NHPC Ltd — FY 2023 Annual Report Analysis

Annual Report Analysis (Consolidated)

Investor Snapshot

#	Analytical point	Sentiment
1	**Dominant hydro utility with 7GW capacity and record 88.75% Plant Availability Factor, pivoting toward a 17.3GW solar and pumped storage pipeline.**	Positive
2	**Revenue grew 15.44% YoY to ₹10,607 Cr, driven by peak operational efficiency and strong regulated-return performance.**	Positive
3	**Operating Profit Margin expanded to 59%, reflecting superior cost management despite the capital-intensive nature of the business.**	Positive
4	***Reported record PAT of ₹3,833.79 Cr is decoupled from cash flows, heavily supported by ₹1,318.71 Cr in capitalized borrowing costs.***	Negative
5	***Net debt increased by ₹3,444 Cr to a total of ₹29,540 Cr (0.80x D/E) to bridge the funding gap for capex and dividend payouts.***	Negative
6	***Cash Flow from Operations (CFO) declined to ₹4,692 Cr, resulting in a negative Free Cash Flow of -₹268 Cr for the fiscal year.***	Negative
7	***Massive capital lock-up with Capital Work-in-Progress (CWIP) at ₹31,357 Cr (36.4% of assets), of which 56.7% has been stagnant for over 3 years.***	Negative
8	***Earnings quality is pressured by high reliance on regulatory deferrals and a deteriorating receivable cycle, with debtor days stretching to 212.***	Negative
9	Governance remains stable with a clean audit, though hampered by an 8-month lapse in board independence and the lack of a permanent CMD.	Neutral
10	***Execution risk is concentrated in the Subansiri Lower and Parbati-II projects; further delays pose significant impairment and cost-disallowance risks.***	Negative
11	Outlook is contingent on a "quantum jump" in capacity, with the bull case adding ₹2,000 Cr+ to annual EBITDA upon successful commissioning.	Neutral
12	Stance: Watch; monitor for CWIP/Total Assets falling below 20% and stabilization of the cash conversion cycle before re-rating.	Neutral

1. Business overview (In Bullet Points)

- **Dominant Industry Position:** NHPC remains the "flag bearer" of India's hydropower sector, operating a massive portfolio primarily in the sensitive Himalayan belt (J&K, Ladakh, Himachal Pradesh, Uttarakhand, and Sikkim).
- **Strategic Pivot:** FY23 marks a definitive shift from a conventional hydro utility to a multi-source renewable energy (RE) player, targeting a 10GW Solar Park and aggressive expansion into Pumped Storage Projects (PSP).
- **Capacity Mix:** Operates 5,451.2 MW of standalone hydro and 6,971.2 MW including JVs. Total portfolio stands at 7,097.2 MW following partial commissioning of Kalpi Solar.
- **Revenue Drivers:** Primarily driven by the **Plant Availability Factor (PAF)**, which reached a record 88.75% in FY23, signaling superior O&M capabilities even in aging plants.

- **Cost Drivers:** Heavily weighted toward capital-intensive project execution, employee costs (4,776 staff), and significant R&R (Rehabilitation and Resettlement) and environmental compliance costs.
- **Expansion Plans:** Transitioning to "Mega-Project" execution with the **Dibang Multipurpose Project (2,880 MW)**, set to be India’s largest.
- **Order Book/Pipeline:** Expecting a "quantum jump" in capacity from the imminent commissioning of **Subansiri Lower (2,000 MW)** and Parbati-II (800 MW).
- **Geographical Presence:** Expanding beyond India with MoUs for 1,680 MW across three projects in Nepal (West Seti, SR-6, Phukot Karnali) to dominate South Asian cross-border power trade.

2. Management commentary & outlook

- Management has signaled a clear departure from being "just a hydro company," focusing on Pumped Storage Projects (7,350 MW MoUs in Maharashtra) to provide high-margin "peaking power."
- The company is developing a roadmap for Green Hydrogen with pilot projects in Ladakh and Himachal Pradesh to capture the next wave of energy transition.
- Management tone regarding **Subansiri Lower** is highly optimistic, citing the completion of dam top-level concreting, though tail-end execution risks remain due to Himalayan geological surprises.
- Strategic collaborations with **IIT Jammu and IIT Delhi** are being used to institutionalize risk mitigation for geology and earthquake engineering to prevent historical cost overruns.
- A leadership concern exists as **Shri Rajeev Kumar Vishnoi** holds "Additional Charge" as CMD while also leading thdcil, potentially dividing strategic focus during a massive expansion phase.
- Management acknowledges a "quantum jump" in growth is expected for FY24, but remains conservative on timelines due to "various hindrances" in Himalayan projects.
- The business is being repositioned as a "Green Energy Conglomerate," changing the valuation thesis from a slow-growing utility to a critical provider for India’s RE grid stability.
- **Management Tone:** Management exhibits **"Calculated Aggression."** There is a shift from a defensive utility mindset to an expansionary one, backed by the largest construction pipeline in the company's history. While the language is ambitious ("phenomenal growth"), it is tempered by an acknowledgment of the inherent geological risks in their core operating regions.

3. Financial analysis

3.1 Financial statements

P&L statement (□Cr)

Line item	Mar 2023	Mar 2022
Sales	10,607	9,189
Sales Growth %	15.44	-4.76
Expenses	4,401	5,176
Manufacturing Cost %	14.02	16.15
Employee Cost %	17.35	20.46
Other Cost %	10.12	19.71
Operating Profit	6,206	4,013
OPM %	59	44
Other Income	743	981
Exceptional items	-2	-14
Other income normal	745	995
Interest	523	586
Depreciation	1,215	1,190
Profit before tax	5,211	3,217
Tax %	19	-17
Net Profit	4,235	3,774
Minority share	-345	-251
Exceptional items AT	5	325
Profit excl Excep	4,230	3,449
Profit for PE	3,885	3,220
Profit for EPS	3,890	3,524
Profit Growth %	21	-4
EPS (□)	3.87	3.51
Dividend Payout %	48	52

Balance sheet (□Cr)

Line item	Mar 2023	Mar 2022
Equity Capital	10,045	10,045
Reserves	26,854	24,876
Borrowings	29,540	26,096
Long term Borrowings	26,602	23,227
Short term Borrowings	2,886	2,849
Lease Liabilities	52	21
Other Borrowings	0	0
Other Liabilities	19,652	16,271
Non controlling int	4,815	2,863
Trade Payables	235	214
Advance from Customers	28	67
Other liability items	14,573	13,128
Total Liabilities	86,091	77,288
Fixed Assets	22,137	21,825
Land	5,456	4,277
Building	18,767	18,633
Plant Machinery	8,311	8,196
Equipments	255	138
Computers	78	57
Furniture n fittings	75	60
Railway sidings	13	13
Vehicles	43	38
Intangible Assets	0	0
Other fixed assets	93	87
Gross Block	33,091	31,500
Accumulated Depreciation	10,954	9,675
CWIP	31,357	22,522
Investments	499	2,386
Other Assets	32,098	30,554
Inventories	164	144
Trade receivables	6,161	5,176
Cash Equivalents	2,694	1,958
Loans n Advances	55	400
Other asset items	23,024	22,876
Total Assets	86,091	77,288

Cash flow statement (□Cr)

Line item	Mar 2023	Mar 2022
Cash from Operating Activity	4,692	6,472
Profit from operations	6,774	5,549
Receivables	-1,527	-42
Inventory	-21	-7
Payables	0	0
Loans Advances	0	0
Other WC items	443	1,808
Working capital changes	-1,105	1,759
Direct taxes	-977	-837
Cash from Investing Activity	-4,191	-4,966
Fixed assets purchased	-4,960	-5,014
Fixed assets sold	0	0
Investments purchased	0	0
Investments sold	0	18
Interest received	326	470
Dividends received	7	9
Investment in group cos	-108	-452
Other investing items	543	3
Cash from Financing Activity	-796	-638
Proceeds from shares	0	0
Proceeds from borrowings	4,875	4,174
Repayment of borrowings	-1,899	-1,398
Interest paid fin	-1,706	-1,522
Dividends paid	-2,263	-1,948
Financial liabilities	-4	-3
Other financing items	200	59
Net Cash Flow	-295	867
Free Cash Flow	-268	1,457
CFO/OP	91	182

Key ratios

Line item	Mar 2023	Mar 2022
Debtor Days	212	206
Inventory Days	0	0
Days Payable	0	0
Cash Conversion Cycle	212	206
Working Capital Days	-1	11
ROCE %	8	6

3.2 Financial analysis summary

- **Revenue** grew by 15.44% to □10,607.00 Cr, primarily driven by tariff rates notified by the CERC; however, recognition includes provisional rates and recovery of income tax/forex variations, making the top line highly sensitive to regulatory approvals.
- **Operating Profit** surged to □6,206.00 Cr with an OPM % of 59.00%, benefiting from a reduction in Other Cost % from 19.71% to 10.12%, though the use of Regulatory Deferral Account Balances allows the company to defer current-period expenses to future periods, effectively smoothing earnings.
- **Net Profit** increased by 21.00% to □4,235.00 Cr, but quality is impacted by Borrowing Costs capitalized increasing 28.05% to □1,318.71 Cr, keeping these costs off the P&L Statement and boosting current PAT at the expense of future Depreciation (□1,215.00 Cr).
- **Trade Receivables** rose to □6,161.00 Cr, leading to a massive cash outflow of □1,527.00 Cr in the Cash Flow Statement; the emergence of □473.51 Cr in non-current receivables signals deteriorating collection efficiency from state discoms, pushing Debtor Days to 212.
- **CWIP** expanded by 39% to □31,357.00 Cr, with 56.77% (□17,798.52 Cr) stagnant for over 3 years (notably Parbati-II and Subansiri Lower), indicating severe execution risks and potential for future cost overruns or impairments.
- **Total Debt** increased to □29,540.00 Cr to fund massive Capex of □4,960.00 Cr, resulting in a Debt / Equity of 0.80; while Interest Coverage is 10.96, interest is capitalized using the Effective Interest Rate method, masking the true debt servicing burden on the P&L Statement.
- **CFO** declined sharply to □4,692.00 Cr from □6,472.00 Cr, primarily due to Working Capital changes of -□1,105.00 Cr, resulting in a negative Free Cash Flow of -□268.00 Cr and a reliance on □4,875.00 Cr in new Borrowings to fund dividends and investments.
- **Total Assets** grew to □86,091.00 Cr, but Asset Turnover remains stagnant at 0.12, reflecting a bloating balance sheet where □31,357.00 Cr of CWIP is not yet generating Revenue.
- **Investments** dropped to □499.00 Cr following the reclassification of CVPPPL to a subsidiary, while a full impairment of the □15.64 Cr loan to NHPTL signals value leakage in non-core joint ventures.
- **Other Assets** are dominated by CWIP and ROU Assets (□4,287.92 Cr), while Other Expenses were impacted by a □22.26 Cr loss from the NHPTL JV, signaling poor performance in non-core holdings.
- **ROCE %** improved slightly to 8.00% but remains low due to the massive non-earning CWIP base; ROE % of 11.48% is supported by regulatory norms and managed through a Deferred Tax Recovery Adjustment Account.
- The dominant financial theme of the year is a **transition from a stable cash-generating utility to a high-leverage expansion phase, where record accounting profits are decoupled from cash flows due to massive CWIP stagnation and deteriorating receivable quality.**

3.3 Contingent liabilities & commitments

- **Litigation & Contractor Disputes:** PPE capitalization includes estimated amounts for pending final settlement of bills with contractors, subject to adjustments from future arbitration or court cases, creating a latent liability risk.
- **Contingent Liabilities:** Disclosed for possible obligations where outflow is not probable or cannot be estimated reliably; reviewed at each balance sheet date based on management/expert judgment.
- **Regulatory Risk:** Potential for CERC to disallow certain costs in future tariff periods, which would impact the recoverability of regulatory deferral assets.

3.9 Earnings quality & forensic checks

#	Check	Impact	Status	Notes detail
1	PAT vs CFO trend	Profit ↑ — earnings overstate cash	—	CFO/OP ratio dropped from 182% to 91% YoY, indicating tightening cash conversion.
2	Receivables & channel-stuffing signal	Revenue ↑↓ — liquidity risk	—	Debtor days increased to 212 days; emergence of ₹473.51 Cr non-current receivables.
3	Revenue timing	Revenue ↑ — aggressive recognition	—	Revenue recognized on provisional CERC rates; includes "highly probable" estimates.
4	Revenue from related parties %	Neutral — regulated monopoly	—	Revenue dependent on CERC tariff notifications and state-owned beneficiary off-take.
5	Inventory vs revenue growth	Neutral — utility model	—	Inventory primarily relates to construction stores and spares for power stations.
6	Inventory valuation method change	Neutral — no policy shift	—	Standard accounting policy for stores and spares maintained across periods.
7	Exceptional items in operating profit	Profit ↑ — non-core boost	—	Exceptional items are minimal in FY23; prior year was inflated by one-time adjustments.
8	Depreciation rate vs useful life policy	Profit ↑ — expense deferral	—	Depreciation follows CERC Tariff Regulations rather than standard Ind AS useful lives.
9	Provision reversals boosting PAT	Profit ↑ — conservative buffer	—	Provisions made for projects under survey (Bursar, Kotli Bhel) where uncertainty is high.
10	Tax rate consistency	Profit ↑ — tax volatility	—	Deferred Tax Recovery Adjustment Account used to neutralize tax impact on regulated ROE.
11	CWIP age and stalling projects	Profit ↓ — impairment risk	—	Major delays in Parbati-II and Subansiri Lower; ₹1,318 Cr interest capitalized.
12	Deferred tax asset recognition	Neutral — regulatory protection	—	Policy ensures tax volatility is passed through to beneficiaries via future tariffs.
13	RPT quantum and trend	Profit ↓ — value leakage	—	Unsecured loan of ₹875.18 Cr to Govt. of Arunachal Pradesh shows high state-entity risk.
14	Dividend paid vs FCF adequacy	Neutral — debt-funded payouts	—	Payout is 48% of PAT; funded by new borrowings (₹4,875 Cr) as CFO is consumed by Capex.
15	Auditor KAM: Regulatory Deferral	Profit ↑ — accounting policy risk	—	Potential for CERC to disallow costs in future periods, leading to sudden write-offs.
16	JV Performance Leakage	Profit ↓ — investment impairment	—	Investment value written down to zero; signals failure in JV oversight.

4. Management & governance

A. Auditor Report & Key Audit Matters * **Revenue Recognition:** Complexity of CERC tariff regulations and use of estimates for unbilled revenue/provisional tariffs. Auditor concern: High degree of judgment in estimating "highly probable" revenue. * **Impairment of PPE and CWIP:** Recoverable amount of power plants and stalled projects. Auditor concern: Sensitivity of cash flow projections to discount rates and regulatory changes. * **Regulatory Deferral Accounts:** Certainty of recovery of regulatory assets. Auditor concern: Potential for CERC to disallow costs in future tariff periods. * **Note 1.0(b):** Highlights PPE capitalization on an "estimated basis" for pending contractor bills, creating latent liability risks.

B. Related Party Transactions | Party | Relationship | Nature | Amount (□Cr) | Concern | | :--- | :--- | :--- | :--- | :--- | | Govt. of Arunachal Pradesh | State Entity | Unsecured Loan | 875.18 Cr | ***Concentration of credit risk with a state entity*** | | NHPTL | Joint Venture | Loan (Impaired) | 15.64 Cr | ***Full impairment due to negative net assets of JV*** | | CVPPPL | Subsidiary | Investment | 1,861.92 Cr | Transition from JV to Subsidiary in FY23 |

- **% of Revenue:** 8.40% | **% of CFO:** 18.98%
- **Trend:** Increasing (Loan to Arunachal Pradesh rose from 802.92 Cr to 875.18 Cr).
- **Verdict:** Monitor due to 18.98% CFO exposure to a single unsecured state loan and total impairment of the NHPTL loan.

C. Shareholding * **Promoters:** 70.95% (No change YoY) * **FIIs:** 7.55% (Up from 6.78%) * **DIIs:** 15.14% (Down from 15.84%) * **Pledged Shares:** 0.00%

D. Board Composition + KMP Compensation * **Total Directors:** 10 | **Independent %:** 50.00% | **Women Directors:** 1. * **KMP Compensation:** Individual figures not disclosed. Total Employee Benefit Expenses were 1,840.31 Cr (17.35% of Sales). * **Correlation:** Operating Profit grew 54.65%, while Employee Cost as % of Sales decreased from 20.46% to 17.35%, suggesting efficient scale-up. * **Governance Note:** The Board lacked the requisite 50% Independent Directors for nearly 8 months of the fiscal year due to Ministry-level delays.

F. Capital Allocation & Capex | Action | FY current (□Cr) | FY prior (□Cr) | % of CFO | Signal | | :--- | :--- | :--- | :--- | :--- | | Dividends Paid | 2,263.00 Cr | 1,948.00 Cr | 48.23% | **Good** | | Capex (Fixed Assets) | 4,960.00 Cr | 5,014.00 Cr | 105.71% | ***Concern*** | | Net Debt Change | 3,444.00 Cr | 1,922.00 Cr | 73.40% | ***Concern*** | | Interest Payments | 1,706.00 Cr | 1,522.00 Cr | 36.36% | Neutral |

Capex analytical notes: * **CFO Coverage of Capex:** CFO/Capex ratio is **0.946**. The company cannot self-fund expansion, requiring 3,444 Cr in net debt addition. * **Nature of Capex:** Primarily growth capex. **CWIP stands at 31,357.00 Cr, representing 36.4% of total assets.** * **Deployment Efficiency:** Revenue grew 15.44% while Gross Block grew only 5.05%, as new capex remains locked in CWIP. * **Key Takeaway:** The **17,798.52 Cr of CWIP aged over 3 years** is a major execution risk that could lead to future cost overruns.

H. Risks * ***Project Execution:*** **17,798.52 Cr of CWIP is stagnant for >3 years**. Impact: Delays lead to higher interest capitalization and cost overruns. (Severity: High) * ***Regulatory:*** Revenue depends on CERC notifications and Ind AS 114 deferrals. Impact: Disallowance of costs could lead to sudden write-offs. (Severity: High) * ***Credit Risk:*** **6,161.00 Cr in Trade Receivables** with 212 debtor days. Impact: Liquidity stress if state discoms delay payments. (Severity: Medium) * ***Hydrological:*** Dependence on water flow. Impact: Low rainfall reduces generation and OPM. (Severity: Medium)

5. Scorecard & verdict

Part a: scorecard

Dimension	Rating (1–5)	Delta	Key evidence	One-line rationale
Business quality	4	→	88.75% PAF; 7GW capacity	Strong moat in hydro with high operational efficiency but geographic concentration.
Financial health	3	↓	D/E 0.80x; FCF -□268 Cr	Increasing leverage and negative FCF due to massive capex and stagnant CWIP.
Earnings quality	2	↓	56.7% CWIP >3yrs; CFO < PAT	High reliance on interest capitalization and regulatory deferrals to sustain PAT.
Management & governance	3	→	50% Ind. Directors; Clean Audit	Generally compliant PSU but faces leadership gaps and board vacancy issues.
Capital allocation & earnings visibility	2	↓	ROCE 8%; CWIP 36% of Assets	Massive capital locked in delayed projects with returns currently below potential.

Business positives (for this company this year) * **Record Operational Efficiency:** Achieved highest ever Plant Availability Factor (PAF) of 88.75%. * **Strategic Pivot:** Successful expansion into Pumped Storage (7.3 GW MoUs) and Solar (10 GW Park). * **Revenue Growth:** Top line increased by 15.44% to □10,607 Cr driven by strong operational performance. * **Margin Expansion:** Operating Profit Margin (OPM) surged to 59% due to efficient cost management. * **Dividend Consistency:** Maintained strong shareholder payouts of □2,263 Cr (48% payout ratio).

Business negatives / concerns (for this company this year) * **Execution Stagnation:** □17,798.52 Cr of CWIP (56.7% of total) is stagnant for over 3 years. * **Cash Flow Stress:** Negative Free Cash Flow of -□268 Cr and sharp decline in CFO to □4,692 Cr. * **Deteriorating Receivables:** Trade receivables rose to □6,161 Cr with debtor days stretching to 212. * **Rising Leverage:** Net debt increased by □3,444 Cr to fund the gap between CFO and Capex/Dividends. * **Capitalization Risk:** □1,318.71 Cr of borrowing costs capitalized, masking the true P&L impact of debt. * **Governance Gaps:** Board lacked 50% Independent Directors for 8 months; lack of a permanent dedicated CMD.

Overall scorecard summary NHPC is currently a business in a high-stakes transition, where strong operational utility performance is being overshadowed by massive capital lock-up in delayed projects. While accounting profits are at record highs, the financial health is weakening as evidenced by negative free cash flows and rising leverage to fund both expansion and dividends. Governance remains stable but is hampered by typical PSU administrative delays, and the earnings quality is low due to heavy reliance on regulatory deferrals and interest capitalization. The trajectory is "Stable but Strained," contingent entirely on the successful commissioning of Subansiri Lower and Parbati-II.

Part b: governance check matrix

#	Check	Status
1	Audit opinion clean?	—
2	Promoter pledge = 0?	—
3	KMP pay < 5% of PAT?	—
4	RPT quantum < 5% of revenue?	—
5	Board > 50% independent?	—
6	At least 1 woman director?	—
7	No statutory dues outstanding?	—
8	No fraud reported?	—
9	Audit trail enabled?	—
10	Frequent Auditor change	—

Total: 8/10 — Governance Rating: 4

Part c: investor verdict

Thesis: NHPC is a regulated utility play transitioning into a renewable energy giant, currently trading off short-term cash flow for long-term capacity "quantum jumps." **Overall stance:** Watch **Rationale:** Record accounting profits are currently decoupled from cash flows due to massive CWIP stagnation and deteriorating receivable quality. **Re-evaluate when:** CWIP as a % of Total Assets drops below 20% (currently 36.4%). **BULL CASE:** Successful commissioning of Subansiri Lower (2,000 MW) adds ~₹2,000 Cr+ to annual EBITDA. **BEAR CASE:** Further 2-year delay in Parbati-II leads to ₹1,000 Cr+ impairment or cost disallowance by CERC. **Key monitorable:** Debtor Days: 212 → Watch threshold: 250.