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FROM COMPLIANCE TO STRATEGY: EVALUATING THE QUALITY OF BRSR IN INDIA'S POWER SECTOR

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Abstract

India's power sector, the backbone of its economic growth and the single largest contributor to national greenhouse gas emissions stands at the intersection of the country's twin imperatives of energy security and decarbonisation. The Business Responsibility and Sustainability Report (BRSR), mandated by the Securities and Exchange Board of India (SEBI) for the top 1,000 listed companies from FY2022-23, provides an unprecedented regulatory framework for structured non-financial disclosure. This paper conducts a rigorous, sector-specific evaluation of BRSR quality among ten leading Indian power sector companies spanning thermal generation, hydropower, renewable energy, and transmission utilities over a three-year longitudinal window (FY2021-22 to FY2023-24).

Employing a bespoke BRSR Quality Index (BQI) comprising four dimensions Disclosure Completeness, Information Quality, Strategic Integration, and Stakeholder Responsiveness. The study finds an average BQI score of 57.8 out of 100 for the power sector in FY2023-24. While disclosure completeness has improved markedly (averaging 74%), strategic integration remains critically underdeveloped (averaging only 52%), revealing a structural gap between regulatory compliance and genuine sustainability governance. Greenhouse gas emission disclosures exhibit high coverage but low comparability; biodiversity, climate scenario analysis, and just transition planning represent critical reporting voids; and Leadership Indicator adoption remains below 45% even in the third mandatory reporting year.

The paper proposes a five-stage BRSR Maturity Model for the power sector and makes targeted recommendations for companies, SEBI, and institutional investors to accelerate the transition from compliance-driven to strategy-anchored sustainability reporting.

Keywords: BRSR, Power Sector, ESG Disclosure, GHG Emissions, Sustainability, Energy.

Introduction

The Indian Power Sector: ESG Significance and Reporting Imperative

India's power sector occupies a distinctive ESG position among all industries. It is simultaneously the economy's largest single consumer of coal (approximately 70% of coal consumption), the largest contributor to CO2 emissions (roughly 50% of national energy-related emissions), and paradoxically, the vehicle for India's most ambitious climate commitments: 500 GW of installed renewable energy capacity by 2030, 50% non-fossil electricity by 2030, and net-zero by 2070. Power sector companies are consequently subject to an extraordinary convergence of regulatory pressures, investor scrutiny, and community expectations that makes the quality of their sustainability disclosures a matter of national strategic consequence.

Prior to BRSR, the Business Responsibility Report (BRR) framework - in use since 2012 - elicited largely symbolic compliance from power companies. Disclosures were characterised by binary yes/no responses, absent quantitative environmental metrics, and a structural disconnect from financial materiality. BRSR's

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design advances significantly on this baseline: it introduces mandatory quantitative indicators for GHG emissions, energy intensity, water withdrawal, waste generation, and occupational safety; it distinguishes Essential from Leadership indicators to incentivise progressive disclosure; and it envisages increasing external assurance requirements over time.

Despite these advances, the quality of BRSR implementation in the power sector remains unevenly studied. Existing scholarship focuses disproportionately on aggregate compliance trends or cross-sector analyses, leaving sector-specific quality assessments largely unexplored. This paper addresses that gap comprehensively.

Research Objectives

The objectives of the research are as follows:

(i) To construct a sector-specific BRSR Quality Index for Indian power companies and score a representative sample across three financial years
(ii) To identify sector-specific environmental, social, and governance disclosure gaps with quantitative evidence
(iii) To analyse the longitudinal trajectory of BRSR quality as the framework matures.
(iv) To propose actionable, power-sector-tailored recommendations for improving disclosure quality and strategic integration.

Scope of the study

The study focuses exclusively on companies whose primary business is electricity generation, transmission, distribution, or integrated power operations. Diversified conglomerates for which power is a subsidiary segment are included only if their BRSR contains a dedicated power segment disclosure. The study period spans FY2021-22 (voluntary BRSR) through FY2023-24 (second mandatory year), enabling both cross-sectional benchmarking and longitudinal trajectory analysis.

Literature Review

Theoretical Foundations of Sustainability Reporting Quality

The intellectual architecture of sustainability reporting quality assessment rests on three mutually reinforcing theoretical traditions. Legitimacy theory (**Suchman, 1995; Dowling & Pfeffer, 1975)** posits that firms disclose sustainability information primarily to maintain their social licence to operate, particularly critical for power companies given their land acquisition controversies, air quality impacts, and coal mine-affected communities. The theory predicts that disclosure volume will increase in response to legitimacy threats, but does not guarantee that disclosure quality specificity, verifiability and materiality will similarly improve.

Stakeholder theory (**Freeman, 1984; Ullmann, 1985)** frames disclosure quality as a function of stakeholder salience. companies facing powerful, legitimate, and urgent stakeholder pressures will produce higher-quality disclosures. For the power sector, the emergence of climate-focused institutional investors as a dominant stakeholder constituency evidenced by the growth of ESG-integrated assets under management globally suggests that market forces may increasingly discipline disclosure quality in ways that regulatory mandates alone cannot.

Signalling theory **(Spence, 1973**) provides the most practically useful lens: companies with genuine sustainability commitments use high-quality disclosures as a credible signal to differentiate themselves from low-commitment peers. This creates a market for reporting quality that complements regulatory requirements

but only if investors and other stakeholders have the analytical capacity to distinguish substantive from symbolic disclosures.

India's Regulatory Journey: BRR to BRSR

The progression from the National Voluntary Guidelines (2011) to the National Guidelines on Responsible Business Conduct (NGRBC, 2018) and subsequently to BRSR (2021) represents a decisive regulatory evolution. The BRR, anchored to nine NVG/NGRBC principles and mandatory for the top 100 listed companies since 2012, elicited extensive academic criticism for its binary disclosure format, absence of quantitative metrics, and susceptibility to boilerplate responses (**Ghosh, 2016; Sanjay & Vijayalakshmi, 2019).**

BRSR's architecture responds to these criticisms through several design innovations: standardised quantitative indicators enabling cross-company comparability; the distinction between Essential (mandatory) and Leadership (aspirational) indicators creating a disclosure spectrum; CEO and CFO certification of BRSR accuracy; and SEBI's stated intention to progressively expand external assurance requirements. The framework also introduces value chain sustainability disclosures conceptually significant for the power sector, where supply chain impacts from coal sourcing and equipment manufacturing are material.

Critical voices have noted persistent limitations: the absence of sector-specific metrics creates interpretive heterogeneity; forward-looking information requirements (targets, scenario analysis, transition plans) remain underdeveloped relative to the TCFD framework; and value chain disclosure requirements lack operational specificity needed for meaningful accountability. These limitations are particularly acute in the power sector, where the energy transition creates structural material risks that current BRSR architecture does not fully capture.

Power Sector Sustainability Reporting: Prior Evidence

Studies of power sector sustainability reporting internationally document a pervasive pattern of selective disclosure and impression management **(Boiral, 2013; Cho et al., 2015).** Utilities with high absolute emissions tend to produce more voluminous sustainability reports consistent with legitimacy theory but the additional volume often reflects narrative framing of transition commitments rather than substantive operational data **(Sullivan & Gouldson, 2017).**

In the Indian context, **Prasad and Vedula (2021)** examined PSU power company annual reports and found that while regulatory compliance data was relatively well-reported, strategic forward-looking disclosures were absent. **Kumar and Sharma (2022)** assessed BRSR voluntary disclosures for BSE 100 companies and found power sector companies among the lowest-quality reporters on strategic integration and stakeholder responsiveness, despite above-average performance on environmental indicator coverage. These findings motivate the present study's more granular and longitudinal assessment.

Methodology

Sample Composition

The study sample comprises ten Indian power sector companies selected to represent the sector's structural diversity across ownership type, technology mix, and market capitalisation. Table 1 presents the sample profile.

Table 1: Sample Profile: Power Sector Companies

Company	Type	Primary Technology	Market Cap	BRSR Years
NTPC Ltd.	PSU	Thermal + Renewable	Large Cap	FY22, FY23, FY24
Power Grid Corp.	PSU	Transmission	Large Cap	FY22, FY23, FY24
NHPC Ltd.	PSU	Hydropower	Large Cap	FY22, FY23, FY24
SJVN Ltd.	PSU	Hydro + Renewable	Mid Cap	FY22, FY23, FY24
Tata Power Co.	Private	Thermal + RE + Distribution	Large Cap	FY22, FY23, FY24
Adani Power Ltd.	Private	Thermal	Large Cap	FY23, FY24
Torrent Power Ltd.	Private	Thermal + Gas + RE	Mid Cap	FY22, FY23, FY24
JSW Energy Ltd.	Private	Thermal + RE + Hydro	Mid Cap	FY22, FY23, FY24
CESC Ltd.	Private	Thermal + Distribution	Mid Cap	FY22, FY23, FY24
Kalpataru Power	Private	Transmission (EPC)	Small Cap	FY23, FY24

Data Sources and Period

The study relies on secondary data obtained from publicly available corporate disclosures. These include:

a) Annual Reports containing BRSR disclosures
b) Standalone Sustainability or ESG Reports
c) Carbon Disclosure Project (CDP) responses
d) Investor presentations and corporate disclosures

The use of secondary ESG data is consistent with prior research on sustainability reporting and disclosure quality (Hahn & Kühnen, 2013; Kumar & Sharma, 2022). Data were collected systematically across all sample companies and financial years to ensure consistency and comparability.

BRSR Quality Index (BQI) Framework

To evaluate the quality of sustainability disclosures, the study develops a **BRSR Quality Index (BQI)**. The index assesses reporting quality across four dimensions:

1. Disclosure Completeness
2. Information Quality
3. Strategic Integration
4. Stakeholder Responsiveness

These dimensions are derived from established sustainability reporting frameworks and prior literature on ESG disclosure quality (GRI, 2021; TCFD, 2017; Hahn & Kühnen, 2013).

Table: BRSR Quality Index (BQI) — Objective Scoring Framework

Dimension	Criteria	Scoring Method	Max Score

Disclosure Completeness	Extent of BRSR indicators disclosed	Percentage of indicators disclosed × 25	25
Information Quality	Clarity, comparability, and reliability of data	1 point each for: quantitative data, year-on-year comparison, standardised methodology, external assurance (scaled to 30)	30
Strategic Integration	Integration of ESG into business strategy	1 point each for: ESG targets, board-level oversight, climate risk disclosure, transition planning, ESG-linked KPIs (scaled to 25)	25
Stakeholder Responsiveness	Stakeholder engagement and accountability	1 point each for: stakeholder mapping, engagement process, grievance mechanism, value chain disclosure (scaled to 20)	20

Findings and Analysis

Composite BQI Scores: Cross-Sectional Results (FY2023-24)

Figure 1 presents composite BQI scores for all ten sample companies in FY2023-24. NTPC leads with a score of 71.4, followed by Power Grid Corporation (68.9) and Tata Power (66.2). Kalpataru Power records the lowest score (41.5), consistent with its smaller scale and less mature sustainability reporting function. The power sector average of 57.8 trails both the broader SEBI top-100 average (estimated at 61.2) and international utilities benchmarks (approximately 68 on equivalent frameworks).

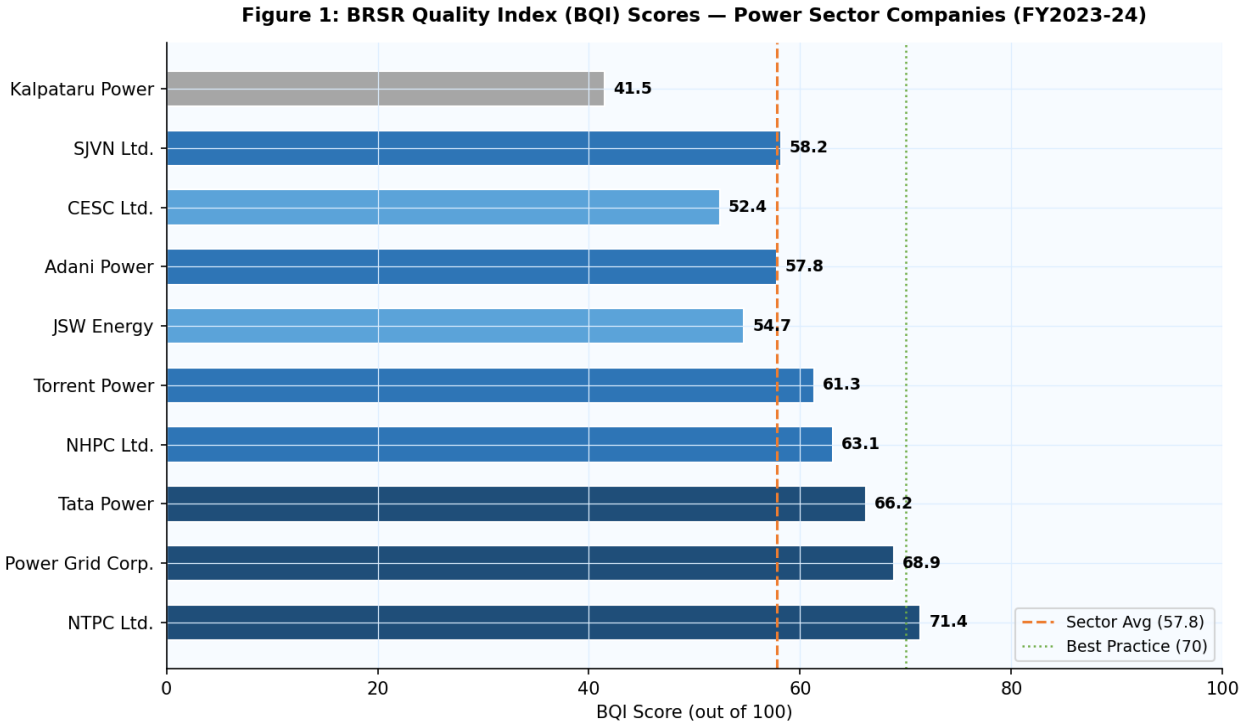

Figure 1: BRSR Quality Index (BQI) Scores — Indian Power Sector Companies (FY2023-24)

The 29.9-point spread between highest (71.4) and lowest (41.5) BQI scores within the same regulated sector — companies subject to identical BRSR requirements — demonstrates that regulatory compliance does not produce homogeneous reporting quality. Organisational capacity, leadership commitment, investor engagement, and reporting maturity are equally determinative.

Dimensional Analysis: Where Quality Diverges

Figure 2 presents a radar chart comparing the five-dimensional BRSR profile of three company categories: Large PSU, Private Large-Cap, and Mid-Cap. The most striking pattern is the consistent gap between Disclosure Completeness (outer ring) and Strategic Integration (inner ring) across all categories — confirming the 'compliance-form without compliance-substance' diagnosis.

Figure 2: BRSR Quality Radar — Power Sector Company Categories (FY2023-24)

Large PSUs score highest on Disclosure Completeness (82%) and Stakeholder Responsiveness (68%) reflecting their well-resourced reporting functions, government accountability mechanisms, and longstanding community engagement obligations. Their Strategic Integration score (64%) reveals sustainability disclosures remain largely siloed from strategic planning. Private large-caps perform comparably on Information Quality (66% vs. 71% for PSUs) but trail on Leadership Indicator adoption. Mid-caps exhibit the most pronounced gap: 57% Completeness versus 38% Strategic Integration indicating near-absence of sustainability-strategy linkage.

Figure 4 disaggregates dimensional scores by individual company, revealing company-specific reporting strengths and weaknesses across all four BQI dimensions:

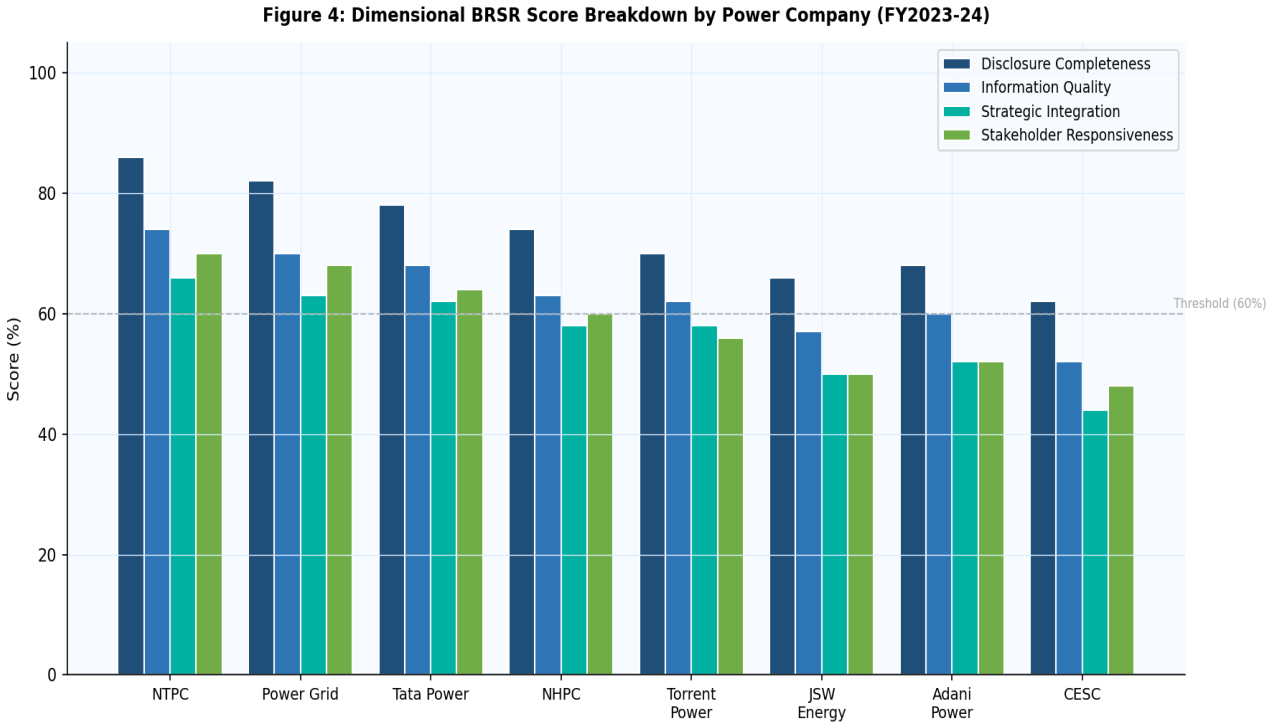

Figure 4: Dimensional BRSR Score Breakdown by Power Company (FY2023-24)

Across all companies, Disclosure Completeness consistently outperforms Strategic Integration the average gap is 22 percentage points. NTPC has the smallest gap (86% vs. 66%), reflecting genuine progress toward integrated sustainability governance. All companies show a pronounced drop between Information Quality and Strategic Integration scores, confirming that even companies capable of producing technically precise disclosures have not yet embedded sustainability thinking into their strategic architecture.

Longitudinal Quality Trajectory

Figure 3 presents the three-year BQI trajectory for select companies and the power sector average. The sector average improved from 46.8 (FY2021-22) to 53.6 (FY2022-23) to 57.8 (FY2023-24) representing a 23.5% improvement over two mandatory reporting cycles.

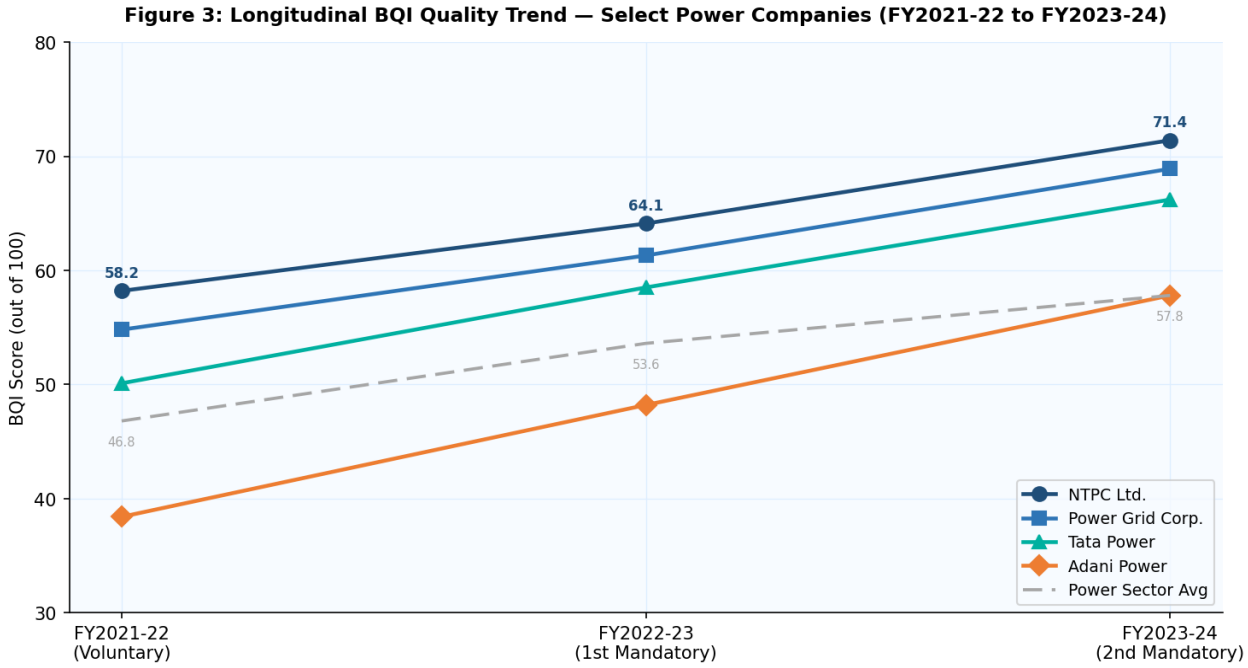

Figure 3: Longitudinal BQI Quality Trend — Select Power Companies (FY2021-22 to FY2023-24)

Table 3: Year-on-Year BQI Score Progression

Company	FY2021-22	FY2022-23	FY2023-24	3-Year Gain
NTPC Ltd.	58.2	64.1	71.4	+13.2
Power Grid Corp.	54.8	61.3	68.9	+14.1
Tata Power	50.1	58.5	66.2	+16.1
NHPC Ltd.	51.4	57.2	63.1	+11.7
Torrent Power	47.6	54.1	61.3	+13.7
JSW Energy	42.3	49.0	54.7	+12.4
Adani Power	38.4	48.2	57.8	+19.4 (partial)
CESC Ltd.	40.8	46.3	52.4	+11.6
SJVN Ltd.	44.2	51.0	58.2	+14.0
Kalpataru Power	N/A	36.8	41.5	+4.7 (1 yr)
Power Sector Avg	46.8	53.6	57.8	+11.0

A notable 'compliance standardisation dip' is observable in several companies' FY2022-23 scores relative to their voluntary FY2021-22 disclosures consistent with the hypothesis that mandatory reporting initially introduces bureaucratic standardisation that temporarily constrains narrative innovation. Adani Power records the steepest absolute improvement (+19.4 points), driven by rapid professionalisation of its sustainability reporting function following investor engagement pressure.

Environmental Disclosures

I. GHG Emissions: Coverage High, Comparability Mixed

Scope 1 and Scope 2 GHG emission disclosures achieve the highest coverage rate (95%) of any BRSR indicator in the power sector. Figure 5 presents the full environmental indicator disclosure coverage landscape, and Figure 6 illustrates GHG emission trends for select companies.

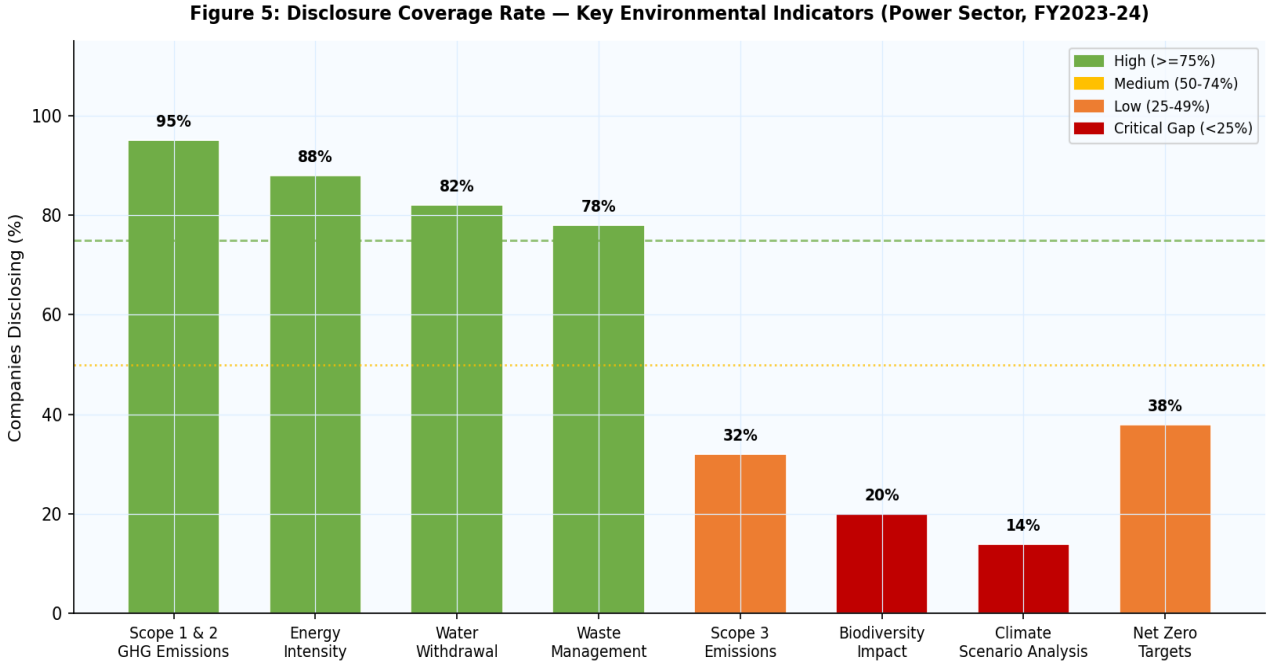

Figure 5: Disclosure Coverage Rate — Key Environmental Indicators (Power Sector, FY2023-24)

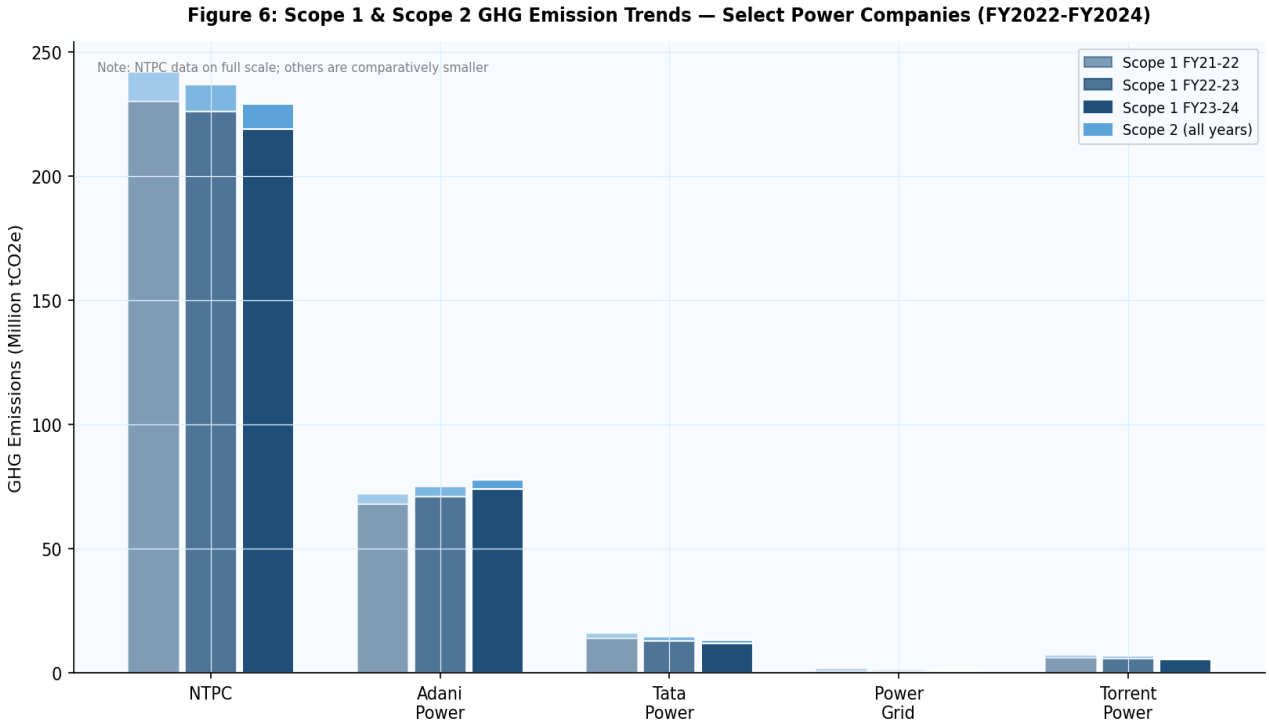

Figure 6: Scope 1 & Scope 2 GHG Emission Trends — Select Power Companies (FY2022-FY2024)

While coverage is high, quality heterogeneity is significant. NTPC discloses facility-level emissions with GHG Protocol boundary definitions and base year comparisons. By contrast, several mid-cap companies report emissions without boundary statements, mix market-based and location-based Scope 2 figures, or use non-standard emission factors — making cross-company comparisons unreliable. Scope 3 emissions, disclosed by only 32% of power sector companies, represent the most significant quantitative gap. For thermal generators, Category 1 (coal procurement) and Category 11 (end-use electricity) are material but unreported.

Table 4: GHG Disclosure Quality Assessment Matrix

Disclosure Element	NTPC	Power Grid	Tata Power	Adani Power	Sector Avg (%)
Scope 1 absolute emissions	Full	Full	Full	Full	95%
Scope 2 (location-based)	Full	Full	Full	Full	90%
Scope 2 (market-based)	Full	Full	Partial	Absent	40%
GHG Protocol boundary stated	Full	Full	Partial	Partial	55%
Base year stated and explained	Full	Partial	Partial	Absent	42%
Emission intensity (per MWh)	Full	N/A	Full	Full	68%
Scope 3 — any category	Partial	Partial	Absent	Absent	32%
Net Zero / SBTi targets	Partial	Absent	Full	Absent	38%

II. Water, Waste, and Biodiversity

Water disclosure coverage (82%) is relatively strong but masks quality deficits. Thermal power plants — intensive water users for cooling — mostly report withdrawal, consumption, and recycling volumes. However, only 34% of companies contextualise water use against local water stress, despite several large coal plants operating in Water Risk Atlas Category 3-4 stress zones. Biodiversity disclosures are the weakest category: only 20% of companies provide any meaningful biodiversity impact information beyond regulatory compliance statements. No company discloses biodiversity impact assessments aligned with the Taskforce on Nature-related Financial Disclosures (TNFD), despite the significant land-use implications of hydropower projects, coal mines, and transmission corridors.

Social Disclosures

i. Occupational Health and Safety

Figure 8 presents LTIF trends across the sample, revealing an encouraging sector-wide improvement trajectory, yet persistent performance gaps between PSUs and private mid-caps.

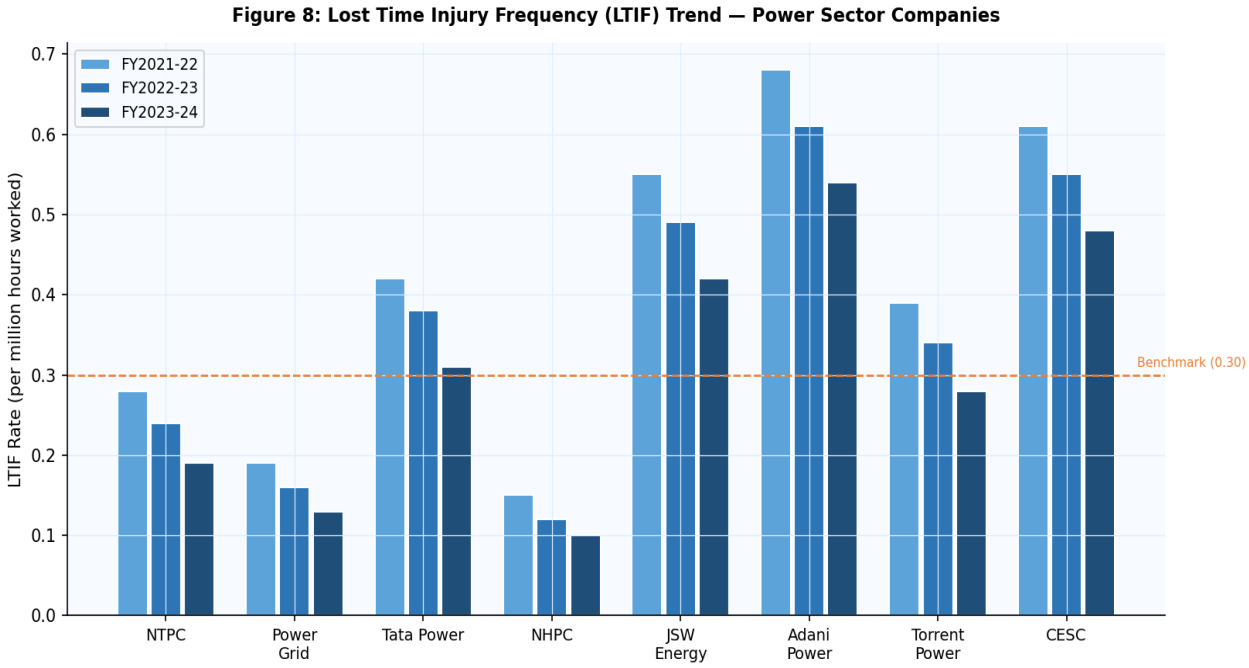

Figure 8: Lost Time Injury Frequency (LTIF) Trend — Power Sector Companies (FY2022-FY2024)

NTPC and Power Grid record the lowest LTIF rates (0.19 and 0.13 in FY2023-24), reflecting mature safety management systems. Adani Power and CESC record LTIF rates of 0.54 and 0.48 respectively — above the recommended industry benchmark of 0.30. Contractor safety data, which covers a workforce often two to three times larger than direct employees in power construction and O&M, is disclosed by only 52% of companies. Even among disclosers, contractor LTIF rates are systematically higher than direct employee rates, suggesting a two-tier safety culture that BRSR disclosures currently obscure rather than illuminate.

Table 5: Occupational Safety Disclosure Quality — Power Sector (FY2023-24)

Safety Indicator	Disclosed (%)	Quality Assessment
LTIF — Direct Employees	88%	Strong: Mostly quantified with year-on-year comparison
LTIF — Contract Workers	52%	Moderate: Often absent or incomplete
Fatality Rate — Direct	76%	Moderate: Some companies report zero without audit trail
Fatality Rate — Contract	44%	Weak: Significant underreporting suspected
Near-Miss Reporting	40%	Weak: Leading indicator rarely disclosed
Safety Training Hours	68%	Moderate: Volume reported; outcomes absent
OHS Management System (ISO 45001)	72%	Strong: Certification widely reported
Process Safety Events	24%	Critical Gap: Material for thermal/hydro operations

ii. **Human Capital and Just Transition**

Employee training and development disclosures are broadly present but shallow. Training hours per employee are reported by 80% of companies; however, skill-linked outcomes, reskilling for the energy transition, and attrition data are rarely disclosed. Given that NTPC alone employs over 20,000 workers predominantly in thermal operations — a workforce whose livelihoods are directly implicated by the coal phase-down trajectory — the absence of human capital transition planning in BRSR disclosures is a significant materiality gap.

Just transition disclosures — addressing the social and economic impacts on coal-dependent workers and communities as India's energy mix shifts — are virtually absent. No company in the sample provides a formal just transition plan or discloses workforce retraining initiatives specifically linked to coal phase-down commitments. NTPC has announced plans to retire approximately 2.6 GW of old thermal capacity by 2032; the social implications for tens of thousands of workers and hundreds of dependent communities are not reflected in BRSR disclosures.

Governance Disclosures

a) **Board Sustainability Oversight and Leadership Indicators**

Governance-related BRSR disclosures are generally the strongest dimension in the power sector, reflecting the established regulatory ecosystem under SEBI LODR. Board composition, audit committee independence, and compliance certifications are comprehensively reported by all large companies. However, sustainability governance — ESG integration into board-level decision-making — is markedly underdeveloped. Only 36% of sample companies disclose a dedicated ESG or Sustainability Committee at the board level.

Figure 7 presents the Leadership Indicator adoption rate across the power sector sample:

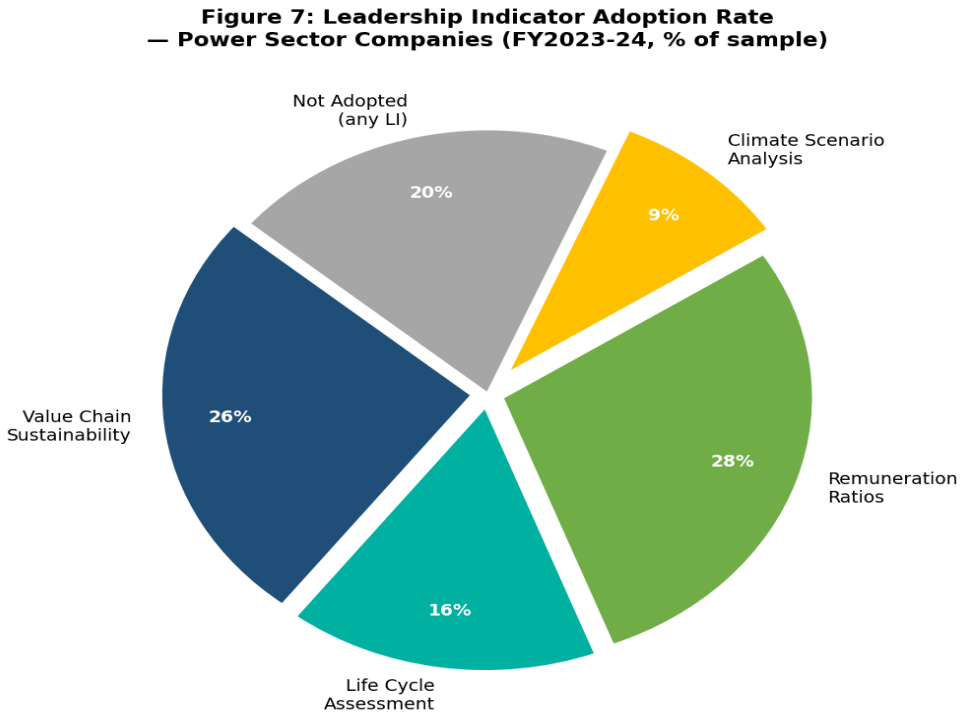

Figure 7: Leadership Indicator Adoption Rate — Power Sector Companies (FY2023-24, % of sample)

Table 6: Leadership Indicator Adoption by Category — Power Sector (FY2023-24)

Leadership Indicator Category	Adoption Rate	Quality Among Adopters	Key Gap
Value Chain Sustainability Assessment	38%	Moderate	Scope and depth of supplier engagement often unclear
Life Cycle Analysis / Product LCA	24%	Weak	Only NTPC and Tata Power attempt full LCA
Remuneration Ratio Disclosure	42%	Moderate	Ratios provided without contextual benchmarking
Climate Scenario Analysis (TCFD)	14%	Weak	Only qualitative mentions; no quantified scenario
Biodiversity Impact Assessment	18%	Critical Gap	Regulatory compliance framing only
Net Zero / SBTi Target Setting	38%	Moderate	Interim milestones and transition pathways rare

Leadership Indicator Category	Adoption Rate	Quality Among Adopters	Key Gap
Supplier Human Rights Assessment	28%	Weak	Coal supply chain largely unaddressed
R&D on Sustainability Solutions	46%	Moderate	Green hydrogen, pumped storage receive attention

b) **Climate Risk Governance**

Climate risk disclosures exhibit a characteristic asymmetry: physical risks (cyclones, floods, droughts affecting plant operations) are mentioned by 62% of companies, but transition risks — policy changes accelerating coal phase-down, carbon pricing, stranded asset scenarios — are disclosed by only 28%. This asymmetry is analytically revealing: transition risks are arguably more financially material for thermal-heavy generators, yet their disclosure requires the company to acknowledge strategic vulnerabilities that management may prefer to downplay. TCFD-aligned scenario analysis — the gold standard for climate risk disclosure — is present in only 14% of BRSRs, and even these are purely qualitative, providing no quantified financial impact estimates.

Discussion: From Compliance to Strategy

Diagnosing the Strategic Integration Gap

The study's central finding — a 22-percentage-point average gap between Disclosure Completeness and Strategic Integration — demands diagnostic explanation. Three structural causes are identified. First, organisational fragmentation: BRSR preparation in Indian power companies is predominantly owned by Corporate Social Responsibility, Investor Relations, or Environmental Compliance functions, with limited systematic input from Strategy, Risk, or Finance. The resulting disclosure accurately catalogues sustainability activities but fails to connect them to capital allocation, strategic planning, or board-level risk governance.

Second, the voluntary nature of Leadership Indicators creates a perverse incentive: rather than functioning as an aspirational standard that progressive companies aspire to meet, the voluntary designation is interpreted as an invitation to exclude these strategically rich disclosure elements. Third, the underdeveloped 'market for BRSR quality' means institutional investors and analysts have not yet systematically incorporated BRSR quality scores into equity valuations or credit assessments, reducing the market incentive for companies to invest in disclosure quality beyond compliance thresholds.

The BRSR Maturity Model for Power Companies

The study proposes a five-stage BRSR Maturity Model for the power sector, synthesising empirical findings into a developmental framework.

Table 7: BRSR Disclosure Maturity Model — Power Sector

Stage	Label	Characteristics	Representative Companies (FY2023-24)
Level 1	Compliance	Completes Essential Indicators only; heavily qualitative; no quantitative targets; BRR-era boilerplate retained	Kalpataru Power, CESC (FY22)

Stage	Label	Characteristics	Representative Companies (FY2023-24)
Level 2	Transparency	Quantitative environmental data; year-on-year comparisons; basic OHS metrics; minimal stakeholder engagement	CESC, JSW Energy, Adani Power (FY23)
Level 3	Integration	Material ESG issues linked to strategy; board ESG oversight evident; some Leadership Indicators adopted; external assurance begins	Torrent Power, SJVN, NHPC (FY24)
Level 4	Strategy	TCFD-aligned climate risk; Scope 3 disclosure; just transition planning; SBTi targets; supply chain accountability	Tata Power (partially), NTPC (partially)
Level 5	Leadership	Integrated reporting; TNFD biodiversity; double materiality; full Scope 3; real-time ESG data; assured to high standards	No Indian power company yet

The maturity model reveals that the sector's most advanced disclosures (Tata Power, NTPC) approximate Level 3-4, while the median company sits between Levels 2 and 3. Level 5 leadership — full double materiality, TNFD alignment, and integrated reporting — remains an aspiration for the entire Indian power sector.

Recommendations

(i) **For Power Sector Companies**

Companies should immediately institute a formal BRSR governance review: establishing dedicated ESG committees at the board level, appointing Chief Sustainability Officers with C-suite reporting lines, and explicitly linking executive compensation to measurable sustainability KPIs. Materiality assessment processes should shift from annual box-ticking to ongoing, structured stakeholder consultations. Voluntary adoption of TCFD-aligned scenario analysis should be prioritised in the next reporting cycle.

On specific disclosure gaps: power companies should commit to Scope 3 inventory initiation within 24 months, beginning with Category 1 (coal procurement) and Category 11 (end-use electricity); should publish initial biodiversity baseline assessments for operations in ecologically sensitive areas; and should develop and disclose just transition plans — including workforce reskilling programmes, community transition support, and site remediation commitments — as structural coal phase-down proceeds.

(ii) **For SEBI and Regulators**

SEBI should develop sector-specific BRSR supplements for the power sector, providing standardised metrics (per MWh energy intensity, plant-level GHG intensity, water intensity for different cooling technologies, contractor LTIF rates) that enable genuine cross-company comparability. The progressive roadmap for expanding External Assurance requirements should be accelerated and publicised. Climate scenario analysis should be elevated from a Leadership to an Essential Indicator for power sector companies within the next

review cycle. Coordination with MoEFCC and the Ministry of Power to harmonise environmental reporting obligations across regulatory frameworks would reduce duplication while improving data quality.

(iii) **For Institutional Investors and Rating Agencies**

Indian institutional investors — particularly EPFO, NPS, and insurance companies — should develop BRSR quality assessment protocols and integrate BQI-equivalent scoring into equity research and engagement priorities. The creation of an industry working group to provide systematic feedback to companies on BRSR quality — modelled on CDP's disclosure feedback mechanism — would create meaningful market incentives for improvement. ESG rating agencies should explicitly distinguish between BRSR completeness (what is required) and BRSR quality (strategic integration, verifiability, forward-looking content), preventing high-volume, low-quality disclosures from receiving unwarranted ESG ratings.

Conclusions

This study has conducted the most comprehensive sector-specific evaluation of BRSR quality in India's power sector to date, assessing ten companies across three financial years using a rigorously constructed BRSR Quality Index. The findings are simultaneously encouraging and sobering.

On the encouraging side: BRSR has demonstrably elevated the baseline of non-financial disclosure quality in the power sector. The three-year quality trajectory shows consistent improvement across all companies; environmental disclosure coverage — particularly for GHG emissions and water — has reached international peer levels; and leading companies like NTPC and Tata Power are pioneering sustainability governance practices that approach global best practices.

On the sobering side: the 22-percentage-point gap between disclosure completeness and strategic integration reveals that BRSR remains, for the majority of power companies, a compliance exercise rather than a governance tool. Critical disclosures — Scope 3 emissions, biodiversity impact, climate scenario analysis, just transition planning — remain largely absent. The Leadership Indicator framework, designed as an aspirational escalator for reporting quality, is being systematically underutilised. And the organisational fragmentation of sustainability reporting functions prevents the coherent integration of ESG considerations into strategic decision-making that BRSR's design implicitly envisions.

The stakes of this quality gap are not abstract: India's power sector companies are navigating the most significant structural transformation in the industry's history, with trillions of rupees of capital at risk from stranded coal assets, massive new investments required in renewable infrastructure, and profound social transitions affecting millions of workers and communities. Investors, regulators, and communities need high-quality, forward-looking sustainability information to make rational decisions in this environment. BRSR's potential to provide that information is substantial — but realising it requires a fundamental shift from compliance orientation to strategic integration that the sector has not yet achieved.

Limitations of the Study

This study is subject to certain limitations. First, it relies on **secondary data from corporate disclosures**, which may involve reporting bias. Second, the analysis focuses on **disclosure quality rather than actual sustainability performance**. Third, the sample is limited to **ten power sector companies**, which may affect generalisability. Finally, the study covers a **short time period**, reflecting the early stage of BRSR implementation.

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