



A Maharatna Company

Corporate Centre

# NTPC Comments on Draft CERC Regulations, 2024.





# Resource Generation for Capacity Addition

- In the last 10 years, NTPC Group companies have added about 23,000 MW of conventional capacity. The corresponding equity contribution is about Rs 58,000 cr.
- This capacity addition has enabled the nation to meet the growing power demand, thus fuelling its growing economy.
- As per CEA / GOI, thermal capacity of around 282 GW is required to meet the demand in 2031-32.
- This translates to coal capacity addition of around 72 GW by 2031-32
  - **Capital investment required: Rs. 7,20,000 Crores (@ Rs. 10 Crores per MW)**
  - **Equity investment required: Rs 2,16,000 Crores (D/E ratio of 70:30).**
- NTPC Group has been given target to add 15,200 MW coal capacity (in addition to 8100 MW under construction).
  - **Capital investment required: Rs. 2,33,000 Crores (@ Rs. 10 Crores per MW)**
  - **Equity investment required: Rs 69,900 Crores (D/E ratio of 70:30).**
  - **As budgetary support is not expected, above investment has to be met by ploughing back NTPC's internal resources.**
- **Adequate resources generation for capacity addition needs to be enabled through supportive Regulations.**
- **This will ensure availability of adequate, affordable and reliable power supply for meeting the power demand.**

# Suitable Generation Incentive Rate for Promoting Cheaper Generation

- Generation from low ECR stations needs to be maximized so that Discoms' power procurement costs can be reduced.
- This will also reduce the burden on rail transport logistics.
- Hon'ble Commission has ben providing generation incentive is to promote higher generation from cheaper stations.
- Incentive is payable only if the Discoms actually schedule such power.
- Discoms schedule this power as per their needs thus avoiding costly purchases. **PX RTC rate (2022-23): Rs. 6.25 / kwh.**
- **Incentive rate has remained stagnant in the last 10 years & needs to be reviewed.**
  - 2004-09: 25 paisa per kwh.
  - 2009-14: Linked to per unit Capacity Charges of stations.
  - 2014-19: 50 paisa per kwh.
  - 2019-24: Off-peak - 50 paisa per kwh & Peak hours - 65 paisa per kwh.
  - 2024-29 (DRAFT REG. ): Off-peak - 50 paisa per kwh & Peak hours - **75 paisa per kwh.**
- Considering inflation, and market rate of power, incentive rate needs to be suitably enhanced.
- This will incentivize stations to generate and make available more cheaper power to the Discoms.
- **Suggestion:**

1) **Generation incentive rate may be fixed at Rs. 1.00 per kwh for off-peak hours & Rs. 1.30 per kwh for peak hours.**
2) **Annual escalation may be provided.**

# Adequate Operational Norms

- Draft Regulations has proposed operational norms based on CEA's recommendations.

1) **Operational losses for pithead stations:**
    - Many stations would be unable to meet these stringent norms.
    - Pithead stations operating above 85% loading factor shall incur losses.
    - With higher demand as projected by CEA, losses of these stations shall further increase.
2) **Sharing of gains not considered while fixing norms:**
    - Fixing Norms based on statistical average of past actuals assumes that gains in better performing stations would offset losses in stations operating worse than the norms.
    - It appears that CEA's norms are based on statistical average without factoring sharing of gains.

- **Suggestions:**
    1) **Existing Norms of Heat rate & APC may be retained.**
    2) **Norms to be fixed considering sharing of gains.**

# Operational Norms - Part load Compensation

1) **Part-Load Compensation:**
   - Existing Part-load compensation mechanism is based on lower of actuals and norm.
   - While stations operating better than degraded norms shall compensated as per actuals, compensation of stations operating worse than degraded norms shall be restricted to degraded norms.
   - As a result, there in always overall loss to generating company due to part-load compensation.
   - Tariff Policy & Expert Committee for Review of Grid Code (comprising of 3 past Chairperson of CEA) provides that norms should be on **normative basis (and not on lower of actuals and norms).**
2) **CEA Part Load Degradation factors need to be included in the Regulations:**
   - CEA's norms are arrived based on the degradation factor recommended along with it by CEA.
   - Draft Regulations has not incorporated CEA's part-load degradation factors.
   - Implementation of new norms without the corresponding part load compensation will result in further operational losses.

- **Suggestions:**
  1) **Part-load Compensation may be on normative basis, as stipulated by the Tariff Policy.**
  2) **Part-load Compensation as per CEA's recommendations need to be included as CEA norms have been arrived based on the part-load degradation factors in CEA's recommendations .**

# Rate of Return on Equity (RoE)

- **Add-Cap on Emission Control System (ECS):**
  - ECS integral to sustainable power generation and its risks / cost recovery linked with the main plant.
  - Significant investment of ≈ Rs. 30,000 Cr. Involved to make coal stations environmentally compliant.
  - Therefore, return on equity on such investments need to be at par with the main plant.
- **Integrated Mine:**
  - RoE to be commensurate with associated risks: land acquisition, R&R, wide area of operation, no fencing, prone to flooding & other extreme weather conditions, etc.
  - Significant risks comparable to that of thermal power plant.
  - Return on equity may be fixed at par with that of thermal generation.
- **Therefore, following is suggested:**
  1) **Rate of return on equity at par for all equity investments.**
  2) **Rate of return for integrated mines may be fixed at par with that of thermal generation.**

# Gross Calorific Value (GCV) of Coal

- **Loss in Calorific Value of Coal in case of Integrated Mines:**
  - Loss in calorific value depends distance of coal transportation involved.
  - Distance between integrated mine to generating station varies widely:
    1) Mines supplying to Pithead stations - Darlipalli from Dulanga mine, Lara from Tallaipalli Mine.
    2) Mines supplying non-pithead stations - Tanda-II, Barh-II, Barauni-II.
    3) Basket Mine (Pakri Barwadih), supplying to many stations (non-pithead) located at varying distances.
  - Draft regulations has also proposed maximum loss of 300 kcal/kg for pithead stations and 600 kCal/kg for Non-Pithead stations.
- Maximum loss of 300 kCal/kg (based on distance) between 'GCV as Billed' and 'GCV as Received' may be provided for integrated mines supplying coal to non-Pithead station.
- **Certification of Agency for Third party Sampling:**
  - Third Party Sampling agencies are being empaneled by PFC under the aegis of the MoP.
  - It is suggested that Certification of agency may be suitably modified.

# Aspects Related to Integrated Coal Mines

- **Run-of-Mine (ROM) Cost:**

  1) *ROM Cost = [(Annual Extraction Cost / ATQ or Actual production, whichever is higher) + Mining Charge] + (Fixed Reserve Price).*

  2) *Annual Target Quantity (ATQ) revised to 85% (from 100%) of quantity as per the Mine Plan.*

  3) *No incentive is allowed in case coal extracted between 85%-100% of ATQ.*

- In many cases, production beyond Mine Plan is possible for meeting generation requirement as per GoI directions.
- Increased domestic coal extraction reduces dependance on imported coal and thus lowers cost of power to Discoms.
- Capital cost is serviced over life of mine through Annual Extraction Cost (AEC) comprising of depreciation, Interest on loan, RoE, Interest on WC and O&M expenses.
- Any additional production in a year above Mine Plan without pro-rata AEC recovery shall result in under recovery of AEC over life of the mine.
- Therefore, in case of production in excess of mine plan, proportional AEC recovery may be allowed for such excess production beyond the mine plan.

# O&M Expenses Norms

- **Coal Stations - Norms may be enhanced considering the following:**
    1) Capital spares < 20 lakhs, Add-cap < 20 lakhs
    2) Additional O&M for flexible operation (HR & APC is presently compensated).
    3) Additional norms of Rs 5.6 Lakh/MW/Year may be considered.
- **Gas Stations - Norms may be enhanced considering daily start-ups:**
    1) No. of start-ups have increased from 0.4 per station per day in 2019-20 to 1.27 per station per day in 2023-24.
    2) Equivalent Operating Hours (EOH) increases by an average of 20 hours for each start-up. (Overhaul frequency increases).
    3) Additional norms of Rs 2 Lakh/MW/Year may be considered.
- **Provision for Monthly billing of Ash transportation expenses:**
    - Being variable / irregular, Ash transportation expenses not made part of norms and to be allowed separately by Hon'ble Commission.
    - Allowing these costs at time of truing up will lead to accumulated carrying cost, which is neither in the interest of Discoms / Generator.
    - Hon'ble Commission vide its order dated 28.10.2022 has already allowed provisionsal monthly billing of these expenses, subject to prudence check at the time of truing-up.
    - Provision of monthly billing on similar lines may be provided in the Regulations for 2024-29.

# Incentivization of Old Stations

- Draft Regulations has proposed NAPAF and NAPLF of 80% for stations completing 30 years from COD on 01.04.2024.
- The Approach Paper had proposed the above dispensation for old stations completing 25 years on or after 01.04.2024 as a special measure to incentivize old stations.
- As per existing regulatory framework, useful Life of thermal stations is 25 years from CoD.
- Tariff Regulations considers useful life of 25 years for various tariff elements (such as, Depreciation of assets, debt servicing, Provision of R&M and Special Allowance, etc.).
- These old stations are mostly pithead stations supplying cheaper power to beneficiaries at nominal tariff.
- The Discoms shall be benefitted by continued operation of these stations.
- Therefore, it is requested that NAPAF and NAPLF of 80% may be made applicable for stations completing 25 years from COD on or after 01.04.2024 (instead of 30 years proposed by Draft Regulations).

# Other Issues

1) **New Projects Related:**
   a) **No capping of capital cost allowed in case of condonation of delay:**
      - 90% capping in case delay is condoned on account of land acquisition, NHAI, Railway, forest clearance may be removed.
      - This is against the basic principle that capital cost is allowed in tariff in case delay is condoned.

   b) **Interest on Loan for new projects on Company basis:**
      - Interest on Loan may be considered on project basis to avoid any under / over recovery of interest cost.

   c) **Tariff on Projected basis on anticipated COD:**
      - Extant provision of filing tariff petition based on anticipated COD may be retained for billing on provisional basis w.e.f COD of station.

2) **Annual Escalation for Normative Special Allowance:**
   - Annual Escalation index allowed for O&M expenses norms may be extended to special allowance.

3) **Blending of Imported Coal:**
   - Generating company may be allowed quantum of blending of imported coal at **company level** as per direction / guidelines / advisory of GOI issued from time to time.





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# THANK YOU