



ONGC TRIPURA POWER COMPANY LIMITED
ओएनजीसी त्रिपुरा पावर कम्पनी लिमिटेड

OTPC Palatana Project

Comments on Draft Tariff Regulation 24-29



Salient Features of Palatana



- 2 x 363.3 MW – Advanced Class 9FA GE machines
- The plant is located in remote location in Tripura, North East India
- The plant can operate only in combined cycle mode
- The plant sources its fuel gas from isolated gas fields in Tripura grid
- It is one of the few performing gas stations in India
- Palatana station supplies nearly 20% of power demand in NE region
- The plant has very competitive tariff of nearly Rs 3.30 per unit
- The plant operates as a base load plant as its power is fully scheduled by beneficiary states
- Service/Repair of equipment is tedious due to transportation issues of ODC
- availability of skilled manpower challenges in remote area

Auxiliary Energy Consumption



Tariff Period	AEC Allowed as per CERC Tariff Regulations	AEC recommended for Palatana by CEA	AEC allowed for Palatana by CERC
FY 14-19	2.5%	-	3.5%
FY 19-24	2.75%	3.5%	3.3%
FY 24-29	2.75%	3.5%	3.5%

2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
3.85%	3.76	4.15%	4.23%	4.6%	4.1%	3.9%	3.9%	4.2%	3.86%	4.09%

- Actual AEC figures for Palatana are even higher and the station has been praying for higher AEC over the tariff periods.
- The simple average AEC of Palatana since COD has been nearly 4%.
- This loss due to AEC to a single plant company is considerable amounts to nearly 10 Crore every year.
- **We request Hon'ble Commission to allow a higher AEC of 4% to Palatana as per actuals.**

Station Heat Rate



- For Natural Gas, $SHR = 1.050 \times$ Design Heat Rate of the unit/block,
- Where the Design Heat Rate of a unit shall mean the **guaranteed heat rate** for a unit at 100% MCR and at site ambient conditions
- **Guaranteed** Design heat rate for Palatana has been guaranteed as **weighted average of heat rate at 100%, heat rate at 80% and heat rate at 60%**. OEM has not given a guaranteed design heat rate at 100% alone for Palatana.
- SHR allowed for Palatana by CERC – 1754
- SHR as per OEM guaranteed figures - 1823
- SHR of Palatana still be lower than the SHR allowed for other stations using advanced class machine.
- Actual SHR figures for Palatana also hovers in range of 1830-1840
- **We request Hon'ble Commission to allow an SHR of 1823.68 kCal/kwh to Palatana in line with SHR details guaranteed by OEM.**

Ramp Rate



- Regulations state that rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate as specified under Regulation 45(9) of IEGC Regulations, 2023 .i.e. 3%.
- Being one of the biggest units in NE, Palatana consumes about 60% of total gas produced in this gas grid.
- Palatana gets scheduled as a base load station and has been operating at high PLF.
- The gas fields are located in remote locations the gas supply to Palatana cannot be varied widely under a short notice to ramp up/down generation up to 3% of ex-bus capacity.
- Ramp rate of 3% of installed capacity corresponds to 163 MW/unit/15 minutes' time block for one unit and 326 MW/15 minutes' time block for Palatana station.
- Such huge load variation requires drastic variation in gas supply flow that will destabilize the entire Tripura gas grid. It may even lead to cascade tripping of all stations connected to the same gas grid.
- We have been highlighting the concern to Hon'ble Commission ever since publication of draft IEGC regulations. NERLDC has been raising issues.
- **We request Hon'ble Commission to allow a relaxation in ramp rate declaration from 3% to 1% for Palatana Project while scheduling power.**

- Palatana station has been performing consistently with the available gas supplies from the Tripura gas grid.
- Gas well behavior has been an issue, we have not been able to perform up to the desired NAPAF.
- Leads to AFC losses. Commission has relaxed NAPAF for some time.
- No option to procure fuel gas from mainland gas grid.
- Lately the gas supplies have again been affected due to behavior of gas wells which is evident from the actual PAF-PLF figures of plant.
- Being a single plant company and one of the few performing gas stations in India, we request support from Hon'ble Commission till we get connected to mainland gas grid.
- **We request Hon'ble Commission to allow a NAPAF of 70% for Palatana station on the lines of NEEPCO ABGPP project.**

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
PAF	85.0%	77.3%	56.0%	66.8%	64.0%	74.7%	62.7%	81.5%	64.9%	77.58%	72.59%
PLF	81.3%	79.5%	54.6%	65.2%	62.8%	73.3%	60.6%	79.5%	64.2%	77.03%	72.39%

Return On Equity



- Hon'ble Commission has been supporting projects in NE and difficult terrains.
- In the approach paper for tariff regulations, Hon'ble Commission had contemplated giving higher RoE to new/existing projects and projects located in remote locations including NER.
- In the draft regulations, Hon'ble Commission has taken due care of mine based plants, aging stations and transmission systems.
- Other stations can procure LNG and give higher PAF to recover AFC despite costly power.
- We are single plant company and need support of Commission to survive.
- Fuel gas behavior also affecting our ROE and actual ROE is even lesser than 14%
- **We request Hon'ble Commission to allow a higher RoE of 16% for Palatana station as the station has been commissioned after much challenges**

Interest on Working Capital



- Hon'ble Commission has reduced the coverage of IOWC in fuel cost from 30 days to 15 days for gas stations but has maintained it for other stations.
- This will have a considerable impact of around Rs 25-30 crores on the AFC of the gas based project like Palatana over a span of 5 years.
- Reduction in IOWC may have been prudent for station having 100% fuel availability
- Gas stations are already struggling with poor PLFs, fuel issues and other factors
- Operating costs are going up with plant life and norms are being stringent.
- **We request Hon'ble Commission to maintain the fuel cost for 30 days in the IOWC for gas stations.**

O&M Charges



- While framing the approach paper on tariff regulations 24-29, Hon'ble Commission had rightly noted that O&M expenses towards the upkeep of systems in the North Eastern and hilly regions of India entail additional costs due to logistical challenges as well as the inadequate infrastructure growth of the region.
- Palatana is one of the only gas stations in the country operating successfully with a high PLF.
- Most of the gas stations in the country are stranded assets or are struggling with PLFs of 10-20%.
- Running plants like Palatana incur higher O&M costs due to regular maintenance and LTSA cost at particular Factored Fire Hours of the gas turbines.
- Palatana tariff being very competitive, the station gets fully scheduled with hardly any difference in PLF and PAF.
- Hot Gas Path Inspection (HGPI) in 2024-25 as per the Factored Fire Hours of gas turbines. The cost of HGPI shall be substantial and may lead to procurement of additional services and spares for Gas turbines.
- Major inspection (MI) lined up in FY 2027-28. During MI the units shall be opened and rotors shall be transported to Singapore facility of GE for refurbishment and repairs.

- The OEM (GE) has also intimated that serviceable life of rotors shall finish after 144000 Factored Fire Hours and Palatana should plan to procure an additional spare rotor during the MI in FY 27-28 to avoid outage of station.
- OEM has also suggested that as it takes nearly 3 years for GE to deliver a fresh rotor, Palatana should start planning this expense before the MI in 2027-28.
- OEM has submitted that an estimated cost of a new rotor shall be nearly Rs 320 Crores.
- Hence, the O&M expenses of Palatana shall increase considerably during the FY 24-29 control period due to HGPI and MI and as an additional spare rotor and repair of existing rotors shall add upon the O&M costs for the plant.
- **We request Hon'ble Commission that additional O&M may be allowed for Palatana as a special ase in line with the focus of CERC on transmission and hydro projects in difficult terrains/NE region.**

Capital Spares and Ad-Cap



- Hon'ble Commission has included any additional capital expenditure which has become necessary for efficient operation of generating station in the list of Ad-cap beyond cut-off date.
- **The imposition of a minimum limit of Rs 20 lacs on Ad-cap items may be done away with.**
- This is due to the fact that stations have to undertake several small ticket expenses in control room, cooling tower, lighting systems and AHU units that are crucial but may be just below the cut-off set for Ad-cap.
- Any items that cost below Rs. 1 (one) lakhs that may be in the nature of minor items such as tools and tackles, and those pertaining to Capital Spares may be allowed only as part of O&M expenses and may not be considered as part of additional capitalization in case of both thermal and hydro generating stations.
- This is because of the fact that CERC has already considered the same figure while calculating the capital spares in various tariff petitions in 19-24 period.
- **We would request Hon'ble Commission to treat spares with value of Rs 1 Lakh and above as Capital spares in line with the treatment meted out to the spares in various tariff petitions for control period 19-24.**

Thank You