



STRATEGIC REVIEW

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Business model

Integration-driven value creation

Input



Financial Capital

- ₹ 23,011 crore net worth
- ₹ 62,987 crore asset base
- ₹ 8,431 crore in cash and cash equivalents



Manufactured Capital

- 26,696 ckm of Transmission Lines
- 79 Substations
- 90,236 MVA power Transformation capacity
- 8,241 kms of OPGW fibre network
- ~31 lakh smart meters installed



Intellectual Capital

- ₹ 2.76 crore (grid) / ₹ 23.27 crore (retail electricity) investments in digital transformation and automation initiatives
- ₹ 2,015 crore investment in smart grid upgradation
- 85% of total investments in Renewable evacuation in Transmission
- ₹ 4.99 crore investments in capacity building for corporate learning



Human Capital

- 1,881 permanent employees
- 5,392 contractual workforce
- 5% female representation
- 83% workforce consists of engineers and professionals
- 2,95,697 hours of learning and development
- ₹ 29.74 crore spent on employee well-being initiatives



Social and Relationship Capital

- 713 suppliers
- 98% of local sourcing
- ₹ 43.84 crore spent on CSR
- 3.18 million electricity customers



Natural Capital

- 6,24,000 trees planted
- 3.3 MW of captive solar capacity
- ₹ 2,015 crore invested in eco-friendly technologies
- 10,29,334 KL fresh water withdrawal
- 700 MW wind solar hybrid power purchased



Our Business Model



Culture

Passion

Performing with enthusiasm and energy

Results

Consistency in achieving goals

Integration

Working across functions and businesses to create synergies

Dedication

Working with commitment in the pursuit of our time

Business Activities and Operating Model

Power Transmission and Distribution



Transmission

Operating and maintaining power transmission assets with high availability

25 TBCB

Transmission assets

5

RAB Assets



Distribution

Operating and maintaining distribution network with minimal losses and best of reliability

485 sq km

Licensed distribution area in Mumbai and Mundra SEZ

352.38 million units

Green unit supplied in AEML

Key Strategic Priorities

- Safety Culture
- ESG Integration
- Efficient Capital Allocation and Execution Capabilities
- Portfolio of Efficient Operating Assets
- Robust Financial Profile
- Business Excellence

Enablers



Development and construction expertise



Operational and execution excellence

▶ Outcomes

Entrepreneurship

Seizing new opportunities with initiatives and ownership



Vision

To be a world-class leader in businesses that enrich lives, create sustainable value and contribute to nation-building



End Users

Reliable electricity to retail customers

31,85,717

Retail customers in AEML

Products and Services



Smart Metering

Executing projects under TOTEX model (capex + opex)

2.28 crore

Smart meter order book



Cooling Solutions

Offer Cooling as a Service model (CaaS)



Cutting-edge technologies



Skilled workforce



Collaborative partnerships



Innovation



Capital management and allocation



Sustainable practices

Financial Capital

- 15 transmission & 9 Smart metering projects with total contract value of ₹ 73,563 crore
- ₹ 17,057 crore operating revenue
- ₹ 7,746 crore EBITDA
- ₹ 1,810 crore Adjusted PAT**
- 3.2x Net Debt to EBITDA ratio
- ₹ 132 crore incentive earned in transmission

Manufactured Capital

- 30.17% y-o-y increase in transmission network in ckm & 58.27% y-o-y increase in transformation capacity MVA
- ~28% Market share in TBCB bids
- ~17% Market share in Smart meter bids
- 99.7% transmission system availability
- 99.996% / 99.960% supply reliability (ASAI) in distribution in AEML / MUL
- Improvement in distribution losses to 4.77% vs 5.29% in FY 2023-24 in AEML & to 2.32% vs 2.62% in FY 2023-24 in MUL

Intellectual Capital

- 83.34% of total collection through digital payments in AEML
- 98,828 hours of training to employees related to new technologies
- 2 strategic partnerships with technology providers

Human Capital

- Employee productivity at ₹ 4.12 crore EBITDA/employee
- Attrition rate at 15.15% (Industry average at ~20%)
- 1 fatality (Contractor worker)
- Great place to work certified

Social and Relationship Capital

- 98% raw material / service procured from local vendors
- 100% suppliers screened with ESG criteria
- 59,332 CSR beneficiaries
- 100% of consumer complaints resolved in AEML & MUL
- 101.03% collection efficiency in AEML & 99.74% collection efficiency in MUL

Natural Capital

- 35.20% of clean energy mix achieved
- Zero waste to landfill across all operational sites
- 73.7% reduction (w.r.t. FY 2019-20) in GHG emission intensity
- 12.8% y-o-y reduction in Non-hazardous waste generation
- +40% hazardous waste generation
- 148.90 Ha of forest area avoided with route diversion & optimisation
- Compensatory afforestation over 1,198 hectare

*Adjusted for an exceptional item due to carve-out of the Dahanu power plant of ₹ 1,506 crore.

**Adjusted for regulatory income of ₹ 148 crore in T&D segments and net one-time deferred tax reversal of ₹ 469 crore in AEML distribution business.

Stakeholder engagement

Engaging to ensure collective success

Regular stakeholder engagement is key to sustained growth and success. It enables us to understand their needs and concerns, shaping strategic decisions accordingly. Maintaining transparency in our approach fosters trust and strengthens relationships. Emphasising open dialogue and collaboration ensures long-term value creation for all.



Approach to Stakeholder Engagement

Our operations engage diverse stakeholders across the value chain. A holistic approach fosters strong relationships, ensuring timely and effective issue resolution. Guided by our Stakeholder Engagement Policy, these interactions drive performance, innovation, and competitive advantage. A robust governance framework, led by the Board and policies, ensures an effective and transparent engagement process.

Quarterly Board Reviews



Board-led Stakeholder Relationship Committee

Direct oversight and guidance on the Stakeholder engagement activities of the organisation



Chief Sustainability Officer (CSO)

Development and management of the stakeholder engagement strategy as well as processes at Executive level



Executive Level

Execution of stakeholder engagement process consistent with the strategies defined from the top

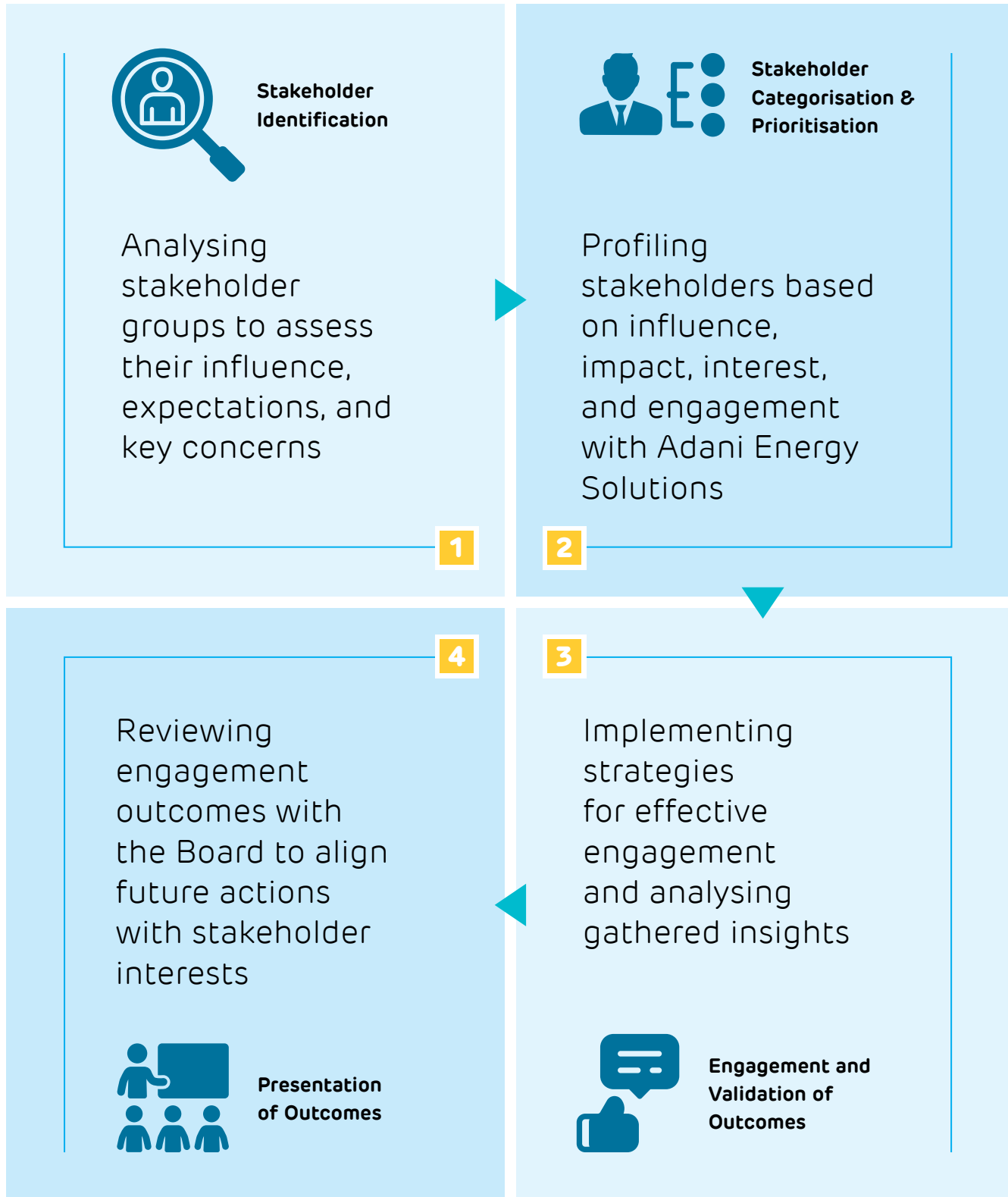


Regular Briefings to the Board

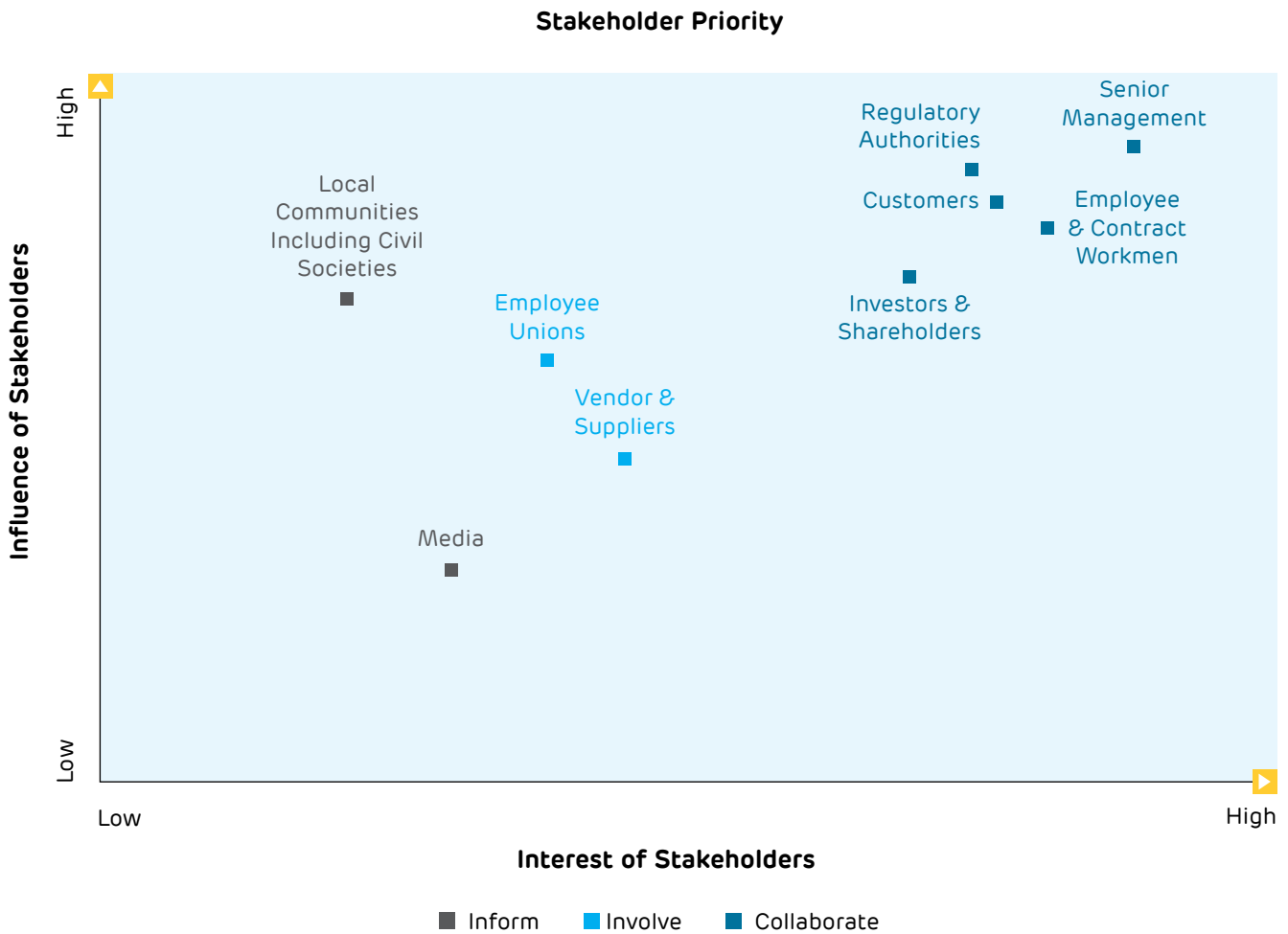


Identifying Material Stakeholders

We have established a four-step process to stakeholder engagement that is guided and overseen by our Board-led Stakeholder Relationship Committee.



Stakeholder Importance



Addressing Stakeholders' Needs and Expectations

We are strengthening our stakeholder engagement by mapping capitals and material topics, highlighting their interconnections across our engagement strategies. The below legend system ensures a clear alignment between stakeholder priorities, material issues, and value creation across multiple capitals.

Financial Capital	Manufactured Capital	M1 Biodiversity and Habitat Management	M11 Diversity, Equity and Inclusion
Intellectual Capital	Human Capital	M2 GHG Emissions & Climate Change	M12 Energy Access & Affordability
Social and Relationship Capital	Natural Capital	M3 Water Stewardship	M13 Human Capital Development
		M4 Occupational Health & Safety	M14 Community Relations
		M5 Customer Relationship Management	M15 Labour Practices & Human Rights
		M6 Employee Engagement	M16 Waste Management
		M7 Business Ethics and Transparency	M17 Supply Chain Management
		M8 Digitisation, Data Privacy & Information Security	M18 Public Policy & Advocacy
		M9 Grid Resiliency	M19 End Use Efficiency and Demand
		M10 Product Quality & Safety	M20 Economic Performance



Employees and Contract Workers (Internal and/External)

Stakeholder Importance

Critical asset enabling us to navigate the ever-changing industry landscape with their skills and dedication

Needs and Expectations

- Work culture that encourages diversity, equity & inclusion
- Fostering innovation within unique markets and customer interactions
- Career growth opportunities
- Learning & development opportunities
- Forums to express and interact with management

Methods of Engagement

- Employee engagement surveys
- Employee feedback surveys
- Townhalls and interviews
- Informal meetings through open forums
- Direct interaction with the MD, CEO and senior management

Engagement Frequency

- Continuously
- Quarterly
- Monthly
- Annually
- Need-based

How we Create or Preserve Value

- Undertake initiatives to promote health & safety, learning & development, and diversity & inclusion
- Offer learning programmes to upskill employees
- Encourage regular career and performance discussions between employees and management
- Maintain an open-door policy for employees to engage with leadership anytime

₹ 4.99 crore

Invested in employee/ workers' well-being measures, training and development

Related Material Themes

M4

M6

M8

M11

M13

M15

Capitals Impacted



Senior Management (Internal)

Stakeholder Importance

Provides strategic direction, oversees risk management, performance, corporate governance, and shapes long-term objectives

Needs and Expectations

- Ethical conduct
- Positive financial performance
- Sustainable and resilient business operations
- Compliance with applicable regulatory requirements
- Transparency in ESG disclosures

Methods of Engagement

- In-person meetings
- Virtual modes such as video conferences, calls

Engagement Frequency

- Quarterly
- Need-based

How we Create or Preserve Value

- Conduct quarterly reviews of risk management process, stakeholder engagement, ESG-related matters
- Update senior management on the overall performance of the organisation on financial and non-financial parameters

Related Material Themes

M7

M8

M17

M18

M20

Capitals Impacted





Vendors and Suppliers (External)

Stakeholder Importance

Ensures timely service delivery and promotes responsible sourcing for a resilient supply chain

Needs and Expectations

- Clear communication and timely payments
- Fair and ethical treatment
- Long-term relationship
- Support and collaboration for overcoming challenges to achieve mutual goals
- Transparency in operations, especially regarding future plans that may affect them
- Respect and recognition for the expertise
- Adoption of technology at scale
- Turnkey contracts

Methods of Engagement

- Site visits to manufacturing facilities
- One-on-One interaction
- Supplier summits
- Online & offline training sessions
- Pre-bid conferences

Engagement Frequency

- Continuous
- Need-based

How we Create or Preserve Value

- Ensure fair treatment and timely payments to vendors
- Build long-term relationships through support and goal alignment
- Enhance quality and ESG compliance through targeted programmes
- Maintain transparency in operations affecting vendors
- Leverage vendor expertise for mutual benefit
- Strengthen vendor relationships with strategic initiatives
- Improve procurement using digital technologies and analytics
- Engage suppliers with audits, training, and forums
- Uphold ethical practices with a Supplier Code of Conduct

98%

Procurement from
Local (India) suppliers

20.8%

Procurement from
MSME suppliers

Related Material Themes

M7

M15

M17

Capitals Impacted



Employee Unions (Internal and/External)

Stakeholder Importance

Ensures fair representation, protects employee rights, and fosters collaboration between workforce and management

Needs and Expectations

- Fair wages and benefits
- Proper working conditions
- Workplace safety
- Respect for human rights
- Training & development

Methods of Engagement

- In-person meetings

Engagement Frequency

- Need-based

How we Create or Preserve Value

- Ensure compliance with regulations for wages above the minimum standard
- Implement policies for safe working conditions
- Train employees on safety, operations, and technology

Related Material Themes

M7

M15

Capitals Impacted





Local Communities including Civil Society (Internal and/External)

Stakeholder Importance

Builds positive relationships, ensure long-term viability and social licence to operate

Needs and Expectations

- Positive, social and economic contribution
- Provide long-term support
- Address climate change and environmental issues
- Understand their concerns, and involve them in decision-making processes
- Generate employment opportunities
- Understand health and safety-related hazards especially the ones related with power generation and distribution

Methods of Engagement

- Meetings and discussions with local communities & project officers
- Public consultations
- Feedback & grievance mechanisms
- Interaction with NGO partners and communities
- Corporate Social Responsibility (CSR) initiatives

Engagement Frequency

- Continuous
- Need-based

How we Create or Preserve Value

- Drive socioeconomic development through CSR programmes
- Conduct impact assessments to align CSR initiatives with community needs
- Ensure transparency in the availability of information about company operations
- Implement a community grievance redressal mechanism for effective resolution

₹ 44 crore

Total CSR investment made

59,332

Direct and indirect beneficiaries

Related Material Themes

M1

M2

M3

M7

M14

M15

Capitals Impacted



Media (External)

Stakeholder Importance

Enables communication with stakeholders regarding business performance and ESG initiatives

Needs and Expectations

- Transparency and credibility in the Company's dealings, operations and communications
- Accountability and social responsibility in the Company's actions and decisions
- Adherence with ethical practices

Methods of Engagement

- Direct communication
- Social media

Engagement Frequency

- Need-based
- Issue-based

How we Create or Preserve Value

- Tailored communication strategies for media based on consultation or information needs
- Utilise multiple channels: emails, newsletters, social media, and meetings
- Ensure timely, accurate responses to social media comments and questions
- Build strong, long-term media relationships for collaboration and engagement

10

Number of press releases issued

Related Material Themes

M7

M14

M15

Capitals Impacted





Investors and Shareholders (Internal and/External)

Stakeholder Importance

Mobilise financial resources for sustained business growth

Needs and Expectations

- Stable, robust and sustainable financial performance
- Transparency and progress on ESG topics
- Align the Company's values and actions with those of the investors
- Participation in decision-making regarding the changes advocated by the shareholders
- Receive scheduled updates on the Company's progress

Methods of Engagement

- Investor meets
- Shareholder meetings [Annual General Meetings]
- Investor conferences and roadshows
- Investor Relations (IR) webpage on company website
- Regulatory filings, newsletters, media relations, market intelligence reports
- Periodic declarations on performance
- Industry forums, panels, and discussions
- Investor Relations (IR) webpage on company website
- Social media and digital platforms
- Webinars, webcasts, and virtual tours

Engagement Frequency

- One-on-One meetings
- Periodic
- Quarterly
- Need-based

How we Create or Preserve Value

- Drive profitability through efficient cost management and sustainable growth
- Ensure transparent, timely communication on business and ESG performance
- Balance environmental, social, and economic priorities
- Share insights on market trends, competition, and industry outlook
- Set and track clear ESG and business goals
- Encourage stakeholder feedback and engagement
- Uphold ethical conduct through robust governance
- Expand into new markets for growth opportunities
- Communicate promptly during crises
- Engage media to enhance visibility among investors
- Deliver value through attractive dividends
- Maintain a dedicated Investor Relations Officer
- Strengthen revenue and profitability to maximise shareholder value

9.12%

ROCE

(▲ 0.14 bp y-o-y)

Related Material Themes

M2

M7

M10

M20

Capitals Impacted





Regulatory Authorities (External)

Stakeholder Importance

Ensures compliance, business continuity, and fair competition amidst a changing policy landscape

Needs and Expectations

- Comply with regulatory standards and support energy transition
- Adhere to adjudicated disputes and performance standards
- Drive large-scale technology adoption and digital transformation
- Maintain strong capital base and liquidity
- Uphold a robust Code of Conduct
- Achieve positive ESG developments
- Ensure robust governance and transparent reporting

Methods of Engagement

- Policy advocacy
- Direct interactions on a case-to-case basis
- Regulatory audits and inspections
- Regulatory forums & awards
- Public consultations and hearings
- Collaborative initiatives with regulators for development of sector-specific policies and regulations affecting the power sector
- Compliance management

Engagement Frequency

- Need-based
- Periodic

How we Create or Preserve Value

- Ensure 100% compliance with laws and regulations through robust practices
- Implement systems to proactively mitigate noncompliance risks
- Provide transparent compliance disclosures via website, reports, and standalone publications
- Promote energy-efficient appliances through Demand-side Management programmes
- Collaborate with stakeholders to ensure compliance and industry growth
- Embrace digital transformation to stay competitive
- Support the energy transition through Power Purchase Agreements (PPAs) with renewable developers

₹ 205.83 crore **ZERO**

Total tax contribution
to the exchequer

Instances of regulatory
non-compliances

Related Material Themes

M7

M12

M14

M18

M19

Capitals Impacted





Customers (Internal and/External)

Stakeholder Importance

Provides an opportunity to build long-term symbiotic relationships

Needs and Expectations

- Differentiated service offerings and product portfolio
- Digitally-enabled positive experience
- Participation in various industrial forums
- Digital disruption
- Identification and satisfaction of customer needs
- Brand reputation
- Customer privacy and feedback

Methods of Engagement

- Direct communication
- One-on-One interaction
- Feedback surveys
- Grievance mechanism

Engagement Frequency

- Continuous
- Need-based

How we Create or Preserve Value

- Expand into new markets like renewable energy
- Adopt technology and data-driven solutions for efficiency and cost savings
- Deliver sustainable, affordable, and innovative energy solutions
- Enhance customer experience through digital transformation and competitive solutions
- Implement initiatives for better responsiveness and value delivery
- Ensure effective grievance redressal for quick resolution
- Advocate customer concerns to regulators for consumer-friendly policies
- Integrate data privacy into risk management to protect customer information

99.7%

Transmission system
availability

99.996%

Electricity distribution
system reliability

Related Material Themes

M5

M7

M9

M12

M19

Capitals Impacted



Materiality assessment

Assessing priorities to deliver long-term value

We conducted a comprehensive materiality assessment to identify critical issues impacted by and or impacting operations. This includes stakeholder concerns, business risks, opportunities, sustainability trends, and regulatory changes. Focussing on the priorities, we allocated resources efficiently, set strategic goals, and developed impactful strategies that drive long-term value and resilience.



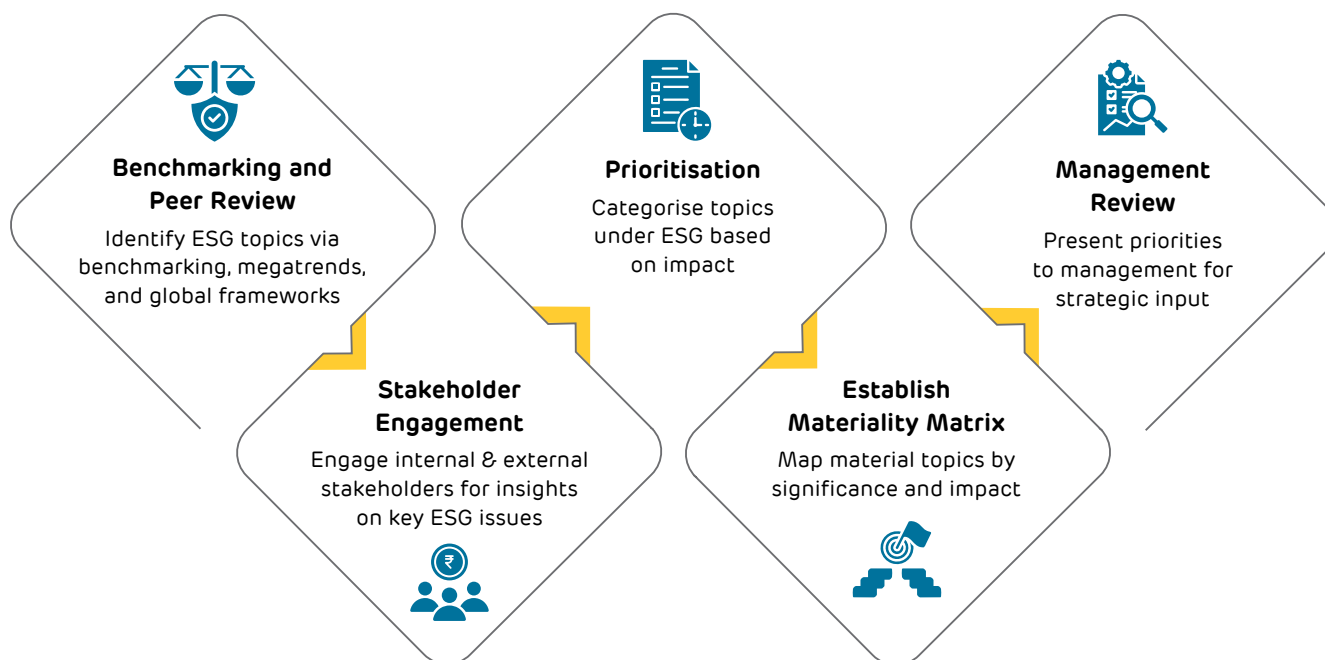
Applying the Double Materiality Principle

We have strengthened our assessment during FY 2024-25 with a Double Materiality Analysis, in line with GRI 2021 and ESRS General Disclosures.

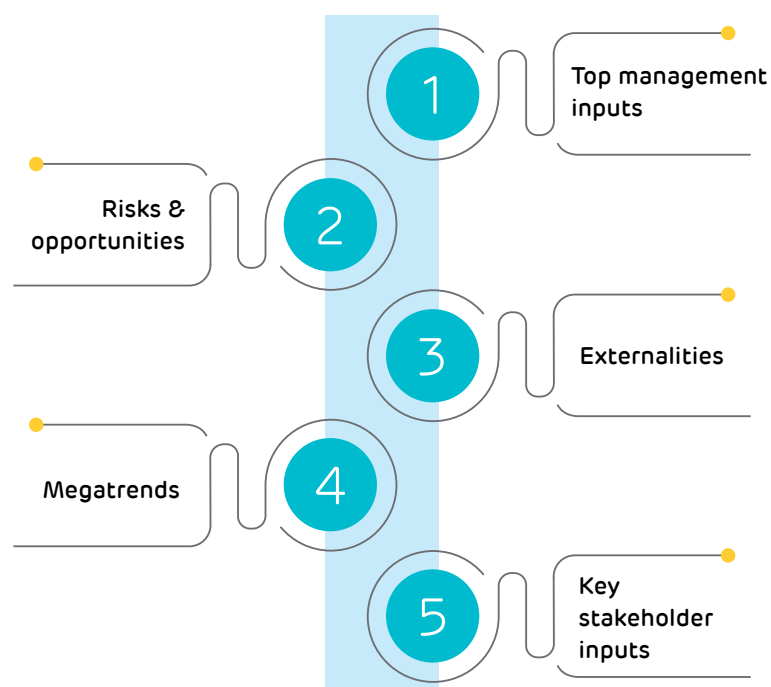


Approach to Materiality Assessment

Our first Double Materiality Assessment began in FY 2023-24 followed by review in FY 2024-25, during which we revisited material topics through extensive internal engagement and identified 16 key material issues to focus on.



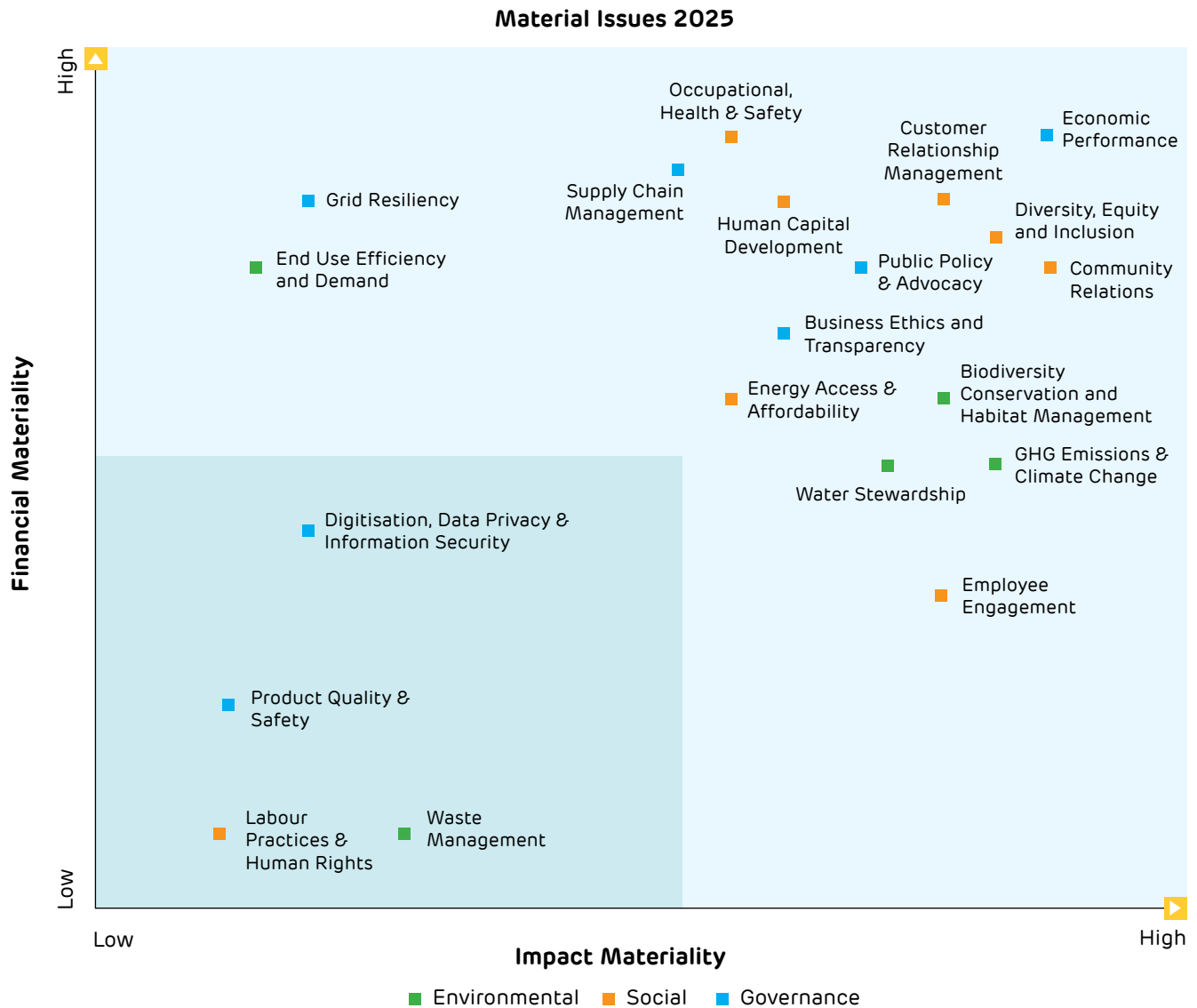
Key Factors Considered



Megatrends Considered
















- Climate change
- Transition to clean energy
- Diversity, equity & inclusion
- Technology trends in the power industry
- Business model transition
- Digital transformation & innovation
- Geopolitical and geoeconomic forces
- Cybersecurity
- Regulations
- Transforming consumer & societal behaviour and preferences

Mapping What Matters the Most



Addressing High Priority Material Matters

We refine material assessments by mapping the six capitals and strategies from the reporting period. This strengthens decision-making and ensures inclusivity across value creation aspects. The legends below align high-priority material matters with the six capitals and strategies.

Financial Capital		Manufactured Capital		Intellectual Capital		Human Capital		Social and Relationship Capital		Natural Capital	
											
											
Employees and Contract Workers				Senior Management		Vendors and Suppliers		Employee Unions		Local Communities Including Civil Society	
				Media		Shareholders and Investors		Regulatory Authority and Rating Agencies		Customers	
S1 Safety culture				S2 ESG integration		S3 Efficient capital allocation and execution capabilities		S4 Portfolio of efficient operating assets			
				S5 Robust financial profile		S6 Business excellence					
+ Positive				- Negative							

Environmental

Material Topic

Biodiversity Conservation and Habitat Management

GRI Alignment

GRI 304

SDG Alignment



Financial Implication

Strategic Priorities

S2 S6

Rationale for Identifying the Risk/Opportunity

Biodiversity conservation and habitat management are crucial for Adani Energy Solutions due to the environmental impact of its operations, regulatory requirements, and importance of corporate social responsibility. By focussing on these areas, Adani Energy Solutions can mitigate risks, enhance its reputation, achieve cost savings, and contribute to global sustainability goals.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Habitat fragmentation because of new transmission lines	
Species deterioration through operations/projects in eco-sensitive zones	
Community backlash	
Reputation damage	
Increased compliance/project costs	

Opportunities

Topics	Capitals Impacted
Innovative construction practices	
Species conservation programmes	
Engaging local communities	
Reputation enhancement	
Access to green financing	
Market differentiation	
Operational resilience	

Actions to Mitigate Risks/Capitalise on Opportunities

- Dedicated policy for biodiversity preservation, targeting Net Positive Gain by FY 2024-25
- Signatory to India Business and Biodiversity Initiative (IBBI) 2.0
- Avoid ecologically sensitive zones, minimise impact, and restore habitats
- Conduct third-party biodiversity assessments for informed planning
- Partner for conservation, carbon sequestration, and ecosystem restoration
- Committed to Adani's pledge of nurturing 100 million trees by 2030 [under 1t.org](https://www.adanigroup.com/1t)
- Ensure regulatory compliance before transmission line development
- Offset biodiversity loss through habitat creation or restoration
- Engage employees, communities, and environmentalists for sustainability

Stakeholders Impacted



KPI's Mapped

- Operational sites near protected or high-biodiversity areas
- Business activities impacting biodiversity
- IUCN Red List and national conservation species affected
- Protected or restored habitats

Material Topic

GHG Emissions & Climate Change

GRI Alignment

GRI 302, GRI 305

SDG Alignment



Financial Implication



Strategic Priorities

S2

S4

S6

Rationale for Identifying the Risk/Opportunity

Due to the environmental impacts of its operations, regulatory requirements, and the growing importance of corporate social responsibility. By prioritising the reduction of GHG emissions and addressing climate change, Adani Energy Solutions can mitigate environmental risks, enhance its reputation, achieve cost savings, and contribute to global sustainability goals. This commitment reflects Adani Energy Solutions dedication to operating responsibly and sustainably, ensuring the well-being of both the environment and the communities it serves.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Greenhouse gas emissions contributing to climate change	
Reduction in GHG emissions by increasing the share of renewable energy in existing power purchase mix	
Community backlash	
Reputation damage	
Increased compliance/project costs	

Opportunities

Topics	Capitals Impacted
Resource conservation	
Reduced operating costs	
Addressing physical risks posed by climate change	
New market opportunities	
Attract sustainable investments	
Reputation enhancement	

Actions to Mitigate Risks/Capitalise on Opportunities

- Corporate Responsibility Committee oversight on sustainability related operational and financial risks
- Robust Business Continuity Plan in place
- Climate-linked remuneration for key management
- Third-party assessments for climate risk and opportunities
- Invest in innovation for climate resilience (RE, solar, energy efficiency)
- Emergency Restoration System for network reliability
- Expand solar capacity to cut auxiliary power use
- Align with global climate goals for sustainability
- Review climate resilience strategies every 3-5 years

Stakeholders Impacted



KPI's Mapped

- Energy consumption (from renewable vs non-renewable sources) within and outside the organisation
- Energy intensity
- GHG emissions (Scope 1, Scope 2 and Scope 3)
- Reduction of energy consumption
- GHG emissions intensity
- Ozone-depleting substances
- NOx, SOx, direct mercury emissions, dust emissions

Material Topic

End Use Efficiency and Demand

GRI Alignment

SDG Alignment



Financial Implication



Strategic Priorities



Rationale for Identifying the Risk/Opportunity





"End Use Efficiency and Demand" is pivotal for Adani Energy Solutions as it addresses both regulatory compliance and market competitiveness. Maintaining energy efficiency standards compliance is crucial to avoid penalties and reputational damage. Additionally, technological advancements and shifting consumer preferences towards energy-efficient solutions demand that Adani Energy Solutions adapt to maintain its market position. Emphasising efficiency not only reduces operational costs but also supports environmental sustainability and resource conservation, ensuring long-term operational continuity and enhanced corporate social responsibility. This focus can lead to financial incentives and a competitive edge, attracting cost-conscious and environmentally aware customers.

Potential Opportunities and their Impact on Capitals

Risks

Risk	Description	Capitals Impacted	Risk	Description	Capitals Impacted
Non-compliance with energy efficiency standards	Penalties and fines	₹	High operational costs	Increased operational expenses	₹
	Damage to brand image	👤		Potential job cuts to save costs	👤
	Loss of employee morale	👤		Greater environmental impact from higher energy use	🌳
	Stricter regulations on product processes	⚙️	Poor energy efficiency	Higher carbon footprint	🌳
	Reduced innovation due to a conservative approach	💬		Negative public perception	👤
	Increased environmental impact due to inefficient energy use	🌳		Costs associated with carbon taxes	₹
Falling behind in energy-efficient technology	Lagging behind competitors in innovation	💬		Reduced focus on sustainable innovation	💬
	Loss of market revenue	₹	Missing out on financial incentives	Higher initial investment costs	₹
	Perceived as a laggard in technology	👤		Delayed adoption of new technologies	⚙️
	Skill gaps in new technologies	👤		Reduced access to investment capital	₹
	Higher resource consumption due to inefficient products	🌳		Viewed as lacking commitment to sustainability	👤
Not adapting to consumer preferences	Decline in sales and revenue	₹		Less focus on reducing environmental impact	🌳
	Loss of consumer trust and loyalty	👤			
	Missed opportunities for innovation	💬			
	Weakened customer relationships	👤			

Opportunities

Opportunity	Description	Capitals Impacted
End use efficiency	Develop Competitive Advantage, attract environmentally conscious consumers and businesses, enhance market share and brand reputation	
Energy-efficient technologies	Substantial cost savings, reduce energy wastage, lower operational expenses	
Efficient energy practices	Help Environmental Sustainability, strengthen Adani Energy Solutions' CSR profile, attract socially responsible investors	
Government incentives	Offset implementation costs, accelerating efficiency initiatives	

Stakeholders Impacted



KPI's Mapped

- Energy Efficiency Standard Compliance Rate
- Penalty Incidence Rate
- Customer Satisfaction Index
- Market Share in Energy-Efficient Products
- Revenue from Energy-Efficient Solutions
- Operational Cost Savings
- Energy Intensity Reduction
- Investment in Energy-Efficient Technologies
- Number of Energy Efficiency Projects Implemented
- Carbon Emission Reduction
- CSR Initiatives in Energy Efficiency
- Policy advocacy w.r.t. Energy efficiency and use
- Demand side management programmes
- Public Recognition and Awards

Actions to Mitigate Risks/Capitalise on Opportunities

- Engage in regular dialogue and community outreach programmes with local communities
- Ensure compliance with all regulations and maintain transparent communication with regulatory authorities
- Proactively participate in policy development and advocacy
- Foster a culture of innovation and collaboration among employees
- Establish robust supplier evaluation and audit processes for vendors and suppliers
- Develop strategic partnerships with key suppliers
- Provide regular and transparent financial reporting to investors and shareholders
- Engage in active investor relations
- Implement robust customer feedback mechanisms for customers
- Innovate and diversify product offerings for customers
- Ensure a strong governance framework and regular strategic reviews for senior management
- Continuously analyse market trends and adapt strategies as a strategic response

Material Topic

Water and Effluent Management

GRI Alignment

GRI 303

SDG Alignment



Financial Implication



Strategic Priorities

S2

Rationale for Identifying the Risk/Opportunity

Water and effluent management is a material issue for Adani Energy Solutions due to its significant environmental, regulatory, operational, community, and reputational implications. By prioritising sustainable water practices, Adani Energy Solutions can enhance its operational efficiency, comply with regulations, build community trust, and position itself as a leader in the energy sector.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Pollution of land, water and air	
Reputation damage	
Regulatory compliance	
Water scarcity	

Opportunities

Topics	Capitals Impacted
Reputation enhancement	
Increased availability of freshwater sources	
Opportunity to secure a licence to operate by demonstrating compliance with regulatory standards and commitment to sustainable practices	
Reduce pollution of land, water and air	

Actions to Mitigate Risks/Capitalise on Opportunities

- Monitor and track water consumption across sites
- Rainwater harvesting at substations to reduce freshwater use
- Replenish natural sources by using less than extracted
- Treat and reuse effluent for horticulture
- Ensure compliance with water regulations and quality standards
- Reduce water intensity with efficient systems and technologies
- Plan for water risks like droughts and floods
- Maintain and repair leaks for optimal efficiency
- Review progress toward water positivity

Stakeholders Impacted



KPI's Mapped

- Water withdrawal
- Water withdrawal intensity
- Water discharge
- Water consumption
- Rainwater harvested

Social

Material Topic

Occupational Health and Safety

GRI Alignment

GRI 403

SDG Alignment



Financial Implication



Strategic Priorities



Rationale for Identifying the Risk/Opportunity

A safe and healthy workplace directly impacts employee morale and productivity. When employees feel secure in their working conditions, they are more likely to be engaged and motivated. This leads to higher productivity, reduced absenteeism, and lower turnover rates. By prioritising OHS, Adani Energy Solutions can foster a culture of care and responsibility, which translates into better performance and job satisfaction among its workforce. Failure to ensure employee health, safety and well-being can negatively impact productivity. This can consequently affect our business operations, customer satisfaction, revenue and profitability.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Exposure to hazards and accidents at workplace	
Increased instances of mental health illnesses	
Poor safety practices, injuries or fatalities, lower morale, increased turnover rates	
Accidents, operational disruptions, affecting productivity and profitability	
Increased litigation and/or penalties, compensation claims	
Non-compliance with safety standards, fines, operational restrictions with increase regulatory and other scrutiny	
Increased insurance premiums, cost of funds	
Talent retention issues	

Opportunities

Topics	Capitals Impacted
Enhanced safety protocols & trainings	
Reduced insurance premiums	
Increased engagement, productivity, and job satisfaction	
Increase operational reliability, leading to greater customer satisfaction and trust	
Business continuity planning	
Reputation building	

Actions to Mitigate Risks/Capitalise on Opportunities

- Strong health & safety governance for workplace well-being
- Six-step Contractor Safety Management (CSM) system with compliance monitoring
- Incident Reporting & Investigation aligned with Group standards
- Regular health check-ups & safety training for employees and contractors
- Workforce safety initiatives like 'Safety Samvaad', 'Sabhi ki Suraksha WhatsApp Group', & direct COO interactions
- In-house & third-party safety audits for all sites

Stakeholders Impacted



KPI's Mapped

- Workplace injuries, fatalities
- Lost-Time Injury Frequency Rate (LTIFR)
- Work-related ill-health
- Safety training hours
- Employee turnover rate

Material Topic

Customer Relationship Management

GRI Alignment

GRI 416, GRI 418

SDG Alignment



Financial Implication



Strategic Priorities

S4 S6

Rationale for Identifying the Risk/Opportunity

It helps understand customer needs, enhance service reliability, facilitate proactive communication, support smart metering initiatives, improve cooling solutions, drive customer loyalty, and ensure regulatory compliance. Prioritising CRM enables Adani Energy Solutions to build strong customer relationships and contribute to its mission of providing reliable and affordable energy solutions for long-term success.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Disrupted power supply and inconvenience to customer	
Inefficient energy use by customers resulting in increased demand	
Financial implications for customers due to partially functional or dysfunctional smart meters	
Increase in green energy tariff	
Billing errors	
Breach of customer data, leading to regulatory and/or legal implications	

Opportunities

Topics	Capitals Impacted
Undisrupted power supply and minimum inconvenience to customer	
Driving efficient energy through DSM programmes resulting in reduced max demand & grid losses	
Technology adoption such as smart meters	
Contribute to national goals under climate change and helping customer to achieve their Net Zero/SBTi commitments	
Effective communication leading to better understanding and enhanced trust	
Enhance reputation	
Awards and accolades	

Actions to Mitigate Risks/Capitalise on Opportunities

- Increase renewable energy in the overall mix
- Offer subsidised green tariffs to support climate goals
- Deploy smart meters and explore new opportunities
- Enhance communication for trust and clarity

Stakeholders Impacted



KPI's Mapped

- Customer satisfaction scores
- Incidents related to breach of customer data
- Average duration of interruption (ADI)
- Average time to resolve customer complaints
- Billing error rate

Material Topic

Employee Engagement

GRI Alignment

GRI 3-3, GRI 400 series

SDG Alignment



Financial Implication



Strategic Priorities

S2

S6

Rationale for Identifying the Risk/Opportunity

By prioritising engagement, Adani Energy Solutions can enhance customer relationships, drive innovation, boost employee morale, ensure regulatory compliance, and promote a positive organisational culture. These factors collectively contribute to Adani Energy Solutions ability to provide reliable and affordable energy solutions, ultimately supporting its mission and long-term success.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Low Productivity: Poor engagement can lead to reduced employee productivity and efficiency	
High Turnover: Disengaged employees are more likely to leave, increasing recruitment and training costs	
Morale Issues: Lack of engagement can lower overall team morale and increase absenteeism	
Innovation Stagnation: Disengaged employees are less likely to contribute to innovative ideas and solutions	
Customer Service Impact: Low employee engagement can negatively affect customer service quality and satisfaction	

Opportunities

Topics	Capitals Impacted
Engaged employees are more motivated and committed to their work, leading to higher levels of productivity and efficiency	
When employees feel valued and connected to their organisation, they are less likely to leave, reducing turnover costs and retaining valuable talent	
Engaged employees are more likely to contribute creative ideas and solutions, fostering an innovative work environment that drives business growth	
Employees who are engaged and satisfied with their work are more likely to provide exceptional customer service, leading to higher customer satisfaction and loyalty	
New market opportunities	
Attract sustainable investments	
Reputation enhancement	

Actions to Mitigate Risks/Capitalise on Opportunities

- Motivated employees through Rewards & Recognition programmes and professional development
- Offered competitive benefits and career advancement opportunities
- Encouraged creative ideas through innovation hubs and brainstorming sessions
- Provided training and recognised excellent service

Stakeholders Impacted



KPI's Mapped

- Employee engagement score
- Spends on employee benefits
- Employee turnover and retention rates
- Employee referrals
- Customer services impacted

Material Topic		
Diversity, Equity and Inclusion		
GRI Alignment GRI 405	SDG Alignment <div><div>3 GOOD HEALTH AND WELL-BEING</div><div>8 DECENT WORK AND ECONOMIC GROWTH</div></div>	Financial Implication + Strategic Priorities S2 S6

Rationale for Identifying Opportunity

Diversity, Equity and Inclusion are not just buzzwords; they are critical components of a resilient and sustainable business strategy. Addressing DEI as a material issue can drive innovation, enhance customer relationships, boost employee engagement, ensure regulatory compliance, and positively impact the broader community. By prioritising DEI, the utility can foster a more inclusive and equitable future, aligning with its mission to provide reliable and affordable energy solutions for all.

Potential Opportunities and their Impact on Capitals

Opportunities

Topics	Capitals Impacted
Inclusive learning materials to foster belonging and engagement	
Scholarships and affordable resources for equitable learning access	
Partnerships for job placements, childcare, and mentorship	
Employment opportunities for a diverse workforce	

Stakeholders Impacted



KPI's Mapped

- Women representation at all levels and functions within the workforce
- Number of hires across diverse demographics
- Regional diversity of workforce

Actions to Capitalise on Opportunities

- Integrate diverse perspectives into learning materials to foster inclusion
- Provide scholarships, affordable materials, and tech access for equitable learning
- Partner with local organisations for job placements, childcare, and mentorship
- Collaborate with DEI organisations for insights and innovative solutions
- Participate in industry forums to promote diversity and inclusion
- Engage with civil society to support social inclusion projects

Material Topic

Energy Affordability

GRI Alignment

Non-GRI

SDG Alignment



Financial Implication



Strategic Priorities

S2

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Rationale for Identifying Opportunity










Energy affordability is a key concern for many stakeholders, including the community, shareholders, investors, and customers. Ensuring affordable energy solutions supports sustainable economic growth and enhances the quality of life by providing reliable and cost-effective power. Furthermore, as Adani Energy Solutions navigates India's dynamic energy landscape, incorporating scalable energy solutions like smart metering can optimise energy usage, reduce costs, and improve service delivery.

Strategic responses such as leveraging renewable energy in the procurement mix and introducing green tariffs align with the goal of enhancing energy affordability. These initiatives can help mitigate risks related to energy price volatility and regulatory changes while opening opportunities for growth and increased stakeholder trust.

By focussing on energy affordability, Adani Energy Solutions can play a pivotal role in fostering economic stability and promoting sustainable development, thereby aligning with broader social and environmental objectives.

Potential Opportunities and their Impact on Capitals

Opportunities

Topics	Capitals Impacted
Expanding customer access to green energy	 
Implementing smart grids for reliability, efficiency, and integration of distributed energy	 
Providing electricity at affordable prices	 
Promoting energy-efficient products under DSM programmes	  

Stakeholders Impacted



KPI's Mapped

- Green tariff
- Renewable energy in procurement mix

Actions to Capitalise on Opportunities

- Deploy smart grid technologies for efficient energy management
- Launch energy efficiency programmes with incentives and consumer education
- Procure renewable energy to expand green energy access
- Integrate renewable sources into the grid to enhance sustainability and reduce fossil fuel dependence
- Train employees and communities in efficient energy management
- Advocate policies for affordable energy access and sustainable practices
- Partner with government, private sector, and NGOs for scalable energy solutions

Material Topic Human Capital Development

GRI Alignment

GRI 404

SDG Alignment



Financial Implication



Strategic Priorities

S2 S6

Rationale for Identifying Opportunity

By focussing on enhancing employee skills, boosting morale, promoting safety, encouraging innovation, supporting community development, and building a strong employer brand. Investing in human capital development enhances the Company's reputation as an employer of choice. A strong employer brand attracts top talent, providing a competitive edge in the labour market. This influx of skilled professionals can drive the Company's growth and success, while also positioning it as a leader in the energy sector by mitigate risks and capitalise on opportunities, ensuring long-term success and sustainability.

Potential Opportunities and their Impact on Capitals

Opportunities

Topics	Capitals Impacted
Investing in continuous learning to enhance skills and adaptability	
Leadership development through training, mentoring, and succession planning	
Employee well-being programmes, flexible work, and engagement initiatives	
Boosting employee engagement, creativity, and innovation	
Enhancing employee performance and productivity	

Stakeholders Impacted



KPI's Mapped

- Employee engagement score and employee engagement index
- Hours of learning and development
- Employee turnover and retention rates
- Spends on employee benefits
- Employee satisfaction score
- Types of employee development programmes

Actions to Capitalise on Opportunities:

- Continuous learning to enhance skills, adaptability, and organisational value
- Leadership development through training, mentoring, and succession planning
- Employee well-being programmes to boost engagement, productivity, and job satisfaction

Material Topic

Community Relations

GRI Alignment

GRI 413

SDG Alignment



Financial Implication



Strategic Priorities

S2

S6

Rationale for Identifying Opportunity

Identifying risks and opportunities involves enhancing livelihoods through reliable services, partnering for community development, organising engagement activities, supporting economic stability, and ensuring transparency in stakeholder communication. These efforts help build trust, foster sustainable development, and contribute to local economic stability, reinforcing the utility's role as a responsible corporate citizen.

Potential Opportunities and their Impact on Capitals

Opportunities

Topics	Capitals Impacted
Creating livelihoods and improving quality of life, generating indirect economic benefits	
Partnering with schools, non-profits, and businesses for community development initiatives	
Hosting events, workshops, and service projects to strengthen community ties	

Actions to Capitalise on Opportunities

- Host events, workshops, and service projects to strengthen community ties
- Partner with schools, non-profits, and businesses for joint initiatives
- Sponsor scholarships, cultural events, and educational programmes
- Support community well-being and economic stability
- Ensure transparency by sharing corporate information with stakeholders

Stakeholders Impacted



KPI's Mapped

- Number of beneficiaries
- Number of beneficiaries from marginalised and vulnerable groups
- Programme-wise beneficiaries and extent of reach
- Number of events, workshops, and service projects hosted annually
- Outcomes & impact assessment based on predefined criteria
- Participant feedback scores on event effectiveness and satisfaction
- Engagement rates with shared content (e.g., website visits, document downloads, meeting attendance)
- Beneficiary feedback and outcomes assessment

Governance

Material Topic

Business Ethics and Transparency

GRI Alignment

GRI 205: Anti-corruption
GRI 2: General Disclosures (3. Governance, 4. Strategy, policies and practices)

SDG Alignment



Financial Implication



Strategic Priorities



Rationale for Identifying the Risk/Opportunity

Adani Energy Solutions operates within a complex and highly regulated environment. Two critical areas that significantly impact the Company's success and sustainability are business ethics and transparency, and corporate governance. These are material issues for Adani Energy Solutions given their profound influence on the Company's operational integrity, stakeholder trust, regulatory compliance, and overall corporate reputation.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Lack of transparency can lead to corrupt practices and legal implications	
Ethical breaches can erode stakeholder trust and damage the Company's reputation	
Non-compliance with ethical standards can result in regulatory fines and operational restrictions	
Unethical behaviours can lead to internal conflicts and a toxic work environment	
Poor ethics can negatively impact market perception and investor confidence	

Opportunities

Topics	Capitals Impacted
Effective governance mechanism leading to increased transparency and disclosures	
Enhances the Company's reputation as a responsible corporate entity	
Strong governance improves investor confidence, ensuring regulatory compliance and long-term financial growth	
Attract sustainability-linked investments	

Actions to Mitigate Risks/Capitalise on Opportunities

- Strong corporate governance led by the Board with policies, codes, and KPIs for ethics and compliance
- Integrated frameworks ensure transparency, compliance, and ethical business practices
- Employee training on ethics, whistleblower mechanism, and third-party compliance audits
- Regular disclosures and continuous improvement of governance and ethics programmes
- Policies for anti-corruption, diversity, safety, and community engagement

Stakeholders Impacted



KPI's Mapped

- Training of Directors, employees and senior management personnel on Code of Business Ethics & Conduct and Whistle Blower mechanism
- Incidents related to the breach of code including corruption and bribery
- Incidents related to human rights violation
- Audits and third-party assessments
- Number of incidents reported through whistleblower hotline or reporting system

Material Topic

Supply Chain Management

GRI Alignment

GRI 308, GRI 414

SDG Alignment



Financial Implication



Strategic Priorities

S2

S6

Rationale for Identifying the Risk/Opportunity

The supply chain encompasses the procurement, transportation, and management of the essential materials and components required for power T&D infrastructure. This includes everything from transformers and cables to substations and circuit breakers. A robust supply chain ensures that these critical components are available when needed, preventing delays in project execution and maintaining the reliability of the power grid. By securing a steady flow of high-quality materials, Adani Energy Solutions can minimise disruptions and enhance the efficiency of power distribution, ultimately lowering costs and making energy more affordable for consumers. Adani Energy Solutions can enhance energy affordability, support India's energy transition, and contribute positively to the community.

Potential Risks & Opportunities and their Impact on Capitals

Risks

Topics	Capitals Impacted
Human rights violations in operations and supply chain	
Environmental and social impact of unsustainable sourcing	

Opportunities

Topics	Capitals Impacted
Boosting the local economy	
Enhancing efficiency and cost reduction through AI and IoT adoption	
Strengthening supplier relationships via sustainable practices and transparency	

Actions to Mitigate Risks/Capitalise on Opportunities

- Assess human rights violations in operations and value chain partners
- Screen suppliers to prevent potential or actual negative impacts
- Build supplier capacity and support collective sustainability goals
- Analyse supplier spending and tier-wise distribution
- Conduct third-party value chain assessments
- Assist suppliers in implementing corrective action plans
- Leverage AI and IoT for operational efficiency and real-time decision-making
- Promote sustainable practices and transparent communication to strengthen supplier trust

Stakeholders Impacted



KPI's Mapped

- Number of new suppliers onboarded
- Number of suppliers screened using environmental and social criteria
- Supplier capacity building programmes
- Significant suppliers
- Procurement spends on local suppliers
- Tier-wise suppliers

Material Topic

Economic Performance

GRI Alignment

GRI 3-3, GRI 201

SDG Alignment



Financial Implication



Strategic Priorities

S3 S4 S5 S6

Rationale for Identifying Opportunity

Economic performance is a material issue for Adani Energy Solutions due to its significant influence on the Company's operations, investment capabilities, and stakeholder relationships. By maintaining strong economic performance, Adani Energy Solutions can ensure financial viability, attract investors, support technological advancements, meet regulatory compliance, and enhance stakeholder value. This focus on economic performance not only supports Adani Energy Solutions business objectives but also contributes to India's broader energy transition and climate action goals.

Potential Opportunities and their Impact on Capitals

Opportunities

Topics	Capitals Impacted
Investing in smart grid technology	
Expanding renewable energy integration	
Enhancing operational efficiency	
Establishing strong relationships with financial institutions and exploring innovative financing options such as green bonds can also support long-term growth	
Streamline operations, reduce costs, and improve decision-making	

Actions to Capitalise on Opportunities

- Leveraging digital transformation for asset management, customer engagement, and data analytics, to streamline operations, reduce costs, and improve decision-making
- Establishing strong relationships with financial institutions and exploring innovative financing options such as green bonds can also support long-term growth
- Collaboration with stakeholders, including government agencies, regulatory bodies, technology providers, and consumers
- By investing in smart grid technology, expanding renewable energy integration, enhancing operational efficiency, strengthening financial management, leveraging digital transformation, and collaborating with stakeholders, to achieve sustainable economic success

Stakeholders Impacted



KPI's Mapped

- Direct economic value generated and distributed
- Investment in Smart Grid network
- % Grid reliability
- Transmission network added
- Transmission operational EBITDA
- Distribution operational EBITDA
- Consolidated operational EBITDA
- Total revenue generated
- PAT
- Payment to government
- Wages and benefits given
- Payment to providers of capitals
- Community investments

Material Topic

Public Policy Advocacy

GRI Alignment

GRI 415

SDG Alignment



Financial Implication



Strategic Priorities

S2

S6

Rationale for Identifying Opportunity

Public policy advocacy is a material issue for Adani Energy Solutions due to its significant impact on the Company's operations, regulatory compliance, and strategic growth. By engaging in public policy advocacy, Adani Energy Solutions can influence regulatory frameworks, drive sustainability initiatives, ensure fair market conditions, and enhance stakeholder engagement. This commitment to advocacy not only supports Adani Energy Solutions business objectives but also contributes to India's broader energy transition and climate action goals. Ultimately, public policy advocacy reinforces Adani Energy Solutions dedication to operating responsibly and sustainably, ensuring long-term success and positive contributions to society.

Potential Opportunities and their Impact on Capitals

Opportunities

Topics	Capitals Impacted
Implementing efficient procedures through research and policy initiatives	
Strategic communication to influence policymakers on ESG issues	
Collaborating with stakeholders to drive regulatory and legislative improvements for sector sustainability	
Addressing regulatory challenges	
Advocating for policies supporting T&D modernisation, renewable integration, and smart grid adoption to enhance efficiency and reliability	

Stakeholders Impacted



KPI's Mapped

- Contributions to political parties, trade associations, tax-exempt groups
- Number of successful policy engagements per year
- Percentage of advocacy campaigns that achieve their set goals such as public awareness, policy changes, or stakeholder support
- Public Policy Awareness Programmes
- Environmental and social impact of policy advocacy initiatives

Actions to Capitalise on Opportunities

- Collaborate with academic, government, and private sectors to address public policy challenges
- Develop targeted communication strategies to influence policymakers and public opinion
- Establish stakeholder partnerships to drive beneficial legislative and regulatory changes
- Advocate for clean energy and efficiency regulations through joint government proposals
- Engage in workshops and seminars to educate policymakers on industry trends and advancements
- Partner with cybersecurity experts to develop and promote robust grid protection standards
- Provide feedback on existing regulations and propose process improvements to reduce bureaucracy

Material Topic Grid Resiliency

GRI Alignment

GRI 201, GRI 203
GRI 302, GRI 305
GRI 413, GRI 416

SDG Alignment



Financial Implication



Strategic Priorities



Rationale for Identifying the Risk/Opportunity

Prioritising grid resiliency is crucial for Adani Energy Solutions as it enhances operational stability, attracts investors, and ensures customer satisfaction. By investing in smart grid technologies, AI, and distributed energy resources, Adani Energy Solutions can improve real-time monitoring, optimise grid performance, and increase grid flexibility. This proactive approach not only secures financial stability by minimising costly outages but also strengthens Adani Energy Solutions' reputation as a reliable and innovative utility provider, thereby giving the company a competitive edge and fostering long-term sustainability.

Potential Opportunities and their Impact on Capitals

Risks

Risk	Description	Capitals Impacted
Operational Disruptions	Unanticipated disruptions can lead to service interruptions, affecting customer satisfaction and compliance with regulatory requirements.	
Technological Failures	Dependence on smart grid technologies and AI can be risky if these systems fail or are compromised, potentially leading to data breaches and operational inefficiencies.	
Financial Strain	High investments in grid resiliency may strain financial resources if not managed properly, affecting the company's overall financial stability.	
Regulatory Non-compliance	Failure to meet regulatory standards for grid resiliency could result in penalties and loss of operating licenses.	
Reputation Damage	Inability to ensure a resilient grid may damage Adani Energy Solutions' reputation, reducing customer trust and investor confidence.	
Competitive Disadvantage	Lagging in grid resiliency advancements could put Adani Energy Solutions at a competitive disadvantage, impacting market share and growth opportunities.	

Opportunities

Opportunity	Description	Capitals Impacted
Data Analytics	Monitor grid performance, predict failures, optimise maintenance	
Integrating RE Sources	Integrate wind, solar, hydroelectric power into the grid	
Smart Grid Technologies	Smart meters, sensors, automated control systems	
Microgrids	Develop microgrids, promote distributed energy resources	
Energy Storage	Invest in batteries, pumped hydro storage	
Cybersecurity	Implement measures to protect grid infrastructure from cyber-attacks	
Policy Advocacy	Advocate for policies and regulations promoting grid resiliency	
Community Engagement	Initiate programmes to involve local communities in grid resiliency	

Actions to Mitigate Risks/Capitalise on Opportunities

Risk	Description
Invest in Grid Resiliency	Implement advanced technologies and infrastructure to enhance grid resilience. Regularly update and maintain current systems to prevent outages and ensure continuous service.
Enhance Customer Communication	Develop transparent communication strategies to keep customers informed about reliability improvements. Foster strong relationships with stakeholders through open dialogue and regular updates.
Strengthen Workforce Training	Provide continuous training programmes to enhance the skills of the workforce, focussing on new technologies and best practices. Encourage innovation and problem-solving within the team to address potential grid issues proactively.
Leverage Technological Advancements	Invest in cutting-edge technologies to stay ahead of competitors in grid resiliency. Explore partnerships with tech firms to implement innovative solutions rapidly.
Expand Market Presence	Use the strengthened grid resiliency as a selling point to attract new customers and markets. Highlight the reliability and efficiency of the grid in marketing campaigns to enhance brand image.
Optimise Resource Utilisation	Maximise the use of financial, manufactured, and intellectual capital to support growth initiatives. Identify and leverage underutilised assets to improve overall operational efficiency.

Stakeholders Impacted



KPI's Mapped

- Grid Reliability Index
 - SAIDI : System Average Interruption Duration Index
 - SAIFI : System Average Interruption Frequency Index
 - CAIDI : Customer Average Interruption Duration Index
- Renewable Energy Penetration
- Infrastructure Investment in Grid Modernisation
- Recovery Time Post-Disruption
- Renewable Integration Capacity
- Cybersecurity Preparedness

Risks and opportunities

Advancing with strength and strategy

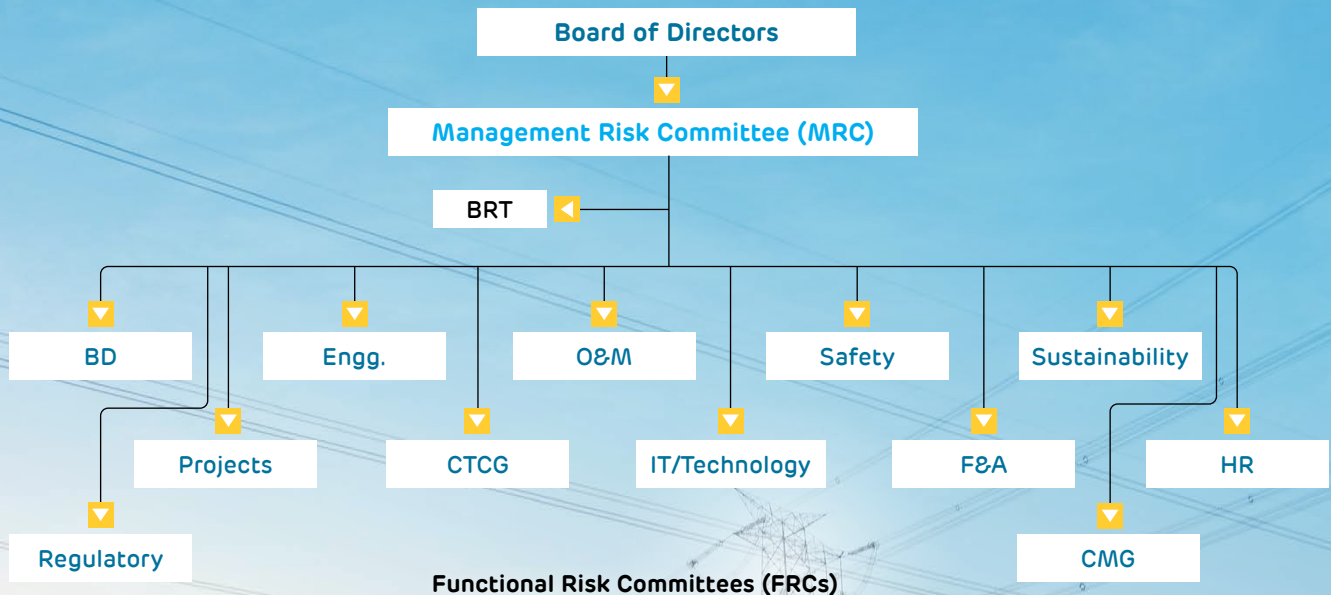
We ensure sustained resilience through prudent risk management, seamlessly integrating it across business functions. Adhering to ISO 31000 and COSO frameworks, we proactively identify and address significant risks, strengthening our ability to navigate uncertainties. This structured approach enhances operational stability, safeguards stakeholder interests, and supports sustainable long-term growth in an evolving business environment.

At Adani Energy Solutions, we prioritise integrated risk management to ensure robust and reliable service for our customers. By proactively identifying and mitigating risks, we uphold our commitment to safety, sustainability, and operational excellence. Together, we navigate the future with resilience and confidence”.

Shashank Sharma
Chief Risk Officer

Risk Governance

We manage risks through a collaborative approach involving Board-level committees, departments, and professionals. The Board oversees risk management, supported by the Statutory Audit Committee and Risk Management Committee (RMC), which engage with the Management Risk Committee (MRC). The Chief Risk Officer (CRO), who reports directly to the CEO, is the custodian of the Risk Identification and Management process, with dedicated responsibilities at the operational level. The engagement from the Chief Risk Officer, Management Risk Committee (MRC), Business Risk Team (BRT) and Function Risk Committees (FRCs) at department level strengthen our Risk Management process.



Roles and Responsibilities

Board

- Sets the tone for a transparent risk management culture
- Reviews risk appetite and provides strategic direction

Risk Management Committee (RMC) (Quarterly Review)

- Assists the Board in managing significant risks
- Evaluates and monitors risk management procedures and controls
- Guides MRC in reviewing internal business functions

Management Risk Committee (MRC) (Quarterly Review)

- Ensures the efficacy of risk management procedures and controls
- Assesses top risks through regular business function reviews
- Guides BRT and FRC in mitigating prioritised risks
- Communicates key risk implications to RMC

Business Risk Team (BRT) (Quarterly Review)

- Leads risk management across business units
- Coordinates with FRCs for risk identification and management
- Conducts peer-risk benchmarking and maps risk interactions
- Reports significant risks to MRC

Functional Risk Committee (FRC) (Quarterly Review)

- Oversees risk management at the department level
- Ranks risks based on severity and secures Function Head approval
- Updates the Risk Register & Risk Plan
- Presents function-level risk reports to MRC

Integrated Risk Management Framework

Our Risk Management framework ensures end-to-end risk oversight, addressing internal and external risks with structured mitigation controls. Led by the Chief Risk Officer, it empowers employees and associates to escalate risks. Built on strong organisational principles, it supports strategic and operational objectives through an effective review mechanism.

IRM Framework Components

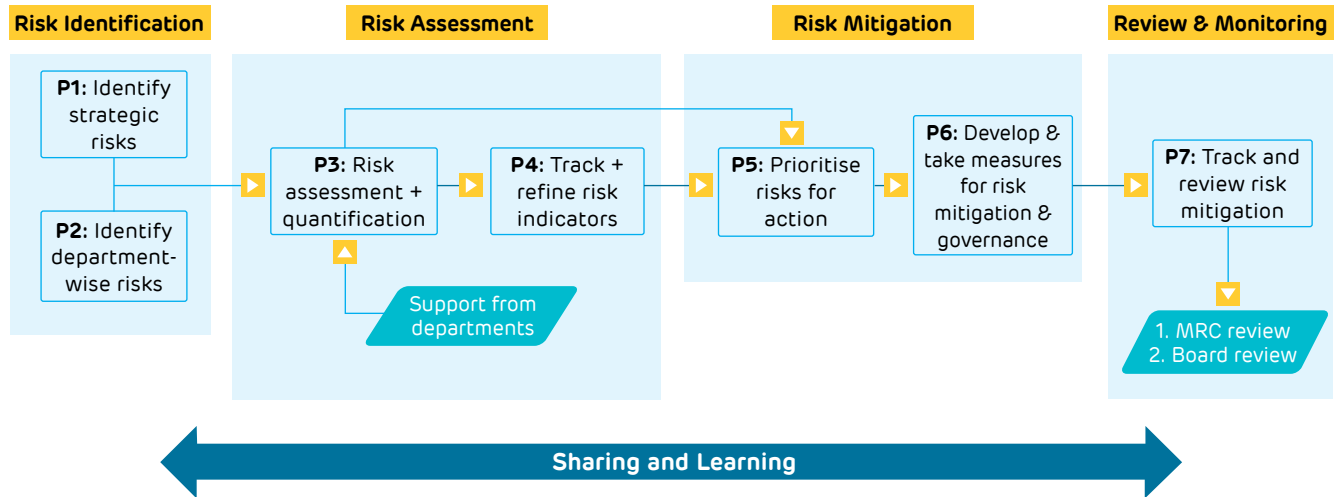
- **Risk identification:** Utilises tools like risk registers, SWOT analysis, and scenario planning
- **Risk assessment:** Evaluates risk likelihood and impact using qualitative and quantitative methods
- **Risk mitigation:** Implements strategies such as avoidance, reduction, transfer, and acceptance
- **Monitoring & reporting:** Tracks residual risk value & indicators and ensure transparency through periodic reporting
- **Risk Culture:** We foster a risk-aware culture within the organisation by promoting risk management education, training, and communication.

IRM Significance

- **Comprehensive risk view:** Identifies interdependencies between risk factors and their impact on business objectives
- **Proactive identification:** Embeds risk management into operations to detect and address risks early
- **Informed decision-making:** Provides clarity on risk exposure, enabling balanced strategic choices
- **Operational efficiency:** Streamlines processes, reduces redundancies, and optimises resource use
- **Compliance & governance:** Ensures regulatory adherence with clear policies, procedures, and accountability

Approach to Risk Management

Our framework ensures early risk identification and mitigation through a hierarchy of controls.



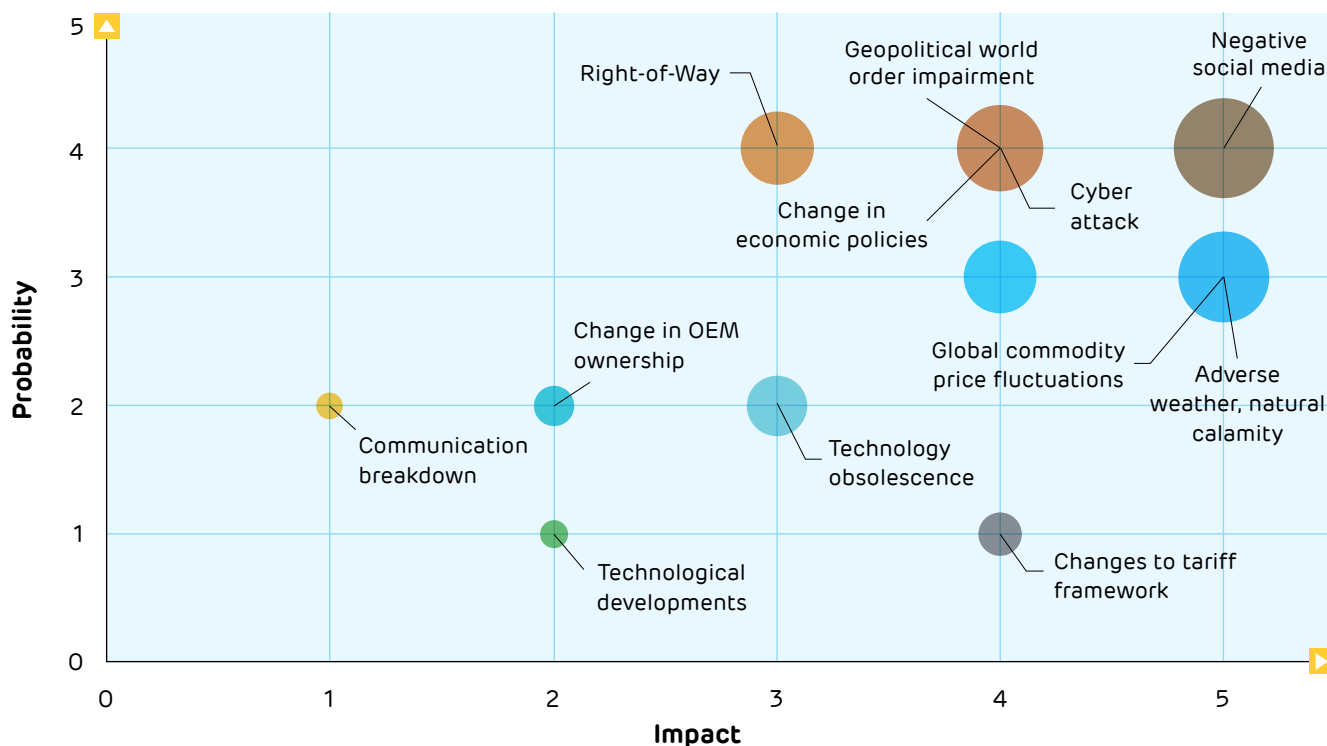
- **Strategic & departmental risk identification:** Led by function heads, senior leaders, and employees through a bottom-up (FRC) approach, with inputs from the strategy team
- **Risk assessment:** Evaluates risks based on impact severity and occurrence probability
- **Risk mitigation:** Prioritises risks (strategic, tactical, functional) and applies treatment strategies – Accept, Treat, Transfer, or Terminate – using cost-benefit analysis
- **Risk monitoring & review:** Tracks risk trends quarterly, ensures mitigation effectiveness, drives continuous improvement, and incorporates Board and MRC oversight with an outside-in approach

Prioritising Sustainability

We annually review risk exposure to identify shifts and emerging risks. Sustainability metrics are integrated into executive compensation, with 15% of KRA evaluation linked to ESG performance and risks.



Risk Heat Map



Our Top Risk

	Risk	Trend	Rating	Responsibility	Appetite
R1	Macroeconomic Risk	⬆️	⚠️	Finance	■
R2	Cybersecurity Risk	⬆️	⚠️	IT	■
R3	Reputation Risk	⬆️	⚠️	Corporate Communications	■
R4	Right of Way (RoW) Risk	⬆️	⚠️	Projects	■
R5	Climate Risk	⬆️	⚠️	O&M	■
R6	Obsolescence of Technology Leading to Non-availability of Spares and Service	↔️	⚠️	O&M	■
R7	Biodiversity Risk	↔️	⚠️	ESG/O&M	■
R8	Failure of Climate Change Adaptation	↔️	⚠️	O&M/Projects	■

Risk Trends: ⬆️ Increase ⬆️ Decrease ↔️ Neutral
Risk Rating: ⚠️ High risk ⚠️ Medium risk ⚠️ Low risk
Appetite: ■ High ■ Medium ■ Low

Key Risks and Mitigation Actions



Financial
Capital



Manufactured
Capital



Intellectual
Capital



Human
Capital



Social and
Relationship Capital



Natural
Capital

M1 Biodiversity and Habitat Management
M2 GHG Emissions & Climate Change
M3 End Use Efficiency and Demand
M4 Water and Effluent Management
M5 Occupational Health & Safety
M6 Customer Relationship Management
M7 Employee Engagement
M8 Diversity, Equity and Inclusion
M9 Energy Access & Affordability
M10 Human Capital Development

M11 Community Relations
M12 Business Ethics and Transparency
M13 Supply Chain Management
M14 Economic Performance
M15 Public Policy & Advocacy
M16 Grid Resiliency
M17 Digitisation, Data Privacy & Information Security
M18 Product Quality & Safety
M19 Labour Practices & Human Rights
M20 Waste Management

S1 Safety Culture
S2 ESG Integration
S3 Efficient Capital Allocation and Execution Capabilities
S4 Portfolio of Efficient Operating Assets
S5 Robust Financial Profile
S6 Business Excellence

R1

Macroeconomic Risk



Capitals Impacted



Strategies Linked

S3 S5

Material Topics Aligned

M18 M20

Description

- Economic policy changes affecting interest rates, fund availability, and investments
- Shifts in financial and lending policies of Indian banks and institutions

Impact on Value

- Rising interest rates
- Reduced access to international or low-rate funding source

Mitigating Measure

- Hedge against adverse interest rate movements
- Strengthen investor and banker relations with a robust, CTU-backed business model
- Engage policymakers via industry forums (CII, Assocham, FICCI) and global platforms
- Explore alternate funding sources with lower interest costs

Associated Opportunities

- Stronger investor and financial institution relationships through better risk understanding
- Improved financing terms and conditions

R2

Cybersecurity Risk



Capitals Impacted



Strategies Linked

S1 S2 S4
S5

Material Topics Aligned

M8 M20

Description

Cyber-attack in the power sector resulting in equipment failure like transformer, CB, SCADA, PLCs, Relays etc.

Impact on Value

- Loss in revenue due to impact on availability and equipment replacement cost
- Loss of incentives

Mitigating Measure

- VAPT (Vulnerability Assessment and Penetration Testing) analysis of assets
- Creation of a modus operandi / framework for cybersecurity management
- Continuous identification, analysis & reporting of similar cyber-attacks across the globe

Associated Opportunities

- Develop global platforms for threat intelligence sharing and best practices
- Enhance cybersecurity for power sector companies
- Monetise proven platforms by offering them to industry peers



Reputation Risk



Capitals Impacted



Strategies Linked



Material Topics Aligned



Description

- Social media campaigns/propaganda impacting funding/operations of group companies
- Misinformation and disinformation

Impact on Value

- Capital funding delay may lead to project delay and in turn delay in revenues associated with respective CAPEX

Mitigating Measure

- Counter negative media narratives through targeted campaigns
- Build goodwill with proactive community engagement
- Enhance consumer focus with technology integration
- Official spokesperson and implement corporate/social media policies to ensure accurate communication

Associated Opportunities

- Counter negative propaganda through community engagement and fact-check partnerships
- Regularly publish transparent reports and updates on company activities, fostering trust with stakeholders
- Actively share success stories, case studies, and positive impacts of the Company's work to build a strong, positive reputation



Right of Way (RoW) Risk



Capitals Impacted



Strategies Linked



Material Topics Aligned



Description

- RoW clearance challenges in transmission projects
- Disputes over compensation leading to legal action
- Litigation causing transmission line construction delays

Impact on Value

- Project delays, impacting financial performance of asset
- Liquidated Damages (LD) due to delay in project timeline

Mitigating Measure

- Policy advocacy for pre-defined transmission corridors
- Development of innovative designs and methodologies of TL installations (innovative design for reduction in number of towers)

Associated Opportunities

- Innovative designs and methodologies optimise transmission line installations
- Reducing tower count minimises land use and lowers costs
- Enhances project efficiency and execution

R5**Climate Risk****Capitals Impacted****Strategies Linked**

S1	S2	S3
S4	S5	S6

Material Topics Aligned

M1	M2	M3	M4
M9	M12	M17	M18
M19	M20		

Description

- Adverse climate conditions threaten asset-life (e.g., droughts, floods, cyclones, bushfires)
- Extreme natural or societal events impact asset health and operations (e.g., pandemics, tsunamis)

Impact on Value

- Project delays impacting future financial performance of project
- Increased O&M cost (leading to lower EBITDA margin) Loss of Availability (incentive)

Mitigating Measure

- Design assets to withstand adverse weather
- Develop asset-specific disaster management plan
- Build partnerships for crisis support
- Maintain a disaster management kitty (self-insurance)
- Monitor weather patterns and asset impact
- Engage in policy advocacy and industry forums
- Support R&D in sustainable technologies
- Conduct EIAs for new projects
- Implement reforestation and afforestation
- Promote biodiversity conservation
- Encourage energy-efficient consumer usage
- Upgrade ageing infrastructure to reduce losses

Associated Opportunities

- Reforestation and afforestation initiatives
- Emission reduction programmes
- Biodiversity conservation efforts
- Strengthen environmental responsibility
- Enhance community relations

R6**Obsolescence of Technology Leading to Non-availability of Spares and Service****Capitals Impacted****Strategies Linked**

S1	S2	S4
S5	S6	

Material Topics Aligned

M8	M10	M12	M17
M18	M19	M20	

Description

- Power transmission and distribution face rising technology risks in OT systems
- Risks can disrupt operations, cause downtime, and lead to financial losses

Impact on Value

- Lower availability leading to lower EBITDA margin

Mitigating Measure

- Monitoring technology development / obsolescence of in-use equipment on regular basis
- Development of contractual terms to enable long-term support
- Reverse engineering & 3D printing options to be developed

Associated Opportunities

- Strategic partnerships with technology providers and research institutions enable access to advanced technologies and expertise
- Supports indigenisation, innovation, and obsolescence management
- Creates potential opportunities for commercialisation

R7

Biodiversity Risk



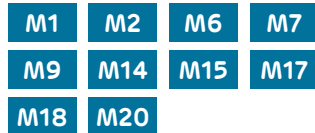
Capitals Impacted



Strategies Linked



Material Topics Aligned



Description

- CAPEX execution and O&M risk to secure ROW during execution of project and maintenance of asset
- Requires thorough assessment of eco-sensitive zones and biodiversity
- Ensures minimal environmental impact

Impact on Value

- Project delays and lower availability in operation phase leading to lower EBITDA margin and loss of incentives

Mitigating Measure

- Commit to 'No Biodiversity Loss' in operations
- COSO-based risk framework for strategic and operational risk management
- Uphold 'No Deforestation' for sustainable operations

Associated Opportunities

- Partner with environmental organisations for biodiversity conservation
- Enhance reputation and unlock sustainable business opportunities
- Attract customers seeking 24x7 green power and eco-friendly solutions

R8

Failure of Climate Change Adaptation



Capitals Impacted



Strategies Linked



Material Topics Aligned



Description

- Extreme weather events due to climate change may damage infrastructure assets nationwide

Impact on Value

- Outages, customer dissatisfaction, and reduced profitability

Mitigating Measure

- Conduct scenario analysis to assess risks and opportunities
- Deploy Emergency Restoration System (ERS) for rapid recovery
- Invest in resilient infrastructure, innovations, and technologies
- Modernise transmission and distribution networks for enhanced resilience

Associated Opportunities

- Attract green financing and investment through climate resilience initiatives
- Strengthen reputation and ensure compliance with environmental regulations



Climate-related Risks and Opportunities

We have identified climate-related risks and opportunities and integrated into our Enterprise Risk Management System (COSO) and HSE Management System. We use the TCFD framework to assess risks and capture opportunities.

Scenario Analysis and Stress Testing

Conducted long-term (2020–2039) assessments to evaluate climate risks and operational impact. Identified IPCC RCP/ SSP and IEA scenarios to shape our climate strategy and business outlook.

Climate-related Scenario	Temperature Alignment	Adaptation Strategy
RCP 4.5 / SSP 2-4.5 (Medium Emission)	Intermediate emissions scenario with global mean temperature expected to rise by 1.1-2.6°C	<ul style="list-style-type: none"> Strengthen asset and infrastructure resilience Address risks from rising temperatures, precipitation changes, and extreme weather
RCP 6.0 (High Emission)	High emissions scenario with global mean temperature expected to rise by 3-4°C	<ul style="list-style-type: none"> Implement water management, recycling, and alternative cooling technologies Collaborate with policymakers for supportive regulations Train staff for climate resilience Engage stakeholders to address climate concerns Strengthen disaster management and conduct regular mock drills
IEA 2DS / SSP 1-2.6	The 2DS is consistent with a 50% probability of limiting the expected global average temperature increase to 2°C by 2100	<ul style="list-style-type: none"> Divesting Dahanu Thermal Power Station from the portfolio Committed to no new thermal power assets
IEA B2DS	Global mean temperature expected to rise beyond 2°C Scenario (B2DS)	<ul style="list-style-type: none"> Expanding renewable energy share in the power mix
IEA NZE 2050 / SSP 1-1.9	The IEA Net Zero Emissions by 2050 (NZE)	



Business Division and Location-wise Climate Risks

AESL Business Division	Location	Climate Scenario	Coastal Flood	Tropical Storms	Extreme Heat	Water Scarcity	River Flood	Urban Flood	Tsunami
Grid Division	Andhra Pradesh	SSP 1-1.9 / 1.5 OC	3	3	4	3	3	3	2
		SSP 2-4.5 / RCP 4.5	3	4	4	3	4	3	1
		SSP 3-7.0	4	4	4	4	3	3	2
		SSP 5-8.5 / RCP 8.5	4	5	5	5	4	4	3
	Bihar	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	4	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	5	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	4	5	4	5	5	N/A
	Chhattisgarh	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	3	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	3	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	4	5	5	4	4	N/A
	Delhi	SSP 1-1.9 / 1.5 OC	N/A	1	4	4	2	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	2	4	N/A
		SSP 5-8.5 / RCP 8.5	N/A	2	5	5	2	5	N/A
	Gujarat	SSP 1-1.9 / 1.5 OC	3	3	4	4	3	3	2
		SSP 2-4.5 / RCP 4.5	3	4	4	3	4	3	1
		SSP 3-7.0	4	4	5	5	2	3	2
		SSP 5-8.5 / RCP 8.5	4	4	5	5	4	4	3
	Haryana	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	3	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	2	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	2	5	5	3	4	N/A
	Jharkhand	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	3	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	3	3	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	4	4	4	4	4	N/A
	Madhya Pradesh	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	3	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	3	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	3	5	5	4	4	N/A
	Maharashtra	SSP 1-1.9 / 1.5 OC	3	3	4	3	3	3	2
		SSP 2-4.5 / RCP 4.5	3	4	4	3	4	3	1
		SSP 3-7.0	4	5	5	5	3	4	3
		SSP 5-8.5 / RCP 8.5	5	5	5	5	4	5	4

AESL Business Division	Location	Climate Scenario	Coastal Flood	Tropical Storms	Extreme Heat	Water Scarcity	River Flood	Urban Flood	Tsunami
	Punjab	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	3	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	3	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	2	5	5	4	4	N/A
	Rajasthan	SSP 1-1.9 / 1.5 OC	N/A	2	4	4	2	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	5	5	2	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	4	5	5	3	4	N/A
	Tamil Nadu	SSP 1-1.9 / 1.5 OC	3	3	4	3	3	3	3
		SSP 2-4.5 / RCP 4.5	3	4	4	3	4	3	1
		SSP 3-7.0	4	5	4	5	4	4	3
		SSP 5-8.5 / RCP 8.5	5	5	5	5	4	5	4
	Telangana	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	3	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	3	3	N/A
		SSP 5-8.5 / RCP 8.5	N/A	4	5	5	4	4	N/A
	Uttar Pradesh	SSP 1-1.9 / 1.5 OC	N/A	2	4	3	4	3	N/A
		SSP 2-4.5 / RCP 4.5	N/A	4	4	3	4	3	N/A
		SSP 3-7.0	N/A	4	4	4	5	4	N/A
		SSP 5-8.5 / RCP 8.5	N/A	4	5	5	5	5	N/A
	West Bengal	SSP 1-1.9 / 1.5 OC	3	3	4	3	4	4	2
		SSP 2-4.5 / RCP 4.5	3	4	4	3	4	3	1
		SSP 3-7.0	4	4	4	5	5	5	2
		SSP 5-8.5 / RCP 8.5	5	5	4	5	5	5	4
Retail Electricity Division	Mumbai, Maharashtra	SSP 1-1.9 / 1.5 OC	4	3	3	3	3	4	2
		SSP 2-4.5 / RCP 4.5	4	3	3	3	3	4	2
		SSP 3-7.0	5	4	5	4	4	5	3
		SSP 5-8.5 / RCP 8.5	5	4	5	4	4	5	3
	Mundra, Gujarat	SSP 1-1.9 / 1.5 OC	3	3	4	4	3	3	2
		SSP 2-4.5 / RCP 4.5	3	3	4	4	3	3	2
		SSP 3-7.0	4	4	5	5	4	4	3
		SSP 5-8.5 / RCP 8.5	4	4	5	5	4	4	3

1

Very Low

2

Low

3

Moderate

4

High

5

Very High

N/A: Not applicable

Climate Change-related Risks

Physical



Capitals Impacted



Strategies Linked



Likelihood of Occurrence

More likely than not

Time span

Medium-term

Description

- Acute physical risks from extreme weather events (cyclones, hurricanes, heatwaves, earthquakes) threaten operations
- Assets in climate-prone zones (Rajasthan, Gujarat, Maharashtra, Bihar, Madhya Pradesh, Haryana, Uttar Pradesh, Chhattisgarh, Jharkhand) face heightened risk

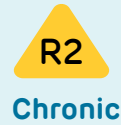
Impact on Value

- Cyclones, hurricanes, heatwaves, and earthquakes can damage infrastructure, disrupt operations, and increase costs
- Supply chain disruptions may cause delayed material deliveries, impact restoration, productivity, and expenses
- High repair costs, downtime, revenue loss, legal risks, and investor confidence decline affecting the business

Mitigating Measure

- Identify vulnerable assets using historical data, climate models, and geography
- Design for extreme weather, integrate redundancies, and deploy Emergency Restoration System (ERS)
- Implement site-level emergency response plans
- Build trust with customers, investors, regulators, and communities on climate risk initiatives

Physical



Capitals Impacted



Strategies Linked



Likelihood of Occurrence

More likely than not

Time span

Medium-term

Description

Long-term climate disruptions affect asset performance. Rising temperatures impact transmission and distribution efficiency, causing energy losses.

Impact on Value

- Increased maintenance and operational costs
- Capital required to upgrade or replace inefficient assets
- Revenue loss due to unscheduled downtimes
- Market perception of climate risk management affects stock performance
- Stringent compliance requirements may demand additional financial resources

Mitigating Measure

- Increase renewable energy generation
- Develop High Voltage DC transmission lines and adopt low-carbon technologies
- Integrate climate resilience in asset design
- Use monopoles, insulated cross arms, and high-grade concrete for durability
- Design infrastructure to withstand adverse conditions
- Deploy two Emergency Restoration Systems (ERS) for rapid recovery
- Embed climate resilience in policies, planning, and workforce training

Transition



Policy and Legal

Capitals Impacted



Strategies Linked

S2 S3 S6

Likelihood of Occurrence

More likely than not

Time span

Medium-term

Description

Carbon tax, stringent reporting, and renewable energy mandates may impact access to key capital markets.

Impact on Value

- Trade regimes and tariff caps could strain finances, requiring higher environmental and legal provisions

Mitigating Measure

- Ensure strict compliance with evolving regulations and carbon emission standards
- Enhance energy efficiency to lower emissions and operational costs
- Reduce GHG intensity, maximise renewable integration, and improve grid resilience
- Foster transparent stakeholder communication for sustainability support
- Engage in policy advocacy for favourable trade and tariff structures
- Invest in low-carbon technologies and carbon offset programmes
- Explore carbon capture and storage to mitigate tax impacts

Transition



Market

Capitals Impacted



Strategies Linked

S2 S6

Likelihood of Occurrence

More likely than not

Time span

Medium-term

Description

Investor and financial institution preference for low-carbon assets may limit access to capital for Adani Energy Solutions and partners

Impact on Value

- Rising demand for RE-based transmission and low-carbon tech may disrupt fossil-based services
- Market shifts could challenge Adani Energy Solutions transition strategy
- Financial implications include increased capital costs, reduced funding access, lower investor confidence, disrupted partnerships, and higher compliance costs

Mitigating Measure

- Expand renewable integration in distribution and enter emerging markets
- RE solutions for commercial and industrial use
- Commission EV charging stations
- Set carbon reduction targets, invest in RE, and integrate sustainability into core strategy
- Explore green bonds, impact investing, and public-private partnerships for financing
- Maintain transparent investor communication to retain confidence and attract long-term capital
- Invest in R&D for sustainable innovations and business models
- Engage stakeholders to share resources, knowledge, and best practices

Transition



Technology

Capitals Impacted



Strategies Linked



Likelihood of Occurrence

More likely than not

Time span

Medium-term

Significance

- Technology helps monitor climate-related impacts across geographic sites, enabling swift action to mitigation actions
- Renewable energy depends on newer technologies to efficiently integrate electricity supply in the grid

Mitigating Measure

- Upgrade networks with advanced tech like HTLS conductors
- Integrate resilient technology from design to commissioning
- Foster innovation through training and strategic partnerships
- Align tech initiatives with customer needs for market relevance

Description

Inability to adopt emerging technologies may increase costs, reduce competitiveness, and risk obsolescence

Impact on Value

- Higher costs, inefficiencies, and reduced competitiveness
- Loss of customers, revenue, and investor confidence
- Increased risk of obsolescence, affecting long-term sustainability

Climate Change-related Opportunities

Opportunity Type and Description

Policy and Legal

Opportunity Driver

Policy

Likelihood of Occurrence

More likely than not

Time span

Medium-term

Realisation Strategy (Sustainability)

- Adani Energy Solutions has joined IRENA's Utilities for Net Zero Alliance to develop renewable-ready grids, promote clean energy, and advance electrification

- Strengthens Adani Energy Solutions sustainability leadership, enhancing credibility and investor appeal
- Enables cost savings through renewable energy integration and opens new revenue streams
- Increases access to government incentives, grants, and green financing
- Enhances brand reputation, attracting ESG-focussed investors
- Participation in the Perform, Achieve and Trade (PAT) scheme at Dahanu plant generates Energy Certificates (E-Certs), providing additional income and reinforcing Adani Energy Solutions sustainability credentials

Opportunity Type and Description

Market

Opportunity Driver

Access to new markets

Likelihood of Occurrence

More likely than not

Time span

Short-term

Realisation Strategy (Sustainability)

- Expanding into low-carbon markets, including Renewable Energy and EV mobility
- Leveraging the global decarbonisation push to increase renewables in the energy mix
- Capitalising on India's growing EV market by commissioning EV charging stations
- Forming strategic partnerships with technology providers, startups, and research institutions for innovation and efficiency
- Exploring joint ventures to strengthen market position and attract investors

Opportunity Type and Description

Resource efficiency

Opportunity Driver

Focussed optimisation & efficiency measures

Likelihood of Occurrence

More likely than not

Time span

Medium-term

Realisation Strategy (Sustainability)

- Optimising resource consumption through adopting energy efficiency measures
- Reduce emission intensity, waste, and water usage to enhance sustainability
- Invest in R&D for design-driven efficiency improvements
- Improve operational efficiency, leading to direct cost savings in the medium to long term

Opportunity Type and Description

Market

Opportunity Driver

Green tariffs

Likelihood of Occurrence

More likely than not

Time span

Short-term

Realisation Strategy (Sustainability)

- Tapping into the global shift towards low-carbon energy by offering greener solutions to customers
- Developing green tariff products to strengthen market presence and meet consumer demand
- Engaging with regulatory bodies for approvals, compliance, and supportive policies
- Forming strategic partnerships with renewable energy generators for joint ventures
- Enhancing investor and customer appeal through a strong commitment to environmental responsibility, positively influencing financial performance and market perception

CHIEF EXECUTIVE OFFICER (CEO) SPEAKS

Adani Energy Solutions achieved significant growth both financially and operationally backed by operational progress in transmission, improving performance in distribution assets and growing contribution from smart metering business. It is poised for future growth with its robust order book.

Powering Progress

The transmission business secured seven major projects, including the ₹ 25,000 crore Bhadla-Fatehpur HVDC system. Our transmission order book reached ₹ 59,936 crore, with new projects adding significant capacity. Anticipating ~₹ 1,50,000 crore in bidding opportunities next year, We aim to maintain 20-25% market share in transmission bids. In FY 2024-25, we have commissioned MP package - II project and completed acquisition of Mahan Sipat transmission line.

Our distribution business remains resilient, with high energy sales and robust supply reliability exceeding 99.9%. We accelerated our strategic energy transition to a pure-play energy solutions player by carving out the Dahanu Thermal Power Plant. We also ensured uninterrupted supply to Mumbai through extended PPAs and soon-to-be-commissioned HVDC transmission lines, securing 2,000 MW of additional power for the Maximum City.

Despite initial challenges, we deployed 31 lakh Smart Meters in FY 2024-25 and aim for 60-70 lakh meters by FY 2025-26. With large auctions expected in several states, growth is robust.

Reimagining Energy

We are pioneering Cooling-as-a-Service (CaaS) with projects at Shantigram and Mundra. Our CaaS portfolio under development will exceed 52,000 TR (Tonne of Refrigeration), positioning Adani Energy Solutions as a leader in energy-efficient cooling. A pipeline of 2,40,000 TR spans airports, real estate, and commercial hubs.

We launched Commercial and Industrial (C&I) Power Solutions to offer tailored energy solutions for commercial and industrial customers, reinforcing our commitment to sustainable growth by ensuring rapid deployment, green power, and high reliability.

Adani Energy Solutions uses AI-powered grid intelligence, predictive analytics, and process automation to improve efficiency, reliability, and sustainability. By leveraging technology, we advance with precision and innovation, reflecting our digital-first approach.



Building Strength

Sustained growth hinges on efficiency, resilience, and strategic execution. Data-driven decisions, automation, and process innovation ensure scalable, disciplined, long-term value, reinforcing our leadership in the sector.

Competitiveness relies on sustainable capital management, maximising availability and moderating costs. This skill comes from strong credit ratings, trust from lending institutions, diversified financing sources, and long-term bonds aligned with asset longevity, balancing mutual interests of lenders and borrowers.

We invested ~₹ 11,400 crore in FY 2024-25, backed by an ₹ 8,373 crore QIP – the largest in India's power sector – solidifying our financial strength and ensuring long-term value. Our focus remains on execution, exploring new growth opportunities, and strengthening our market leadership.

Scaling with Responsibility

We excel in Environmental, Social and Governance (ESG) goals and are ranked among leaders by global rating agencies. On track to meet renewable energy and GHG emission targets, we power our operations fully with renewables. Social initiatives in healthcare, education, and livelihood support communities. Strong governance ensures transparency and accountability. Enhanced risk management and a robust compliance framework drive responsible growth.

We are Future-ready

Moving forward, we are expanding our footprint and reinforcing our foundation that will sustain our long-term growth. By investing in leadership, talent upskilling, and digital-first capabilities, we are building Adani Energy Solutions to thrive on agility, innovation, and continuous transformation for future energy demands.

Our journey is one of relentless progress – growing strength by strength, phase by phase. We are building a future-ready, resilient entity leading India's energy transition with agile strategy and robust execution.

Kandarp Patel
Chief Executive Officer

Strategic priorities

Advancing with a clearly defined roadmap

Our strategic priorities drive business resilience through a well-defined approach. Integrated thinking shapes our strategic planning, ensuring alignment between fundamentals and performance outcomes. Our business model enhances this approach by integrating assets and capabilities to navigate external dynamics and stakeholder expectations. Through optimised resource allocation and adaptive execution, we drive sustained long-term value creation. With a clear roadmap, we turn strategy into action, progressing strength by strength.



Financial
Capital



Manufactured
Capital



Intellectual
Capital



Human
Capital



Social and
Relationship Capital



Natural
Capital

- M1 Biodiversity and Habitat Management
- M2 GHG Emissions & Climate Change
- M3 End Use Efficiency and Demand
- M4 Water and Effluent Management
- M5 Occupational Health & Safety
- M6 Customer Relationship Management
- M7 Employee Engagement

- M8 Diversity, Equity and Inclusion
- M9 Energy Affordability
- M10 Human Capital Development
- M11 Community Relations
- M12 Business Ethics and Transparency
- M13 Supply Chain Management
- M14 Economic Performance

- M15 Public Policy & Advocacy
- M16 Grid Resiliency
- M17 Digitisation, Data Privacy & Information Security
- M18 Product Quality & Safety
- M19 Labour Practices & Human Rights
- M20 Waste Management

- R1 Macroeconomic risk
- R2 Cybersecurity risk
- R3 Reputation risk
- R4 RoW risk
- R5 Climate risk

- R6 Obsolescence of Technology Leading to Non-availability of Spares and Service
- R7 Biodiversity risk
- R8 Failure of Climate Change Adaptation



Strategic Priority #1

Capitals Deployed



Material Issues

M5 M9 M18

Risks

R5 R8

Safety Culture

Actions Taken in FY 2024-25

- Mobile app-based monitoring to ensure road safety; campaigns and simulator training enhanced safety preparedness
- Saksham programme ensured effective training through mandatory contractor workmen induction
- Health and safety initiatives included routine checkups, awareness workshops, and engagement activities like Road Safety Week and Fire Safety Week
- Incident analysis and CAPA implementation ensured preventive actions, continuous compliance monitoring, and stakeholder updates
- Incident reporting and analysis via Gensuite, with detailed Lost Time Incidents (LTI) and First Aid (FA) case reviews
- AI-driven safety monitoring (trespassing, footfall, vehicle tracking, arc flash detection) enhanced security; essential PPE kits provided

Read more about our safety-related initiatives and achievements on Pg. 220-231

Way Forward

Near-Term KPIs (Next 6-12 Months)

- Assess the effectiveness of communication with site teams through feedback surveys
- Measure the timeliness of incident reporting in the Gen-suite system
- Technological Solutions for Safety
 - AI-Based Camera Coverage: Video Analytics to ensure Safety compliance
 - PPE Kit Usage rate: Track the usage rate of PPE kits

Near-Term KPIs (Next 1-3 years)

- Implemented advanced incident management system
- Implemented predictive analytics for incident management
- Analyse and Track the reduction rate of recurring issues through advanced CAPA strategies
- Assess the safety culture through employee surveys and training participation rates

Performing on our Strategy

1

Fatalities and road accidents reported

5/0.01

LTI/LTIFR

1,68,646

Safety training hours

80%

Staff covered in first aid training programme

7,167

Rounds of safety interactions conducted

100%

Employees trained on various safety aspects

Strategic Priority #2

Capitals Deployed



Material Issues

M1	M2	M4
M5	M8	M10
M12	M20	


Risks

R2	R5	R8
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ESG Integration

Actions undertaken

- Joined Utilities for Net Zero Alliance (UNZA) as the first Indian electric utility, driving grid readiness, clean energy solutions, and electrification
- Enhanced ESG disclosures via WDI, UNGC CoP, and CDP for greater transparency and accountability
- Strengthened stakeholder engagement across supply chain, communities, and material issue assessments
- Conducted climate, water, and biodiversity risk assessments to identify opportunities
- Participated in CII Corporate Sustainability Award 2024 for benchmarking
- Evaluated Human Rights & DEI to define a strategic roadmap

 Read more about our ESG initiatives on Pg. 148-296

Way Forward

- Refining net zero strategy for 2050 with interim Science-Based Targets (Scope 1, 2, 3) aligned to UNSDGs 7, 11, 12, and 13
- Scaling renewable energy share to 60% by FY 2026-27 and 70% by FY 2029-30, supporting UNSDGs 7 and 13
- Pledging to plant 45.96 lakh trees by FY 2029-30 in line with UNSDG 15
- Advancing gender diversity to 30% by 2030 under UNGC's Fast Forward initiative

Performing on our Strategy

73.7%

GHG emissions intensity reduction

Net water positive

Achieved milestone for all operational sites

4.2% & 5.21%


Women in new hires & total workforce

99% and 20.8%

Of total procurement from local suppliers and MSMEs

35.2%

Increased renewable energy share in Mumbai's overall electricity distribution mix

 Read more about our ESG goals and achievements in Pg. 154-155

Strategic Priority #3

Capitals Deployed



Material Issues

M3 M13 M14

M16

Risks

R1 R4

Efficient Capital Allocation and Execution Strategy

Actions Undertaken

- Fully operationalised MP Package II transmission line in FY 2024-25
- Achieved Operational Go-live for four smart metering projects
- One of the leading players in smart metering to instal almost 31 lakh meters PAN India
- BKC EHV 220KV Project Commissioned in FY 2024-25
- Progressing on BKC Ph II, Chandivali GIS, and MERC-approved projects (Distribution)

Way Forward

- Complete ongoing projects on time while ensuring seamless execution
- Expand market presence, targeting ~17% Smart Metering share by FY 2025-26, 25% by FY 2029-30, and a 30,000 ckm transmission network by 2030 for greenfield as well brownfield projects
- Enhance operational efficiency with IT integration, system availability (99.5% for smart meters), and digitalisation
- Optimise the fund mix and investigate refinancing opportunities to lower interest expenses and sustain effective leverage
- Strengthen safety & compliance through regular training, and monitoring performance

Performing on our Strategy

Transmission

₹ 7,646 crore

Capital incurred during
FY 2024-25

92%

Maintaining Operational
EBITDA

Distribution

₹ 1,782 crore

Capex incurred during
FY 2024-25

15.5%

Regulated
Equity Return

Smart metering

₹ 2,015 crore

Capex incurred during
FY 2024-25

Strategic Priority #4

Capitals Deployed



Material Issues

M2

M9

M14

M16

Risks


R6

R8

Portfolio of Efficient Operating Assets (Transmission)

Actions Taken in FY 2024-25

- Fully digitalised business processes
- Implemented the first 3D concrete-printed store at Lakadia SS
- Developed in-house Asset Health Indexing Models for key transmission components, enhancing lifecycle management across transmission business
- Strengthened Asset monitoring with live dashboards, standardised SAP & SCADA tags, and drone-based transmission line patrolling
- Leveraging ENOC capabilities with real-time alerts, 24x7 EHV station operations, weather forecast and grid dynamics
- ENOC has successfully managed over 1,50,000+ remote operations for various voltage levels

 Read more about our transmission business in Pg. 114-121

Way Forward

- Integrating the first private VSC HVDC into O&M and developing system expertise
- Advancing deployment of Fleet Analysis dashboards for CB, LA, Transformer, Reactor, CT, CVT and Transmission lines
- Collaborating with academia/ERDA to develop SRI insulator condition monitoring curves, to reduce failures and tripping
- Developing an RPA-based Audit Management System in SAP for audit observation tracking and compliance monitoring
- Planning bay integration for seamless day-one operation of the upcoming Sangod SS from ENOC

Performing on our strategy

99.7%

Transmission system availability

22%

Reduction in trippings in our existing assets

54%

Reduction in system downtime compared to last FY

Portfolio of Efficient Operating Assets (Distribution)

Capitals Deployed



Material Issues

M3 M9 M16

M18

Risks

R6 R8

Actions Taken in FY 2024-25

- Engaged IIT Ropar for an in-depth study on frequent 220kV EHV cable joint failures, including RCA and preventive measures
- Initiated critical spares procurement and network rearrangement with SLDC to maintain fault current levels within permissible limits
- Enhanced predictive maintenance of DSS assets and extensive PD measurement drives
- Leveraged AI-ML for smart meter analysis, theft detection Model, and predictive analytics, along with theft-proof infrastructure and law enforcement collaboration
- MUL, with a 244 ckm distribution network over 85 sq km, serves commercial and industrial consumers in the Mundra SEZ area

Read more about our distribution business in Pg. 122-133

Way Forward

- Implementing proactive corrections with IIT Ropar and manufacturers
- Replace old polymeric insulators with high-creepage versions to prevent failures and optimise PM activity outages to minimise downtime
 - Upgrade obsolete capacitors and HT switchboards under a five-year CAPEX plan; implement corrective actions from the Health Index Study of power transformers
 - Strengthen technology-driven monitoring and analytics to enhance theft detection and loss prevention
 - Enhance stakeholder engagement and awareness initiatives to promote responsible electricity usage and reduce losses

Performing on our Strategy

10,558/948 MUs

Total Unit Sold
(AEML/MUL)

4.77/2.32%

Distribution loss (AEML/MUL)

99.996%/99.96%

Electrical distribution system
reliability (AEML/MUL)

Portfolio of Efficient Operating Assets (Smart Metering)

Capitals Deployed



Material Issues

M3 M16 M17

Risks

R2 R3 R6

Actions Taken in FY 2024-25

- Nationwide consumer awareness initiatives to promote smart meter adoption
- AI/ML-based quality control tool deployed for accurate meter installations and safety

Read more about our Smart Metering business in Pg. 134-139

Way Forward

- Timely completion of ongoing projects through efficient meter installations
- Ensure 99.5% system availability for meter communication across India

Performing on our Strategy

>99.5%

System availability reached

~31 lakhs

No. of Meters installed

₹ 2.28 crore

Total order booked

9

No. of contracts

Strategic Priority #5

Capitals Deployed



Material Issues

M9

M13

M14

M16

M17

Risks

R1

R3

Robust Financial Profile

Transmission

Actions Taken in FY 2024-25

- Optimised capital structure to enhance financial efficiency
- Facilitated capital requirements for growth across transmission, distribution, and smart metering segments

Way Forward

- Maintain a strong focus on profitability, returns on new projects, and leverage position
- Sustain investment-grade ratings from global rating agencies

Smart Metering

Actions Taken in FY 2024-25

- Signed the first Facility Agreement and received disbursement for the business
- Achieved Go-live status for projects, ensuring regular collections

Way Forward

- Fund proposed capex through a mix of debt and internal accruals (mainly lump sum revenue)

Distribution

Actions Taken in FY 2024-25

- Funded ₹ 1,782 crore capex through internal accruals
- In line with ESG philosophy divested 500 MW of Dahanu Thermal Power Station
- Increased renewable energy sourcing to 35.2%
- Repaid USD 48 million QIA sub-debt, lowering finance costs
- Total energy sales rose by 6% at AEML and 44% at MUL, led to 20% increase in the distribution net revenue
- Maintain IG Rating from International Rating Agencies

Way Forward

- Fund FY 2025-26 capex through internal accruals
- Expand renewable energy share
- Reduce finance costs through loan repayment
- Strengthen receivables management
- Maintain and improve credit ratings

Performing on our strategy

₹ 8,373 crore

Raised Qualified Institutional Placement (QIP) to enhance financial efficiency

Transmission

₹ 4,774 crore

Revenue

₹ 4,366 crore

EBITDA

Distribution

₹ 12,234 crore

Revenue

₹ 2,175 crore

EBITDA

Note: Operating Revenue and Operating EBITDA considered

Strategic Priority

#6

Capitals Deployed



Material Issues

M6

M11

M12

M19

Risks

R2

R3

Business Excellence

Actions Taken in FY 2024-25

- Strengthened the Integrated Management System by upgrading latest version of standards and expanding coverage
- Launched digital portals: "Unnati" for ideas/kaizen, "MySOP" for process management, and "BEx" for various Business Excellence initiatives
- Secured top rank and won 18 awards in 3rd AWMS (Adani Workplace Management System) Accreditation award ceremony, organised by the Adani Workplace Management Academy
- Conducted ABEM refresher training to develop Adani business excellence model
- Initiated the "Process Transformation" initiative to redefine and digitise critical processes

Way Forward

- Continue Process Transformation by implementing TO-BE state for all selected processes
- Develop KPI dashboards to monitor process maturity and improvements
- Enhance process efficiency through structured problem-solving
- Initiate full-fledged application writing and internal assessments for gap identification
- Pursue a PDCA (Plan-Do-Check-Act) approach for continuous process maturity and alignment with ABEM criteria

Performing on our Strategy

100%

IMS Certification/ Recertification completed as per TUV standard requirements

23%

Employees trained and qualified on Six Sigma Yellow Belt e-module programme

15

Certified Lead auditors have been developed for Implemented ISO standards (QMS 9001, EHS 14001, OHSAS 45001, Asset 55001, Energy 50001, ISMS 27001, BCMS 223001)

95%

Employees trained and qualified on ABEM awareness e-module programme

27

Certified ABEM assessors developed to assess the process & result maturity

Strategic Priority #7

Capitals Deployed



Material Issues

M6

M17

M18

Risks

R6

Digitalisation and Innovation

Actions Taken in FY 2024-25

- Implemented Asset Health Indexing to optimise maintenance costs and extend asset life
- In process of implementing AI-based Digital Route Survey for cost-effective transmission line planning
- Ongoing deployment of Voice BOTs, Chatbots, and Email BOTs to enhance customer service and boost productivity
- CRM solution enabling customer service agents to resolve customer query quickly basis 360-degree information about customers
- Digitalisation of quality assurance through a Low-Code Application Platform enables real-time communication among vendors, project managers, and quality teams during transmission-line commissioning projects, ensuring quality at every stage

Way Forward

- Digitalisation of the bid management process
- Expand Conversational AI across 31 business workflows, including Voice BOTs, Chatbots, and Document Understanding
- Implement Exception Management for asset performance monitoring
- Develop predictive-based asset maintenance strategies
- Advance O&M Digital Twin technology for improved asset management efficiency

Performing on our Strategy

100%

Asset health indexing for critical asset in transmission system

Strategic Priority #8

Capitals Deployed



Material Issues

M7

M8

M10

Risks

R2

R6

Capacity & Capability Building

Actions Taken in FY 2024-25

- Technical Centres of Excellence (CoEs) established for high voltage systems.
- Consolidated T&D, centralised services, and introduced zonal accountability
 - Transitioned service functions to GCC for streamlined operations and standardisation
 - Launched Digital Dexterity, Saksham, and Career Conversation initiatives
 - Strengthened workforce through leadership and technical training programmes

Way Forward

- Maintain voluntary attrition of top talent and critical roles below 5%
 - Develop in-house expertise for existing and emerging business needs
- Job rotation for employees to enhance skill diversity and advance career growth plans.
- Maintain a steady annual increase in employee engagement scores.
- Decrease the average age of executives to create a younger, more dynamic, and agile organisation.

Performing on our Strategy

95%

Succession planning for 25 critical positions

100%

Competency Mapping & Career Planning

₹ 9.8 crore

Human Capital Return on Investment

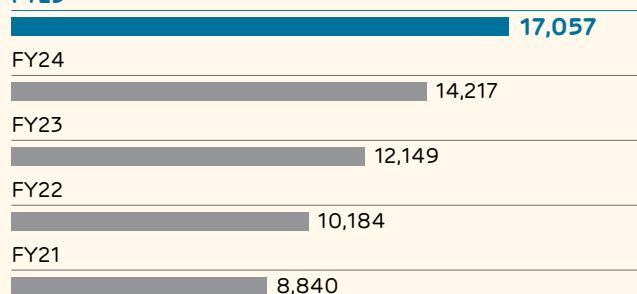
Key performance indicators

A year of enduring strength and measured progress

Operational Revenue

(₹ crore)

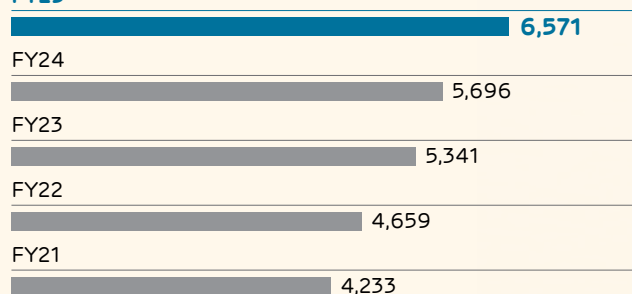
FY25



Operating EBITDA

(₹ crore)

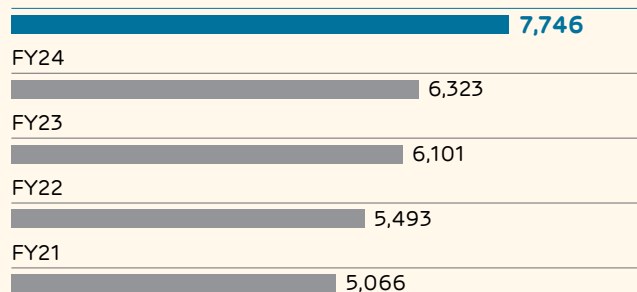
FY25



EBITDA

(₹ crore)

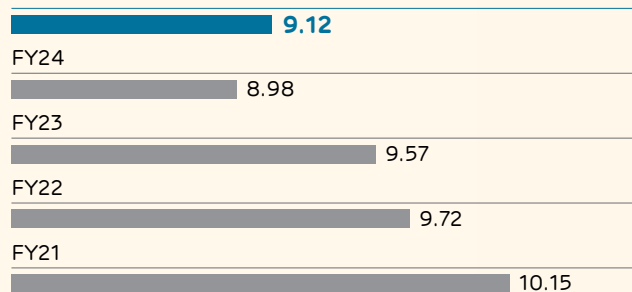
FY25



ROCE

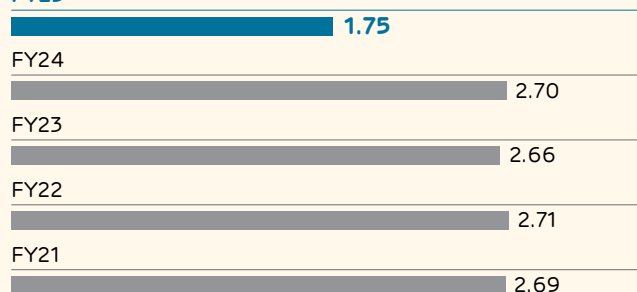
(%)

FY25



Gearing

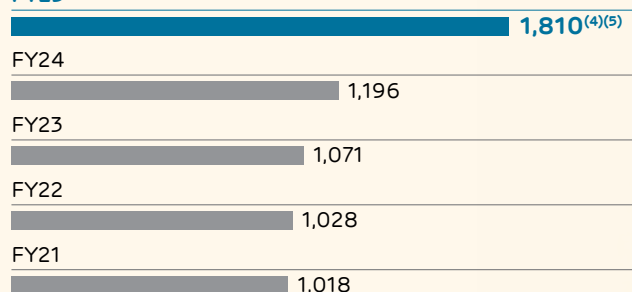
FY25



Adjusted PAT⁽¹⁾

(₹ crore)

FY25



Cash Profit⁽²⁾

(₹ crore)

FY25

4,292⁽⁴⁾

FY24

3,257

FY23

3,411

FY22

3,039

FY21

2,929

Net Debt to EBITDA⁽³⁾

FY25

3.2

FY24

3.8

FY23

4.0

FY22

4.2

FY21

3.8

Notes:

Gearing Ratio: Total Debt/Total Equity

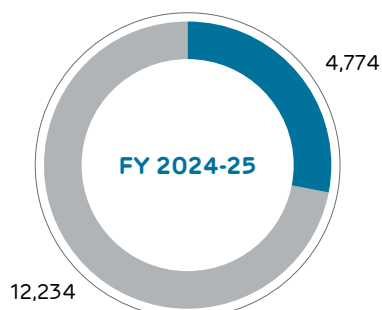
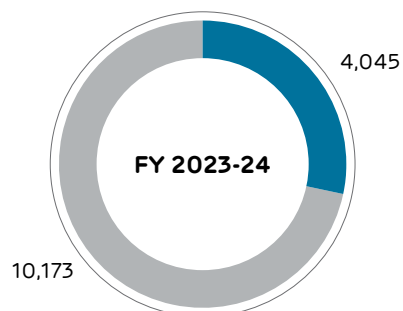
ROCE: Total EBIT/Capital Employed

⁽¹⁾ Adjusted PAT excludes one time and exceptional items.⁽²⁾ Cash profit calculated as PAT + Depreciation + Deferred Tax + MTM option loss.⁽³⁾ For the Net Debt to EBITDA calculation, net debt here refers to total long-term debt at the hedge rate excluding shareholders affiliated debt and adjusted for cash & cash equivalent bank balance, current & non-current investments, balances held as margin money or security against borrowings divided by reported EBITDA.⁽⁴⁾ Adjusted for an exceptional item due to carve-out of the Dahanu power plant of ₹ 1,506 crore⁽⁵⁾ Adjusted for regulatory income of ₹ 148 crore in T&D segments and net one-time deferred tax reversal of ₹ 469 crore in AEML distribution business

Segment-wise financial highlights

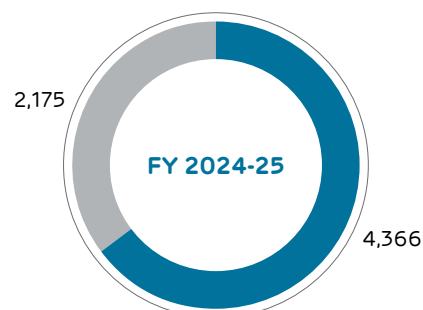
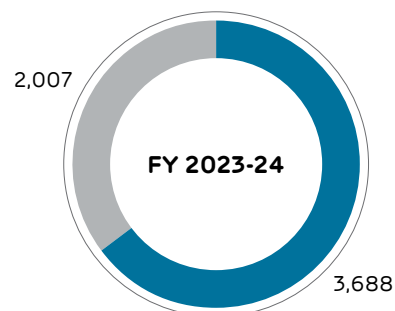
Operational Revenue

(₹ crore)



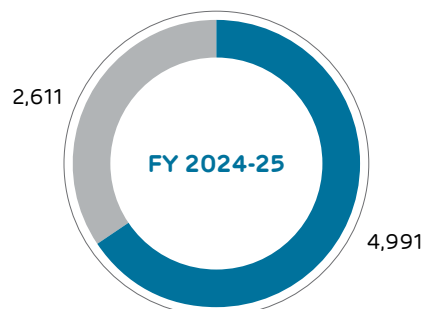
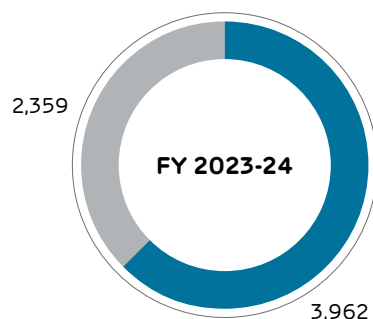
Operating EBITDA

(₹ crore)



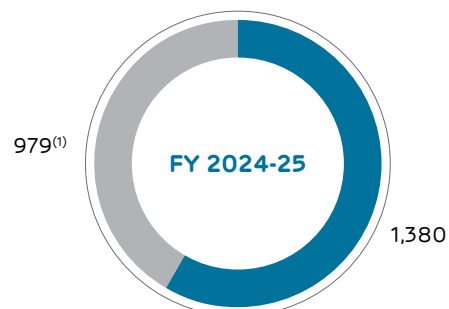
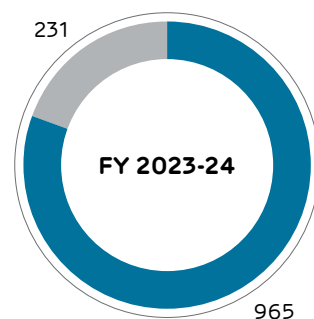
EBITDA

(₹ crore)



PAT

(₹ crore)



● Transmission ● Distribution

Notes:

⁽¹⁾Adjusted for an exceptional item due to carve-out of the Dahanu power plant of ₹ 1,506 crore.



Adani Energy Solutions delivered strong performance in FY 2024-25 backed by its unique ability to execute well, secure high value projects and demonstrate financial discipline. Our robust asset portfolio offers stable and predictable cash flows, and an efficient capital management plan enables steady growth. For FY 2024-25, our operational revenues increased 20.0% to ₹ 17,057 crore and EBITDA increased 22.5% to ₹ 7,746 crore. The Company reported adjusted PAT of ₹ 1,810 crore. With a cash position of ₹ 8,431 crore, the liquidity position remains strong and net debt to EBITDA of 3.2x was in line with the guidance. During the next fiscal year, the Company will focus on delivering the committed growth backed by timely project commissioning and achieving the capital expenditure target set for FY 2025-26. The integrated operating model and ability to draw synergies complement our growth strategy and enhance the returns. These strengths uniquely position us to harness the sector's vast opportunities and drive the next phase of sustainable growth.

- **KUNJAL MEHTA**

Chief Financial Officer



Business segment review

Transmission vertical

Driving the Indian energy transition

Adani Energy Solutions' transmission business stands as India's leading private power transmission network, ensuring seamless and reliable energy flow across the nation. With a focus on expansion and modernisation, it continues to strengthen grid resilience through strategic investments and cutting-edge advancements. Committed to shaping India's energy future, the business is accelerating the integration of renewables while advancing its transmission efficiency. The growth strategy is anchored in sustainable infrastructure development, strengthening leadership in an evolving energy landscape.

26,600+ ckm

Transmission
network

90,000+ MVA

Transformation
capacity

99.7%

System availability



Our dedication to expanding and modernising India's energy infrastructure is driven by a strong focus on innovation and execution excellence. Our efforts to strengthen the transmission network ensure the delivery of reliable, sustainable energy solutions for India, supporting the nation's growing energy requirements and future aspirations.

Vivek Gautam
Chief Project Officer



Industry Overview

Power transmission is vital to India's energy ecosystem, ensuring a reliable and future-ready power supply by seamlessly connecting generation to distribution. Transmission lines play a crucial role in maintaining grid stability, integrating diverse energy sources, and supporting economic growth. The network integrates state and regional grids into a unified system, supporting growing energy demand and increasing renewable integration. As the sector evolves, advancements in high-voltage systems, smart substations, and energy storage are enhancing grid efficiency and resilience.

4,92,424 ckm (2025) vs 3,13,437 ckm (2015)

Transmission lines expansion in India

23,45,135 MVA (by 2032)

Transmission capacity to hit from current
13,37,513 (2025) MVA in India

(Source: NEP Volume II – Transmission Plan, CEA)



Read more about transmission industry details at
Pg. 381

Segment Overview

We are India's largest transmission player, operating 45 transmission assets (30 operational and 15 under construction) across 14 states totalling to 26,696 ckm of Transmission lines and 90,236 MVA sub-stations. This comprises projects secured through Tariff-Based Competitive Bidding (TBCB) and Regulated Tariff Mechanism (RTM).

Our Edge

Project Execution Efficiency

- Implementing advanced project management tools like IPMS enables real-time tracking for timely, cost-effective execution
- Adaptive allocation of manpower, capital, and supply chain resources
- Clear targets for approvals and deadlines to address delays
- Regular audits and reviews to prevent cost overruns
- Stringent checks, inspections, and adherence to global standards
- Strict protocols, audits, and continuous training ensure high safety standards
- Strategic planning and resource efficiency drive capex target achievement

Operational Efficiency

- Successfully integrated new SPVs into operations with a seamless HOTO (Handing Over & Taking Over) process
- MoU done with Microsoft for O&M of Data center of two 220kV GIS SS
- Strengthened system reliability through audits, protection upgrades, and SCADA improvements
- Developed internal subject matter experts (SMEs) for knowledge-sharing and troubleshooting
- Digitalised SOPs and standardised protection documents to enhance efficiency
- Enhanced cybersecurity with external audits and infrastructure upgrades
- Achieved key ISO certifications and national awards for operational excellence
- Implemented best practices for asset health, safety, and lifecycle management
- Advanced industry collaboration through technical paper presentations and innovation initiatives

Energy Network Operations Centre (ENOC)

- A state-of-the-art innovation transforming automation through remote operations and monitoring in the transmission sector
- Major substations are already onboarded and operated remotely from Ahmedabad Corporate House through an unmanned setup, maximising asset efficiency
- Equipped with advanced technological solutions, analytics, and security systems to enhance operational control and surveillance

Asset Performance Management (APM)

- First-of-its-kind initiative in Adani for all high-voltage assets, enabling data-driven decision-making
- Enhances defect detection, improves response times, increases asset uptime, and reduces O&M costs
- Facilitates a shift from condition-based to reliability-centred maintenance, strengthening Adani Energy Solutions' asset management approach

Long-term Revenue Reliability

- Operating assets under availability-based tariffs with a concession life of 35 years, providing revenue visibility and mitigating throughput risks

Technological Excellence

- Adopted ARIBA for end-to-end procurement, integrating API and RPA for efficiency
- Awarded long-term service contracts to ensure uninterrupted O&M activities
- Secured long-term contracts with key suppliers to ensure material availability
- Strengthened vendor onboarding with stringent ESG screening and compliance checks
- Partnered with domestic vendors for OPGW procurement, reducing dependency on Chinese OEMs



Business Performance

We prioritise operational excellence through advanced technology and strategic investments to deliver value to the stakeholders. Our focus on automation and digitalisation improves efficiency, reduces energy losses, and optimises costs. These initiatives strengthen system reliability and long-term performance. Further, we proactively address environmental challenges with network resilience through implementing cutting-edge designs and system upgrades.

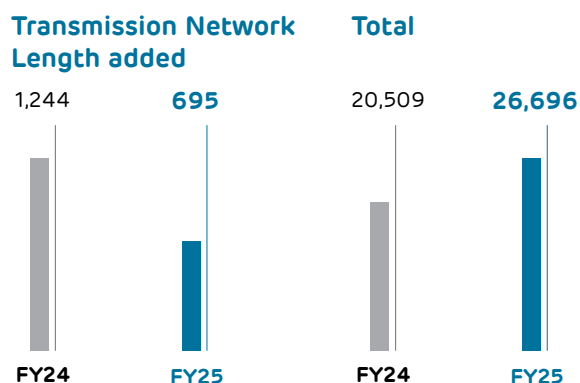
Strengthening O&M Capabilities

- Integrated commissioning team into O&M for seamless asset transition
- Implemented MIS automation to eliminate inefficiencies in transactional activities
- Deployed drones for transmission line patrolling, covering 200+ Ckm in challenging routes
- Introduced Automatic Fault Analysis System (AFAS) for real-time fault detection and precise fault location
- Established Outage Management Portal for 29+ sites, reducing manual effort
- Integrated new assets like Jamkhambhaliya at ENOC for central monitoring and control
- Successfully completed live line insulator and OPGW replacement in critical assets with 100% safety compliance
- Enhanced job rotation and leadership development for O&M teams
- Strengthened safety culture through campaigns like Urja (Electrical Safety) and cross-site safety audits

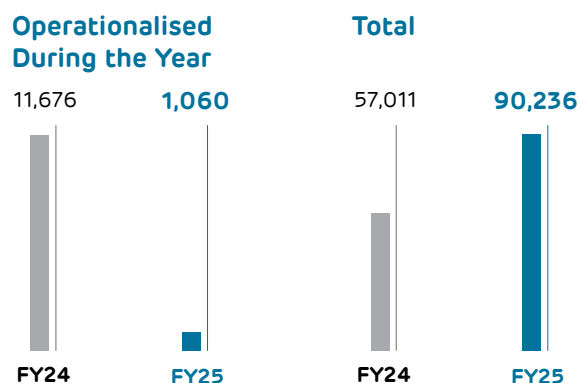
Cost Optimisation

- Deployed 16 EVs at O&M sites, reducing admin expenses and diesel dependency
- Developed SRI insulator health assessment tool for predictive maintenance
- Optimised inventory levels through a centralised store location concept
- Reduced fixed KVA demand by optimising energy consumption at substations
- Enhanced scrap sale management for cost recovery
- Implemented design improvements to reduce maintenance costs, including:
 - Online insulating oil dry-out system for 400 kV+ transformers
 - Enhanced polymer insulator design and quality checks
 - Additional earthing in transmission towers for high-frequency stability
 - Use of electromagnetic transient relays to optimise network performance
- Conducted Power BI training for improved KPI monitoring and decision-making
- Adopted 3D-printed stores, achieving 8% cost savings over conventional methods while enhancing ESG value

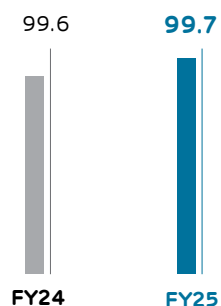
Transmission Network Length added (ckm)



Transformation Capacity (MVA)



Average System Availability (%)



22%

Reduction in tripping in our existing assets

54%

Reduction in system downtime compared to FY 2023-24

5%

Reduction in transmission line transient faults

~ ₹ 43,990 crore

Transmission orders received in FY 2024-25

₹ 59,936 crore

Total order book as on March 31, 2025

Financial Performance Highlights (Transmission Segment)


	FY 2024-25	FY 2023-24
Revenue from operations	4,774	4,045
Operating EBITDA	4,366	3,688
Cash profit	2,635	2,062
Capex	7,646	3,877

92%

Operating EBITDA

Sustainability Performance

- 35.2% RE share in the electricity procurement mix
- Carved out Adani Dahanu Thermal Power Station [ADTPS] from its portfolio; in line with the Company's ESG strategy; during 2024-25, much ahead of FY 2029-30 target

 Read more about our sustainability achievements in Pg. 47

Outlook

India's transmission sector is set for significant expansion, with an estimated ₹ 9.1 lakh crore investment required by FY 2031-32 to support a 900 GW installed capacity. This growth is driven by rising power demand, the integration of 500+ GW renewable energy, and the nation's net-zero target for 2070.

With a ₹ 59,936 crore order book and a strong TBCB pipeline, our focus remains on scaling execution, enhancing efficiency, minimising cost overruns, and optimising capital deployment to strengthen our leadership in India's evolving grid network.





CASE STUDY

Strengthening Madhya Pradesh's Power Infrastructure with MP Package

Adani Energy Solutions successfully executed the MP Package II Transmission Scheme in FY 2024-25, strengthening Madhya Pradesh's power infrastructure. The project covered 29 districts, constructing 28 transmission lines (~1,088 Ckm) and 18 substations (2,736 MVA) on a BOOM basis. To have faster & smarter execution with cost effective solution LILO arrangement of two double circuit 220 kV Transmission lines were executed from substation side with shorter distance having substantial saving.

Significance

The project enhanced power reliability and efficiency in eastern Madhya Pradesh, ensuring a stable electricity supply across the state.

Challenges and Execution

Challenge

ROW issues, land acquisition in heritage areas, and statutory clearances regarding wildlife conservation

Mitigation

Utilised advanced project management tools for real-time monitoring, ensuring timely, cost-effective, and high-quality execution

Business segment review

Retail power distribution vertical

Adani Electricity Mumbai Limited

Adani Electricity Mumbai Limited (AEML) powers over 3.2 million customers across 400 sq. km, covering 85% of Mumbai's geography and 67% of its population. Transitioning from a utility provider to a consumer-centric enterprise, AEML has invested extensively in assets, systems, and people to enhance service quality and customer experience. Driving grid decarbonisation, the company is expanding its renewable energy share while pursuing parallel distribution licenses and building a state-of-the-art network. Plans include scaling digitisation, automation, and smart metering to modernise Mumbai's infrastructure. These initiatives position AEML for growth, operational excellence, and a cleaner energy future.

3.2 million

Customer base

Two

Assets – AEML and MPSEZ
Utilities Limited (MUL)

₹ 9,549 crore

AEML total regulatory
asset base (RAB)

#1 Power Utility*

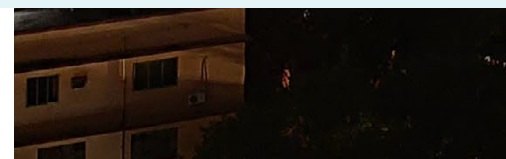
Company for 3rd consecutive
year



As we reflect on yet another year of outstanding achievements, it is clear that our commitment to digital transformation, customer-centricity, and operational excellence remains the cornerstone of our continued success. We are enhancing our business resilience through sustainable practices, while making meaningful contributions to environmental sustainability on local, national, and global scales.

Ramesh Sharma

Head of Business - AEML



Industry Scenario

India's power sector has made significant strides, achieving near-universal electrification, a national grid, and power surplus. However, distribution remains a critical challenge. The 'One Nation One Grid' initiative and HVDC projects have strengthened the transmission network, ensured stability and reduced local generation dependency. AEML plays a key role in this evolving landscape by enhancing long-distance transmission, improving grid resilience, and ensuring uninterrupted power for Mumbai. Operating within a stringent regulatory framework, AEML leverages smart infrastructure, digitisation, and renewable integration to drive efficiency. Amid rising competition and evolving consumer expectations, AEML continues to innovate, delivering reliable, affordable, and technology-driven power solutions.

*As per the Ministry of Power's 12th Annual Integrated Rating and Ranking for Power Distribution Utilities, a report prepared by McKinsey and Company, appointed by PFC India (the nodal agency).

Segment Overview

Introduction

AEML set itself apart by offering consumer choice, competitive tariffs, and high-quality power as a service. Our distribution business delivered strong performance in FY 2024-25, ensuring 99.99% supply reliability and meeting an ~8% rise in demand.

Artificial Intelligence and Machine Learning were deployed to streamline customer-centred processes.

The company created a dedicated employee platform to incubate innovative ideas.

AEML transitioned to data-driven decision-making through the prudent use of Dashboards, PowerBI, and Business Intelligence tools.

Our Edge

Technology Excellence

- Introduced Mumbai's first Virtual Contact Centre for seamless customer interactions
- AI-powered chatbot 'Elektra' and self-help kiosks enhance consumer engagement
- 'Genius Pay' boosted digital payment adoption to 85%
- Implemented smart metering ecosystem to empower customers with effective energy consumption management
- Optimises resources and digitises workflows with integrated work management system (WMS)
- Improves fleet tracking, fuel efficiency, and route optimisation through Transportation Management System (TMS)
- AI/ML tools predict defaulters and automate theft detection
- First in India to use high-accuracy GPS for asset digitisation, reducing mapping turnaround from 7-10 days to 1 day

Reliable and Cost-efficient Operations

- 99.99% supply reliability; SAIDI: 21.27, SAIFI: 0.67, Distribution Loss: 4.77%
- Strategic power sourcing and automation ensure cost-effective solutions
- Robotic Process Automation (RPA): Streamlines meter reading, billing, and outage management. Additionally, visualisation tools like Power BI and SAP BO have been implemented to support data-driven decision-making.

Productivity and Smart Infrastructure

- ADMS (Advanced Distribution Management System): Minimises outages, ensures real-time updates, and integrates renewables
- N-1 Redundancy: Ensures high reliability through SCADA-enabled remote operations
- Smart Pillar-DMS: Uses real-time analytics to reduce losses and improve efficiency

Long-term Revenue Reliability

- Mumbai's power demand grew 8% y-o-y, reflecting economic growth
- Exploring privatisation of state utilities and parallel distribution licenses for future growth
- Serving 12Mn+ consumers, ensuring tariff stability and renewable energy expansion

Superior Value Proposition

Multiple strategic initiatives aimed at enhancing customer experience. The company has prioritised customer satisfaction by leveraging advanced digital platforms for seamless interaction, enabling consumers to manage their energy needs conveniently and efficiently. Proactive approach to energy management, coupled with strategic power procurement leading to greater choice in energy distribution.

- Renewable energy expansion for stable tariffs and sustainability
- Strategic market expansion ensures long-term growth while providing customers greater choice
- Data analytics and automation enhance reliability and cost-efficiency



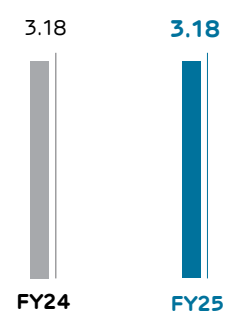
Business Performance

Operational Performance Highlights

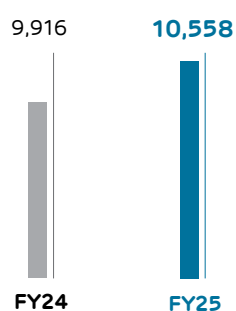
FY 2024-25 marked strong operational progress, driven by an expanding customer base and higher electricity consumption. Customer base remained broadly the same as FY 2023-24 at 3.18 million. However, units sold saw a rise from 9,916 million to 10,558 million in FY 2024-25. Distribution losses improved from 5.29% to 4.77%, Lowest ever marked in AEML history, enhancing both efficiency and financial performance.

Reliability and network efficiency also improved, with transmission availability at 99.31% and Supply Reliability (ASAI) at 99.996%. Remaining in line with previous year, system interruptions reduced, with SAIDI at 21.27 minutes (21.26 in FY 2023-24) and SAIFI at 0.67 (0.69 FY 2023-24). While CAIDI rose slightly to 31.58 minutes, ongoing efforts aim to strengthen supply stability.

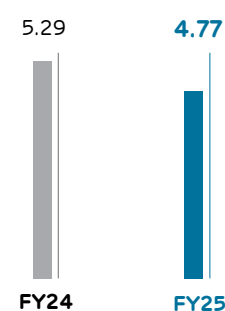
Customer Base (million)



Units Sold (million units)



Distribution loss (%)



Other Operational Parameters

	FY 2024-25	FY 2023-24
System Average Interruption Duration Index (SAIDI) (mins)#	21.27	21.26
System Average Interruption Frequency Index (SAIFI) (nos.)#	0.67	0.69
Customer Average Interruption Duration Index (CAIDI) (mins)#	31.58	30.63
Supply Reliability (ASAI) (%)*	99.996	99.996
Transmission availability (%)*	99.31	99.79
E-payment (% of total collection)*	83.34	79.57
Collection efficiency (%)*	101.03	101.01
Number of complaints#	5,68,037	4,83,218

*Higher the better # Lower the better

SAIDI – indicates the average outage duration for each customer served

SAIFI – indicates an average number of interruptions

CAIDI – indicates the average time required to restore service during a predefined period

Financial Performance Highlights

AEML delivered steady financial performance, driven by increased energy consumption, the Mumbai distribution business witnessed an increase in energy consumed by 6.5%. It saw one of the lowest distribution losses of 4.77% in its history and strategic investments in infrastructure. Strong operational efficiencies and a focus on reliability reinforced its position as Mumbai's preferred power distributor.

Adani Electricity Mumbai - Financial Highlights

	FY 2024-25	FY 2023-24
Revenue from operations	11,677	9,782
Operating EBITDA	2,142	2,005
Capex	1,630	1,334

Sustainability Performance

AEML stands as a paragon of sustainability in the utility sector, championing a greener future through innovative practices and a commitment to environmental stewardship. Embracing circular economy principles, AEML prioritises resource efficiency, waste reduction, and the repurposing of materials to maximise value at every stage. With cutting-edge technologies and forward-thinking strategies, AEML is meeting today's energy demands while laying the groundwork for a cleaner, more sustainable tomorrow.

Highlights

Achieved 69.7% reduction in carbon emissions from the base year

Integrated 35.2% renewable energy into the energy mix, reducing reliance on fossil fuels

Minimised SOx and NOx pollutants through cleaner energy adoption

Exceeded the 40% GHG emission intensity reduction target for FY 2024-25, aiming for 50% by FY 2026-27 (baseline: FY 2018-19)

Embraces circular economy principles, focussing on resource efficiency and waste reduction, and the repurposing of materials to maximise value at every stage. With cutting-edge technologies and forward-thinking strategies, AEML is not only meeting today's energy demands but also laying the groundwork for a cleaner, more sustainable tomorrow.

On track to achieve 60% renewable power mix by FY 2026-27

Awards and Accolades

Ranked #1 among 63 utilities across India in the 13th integrated report by ministry of power

Ranked #1 among 52 utilities across India in the 12th integrated report by ministry of power

Honoured with gold award for best learning culture in an organisation

All 21 teams of AEML won gold award and 6 gold awards for 5s @ home in the chapter convention on quality concept 2024

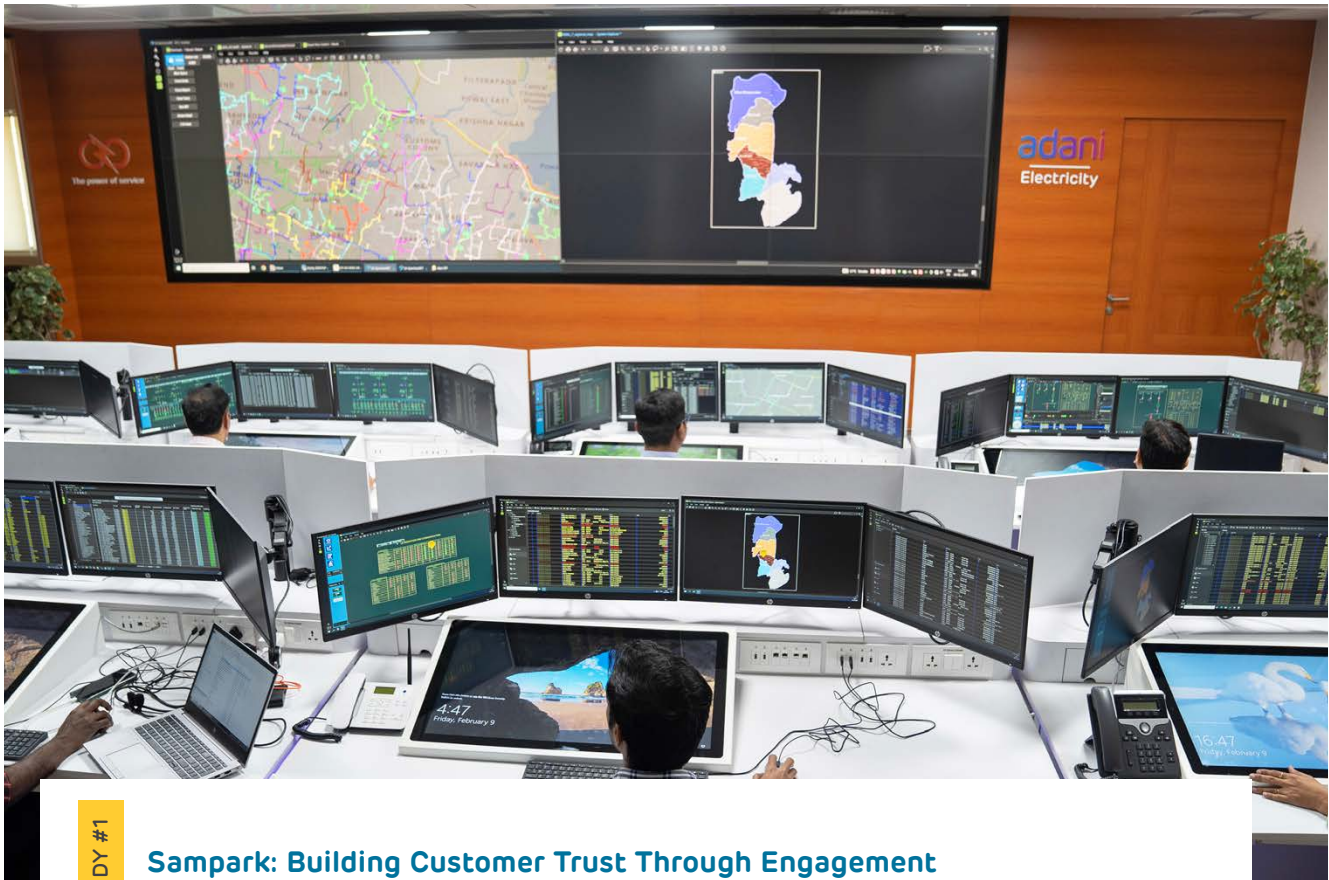
6 teams won par-excellence awards, and 2 teams won the excellent awards in 5s national conclave

Received 3 par-excellence and 5 excellent awards in the national convention on quality concept (NCQC)- 2024

Honoured with the corporate patronage excellence award in recognition of our ongoing commitment to fostering a culture of quality and business excellence

Won the "excellence in occupational health & safety management system" award in the technology and service category in OSH India awards 2024

AEML-T&D has bagged silver level certification in Arogya world's healthy workplace awards 2024



CASE STUDY #1

Sampark: Building Customer Trust Through Engagement

Adani Electricity launched the Sampark Programme to deepen customer engagement and reinforce trust. This initiative recognises employee's contribution to influence customer perception. Sampark ensures customers feel valued, while employees gain insights to enhance service delivery through promoting direct interactions.

Senior leaders set the tone by actively engaging with customers structured into three components – B2B and B2C Engagements and Call Listening – Sampark drives leadership-led customer interactions. Senior leaders set the tone by actively engaging with customers, conducting quarterly meetings with B2B clients, addressing their unique needs. Mid-level managers meet five B2C customers per quarter, focussing on key themes like billing experience and self-service awareness. Junior managers assess customer calls to identify and resolve recurring concerns. A structured feedback loop via Microsoft Forms ensures timely issue resolution.

Impact

- Integrated 'Understand Your Bill' feature that received 2,00,000 impressions till date, enhancing customer awareness
- Increased adoption of paperless billing, WhatsApp updates, and contact additions
- Employees feel empowered as brand advocates, strengthening engagement
- Customers now perceive Adani Electricity as a trusted partner, reinforcing brand reputation and customer-centricity

658

B2B meetings

4,500

B2C engagements

2,900

Call evaluations



CASE STUDY #2

Building a Modern Future

AEML undertook a major network modernisation by upgrading existing SCADA system with an Advanced Distribution Management System (ADMS). The legacy system posed cyber risks, limited operational capabilities, and hindered reliability. The ADMS platform, deployed in phases, enhances decision-making, improves efficiency, and ensures a superior customer experience. Integrated with Geographic Information System (GIS) data, the platform provides real-time insights into network performance and reliability. With additional modules set for deployment, AEML continues its commitment to innovation, reinforcing its position as a leader in smart energy management.

Key Impacts

- Load flow analysis optimises power distribution and minimises losses
- State Estimation (SE) prevents transformer overloads
- Fault Localisation and Supply Restoration (FLISR) reduces downtime
- Dispatcher Training Simulator (DTS) enhances operator readiness

Delivering on the Promise of Reliability and Excellence

- Implemented real-time monitoring and alerts ensure network stability
- Integrated advanced analytics to optimise load management and loss reduction
- Enhanced the customer experience through reliable service with minimal disruptions
- With additional modules coming online, AEML continues to build on its commitment to innovation and operational excellence, setting new benchmarks in the energy sector. This journey reaffirms AEML's dedication to leveraging technology to meet the evolving needs of its customers and stakeholders.

Outlook

With the Government accelerating utility privatisation, we are well-positioned to expand our footprint in high-potential regions under utility privatisation with Government focussing on the same direction. A key priority is securing two DISCOMs under the UPPCL tender, reinforcing our strategy to play a larger role in India's evolving power sector. Alongside this, we are actively pursuing parallel distribution licenses in key geographies, supported by investments in a robust and reliable network. Leveraging our proven expertise in Mumbai, we remain committed to delivering high-quality, affordable power through digital transformation, automation, and operational excellence.

In Mumbai, where energy demand continues to grow, we are strengthening infrastructure to surpass 4 million customers. Smart meter deployment and an extensive customer acquisition campaign will enhance service reliability and customer experience. These initiatives, combined with our focus on innovation and sustainability, position us to drive long-term growth while contributing to India's vision of a modern, efficient power sector.

MPSEZ Utilities Limited

MPSEZ Utilities Limited (MUL), a 100% subsidiary of Adani Energy Solutions Limited, is the electricity distribution company for the 85 sq. km. industrial and commercial hub in Mundra, Gujarat. Since 2010, MUL has been developing and maintaining power distribution infrastructure to meet the region's growing energy needs. With a distribution network of 244 ckm, seven EHV substations, and eight CSS across voltage levels from 220 kV to 0.415 kV, MUL serves 104 customers with a contracted demand of ~214 MVA, distributing 948 MUs in FY 2023-24, primarily catering to EHT/HT. Looking ahead, MUL is poised to drive significant advancements in the energy sector. Our mission to provide reliable and sustainable energy solutions is supported by a clear vision to lead in innovation and sustainability.



At MUL, we power industries with the reliable energy solutions, driving efficiency, sustainability and innovation with commitment to excellence and integrity, we fuel progress, strengthen connections, and illuminate the path to more sustainable and prosperous future".

Mehul Rupera

Vice President - MUL

104

Customer base



Assets currently under operation

244 ckm

Transmission network

7

EHV Substation

9

CSS/DT

₹ 49 crore

MUL total regulatory asset base (RAB)

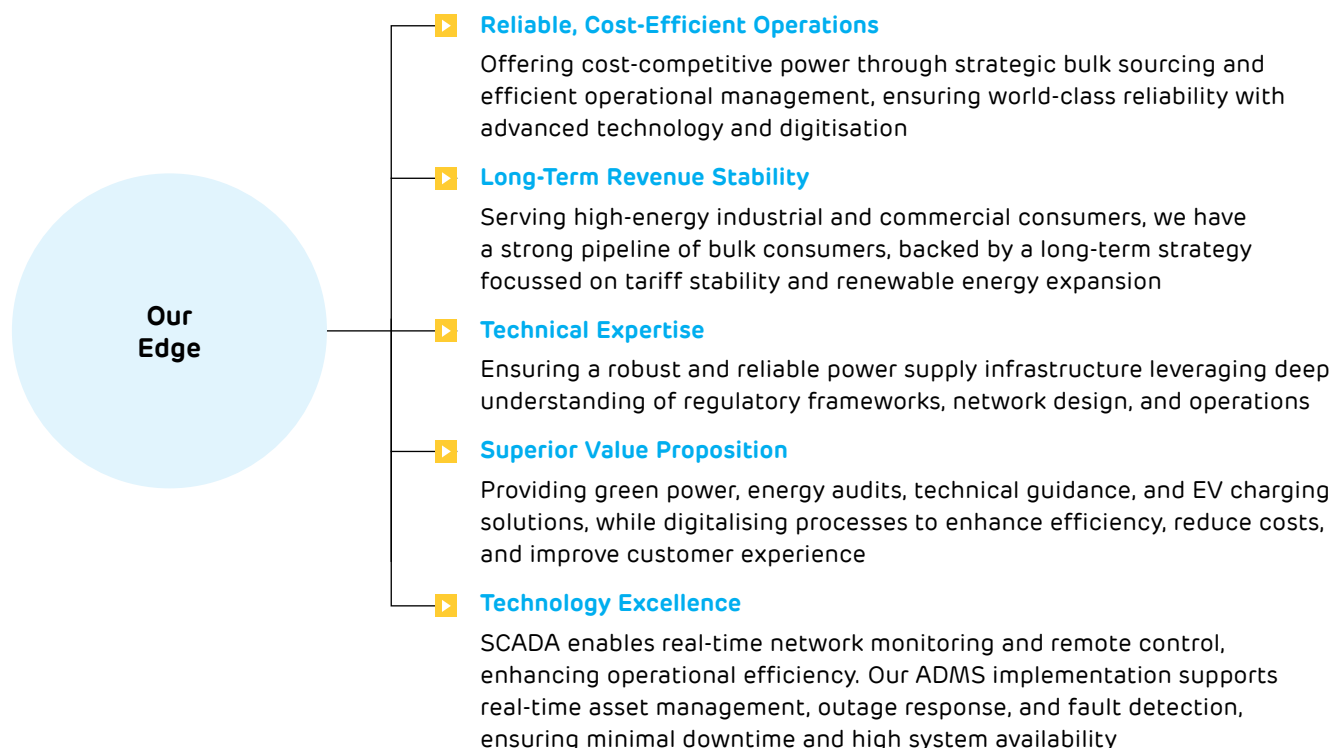
Industry scenario

The Indian power sector is a key driver of economic growth, with industrial and bulk commercial, the 'One Nation One Grid' initiative and Extra High Voltage projects have strengthened MUL's distribution network by enhancing grid stability and reducing local dependence. Direct connectivity with central transmission utilities further improve resilience and minimises bottlenecks. Operating within a dynamic regulatory and competitive landscape, MUL adheres to GERC standards while leveraging smart infrastructure, digitisation, and renewable integration to ensure reliable and efficient power distribution.

Segment Overview

Introduction

During FY 2024-25, we ensured 99.99% supply reliability while keeping distribution losses low at 2.32%. With energy demand rising by 44% year-on-year, we met requirements through competitive tariffs and high-quality service. Digital transformation remains our focus, with automated bill verification, 100% digital payments, and a 24/7 customer control centre enhancing efficiency and customer experience. As we integrate sustainable practices, we are strengthening our business resilience while advancing our commitment to environmental responsibility.

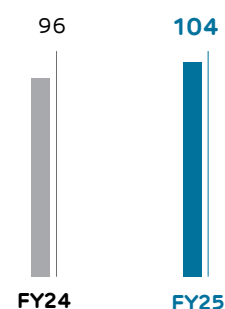


Business Performance

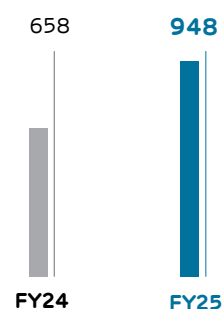
Operational Performance Highlights

We enhanced network reliability by deploying Fault Sensor Indicators (FSIs) on overhead transmission lines. These sensors detect faults, signal their location via LED flashes, and communicate data through a gateway device. This allows maintenance teams to pinpoint and inspect only the faulty section, eliminating the need for full-line patrolling. The initiative minimises breakdown time, optimises manpower, and strengthens system reliability.

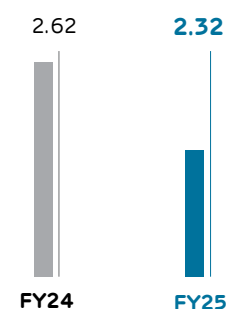
Customer Base (nos.)



Units Sold (million units)



Distribution loss (%)



Other Operational Parameters

	FY 2024-25	FY 2023-24
System Average Interruption Duration Index (SAIDI) (mins)#	211.45	692.53
System Average Interruption Frequency Index (SAIFI) (nos.)#	3.01	4.69
Customer Average Interruption Duration Index (CAIDI) (mins)#	70.15	147.39
Supply Reliability (ASAI) (%)*	99.96	99.87
E-payment (% of total collection)*	100	100
Collection efficiency (%)*	99.74	99.91
Number of complaints#	120	102

*Higher the better # Lower the better

SAIDI – indicates the average outage duration for each customer served

SAIFI – indicates an average number of interruptions

CAIDI – indicates the average time required to restore service during a predefined period

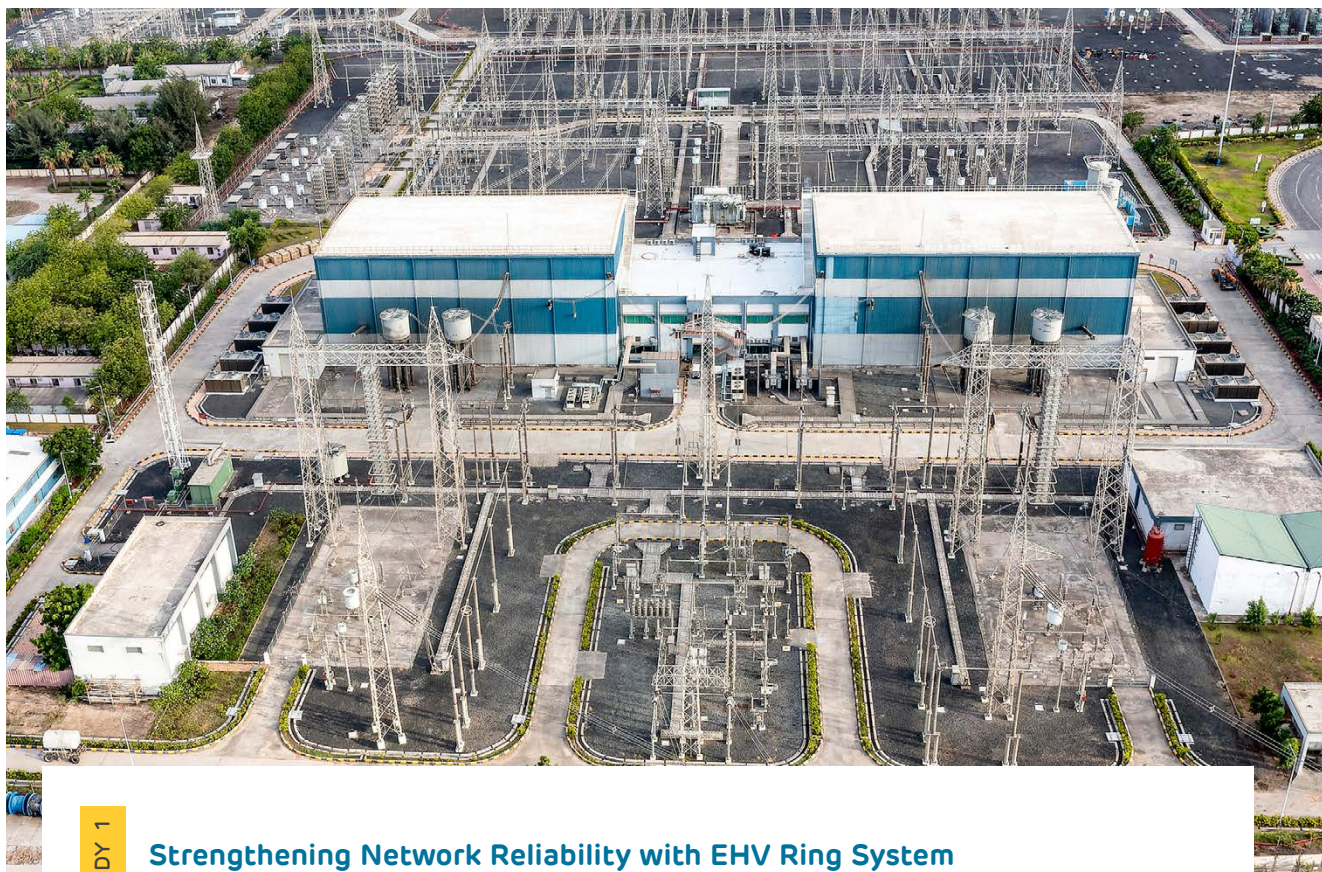
Financial Performance Highlights

We maintained strong financial performance through efficient cost management and strategic bulk power sourcing, ensuring competitive tariffs and stable revenue streams. Robust operational efficiency and a high-reliability network contributed to steady growth, reinforcing our financial resilience.

MUL - Financial Highlights

(₹ in crore)

	FY 2024-25	FY 2023-24
Revenue from operations	557	391
Operating EBITDA	2	33
Capex	152	111



CASE STUDY 1

Strengthening Network Reliability with EHV Ring System

MUL is majorly catering electricity to the bulk Industrial & commercial segment who require quality & reliable power. The power fed through the radial feed at Extra High Voltage (EHV) level which is further step-down & distributed at High Voltage (HV) & Low Voltage (LV) level to the consumers. The existing system, hindered by radial feed, posed significant risks on availability of network in exigency situation, MUL was not able to do the periodic maintenance of the system in absence of the alternate feed of supply. This impacted the ability to achieve high standards of network reliability & availability.

To overcome these challenges, MUL has developed ring system at EHV level to connect main distribution substations with main receiving substation to enhance availability of the network, improve operational efficiency and deliver a superior customer experience.

MUL has successfully operationalised ring system at EHV level, delivering significant improvements in network availability and operational efficiency. This system ensures round the clock availability of double feed of supply, availability of the system for periodic maintenance without affecting the power to the consumers. This system contributes to improved service reliability, reduced operational risks, and enhanced customer satisfaction.

Outlook

In FY 2024-25, MUL's distribution business showed robust performance, meeting a 44% increase in energy demand with 99.99% supply reliability and low distribution loss of 2.32%. The company focussed on digital enhancements, optimising productivity, and achieving Sustainable Development Goals. MUL ensured 100% digital payment, streamlined bill verification, and maintained high customer satisfaction with a 24/7 control centre. Looking ahead, MUL aims to strengthen its business model through sustainable practices, contributing to environmental sustainability and making a positive impact on the industry and society.



Business segment review

Smart metering vertical

An upgrade to make energy solutions smarter

Smart meters are transforming India's energy sector with 25+ crore installation, revolutionising energy distribution. These advanced IoT-enabled devices, integral to Advanced Metering Infrastructure (AMI), enable real-time data collection, remote monitoring, and dynamic billing, helping the DISCOMs to reduce losses and improve efficiency. Supported by government initiatives like the RDSS, the smart metering upgrade is a solution to greener, smarter, and consumer-focussed energy ecosystem.



With smart metering, we are not merely modernising power distribution; we are revolutionising energy management, empowering communities, and forging the path towards a resilient and sustainable India.

Pushpendrasinh Zala
CEO - Smart Metering Business

31.34 lakhs

Smart meters installed

9

Contracts

Pipeline under implementation

~2.28 crore

Smart meters across Andhra Pradesh, Maharashtra, Assam, Bihar and Uttarakhand

₹ 27,195 crore

Contract value





Industry Scenario

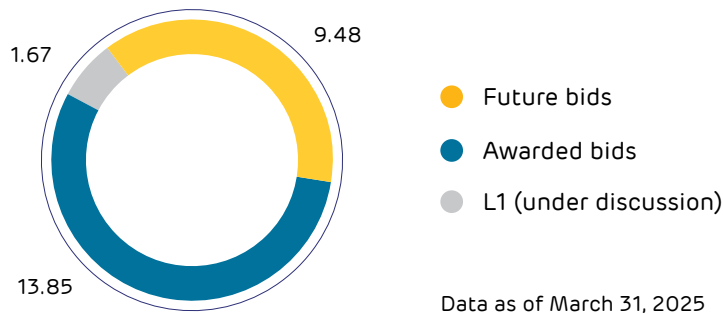
India's power distribution sector is undergoing a major transformation, driven by smart metering and grid modernisation initiatives. The Revamped Distribution Sector Scheme (RDSS) aims to instal 25+ crore smart meters by 2025, reducing losses and improving efficiency. Key initiatives like the Smart Meter National Programme (SMNP) and Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) are strengthening both urban and rural networks. With USD 100 billion in projected investments by 2030, the sector is set to enhance reliability, reduce AT&C losses below 12%, and integrate advanced technologies like IoT and AI, ensuring a more efficient and sustainable power ecosystem.

Opportunity Landscape

Smart Meter National Programme under RDSS aims for ambitious targets

- Improve quality, reliability, and affordability of power supplies
- Reduce aggregate technical & commercial (AT&C) loss to 12-15% by FY 2024-25
- Reduce average cost of supply-average revenue realised (ACS-ARR) gap to Zero by FY 2024-25

Government Target (Meters in crore)



15.52 crore

Smart meter bid awarded (LOA) and in negotiation (L1) stage

9.48 crore

Untapped market



Segment Overview

Adani Energy Solutions is leading India's smart metering transformation under the RDSS, aiming to reduce AT&C losses to 12–15% and eliminate the ACS-ARR gap by FY 2024-25. As a key service partner to DISCOMs, Adani Energy Solutions installs and maintains smart meters nationwide through the DBFOOT model, offering hardware, communication networks, cloud infrastructure, and data management. Leveraging its distribution expertise in Mumbai and Mundra, Adani Energy Solutions is evolving from a service provider to an integrated solutions platform, strengthening distribution infrastructure and enhancing operational efficiency. This strategic shift aligns with India's goal of modernising power distribution for greater reliability and financial sustainability.

First Mover with a Distinctive Advantage

As an early adopter, we have a significant edge over competitors, enabling us to capitalise on the growing demand and establish long-term market leadership.

Our unique achievements as a first mover

- Amongst the first AMI Service Providers (AMISPs) to achieve the highest per day installation of ~27,000 meters per day achieved in April 2025
- Only AMISP with capabilities for AI-based quality checks and fully automated meter allocation to the vendors
- First AMISP in Andhra Pradesh to cross the 5 lakh smart meter installation milestone
- Trusted partner to DISCOMs

We have been instrumental in driving consumer awareness and accelerating smart meter adoption nationwide. Our expertise in large-scale deployments, regulatory alignment and seamless integration with legacy systems make us a trusted partner to DISCOMs helping them reduce losses, enhance payment security and improve operational efficiency

Market Leading Position

We are a market leader in the segment, commanding a 17% market share. Our pipeline of deploying additional ~2 crore smart meters across key states further positions us to consolidate our market share.

Execution and Technology Excellence

With over 31 lakh smart meters already installed, ~2 crore in the pipeline and an execution capability of 27,000 meters per day, we are national benchmarks in large-scale project execution. Our expertise in handling complex, high-volume projects with precision and efficiency along with delivering advanced **IoT-enabled smart meters** and **AMI systems** highlight our operational and technological excellence.

Payment Security

Smart meters enhance payment security by enabling real-time consumption tracking and automated billing, eliminating manual errors and delays. Prepaid billing, postpaid alerts, and online payment integration ensure timely revenue collection while offering consumers flexible payment options. By reducing AT&C losses through minimised theft, tampering, and inaccuracies, smart metering strengthens DISCOMs' financial health. Additionally, data-driven insights improve revenue forecasting, cash flow management, and reinvestment in grid modernisation, renewable energy, and infrastructure upgrades.

Business Performance

- Strengthened collaborations with leading DISCOMs across India to address regional challenges, enhance network resilience, and integrate renewable energy
- Optimised processes and coordination, enabling installation of 31 lakh smart meters across multiple states, with plans to scale up to 70 lakh additional smart meters in FY 2025-26
- Upgraded data management and remote monitoring systems through Advanced Metering Infrastructure (AMI) Enhancement to improve grid efficiency and customer experience
- Enabling seamless communication between meters, utilities, and consumers through IoT-Based Smart Metering Solutions. Key features include:
 - Real-Time Monitoring for better demand-side management and reduces energy wastage
 - Two-Way communication enabling remote diagnostics, monitoring, and configuration
 - Enhanced consumer engagement providing real-time usage insights via mobile apps and web portals
 - Automated billing system eliminating manual readings, ensuring accurate, secure payments
 - Tamper detection and theft prevention to instantly alert utilities of unauthorised usage
 - Seamless AMI integration optimising grid performance and load management

Collaboration with Leading DISCOMs

MSEDCL



Maharashtra State Electricity Distribution Company Limited

APSPDCL



Andhra Pradesh Southern Power Distribution Company Limited

APCPSCL



Andhra Pradesh Central Power Systems Corporation Limited

APEPDCL



Andhra Pradesh Eastern Power Distribution Company Limited

BEST



Brihanmumbai Electric Supply and Transport

APDCL



Assam Power Distribution Company Limited

Assam Power Distribution Company Limited

NBPDCL



North Bihar Power Distribution Company Limited

UPCL



Uttarakhand Power Corporation Limited

CASE STUDY

AI/ML-powered QA for Smart Meters

The success of smart meter deployment and the assurance of consumer safety are critically dependent on the quality of installations. To ensure that only high-performing, compliant meters are delivered to end-users, robust Quality Assurance (QA) mechanisms are imperative. Traditionally reliant on manual inspections, QA processes have struggled to scale with rising installation volumes, resulting in inefficiencies, inconsistencies, and susceptibility to human error.

To address these limitations, an AI/ML-powered QA tool has been implemented, representing a significant leap in the digitisation and automation of meter installation oversight. This intelligent system integrates rule-based validations with machine learning algorithms to perform real-time quality checks, automate compliance verification, and enhance safety and operational outcomes.

Key functionalities include automated detection of deviations, intelligent identification of workmanship issues, continuous monitoring, and seamless integration with project and installation workflows. The system currently supports approximately 25,000 daily installations, delivering a reduction of over 300 man-hours per day while significantly improving accuracy, consistency, and efficiency.

By digitising and automating QA processes, the tool enables timely resolution of quality issues, optimises resource allocation, and ensures adherence to regulatory standards. It enhances transparency, scalability, and control, thereby accelerating smart meter rollout, reducing costs, and reinforcing consumer trust – crucial to the success of smart grid modernisation initiatives.

Sustainability Performance

Renewable energy integration:

Supports monitoring of solar and wind energy, reducing dependence on fossil fuels

Energy efficiency: Real-time data enables optimised energy use, lowering consumption and carbon emissions

Rural electrification: Facilitates cleaner and more efficient energy access in remote areas

Energy loss reduction: Detects theft and tampering, cutting AT&C losses and improving grid efficiency

Sustainability analytics: Tracks carbon footprint and energy savings, aiding environmental goals

Net-zero support: Enhances clean energy utilisation and reduces grid losses

Circular economy: Focusses on recycling and reusing meter components to reduce environmental impact

Sustainable supply chain: Partners with eco-conscious vendors to lower carbon footprint

Consumer engagement: Provides real-time data, promoting energy conservation and awareness

Outlook

The Indian smart metering market is poised for exponential growth, driven by rising demand for energy efficiency and government incentives. The focus for FY 2025-26 will be on accelerating smart meter installations and revenue generation while actively participating in major tenders to sustain a 17% market share and target 23-25% market share in the near term. Advancing digitalisation through data analytics and AI will enhance operational efficiencies, while new opportunities in gas metering and home automation will be explored to expand the business footprint. Addressing operational challenges and ensuring timely execution will be key to unlocking the full potential of this transformation.

Business segment review

Cooling solutions vertical

Pioneering the future of sustainable cooling

Cooling demand in India is poised for exponential 8x rise in this decade. This would cause a 4x increase in the power demand posing huge challenge to the nation's Power Generation, Transmission and Distribution infrastructure as also on the sustainable and renewable energy roadmap. Consequently, the carbon emissions would increase by 25-30% impacting the Net Zero Goals. The Adani Cooling Solutions Ltd (ACSL) has been created under the Adani Energy Solutions vertical as a first mover to lead the market and redefine the space cooling landscape with cutting-edge centralised cooling systems that are highly energy-efficient, cost-effective, and minimise environmental impact significantly. Through this, we create a win-win situation – addressing demand-supply gap on one end and easing peak load on distribution networks on the other. Additionally, through our 'Cooling-as-a-Service' model, which eliminates upfront capital investment for users and operates on a pay-per-use basis, we create a compelling value proposition for widespread adoption.

52,700 TR

Projects under implementation
(▲ 584%)

2,50,000 TR

Identified project pipeline

TR: Tonne of Refrigeration



Adani Cooling Solutions Limited underwent a remarkable transformation in FY 2024-25, evolving from a single project-entity to a market-leading player with 52,700 TR of projects under implementation which includes the largest District Plant of India at Mundra and a robust pipeline of ~2,50,000 TR. What started as a bold vision to address India's cooling gap with sustainable technologies, has today propelled us into a formidable force, powered by our team's dedicated efforts, strategic collaborations with key stakeholders and nation-wide outreach initiatives covering all growth engines of Real Estate, Airports, IT Hubs, Industrial Estates, Data Centers, Metro Rails etc.

Moving ahead, our focus remains on delivering innovative, customer-centric solutions and business models that not only drive operational excellence and long-term value but contributes meaningfully to Adani portfolio's ambitious Net Zero target by 2050. We will continue to invest in scalable, efficient, and environmentally responsible technologies to transform the future of urban space cooling – one that is smarter and more sustainable.

Bhaskar Sarkar

Chief Business Officer - Cooling Solutions



Industry Scenario

The cooling market in India is significantly under-penetrated. The nation's per capita cooling energy consumption was ~147 kWh in 2023, significantly lower than the global average of 1,539 kWh while the AC ownership was at 8% as compared to 60% to 90% in other developing countries. This is despite India having the highest Person Cooling Degree Days (CDD) at above 4,200 billion, driven by the large population and consistently high ambient temperature. Total cooling demand is expected to grow by 8X by 2037-38 while Space cooling demand is expected to grow by 11X which would be reach 74% of the total cooling demand by 2037-38.

(Source: IEA, World Economic Forum and ICAP research)

With immense untapped potential, India's refrigerant-based installed equipment to meet space cooling needs of housing and realty infrastructure is estimated to grow from 130 million TR in FY 2022-23 to 720 million TR by FY 2037-38 as per India Cooling Action Plan (ICAP) 2019 and District Cooling Guidelines 2023. This would necessitate an additional 120 GW of power generation and a corresponding increase in transmission & distribution (T&D) network by 2030 rise of 11% over 2022.

ICAP in association with the Bureau of Energy Efficiency has therefore emphasised the critical need for energy-efficient and sustainable centralised cooling and thermal energy storage solutions.

To achieve this, the installed capacity of District cooling systems (DCS) market has to grow at an aspirational ~20% CAGR from a meagre 9 million TR in 2023 to around 32 million TR by 2029-30. This surge will drive a threefold increase in market share Chiller based installations from 7% to 15%.

Our joint market study with Cushman & Weikfield identifies a potential space cooling market of 43 million TR in the coming years across commercial spaces, data centers, airports, industrial parks, and integrated townships. Notably, 11 million TR of this demand will be concentrated in Tier 1 cities, with our targeted market estimated at ~1.6 million TR.

229 million TR

(▲76% vs FY 2022-23)

India's estimated growth of cooling equipment installed capacity by FY 2029-30

32 million TR

(▲20% CAGR from FY 2022-23)

India's potential increase in installed Cooling capacity due to District Cooling Systems by FY 2029-30

Segment Overview

Adani Cooling Solutions Limited (ACSL), a wholly-owned subsidiary of Adani Energy Solutions, leads the Company's efforts to deliver energy-efficient and sustainable centralised cooling solutions aligned with the nation's urgency. ACSL primarily focusses on establishing large, centralised

cooling stations that produce chilled water and distribute it through underground pipes and supply to end users through meter pay per use arrangement. This innovative approach can significantly reduce electricity and water use as well as cooling costs.

We focus on serving a diverse customer base, including commercial and residential buildings, airports, data centers, industrial estates and other infrastructure development businesses within the Adani portfolio and externally in Tier-1 and Tier-2 cities.

Our competitive edge

Business Synergies

Rising cooling demand is set to significantly increase energy consumption, necessitating additional power generation and T&D infrastructure. DCS and other centralised cooling solutions can cut power use by 35%, peak demand by 30%, and infrastructure costs by 45%.

Our integrated operations create strong synergies. Our transmission and distribution businesses benefit

from optimised infrastructure, power procurement and transmission costs. The cooling solution business gains a secure and cost-effective electricity supply with thermal energy storage systems which enables effective demand management. Our T&D business' focus on blending renewable energy will further make our DCS solutions more sustainable and affordable.

Integrated Offering

At ACSL, we are committed to offering cutting-edge, sustainable cooling solutions through a DBFOO (Design, Build, Finance, Own & Operate) model through a Cooling-as-a-Service (CaaS) framework. This approach ensures energy-efficient, cost-effective cooling for large-scale developments while reducing carbon footprints.

Our "cooling as a service (CaaS)" model offers several key benefits:

- **No Capex Burden:** Completely removes the capital expenditure burden from developers.
- **Life Cycle Metered Cooling Service:** Guarantees consistent performance standards, alleviating the need for HVAC maintenance.
- **Optimised Capital Expenditure & Space Utilisation:** Employs innovative technology for efficient capital and space usage.
- **Energy Savings:** Provides approximately 35 to 45% energy savings.
- **Reduced Carbon Footprint:** Decreases emissions by 30%, aligning with green initiatives.
- **Lower Water Consumption:** Cuts water use by up to 40%.
- **Additional Enhancements:** Potential augmentation with thermal storage and renewable energy integration.

Additionally, we can integrate STP (Sewage Treatment Plant) water into our systems, further enhancing sustainability and making our solutions even more environmentally friendly.

Our integrated solutions further offer flexible power sourcing – from the grid, wholesale markets, or captive sources – which ensures reliable, efficient cooling solutions tailored to each client's unique needs. Our T&D expertise combined with our advanced cooling technologies, would also enable delivering sustainable, cost-effective solutions to address the growing demand for commercial real estate, industrial facilities, data centers, and airports.

Indian Market Expertise

India's centralised cooling market is in its early stage, primarily dominated by international competitors. Our diverse business expertise and comprehensive understanding of the Indian market position us to lead in this sector, executing large and complex national-scale projects that few players can undertake. This aligns with the Adani portfolio of companies'

commitment to building sustainable, more efficient infrastructure and supporting India's net zero emissions vision. Adani Energy Solutions will benefit from enhanced energy efficiency and improved grid stability, alongside optimised costs and carbon emissions. This can reduce peak demand, optimise resource use, and ease burden on our distribution networks.

Business Performance

Advanced construction work on the ~7,700 TR cooling solutions project within Shantigram Township, Ahmedabad, which will deliver chilled water to the Energy Centre buildings complex under a customer cooling service agreement.

Finalised project at Mundra involving the construction of a 45,000 TR centralised DCS, catering to the cooling needs of nearby manufacturing facilities. Procurement work for this largest-of-its-kind project in India is completed. Upon completion, it will optimise efficiency and eliminate the need for standby capacity in individual plants.

Created a robust pipeline of ~2,50,000 TR covering all growth engines, including real estate, airports, IT hubs, industrial estates, data centers, and metro rails, which are at various stages of finalisation.

Signed an MoU with MAHAPREIT (Mahatma Phule Renewable Energy and Infrastructure Technology Limited), which is engaged in renewable energy, infrastructure, and sustainability projects. This MoU explores the possibility of establishing district cooling infrastructure and providing cooling as a service in Maharashtra for the Mumbai Metropolitan Region or any other suitable locations in Maharashtra and other states under MAHAPREIT's jurisdiction.

Sustainability Performance

Centralised cooling is one of the most efficient and sustainable ways of meeting demand in the comfort and space cooling sector. Our sustainable cooling solutions are designed to offer the following environmental benefits:

Optimise energy consumption and lower related carbon/GHG emissions by 15%-25%, promoting a low-carbon future

Reducing fire hazard risk as associated with conventional air conditioning systems

Ensure a healthy microclimate with no heat island effect in buildings

Reduce freshwater usage by reusing treated wastewater in cooling processes, helping buildings achieve platinum ratings for sustainability

Water-cooled chillers, housed in a controlled environment with safety measures like refrigerant detectors, reduce refrigerant use and potential leaks and greenhouse gas emissions, thereby lowering ozone depletion potential

Outlook

Moving into FY 2025-26, our focus will be on the successful completion of our marquee projects at Shantigram and Mundra SEZ, as well as the conversion of our current pipeline of 2,50,000 TR centralised cooling systems between FY 2025-26 and FY 2029-30, which are in various stages of discussion or planning. Over the next few years, we anticipate making significant investments to identify and execute large independent DCS systems on public infrastructure land with right of way under municipal roads, serving real estate

communities, townships, university campuses, and industrial estates in the vicinity. Additionally, we aim to attract strategic investors to support our growth prospects.

To make DCS viable in India, we have partnered with premier organisations such as AEEE, ASHRAE, and ISHRAE. Additionally, we are actively leading the AHEAD programme, a joint initiative by DPIIT, GOI, and the World Bank. This programme aims to create an enabling policy and regulatory support mechanism to help us achieve our aspirational business targets.

Strengthening our in-house capabilities remains a priority. We are actively exploring advanced cooling technologies for data centers in collaboration with a leading international player. Additionally, we are investigating opportunities to drive innovation and industry development with renowned Indian and global consultants, as well as large real estate developers.

