STRATEGIC REVIEW


adani

Business model

Value Creation Model

Input

Financial Capital
- ₹ 57,674 crore of total equity
- ₹ 7,312 crore in cash and cash equivalents

Manufactured Capital
- India's largest private power producer with 17,550 MW operational capacity and 6,120 MW under-construction capacity
- 100% of under-construction capacity utilises supercritical / ultra-supercritical technologies, ensuring low GHG emissions and high-efficiency
- 83% of operational capacity from near-pithead and coastal plants, ensuring low logistics costs and large volume transfers
- 40 MW of solar power plant
- 87% contracted capacity
- 91% domestic fuel requirements secured through long-term/ medium-term agreement

Intellectual Capital
- ₹ 3.42 crore spent on various cloud, digital transformation and automation initiatives
- Cloud-based Energy Network Operations Centre (ENOC) for centralised monitoring
- Analytics Centre of Excellence for data-driven operations

Human Capital
- 4,210 employees
- 15,133 contract workforce
- 2.42% female representation
- 7,90,985 person-hours of training provided covering 100% employees
- 0.24 man-megawatt ratio

Social and Relationship Capital
- Active engagement with stakeholders including customers, suppliers, regulatory bodies and communities
- Long-term relations with customers and communities
- 344 suppliers on-boarded on ESG criteria

Natural Capital
- 5.74 lakh trees planted (plantation of 7.85 million pledged by 2030)
- 9 out of 12 operating locations single-use plastic-free certified

Responsible natural resource consumption
- 61.24 million tonnes of coal consumption
- 221.7 million m^3 of water
- 9,73,233,120 GJ of Fuel
- 15.44 million MT ash generated

Our business and operating model

Business Activities

Vision

Be a transformative force in power generation, empowering lives and contributing to the energy security of nations by providing sustainable, affordable and reliable power

Operating Context

Refer to Management Discussion & Analysis in page 225 of this report for more details

- Power Generation and Sales
- Other Financial Investments
- Asset Creation

Supporting Mechanisms

Governance
Read more Pg. 172

Risks and Opportunities
Read more Pg. 72

Operational Performance
Read more Pg. 90

Strategy
Read more Pg. 82

Outlook
Read more Pg. 236

Outputs

102.2 billion units
of power generated

15.44 MMT
ash generated

Outcomes

Financial Capital
- ₹ 58,906 crore Reported Revenue
- ₹ 24,008 crore Reported EBITDA
- ₹ 12,750 crore PAT
- ₹ 21,501 crore cash flows from Operations
- Deleveraged balance sheet and improved debt service coverage resulting in improved credit rating to AA

Manufactured Capital
- India's largest private IPP accounting for 21.2% (private) and 7.2% (aggregate) of India's coal + lignite generation capacities
- 91% plant availability and 71% plant load factor
- 88.2 billion units of power despatched within India
- 7.7 billion units of power despatched to Bangladesh
- High revenue visibility and stability and enhanced fuel security

Intellectual Capital
- Improved decision-making with data analytics
- Business process transformation
- Improvement of management systems

Human Capital
- Higher employee productivity at ₹ 4.2 crore EBIT/employee
- Lower attrition rate at 7.39
- 0/0.19 LTIFR (Employees/Workers)

Social and Relationship Capital
- Fulfilling energy needs of society
- Supporting local vendors with 23.6% raw material procurements
- 12,34,155 people benefited through CSR activities including three aspirational districts (Baran, Godda, Singrauli)
- Supply chain resilience: 35% Procurement spent on local suppliers

Natural Capital
- Responsibly limiting our impact and adhering to guidelines and regulations
- 0.85 tCO_2e/MWh GHG emissions
- 100.68% ash utilisation
- 2.17 m^3/MWh water intensity

Stakeholder engagement

Strengthening connections with stakeholders

We believe in fostering mutually beneficial and constructive engagement with our stakeholders to gain a deeper understanding of their needs and expectations. By maintaining open dialogue, we gather valuable insights that shape our strategies and decision-making processes. This approach not only strengthens our relationships but also enables us to achieve organisational objectives while creating lasting value for all stakeholders.

Our Stakeholder Engagement Mechanism

Our commitment to building strong relationships with all stakeholders is instrumental in achieving our objectives and contributing to the overall well-being of the organisation. We strive to create value for our stakeholders by aligning our decision-making process with their expectations and goals through transparent and ongoing communication. We have implemented a structured internal process to effectively engage with both internal and external stakeholders, thereby prioritising their requirements. To ensure their inputs are incorporated into our strategies, we proactively address their concerns and focus on areas that require improvement.

Our Stakeholder Engagement Policy governs the process, ensuring transparency and consistency. The Corporate Responsibility Committee (CRC) oversees the stakeholder engagement process and reports the results of interactions to the Board of Directors. Furthermore, the Board has a dedicated Stakeholder Relationship Committee, which focusses specifically on certain stakeholders, such as investors, analysts, and shareholders. To ensure accountability, we set targets, regularly review our performance, and report on our progress, creating transparency across our communities.

How We Identify and Engage With Material Stakeholders

We have adopted the following approach to ensure and incorporate our stakeholders' inputs in our strategies, address their concerns and focus on areas that need improvement.

Identification

Identify individual or stakeholder groups who can impact or be impacted by our business activities directly or indirectly.

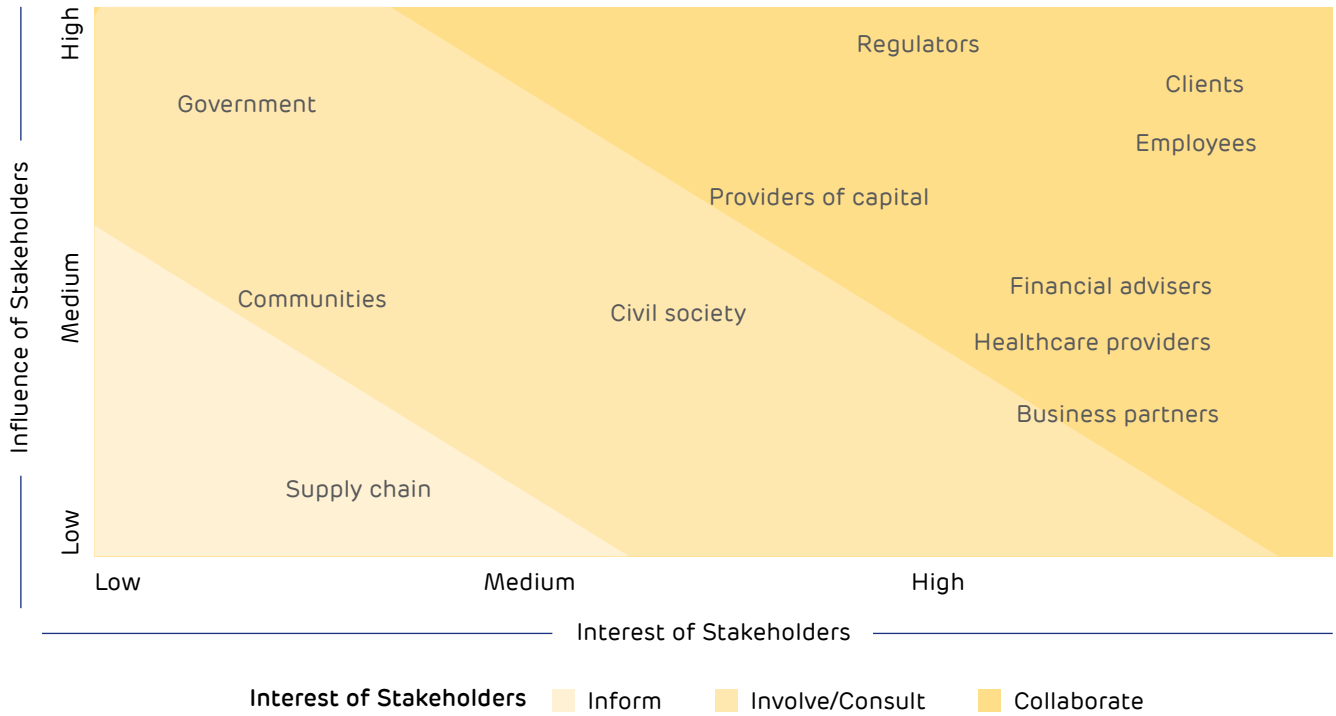
Analyse and Prioritisation

Analyse and prioritise stakeholders based on the level of responsibility, impact dependence and influence on our business and vice-versa.

Engagement and Collaboration

Engage and collaborate with the stakeholders through a robust engagement plan based on the nature, concerns and aspirations of the stakeholder group to build constructive relationships that promote sustainable growth and mutually beneficial outcomes.

Mapping Our Priority Stakeholders



Responding to Stakeholder Priorities

Board and Senior Leadership

Stakeholder Importance

They provide strategic guidance to the Company. They also oversee the Company's performance and risk management.

Needs and Expectations

- Ethical business conduct
- Robust financial performance
- Sustainable and resilient business operations
- Compliance with applicable regulatory requirements
- Transparency in reporting and disclosure

Frequency

- Quarterly
- Need-based

How We Create or Preserve Value

Update senior management on the overall performance of the organisation on financial and non-financial parameters.

Methods of Engagement

- In-person and virtual meetings

Upholding ethical governance

NIL
instances of breach in code, non-ethical practices or non-compliance with regulatory requirements

₹ 0.05 crore
fines due to regulatory non-compliance

Capitals Impacted

Investors

Stakeholder Importance

They provide financial capital to achieve long-term business growth and stability.

Needs and Expectations

- Economic and ESG performance
- Long-term growth
- Better return on investment
- Debt servicing
- Transfer of shares, issue of certificates and general meetings
- Non-receipt of annual report
- Transparent business practices

Methods of Engagement

- Investor meets
- Annual General Meetings
- Periodic declarations on performance
- Email
- Earnings calls
- Website
- Press releases

Frequency

- Quarterly
- Need-based

How We Create or Preserve Value

- Increased operating capacity with Godda plant commissioning
- Utilised cash accruals to reduce debt, including pre-payment
- Utilised untied capacities gainfully in the merchant and short-term markets

Healthy Returns and Stronger Prospects

₹ 1,96,395.33 crore
Market capitalisation

25.29%
Return on Equity*

* Average of total equity at the beginning and end of the period

Capitals Impacted

Employees

Stakeholder Importance

They execute operations and strategies. An engaged and productive workforce reinforces business competitiveness and market leadership.

Needs and Expectations

- Fair remuneration and equal opportunities
- Skill development and career growth opportunities
- Employee well-being
- Rewards and recognition
- Occupational health and safety
- Work-life balance

Methods of Engagement

- Direct interaction
- Employee engagement/feedback surveys
- Power Talk
- E-Sampark
- Performance Management
- Open forums
- Rewards and Recognitions
- Employee well-being programmes
- Learning and development programmes
- Grievance Redressal Mechanism

Frequency

- On-going

How We Create or Preserve Value

- Timely salary payments
- Zero tolerance for harassment and discrimination at the workplace
- Learning and development programmes
- Employee wellness programmes
- Robust rewards and recognition programmes
- Safe working environment

₹ 784.40 crore
Total employee benefits

Capitals Impacted

Workers

Stakeholder Importance

They support the continuity of business activities.

Needs and Expectations

- Safe working environment
- Timely and fair payments
- Safety training

Methods of Engagement

- Direct interaction
- Grievance Redressal Mechanism
- Toolbox talks

Frequency

- On-going

How We Create or Preserve Value

- Ensuring a safe and healthy working environment
- Timely wage payments
- Safety training programmes

Safe, fair, and growth-oriented workplace

12.33%
increase in average wages

0.19
lost time injury frequency rate

Capitals Impacted

Suppliers and Vendors

Stakeholder Importance

They are a critical part of the value chain. Strong relations secure availability at competitive prices and seamless operations.

Needs and Expectations

- Timely payments and query redressal
- Transparent dealing and fair opportunities
- Long-term partnership
- Capacity building

Methods of Engagement

- Emails and meetings
- On-boarding processes
- Supplier audits
- Supplier assessment
- Training workshops and seminars

Frequency

- As and when required

How We Create or Preserve Value

- Supplier Code of Conduct
- Contractor Safety
- Management System
- Responsible supply chain practices
- Transparent and selection process
- Performance and feedback reviews
- Screening and assessment of suppliers on ESG parameters

35%
Procurement from local suppliers

Capitals Impacted

Customers

Stakeholder Importance

They are essential for revenue generation and business sustainability. Customer-centricity strengthens relations and contributes to long-term success.

Needs and Expectations

- Sustained power availability with minimal outage
- Optimum electricity tariff
- Planned maintenance
- Modernisation and upgradation

Methods of Engagement

- Direct Communication
- One-on-One interaction
- Emails
- Seminars
- Customer feedback surveys
- Website
- Electronic and print media
- Customer grievance redressal mechanism

Frequency

- On-going
- Need-based

How We Create or Preserve Value

- Technology, digitalisation and analytics to consistently maintain high cumulative availability
- Ensure competitive tariffs
- Meet increasing power demand in states

₹ 5.60/kWh
Average PPA tariff (net)

₹ 5.93/kWh
Average merchant/short-term tariff (net)

Capitals Impacted

Local Communities

Stakeholder Importance

They provide a social licence to operate. Prioritising inclusive growth fosters mutually beneficial relations.

Needs and Expectations

- Employment and industry relations
- Resource availability
- Support in the utilisation of ecosystem services
- Healthcare and educational support
- Livelihood and employment opportunities
- Access to clean water and sanitation

Methods of Engagement

- Meetings/discussions with local communities
- Interactions with NGO partners and communities
- Need assessment
- Community development programmes
- Outcome assessment
- Grievance Mechanism
- Advertisements
- Publications
- CSR Report
- Integrated Annual Report and Sustainability Report

Frequency

- On-going
- Need-based

How We Create or Preserve Value

- Infrastructure development for water conservation
- Programmes focussed on providing quality education
- Programmes focussed on providing skill development and livelihood opportunities
- Health camps and awareness sessions

12,34,155
Direct and indirect beneficiaries

Capitals Impacted

Government and Regulators

Stakeholder Importance

They frame policies and regulations. Meaningful partnerships support a beneficial regulatory regime for industry growth.

Needs and Expectations

- Compliance
- Revenue
- Taxes
- Community development

Methods of Engagement

- Policy Advocacy
- Direct interaction with the regulatory bodies on a case-to-case basis
- Regulatory audits and inspections
- Formal dialogues
- Integrated Annual Report

Frequency

- On-going
- Need-based

How We Create or Preserve Value

- Ensuring compliance with applicable laws and regulations
- Working closely with regulators on policy advocacy
- Timely tax payment
- Aligning with national interests

₹ 7,239 crore
Tax contribution to the national exchequer

Capitals Impacted

Industry Bodies

Stakeholder Importance

They play a crucial role in presenting a unified perspective to the government on policy advocacy.

Needs and Expectations

- Advocacy on industry-specific topics and concerns

Methods of Engagement

- Meetings
- Conferences and seminars

Frequency

- Need-based

How We Create or Preserve Value

- Renewal of memberships
- Collaboration with industry bodies

Capitals Impacted

Media

Stakeholder Importance

They facilitate timely and transparent communication with stakeholders, building trust and reliability.

Needs and Expectations

- Transparency and credibility in the company's dealings, operations and communications
- Adherence to ethical practices

Methods of Engagement

- Meetings in person or via call/virtual platforms
- Press release
- Interview
- Website
- Social media

49,887

Media coverage (including Print and Online)

Frequency

- Need-based

How We Create or Preserve Value

- Regular communication of progress through press releases and interviews

Capitals Impacted

Academic and Research Institution

Stakeholder Importance

They facilitate access to the latest research, advanced technologies and innovative solutions.

Needs and Expectations

Adoption of new technologies and solutions through innovation

Methods of Engagement

- Periodic meetings

Frequency

- Need-based

How We Create or Preserve Value

- Investments in research and innovation

Capitals Impacted

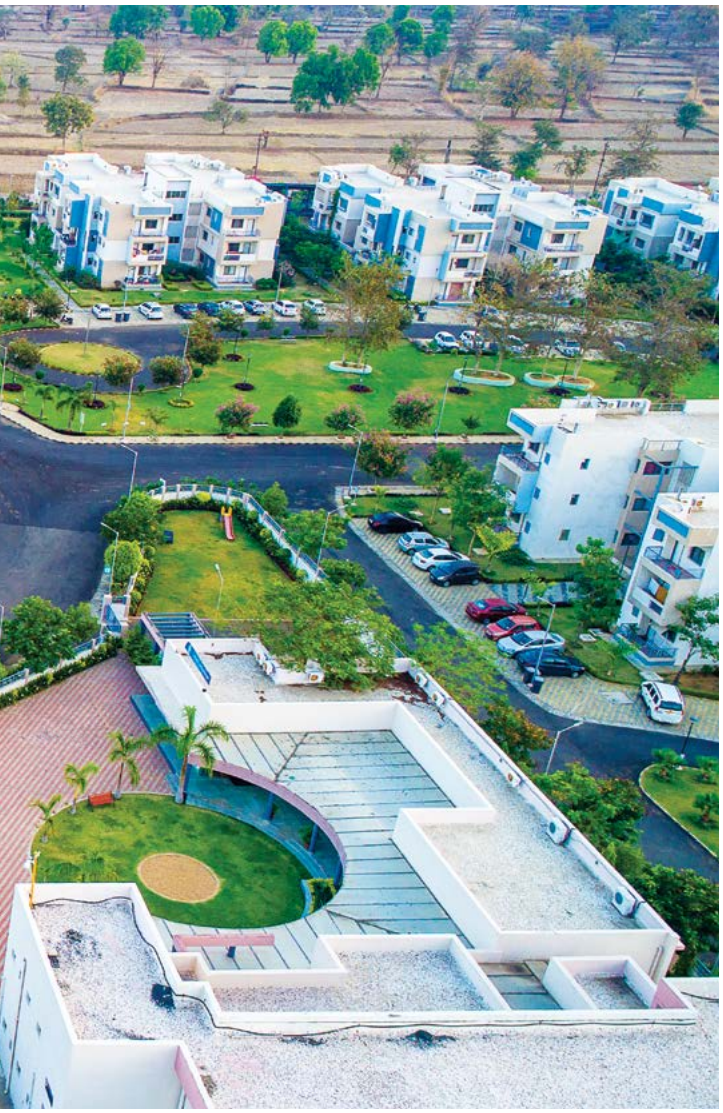
Material matters

Aligning priorities with purpose

Managing our material matters effectively ensures long-term value creation. We conduct a qualitative assessment of factors that affect our business and stakeholders and associated risks and opportunities, enabling us to take proactive mitigation measures supported by our Integrated Management Systems (IMS).

Our Approach to Materiality Assessment

In FY 2023-24, we conducted a double materiality assessment and revisited it in FY 2024-25. Our annual review of the materiality assessment helps ensure that our material topics align with the evolving ESG landscape. As a part of this comprehensive exercise, we interacted with key internal and external stakeholder groups, including investors, shareholders, customers, community members, academia, regulators, and media. The assessment was conducted in accordance with the GRI 3: Material Topics 2021 Standards and European Sustainability Reporting Standards (ESRS) General Disclosures. The double materiality assessment considered two dimensions – impact materiality and financial materiality. Compared to the previous materiality assessment, we have added and retained critical topics such as Digitalisation, Data Privacy and Information Security, Employee Development and Talent Retention, Labour Practices, Diversity, Equity, and Inclusion, Supply Chain Management, and Lifecycle Management of Assets.



Identifying and Prioritising Matters of Importance

Our double materiality assessment covers the corporate office, thermal and solar plants, and subsidiaries. There has been no change in our operational scope or boundary compared to the previous reporting period.

To assess impact materiality, we evaluated our organisation's context, business operations, sector, and business relationships to determine our actual and potential impacts on the economy, environment, and people. These impacts were categorised based on their nature – positive or negative, reversible or irreversible, intended or unintended, and short-term or long-term. These impacts were further assessed to establish their significance and prioritise them based on severity (scale, scope, and irremediable character) and the likelihood of occurrence.

We identified risks and opportunities linked to these impacts and assessed their potential effects on Adani Power's financial performance and position over the short, medium, or long term. Our senior leadership assessed these impacts to determine the financial implications based on the likelihood of occurrence and potential financial effects of associated risks and opportunities.

For financial materiality, we identified risks and opportunities linked to these impacts and assessed their potential effects on Adani Power's financial performance and position over the short, medium, or long term. Our senior leadership assessed these impacts to determine the financial implications based on the likelihood of occurrence and potential financial effects of associated risks and opportunities.

The next step in the assessment process involved gathering inputs from identified stakeholders through a materiality assessment questionnaire. The responses to the questionnaire were analysed, and material topics were prioritised and mapped onto a Materiality Matrix. Our senior leadership reviewed the identified material topics. We consider the topics identified as significant and integrate their mitigation action plans into our Enterprise Risk Management (ERM) framework.

Identify

- Defining the scope and boundary
- Identification of impacts and their corresponding risks and opportunities

Analyse

- Development and circulation of the materiality assessment questionnaire
- Collection and analysis of received responses

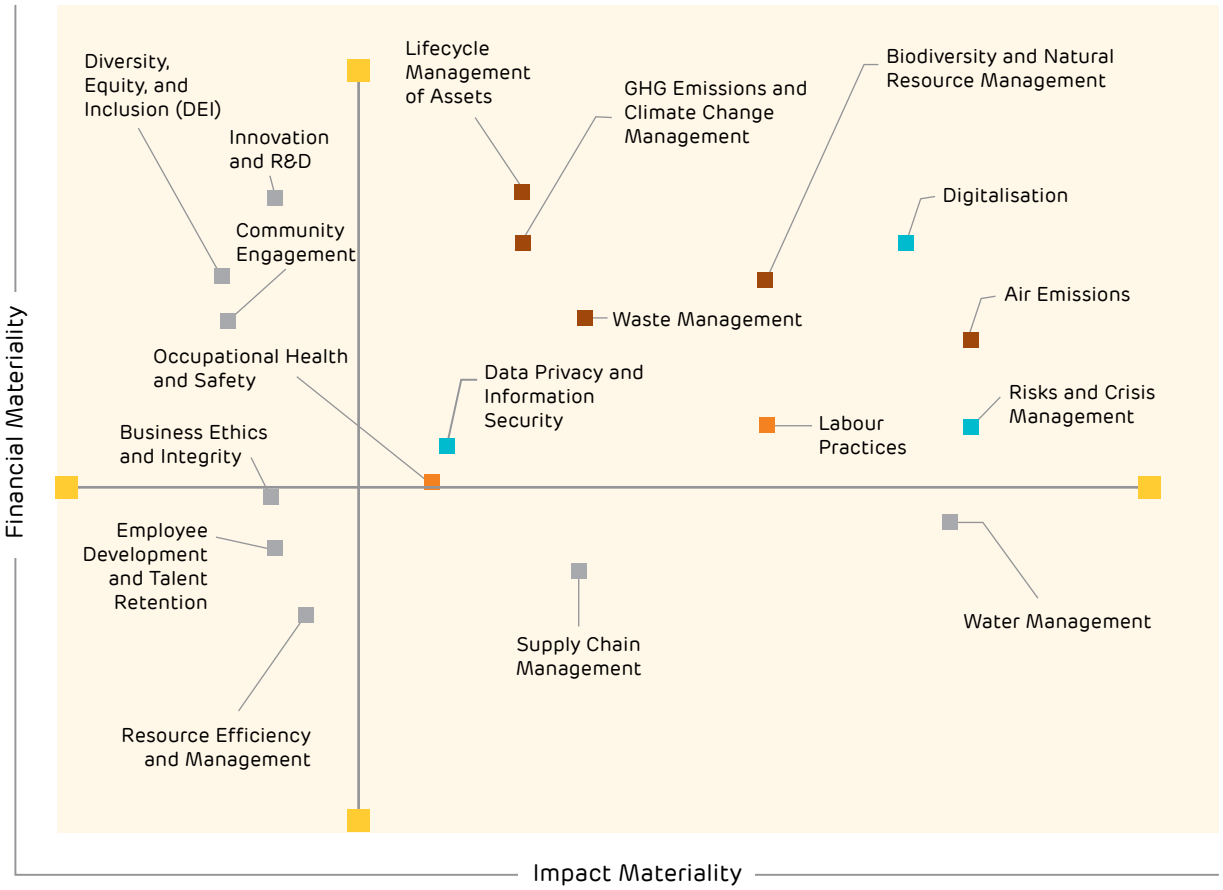
Prioritise

- Prioritisation of the most significant impacts and grouping them to determine material topics
- Finalisation of the materiality matrix

Monitoring and Validation

- Review and approval by senior leadership and the Board of Directors

Mapping our Material Topics



Our Material Topics

Environment

- Air Emissions
- Waste Management
- Water Management
- Lifecycle Management of Assets
- Resource Efficiency and Management
- Biodiversity and Natural Resource Management
- GHG Emissions and Climate Change Management

Social

- Occupational Health and Safety
- Community Engagement
- Diversity, Equity, and Inclusion
- Labour Practices
- Employee Development and Talent Retention
- Supply Chain Management

Governance

- Business Ethics and Integrity Digitalisation
- Innovation and R&D
- Risks and Crisis Management
- Data Privacy and Information Security

Our Holistic Approach to Managing Material Matters

Environment

Material Topic
Air Emissions

GRI Alignment GRI 305

SDG Alignment

Financial Implication ⊖

Impact

Risk: Adverse impact on ecosystem, air quality, agriculture, and human and animal health.

Mitigating Actions

- We continually adopt innovative technologies to optimally utilise coal and minimise air emissions
- We have also installed Flue Gas Desulphurisation (FGD) units across all operational plant sites

Possible Impact on Value (Capitals)

Expansion of thermal power and mining activities contributes to air pollution and can cause respiratory and cardiovascular diseases, leading to increased morbidity and mortality rates for people living in the communities and surrounding vicinity of the power plants.

Stakeholders Impacted

Strategic Response

S2 S3 S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Significant air emissions (NOx, SOx, PM)	✓	✓

Material Topic
Life Cycle Management of Assets

GRI Alignment -

SDG Alignment

Financial Implication ⊖

Impact

Risk: Conversion of assets into stranded assets

Mitigating Actions

- We constantly integrate technology-based inventions and adopt relevant innovative energy solutions to ensure business continuity
- Our efforts are focussed on the preservation of our assets while improving operational efficiencies

Possible Impact on Value (Capitals)

Stranded assets in thermal power plants are those assets that are unable to earn their original economic return as a result of changes associated with the energy transition.

Stakeholders Impacted

Strategic Response

S2 S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Public policy initiatives	✓	✓
Contributions to trade associations	✓	✓

Strategies:

S1 Expand capabilities to deliver the nation's energy needs,
S2 Sustainability to support the low carbon eco-system,
S3 Leveraging digital technology to enhance business delivery sustainability to support the low carbon eco-system,
S4 Achieve benchmark operations, attain market leadership, and outperform set objective

⊕ Positive | ⊖ Negative

Material Topic
Waste Management

GRI Alignment GRI 306

SDG Alignment

Financial Implication ⊕ / ⊖

Impact

Risk: Pollution due to waste disposal. Moreover, accumulation of heavy metals/metalloids in the vicinity of the power plant, and changes in the characteristics of the soil.

Opportunity: Reducing the need for virgin materials through re-use.

Mitigating Actions

- We recognise the importance of waste segregation from the initial stages, and our control measures ensure that relevant information is tracked until the final disposal stage
- We strictly abide by the prevailing regulations and policies which prevent pollution and encourage better waste management. Further, we constantly engage in research that promotes sustainable practices and remediate or manage soil contamination

Possible Impact on Value (Capitals)

Waste generated if not disposed of correctly may result in pollution of land, water, and air. It may also pose regulatory and reputational risks in the long term.

The reuse of waste as byproducts helps in effective waste management and reduces the effective need for virgin materials.

Stakeholders Impacted

Strategic Response

S2 S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Fly ash utilisation rate	✓	✓
Sites certified as single-use plastic free	✓	✓
Waste generated	✓	✓

Material Topic
Biodiversity and Natural Resource Management

GRI Alignment GRI 304

SDG Alignment

Financial Implication ⊕ / ⊖

Impact

Risk: Change in land use patterns. Loss of habitat and degradation of the natural ecosystem.

Mitigating Actions

- Our policy ensures that we are committed to the 'No Net Loss' goal
- We have a formal biodiversity management system in place to ensure the conservation of biodiversity across all our operations and projects

Possible Impact on Value (Capitals)

The construction of thermal power plants and excessive infrastructure can alter local landscapes, affect communities, and impact biodiversity and natural landscape.

Regulatory restrictions on land use impede expansion

Proactive restoration efforts mitigate losses

Stakeholders Impacted

Strategic Response

S1 S2

Performance Against KPIs	FY 2024-25	FY 2023-24
No net loss	✓	✓
Protection of native species	✓	✓

Material Topic
GHG Emissions and Climate Change Management

GRI Alignment GRI 302, 305

SDG Alignment

Financial Implication ⊕ / ⊖

Impact

Risk: Increase in greenhouse gas emissions leading to climate change

Opportunities: Reduction of carbon emissions through shadow pricing

Mitigating Actions

We have a four-pronged strategy in place to mitigate the negative impacts of our operations on the environment and combat climate change: strict compliance to standards and regulations; continually measuring our footprint to establish realistic targets; integrating emission reduction technologies across our operations, and monitoring and reporting our performance and commitments.

Possible Impact on Value (Capitals)

⊖

GHG emissions from the operations can attract scrutiny from regulatory bodies, NGOs, and activists for contributing to global warming. This can negatively affect the Company's bottom line.

⊕

Shadow pricing enhances strategic planning and drives low-carbon investment, energy efficiency solutions, and innovative technologies, thereby changing internal behaviour and seizing low-carbon opportunities.

Stakeholders Impacted

Strategic Response

S2 S3 S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Electricity consumption	✓	✓
GHG emissions	✓	✓

Social

Material Topic
Labour Practices

GRI Alignment GRI 402, 407-411

SDG Alignment

Financial Implication

Impact

Risk: Violation of human rights principles impacting stakeholders and brand reputation

Opportunities: Reduced risks of human rights violations through policies

Mitigating Actions

Alignment with the human rights principles safeguards the employees and value chain partners, as well as protects the Company from any non-compliance concerning International and National Human Rights Standards.

Possible Impact on Value (Capitals)

Allowing child labour and forced labour or any other human rights-related aspects within the workforce may lead to statutory violations. Furthermore, any incidents of child labour or forced labour, human trafficking or other such incidents occurring across the value chain may lead to the deprivation of basic human rights.

Stakeholders Impacted

Strategic Response

S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Instances of human rights practice breach	✓	✓
No. of human rights issues raised/reported	✓	✓

Material Topic
Occupational Health and Safety

GRI Alignment GRI 403

SDG Alignment

Financial / Stakeholder Implication ⊕ / ⊖

Impact

Risk: Increase in hazards and accidents at the workplace

Mitigating Actions

We have adopted and implemented the Adani Group's Safety Management System to prevent work-related injuries and illnesses, minimise risks and uphold our commitment to a 'Zero harm to life' philosophy.

Possible Impact on Value (Capitals)

⊖

Increased investments in OHS measures

⊕

Higher safety standards improve operational stability and productivity

Stakeholders Impacted

Strategic Response

S4

Performance Against KPIs	FY 2024-25	FY 2023-24
TRIFR / LTIFR	✓	✓
Fatality	✓	✓

Governance

Material Topic
Digitalisation

GRI Alignment -

SDG Alignment

Financial Implication ⊕ / ⊖

Impact

Opportunities: Reduced unplanned outages and downtime. Digitalisation helps reduce the frequency of unplanned outages through better monitoring and predictive maintenance, as well as limit the duration of downtime by rapidly identifying the point of failure. It can further help achieve greater efficiencies through improved planning, increased energy efficiency in power plants, and reduced loss rates in networks, as well as better project design throughout the overall power system.

Mitigating Actions

-

Possible Impact on Value (Capitals)

⊖

Increased investments in cost and environment-efficient technologies

⊕

Plant modernisation and R&D improves efficiency, mining and supply chain operations, resulting in cost savings and sustainability

Stakeholders Impacted

Strategic Response

S1 S2 S3 S4

Performance Against KPIs	FY 2024-25	FY 2023-24
R&D investments	✓	✓
Capex in plant modernisation	✓	✓

Material Topic
Risk and Crisis Management

GRI Alignment -

SDG Alignment

Financial Implication ⊕ / ⊖

Impact

Opportunity: Long-term value creation through effective risk and crisis management practices. Risk management is the systematic process of identifying, assessing, and mitigating threats or uncertainties that affect an organisation. It involves analysing risks' likelihood and impact, developing strategies to minimise harm, and monitoring measures' effectiveness. When an organisation develops a risk management plan, it identifies risks across all attributes to devise a strategy to manage and mitigate them. This helps in increased preparedness and awareness about possible risks in the future while creating long-term value for the stakeholders.

Mitigating Actions

-

Possible Impact on Value (Capitals)

⊖

Investments in enhancing business resilience and upgrading redundant systems

⊕

Improvement in risk mitigation capabilities and operational resilience

Stakeholders Impacted

Strategic Response

S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Assessing Risk	✓	✓
Business continuity plan	✓	✓

Material Topic
Data Privacy and Information Security

GRI Alignment GRI 418

SDG Alignment

Financial Implication ⊕ / ⊖

Impact

Risk: Threat to data safety due to potential lapse in IT systems

Opportunity: Earn the trust of employees and customers through enhanced IT security systems

Mitigating Actions

We have implemented SOPs and policies for conducting periodic internal and external (third-party) audits and tests to monitor the resilience of the IT infrastructure from hackers, cyber-attacks, malware, etc.

Possible Impact on Value (Capitals)

⊖

Instances of information security breaches leads to the loss of sensitive data of customers including personal information.

⊕

Enhanced IT security and defence measures help Adani Power earn the trust of employees and customers, differentiate itself from competitors, and create a resilient foundation for long-term value creation.

⊖

Negative publicity and increased media scrutiny results in a loss of stakeholder trust, reputation, and regulatory fines or penalties.

Stakeholders Impacted

Strategic Response

S4

Performance Against KPIs	FY 2024-25	FY 2023-24
Number of data/ information breaches	✓	✓

References: Absa IR 2023 Page 24: For impact on capitals and other linkages
https://www.absa.africa/wp-content/uploads/2024/04/Absa-Group-Limited-Integrated-Report.pdf

Risks and opportunities

Safeguarding the future with effective risk management

In today's dynamic landscape, businesses must navigate shifting consumer preferences, evolving regulations, climate challenges, and geopolitical uncertainties. Integrating risk management into decision-making is essential for resilience and sustainability. We have built a robust risk management system to identify, prioritise, monitor, and mitigate by strong frameworks, policies, and governance mechanisms, our approach ensures strategic growth, operational excellence, and stakeholder value protection.

We continuously enhance our risk management practices through learning, innovation, and employee engagement to stay ahead in an ever-changing environment. Our proactive approach enables us to manage regulatory and operational risks effectively, while pursuing growth opportunities through capacity expansion and technology upgrades.

Our strategy is driven by our commitment to provide affordable power for all while effectively managing business risks. We have established an Enterprise Risk Management (ERM) framework to identify and mitigate risks identified. We are able to achieve sustained value creation and to take advantage of growth opportunities by leveraging our experience and capitalising on our strengths and capabilities. We continuously enhance our risk management practices through learning, innovation, and employee engagement to stay ahead in an ever-changing environment. Our proactive approach enables us to manage regulatory and operational risks effectively, while pursuing growth opportunities through capacity expansion and technology upgrades. Going forward, we are enhancing energy efficiency, embedding sustainability deeper into our operations, and strengthening
safety standards.

Risk Governance

Our comprehensive risk management policy and framework enables us to identify and manage various risks, including financial, operational, sectoral, sustainability, IT, cyber security, and other emerging risks.

Our Risk Management Committee (RMC), comprising independent directors, oversees the risk appetite, risk management framework, and governance structure. The RMC is responsible for managing both internal and external risks that could impact our business.

To ensure specialised risk oversight, the RMC operates through four sub-committees:

- Mergers and Acquisitions Committee
- Legal, Regulatory, and Tax Committee
- Reputation Risk Committee
- Commodity Price Risk Committee

Further, the Audit Committee monitors financial risks, including interest rate fluctuations and other financial parameters.

At the executive level, our Business Risk Management Committee (BRMC), led by the Chief Risk Officer (CRO) and other members, is responsible for implementing and executing the risk management framework. The BRMC biannually presents the risk management update to the Board-level RMC. We also have Functional Risk Committees (FRCs) for Mergers and Acquisitions Risks, Legal, Regulatory and Tax Risks, Reputation Risks, Commodity Price Risks, and Other Risks. Our Station Risk Committee (SRC) focusses on risks related to project and operational locations. The FRCs and SRC report quarterly to the Chief Risk Officer, ensuring continuous monitoring and timely action.

At the plant level, plant heads are responsible for identifying, notifying, and mitigating potential risks. Each risk is assigned a dedicated Risk Owner and Risk Champion to ensure the successful implementation of the risk mitigation plans and effective control measures.

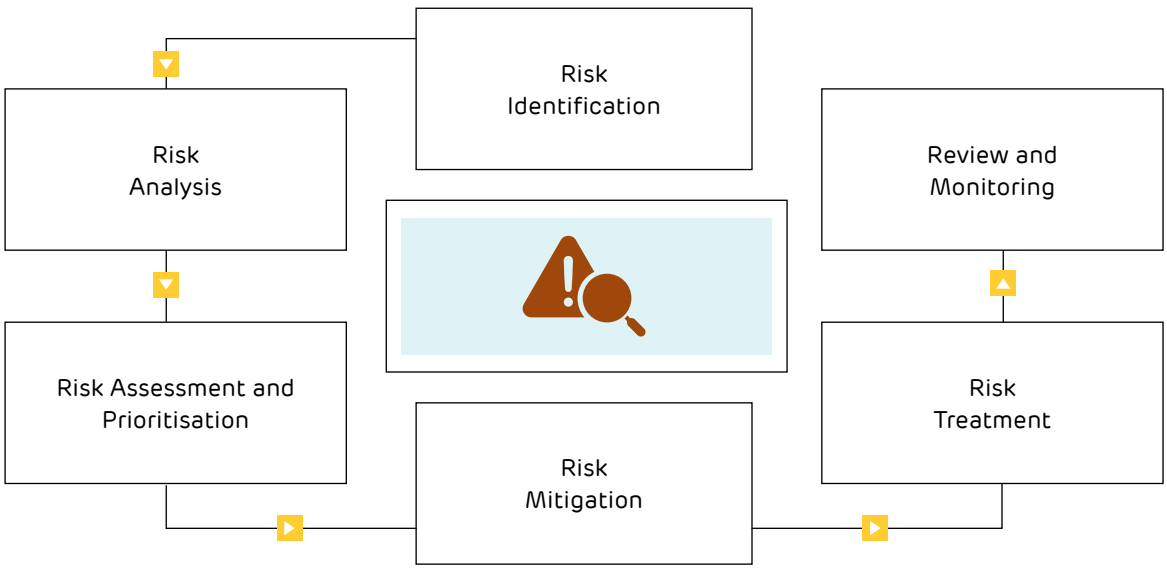
Risk Management Process

We have implemented an integrated ERM framework aligned with the International Standards ISO 31000:2018 (Risk Management System) and COSO (Committee of Sponsoring Organisation of the Treadway Commission) framework. This framework is strategically designed to identify, assess, and mitigate risks across our operations.

The BRMC meets quarterly to discuss the risks identified by the Functional Risk Committees and Station Risk Committee. It also oversees compliance with our risk framework, provides guidance on risk appetite and tolerance, and ensures alignment with emerging regulatory requirements, best practices in corporate governance, and industry standards.

We have a dedicated risk team responsible for addressing challenges arising from non-compliance with our risk framework and advising the Board on setting an appropriate risk tolerance. The responsibility of identifying risks lies with each department where they identify potential risks, develop mitigation plans, and regularly update the Chief Risk Officer on mitigation plans.

The BRMC meets quarterly to discuss the risks identified by the Functional Risk Committees and Station Risk Committee. It also oversees compliance with our risk framework, provides guidance on risk appetite and tolerance, and



ensures alignment with emerging regulatory requirements, best practices in corporate governance, and industry standards.

The Company's exposure to risk is reviewed quarterly to ensure its resilience against potential risks. Our risk management system is audited internally once a year.

Risk Identification

At Adani Power, risks are systematically identified at both the enterprise and operational levels. This process entails a comprehensive examination of internal and external factors that could facilitate or impede the achievement of set objectives and expected targets.
The identified risks are then compiled in a risk register for the power business. This register is reviewed periodically by a council comprising Board members.

Risk Analysis

Risk analysis involves the comprehensive evaluation of uncertainties, sources, consequences, likelihood, events, scenarios, controls, and their efficacy, followed by the categorisation based on severity and probability. This aids in determining the impact value for classifying risks as catastrophic, critical, moderate, or marginal. Additionally, lead and lag indicators are defined along with risk indicator thresholds, ensuring the efficiency of risk management processes.

Each risk is aligned with performance measures to assess its impact on business processes. This includes measuring efficiency (In-Process) using factors like the risk mitigation completion index, overlooked risks, and accuracy of identified risks. Furthermore, effectiveness is assessed through metrics such as risks causing losses, declining residual value, unplanned disruptions, and adherence to recovery time as per customer expectations.

After considering mitigation strategies and risk insurance, each risk is assigned a residual risk impact and frequency score. Furthermore, a dedicated risk owner and champion are appointed to effectively mitigate and control the identified risks.

The identified risks are linked with the organisation's strategic or functional objectives and relevant business processes to ensure alignment of risk management with the broader organisational goals.

Risk Assessment and Prioritisation

Risks are assessed and prioritised based on their likelihood, impact, proximity, and controllability. Risks are categorised into Strategic or Reputational Risk, Tactical Risk, and Operational Risk, with each category representing impacts on business decisions and reputation, changes in business conditions, and daily activities, respectively. The risks are then presented to the BRMC, who shall meet to oversee compliance with the risk framework. The BMC imparts advice on risk appetite and tolerance as well as ensures alignment with emerging regulatory, corporate governance, and industry best practices.

Risk Mitigation

Comprehensive mitigation strategies are developed, which include mitigation actions, costs, benefits, frequency, target completion date, and the establishment of risk indicators for monitoring purposes.

We have established a robust governance structure to ensure the effectiveness of the process, with continuous reviews conducted by the Functional and Station Risk Management Committees.

Risk Treatment

At Adani Power, there are four fundamental approaches to risk treatment: tolerate, treat, transfer, and terminate, also known as the 4T analysis for risk treatment.

- Tolerating risk involves accepting risks when their potential impact is within limits or when the anticipated profit outweighs the costs of potential risk
- Treating risk requires adjusting project plans and company processes to reduce the impact of risks, as well as lowering the possibility of risk occurrence to decrease associated financial value
- Transferring risk involves sharing or distributing risk consequences among project participants, business departments, or third parties such as vendors or business partners
- Terminating risk means eliminating it by mitigating its cause, often through risk avoidance strategies to prevent consequences

These approaches to risk management are critical for ensuring the success and stability of projects and businesses.

Our executive management closely monitors various business aspects, such as fluctuating raw material prices, equipment efficiency, and process safety, to identify and mitigate potential risks. Plant heads are accountable for recognising, notifying, and mitigating observed or anticipated risks at the plant level.

Review and Monitoring

We regularly monitor and report risks and their mitigation status to identify trends and prioritise measures. Furthermore, a review by the Functional Committee, followed by the BRMC committee, is conducted to identify focus areas and develop mitigation plans to drive positive risk trends.

Risk Culture

At Adani Power, we uphold a culture of risk awareness by empowering our employees through education and training on risk management principles. Employees at all levels are encouraged to take ownership of risks within their areas of responsibility. Our Board members undergo regular familiarisation and training on the Company's risk landscape. The Risk Management Committee is supported by three non-executive Board members with expertise in risk management.

Our executive management closely monitors various business aspects, such as fluctuating raw material prices, equipment efficiency, and process safety, to identify and mitigate potential risks. Plant heads are accountable for recognising, notifying, and mitigating observed or anticipated risks at the plant level. To facilitate effective risk identification, we promote open communication across departments through regular dialogue and an open-door policy.

To drive engagement and accountability, we offer performance-linked incentives tied to energy efficiency and climate change mitigation KRAs. Given that climate change is a significant risk, we recognise the importance of thermal power in meeting India's growing energy needs. To address this, we are focussed on reducing our environmental impact through measures like improving efficiency and introducing renewable resources like biomass and green hydrogen into our fuel mix. We are also currently piloting green ammonia co-firing at one of our power plants, a step towards reducing our environmental footprint.

Risk Landscape and Mitigating Actions

Risk R1 – Mergers and Acquisitions Risk

Responsibility
Head Business Development

Risk Appetite
High

Strategic Priority
S1

Impact

Inadequate target selection, insufficient due diligence, misjudgement of future synergies, potential benefits, and fund infusion requirements in M&A transactions can result in legal disputes, financial losses due to breached contracts, and reputational damage. This adversely affects investor confidence and market performance.

Mitigation Actions

- We have implemented a rigorous M&A process to ensure success, including:
  - Establishment of criteria for target company selection, encompassing project status, PPA tie-up, and technology
  - Formation of inter-departmental teams for thorough due diligence, with a focus on vetting assumptions impacting valuation and adopting a conservative approach in financial projections
  - Timely receipt of information from counterparties
  - Integration of safeguards into resolution plans and final transaction documents to mitigate unforeseen risks or liabilities discovered during due diligence
- We conduct periodic post-acquisition analyses to evaluate assumptions, and deviations, and incorporate key learnings
- We have a successful track record of acquiring and revitalising four power plant assets

Risk R2 – Regulatory Risk

Responsibility
Head Regulatory and Commercial

Risk Appetite
Low

Strategic Priority
S1

Impact

Risks stemming from the potential reversal of favourable regulatory orders upon appeal, customers failing to honour contractual obligations during adverse circumstances, and non-compliance with regulatory/judicial directives by customers are significant. Such risks could result in legal conflicts, financial setbacks due to breached agreements, and harm to our reputation, ultimately impacting investor trust and market performance.

Mitigation Actions

- Develop a compelling case with persuasive arguments supported by factual evidence, legal precedence, and established legal principles
- Utilise legal representation and regulatory/judicial intervention to enforce contractual terms
- Consider initiating contempt proceedings to expedite the resolution of claims and appeals

These measures will help mitigate the potential adverse effects of legal disputes and non-compliance, safeguarding our interests and fostering a favourable business environment.

High Medium Low

Risk

R3

Commodity Price Risk

Responsibility

Chief Commercial Controller

Risk Appetite

↔

Strategic Priority

S1 S4

Impact

- We are exposed to potential risks arising from a sharp surge in imported coal prices, domestic coal shortages, or elevated prices of alternative coal sources, all of which can impact our production levels
- Increased production costs, reduced margins, and decreased revenue can affect our overall shareholder value and market competitiveness

Mitigation Actions

- More than 51% of our installed capacity is based on domestic coal. Of these, we have secured PPAs for more than 90% of the capacity
- We have the potential to recoup a substantial portion of increased coal prices through tariff revisions and escalation indices, with 82% of our capacity benefiting from fuel cost recovery assurance
- Our strategy includes pre-monsoon domestic coal procurement to bolster stock levels during lean production periods
- Furthermore, we are de-risking fuel supply by leveraging coal from captive mines under a liberalised mining policy

Risk

R4

Reputation Risk

Responsibility

Head Communication

Risk Appetite

↓

Strategic Priority

S4

Impact

- Risk of reputation loss due to operational issues such as safety incidents, environmental concerns, or legal actions
- A decline in stakeholder trust and confidence could lead to a decrease in our brand value, reduced market share, and financial losses

Mitigation Actions

We ensure sustained and effective communication with stakeholders to mitigate the impact of this risk.

↑ High ↔ Medium ↓ Low

Emerging Risks

Our enterprise risk management (ERM) framework facilitates proactive management of emerging risks through annual assessments and continual threat monitoring. We have identified a few emerging risks, which are explained in detail in the below-mentioned table. We effectively address these risks by fortifying our systems and practices, integrating them into the ERM framework, and establishing a structured management process to evaluate their impact on our operations. We have taken measures to mitigate external shocks stemming from market fluctuations or unforeseen disruptions, thereby ensuring resilience and business continuity.

Environmental Risk

Critical Changes to Earth Systems and Natural Resource Shortage

Irreversible and self-perpetuating changes to critical planetary systems, inclusive of land-based (such as wildfires), water-based (such as floods), atmospheric and temperature-based (such as heat waves) and including those exacerbated by climate change, can have devastating consequences. These include loss of human life, destruction of property and ecosystems, financial losses, disruption of critical suppliers, etc.

Impact

- Changes in global climate patterns can alter water availability for our operations
- Extreme weather events can cause mishaps and damage our equipment, disrupt raw material supplies, and may lead to plant shutdowns
- Increasing costs and declining reserves of fuel supply or water resources can challenge our plant's ability to operate at full capacity

Mitigating Actions

- Presence of enterprise risk management integrated framework to effectively manage the business continuity and disaster management plan
- Implemented a Business Continuity Management System (BCMS) adhering to the ISO 22301:2019 standards to mitigate risks that could disrupt business operations
- Integration of climate-related risk management into our Enterprise Risk Management programme
- Conducted a comprehensive climate risk assessment study, and devised mitigation strategies for the identified risks

Geopolitical Risk

Geoeconomic Confrontation

Global or regional powers may deploy economic levers to reshape economic relationships between nations by restricting goods, knowledge, services, or technology to promote self-sufficiency, constraining geopolitical rivals and consolidating spheres of influence. It includes but is not limited to currency measures; investment controls; sanctions; state aid and subsidies; and trade controls.

Impact

- Disrupt coal prices and availability
- Need for alternative fuel sources
- Increased spending for the same quantity procured earlier
- Disruption in upstream and downstream operations

Mitigating Actions

- Long-term relationships with suppliers, alternate vendors, and consumers, to ensure that fluctuating geoeconomic conditions do not impact the flow of goods, technology, and services

Technological Risk

Adverse Outcomes of AI Technologies

The rapid proliferation of AI technologies is likely to bring numerous benefits but pose significant risks to individuals and businesses (including ours). As AI becomes more widespread and advanced, it may lead to unforeseen or deliberate negative consequences that could have far-reaching impacts.

Impact

- Inaccurate and low quality data inputs to train AI models can significantly impact our business performance and lead to negative outcomes
- AI systems are vulnerable to cyberattacks, which could compromise our sensitive information, disrupt energy supply and operations, and have severe consequences for energy security
- AI-powered automation may displace human jobs, leading to widespread unemployment

Mitigating Actions

- Deployed multiple technical controls, including the CIS (Centre for Internet Security) Critical Security Controls
- Established a Security Operations Centre (SOC) to continuously monitor detect and respond to any cybersecurity incident
- Provide training and upskilling programmes to educate employees on the new-age digital technologies

Misinformation and Disinformation

Persistent false information (deliberate or otherwise) is spreading rapidly through various media channels, causing widespread public distrust in facts and authority. This includes, but is not limited to false, imposter, manipulated and fabricated content.

Impact

- Social licence to operate can be challenged if the local communities are unaware of the thermal power plants' policies and operations or changes in it

Mitigating Actions

- Adept and proactive response to dispel false information via our communication team
- Proactively and transparently informing the affected stakeholders on necessary issues on a timely basis in adherence to the policies protects us from any long-term business implications of any misinformation or disinformation

Economic Risk

Access to Capital and Credits

As we continue to operate in a rapidly evolving business environment, we foresee a risk of limited access to capital and credits due to our high carbon-intensive operations. The growing emphasis on ESG metrics and disclosure standards is likely to drive investors and lenders to prioritise companies with lower carbon footprints, potentially leading to higher borrowing costs or reduced credit availability for Adani Power in the long term.

Impact

- Reduced creditworthiness due to high carbon emissions may lead to higher interest rates, stringent loan covenants, and reduced access to capital
- As investors prioritise companies with lower carbon footprints, we may struggle to attract new investors or retain existing ones, leading to decreased market share and revenue
- Need for investments in technologies to help reduce our carbon footprint, such as the CCUS

Mitigating Actions

- The adoption of supercritical and ultra-supercritical technologies has helped reduce emissions, increase efficiency, and lower costs
- Investigating the viability of green hydrogen for carbon neutrality
- Pursuing green ammonia as an alternative fuel at our Mundra facility
- Made a capex investment to conduct a feasibility study on ammonia co-firing and carbon capture technology at the Mundra facility
- Integrating CCUS technology into our operating fleets

Energy Transition

The energy transition refers to the global shift from fossil fuel-based energy systems to renewable and low-carbon sources. This also includes changes in policies, technological advancements, company goals and targets, and financing instruments.

Impact

- Potential decrease in demand for coal-based generation
- Increased pressure from stakeholders to diversify the portfolio
- Higher costs due to carbon pricing or regulations
- Need for investments in newer technologies

Mitigating Actions

- Introducing renewable resources such as biomass and green hydrogen in our fuel mix and piloting green ammonia co-firing at one of our power plants

Strategy

Fortifying our strategies for sustained growth and value creation

As the energy sector undergoes rapid advancements, thermal power continues to play a critical role in meeting rising energy demands amid economic expansion. At Adani Power, we have outlined robust strategic priorities to enhance business resilience, seize emerging opportunities, and drive sustainable growth, ensuring long-term value creation for stakeholders.

S1 Expand Capabilities to Deliver the Nation's Energy Needs

Actions Taken in FY 2024-25

- Acquisition of 1,800 MW stressed power plants and 1,320 MW stalled project under Corporate Insolvency Resolution Process to improve their financial viability and revive capacity expansion
- Successfully bid for the acquisition of 600 MW stressed power plant under the Corporate Insolvency Resolution Process to improve its financial viability
- Acquisition of an operational 500 MW thermal power plant to consolidate capacities and expand presence on the Western coast of India
- Acquisition of Stratatech Mineral Resources Pvt. Ltd. and its amalgamation with Mahan Energen Ltd. to enhance fuel availability and generate power reliably at competitive rates
- Initiation of project development work with equipment ordering for 11.2 GW additional thermal power capacity to meet projected power demand by 2030

Performing on Our Strategy

2,300 MW

Capacity acquired; ▲ 15%*

Capitals Deployed

Material Issues

M1 M2 M3 M4 M5 M6 M7 M12 M15

Risks

R1 R2 R3

*Vs FY 2023-24

Material topics:

- M1 Biodiversity
- M2 Water management
- M3 Waste management
- M4 Energy and emissions management
- M5 Modernisation innovation and resource optimisation
- M6 Climate change adaptation and mitigation
- M7 Plant efficiency
- M8 Occupational health and safety
- M9 Human rights
- M10 Community development
- M11 Cultural heritage
- M12 Economic performance
- M13 Regulatory compliance
- M14 Anti-bribery & anti-corruption
- M15 Business continuity

S2 Sustainability to Support the Low Carbon Eco-System

Actions Taken in FY 2024-25

- Ordering of Ultra-supercritical main plant equipment exclusively for organic expansions to benefit from greater generation efficiency to reduce fuel usage as well as emissions
- Launched a green ammonia co-firing pilot at its 330MW Mundra plant in partnership with IHI and Kowa-Japan under the Japan-India Clean Energy Partnership (CEP) and NEDO's decarbonisation initiative. The project aims to co-fire up to 20% green ammonia, a carbon-free fuel, reducing CO_2 emissions while leveraging ultra-supercritical technology and NOx control. Techno-economic studies indicate scalability across Adani Power units, with Mundra being the first non-Japanese plant selected for this innovation
- Biomass co-firing at Kawai

Performing on Our Strategy

86.43 million MT
GHG emissions

0.847 tCO_2/MWh
Emission intensity

₹ 57.15 crore
Capital investments in energy conservation

Capitals Deployed

Material Issues

M4 M5 M6 M7

Risks

R2 R4

S3 Leveraging Digital Technology to Enhance Business Sustainability

Actions Taken in FY 2024-25

- Project Beacon to integrate data and analytics for developing long-term analytics capabilities and driving tangible value across plants using AI/ML
- Project Drishti (APM) for implementing AI/ML Predictive & Performance Analytics platform for Asset Performance Management, enabling anomaly detection, real-time monitoring, analysis, simulation and predictive maintenance using advanced pattern recognition
- Extended ACoE to Raipur, Raigarh, Udupi, and Mundra in addition to Tiroda and Kawai, with plans to establish ACoE across all the plants

Performing on Our Strategy

85
New analytics experts

39
Analytics solutions deployed across 6 sites

₹ 30+ crore
Benefits delivered by improving operational efficiency through ACoE advanced analytical models

Capitals Deployed

Material Issues

M4 M5 M6 M7

Risks

R4

S4 Achieve Benchmark Operations, Attain Market Leadership, and Outperform Set Objective

Actions Taken in FY 2024-25

Implementing O&M strategy through:

- Zero Forced Outage programme to minimise unplanned outages and increase power plant availability
- Unit Cycle Efficiency and KPI benchmarking to optimise fuel consumption, costs and processes
- Project Beacon for data insights-driven performance and quality improvement

Rollout of Asset Performance Management (APM) programme under Cycle 2 to:

Mahan U2, Kawai U1&2, Tiroda U1,2&4, Godda 1&2, Udupi 1&2, Mundra U3,4,5,6,8&9

Ensuring efficient fuel management through:

- Secured coal linkages
- Invested in coal blocks and logistics infrastructure to reduce external dependence and procurement costs
- Implementing stringent quality control measures for consistent coal quality
- Advanced storage management systems to enhance inventory accuracy and reduce losses

Performing on Our Strategy

102.23 billion units
Power generated; ▲ 19.5%

₹ 17.57 crore
Investment in digital technologies

₹ 3.19 per kWh
Fuel cost per Unit sold; ▼ 11.5%

Capitals Deployed

Material Issues

M5 M7 M8 M12 M15

Risks

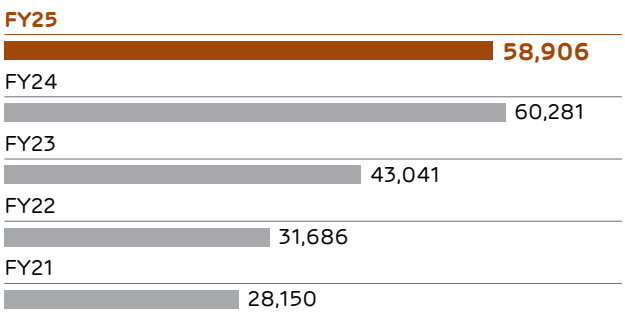
R2 R3 R4

Key Performance Indicators

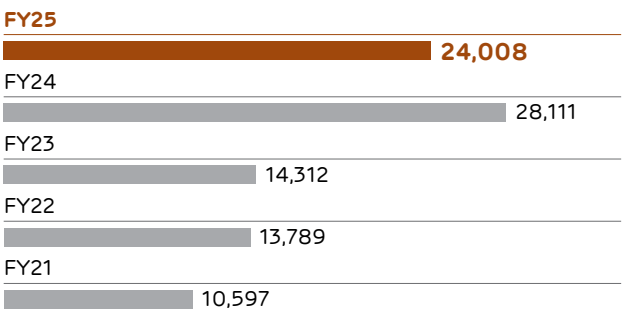
Sustaining Our Growth Momentum

Strong Financial Performance

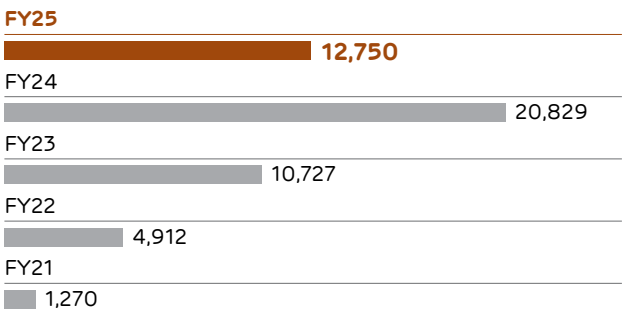
Reported Revenue (₹ Crore)



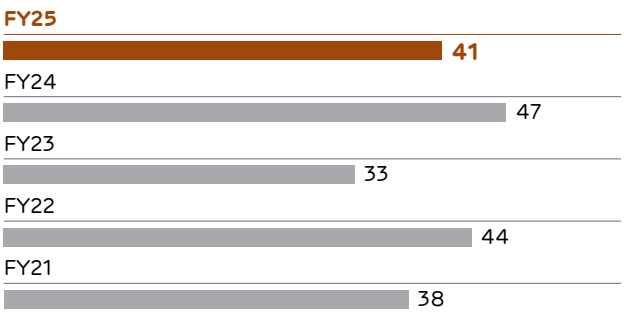
Reported EBITDA (₹ Crore)



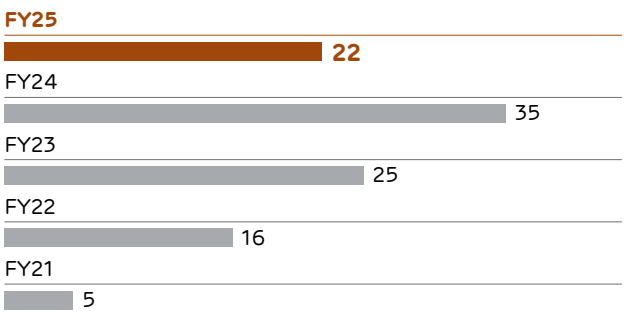
PAT (₹ Crore)



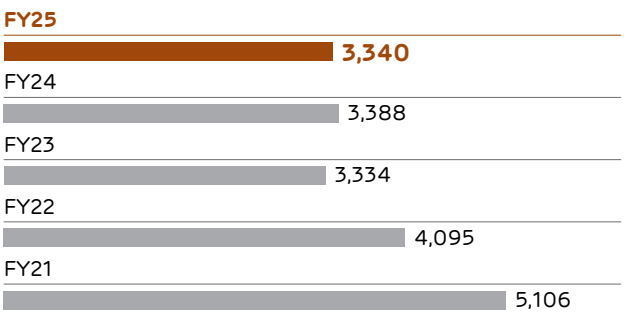
EBITDA Margin (%)



PAT Margin (%)

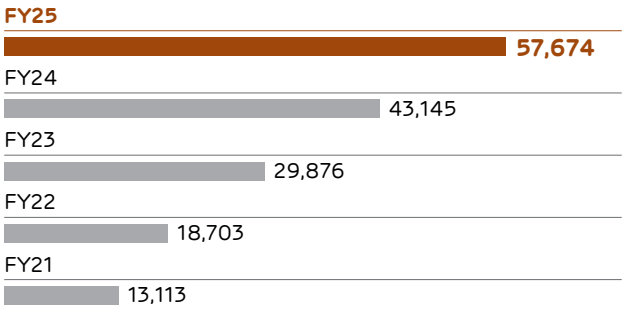


Finance Cost (₹ Crore)

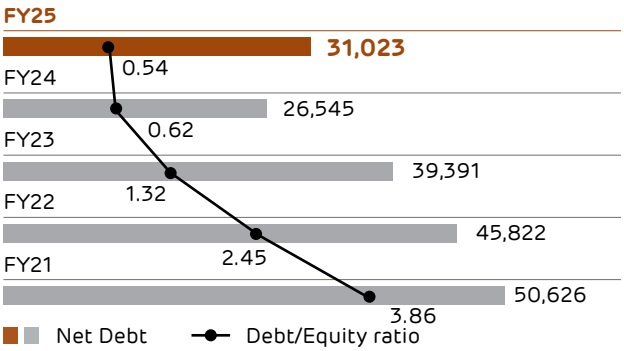


Improving Balance Sheet

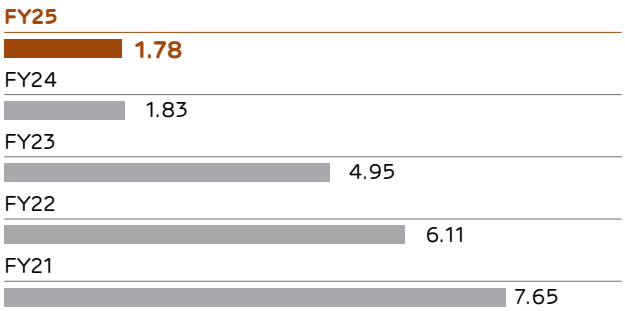
Total Equity (₹ Crore)



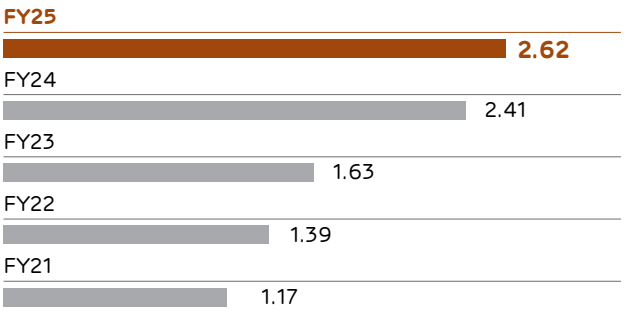
Net Debt and Debt:Equity Ratio (₹ Crore)



Gross Debt to Continuing EBITDA (x)

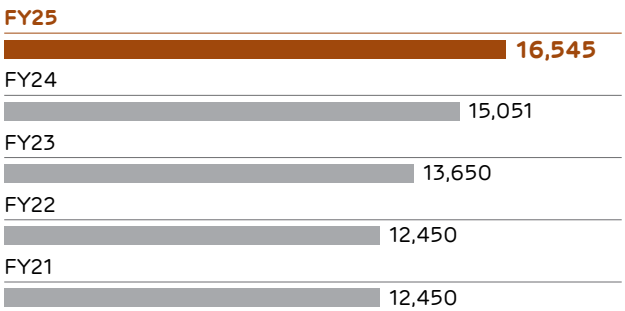


Fixed Asset Coverage Ratio (x)

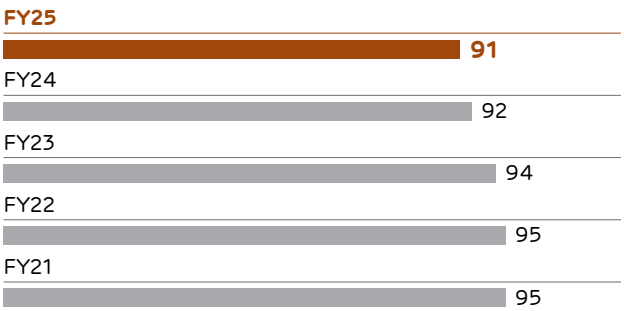


Healthy Operational Parameters

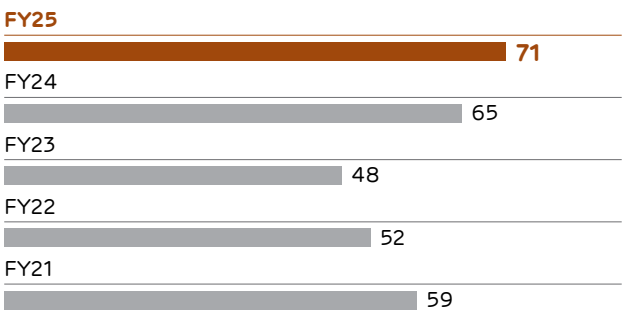
Effective Capacity (MW)



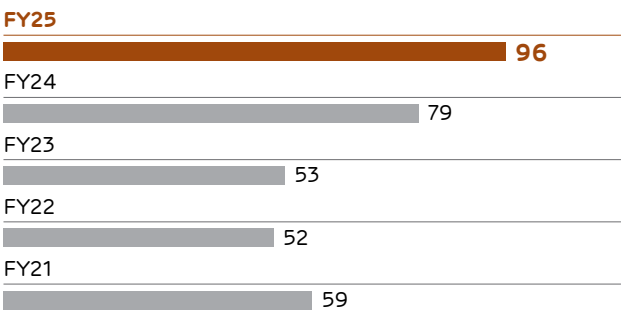
Plant Availability (%)



Plant Load Factor (%)



Sales Volume (Billion Units)



Key Statistics

2,300 MW
Capacity added in FY 2024-25

91%
O&M availability

71%
Plant load factor (PLF) achieved in FY 2024-25

96 BU (↑ 21%)
Despatch performance achieved in FY 2024-25

79%
Contracted Power Purchase Agreement (PPA)
Sales volume mix achieved during FY 2024-25

21%
Merchant / Short Term

Mundra

Adani Power Mundra, one of India's largest single-location thermal power plants, has a cumulative capacity of 4,620 MW (4x330 MW + 5x660 MW). It is India's first super-critical power plant, setting industry benchmarks with best-in-class project execution – synchronising its first unit in 36 months and commissioning three units in a single year. Spread across 734 acres, it is India's largest private thermal power plant and the world's first coal-based plant registered with UNFCCC under CDM. With 94% capacity under long-term PPAs, the plant ensures reliable power supply, with the balance available for open market and energy exchange sales.

Key Statistics

71.1%
Plant Load Factor (PLF) during FY 2024-25 (vs 55.4% during FY 2023-24)

686 days
uptime for Unit 4 (330 MW capacity) sub-critical technology

444 days
uptime for Unit 7 (660 MW capacity) supercritical technology

National uptime record achieved till September 2020

Key Differentiating Factors

- Zero groundwater dependency due to abundant seawater availability
- 220KV and 400KV networks with 400/220KV ICTs for efficient power evacuation, plus a 500KV Bipole HVDC linking Mundra to Mahendragarh, enabling 2,500 MW transmission between Western and Northern grids
- In-plant coal storage with a dedicated port and high-speed coal conveyor for seamless supply
- Sea water-based Flue Gas Desulphurisers (FGD) in Phase IV ensure eco-friendly power generation
- In-house training facility with simulators for 330 MW & 660 MW units
- 100% ash utilisation

Enhancing Plant Efficiency

- Executed capital overhaul of Unit 2 & Unit 8 for safe, reliable operations
- Replaced air preheater baskets to eliminate bottlenecks
- Conducted trials to transition the unit from base load to flexible operations
- Modified MDBFP cartridge and installed it in Unit 2
- Replaced 10 high-power cooling tower fans with energy-efficient Encon fans
- Installed debris filter in Unit 8
- Completed aluminium scaffolding installation for the boiler furnace
- Enhanced efficiency through digital transformation and optimised costs for improved productivity

Capex Highlights

₹ 84.56 crore

Capex incurred for improvement in safety, reliability, equipment availability, operational efficiency

Capex planned to reduce overhauling time which includes:

- **ICCP system installation at PH4-Cooling tower**
- **Quick erect scaffolding to reduce overhaul downtime**
- **Asset Performance Monitoring implementation**
- **Upgraded MSV & RSV Assembly for 660 MW**
- **Battery bank replacement**
- **Procurement and installation of Perimeter Intrusion Detection System (PIDS) for remaining perimeter (7 KM)**
- **Upgradation of Simulator 660**
- **Centrifugal compressor 4000CFM**

3-4 Years

Expected break-even for applicable capex activities

Awards and Accolades

- Adani Power Mundra Achieved "Diamond" category AWMA accreditation during 3rd AWMA accreditation Cycle on 23rd August 2024
- Awarded "Par Excellence Award" to three teams at NCQC 2024, Gwalior
- Achieved the esteemed "Par Excellence" award, the highest category, during the AWMS (5S) JUSE Surveillance Audit by QCFI (14th–16th November 2024)
- Honoured with the "Excellence in Infrastructure" Award at the Kutch Business Excellence Award 2.0 by FOKIA
- Recognised as a Top Performer in the Digital Proficiency Course by AIDTM
- Ensured swift recovery from heavy rains and flooding, restoring normal operations in record time, including the heavily damaged RO water system and unit revival
- Secured four "Gold Awards" at AHCCQC 2024 (QCFI-Ahmedabad) for Kaizen & 5S case study presentations
- Won the prestigious "Safest Plant of the Year" title in Adani Thermal Power Business (2023-24)
- Awarded "Par Excellence" to two teams at the 10th National Conclave on 5S by QCFI

Tiroda

Adani Power Tiroda, Maharashtra's largest domestic coal-based power plant, is located in Gondia district. Commissioned between August 2012 and October 2014, it operates at a 3,300 MW capacity with five 660 MW supercritical units, meeting ~11% of the state's power demand. The plant has a long-term PPA with MSEDCL for 3,085 MW capacity.

Key Statistics

74.7%
Plant Load Factor (PLF) during FY 2024-25, (vs 73.3% during FY 2023-24)

94.75%
O&M availability

Key Differentiating Factors

- Features the pioneering Rail Under Rail system with a private railway siding spanning over 50 km
- Tiroda (Phase-I) is the world's second coal-based thermal power project registered under the UNFCCC's Clean Development Mechanism (CDM)
- Maharashtra's first and largest supercritical power station
- Commissioned the state's first 765 kV transmission line (360 km), with evacuation at 765 kV & 400 kV
- Barrage at Dhapewada on the Wainganga River (12 km) under a cost-sharing model with VIDC
- Implemented nine ISO standards

Coal Sourcing from

- Southern Eastern Central Coal Field Ltd. (SECL)
- Western Coal Field Limited (WCL)
- Mahanadi Coal Field Limited (MCL)

Efficiency Improvement

- Completed annual overhaul (AOH) for Units 2 and 5, including statutory approvals renewal
- Replaced APH baskets in Units 2 and 5
- Upgraded lighting by replacing conventional HPSV lights with LEDs in BOP, AHP, and outdoor areas
- Installed IFC Controller in the air compressor
- Upgraded DCS control processor from FCP 270 to FCP 280
- Implemented automated tools for real-time monitoring, including equipment health index and soot blowing optimiser
- Deployed the Asset Performance Monitoring (APM) tool to track process deviations and trigger AI-based alerts

Capex Highlights

₹ 90.2 crore

Capex incurred for activities including reliability, availability, as well as efficiency improvement initiatives

3-4 Years

Expected break-even for applicable capex activities

Awards and Accolades

- Adani Power, Tirora received the First prize in Best boiler user competition Maharashtra state organised in 2024
- Tirora is adjudged for "National Power Gen Water Management Award" by Council of Enviro Excellence
- Boiler India 2024 – best power plant category gold award
- Received FIVE STAR rating based on the audit conducted by British Safety Council in 2023
- Honoured with 2nd Level Award "SHRESHTHA SURAKSHA PURASKAR" and silver trophy in National Safety Award 2023, 2024
- Awarded with Gold trophy in maintenance excellence in power category in 2023
- Received 3 awards in 2024:
  - Sustainable performance in the private sector
  - Operational excellence for best energy-efficient unit
  - National energy-efficient team of the year

Kawai

Adani Power Kawai, Rajasthan's largest thermal IPP, boasts a 1,320 MW installed capacity. It features two advanced 660 MW supercritical units, marking the state's first supercritical power plant. Equipped with a 1,500m airstrip for swift connectivity, it employs state-of-the-art environmental management technologies.

Key Statistics

79.4%

Plant load factor (PLF) during FY 2024-25 (vs 76.6% during FY 2023-24)

Key Differentiating Factors

- Operates with a commitment to **stringent safety standards**
- Upholding its dedication to **sustainability** and **environmental stewardship**

Enhancing Plant Efficiency

- Installed an external ICCP system in CW pipes
- Completed Unit-2 annual overhauling, including replacement of intermediate and cold-end APH baskets, improving boiler performance and reducing station heat rate by 3.5 kCal/kWh
- Used quick-erect boiler scaffolding during Unit-2 overhaul, optimising downtime, enhancing availability, and improving overhaul quality
- Replaced conventional lights in CHP & BOP areas with LEDs, reducing auxiliary power consumption
- Adopted a coal blending strategy to meet PPA commitments and successfully operated units at 55% technical minimum for grid stability

Digital Transformation and Cost Optimisation

- Executed 13 data analytics and 17 digitisation projects to optimise costs and drive continuous improvement
- Implemented Project Drishti (VISTA What-If by Black & Veatch) for strategic analysis of coal quality impacts, reducing power generation costs
- Enhanced data analytics to improve cooling tower reliability, optimise mill power consumption, and refine combustion optimisation tools

Operational Excellence

- Completed Adani Business Excellence Model (ABEM) assessment covering leadership, strategy, operations, and workforce management
- Implemented 5S and Quality Circle practices for efficient workplace management, supported by detailed floor plans for unit overhauls
- Standardised O&M processes through various IMS initiatives
- Leveraged SAP mobility for remote PTW system access, enhancing operational efficiency

Capex Highlights

₹ 30.4 crore

Capex incurred for reliability, availability as well as efficiency improvement

3-4 Years

Expected break-even for applicable capex activities

CASE STUDY

- **Automatic release of access control**

  Automatic release of the access control gate at service building in case of fire, through digital communication between Fire Alarm System PLC and Security access control system

- **Digitisation of Arc Suit Detection**

  Real-time video analytics-based application to detect person without arc flash suit and disseminate safety alert message

- **CT Fills chocking prediction – Project Beacon**

  Analytical approach for prediction of CT fills chocking for timely initiation of actions, thereby reducing the impact plant performance

- **Digital contactless boiler expansion indicator**

  Digitalisation of measurement using ultrasonic sensors for real-time monitoring

Udupi

Adani Power Udupi, an imported coal-based facility, has a 1,200 MW capacity with two 600 MW subcritical units. Strategically located near key transport hubs – 15 km from the sea, 40 km from rail and air facilities – it ensures efficient coal supply, material movement, and quick access to emergency spare parts.

Key Statistics

51.8%
Plant load factor (PLF) during FY 2024-25 (vs 53.7% during FY 2023-24)

Higher availability
Achieved on account of strict compliance of ZFO & RCA recommendation points

Better Heat Rate
Achieved through implementing U2 APH Basket Replacement, NDCT fills replacement, etc.

Key Differentiating Factors

- Pass-through variable costs in PPAs boost revenue via improved generation, heat rate, and APC
- Long-term PPAs and low ash design optimise emissions and support sustainable ash utilisation

Enhancing Plant Efficiency

- Conducted manual desilting to restore station capacity and commissioned an in-house robot for future desilting, enhancing efficiency and safety
- Installed a Remote Operated Vehicle (ROV) with in-house expertise for desilting the sea water system in FY 2024-25
- Implemented heat rate and APC improvement projects, including Unit-2 APH basket replacement, NDCT fills replacement, and LED lighting upgrades to optimise plant performance
- Completed trials to transition the generating unit from base load to flexible operation

Asset Management

- Developed an integrated dashboard for real-time tracking of inventory, OPEX utilisation, and maintenance scheduling, reducing manual data handling
- Undertaking refurbishment and indigenisation of high-value maintenance spares for cost efficiency

Infrastructural Upgrades

- Integrated ICCP to protect concrete structures, particularly cooling towers
- Ongoing upgrade of the FGD system to achieve 100% capacity

Capex Highlights

₹ 48.01 crore

Capex incurred for activities including reliability, availability, as well as efficiency improvement initiatives.

Challenges faced	Mitigation approach
Reliability of Sea Water System (Silt Formation)	▪ Annual manual/robotic inspection and desilting of intake pipelines (South & North) ▪ Revival of the sea water outfall line
Structural Corrosion (Saline Environment)	▪ Structural repairs and painting as per condition assessments ▪ Rectification of corroded civil structures (chimney, NDCT) ▪ ICCP installation in NDCT 1 & 2
Non-Competitive Merit Order Despatch (MOD) Price	▪ Blending imported coal with Indian coal ▪ Fuel cost savings through SHR/APC optimisation (LAKSHYA) ▪ Cost-effective imported coal procurement
Frequent Start-Stop Operations (Reserve Shutdowns)	▪ Regular maintenance to ensure readiness ▪ Operational optimisation to manage demand fluctuations ▪ Enhanced flexibility to meet varying power needs ▪ Close coordination with state load despatch centres

CASE STUDY

Digital Transformation and ACoE Updates

Adani Power Udupi has implemented several AI, ML, and Robotic Process Automation initiatives. These projects have significantly enhanced operational efficiency, optimised resource utilisation, and fostered innovation across departments.

- **Combustion Optimisation**

  A machine learning model, to recommend optimal setpoints. It optimises various boiler performance parameters while considering operational constraints.

- **Selective Soot Blowing Tool**

  Developed using Principal Component Analysis (PCA), this tool estimates soot accumulation. It improves heat gain in individual zones, enhancing the heat rate.

- **Best Mill Combination Prediction Tool**

  Recommends optimal mill combination before load changes to ensure efficient mill operation during load variations.

- **Smart AI Arc-Flash Suit Locker**

  An AI-driven safety system for detection of arc-flash suit, during HT/LT breaker isolation or normalisation, mitigating electrical safety risks.

- **Smart Rake Detection Using Computer Vision**

  A safety alert system designed to detect approaching trains/rakes, safeguarding workers during track maintenance or cleaning activities

Raipur

Adani Power Raipur operates two supercritical units of 685 MW each, with a total capacity of 1,370 MW. Strategically located near Chhattisgarh's capital and within 150 km of coal mines, it ensures a reliable fuel supply for uninterrupted power generation. The plant also has additional land, on which Phase-II capacity expansion of 1,600 MW is being carried out.

Key Statistics

78.3%

Plant Load Factor during FY 2024-25
(vs 72.2% in FY 2023-24)

Enhancing Plant Efficiency

- Executed capital overhaul of Unit 2 with major maintenance to improve KPIs like heat rate and auxiliary power consumption
- Ensured safe, reliable operations through corrective and preventive maintenance
- Optimised generation costs through strategic coal blending

Process Optimisation

- Implemented Project "Beacon" for combustion and soot blower optimisation, with dashboards for rake placement, balanced scorecards, and AHP APC optimisation using ML algorithms and Power BI

Workplace Management

- Adopted the Adani Business Excellence Model (ABEM) across leadership, strategy, operations, and workforce management
- Applied 5S and quality circle practices, optimising space and time utilisation with detailed turbine COH floor plans

Capex Highlights

₹ 44.60 crore

Capex dedicated for

- Enhancing efficiency and maintenance
- Ensuring system reliability
- Upgrading outdated components
- Integrating advanced technologies

Major capex projects adhered during FY 2024-25:

- **APH Baskets replacements** for Unit-2
- **NDCT Fills replacements** for Unit-2
- **Online Dissolve Gas Analyser** for power transformers
- **Hot & Cold air gate installation** in coal Mills in Unit-2
- **Flexible operation study/ implementation** as per CEA guideline
- **Speed Raise Project** as per requirement of Indian Railways
- **System 1 upgradation** in Unit-2
- **PLC Hardware Upgradation** Allen Bradly PLC

3-4 Years

Break-even tenure for applicable capex projects

Challenges and Mitigation Strategies

Challenges faced	Mitigation approach
Operational challenge of units operating at very low load due to growing renewable energy penetration and energy demand fluctuations during 24-hour operations	▪ Engaged M/s Intertek for a flexible operations study to ensure safe, efficient low-demand operations ▪ Implement modifications and technology upgrades based on study outcomes in FY 2025-26 ▪ Strengthen monitoring and forecasting to manage demand fluctuations ▪ Diversify revenue streams and optimise plant utilisation during low-demand periods

CASE STUDY

Key Upgrades for Efficiency Improvements

- **APH Basket Replacement (Unit-2)**

  Replaced both APH hot-end baskets during COH to address high DP across flue gas and primary air, significantly improving heat rate and overall efficiency

- **NDCT Fill Replacement (Unit-2)**

  Replaced 3,400 m³ of NDCT fills during COH to enhance cooling performance, leading to improved heat rate and operational efficiency

- **Hot and Cold Air Gate Installation (Unit-2)**

  Installed hot and cold air gates in two coal mills to safely isolate leakage areas, enabling maintenance without complete shutdowns and improving equipment availability

- **Online Dissolved Gas Analysis (DGA)**

  Implemented an online DGA system for real-time monitoring of transformer oil, providing early fault detection and enhancing transformer reliability and maintenance efficiency

Raigarh

Adani Power Raigarh, Chhattisgarh operates a 600 MW subcritical facility, ensuring a stable fuel supply from nearby coal sources (60–100 km). Project is underway to expand capacity with 1,600 MW reinforcing Adani Power's commitment to energy growth in the region.

Key Statistics

83.2%
Plant load factor during FY 2024-25 (vs 75.4% during FY 2023-24)

99.45%
PLF achieved in April 2024, surpassing the previous best PLF figures 98.3% in March 2022

5th rank
Achieved in all India PLF during the first quarter FY 2024-25

Efficiency and Reliability

- Completed a short shutdown in December 2024, improving APC by 0.21% through reduced draft system leakages
- Conducted regular high-energy drain and safety valve surveys; identified valve lapping completed during shutdown, achieving the best monthly DM water consumption (0.22% MCR in January 2025)
- Standby motor installed for APH drive, with corresponding logic modifications for reliability
- Converted Boiler SADC END AIR (AA) elevation damper to remote operation, optimising excess oxygen and improving wind-box DP (~6mmwc at low load)

Energy Optimisation

- Replacing 1,000 HPSV lamps with LEDs, saving 0.35 MUs annually
- Implemented a Python-based Coal Cost Optimiser tool to enhance generation cost efficiency
- New HPH-5B material received for replacement in COH'25

Technological Upgradation

Two Adani Power Raigarh Teams Qualified for Final Presentations

- Online Monitoring of Hazardous Gases using Arduino & IoT
- Video Analytics-Based Smoke & Fire Detection at RWPH

Capex Highlights

₹ 20.3 crore

Capex incurred for the following activities:

- PLC and workstation upgradation, DAVR MAX-station upgradation
- Standby motor provision for APH drive, Retrofit of TG Chiller MCC
- Development of Coal parking area, Kalma Pump house Stone pitching
- 100 MT weighbridge installation for ash utilisation improvement at main silo

3-4 Years

Expected break-even tenure for applicable capex projects

Challenges and Mitigation Strategies

Challenges faced	Mitigation approach
Operating unit at below 50% load as a merchant unit	▪ Strengthen monitoring and forecasting to adapt to demand fluctuations ▪ Optimise plant utilisation and explore revenue diversification during low demand ▪ Work with OEM to improve efficiency at low load

CASE STUDY

Integrating Digital and Operational Excellence Initiatives

- **Implementation of safety dashboard**

  Deployed real-time safety dashboards for performance tracking and informed decision-making

- **Development of asset health index**

  Integrated Asset Health Index via Aveva PI to monitor and compare critical equipment performance in real time

Awards and Accolades

- Won Best Environment Excellence Unit - COAL Above 500 MW (IPP) & Best Environment Excellence Plant of the Year (Private Sector) at the CEE 3rd National Power-Gen Environment Excellence Award 2024
- Received the prestigious "Platinum Award" at the 9th Apex India Occupational Health & Safety Awards 2024
- Secured "Excellent" (Team Voyagers) and "Par Excellence" (Team Pragati) at the 10th National Conclave on 5S, Coimbatore during June 2024
- Won the Excellence Award (Team Transformers) at NCQC, Gwalior during December 2024

Mahan

Mahan Energen Limited, located in Madhya Pradesh, is a 1,200 MW subcritical plant with two 600 MW units. Its proximity to coal mines ensures fuel efficiency, complemented by a stable water supply from the Rihand reservoir. Phase-2 expansion of 1,600 MW is underway.

Key Statistics

79.2%

Plant Load Factor (PLF) during FY 2024-25
(vs 63.9% during FY 2023-24)

Station Infrastructure Improvement

- Commissioned the Fly Ash Brick Plant
- Completed key civil infrastructure projects: CHP O&M Building, Chemistry & Environment Labs, O&M Canteen, OHC Building, FQA Lab, Fire Station, and Gate Complex
- Enhanced security with an advanced surveillance system featuring line/area crossing detection, motion detection, tampering alerts, and offline/device recording loss notifications
- Completed Unit-2 annual overhaul, covering pressure part repairs, coal burner and APH basket replacements, ESP overhauling, turbine bearing, and GT inspections
- Deployed Asset-360 (M/s B&V) for real-time equipment monitoring and early fault detection
- Installed and commissioned upgraded disturbance recorders in both units

Performance Optimisation

Condenser Vacuum Improvement

- Installed 8,900 sq.m safety nets on CW forebay to prevent debris ingress
- Inspected and maintained all 48 CT cells, ensuring nozzle integrity and de-clogging fills
- Completed condenser water jet cleaning and addressed air ingress points for better heat exchange

Combustion Air Flow Optimisation

- Conducted CFD analysis for U1 & U2 boilers, implementing diverter plates for improved flow distribution

Flexible Operations

- Ongoing implementation in Unit-1 to enhance load change management

Capex Highlights

₹ 67.8 crore (approx.)

Major capex projects adhered during FY 2024-25:

- **Replacement of U-2 APH baskets**
- **Upgradation of Unit-2 DCS and PLCs** to address obsolescence
- **Installation and commissioning work** of RWIS remote monitoring system
- **UPS Battery bank replacement** in U-1
- **New Dozer DB155** was inducted in CHP heavy equipment fleet
- **New man lifter** procured and put in service for height work safety

Awards

- MEL achieved 5S certification in Excellent Category by QCFI India in the month of November 2024
- Received 6 Gold and 2 Excellence awards in QCFI conventions held in Varanasi, Indore and Gwalior
- Felicitation by District Administration, Singrauli for highest contribution of 251 units of blood by Mahan Energen Limited in Singrauli district
- MEL Shantigram Township ranked 2nd for Swachh Ward assessment by Municipal Corporation Singrauli

Godda

Adani Power Godda is the only power plant located in India's special economic zone, featuring two ultra-supercritical 800 MW units, aggregating to 1,600 MW. Equipped with Selective Catalytic Reduction (SCR) for NOx reduction and Flue Gas Desulfurisation (FGD) for SOx control, the plant exemplifies a commitment to sustainability and technological excellence. It pioneers transnational power supply to Bangladesh under a long-term PPA and is the first project built and operationalised under India's Cross Border Trade of Electricity (CBTE) guidelines.

Key Statistics

59.1%
Plant load factor (PLF) during FY 2024-25
(vs 63.3% during FY 2023-24)

Digital Transformation

- Implemented Asset Performance Monitoring (APM) tool to track process parameter deviations and trigger alerts
- Undertaken Digital transformation initiatives that enhance efficiency, productivity, and cost optimisation

Operational Optimisation

- Implemented domestic coal blending to minimise fuel costs
- Modified Wagon Tippler, including a 13-metre deflector plate and gap covers, eliminated coal spillages, improving cycle efficiency and reducing demurrage hours
- Successfully completed Performance Guarantee (PG) tests in both units

Auxiliary Power Reduction Initiatives

- 05-mill operation at full load / 04-mill operation at part load
- PA/CF ratio optimised (2.0 to 1.8 at full load, 2.2 to 2.0 at part load)
- AHP TAC RH time reduced by 4 hours by resolving high hopper level concerns
- Power savings through leakage arresting, CT fan stoppage during favourable conditions, and CEP speed reduction via VFD

Heat Rate Reduction Initiatives

- MS & HRH temperature optimised via better feed water control using an OHDR control loop
- Station DM make-up reduced by 0.15% by addressing high drain valve leakage

Capex Highlights

₹ 30.9 crore

Expected capex incurred for reliability, availability as well as efficiency improvement i.e.,

- Civil Infrastructure development
- Project Leftover jobs
- OHC & CHP Building
- Lab facility enhancements, special tool & tackles, and safety enhancements

3-4 Years

Expected break-even tenure for applicable capex projects

Challenges and Mitigation Strategies

Challenges faced	Mitigation approach
▪ Outstanding dues because of less realisation from BPDB ▪ Less demand of power from BPDB	▪ Connecting with Indian Grid as alternative source of power sale ▪ Connecting with Indian Grid to increase power sale

CASE STUDY

Integrating Digital and Operational Excellence Initiatives

- **Aveva PI Platform**

  Enabled real-time data analysis and operational modelling, enhancing efficiency and performance optimisation

- **Adani Standard DISHA process**

  Standardised processes and optimised resources, driving operational excellence across the plant

- **Project Chetna**

  Strengthened safety practices with strict adherence to protocols, effective monitoring, and continuous improvement

- **Balanced Scorecard (BSC)**

  Improved operational efficiency, accountability, and performance through structured monitoring and evaluation

- **INNOPOWER**

  Integrated operational excellence initiatives to enhance problem-solving capabilities within teams

Korba

Adani Power Korba, formerly Lanco Amarkantak Power Limited, was acquired by Adani Power Limited through the Corporate Insolvency Resolution Process. It operates a 600 MW capacity under Phase-I, with two 300 MW units. Strategically located in Chhattisgarh's coal belt near Pathadi Village, it benefits from a nearby coal mine (9 km) and the Hasdeo reservoir (5 km) for a reliable water supply. Spanning ~1,338 acres along the Korba-Champa State Highway, the plant is expanding its capacity by an additional 1,320 MW under Phase-II, reinforcing its role in the region's energy infrastructure.

Key Statistics

87.6%

Plant load factor (PLF) during FY 2024-25

Efficiency Improvement

- Roller reversal/replacement in Mill 1A, 1B, 1C, 1E & Mill 2E, reducing SEC by 7.62 kWh/MT
- Attended unit 2 duct leakages, HAD seal, and leakage arresting during short shutdown (CTL-Nov 2024), cutting fan power consumption by 10.49 MWh/day
- Arrested BFP 2B & CEP R/C valve passing, reducing power usage by 10.98 MWh/day
- Water box and tube jet cleaning improved Unit HR by 15–18 kCal/kWh

Capex Highlights

₹ 16.2 crore

Capex planned for improvement in safety, reliability, equipment availability, operational efficiency as well as to reduce overhauling time

Challenges and Mitigation Strategies

Challenges faced	Mitigation approach
Ash evacuation in unit 2	▪ Modification from vacuum ash conveying system to pressurised ash conveying system to be implemented during FY 2025-26

Awards and Accolades

- Received the following certificated
  - ISO 9001:2015, 14001:2015 & 45001:2018 in 2023
  - Received ISO 50001:2018 in 2022
  - ISO/IEC 27001:2013 (ISMS) in 2022
- Received Appreciation Certificate by CII for best practices in energy efficiency in 2020
- Coal lab is accredited with NABL in accordance with standard ISO/IEC 17025:2017
- Awarded with five-star occupational health and safety audit by British safety council in 2017
- Awarded with sword of honour by British safety council in 2017
- Received Merit Award in Sustainability Energy Award in 2016 organised by CREDA
- Won 2nd prize in the National Technology exhibition for promoting industrial energy efficiency in 2016 organised by BEE
- Received Prashasti Patra in National NSCI safety award in 2015
- Received the Appreciation Certificate in National NSCI safety award in 2014
- Received Prashasti Patra in National NSCI safety award in 2013
- Won the National Golden Peacock OHS award in 2012
- Won the silver award in National Genentech Safety award in 2012

Mutiara (Thoothukudi)

MPGL is the special purpose vehicle into which Coastal Energen Private Limited was amalgamated upon acquisition. Adani Power holds 49% stake in MPGL as part of a Consortium. It operates a 1,200 MW (2 × 600 MW) coal-based thermal power plant in Thoothukudi, Tamil Nadu, using subcritical technology. Spread across 1,089 acres of freehold land, the plant is fully utilised for power generation and benefits from excellent connectivity to major transport networks.

Key Statistics

42.7%

Plant load factor (PLF) during FY 2024-25

Efficiency Improvement

- Performed boiler water washing in both units to reduce leaving loss
- Cleaned APH basket in Unit-2
- Conducted helium leak test in both units and addressed air ingress points
- Partially replaced turbine high-energy drain valves
- Conducted condenser flood test for both units and attended to ingression points

Capex Highlights

₹ 18.3 crore

Capex planned for improvement in safety, reliability, equipment availability, operational efficiency as well as to reduce overhauling time

Awards and Accolades

- Received Golden Award from GREEN TECH FOUNDATION, New Delhi, for environmental excellence in 2018
- Received TNPCB's Green Award from the Hon'ble Chief Minister of Tamil Nadu for environmental excellence in 2016-17
- Received Golden Award from GREEN TECH FOUNDATION, New Delhi, for environmental excellence in 2016
- Won the 20th Annual Green Tech Environment Award 2020 under the thermal power sector category

Dahanu

Adani Dahanu Thermal Power Station (ADTPS), commissioned in 1995, is a benchmark in India's thermal power sector, known for efficiency, sustainability, and innovation. Focussed on operational excellence, it has achieved key milestones while upholding environmental and social responsibility. ADTPS's commitment to innovation and community development reinforces its leadership in power generation, reflecting its dedication to excellence and sustainable growth.

Key Statistics

70.7%
Plant load factor (PLF) during FY 2024-25

First utility in India
That installed a Flue Gas Desulphurisation (FGD) unit with 100% capacity

Technological Innovations

Patents

- Development of the DDC Card Testing Kit
- Offline Isolator Testing Jig for 220 kV systems

Copyrighted Works

- Reduction in overhauling time
- Energy Deviation Report optimisation
- Improvement in coal mill performance through automated operations

Capex Highlights

₹ 29.2 crore

Capex planned for improvement in safety, reliability, equipment availability, operational efficiency as well as to reduce overhauling time

Future Outlook

ADTPS plans key capital expenditure projects to sustain performance and extend asset lifespan. To achieve 100% ash utilisation, it will install a clinker grinding unit to convert ash waste into a useful product.

Sustainability Highlights

Environmental Initiatives

- Real-time environmental data sharing with the Maharashtra Pollution Control Board (MPCB) and Central Pollution Control Board (CPCB)
- Mangrove plantation and high-density afforestation using the Miyawaki technique
- On-site cultivation of fruits and vegetables

Corporate Social Responsibility (CSR)

- Integrated Tribal Development Project (in collaboration with NABARD) supporting 1,000 tribal families with livelihood initiatives like goat farming, tailoring, and carpentry
- Expansion to 300 additional tribal families in Phase II
- Distribution of e-learning kits to 6,200 students in 31 schools
- Construction of two schools in remote villages
- Establishment of the Swabhiman Centre for skill development
- Installation of water filtration units benefiting local communities
- Establishment of a mother and childcare unit

Awards and Accolades

- ADTPS received 2nd Award in Best Boiler User 2024, in the category of Thermal Power Plant by GoM, Labour Department, Directorate of Steam Boilers.
- All 06 ADTPS - QC teams won the awards in the GOLD category from the Quality Circle Forum of India (QCFI), Thane Chapter, and are qualified for participation in the National Convention scheduled in December 2024.
- CEA awarded the ADTPS Technical Training Centre an 'A' grade category recognition.
- Achieved global certification for the Energy Management System
- Secured 14 ISO Management Standards certifications, including Single-Use Plastic-Free, Zero Waste to Landfill, and Social Responsibility
- Accredited by NABL for Coal and Ash laboratories
- Won over 150 national and international awards for performance, quality, environment, and safety
- Earned five Prime Minister Shram Awards and 19 Vishwakarma Rashtriya Puraskars for process innovations