Our Comments/Suggestions

- In the draft Regulations, Hon'ble CERC has proposed that if the generating company has opted for Section 115JB, then the ROE shall be grossed up at MAT rate at the time of true up, whereas if the company has opted for Section 115BAA, then the tax rate shall be as specified under Section 115BAA including surcharge and cess.
- In CERC Tariff Regulations, 2014, the concept of an effective tax rate was introduced which was also made applicable to Tariff Regulations for 2019-24. This was done in order to pass on the benefits and concessions available in income tax to the beneficiaries.
- In-fact, during the earlier tariff period, i.e. FY 2009-14, the concept of applicable tax rate was used for grossing up the rate of Return on Equity [ROE]. However, the concept of Effective Tax Rate was introduced by the Hon'ble Commission vide Tariff Regulations, 2014 in order to allow the net of tax ROE of 15.5%/16.5% for Tariff Period 2014-19 which was also continued in Tariff Regulation 2019-24.
- The concept of Effective Tax Rate is a tax neutral approach wherein the benefits and concessions available in income tax are passed on to the beneficiaries and on the other hand, it allows generating company to get net of taxes ROE of 15.5%/16.5%.

- Every company is first required to compute tax on the ‘taxable income’ as per the Normal Provisions of the Income Tax Act. While computing ‘taxable income’, the company has to make adjustments on account of various disallowance/deductions and exemptions allowed under the provisions of Income Tax Act. Thus, the taxable income is different than the income shown in Profit and loss account.

Grossing up Return on Equity [ROE] while paying tax under Normal Provision of Income Tax

- In the case of income tax payment under normal provision of Income Tax Act [Corporate Tax] the views of the Commission is that the grossing up of ROE shall be at the effective tax rate which can be a rate in between MAT and the Corporate Tax Rate or any other tax bracket as may be specified from time to time, however, such effective tax rate considered for the grossing up of ROE under no circumstances can be higher than the rate specified under the relevant Finance Act i.e. Corporate Tax/MAT. This view is not correct as the Effective Tax Rate of the generating company may be higher than the Corporate Tax rate and vice versa. The major reasons for higher effective tax rate than the corporate tax rate are as follows:
- While determining whether a particular expenditure is deductible or not, the first requirement must be to enquire whether the deduction is expressly prohibited under any other provision of the Income tax Act.
- If it is not so prohibited, then the allowability may be considered under Section 37(1) of Income Tax Act, 1961.
- Section 40 and 40A of Income Tax Act, 1961 provides for non-deductible expenses or payments.
- Under Section 43B of Income Tax Act, 1961, certain deductions are to be allowed only on actual payment.

Grossing up of ROE by the generating company while paying tax under MAT

- In certain Truing Up cases of NHPC Limited, CERC has summarily grossed up the ROE with MAT rate instead of ‘Effective Tax Rate’. Further, in the proposed regulation, Hon’ble Commission has also proposed that if the generating Company is paying MAT, the income tax rate for grossing up purpose will be MAT.

In this regard following is submitted:

- As per the provisions of section 115JB, ‘book profit’ is to be computed in accordance with Explanation 1 below sub-section (2) of section 115JB. As per Explanation 1, ‘book profit’ means profit as shown in the Profit and loss account, as increased and reduced by various items mentioned in this Explanation, which includes amount set aside as provisions made for meeting liabilities, other than ascertained liabilities, and also amounts set aside as provision for diminution in value of any asset which will include provision for bad debt/obsolete stocks/stores, etc.

- Thus, the book profit on which MAT is to be paid is different than the profit as per Profit and loss account.
- Thereafter, every company is required to compare the (i) tax liability under the Normal Provisions as computed in terms of para 2 hereinabove and (ii) the MAT tax liability as computed in terms of para 3 hereinabove. In case the liability under MAT exceeds the tax payable under Normal Provisions [Corporate Tax] of the Income Tax Act, then the company has to pay tax as computed under MAT provisions.
- However, the tax so paid in excess by way of MAT over and above the tax payable under the Normal Provisions [Corporate Tax] is allowed to be carried forward as MAT Credit and to be adjusted in the year in which the tax liability under Normal Provisions is more than the tax liability under MAT Provisions.
- Accordingly, whatever tax is paid by way of MAT in excess of the tax liability under normal provisions, full credit of the same is allowed in the subsequent years.
- In this connection, it would be pertinent to note that in case tax paid in the year under MAT is more than the MAT rate consequent to the adjustment in book profit, the MAT credit allowed to be carried forward will be higher than the MAT computed as per the version of CERC for allowing MAT Rate while grossing up ROE.
- In-fact, in the subsequent year when there is a liability under the Normal Tax Provisions, the MAT Credit to be adjusted under the Normal Tax Provisions will be higher i.e. Actual MAT paid and not the MAT as per MAT rate as allowed by CERC. With the result that the regular tax liability of that year will also be lower since in such year, tax rate to be taken into consideration will be the net actual normal tax paid, i.e. after MAT Credit carried forward.
- In other words, net tax paid in this year will be lower and, in this year, the adjustment will be that of actual MAT tax paid and not the MAT computed as per MAT rate.
- Thus, in the year in which tax is being computed under MAT, the generator is allowed tax on the basis of MAT rate instead of effective tax rate, whereas in the year in which tax liability is arising under normal tax [Corporate Tax], the same will be computed after adjustment of MAT carried forward, which is based on effective tax rate and not the MAT rate as allowed by CERC.

In this connection, example for above is given hereunder:

Year 1 - While generating company paying tax under MAT

Particulars	Amount (Rs./-)
Profit as per P/L Account	100 cr
Taxable Income	40 cr
Book profit for 115JB (MAT)	110 cr

Tax Rate	30%
MAT Tax Rate	18%
Normal Tax (@ 30% of Rs. 40 crore)	12 cr
MAT (@ 18% of Rs. 110 crore)	19.8 cr
Tax to be paid by generating company (Higher of the two)	19.8 cr
MAT to be allowed as per interpretation of Hon'ble Commission (18% of profit)	18 cr
Carry forward of MAT credit	7.8 cr (19.8 – 12 cr)
Note:	
If ROE is grossed up with MAT Rate (i.e. 18%) instead of Effective Tax Rate i.e 19.80% (19.80/100*100) beneficiary will only pay Rs. 18.00 Crore and remaining tax shall be borne by the generating Company.	

Year 2 - While generating company paying tax under Normal Provisions with utilization of MAT Credit)

Particulars	Amount (Rs./-)	
Profit as per P/L Account	100 cr	
Taxable Income	160 cr	
Book profit for 115JB (MAT)	90 cr	
Tax Rate	30%	
MAT Tax Rate	18%	
Normal Tax (@ 30% of Rs. 160 crore)	48 cr	
MAT (@ 18% of Rs. 90 crore)	16.20 cr	
Tax Payable (Higher of the two)	<u>CERC</u> <u>Version</u>	<u>NHPC</u> <u>Version</u>
	48.00 cr	48.00 cr
MAT credit utilized	7.80 cr	6 cr
Net effective tax to be allowed by Hon'ble Commission	40.20 cr	42 cr
Reconciliation of Tax Paid and Recovered:-		
Actual Tax Paid in both years (i.e. Year 1 and Year 2)	(19.80 + 40.20) = 60.00 Crores	

Tax Recovered from Beneficiary in both years as per proposed commission view (i.e. Year 1 and Year 2)	(18.00+40.20) = 58.20 Crores
Short Recovery of Tax	= 1.80 Crores

Note:

1. Thus, the net tax of Rs. 1.80 cr will be lost as per the interpretation of Hon'ble Commission since this amount shall be considered while calculating effective tax rate whereas the same has not been actually paid by the beneficiaries.
2. Accordingly, the carry forward amount of MAT Credit of year 1 will be divided in two parts. Beneficiaries portion of Rs. 6.00 Crore [18-12] which will be allowed in future for calculation effective tax rate when generating company paying tax under Corporate Tax and remaining portion of MAT credit of Rs. 1.80 Crore shall not be considered for calculation of effective tax rate.

It is further submitted that MAT Tax is not different than the Normal Tax. MAT is only a mechanism to collect tax with full adjustment by way of MAT Credit against Normal Tax.

In view of the above discussions, it is submitted that the **mechanism of Effective Tax Rate, as explained above, should be continued for future Tariff Periods also so that recovery of net of taxes ROE may be possible from the beneficiaries. It is a tax neutral exercise on the part of the generator. Accordingly, Base Rate of ROE may be continued to be allowed to be grossed up at Effective Tax Rate (both under MAT/Normal Tax) only as explained above for Future Tariff Periods also irrespective of whether the same is lower/higher than the MAT/Corporate Tax Rate. Further, utilization of MAT Credit shall also be construed as actual tax paid while calculating Effective Tax Rate.**

4. Interest on Loan

For existing projects

CERC Tariff Regulations, 2019

32(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

Draft CERC Tariff Regulations, 2024

32(5) For the Existing Project(s), the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio or allocated loan portfolio;

.....

Provided that the rate of interest on the loan for the installation of the emission control system shall be the weighted average rate of interest of the actual loan portfolio of the emission control system, and in the absence of the actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.

(6) In the case of New Project(s), the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the generating company or the transmission licensee, as the case may be;

Provided further that if the generating station or the transmission system, as the case may be, does not have any actual loan, then the rate of interest for a loan shall be considered as 1-year MCLR of the State Bank of India as applicable as on April 1, of the relevant financial year.

Provided that the rate of interest on the loan for installation of the emission control system shall be the weighted average rate of interest of the actual loan portfolio of the emission control system, and in the absence of the actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered subject to a ceiling of 14%.

Our Comments/Suggestions

- Interest on Loan is differentiated for Existing Projects and New Projects in the Draft CERC Regulations 2024.
- The hydro generation projects have the highest per MW capital cost in comparison to other sources of energy. Therefore, loans are raised from the market that are specific to the need of the project considering the economics of the project. However, for some of the projects which have very high cost per MW and are unviable because of their geographical locations, but the projects are of national importance, the Government of India sometimes provides direct grant or cheaper loans to make these projects viable.
- The approach proposed in the draft regulations to calculate interest on loan based on weighted average interest rate of the company shall result in passing on the benefit of project specific reliefs provided by the Government to beneficiaries of other projects and may turn those projects unviable. Therefore, consideration of weighted average interest rate of a particular project if project specific loans are available may be continued. Further, the normative loan proposed for new projects if the actual loan is not available is too low as hydropower projects have long gestation period and therefore, loan creditors tends to add premium over and above the base MCLR rate.
- Therefore, Regulation 32(6) of draft CERC Tariff Regulations, 2024 may be modified as under:

(6) In the case of New Project(s), the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio **of the project or the transmission asset**, as the case may be;

*Provided further that if the generating station or the transmission system, as the case may be, does not have any actual loan, then the rate of interest for a loan shall be considered as 1-year MCLR of the State Bank of India as applicable as on April 01 **plus 100 basis points**, of the relevant financial year.*

5. Depreciation

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

33(6) Depreciation for New Projects shall be calculated annually based on the Straight-Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system.

Provided further that in the case of a new hydro generating stations, the generating company, with the consent of the beneficiaries, may charge depreciation at a rate lower than that specified in Appendix II to these Regulations to reduce front loading of tariff.

Our Comments/Suggestions

- In 2019 Tariff Regulations, the tenure of the loan considered is 12 years, whereas the life of most of the assets is between 25 and 40 years. It is observed that shorter loan duration and higher depreciation in the initial years have resulted in front loading of tariffs. Considering that nowadays loans are available for 15-18 years, the possibility of increasing the loan tenure for the computation of depreciation rates needs to be explored. Excessive front loading of tariffs increases resistance to future investments. For example, external loans have much lower interest rates, therefore, spreading depreciation over longer periods in the case of external loans can be a viable option for reducing costs in the initial years, which shall, however, include FERV factor and other financing cost. Therefore, there is a need to create a balance and align the depreciation rate with the actual loan tenure and life of the assets.
- Thus, it was proposed in the Consultation Paper 2024 that a depreciation rate may be specified considering a loan tenure of 15 years instead of the current practice of 12 years. Further, additional provisions may also be specified that allow lower rate of depreciation to be charged by the generator in the initial years if mutually agreed upon with the beneficiary(ies).

- In order to understand the financial impact, we have considered the following scenarios-

I. Estimating the interest rate for a loan different duration based on a known interest rate of 12-year loan:

On assuming a loan principal of Rs. 100 lakhs spread over a repayment timeline of 12 years with an interest rate of 10%, it is observed that the lender has an IRR of 9.34%

Period	1	2	3	4	5	6	7	8	9	10	11	12
Principal Repayment	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33
Interest payment	9.58	8.75	7.92	7.08	6.25	5.42	4.58	3.75	2.92	2.08	1.25	0.42
Total payment to lender	17.92	17.08	16.25	15.42	14.58	13.75	12.92	12.08	11.25	10.42	9.58	8.75
IRR for lender	9.34%											

The underlying principle for computation of interest rate for a loan for a longer duration is to maintain the same IRR for the lender. Accordingly, for loan duration of 15 years with a loan principal of Rs. 100 lakhs, the revised interest rate works out as 9.48%.

II. Calculating depreciation and interest on loan under current regime of CERC:

Under the existing Tariff Regulations 2019, the depreciation allowed is equivalent to the normative loan repayment for first twelve years. The Tariff Regulations 2019 considers normative debt to equity ratio of 70:30 for a project.

The below table illustrates the calculation of depreciation and interest in loan for an asset with GFA of Rs. 142.86 lakhs (normative loan of Rs. 100 lakhs) and useful life of 40 years. The interest rate is assumed to be 10%.

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depreciation	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
IOL	9.58	8.75	7.92	7.08	6.25	5.42	4.58	3.75	2.92	2.08	1.25	0.42								
Total	17.08	16.25	15.42	14.58	13.75	12.92	12.08	11.25	10.42	9.58	8.75	7.92	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38

Year	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Depreciation	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
IOL																
Total	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38

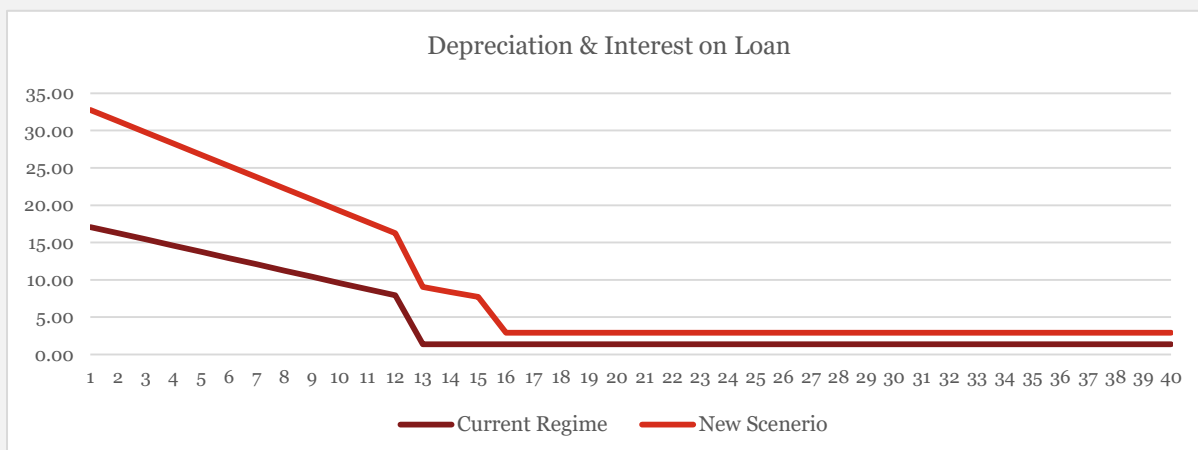
III. Calculating depreciation and interest on loan under new scenario with loan duration of 15 years:

Based on the calculation above, the interest on loan for a loan duration of 15 years works out to be 9.48%. For an asset with GFA of Rs. 142.86 lakhs and useful life of 40 years and a loan of interest rate of 9.48%, the depreciation and interest on loan is calculated below:

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depreciation	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	1.54	1.54	1.54	1.54	1.54
IOL	9.67	9.00	8.33	7.67	7.00	6.33	5.67	5.00	4.33	3.67	3.00	2.33	1.67	1.00	0.33					
Total	15.67	15.00	14.33	13.67	13.00	12.33	11.67	11.00	10.33	9.67	9.00	8.33	7.67	7.00	6.33	1.54	1.54	1.54	1.54	1.54

Year	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Depreciation	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
IOL																				
Total	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54

The total of depreciation and interest on loan under the two scenarios is plotted below:



The difference between the two scenarios and the net impact is depicted in the table below:

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Depreciation	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	4.62	4.62	4.62	0.17	0.17	0.17	0.17	0.17	0.17
IOL	0.08	0.25	0.42	0.58	0.75	0.92	1.08	1.25	1.42	1.58	1.75	1.92	1.67	1.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Net Impact	(1.42)	(1.25)	(1.08)	(0.92)	(0.75)	(0.58)	(0.42)	(0.25)	(0.08)	0.00	0.25	0.42	6.29	5.62	4.95	0.17	0.17	0.17	0.17	0.17	0.17

Year	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Depreciation	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
IOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Impact	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17

On comparing both the scenarios mentioned above, it is observed that the net impact is negative for NHPC in the initial 12 years and positive for rest of the useful life. However, the net impact over the entire life is negative. The same can be inferred by calculating the NPV of the total of depreciation and interest on loan. The

discount rate is taken as 16.50% - the maximum rate of return on equity for hydro power plants.

NPV (existing scenario)	NPV (new scenario)	Net impact
72.27	70.39	(1.88)

- It was observed that under all scenarios the utilities are negatively impacted. Hence, we are of the view that the Hon’ble Commission may retain the current methodology of depreciation.
- The hydroelectric projects have long gestation period. In case of debt funding of these projects’ moratorium is sought from lenders up to the COD of the projects and thereafter the debt is repaid in yearly instalments, say 12 equal yearly instalments matching with the depreciation allowed in tariff. Thus, the end to end total tenure of debt becomes 15 to 18 years which itself is very long. Further, considering depreciation rate specific to a loan tenure of 15 years instead of the current practice of 12 years (after COD) shall lead to serious difficulty in debt servicing of the loans.
- Therefore, from the above-mentioned calculations and reasoning, we would urge the Commission to continue with the existing approach of considering loan tenure as 12 years for depreciation computation. If in case, **the Commission proceeds with the proposed approach, it should be applied for new assets where investment approval is provided/ obtained post notification of the revised regulations.**
- In case the Commission moves ahead with a depreciation rate considering a loan tenure of 15 years for the new assets, it is requested that the Commission provides a provision for the hydro generating companies to recover 70% of the depreciable value. Loan is an essential component of financing the project which has to be repaid from the internal accruals or operational profit, however if the Commission is inclined to increase the standard loan tenure to 15 years, the Commission may also consider allowing loan recovery up to 70% by the end of 15 years thus ensuring the minimum weighted average rate of depreciation of 4.67% and allowing the utilities to repay the loan fully.
- In view of above, it is proposed to either remove Regulation 33(6) of draft CERC Tariff Regulations, 2024 or modify the Regulation as under:

*“(6) Depreciation for New Projects shall be calculated annually based on the Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system **subject to minimum of 4.67%:***

.....”
- Further, in sub-regulation-33(8), word ‘**competition**’ may be replaced with ‘**completion**’.

6. Interest on Working Capital (Statutory Charges)

CERC Tariff Regulations, 2019

34. (c). For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.

Draft CERC Tariff Regulations, 2024

34 (d) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.

Our Comments/Suggestions

- Hydro generating companies have to pay various statutory charges in the form of water cess, water usage charges or green cess being levied by various State Companies. These charges are being reimbursed by beneficiary DISCOMs within 45 days from the date of billing. However, presently the calculation of working capital doesn't include statutory charges being imposed by the State Government. It is essential to note that, in order to recover the carrying cost paid on the statutory charges, Interest on Working Capital should encompass receivables equivalent to 45 days of statutory charges imposed by both state and central governments, such as electricity duty, water cess/charges, RLDC fees, etc.
- In view of above it is suggested that new proviso may be inserted after third proviso as in Regulation 34(d) as under:

“(iv) Receivables equivalent to 45 days of statutory charges imposed by the State and Central Government, such as electricity duty and water cess / charges, RLDC fees etc.”

7. O&M Expenses

CERC Tariff Regulations, 2019

35. (2) c. In case of hydro generating stations, which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying **escalation rate of 4.77%** on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of **4.77% per annum**.

Draft CERC Tariff Regulations, 2024

36 (2) *In the case of hydro generating stations which have not completed a period of three years as on 1.4.2024, operation and maintenance expenses for 2024-25 shall be worked out by applying an escalation rate of 5.86% on the applicable operation and maintenance expenses as on 31.3.2024. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying an escalation rate of 5.86% per annum.*

Provided further that the value of capital spares exceeding Rs. 20.00 lakh shall only be considered for reimbursement at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization.

(e) Any additional O&M expenses incurred by the generating company due to any change in law or Force Majeure event shall be considered at the time of truing up of tariff.

Provided that such impact shall be allowed only in case the overall impact of such change in law event in a year is more than 5% of normative O&M expenses for the year.

(f) In the case of a generating company owned by the Central or State Government, the impact on account of implementation of wage or pay revision shall be allowed at the time of truing up of tariff.

Draft CERC Tariff Regulations, 2024

“36.2(b) In the case of the hydro generating stations declared under commercial operation on or after 1.4.2024, operation and maintenance expenses of the first year shall be fixed at 3.5% and 5.0% of the original project cost (excluding the cost of rehabilitation & resettlement works, IDC and IEDC) for stations with installed capacity exceeding 200 MW and for stations with installed capacity less than 200 MW, respectively.”

Our Comments/Suggestions

- The proposed regulation to fix the Operation & Maintenance Expenses at 3.5% and 5.0% of the original project cost (excluding the cost of rehabilitation & resettlement works, IDC and IEDC) for stations with installed capacity exceeding 200 MW and for stations with installed capacity less than 200 MW, respectively has lot of discrepancies.
- Firstly, no rate has been defined for projects of capacity equal to 200 MW.
- Secondly, the way the rates have been defined results in lower O&M Expenses for plants having capacity between 200 MW and 300 MW than plants having capacity less than 200 MW. This can be illustrated from the following example:

Consider a plant of capacity of 190 MW with cost of Rs 9 crore/MW excluding the cost of rehabilitation & resettlement works, IDC and IEDC and a plant of 250 MW with cost of Rs 9 crore/MW excluding the cost of rehabilitation & resettlement works, IDC and IEDC. Then, as per draft Regulations, O&M expenses for 1st year for plant having capacity of 190 MW is Rs 85.5 crores and plant having capacity of 250 MW is Rs 78.75 crore. Thus, O&M expenses of a plant having higher capacity is fixed at lower end than O&M expenses of plant having lower capacity.

- Therefore, the O&M expenses of plant having capacity beyond 200 MW should have a minimum value which shall be equal to plant having capacity of 200 MW with same cost/MW capital expenditure.
- Further, Regulation 36.2(b) needs to be modified to included escalation rate for O&M expenses of new hydro generating stations.
- In view of above, the proposed modification in Regulation 36.2(b) is as under:

“36.2(b) In the case of the hydro generating stations declared under commercial operation on or after 1.4.2024, operation and maintenance expenses of the first year shall be fixed at 3.5% and 5.0% of the original project cost (excluding the cost of rehabilitation & resettlement works, IDC and IEDC) for stations with installed capacity exceeding 200 MW and for stations with installed capacity less than or equal to 200 MW, respectively and shall be escalated thereafter @ 5.86% for subsequent year of tariff period.

Provided that the O&M expenses calculated for plants having capacity beyond 200 MW shall not be less than the O&M Expenses of a plant of capacity of 200 MW with same cost per MW.”

Draft CERC Tariff Regulations, 2024

36.2(e) Any additional O&M expenses incurred by the generating company due to any change in law or Force Majeure event shall be considered at the time of truing up of tariff.

Provided that such impact shall be allowed only in case the overall impact of such change in law event in a year is more than 5% of normative O&M expenses for the year.

Our Comments/Suggestions

- Earlier there was no provision for allowing impacts of change in law and force majeure events, as such it is a welcome step and needs to be kept in final regulation.
- As per proviso to Regulation 36.2(e) impact due to change in law event in a year is allowed only in case overall impact is more than 5% of normative O&M expenses of the year. However, it is submitted that 5% of normative O&M expenses works out between Rs. 2.49 crore (Chutak) to Rs. 10.37 crore (Salal). Further, if there is any change in law event which impacts all the power stations of NHPC, then the 5% impact works out to

be Rs. 123.30 crore. Therefore, absorbing 5% impact of change in law event by the generating station will be detrimental.

- In view of above it is suggested that new proviso may be inserted after first proviso as under:

“Provided that generating company may make a miscellaneous application for claiming impact of change in law event in case the overall impact is more than Rs. 10 crore for all the generating stations.”

Additional Comments/Suggestions

The Commission in the EM has mentioned that it shall allow an increase in insurance premium for hydro generating stations, however, it has not mentioned the same in the final regulations. We welcome the Commission’s approach, however, we would like to request the Hon’ble Commission to consider the following in respect of Insurance Charges.

NHPC follows a transparent open tender process to discover the insurance premium for the Mega Insurance Policy, however, due to increase in risk perception of the Insurance Companies, the insurance premium have seen a tremendous increase in last few years. This increased insurance premium cannot be met from the insurance expenses allowed as part of normative O&M Expenses as the insurance premium is based on the last 5 years O&M Expenses including insurance premium which is then escalated at the rate arrived based on AICPI and WPI indices. Hon’ble Commission will appreciate the fact that the increase in Insurance premium does not correlate with the increase in AICPI and WPI Indices as the Insurance premium is discovered through open tender based on market trends. A comparison of the Insurance premium allowed for the period 2019-24 (tentatively worked out) against actual Insurance premium is attached as Annexure-A.

In view of above, it is clear that there is substantial loss to the hydro generating stations, which can be addressed through either of the two following methodologies:

- Allow insurance premium for the next tariff period by escalating insurance premium of last 5 years @ CAGR of past 5 years’ insurance premium.
- Allow reimbursement of insurance premium separately from normative operation & maintenance expenses as done in the case of Security Expenses and consumption of capital spares in the present CERC Tariff Regulations.

As can be seen from Annexure-B, CAGR of premium paid during last 5 years comes out to be 24.28%. The same can be used by the Hon’ble Commission, while allowing Insurance premium in normative O&M Expenses for 2024-29 tariff period.

Alternatively, the insurance premium may be reimbursed to the hydro generating station, in the same manner as reimbursement is being allowed security charges and consumption of capital spares and Regulation 36(2)(d) of draft CERC Tariff Regulations 2024, may be modified as under:

“36.(2)(d). The Security Expenses, **Insurance Premium** and Capital Spares for hydro generating stations shall be allowed separately after prudence check:

*Provided that the generating station shall submit the assessment of the security requirement and estimated expenses, **the actual insurance premium paid** and the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.*

Provided further that the value of capital spares exceeding Rs. 20.00 lakh shall only be considered for reimbursement at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.”

Therefore, Hon’ble Commission is requested to either allow reimbursement of Insurance Premium as per actuals separately from normative O&M Expenses or allow escalation @ CAGR on insurance premium while calculating normative O&M Expenses.

Chapter 10: Computation of Capacity Charges and Energy Charges

1. Computation of Capacity Charges and Energy Charges

Draft CERC Tariff Regulations, 2024

“65(3) The PAFM shall be computed in accordance with the following formula:

.....

Where

AUX = Normative auxiliary energy consumption in percentage

DCi = Declared capacity (in ex-bus MW) for the 1st day of the month, which the station can deliver for at least three (3) hours, as certified by the nodal load dispatch centre after the day is over

.....”

Our Comments/Suggestions

In the definition of DCi, the declared capacity (in ex-bus MW) for the 1st day of the month has been proposed, whereas, it may be ith day of the month.

In view of above the definition of DCi may be reviewed as hereunder:

“DCi = Declared capacity (in ex-bus MW) for the ith day of the month, which the station can deliver for at least three (3) hours, as certified by the nodal load dispatch centre after the day is over.”

2. Incentives

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

65(4) In addition to the AFC entitlement as computed above, the hydro generating station shall be allowed an incentive of up to 4% of the Capacity Charge approved for a given year which shall be billed monthly as per the following.

$$\text{Incentive} = (4\% \times \beta \times CC_y) / 12$$

Where,

β = Average Monthly Frequency Response Performance for that generating station, as certified by RPCs, which shall be computed by considering primary response as per the methodology prescribed by the NLDC and shall range between 0 to 1.

$CCy = \text{Capacity Charges for the Year.}$

Our Comments/Suggestions

- The increased integration of Renewable Energy (RE) sources like Solar and Wind into the grid will necessitate greater primary response to uphold grid stability. Section 26, paragraph 26.5.5, permits thermal generating companies an opportunity to earn up to 1% of AFC as an incentive. Concerning hydro generating stations, it is noted that capacity charges already constitute 50% of the total AFC. Additionally, the Grid Code's restrictions prevent hydro stations from declaring up to 10% over their Maximum Continuous Rating (MCR), compared to a 5% impact for thermal stations.
- Consequently, the Commission proposes offering an incentive of up to 4% of Capacity Charge for hydro generating stations. This incentive will be tied to the Average Annual Frequency Response Performance of the generating station, certified by Regional Power Committees (RPCs), calculated based on primary response as per the NLDC's prescribed methodology, with values ranging between 0 and 1.
- Further, PSPs play a pivotal role in mitigating the peaking requirement and managing the frequency fluctuations and therefore, the above incentive may be extended to such plants as well.
- It is pertinent to mention that primary response is of prime importance in case of an event which is made available till secondary reserve is deployed. The 10% overload capacity of hydro generating stations, which is not allowed to be declared and not scheduled shall be available for primary response. As such there is not enough compensation for primary response to hydro generators. Further, share of hydro capacity is only 11% in the total installed of the country, which needs enough incentive to go up. In view of these facts the proposed factor of incentive needs to be increased to 10% against 4%.
- We agree with the Commission's approach and request the Commission continue the same for the final regulation and **to increase factor of 4% to 10%** and extend the same to Pumped Storage Hydro generation as well.
- Therefore, Regulation 65(4) needs to be modified as under:

65(4) In addition to the AFC entitlement as computed above, the hydro generating station shall be allowed an incentive of up to 4% of the Capacity Charge approved for a given year which shall be billed monthly as per the following.

$$\text{Incentive} = (10\% \times \beta \times CCy) / 12$$

Where,

β = Average Monthly Frequency Response Performance for that generating station, as certified by RPCs, which shall be computed by considering primary response as per the methodology prescribed by the NLDC and shall range between 0 to 1.

CCy= Capacity Charges for the Year.

3. Incentives for ROR Hydro generating Station

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

65(10) In addition to the above, an incentive shall be payable to a ROR Hydro generating station @ 50 paise/ kWh corresponding to the saleable scheduled energy during peak hours of the day in excess of average saleable scheduled energy during the day (24 hours).

Our Comments/Suggestions

- The Approach Paper highlighted the necessity to incentivize generation by hydro generating stations to address peak loads. In alignment with this objective, the Commission proposes to introduce a new incentive for Run of River (RoR) hydro stations. This incentive would be granted based on the scheduled saleable energy during peak hours exceeding the average saleable scheduled energy throughout the day, at a rate of Rs. 0.50/kWh.

- Numerical Illustration given in the EM by the Commission –

A 100 MW Run of River hydro plant generates a total of 12 MU during the day, out of which 2.1 MU is generated during the peak hours.

Avg. saleable scheduled energy during the day	=	12/24
	=	0.5 MU/ hr
Total Peak Hours	=	3 hours
Avg. saleable scheduled energy during peak time	=	2.1/3
	=	0.7 MU/hr
Additional Energy eligible for incentive	=	(0.7-0.5) x 3hrs
	=	0.6 MU
Incentive to be paid	=	0.6 x 0.5 x 10 ⁶
	=	Rs. 3,00,000

- We agree with the Commission’s approach and request the Commission to continue the same for the final regulation.

- However, Hon'ble Commission is requested to consider similar incentive for all types of hydro generating stations.
- The recent article 'Understanding the True Value of Electricity – Beyond Megawatts' in ETEnergyworld.com has published on 09.01.2024 concludes as under:

"The fundamental argument of this article is that not every 1 MW of generation is equal 1 MW of electricity at the wrong location and at the wrong time of the day is worth less than another 1 MW added to the system. The flexibility of generation adds more layers to the valuation of the 1 MW produced. 1 MW that can be generated or consumed on demand has greater value than the MW which is inflexible and that cannot always reach a consumer. Flexibility can be promoted by pricing flexible products and ancillary services higher than non-flexible base load or inflexible renewable energy production.

Effective markets and traffic regulations are crucial to ensure adequate consideration of time-dependent value, location-dependent value, and flexibility.

Renewable energy should be incentivized without undermining its time and locational value in electricity generation, Indian regulations should be localized, unique, and contextual, but the fundamental principle of valuation of electricity generation based on time dependency, location dependency, and flexibility should never be forgotten."

- **Therefore, incentive of 50 paise needs to be increased to 10% of Max MCP which is Rs.1 per unit and needs to be extended to all types of hydro generating stations including PSPs.**

4. Saleable Scheduled Energy

CERC Tariff Regulations, 2019

44. (6) *In case the saleable scheduled energy (ex-bus) of a hydro generating station during a year is less than the saleable design energy (ex-bus) for reasons beyond the control of the generating station, the treatment shall be as per clause (7) of this Regulation, on an application filed by the generating company.*

Draft CERC Tariff Regulations, 2024

65.(7). *In case the saleable scheduled energy (ex-bus) of a hydro generating station during a year is less than the saleable design energy (ex-bus) for reasons beyond the control of the generating station, the generating station may directly recover the shortfall in energy charges in six equal interest-free monthly instalments after adjusting for DSM Energy in the immediately following year and shall be subject to trueing up at the end of the tariff period.*

Provided that in case actual generation from a hydro generating station is less than the design energy for a continuous period of four years on account of hydrology factor, the generating station shall approach the Central Electricity Authority with relevant hydrology data for revision of design energy of the station.

Our Comments/Suggestions

- As per the proposed, the process of directly recovering the shortfall in energy charges in six equal interest-free monthly instalments after adjusting for DSM Energy in the immediately following year unless the actual generation is less than the design energy for a continuous period of four years shall allow the generating station to recover its shortfall energy charges at the earliest.
- Therefore, we agree with the Commission’s approach and request the Commission to continue the same for the final regulation.

5. **Rate of energy for saleable schedule energy beyond saleable Design Energy**

CERC Tariff Regulations, 2019

“(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds $\{DE \times (100 - AUX) \times (100 - FEHS) / 10000\}$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.”

Draft CERC Tariff Regulations, 2024

“(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in 118 a year exceeds $\{DE \times (100 - AUX) \times (100 - FEHS) / 10000\}$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.”

Our Comments/Suggestions

- Hon’ble Commission in the draft regulation has kept the rate of energy for saleable schedule energy beyond saleable Design Energy **at** one hundred and twenty paise per kWh, which is similar to the rate defined in CERC tariff Regulations, 2019.
- The historical rate of energy of saleable schedule energy beyond saleable design energy over various tariff period is as under:
 - 2009-14: 80 paise/kWh
 - 2014-19: 90 paise/kWh
 - 2019-24: 120 paise/kWh
 - 2024-29: 120 paise/kWh
- From above data, it can be seen that there has been a meagre increase in rate of energy for saleable schedule energy beyond saleable design energy from 80 paise to 120 paise in last 15 years and moreover Hon’ble CERC in the draft Regulations has kept the rate same as fixed in the present CERC Tariff Regulations, 2019.
- To analyze the same, a comparison has been drawn between the increase in the exchange rate in the last 5 years and proposed 0% increase in the rate of energy beyond saleable design energy:

Financial Year	Average MCP (paise/kWh)

2019-20	300.58
2020-21	281.87
2021-22	439.96
2022-23	594.17
2023-24	540.63

- From above table, it can be seen that the average MCP in the power exchanges have increased from the tune of Rs 3/kWh to the tune of Rs 5.5-Rs 6 /kWh. However, Hon'ble Commission has not considered to increase the rate of energy beyond saleable design energy which is being supplied to beneficiary DISCOMs already at lower rate than their ECR.
- Hon'ble Commission would appreciate the fact that the energy beyond saleable design energy being generated by generating station replaces the expensive power in the power exchange and the importance of the energy generated beyond saleable design energy becomes even more significant when the energy is generated during peak hours.
- In view of above, Hon'ble Commission is requested to kindly increase the rate of energy beyond saleable design energy to 150 paise/kWh and modify Regulation 65(9) of draft CERC Tariff regulations 2024 as under:

*“(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in 118 a year exceeds $\{DE \times (100 - AUX) \times (100 - FEHS) / 10000\}$ MWh, the energy charge for the energy in excess of the above shall be billed at **one hundred and fifty paise per kWh only.**”*

Chapter 12: Norms of Operation

Norms of Operation for Hydro Generating Stations (Draft Regulation 71)

Our Comments/Suggestions

- Last para after Regulation-71.(A)(1)(c) may be numbered as (d).
- TLDP-IV is shown as RoR in table under Regulation-71(A)(4). TLDP-IV is RoR with pondage type hydro generating station and same needs to be incorporated.

Normative Annual Plant Availability Factor for RoR Power Plants:

Based on the norms defined in draft regulations, the Normative annual plant availability factor (NAPAF) of the hydro generating stations have been proposed for the tariff period 2024-29, wherein, the NAPAF of RoR power stations under NHPC have been proposed as given below:

Salal:	75%
Tanakpur:	70%
Uri-1:	80%
Uri-2:	80%

In the draft tariff regulations, the NAPAF of ROR power stations of NHPC have been increased substantially for the tariff period 2024-29, which may impact on PAT of INR 117 crore (approx.), the details given below:

Sl. No.	Power Station	Capacity Charges 22-23	NAPAF 2019-24	NAPAF 2024-29	Change in NAPAF (-/+)	Actual PAF during 2022-23	Recovery of Capacity Charge & incentive as per Tariff Reg. 2019-24	Recovery of Capacity Charge & incentive per tariff Reg. 24-29	Impact on Annual Capacity Charge (Rs. in Cr.)
1	Salal	200.85	64	75	11	90.05	282.61	241.16	-41.45
2	Tanakpur	93.49	59	70	11	86.21	136.61	115.14	-21.47
3	Uri-I	210.54	74	80	6	91.26	259.65	240.18	-19.47
4	URI-II	214.24	70	80	10	90.91	278.24	243.46	-34.78
Total Loss									-117.17

As these (Salal, Tanakpur, Uri-I & Uri-II) Power Stations are purely Run of the River Power Stations, therefore, Minimum Draw Down Level (MDDL) and Full Reservoir Level (FRL) of these power stations is practically same. It also means that these power stations do not have storage capacity to over declare.

Further, in the recent IEGC 2023 regulation, declaration has also been capped upto 100% during lean season.

The payment of capacity charges for Hydro generating stations totally depends on Normative Annual Plant Availability Factor (NAPAF). However, there are situations where the availability of a Hydro generating station is affected by uncontrollable factors like non-availability of water storage due to less rainfall/ drought situation or mandatory water release imposed by Govt. authorities etc. like e-flow implemented by Hon'ble NGT, leading to a decrease in the recovery of fixed costs. In this way it would be very difficult to achieve the NAPAF (as proposed in draft tariff regulations) considering above factors.

Therefore, it is imperative that the NAPAF of these Power Station may be kept as per the provisions of Tariff Regulation 2019-24, which is given below:

Salal:	64%
Tanakpur:	59%
Uri-I:	74%
Uri-II:	70%

Regarding Proposed NAPAF of Pondage RoR with Pondage Power Stations:

The NAPAF of Bairasiul, Chamera-II, Sewa-II and Kishanganga Power Stations are being proposed on higher side, in this regard, following is submitted:

- The existing Tariff Regulations, 2019, notified by the Commission, consists of the following provision regarding Operational Norms for Hydro Generating Stations are as under:
“(c) Pondage type plants where plant availability is significantly affected by silt: 85%”
- Further, in the explanatory memorandum issued by Hon'ble Commission on draft Tariff Regulations 2024-29, following has been mentioned:
“21.5.2 As regards the actual availability achieved by the hydro generating stations, it is observed that most of the generating stations achieved much higher PAF as compared to the current normative annual plant availability factor (NAPAF) norms. Based on the review of actual PAF achieved by the generating stations for the period FY 2018-19 to FY 2022-23, the Commission has proposed the NAPAF norms for the tariff period 2024-29 period and is as shown in the table below”

Actual PAF after accounting for IEGC provisions and Proposed NAPAF for Hydro Generating Stations:

Sl. No	Power Station	2018-19	2019-20	2020-21	2021-22	2022-23	Average	NAPAF 2024-29
1	BAIRASIUL	75.09	88.83	75.81	80.18	87.4	81.462	90.0

2	CHAMERA-II	93.63	54.8	58.75	95.13	95.58	79.578	90.0
3	SEWA-II	103.34	104.04	53.39	6.69	99.84	73.45	89.0
4	KISHANGANGA	37.74	48.92	61.72	85.43	85.23	63.808	Not prescribed

- As per Tariff Regulations, the NAPAF of power stations for the next tariff period are being fixed based on the actual achievement in previous years. Bairasiul Power have been facing the high silt problem and less inflow and due to this the Power Station has not able to achieve their NAPAF of 90%. Also, please refer the regulation 71 (A)(1)(c), wherein, it is quoted that NAPAF for “Pondage type plants where plant availability is significantly affected by silt: 85%”. In view of the above facts and constraints, the NAPAF of Bairasiul Power Station may be reviewed and be fixed to approx. 80% so that Bairasiul can recover its capacity charges accordingly.
- Similarly, the average PAF of last 5 years in respect of Chamera-II Power Station as calculated is 79.58%, whereas, the NAPAF of this Power Station has been proposed to be 90%. Chamera-II Power Station is also facing the problem of siltation which also impacts the availability of Power Station. Therefore, it is proposed that the NAPAF of Chamera-II Power Station may also be reviewed and fixed to approx. 80% as achieved during last tariff period.
- The average PAF of last 5 years in respect of Sewa-II Power Station as calculated is 73.45%, whereas, the NAPAF of this Power Station has been proposed to be 89%. Sewa-II Power Station is also facing the problem of less inflow. Therefore, it is proposed that the NAPAF of Sewa-II Power Station may also be reviewed and fixed to be aprox. 73% as achieved during last tariff period.
- NAPAF of Kishanganga for the tariff period 2024-29 has not been mentioned in the draft tariff regulation. The average PAF of last 5 years works out to approx. 63.81% and further, it has also been experienced that Kishanganga Power Station is also facing the less inflow issue. Therefore, it is proposed that the NAPAF of Kishanganga power station for the tariff period 2024-29 may be reviewed accordingly to avoid further stressing the plant.

PAF of Hydro Generating Power Stations are also being impacted due to changing hydrology, and imposition of mandatory release of water as e-flow implemented by Hon’ble NGT.

In view of above facts, it is requested that the NAPAF of Baiarasiul, Chamera-II, Sewa-II and Kishanganga Power Stations may be reviewed and fixed close to 5 yrs. averages, so that recovery of capacity charges of these power stations is not affected and power stations are not stressed.

Chapter 13: Scheduling, Accounting and Billing

Regulation -77: Recovery of Statutory Charges

Our Comments/Suggestions

- 'Water Usage Charges, Green Cess etc.' may be added in second line of draft regulations after 'water cess'.

Regulation -79: Rebate

Our Comments/Suggestions

- The day of presentation of bill shall be reckoned as 1st day. The same needs to be incorporated in the explanation given in draft regulation-77(1) to avoid any dispute.

Chapter 15: Miscellaneous Provisions

1. *Loss of Capacity Charges during a state or nationwide strike or force majeure conditions such as flash flood*

CERC Tariff Regulations, 2019

No Provision.

Draft CERC Tariff Regulations, 2024

No Provision.

Our Comments/Suggestions

The hydro power stations are mostly located in far flung areas of Himalayan terrain. These areas are subject to various natural calamities such as flash flood, which can result in shutdown of power stations for many months. Further, during a state or nationwide strike, generation loss also occurs. In such instances, the shortfall in energy charges is addressed through tariff regulation. However, the draft CERC Tariff Regulations 2024 doesn't encompass the provisions for the recovery of capacity charge losses. Thus, it is imperative to incorporate such provisions in forthcoming CERC Tariff Regulations 2024 so that a generator may be compensated on this ground.

2. *Deviation from ceiling tariff*

CERC Tariff Regulations, 2019

66.(2) *The generating company or the transmission licensee, may opt to charge a lower tariff for a period not exceeding the validity of these regulations on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these regulations.*

Draft CERC Tariff Regulations, 2024

88.(2) *The generating company or the transmission licensee, may opt to charge a lower tariff for a period not exceeding the validity of these regulations on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these regulations.*

.....

Provided that where the trued up tariff is lower than the agreed tariff, the generating company or the transmission licensee shall charge such trued-up tariff only:

Our Comments/Suggestions

- The generating company or the transmission licensee, may opt to charge a lower tariff that is mutually agreed-upon and can be collected over the entire lifespan or the agreed period for a power station, contrary to the current limit of five years.

- Tariff Regulations is required to be modified to allow the recovery of agreed tariff between generator and the DISCOM for the entire life / for the agreed period for a power station in contrast to presently five years only.
- Therefore, the agreed tariff must be isolated for any changes in future regulatory norms to avoid any dispute between the parties.
- Therefore, Regulation 88(2) of draft CERC Tariff Regulations 2024 may be modified as under:

*“88.(2) The generating company or the transmission licensee, may opt to charge a **lower levelized tariff for a period of the agreement** on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these regulations.*

.....

*Provided that where the trued up **levelized tariff for complete period of agreement** is lower than the **agreed levelized tariff**, the generating company or the transmission licensee shall charge such trued-up tariff only:”*

3. Public Procurement through Competitive Bidding

CERC Tariff Regulations, 2019

No Provision.

Draft CERC Tariff Regulations, 2024

“100 Public Procurement through Competitive Bidding: The generating company for a specific generating station or for an integrated mine or a transmission licensee shall procure equipment, work and services through a transparent process of competitive bidding.

Provided that under certain exceptional circumstances, equipment, works and services may be procured through other methods, as provided under general financial rules issued by the Government of India and applicable from time to time.

Issue of Suo-Moto orders and practice directions: The Commission may, from time to time, issue orders and practice directions in regard to the effective implementation of these regulations and matters incidental or ancillary thereto as the Commission may consider appropriate.

Our Comments/Suggestions

We agree with the Commission’s approach and request the Commission to continue the same for the final regulation.

4. Award of Arbitration

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

91. In cases where there is a liability with respect to capital works on account of award of arbitration having principal amount along with interest payment, the principal amount actually paid shall be capitalized.

Provided that any interest amount associated with the arbitration award and actually paid shall be recovered in instalments along with carrying cost at the rate specified under Regulation 10(7) and 10(8) of these Regulations.

Provided further that such number of instalments shall be decided by the Commission on a case-to-case basis depending upon the amount to be reimbursed.

Our Comments/Suggestions

- In the usual course of business, if the amount (currently under arbitration) had not gone under arbitration, the amount would be capitalized under the capital cost. In this scenario, the Commission would have considered it for computation of IDC and might have allowed this IDC till the time of actual commissioning. Since this particular amount pertaining to civil works went into arbitration, it led to delay in payment to the contractor along with the interest payment. Not including the interest component of the payment in capital cost will mean that we forfeit our right to claim IDC as a part of capital cost. In such a scenario, the Commission may allow principal amount as a part of the capital cost and for the interest component, interest accrued till COD may be allowed as a part of capital cost and the interest post COD may be recovered in instalments.
- To illustrate, consider a scenario where an arbitration process spanning three years commences one year prior to the Commercial Operation Date (COD). It is assumed that interest accumulated due to this arbitration amounts to Rs. 15 Crore. Assuming that the interest accrued on the principal amount is computed through simple interest calculations, the interest amount accrued before COD is Rs. 5 Crore. And interest accrued post COD is Rs. 10 Crore. Thus, it is requested that the Hon'ble Commission may consider interest accrued before COD (Rs. 5 Crore) as a part of capital cost and the interest accrued post COD (Rs. 10 Crore) may be paid in instalments as decided by the Hon'ble Commission.
- Further, Pursuant to the decision taken by the CCEA, for revival of construction sector NITI Ayog vide OM no. 14070/14/2016-PPPAU dated 05.09.2016 titled "Measures to revive construction sector-reg" has stipulated that all the work executing agencies are required to pay @75% of the total payout (arbitral award including interest thereon) should be released to contractor against a bank guarantee subject to final order of the court.
- The said amount paid is shown as Advance paid in the balance sheet and cannot be capitalized till the settlement of the case and thus, the same cannot be claimed in the

tariff by NHPC. This is resulting in loss of interest to the company. Therefore, Commission is requested to kindly provide some provision to allow the petitioner to claim tariff on the said amount or allow the generating company to claim the interest on the finally settled amount from the date of payment of advance till the settlement date.

- Further, provision for amicable settlement of dispute may also be introduced. If dispute is settled amicably, i.e. without any court order/arbitral tribunal order, such awarded amount after approval of the Board of the respective company be considered fit for capitalization. Such process is less time consuming and the potential interest burden of the consumer is substantially decreased. Presently, Vivad se Vishwas II (Contractual Disputes) has been issued which provides for final settlement of the contractual disputes at 65% of award amount in case of arbitral award and 85% amount in case of court orders. Hon'ble Commission is requested to provide provision in the tariff regulations to allow the generating companies to claim tariff of the settlement amount under this scheme.
- In view of above, it is suggested that new proviso may be inserted after first proviso in Regulation 91 of draft CERC Tariff Regulations 2024 as under:

*“91. In cases where there is a liability with respect to capital works on account of award of arbitration, mutual settlement after approval of Board, compliance of the directions or order of any statutory authority or order or decree of any court of law and settlement under Vivad se Viswas-II (contractual disputes) having principal amount along with interest payment, the principal amount **along with interest amount upto COD of the plant** actually paid shall be capitalized.*

*Provided that any interest amount associated with the arbitration award **after COD of the Project** and actually paid shall be recovered in instalments along with carrying cost at the rate specified under Regulation 10(7) and 10(8) of these Regulations.*

Provided further that such number of instalments shall be decided by the Commission on a case-to-case basis depending upon the amount to be reimbursed.”

5. Tariff norms required for Pumped Storage Projects (PSP)

CERC Tariff Regulations, 2019

No Provision

Draft CERC Tariff Regulations, 2024

No Provision

Our Comments/Suggestions

Pumped Storage Hydro (PSH) is the most flexible form of hydropower plant which has the capability to aid in peak shifting by pumping power during non-peak hours and supplying

power during peak hours. In India most of the PSP plants have a capacity to provide 5-8 hours of storage. PSH plants also have capacity to provide balancing support, system inertia, frequency response, grid regulations, black start capacity and operation in synchronous condenser mode.

a. The present regulations only consider a scenario where the energy has been arranged by the beneficiaries DISCOMs. These need to be revised in view of the fact that the energy required for pumping can be arranged by the developer from RE sources in view of waiver of inter-state transmission charges allowed when the pumping energy from RE sources is at least 51% of total pumping energy.

b. Ministry of Power has issued guidelines to promote development of Pump Storage Projects on 10th April 2023, wherein following points have been highlighted

i. No free power and LADF to be provided by PSPs

ii. Monetization of services offered by PSPS, like spinning reserves, reactive support, black start ability, frequency response ancillary services and faster start-up and shutdown,

iii. 80% power generated when PSPS operate as conventional hydro power stations during monsoon period (i.e. no pumping energy required for power generation) would be offered to the Home State at the rate of secondary energy fixed by the Central Electricity Regulatory Commission. The developer shall be allowed to sell the remaining energy to cover their Operation & Maintenance costs and other expenses.

iv. In the event of capacity contracted not being fully utilized by the contracting agency, the developer would be free to transfer the usage of the capacity to other interested entities so that resources do not remain idle. The gains made shall be shared with the original beneficiary in the ratio of 50:50

These provisions need to be suitable incorporated along with modalities in the existing Tariff Regulations for PSPs.

c. The present regulation talks about payment of energy charges @ 20 paise/kWh when schedule energy of the month is greater than Design Energy of the month plus 75% of total energy pumped. The condition proposed can be achieved in a scenario when PSP is an on-river PSP and is generating electricity without pumping during high inflow season or the energy has been generated in excess of 75% of the pumped energy i.e. the cycle efficiency is higher than 75%. Therefore, the incentive provided to PSP in the form of energy charge may be reviewed as per the guidelines of MoP.

d. The Commission may also lay down the modalities of determination of Tariff for PSPs developed under RTC mode for plants whose tariff is to be determined as per Section-62 of The Electricity Act, 2003 for the projects allocated by the states and to be developed under RTC model.