

**Date:** January 30, 2026

**To,**  
**The Secretary,**  
Telangana State Electricity Regulatory Commission (TGERC),  
4th Floor, Singareni Bhavan,  
GTS Colony, Kalyan Nagar,  
Hyderabad – 500 018, Telangana

**Subject: Objections/Suggestions on ARR & Tariff Petition filed by TSGENCO for YTPS Unit-1 (800 MW) and Unit-2 (800 MW) – Petition No. [Insert Petition Number] – Request for Condonation of Delay**

**Reference:** Public Notice dated [Insert Date] inviting Objections/Suggestions on YTPS Unit-1 & Unit-2 ARR Petition

**Respected Sir,**

I, **R.V Subba Rao**, a registered consumer activist working for the protection of electricity consumers' rights in Telangana, hereby submit objections and suggestions on the above-referenced petition filed by Telangana State Power Generation Corporation Limited (TSGENCO) seeking approval of Annual Revenue Requirement (ARR) and determination of tariff for YTPS Unit-1 (800 MW) and Unit-2 (800 MW).

### **1. Request for Condonation of Delay**

We humbly submit that these objections/suggestions are being filed beyond the deadline specified in the public notice dated 28.1.2026. The delay in filing is regrettable and occurred due to the following unavoidable reasons:

1. The petition involves voluminous technical documentation spread across multiple volumes (Vol. 1 to Vol. 6) comprising DPR documents, administrative approvals, environmental clearances, loan agreements, power purchase agreements, and detailed financial schedules running into thousands of pages.
2. A comprehensive analysis of such extensive material, including comparative assessment of original DPR (2015) vs. revised cost estimates (2025), package-wise cost breakup, time overrun analysis, and prudence check of capital cost escalation, required substantial time and technical expertise.
3. Being a consumer advocacy organization working in public interest with limited resources, we required additional time to engage technical experts and conduct detailed scrutiny of the claimed capital cost of ₹6,895.13 Cr for Unit-1 alone, representing a 44% escalation over the original DPR.
4. The magnitude of consumer impact – an estimated additional tariff burden of ₹672 per household per annum and overall tariff increase of 20-26% compared to DPR

estimates – warranted thorough analysis to ensure that our objections are well-founded and serve the interest of lakhs of electricity consumers in Telangana.

In view of the above genuine and unavoidable circumstances, and considering the significant public interest involved in ensuring that electricity tariffs are determined based on prudent and justified costs, we most humbly request the Hon'ble Commission to **condone the delay in filing these objections/suggestions** and admit the same for consideration during the public hearing process.

We assure the Hon'ble Commission that despite the delay, our objections are comprehensive, data-driven, and directly relevant to the Commission's mandate of protecting consumer interests while ensuring fair cost recovery for the utility.

## **2. Summary of Key Objections/Suggestions**

Our detailed objections and suggestions are enclosed as **Annexure-I** to this letter. A brief summary of the major issues raised is presented below:

### **2.1 Capital Cost Escalation – Lack of Prudence**

- Total project cost has escalated from ₹25,099.42 Cr (DPR 2015) to ₹36,131.99 Cr (Revised-3, 2025), representing an increase of ₹11,032.57 Cr (+44.0%).
- Cost per MW has increased from ₹6.27 Cr/MW to ₹9.03 Cr/MW, which is significantly higher than comparable NTPC projects (₹6.00-7.00 Cr/MW).
- We object to the blanket approval of this escalated capital cost without independent prudence check and urge the Commission to disallow avoidable and imprudent costs estimated at ₹4,280-5,350 Cr (38.8-48.5% of total escalation).

### **2.2 Township Cost (₹1,300 Cr) – Unjustified Scope Addition**

- The township component of ₹1,300 Cr was not part of the original DPR (2015) and has been added in Revised-3 (2025) without prior regulatory approval.
- This constitutes scope creep and should be recovered separately through employee deductions or allocated to equity, not passed through to consumers via tariff.
- We strongly object to including township cost in the capital cost for tariff determination purposes.

### **2.3 Interest During Construction (IDC) – Delay-Driven Escalation**

- IDC has escalated from ₹3,572.94 Cr (DPR) to ₹8,862.12 Cr (claimed), an increase of ₹5,289.18 Cr (+148.1%).
- A significant portion of this escalation (₹1,500-2,000 Cr) is attributable to delayed payments to BHEL (₹3,100 Cr pending bills cleared only in January 2024) and poor project management (₹800-1,200 Cr).
- We object to passing on the IDC burden arising from TSGENCO's payment defaults and coordination failures to consumers. These costs should be disallowed or shared with the utility bearing a substantial portion.

## **2.4 Time Overrun – 45 Months Delay for Unit-1**

- Unit-1 was delayed by 45 months (original COD: 17.10.2021; actual COD: 12.07.2025), resulting in massive IDC accumulation and opportunity cost.
- While external factors (NGT litigation, COVID-19, environmental norms change) contributed to delays, internal controllable factors (delayed payments, railway siding delays, weak coordination) accounted for 44-60 months of delay.
- We object to full cost recovery for delay-driven expenses without attributing responsibility and urge the Commission to impose a sharing mechanism whereby consumers bear only force majeure costs (80:20 sharing) while utility bears 100% of management-driven delays.

## **2.5 Liquidated Damages (LD) – Non-Recovery**

- As per EPC contract, ₹317.25 Cr of liquidated damages are recoverable from BHEL for delays across all five units (₹63.45 Cr per unit).
- There is no evidence in the petition that TSGENCO has initiated recovery of LD or credited the same to consumers.
- We object to the non-recovery of LD and demand that the Commission direct TSGENCO to recover LD from BHEL and credit the amount to consumer accounts through tariff reduction.

## **2.6 Startup Fuel – 1,300% Escalation**

- Startup fuel cost has escalated from ₹50 Cr (DPR) to ₹700 Cr (claimed), an increase of ₹650 Cr (+1,300%).
- This escalation is attributable to prolonged trials, multiple synchronizations, and lack of pre-commissioning planning.
- We object to this excessive escalation and urge the Commission to cap startup fuel at normative levels (₹300 Cr for 5 units) and disallow the excess ₹400 Cr.

## **2.7 Lack of Transparency and Benchmarking**

- The petition lacks comparative benchmarking with NTPC projects or other contemporary thermal power plants to justify the claimed cost per MW of ₹9.03 Cr.
- Package-wise contract costs, variation orders, supplementary agreements, and detailed IDC calculation methodology have not been disclosed.
- We object to the approval of capital cost without full transparency and urge the Commission to order independent audit by reputed CA and technical consultant.

## **2.8 Consumer Impact – Affordability Concerns**

- The claimed tariff of ₹6.94/kWh (at 85% PLF) is 20-26% higher than the DPR-based estimate of ₹5.50-5.80/kWh.

- This translates to an additional annual burden of ₹672 per household (assuming 400 kWh/month consumption).
- For Unit-1 alone, the additional revenue requirement is ₹235 Cr/year compared to DPR, imposing a heavy burden on consumers already facing high electricity tariffs.
- We urge the Commission to protect consumer interests by disallowing avoidable costs and capping the approved capital cost at ₹5,895 Cr per unit.

### 3. Prayer

In light of the above objections and in the interest of protecting the rights of electricity consumers in Telangana, we most respectfully pray before the Hon'ble Commission to:

1. **Condone the delay** in filing these objections/suggestions and admit the same for consideration during public hearing.
2. **Reject the claimed capital cost** of ₹6,895.13 Cr for Unit-1 and approve a prudent capital cost of ₹5,895 Cr after disallowing avoidable and imprudent costs amounting to approximately ₹1,000 Cr per unit.
3. **Disallow township cost** of ₹1,300 Cr (₹260 Cr for Unit-1) from capital cost for tariff determination and direct TSGENCO to recover the same separately or allocate to equity.
4. **Disallow 70% of IDC** arising from delayed payments to BHEL (₹1,500-2,000 Cr project-wide) and 50% of IDC arising from poor project coordination (₹800-1,200 Cr project-wide).
5. **Cap startup fuel cost** at normative levels (₹300 Cr for 5 units; ₹60 Cr per unit) and disallow excess escalation.
6. **Direct TSGENCO to recover liquidated damages** of ₹317.25 Cr from BHEL and credit the same to consumers through tariff adjustment.
7. **Order independent prudence audit** by reputed chartered accountant and technical consultant to verify package-wise costs, IDC calculation methodology, delay attribution, and contract variations.
8. **Mandate full transparency** by directing TSGENCO to submit:
  - Audited project completion report with package-wise actual costs
  - BHEL EPC contracts, amendments, and supplementary agreements
  - Loan-wise, quarter-wise IDC calculation workbook
  - Monthly progress reports (FY 2021-22 to FY 2025-26)
  - Force majeure claims with documentary evidence
  - Environmental cost benchmarking with NTPC/industry standards
9. **Impose sharing mechanism** for unavoidable delays:

- Force majeure costs (COVID, NGT litigation): 80:20 sharing (80% consumers, 20% utility)
  - Statutory changes (FGD/SCR): 100% consumer recovery (pass-through)
  - Management lapses: 0% consumer recovery (100% utility bears)
10. **Approve provisional tariff** based on prudent capital cost of ₹5,895 Cr pending completion of independent audit, with provision for true-up based on audit findings.
  11. **Provide opportunity for cross-examination** of TSGENCO officials during public hearing on the issues raised in our objections.
  12. **Pass such other orders** as the Hon'ble Commission may deem fit and proper in the interest of justice and consumer protection.

Yours sincerely,

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**Enclosures**

**Annexure-I:** Comprehensive Analysis Report & Objections/Suggestions– YTPS Unit 1 & 2 ARR Filings: Capital Cost, DPR vs Actual, Cost & Time Overruns

## **Objections/Suggestions on YTPS Unit 1 & 2 ARR Filings pertains to TGGENCO**

### **EXECUTIVE SUMMARY**

#### **Project Overview**

- **Capacity:** 5×800 MW (4,000 MW total) Super-Critical Coal-Based Thermal Power Station
- **Location:** Veerlapalem Village, Dameracherla Mandal, Nalgonda District, Telangana
- **Implementing Agency:** Telangana State Power Generation Corporation Limited (TSGENCO)
- **EPC Contractor:** Bharat Heavy Electricals Limited (BHEL)
- **Technology:** Super-critical once-through boiler technology

#### **Critical Findings**

<b>Parameter</b>	<b>Original DPR (2015)</b>	<b>Revised (2025)</b>	<b>Increase</b>	<b>% Increase</b>
Total Project Cost (5×800 MW)	₹25,099.42 Cr	₹36,131.99 Cr	₹11,032.57 Cr	44.0%
Cost per MW	₹6.27 Cr/MW	₹9.03 Cr/MW	₹2.76 Cr/MW	44.0%
Capital Cost (excluding IDC)	₹16,999.77 Cr	₹27,269.87 Cr	₹10,270.10 Cr	60.4%
IDC & Financing Charges	₹8,849.09 Cr	₹8,862.12 Cr	₹13.03 Cr	0.1%

Table 1: Critical Findings - Cost Escalation Summary

#### **Unit-1 Specific Data:**

- **Actual Capital Cost as on COD (12.07.2025):** ₹6,895.13 Cr (including IDC)
- **Capital Cost excluding IDC:** ₹5,437.51 Cr
- **IDC Component:** ₹1,457.62 Cr

### **1. DPR vs ACTUAL CAPITAL COST COMPARISON**

### 1.1 Total Project Cost Evolution (5×800 MW)

Cost Component	Original DPR (2015)	Revised-1 (2017)	Revised-2 (2023)	Revised-3 (2025)
Equipment Cost (EPC)	₹12,532.30 Cr	₹12,727.80 Cr	₹12,727.80 Cr	₹12,727.80 Cr
Civil Works	₹3,160.00 Cr	₹5,057.50 Cr	₹6,398.50 Cr	₹6,398.50 Cr
Establishment Cost	₹741.89 Cr	₹741.89 Cr	₹884.08 Cr	₹884.08 Cr
Startup Fuel	₹50.00 Cr	₹50.00 Cr	₹700.00 Cr	₹700.00 Cr
CSR	₹119.86 Cr	₹119.86 Cr	₹100.40 Cr	₹144.53 Cr
Township	-	-	-	₹1,300.00 Cr
Sub-Total (Excl. IDC)	₹21,526.48 Cr	₹24,729.73 Cr	₹27,269.87 Cr	₹27,269.87 Cr
IDC	₹3,572.94 Cr	₹4,265.63 Cr	₹8,309.54 Cr	₹8,862.12 Cr
<b>Total Project Cost</b>	<b>₹25,099.42 Cr</b>	<b>₹29,965.48 Cr</b>	<b>₹34,542.95 Cr</b>	<b>₹36,131.99 Cr</b>

Table 2: Total Project Cost Evolution (5×800 MW)

### 1.2 Unit-1 Specific Cost Breakdown (as on COD: 12.07.2025)

Major Head	Original Estimate	Expenditure (31.07.2025)	Balance	% Complete
Equipment Cost (EPC)	₹4,756.86 Cr	₹3,794.92 Cr	₹961.94 Cr	79.8%
Civil Works (EPC)	₹448.27 Cr	₹439.58 Cr	₹8.69 Cr	98.1%
EPC Works Total	₹5,205.13 Cr	₹4,234.50 Cr	₹970.63 Cr	81.4%
Land	₹528.14 Cr	₹492.03 Cr	₹36.11 Cr	93.2%
Civil Works (Non-EPC)	₹3,821.42 Cr	₹0.31 Cr	₹2,375.23 Cr	0.01%
Establishment Cost	₹884.08 Cr	₹147.82 Cr	₹52.26 Cr	73.9%

Startup Fuel	₹700.00 Cr	₹76.22 Cr	₹572.31 Cr	10.9%
CSR	₹100.40 Cr	₹8.02 Cr	₹82.89 Cr	8.0%
Capital Cost (Excl. IDC)	₹27,269.87 Cr	₹4,466.87 Cr	₹6,372.28 Cr	40.4%
IDC	₹8,862.12 Cr	₹1,457.62 Cr	-	16.4%
<b>Total (incl. IDC)</b>	<b>₹36,131.99 Cr</b>	<b>₹5,924.49 Cr</b>	<b>₹6,372.28 Cr</b>	<b>43.9%</b>

Table 3: Unit-1 Specific Cost Breakdown (as on COD: 12.07.2025)

## 2. HEAD-WISE COST DEVIATION ANALYSIS

### 2.1 Major Areas of Cost Escalation

#### A. Civil Works - Maximum Deviation

- **Original DPR (2015):** ₹3,160.00 Cr
- **Revised-3 (2025):** ₹6,398.50 Cr
- **Increase:** ₹3,238.50 Cr (+102.5%)

#### Breakdown of Civil Works Increase:

Item	Original	Revised	Increase	% Change
Township (Permanent)	Nil	₹1,101.70 Cr	₹1,101.70 Cr	New
Roads, Bridges, Culverts	₹470.00 Cr	₹680.00 Cr	₹210.00 Cr	+44.7%
Marshalling Yard & Railway	₹450.00 Cr	₹500.00 Cr	₹50.00 Cr	+11.1%
FGD, SCR, ESP Civil Works	₹100.00 Cr	₹150.00 Cr	₹50.00 Cr	+50.0%
External Water System	₹175.00 Cr	₹354.30 Cr	₹179.30 Cr	+102.5%
Ash Pond	₹125.00 Cr	₹230.00 Cr	₹105.00 Cr	+84.0%

Green Belt & Soil Erosion	₹50.00 Cr	₹120.00 Cr	₹70.00 Cr	+140.0%
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Table 4: Breakdown of Civil Works Increase

**Reasons for Civil Works Escalation:**

1. Township Addition (₹1,300 Cr): Not originally envisaged; added for employee housing
2. Environmental Compliance: FGD, SCR, ESP systems requiring additional civil infrastructure
3. Water Infrastructure: Extended pipeline (20 km from Krishna River)
4. Forest Department Obligations: Enhanced green belt, soil erosion mitigation
5. Design Changes: Switch yard re-design (63 KA fault level instead of 50 KA)

**B. Environmental Equipment (FGD/SCR) - New Addition**

- **Original DPR:** Not included
- **Revised Cost:** ₹2,500.00 Cr (Mechanical)
- **Total Impact:** ~₹4,150 Cr (Capital) + ₹332 Cr/annum (O&M)

**Environmental Additions (MoEF Notification SO 3305(E) dated 07.12.2015):**

System	Purpose	Capital Cost	Recurring Cost
FGD	SOx reduction to <100 mg/Nm <sup>3</sup>	₹3,000 Cr	₹250 Cr/annum
SCR	NOx reduction to <100 mg/Nm <sup>3</sup>	Included in FGD	₹50 Cr/annum
High-Efficiency ESP	PM to <30 mg/Nm <sup>3</sup>	₹1,150 Cr	₹32 Cr/annum
Total Environmental	-	₹4,150 Cr	₹332 Cr/annum

Table 5: Environmental Additions (MoEF Notification SO 3305(E) dated 07.12.2015)

**C. Startup Fuel - 1,300% Escalation**

- **Original DPR:** ₹50.00 Cr
- **Revised:** ₹700.00 Cr
- **Increase:** ₹650.00 Cr (+1,300%)

**Reasons:**

- Longer startup/commissioning period due to project delays
- Multiple unit synchronizations and trial runs
- Extended stabilization requirements for super-critical technology
- Support fuel requirements during trial operations

**D. IDC (Interest During Construction) - Massive Impact**

- **Original DPR:** ₹3,572.94 Cr (12% interest rate)
- **Revised-3:** ₹8,862.12 Cr
- **Increase:** ₹5,289.18 Cr (+148.1%)
- **IDC as % of Total Project Cost:** 24.5% (Revised) vs 14.2% (Original)

**IDC Escalation Drivers:**

1. Extended Project Duration: 92 months actual vs 64 months planned (+44% delay)
2. Delayed Commissioning: 3.5-4 years delay per unit
3. Increased Loan Amounts: ₹27,098.99 Cr debt vs ₹17,569.59 Cr planned
4. Litigation Delays: NGT appeal (2020-2022) suspended EC

**2.2 Cost Deviation Summary Table**

Cost Head	DPR (2015)	Actual/Revised (2025)	Deviation	% Change	Classification
Civil Works	₹3,160.00 Cr	₹6,398.50 Cr	+₹3,238.50 Cr	+102.5%	Maximum Deviation
Township (New)	₹0.00 Cr	₹1,300.00 Cr	+₹1,300.00 Cr	New Item	Scope Addition
FGD/SCR/Environmental	₹0.00 Cr	₹4,150.00 Cr	+₹4,150.00 Cr	New Item	Regulatory Mandate
Startup Fuel	₹50.00 Cr	₹700.00 Cr	+₹650.00 Cr	+1,300%	Delay-Driven
IDC	₹3,572.94 Cr	₹8,862.12 Cr	+₹5,289.18 Cr	+148.1%	Delay-Driven
Equipment (EPC)	₹12,532.30 Cr	₹12,727.80 Cr	+₹195.50 Cr	+1.6%	Minimal Deviation

Establishment Cost	₹741.89 Cr	₹884.08 Cr	+₹142.19 Cr	+19.2 %	Moderate
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Table 6: Cost Deviation Summary Table

### 3. TIME OVERRUN ANALYSIS

#### 3.1 Project Schedule - Original vs Actual

Unit	Original COD	1st Extension	2nd Extension	Actual/Expected COD	Total Delay (Months)
Unit-1	17.10.2021	28.02.2023	31.12.2023	12.07.2025	45 months
Unit-2	17.10.2021	01.03.2023	31.12.2023	25.01.2025	40 months
Unit-3	17.10.2022	30.04.2023	31.10.2024	Oct-2025	36 months
Unit-4	17.10.2022	31.05.2023	30.09.2024	Oct-2025	36 months
Unit-5	17.10.2022	30.06.2023	31.12.2024	Feb-2026	40 months

Table 7: Project Schedule - Original vs Actual

#### Key Dates:

- **Zero Date:** 17.10.2017 (BHEL commenced construction works)
- **Original Project Duration:** 64 months (Unit 1-3: 52 months; Unit 2-4: 58 months; Unit 5: 64 months)
- **Actual Duration (Unit-1):** ~92 months (+44% extension)

#### 3.2 Causes of Time Overrun

##### EXTERNAL / PARTLY UNCONTROLLABLE FACTORS

Cause	Impact	Duration	Cost Impact
Environmental Clearance Litigation	NGT Appeal No. 15/2020 suspended EC	~28 months	High IDC

COVID-19 Pandemic	Work stoppage, labor shortage	6-8 months	Medium
Change in Environmental Norms	MoEF Notification mandating FGD/SCR/ESP	12-15 months	₹4,150 Cr
Forest Clearance Process	Stage-II Forest Clearance (2,095.28 acres)	8-10 months	₹845 Cr
400 kV Switch Yard Re-design	Fault level revised from 50 KA to 63 KA	6-8 months	₹200 Cr (est.)
Water Allocation Delays	ICAD Department allocation process	4-6 months	Low

Table 8: External/Partly Uncontrollable Factors

**Total External Delay:** ~64-75 months (overlapping)

**INTERNAL / CONTROLLABLE FACTORS**

Cause	Impact	Duration	Cost Impact	Avoidability
Delayed Payments to BHEL	Work stoppage; ₹3,100 Cr pending bills	12-18 months	High IDC	High
Railway Siding Delays	Dedicated railway line incomplete	10-12 months	Medium	Moderate
Land Acquisition & RR	Delayed compensation to PDFs and PAFs	6-8 months	₹285.81 Cr	Moderate
Weak Project Coordination	Interface issues between agencies	Continuous	High	High
Township Planning	Late decision to build township	8-10 months	₹1,300 Cr	High
Poor Cash Flow Management	Delayed fund disbursement	8-12 months	High IDC	Very High

Table 9: Internal/Controllable Factors

**Total Internal Delay:** ~44-60 months (overlapping)

### 3.3 Liquidated Damages (LD)

Unit	Scheduled COD	Actual COD	LD Recoverable (per Contract)
Unit-1	17.10.2021	12.07.2025	₹63.45 Cr
Unit-2	17.10.2021	25.01.2025	₹63.45 Cr
Unit-3	17.10.2022	Oct-2025	₹63.45 Cr
Unit-4	17.10.2022	Oct-2025	₹63.45 Cr
Unit-5	17.10.2022	Feb-2026	₹63.45 Cr
Total	-	-	₹317.25 Cr

Table 10: Liquidated Damages (LD)

**Note:** Actual LD recovery depends on force majeure claims, variations, and settlement negotiations with BHEL.

## 4. COST IMPACT OF TIME OVERRUN

### 4.1 Additional IDC Due to Delays

**Original IDC Calculation (64 months, 12% interest):**

- IDC: ₹3,572.94 Cr

**Revised IDC (92 months actual, 12% interest):**

- IDC: ₹8,862.12 Cr
- Additional IDC: ₹5,289.18 Cr

**Estimated Delay-Attributable IDC:**

- Delay-induced component: ~₹4,500-5,000 Cr (assuming 28-month delay)
- Annual IDC rate: ~₹1,500-2,000 Cr/year

### 4.2 Escalation in EPC Contract Values

**EPC Contract Details (BHEL):**

Contract Type	Original PO (29.03.2018)	Amendments	Escalation Clause
Supply Contract	₹14,482.33 Cr	₹250 Cr (ERV/CDV variation)	Firm Price (with variations)

Erection & Commissioning	₹2,234.07 Cr	Switch yard redesign	Firm Price
Civil Contract	₹3,728.14 Cr	Switch yard redesign	Firm Price
Total EPC	₹20,444.54 Cr	~₹500-600 Cr (est.)	Limited Escalation

Table 11: EPC Contract Details (BHEL)

**Escalation Impact:**

- ERV/CDV (Exchange Rate/Customs Duty Variation): ₹250 Cr (acknowledged)
- Switch Yard Redesign: ₹200-300 Cr (estimated)
- Total Contract Escalation: ~₹500-600 Cr (+2.4-2.9%)

**Note:** Firm-price EPC contract minimized escalation exposure; however, delays increased establishment, overheads, and IDC.

**4.3 Establishment & Overhead Costs**

**Original Estimate:** ₹741.89 Cr

**Revised:** ₹884.08 Cr

**Increase:** ₹142.19 Cr (+19.2%)

**Delay Impact:**

- Extended project duration → prolonged site establishment, manpower, utilities
- Estimated delay-driven component: ₹80-100 Cr

**4.4 Total Cost of Delays (Estimated)**

Cost Head	Delay Impact	Amount (₹ Cr)
Additional IDC	28-month extension	₹4,500-5,000 Cr
Contract Escalation	ERV/CDV, design changes	₹500-600 Cr
Establishment Cost Overrun	Extended duration	₹80-100 Cr
Startup Fuel	Prolonged trials	₹400-500 Cr
Additional Overheads	Site operations	₹200-300 Cr
Total Delay Cost	-	₹5,680-6,500 Cr

Table 12: Total Cost of Delays (Estimated)

**% of Total Project Cost: ~15.7-18.0%**

## 5. JUSTIFIED vs AVOIDABLE COSTS

### 5.1 JUSTIFIED / PARTLY UNAVOIDABLE COSTS

Cost Item	Amount (₹ Cr)	Justification
FGD/SCR/ESP Systems	₹4,150 Cr	Statutory Mandate - MoEF Notification SO 3305(E)
Civil Works for Environmental Systems	₹150 Cr	Required to house FGD, SCR equipment
Water Infrastructure Upgrade	₹179 Cr	COC change from 5.0 to 6.5; FGD water requirement
Green Belt & Soil Conservation	₹70 Cr	Forest Department clearance condition
Switch Yard Re-design (63 KA)	₹200-300 Cr	Technical necessity; grid stability requirements
COVID-19 Impact	₹300-400 Cr (IDC)	Force Majeure event; labor/supply disruptions
Forest Clearance RR	₹845 Cr	Statutory process; 2,095.28 acres forest land
Sub-Total	₹5,894-6,094 Cr	Largely Unavoidable

Table 13: Justified/Partly Unavoidable Costs

### 5.2 POTENTIALLY AVOIDABLE / IMPRUDENTLY INCURRED COSTS

Cost Item	Amount (₹ Cr)	Basis for Classification	Avoidability
Delayed Payment to BHEL - IDC Impact	₹1,500-2,000 Cr	₹3,100 Cr pending bills; work stoppages	Very High
Weak Project Management - IDC	₹800-1,200 Cr	Interface failures, coordination delays	High

Late Township Decision	₹1,300 Cr	Not in original DPR; added in Revised-3	High
Railway Siding Delays	₹300-400 Cr (IDC)	Poor coordination with Railways	Moderate- High
Excessive Startup Fuel	₹200-300 Cr	Extended trials beyond normative period	Moderate
Land Acquisition Delays - RR	₹100-150 Cr (IDC)	Delayed compensation to PDFs/PAFs	Moderate
Establishment Cost Overrun	₹80-100 Cr	Prolonged site operations	Moderate
Sub-Total	₹4,280- 5,350 Cr	Potentially Avoidable	

Table 14: Potentially Avoidable/Imprudently Incurred Costs

### 5.3 SUMMARY: Cost Prudence Classification

Category	Amount (₹ Cr)	% of Total Cost Escalation	Recommendation
Justified / Unavoidable	₹5,894-6,094 Cr	53.4-55.2%	Allow full recovery
Potentially Avoidable	₹4,280-5,350 Cr	38.8-48.5%	Disallow/Share burden
Neutral/Unclear	₹588-858 Cr	5.3-7.8%	Requires detailed audit

Table 15: Summary: Cost Prudence Classification

#### Key Prudence Issues:

1. Township (₹1,300 Cr): Not originally approved; scope creep; should be recovered separately or disallowed
2. Delayed Payments to EPC (₹1,500-2,000 Cr IDC): Management failure; burden should not fall on consumers
3. Poor Coordination (₹800-1,200 Cr IDC): Avoidable project management lapses

## 6. ARR & TARIFF IMPLICATIONS FOR CONSUMERS

## 6.1 Annual Fixed Cost Recovery (Unit-1)

As per YTPS Tariff Filing (FY 2025-26):

Fixed Cost Component	Amount (₹ Cr)	Per Unit at 85% PLF (₹/kWh)
O&M Expenses	140.23 Cr	0.50
Depreciation	142.66 Cr	0.51
Interest on Loan	307.13 Cr	1.10
Interest on Working Capital	44.56 Cr	0.16
Return on Equity	201.35 Cr	0.72
Less: Non-Tariff Income	0.00 Cr	0.00
<b>Total Annual Fixed Charges</b>	<b>835.93 Cr</b>	<b>2.99</b>

Table 16: Annual Fixed Cost Recovery (Unit-1)

### Energy Charges (Variable):

- Energy Charge Rate: ₹3.945/kWh
- Total Tariff (Fixed + Variable): ₹6.94/kWh (estimated at 85% PLF)

## 6.2 Impact of Capital Cost Escalation on Tariff

### Scenario Analysis:

Scenario	Capital Cost (Unit-1)	Annual Fixed Cost	Tariff Impact (₹/kWh)
Original DPR (2015)	₹5,019.88 Cr	~₹600-650 Cr	~₹5.50-5.80/kWh
Claimed (2025)	₹6,895.13 Cr	₹835.93 Cr	₹6.94/kWh
If Avoidable Costs Disallowed	₹5,895 Cr	~₹710-730 Cr	~₹6.30-6.50/kWh

Table 17: Impact of Capital Cost Escalation on Tariff

### Consumer Impact:

- Additional Tariff Burden: ~₹1.14-1.44/kWh (+20-26%) compared to original DPR
- If Avoidable Costs Disallowed: Savings of ₹0.44-0.64/kWh for consumers

### Annual Consumer Burden (Unit-1 only, 85% PLF):

- Additional Revenue Requirement: ₹235 Cr/year (₹835.93 Cr - ₹600 Cr)
- Per Household Impact (assuming 400 kWh/month consumption, 50 lakh households): ~₹56/month or ₹672/year

### 6.3 Merit Order & Competitiveness

#### Energy Charge Rate Comparison:

Source	Variable Cost (₹/kWh)	Remarks
YTPS Unit-1 (claimed)	₹3.945	100% domestic coal (G-9 grade, SCCL)
KTPS (existing)	₹3.20-3.50	Pit-head location; lower transport cost
BTPS (existing)	₹3.30-3.60	Pit-head location
Central Generating Stations (CGS)	₹2.80-3.20	NTPC plants; economies of scale
Short-term Market	₹4.00-6.00	Seasonal volatility
Renewable + Storage	₹3.50-4.50	Solar/wind + battery; declining costs

Table 18: Energy Charge Rate Comparison

#### Merit Order Position:

- YTPS is marginally competitive with existing state thermal plants
- Higher than CGS due to non-pit-head location (coal transport cost)
- Lower than short-term market during peak demand
- Comparable to renewables but lacks flexibility

#### Economic Viability Concern:

At ₹6.94/kWh total tariff, YTPS is expensive compared to:

- KTPS/BTPS: ₹5.50-6.20/kWh
- CGS (NTPC): ₹4.50-5.50/kWh
- New RE projects: ₹3.00-4.00/kWh (levelized)

## 7. REGULATORY RECOMMENDATIONS (Consumer-Centric)

### 7.1 Capital Cost Approval

#### Recommendation:

1. Approve Provisional Capital Cost: ₹5,895 Cr for Unit-1 (₹6,895 Cr minus ₹1,000 Cr avoidable costs)
  - Justification: Disallow township (₹260 Cr for Unit-1), delay-driven IDC (₹500 Cr), and management lapses (₹240 Cr)
2. Conduct Independent Prudence Check:
  - Engage reputed CA/engineering consultant to audit:
  - Package-wise contract costs vs market benchmarks
  - Delay attribution (force majeure vs management failure)
  - IDC calculation methodology and delay linkage
  - Township necessity and cost justification
3. Final Approval Subject to Audit:
  - Provisional tariff based on ₹5,895 Cr
  - True-up after independent audit completion (within 12 months of COD)

### 7.2 Avoidable Cost Treatment

#### Specific Recommendations:

Cost Item	Proposed Treatment	Amount (₹ Cr)	Consumer Impact
Township	Disallow from capital cost	₹1,300 Cr (project-wide)	₹260 Cr/unit savings
Delayed Payment IDC	Disallow 70%; share 30% burden	₹1,050-1,400 Cr	₹350-400 Cr/unit savings
Poor Coordination IDC	Disallow 50%; utility bears cost	₹400-600 Cr	₹120-150 Cr/unit savings
Excessive Startup Fuel	Cap at normative levels (₹300 Cr)	₹400 Cr	₹80 Cr/unit savings
Sub-Total Disallowance	-	₹3,150-3,700 Cr	₹810-890 Cr per unit

Table 19: Avoidable Cost Treatment - Specific Recommendations

### **Impact on Unit-1 Tariff:**

- Revised Capital Cost: ₹6,085 Cr (₹6,895 Cr - ₹810 Cr)
- Revised Fixed Cost: ~₹730 Cr/year (-₹105 Cr)
- Revised Tariff: ~₹6.50/kWh (-₹0.44/kWh)

### **7.3 Sharing Mechanism for Unavoidable Delays**

#### **Proposal:**

- Force Majeure Costs (COVID, NGT litigation): 80:20 sharing (80% consumers, 20% utility)
- Statutory Changes (FGD/SCR): 100% consumer recovery (pass-through)
- Management Lapses: 0% consumer recovery (100% utility bears)

#### **Ring-Fencing of IDC:**

- Link IDC to actual project milestones (boiler light-up, synchronization, COD)
- Disallow IDC accrued during work stoppage due to payment defaults

### **7.4 Conditions for Future Cost Claims**

#### **Mandatory Conditions:**

1. Independent Audit: Submit audited project completion report with package-wise actual costs, variations, and justifications
2. Disclosure Requirements:
  - Monthly progress reports with fund utilization
  - Quarterly updates on liquidated damages recovered from BHEL
  - Transparency on force majeure claims vs. actual delays
3. Penalty for Non-Compliance:
  - Cap annual escalation of fixed costs at 3% if audit not submitted
  - Defer true-up approval until full disclosure
4. Contractual Transparency:
  - Submit BHEL EPC contracts, amendments, and supplementary agreements
  - Disclose payment schedules, work stoppage periods, and bill clearance delays
5. Coal Linkage & Fuel Cost:

- Ensure SCCL supplies G-9 grade coal with  $\leq 30\%$  ash content (as committed)
- Monitor landed coal cost vs. DPR assumption (₹6,375/tonne escalated at 4%/year)
- Submit annual coal quality certificates to TGERC

## 8. RED-FLAG ISSUES & INFORMATION GAPS

### 8.1 Critical Red-Flag Issues

#	Issue	Severity	Impact
1	Township Cost (₹1,300 Cr)	High	Not in original DPR; scope creep
2	IDC Escalation (148%)	High	₹5,289 Cr increase; delay-driven
3	Delayed Payments to BHEL	Very High	₹3,100 Cr bills; work stoppages
4	Railway Siding Incomplete	Medium	10.69 km line delayed; logistics risk
5	Non-Forest Land Discrepancy	Medium	2,580.72 acres to be returned
6	Startup Fuel (1,300% increase)	High	₹650 Cr escalation; poor planning
7	No Liquidated Damages Recovery	Medium	₹317.25 Cr LD claimable
8	Environmental Cost Pass-Through	Medium	₹4,150 Cr FGD/SCR without bidding
9	Cost per MW (₹9.03 Cr/MW)	High	44% higher than DPR
10	IDC Methodology	Medium	Calculation opaque

Table 20: Critical Red-Flag Issues

### 8.2 Information Gaps

#### Critical Missing Data:

1. Package-Wise Contract Costs:

- Detailed cost breakup for BHEL supply, erection, civil contracts
  - Variation orders, supplementary agreements, and escalation claims
  - Competitive bidding process documentation (if any)
2. IDC Calculation Methodology:
    - Quarterly loan draw-down schedule vs. IDC accrual
    - Loan-wise interest rates (REC: 11.15%, PFC: 10.20%, HUDCO: 9.47%)
    - Interest capitalization during work stoppage periods
  3. Liquidated Damages:
    - Actual LD recovered from BHEL (₹317.25 Cr claimable)
    - Force majeure claims accepted vs. rejected
    - Settlement agreements, if any
  4. Township Justification:
    - Detailed cost estimate (₹1,300 Cr breakdown)
    - Necessity vs. alternative (market housing, rental allowances)
    - Approval process and timeline
  5. Coal Logistics Status:
    - Railway siding completion date
    - Coal supply agreements with SCCL (14 MTPA linkage)
    - Stockpile readiness and buffer capacity
  6. Actual vs. Planned Expenditure:
    - Monthly/quarterly cash flow vs. DPR phasing
    - Reasons for ₹6,372 Cr balance expenditure (as of Jul 2025)
  7. Environmental Compliance Costs:
    - FGD/SCR vendor selection process
    - Competitive benchmarking vs. other TPPs (NTPC, Adani, Tata)
    - O&M cost assumptions (₹332 Cr/annum) vs. industry norms
  8. Forest Land Utilization:
    - Actual usage of 4,676 acres cleared vs. 2,095.28 acres diverted
    - Plan for 2,580.72 acres excess land (return to Forest Dept?)
    - Green belt development status (1,352 acres planned)

### **8.3 Data Required from TSGENCO**

## **Immediate Submission to TGERC:**

1. Audited Project Completion Report (by chartered accountant + technical consultant)
2. EPC Contract Documents: BHEL supply, erection, civil contracts with amendments
3. IDC Calculation Workbook: Loan-wise, quarter-wise draw-down and interest accrual
4. Liquidated Damages Statement: Claimed, recovered, waived, and pending amounts
5. Township Cost Justification: DPR, approvals, necessity, and alternative analysis
6. Coal Supply Status: SCCL agreement, quality certificates, stockpile readiness
7. Railway Siding Update: Completion timeline, cost, and coal transport readiness
8. Force Majeure Claims: COVID, NGT litigation impact with documentary evidence
9. Monthly Progress Reports: FY 2021-22 to FY 2025-26 (work vs. fund utilization)
10. Environmental Cost Benchmarking: FGD/SCR vendor quotes, NTPC/industry comparison

## **9. CONSUMER-CENTRIC CONCERNS**

### **9.1 Affordability & Equity**

#### **Key Concerns:**

1. Tariff Burden: ₹6.94/kWh is 20-26% higher than DPR estimate (₹5.50-5.80/kWh)
  - Impact on households: ~₹672/year additional burden
  - Impact on industries: Competitiveness erosion; migration to captive/renewables
2. Cross-Subsidy: If YTPS tariff is pooled with cheaper CGS/existing plants:
  - Domestic/agricultural consumers may not face full impact
  - Industrial/commercial consumers bear disproportionate burden
3. Stranded Asset Risk: At ₹6.94/kWh, YTPS may become uncompetitive within 5-7 years:
  - Renewable energy + storage costs declining (~₹3.50-4.00/kWh by 2030)
  - YTPS may run at <50% PLF → higher per-unit fixed cost
4. Intergenerational Equity: 25-year asset life means 2-3 decades of cost recovery
  - Future consumers bear burden of today's management failures

- Depreciation + loan repayment locked in for 15 years

## 9.2 Transparency & Accountability

### Gaps:

1. No Public Consultation on Cost Escalation:
  - Original DPR (₹25,099 Cr) approved in 2015
  - Revised-3 (₹36,131 Cr) in 2025 → +44% escalation
  - No public hearing on cost escalation impact on tariffs
2. Delayed Payment Issue:
  - BHEL's ₹3,100 Cr pending bills publicly reported (Jan 2024)
  - No disclosure on who caused delay (TSGENCO, State Govt, DISCOM non-payment?)
  - Consumers penalized via IDC for state's fiscal mismanagement
3. Lack of Comparative Benchmarking:
  - No comparison with NTPC projects (₹6.00-7.00 Cr/MW)
  - No analysis of make-or-buy decision (build YTPS vs. procure from CGS/market)

## 9.3 Long-Term Viability

### Questions for TGERC:

1. Energy Security vs. Cost:
  - Is YTPS necessary given:
  - Telangana's peak demand ~15,000 MW (FY 2025-26)
  - Existing capacity + CGS share adequate?
  - Cheaper alternatives (renewables, interstate procurement)?
2. Fuel Security:
  - SCCL coal linkage (14 MTPA) reliability?
  - Ash content guarantee ( $\leq 30\%$ ) enforcement?
  - Transport cost volatility (rail freight escalation)?
3. Environmental Liabilities:
  - FGD/SCR O&M cost (₹332 Cr/year) → tariff escalation over time
  - Ash disposal challenges (3.99 MTPA; 100% utilization target by Year 4)

- Water stress (3.72 TMC/year from Krishna; impact on agriculture?)

## 10. CONCLUSIONS & SUMMARY

### 10.1 Key Findings

1. Capital Cost Escalation: **₹11,032.57 Cr (+44%) from DPR to Revised-3**
  - Maximum Deviation: Civil Works (+102.5%), Startup Fuel (+1,300%), IDC (+148%)
  - Per MW Cost: ₹9.03 Cr/MW (vs. ₹6.27 Cr/MW DPR)
2. Time Overrun: 45 months delay for Unit-1 (40 months for Unit-2)
  - External Factors: NGT litigation (28 months), COVID (6-8 months), environmental norms change
  - Internal Factors: Delayed BHEL payments, poor coordination, railway siding delays
3. Avoidable Costs: ₹4,280-5,350 Cr (38.8-48.5% of escalation)
  - Township: ₹1,300 Cr (scope creep; not in DPR)
  - Delayed Payment IDC: ₹1,500-2,000 Cr (management failure)
  - Poor Coordination IDC: ₹800-1,200 Cr (project management lapses)
4. Tariff Impact: ₹6.94/kWh (claimed) vs. ₹5.50-5.80/kWh (DPR)
  - Additional Burden: ~₹672/year per household
  - Competitiveness Risk: Higher than CGS, KTPS/BTPS; comparable to renewables

### 10.2 Consumer Impact Assessment

Aspect	Impact	Severity
Tariff Increase	+20-26% vs. DPR	High
Household Burden	₹672/year additional	Medium
Industrial Competitiveness	Erosion; migration to captives	High
Stranded Asset Risk	If RE costs decline	Medium
Transparency Deficit	No public consultation on escalation	High
Accountability Gap	Delayed payments; LD non-recovery	Very High

Table 21: Consumer Impact Assessment

### **10.3 Regulatory Action Plan (TGERC)**

#### **Immediate Actions:**

1. Reject Full Capital Cost Claim: Cap at ₹5,895 Cr per unit (disallow ₹810-890 Cr)
2. Order Independent Audit: Within 3 months; appoint CA + technical consultant
3. Issue Show-Cause Notice: TSGENCO to justify:
  - Township cost (₹1,300 Cr)
  - Delayed payments to BHEL
  - Liquidated damages non-recovery
4. Provisional Tariff: Based on prudent capital cost (₹5,895 Cr); true-up post-audit

#### **Medium-Term Actions (6-12 months):**

1. Approve Prudent Capital Cost: Post-audit; disallow avoidable costs
2. Impose Sharing Mechanism: 80:20 for force majeure; 0:100 for management lapses
3. Ring-Fence IDC: Link to milestones; disallow accrual during payment defaults
4. Mandate Transparency: Monthly progress reports, LD recovery status, contract disclosures

#### **Long-Term Actions:**

1. Monitor Performance: Coal quality, plant availability, O&M cost vs. norms
2. Review Tariff Annually: True-up based on actual vs. normative costs
3. Consumer Protection: Cap annual tariff escalation at inflation + 2%
4. Stranded Asset Mitigation: Diversify portfolio; promote RE + storage

### **10.4 Final Recommendations**

#### **For TGERC:**

- ✓ Approve Provisional Capital Cost: ₹5,895 Cr per unit (disallow ₹1,000 Cr avoidable costs)
- ✓ Conduct Independent Prudence Audit: Within 6 months of COD
- ✓ Disallow Township from Capital Cost: Recover separately or allocate to equity
- ✓ Impose 50% Disallowance on Management-Driven IDC: Share burden for poor coordination
- ✓ Cap Startup Fuel at Normative Levels: Disallow excess ₹400 Cr
- ✓ Mandate Liquidated Damages Recovery: From BHEL; credit to consumers

- ✓ Ring-Fence Future IDC: Link to milestones; no accrual during payment defaults
- ✓ Order Quarterly Compliance Reports: Transparency on coal quality, availability, O&M costs

**For Consumers:**

- ✓ Demand Transparency: RTI applications for EPC contracts, payment schedules, LD status
- ✓ Challenge Avoidable Costs: Public hearing submissions during tariff approval
- ✓ Monitor Performance: Plant Load Factor, coal quality, O&M vs. norms
- ✓ Seek Accountability: For delayed payments, cost escalation, time overruns

**ANNEXURES**

**Annexure A: Data Tables**

**Table A.1: DPR Cost Evolution (₹ Crore)**

Head	DPR 2015	Rev-1 (2017)	Rev-2 (2023)	Rev-3 (2025)	Change (%)
Equipment (EPC)	12,532.30	12,727.80	12,727.80	12,727.80	+1.6%
Civil Works	3,160.00	5,057.50	6,398.50	6,398.50	+102.5%
Environmental (FGD/SCR)	0.00	2,500.00	4,150.00	4,150.00	New
Township	0.00	0.00	0.00	1,300.00	New
Sub-Total (Excl. IDC)	21,526.48	24,729.73	27,269.87	27,269.87	+26.7%
IDC	3,572.94	4,265.63	8,309.54	8,862.12	+148.1%
Total	25,099.42	29,965.48	34,542.95	36,131.99	+44.0%

Table 22: Table A.1: DPR Cost Evolution (₹ Crore)

**Table A.2: Unit-1 Expenditure Status (₹ Crore)**

Head	Original	Spent (Jul-25)	Balance	% Done
EPC Works	5,205.13	4,234.50	970.63	81.4%

Civil (Non-EPC)	3,821.42	0.31	2,375.23	0.01%
Land	528.14	492.03	36.11	93.2%
Establishment	884.08	147.82	52.26	73.9%
Startup Fuel	700.00	76.22	572.31	10.9%
CSR	100.40	8.02	82.89	8.0%
Sub-Total (Excl. IDC)	27,269.87	4,466.87	6,372.28	40.4%
IDC	8,862.12	1,457.62	-	16.4%
Total	36,131.99	5,924.49	6,372.28	43.9%

Table 23: Table A.2: Unit-1 Expenditure Status (₹ Crore)

**Table A.3: Time Overrun Summary**

Unit	Original COD	Actual COD	Delay (Months)	LD (₹ Cr)
Unit-1	17.10.2021	12.07.2025	45	63.45
Unit-2	17.10.2021	25.01.2025	40	63.45
Unit-3	17.10.2022	Oct-2025	36	63.45
Unit-4	17.10.2022	Oct-2025	36	63.45
Unit-5	17.10.2022	Feb-2026	40	63.45
Total	-	-	Average: 39	317.25

Table 24: Table A.3: Time Overrun Summary

**Annexure B: Methodology Notes**

**IDC Calculation Methodology:**

- Interest Rate: 12% per annum (blended rate)
- Compounding: Quarterly
- Debt:Equity Ratio: 75:25 (Revised-3) vs. 70:30 (Original DPR)
- Loan Draw-Down: Phased based on quarterly expenditure milestones

**Avoidable Cost Assessment:**

- High Avoidability: Management lapses; delayed payments; poor coordination; >70% attributable to utility
- Moderate Avoidability: Coordination failures; planning gaps; 40-60% attributable
- Low Avoidability: External factors; market changes; <30% attributable
- Unavoidable: Statutory mandates; force majeure; 0% attributable