

INTELLECTUAL CAPITAL





At ReD. Lab, ReNew's data and digital scientists use digital tools to assess real-world challenges and develop effective decarbonisation solutions, building a greener, better future



At ReNew's Power Diagnostic Center, every pulse of the wind is captured and analysed, a team at work ensuring peak performance

MATERIAL TOPICS IMPACTED



Innovation and Digitalisation



Energy Management



Risk Management



Employee Engagement & Development

POWERING PROGRESS THROUGH INNOVATION

The Fourth Industrial Revolution (4IR) merges physical, digital, and biological realms, transforming industries. Digitisation, a core component, employs Artificial Intelligence (AI), Internet of Things (IoT), big data, and blockchain to enhance efficiency and optimise resources in energy systems. These technologies allow for real-time monitoring and smart grid solutions, crucial for managing the variability of solar energy, wind energy and other renewable energy projects. Pure-play renewable energy companies are able to innovate with 4IR technologies, advancing energy storage, decentralised generation, and peer-to-peer trading. This drives accessibility, consumer empowerment, and energy independence, crucial for decarbonisation, which help position renewable energy companies at the forefront of sustainable energy transition.

In an era defined by rapid disruption and data-driven decision making, **ReNew is charting new frontiers** in the global energy transition. With the integration of **next-generation technologies** and **AI-enabled platforms**, we are setting new benchmarks in efficiency, transparency, and responsible energy stewardship.

Our unwavering focus on capability building and innovation empowers our teams to lead with resilience and foresight, navigating the complexities of the clean energy transition with confidence. Our intellectual capital rooted in cutting-edge technology, exceptional talent pool, and a culture of continuous innovation serves as the driving force behind our leadership in decarbonisation solutions.

SDGs IMPACTED



KEY HIGHLIGHTS OF FY 2024-25

INR 97 million*

total amount spent on R&D

~40% improvement

return on R&D investment enhanced from 6.3 times to 8.7 times in one year

Achieved 18%

increase in internal project revenue over a two-year period

Zero

cases of data breaches

51%

total growth in use case deployment over 2 years

26%

reduction in asset downtime,

150%

improvement in predictive analytics adoption over 2 years

1-1.5%

increase in annual productivity and

18%

reduction in inventory cost

GRI INDICATOR

GRI 418-1: Customer Privacy

BRSR PRINCIPLE

Principle 9: Businesses should engage with and provide value to their consumers in a responsible manner



* Includes R&D spend from the ReNew Digital Lab (ReD. Lab) and The ReNew Centre of Excellence

INNOVATION AND DIGITAL TRANSFORMATION

Fueling the Future with Technology and Intelligence

At the heart of ReNew’s digital transformation journey lies the ReNew Digital Lab (ReD. Lab), a dynamic hub of innovation driving operational excellence across our renewable energy portfolio. Over the past year, ReD. Lab has significantly expanded its technological reach, now managing over **60 advanced analytics use cases** deployed across **150+ renewable energy sites in 9 states**.

The ReD. Lab is an agile digital studio that functions as a hub for developing new Fourth Industrial Revolution (4IR) use cases using a Minimum Viable Product (MVP) approach, guided by scrum masters and featuring domain champions from both business and engineering teams; this team collaborates with site teams under a central team that coordinates efforts with state leads and site managers.

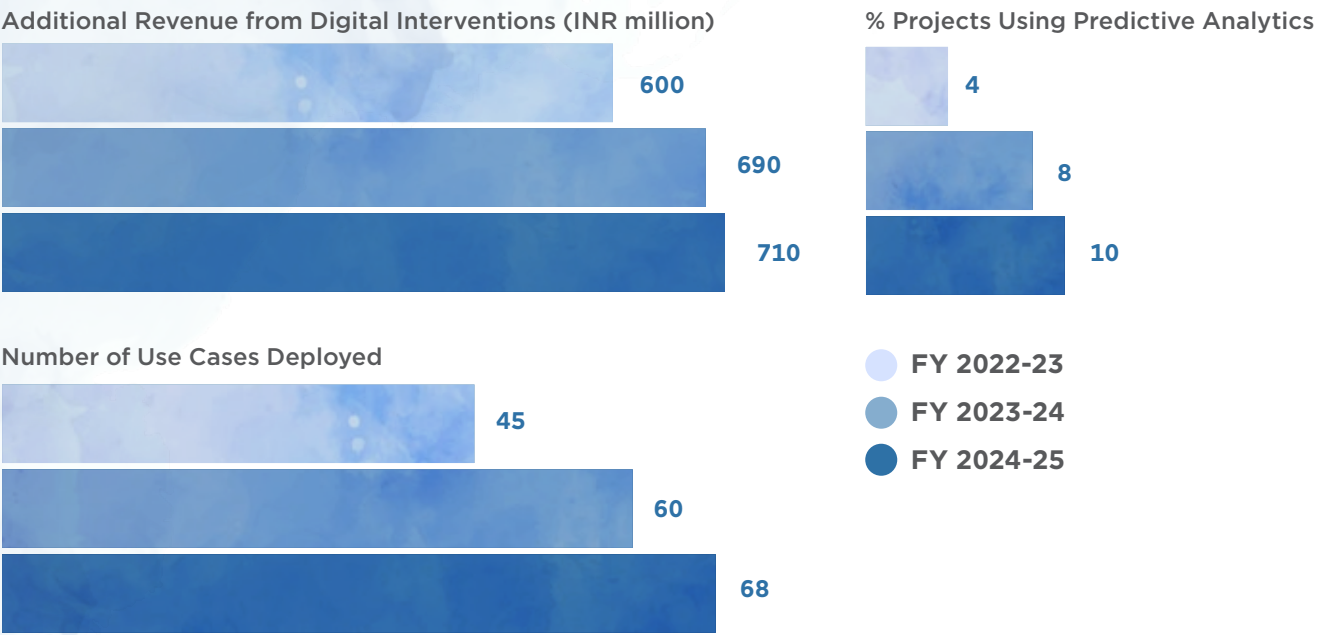
DIGITAL FRONTIERS


FY 2024-25 Milestones and Impact

Cognyt.AI Integrated Asset Management	A unified analytics platform for real-time monitoring, predictive maintenance, and performance optimisation across wind assets.	IMPACT 31% boost in site employee efficiency. 26% drop in asset downtime. 1-1.5% improvement in annual energy yield.
Sakshaat AI-Driven Energy Trading Platform	An end-to-end digital platform integrating forecasting, scheduling, bidding, and compliance.	IMPACT Enhanced revenue via real-time AI-powered market price forecasting. 66% increase in trading team productivity.
Smart Scheduler & Super Forecaster	Automated scheduling and real-time market intelligence tools to optimise power dispatch and minimise penalties.	IMPACT Through precision-driven scheduling efforts, we achieved operational efficiencies that translated into cost savings of INR 150 million . Underscoring the impact of intelligent automation and real-time decision-making in our energy operations.
GenAI-Powered Chatbot	An internal natural language interface replacing traditional FAQ systems, streamlining cross-functional operations.	IMPACT Faster access to precise and accurate information coupled with quicker resolution to queries.

An investment of **INR 1.5 million** in digital transformation in FY 2024-25 has resulted in **100%** of the workforce adopting new technologies, reinforcing our commitment to innovation and digital integration across operations.

Key Performance Indicators



Metrics	FY 2023-24	FY 2024-25
 Return on R&D investment	6.3 times	8.7 times

TECH-DRIVEN CHANGE FOR A CLEANER WORLD

Harnessing Data for Smarter Operations

Advanced data analytics and predictive tools are transforming the way renewable energy assets are managed. Through the ReNew Diagnostics Centre and Command & Control Centres, performance is tracked in real time, enabling quick detection and resolution of issues.

AI and machine learning help predict maintenance needs, reduce downtime, and boost efficiency ensuring operations remain reliable, intelligent, and future-ready.

Driving Innovation through R&D

Innovation at ReNew is powered by continuous investment in research and development.

Collaborative Research: We partner with leading academic and industry experts to create renewable energy solutions that boost efficiency and reduce environmental impact.

Emerging Technologies: From AI-driven forecasting to smart grids and blockchain-based energy trading, we are exploring next-gen technologies to shape the future of clean energy and sustainable energy systems.

BUILDING A SUSTAINABLE FUTURE WITH EVERY INNOVATION

Embracing the power of technology and data, we are transforming our operations to unlock new levels of performance. With a deep commitment to sustainability, we are not only driving operational excellence but also creating a positive, lasting impact on the environment and society. Every innovation brings us closer to our vision of a brighter, more sustainable future.

This year, we continued to strengthen our knowledge ecosystem by expanding our operational footprint and accelerating the development of solar module and cell manufacturing capacities, reinforcing our commitment to vertical integration and technological self-reliance. A key enabler of this transformation is our **Program Management Office (PMO)**, which plays a pivotal role in streamlining project execution and portfolio oversight. Through robust digital interventions like the **ReView Platform** an in-house, real-time data aggregation and analytics engine the PMO oversees

ReNew’s under-construction renewable energy portfolio, covering end-to-end project monitoring and reporting from concept to commissioning. In addition, the team stage-gates the under-development portfolio, preparing the pipeline for future projects. These capabilities have not only empowered leadership with actionable insights but also enabled cost optimisation and timely execution across our asset creation value chain.

ReView: An industry first, digital asset creation platform

- Automation of **70%** of daily and weekly reporting, streamlining project scheduling and cost visibility for management
- Reduced **~90%** of managerial effort in identifying key project risks and roadblocks through intuitive, data-driven visualisations.
- Enabled **100%** structured retention of historic performance data, unlocking future trend analysis and strategic insights

PRECISION MEETS INNOVATION: ReNew’s AI-POWERED ASSET MASTERY

We have integrated cutting-edge technology to our assets to enhance their performance and ensuring benchmark levels of operation and maintenance.

Efficient Solar Cleaning through Condition-Based Insights

Reduction of water consumption by 70% at certain project locations by using dust accumulation data to guide cleaning frequency

Real-time Efficiency through Digital Twin Technology

Virtual replicas that enhance operational decision-making, lower resource consumption, reduce emissions and waste, and support performance tracking, compliance management, and market strategy simulations.

AI powered optical inspection

59% reduction in non-degradable waste at wind sites through AI-powered optical inspection of wind turbine blades enhancing precision and minimising material use.

An investment of **INR 1 million** in FY 2024-25 in data quality tools has led to a **25% improvement** in the accuracy of critical data from the previous year, demonstrating measurable returns on data governance initiatives

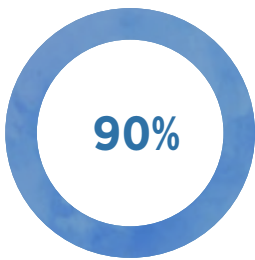
Beyond our flagship projects, ReNew has pioneered a suite of in-house technologies, purpose-built to meet the evolving needs of our asset users driving smarter operations, greater efficiency, and seamless integration across our portfolio.

New Technology Adoption	Benefits
Inclusion of NoSQL database – MongoDB for storing Asset management data	Smooth handling of changing data structures and rapid data querying by multiple sources Cost Reduction from existing solution
Development of in-house technology for running models - Launchpad	Empowerment of business users with the ability to trigger models without actually getting involved in technical details
Movement to Unity Catalog in Databricks	Client whitelisting to ensure only authorised users access pipelines and APIs, enhancing security and system integrity

THE INTEGRATED SIZING OPTIMISATION MODEL FOR GREEN HYDROGEN AND AMMONIA/METHANOL PLANTS

As we dive deeper into the realm of renewable energy solutions through our business it is imperative that we also develop tools to complement and ease the process of designing the next generation of renewable solutions through hydrogen and methanol. We have developed a robust third-party solver, **the Integrated Sizing Optimisation Model**. This model deployed via

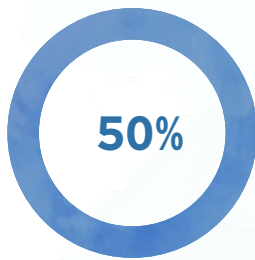
a cloud infrastructure, addresses the intricate challenge of designing green hydrogen and ammonia/methanol plants powered by variable renewable energy. The model optimises plant sizing and operations end-to-end, factoring in multiple RE sites, BESS, storage systems, grid interactions, and strict process constraints.



Reduction in optimisation time



CAPEX savings



Reduction in excess power

INSTILLING A CULTURE OF INNOVATION IN OUR WORKFORCE



At ReNew, it is not just collaboration, it is a confluence of minds, ideas, and insights that fuel our progress

Empowering Talent to Power the Transition

This year, we have expanded our learning and development programs, with employees completing an average of **45+ hours** of specialised training in emerging technologies, digital tools, and renewable energy domains.



Our centres of excellence and mentorship programs have created a collaborative culture, accelerating innovation and adaptability in a dynamic energy landscape. **We are not just learning new tools - we are learning how to think digitally."**

Data Engineer, Digital Transformation Team

Key milestones include:

Certifications Delivered

- MongoDB & Databricks for data teams
- AWS Cloud certification for **25%** of engineering staff, with a target of 100% certification of all engineering staff in three years

Focused Upskilling

AI/ML, energy storage systems, and grid optimisation

INTELLIGENT ENERGY SOLUTIONS AND SERVICES

Seamless and Smart Storage to Unleash more Reliable Renewable Energy

Battery storage solutions play a pivotal role in addressing the intermittency of renewable energy sources like solar and wind. Through cutting-edge technology and collaboration with industry leaders, we are integrating advanced battery systems to ensure a stable and uninterrupted power supply.

Energy Storage and Hybrid Projects

We are strengthening India's energy infrastructure and integrating global battery energy storage systems (BESS) in India. These systems, coupled with hybrid wind solar plants, ensure stable output and strengthen our competitive advantage in providing round the clock renewable power.

Key Projects Driving Intelligent Energy Solutions

We have successfully won and executed large-scale projects that showcase our leadership in intelligent energy solutions. These projects enable us to integrate multiple renewable energy technologies, forecast generation profiles, and manage deviations from demand, demonstrating the unique value we bring to the market.



Basking in the sunlight, solar panels shift from blue to gold, capturing the sun's energy in full splendour, solar farm, Dichipally, Telangana

322 MW WIND AND 81 MW SOLAR

Peak Power

900 MW WIND AND 400 MW SOLAR

Round-The-Clock

For more details, please refer to the [Manufactured Capital](#).

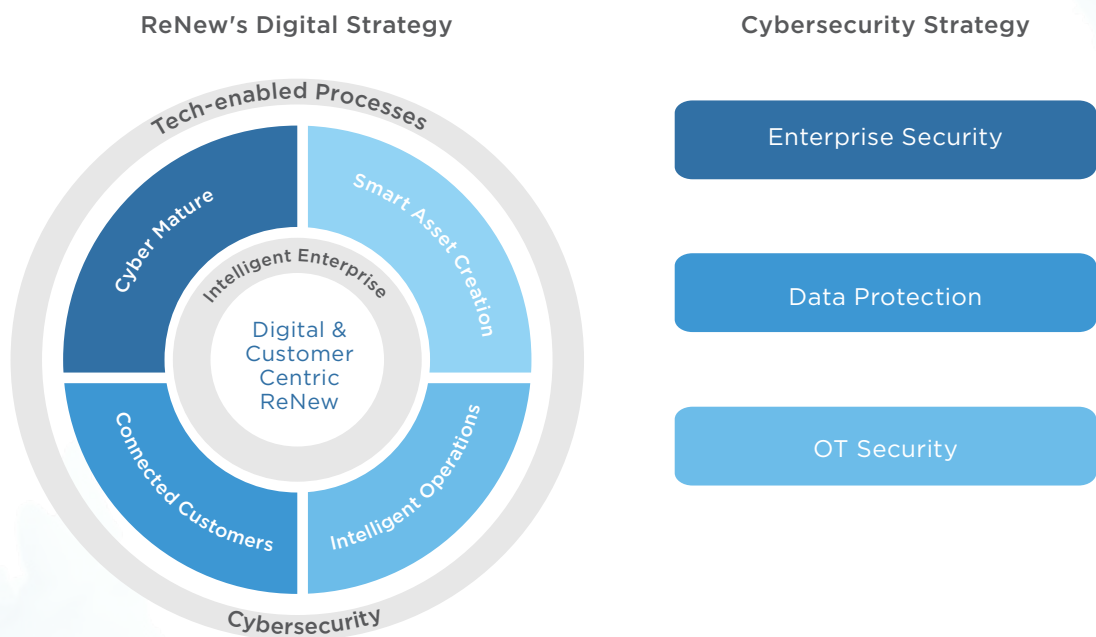


DATA SECURITY AND PRIVACY

Fortifying our digital frontiers

As ReNew’s digital landscape continues to evolve, our commitment to protecting it becomes increasingly crucial. Cybersecurity and data privacy are foundational to our business, enabling trust, driving innovation, and creating long-term value for all our stakeholders.

Cybersecurity is a key enabler for digital strategy and helps in driving business outcomes.



Strengthening Digital Resilience and Information Security

As a technology-led clean energy company, we view information security as a key pillar of our intellectual capital. A secure and resilient digital infrastructure safeguards our intellectual assets, enables innovation at scale, and supports business continuity in a fast-evolving risk environment. Our robust Information Security Management System (ISMS), certified under **ISO 27001:2022**, is a testament to our proactive stance. This framework ensures that sensitive data, systems, and operational technologies are secured through globally recognised best practices.



Business Continuity Plans

We maintain comprehensive business continuity plans (BCP) and disaster recovery (DR) plans, supported by a cloud-first approach, redundant infrastructure, automated failover systems, and geographically distributed data centres. These systems are tested regularly through disaster recovery drills and business continuity exercises, ensuring service reliability and rapid response to disruptions, with well-defined Recovery Time Objective (RTO) and Recovery Point Objective (RPO) metrics.

The implementation of the same is ensured by:

- Development and regular testing of BCP and DR plans to safeguard critical business processes during disruptions

- Defined steps for restoring security controls and essential services, ensuring data protection and operational resilience
- Business Impact Analysis (BIA) conducted to identify critical Information and Communications Technology (ICT) services and define recovery objectives – RTO and RPO
- Development of ICT plans with detailed recovery processes. Regular monitoring and update of ICT environment
- Defined roles during disruptions and established communication channels to coordinate incident responses



Vulnerability Analysis

ReNew follows a regular, ongoing cycle of identifying, assessing, prioritising, and remediating vulnerabilities across our systems, networks, and applications. We deploy multiple methods such as **risk assessments, threat hunting, vulnerability scans** and **penetration testing** to proactively identify and mitigate risks. Once vulnerability is identified, we prioritise patching vulnerabilities based on their risk level, potential impact and known exploit. These are supplemented by real-time monitoring through **Security Information and Event Management (SIEM)** systems and endpoint protection tools.



Internal Audits of the IT Infrastructure and/or ISMS

Our ISMS and digital infrastructure undergo periodic internal audits to ensure the effectiveness of controls and alignment with regulatory and business objectives. These are overseen through a **structured governance cadence** involving **weekly Chief Information Officer (CIO) - Chief Information Security Officer (CISO) reviews** and **quarterly Steering Committee evaluations**.



Awareness Training Programs

We foster a strong security culture through targeted **cybersecurity awareness programs**. We have various interventions such as mandatory security awareness module, security awareness module during induction, Monthly mailers, Cybersecurity awareness month and routine security awareness advisories. Through these interventions in FY 2024-25, over **3,000 hours** of training were delivered, including onboarding of **590+ new employees**. In addition to the above, regular **phishing simulations** have resulted in a **70% improvement in response behaviour**, reinforcing employee readiness.



Escalation Process for Employees to Report Incidents, Vulnerabilities, or Suspicious Activities

A **formal Incident Response Plan (IRP)** and **Cyber Crisis Management Plan (CCMP)** are in place to guide structured escalation and mitigation. These plans are tested annually and enable employees to report any anomalies, vulnerabilities, or suspicious activity through defined and accessible channels. Employees are made aware about reporting any suspected security events to a central email ID or by using our company chatbot – Urji. The escalation matrix for the security team along with their contact details is also shared during interactions such as the induction program. Further, ReNew has onboarded services of an incidence response team with round-the-clock availability to facilitate rapid response and assessment in-case of a suspected critical cyber breach/incident.



Secure Software Development Lifecycle (SSDLC)

Security is integrated at every stage of our software development, embedding protection from design through deployment.



Independent External Audit of the IT Infrastructure and/or ISMS

We engage external cybersecurity experts to conduct **third-party audits based on the requirement of ISO 27001:2022 standard and an annual Cyber Maturity assessment aligned with the National Institute of Standards and Technology (NIST) 2.0 framework**. We engage **Indian Computer Emergency Response Team (CERT-In)** empaneled firms to assist with penetration testing, thereby ensuring objectivity in evaluating our security posture and identifying improvement opportunities.



KEY HIGHLIGHTS FY 2024-25

Metric/Initiative	Impact
1.2 million+ spam emails blocked	Preventing potential data breaches
70% reduction in phishing click rates	Improved awareness and responsiveness
3,000+ hours of employee awareness training	Strengthened internal cyber resilience
590+ new hires trained on cybersecurity	Onboarded with security-first mindset
250+ threat advisories actioned	Real-time mitigation of cyber risks
6 fake domains taken down	Protected brand integrity and stakeholder trust

ROBUST CYBERSECURITY GOVERNANCE

At ReNew, we recognise that strong governance is central to building digital trust and safeguarding our intellectual capital. Our cybersecurity governance framework ensures accountability, strategic alignment, and effective oversight across all levels of the organisation from the boardroom to the frontlines.

Board-Level Oversight

Cybersecurity governance is overseen by the Board of Directors, with the Audit Committee playing a key role in supervising our cybersecurity risk management program including the effectiveness of the process and measures adopted by our company to manage risks related to cybersecurity. The committee is responsible for reviewing and approving ReNew’s Information Security Policy, monitoring key cyber risk indicators, evaluating the outcomes of audits, and receiving regular updates from management on emerging threats and mitigation measures. The committee includes at least one board member with expertise in technology and information security, strengthening our ability to address complex cyber issues with informed oversight.

Executive-Level Accountability

At the executive level, the Head – Digital leads ReNew’s information security strategy and chairs the Information Security Governing Committee (ISGC). The ISGC comprises of cross-functional representatives from key business units such as Digital, IT, Legal, HR, Admin, ensuring enterprise-wide alignment. The Chief Information Security Officer (CISO), serving as Convener of the ISGC, is responsible for day-to-day operational security, policy implementation, audit coordination, and incident management. Function Heads and Single Points of Contact (SPOCs) across departments are tasked with maintaining compliance, promoting awareness, and ensuring timely closure of audit findings. The Head-Digital and CISO report directly to the CEO’s office on all cybersecurity-related matters, ensuring strategic oversight and executive-level accountability.

Policy Framework and Assurance

Our Information Security Policy outlines the essential security controls and risk mitigation strategies that form the foundation of our governance structure. The policy is reviewed annually by the ISGC to ensure alignment with evolving cyber threats and regulatory requirements. Regular internal audits, surveillance assessments, and management reviews assess the policy’s effectiveness, while exceptions or risk acceptances are evaluated and approved through a defined escalation matrix by the ISGC.

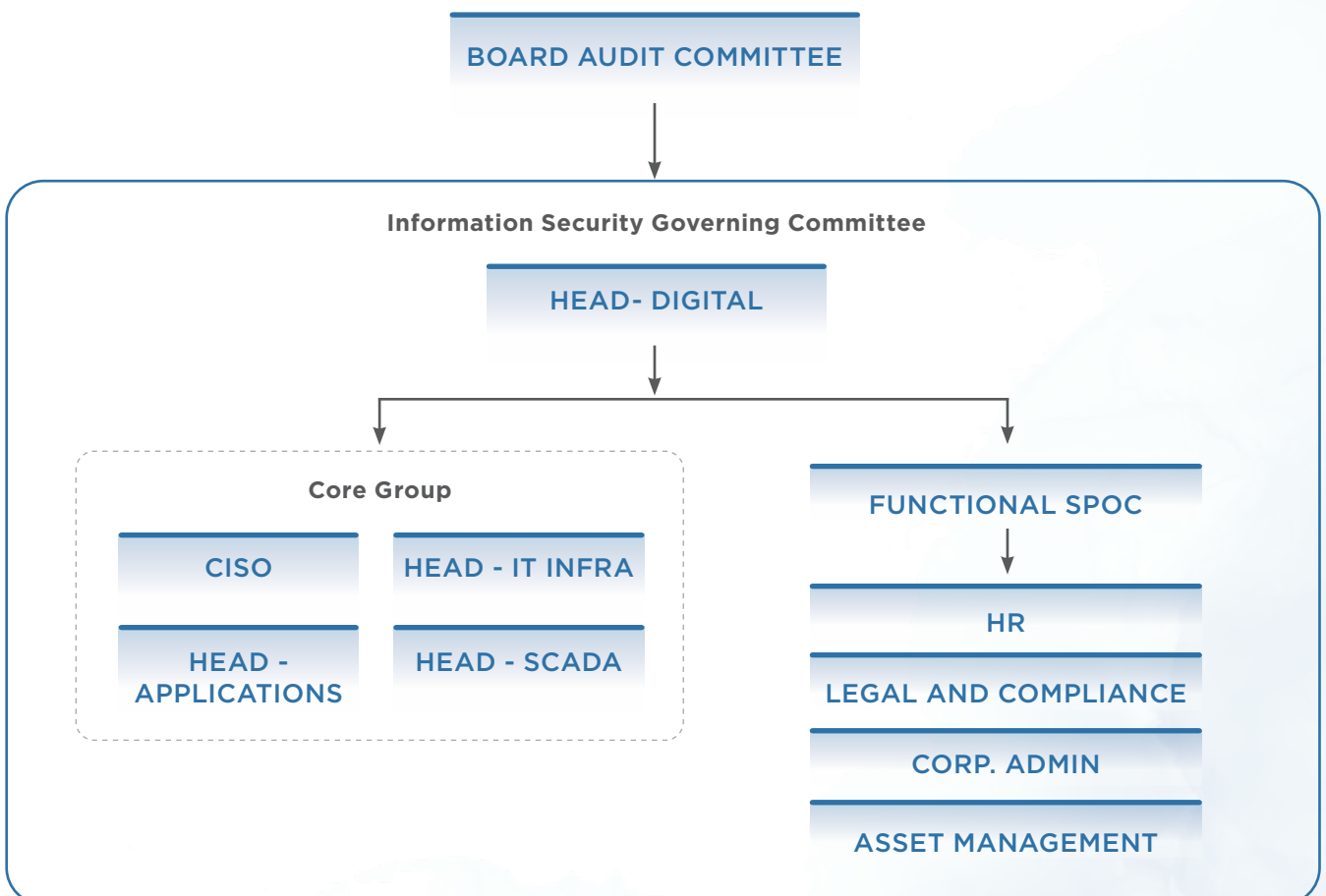
Culture of Security and Continuous Improvement

We foster a security-first culture through onboarding, continuous awareness programs, and mandatory trainings. Employee susceptibility is validated via phishing simulations tailored to all employee levels. Our incident response protocols, embedded in the Incident response (IR) plan include escalation workflows, emergency contacts, and root cause analysis mechanisms to ensure swift containment and recovery. We have also developed a Cyber Crisis Management Plan (CCMP) which is a framework to ensure a coordinated and multi-disciplinary approach to mitigate and recover from cyber related incidents impacting critical processes. The ISMS itself undergoes continual enhancement through periodic audits and alignment with international best practices, particularly ISO 27001:2022, reinforcing our long-term digital resilience.



A company-wide, month-long cybersecurity campaign was organised to sensitise employees on how to identify and respond to cyber attacks

GOVERNANCE STRUCTURE



BUILDING A CULTURE OF CYBER VIGILANCE AT ReNew - CYBERSECURITY AWARENESS MONTH, OCTOBER 2024

In alignment with the Government of India's Cyber **Surakshit Bharat** campaign, we delivered interactive knowledge sessions, expert-led webinars, and gamified learning with our mascot **"Urji,"** focusing on real-world threats like phishing and IoT vulnerabilities

Key Initiatives

Interactive Knowledge Sessions

- A senior cybercrime expert delivered an insightful session on real-world threats and risk mitigation strategies
- Additional expert-led webinars were conducted on best practices in digital hygiene and managing cyber risks

Objectives

- Promote digital hygiene and risk awareness among employees
- Strengthen employee engagement through interactive and gamified learning
- Reinforce key cybersecurity practices in daily operations

Gamified Learning: "Cyber Quiz with Urji"

- ReNew's cybersecurity mascot, Urji, led a month-long quiz series
- Weekly themed campaigns focused on prevalent threats like phishing, IoT vulnerabilities, OTP frauds, and mobile security

Visual Learning Tools

Engaging digital posters and banners were deployed across offices to boost visual recall

Themes included:

- Securing Operational Technology (OT)
- Mobile Safety on the Move
- Recognising Phishing Attacks
- IoT and Home Device Protection

Thematic Campaigns & Contests

Regular quizzes, contests, and themed campaigns sustain engagement and reinforce learning.

Regular Communication

Monthly cybersecurity email flyers, security advisories, and induction modules ensure continuous employee awareness.

Impact

These targeted initiatives not only enhanced awareness and participation across ReNew's workforce but also embedded cyber accountability into the company's operational culture. The campaign successfully fostered a proactive approach to digital security, reflecting ReNew's commitment to building cyber-resilient practices across all levels.



STRATEGIC COLLABORATION & INCIDENT MANAGEMENT

Cybersecurity at ReNew is not only internal but also collaborative, involving close coordination with national agencies and sector bodies to protect critical infrastructure:

- We adhere to strict communication protocols with authorities like CERT-IN, Computer Security Incident Response Team – Power (CSIRT-Power), National Critical Information Infrastructure Protection Centre (NCIIPC), and Solar Energy Corporation of India (SECI), ensuring timely reporting of incidents affecting the power grid, IT infrastructure, or customer data.
- Our Incident Response Plan and Cyber Crisis Management Plan enable swift internal escalation and external notification, maintaining regulatory compliance and enhancing cyber maturity.
- A structured incident escalation mechanism empowers employees to report suspicious activities easily, with the Information Security Team assessing risks and involving relevant stakeholders, overseen by the Risk Committee.
- Integrated tools like the “Report Phishing” email feature facilitate rapid containment of threats.

INCIDENT ESCALATION MECHANISM

ReNew has instituted a structured and responsive escalation mechanism as a core component of its IT security framework. This process empowers employees to promptly report any suspicious activity or potential cybersecurity threats that may impact the organisation’s digital assets, intellectual property, critical business functions, personnel, or financial systems.

All reported incidents are routed to the Information Security Team, which conducts a thorough assessment and risk classification. Based on severity and impact, incidents are then escalated to appropriate internal stakeholders. Oversight of the entire process is maintained by the Risk Committee to ensure accountability and continuous improvement.

To simplify the reporting of phishing attempts, employees can directly flag suspicious emails using the integrated “Report Phishing” feature available in the email client, ensuring swift containment and response.



ReNew celebrated October as Cybersecurity Awareness Month, proudly supporting the Cyber Surakshit Bharat campaign by the National Security Council Secretariat, Government of India

PROACTIVE RESPONSE TO PHISHING THREATS

Given the rapidly evolving cyber threat landscape, including advanced persistent threats and supply chain risks, ReNew continually adapts its security framework to anticipate and mitigate emerging challenges. Increasing sophistication of these attacks, ensuring employee vigilance and robust response protocols became a strategic imperative.

Action Taken

To address this, we have launched a comprehensive, multi-layered defence strategy, including:

- **Real-time threat detection:** Deployment of advanced monitoring tools allowed the Information Security Team to detect and neutralise phishing attempts within minutes.
- **Simulated phishing campaigns:** Regular phishing simulations were conducted across all departments, which led to a **72% reduction** in click-through rates in one of the campaigns demonstrating increased employee awareness and caution.
- **Protocol enhancement:** Response protocols were revised and streamlined based on lessons learned from simulations and evolving threat patterns.
- **External collaboration:** Cybersecurity partners were engaged to run vulnerability assessments and penetration tests, enhancing preparedness against complex attack vectors.

Impact

- **Zero incidents of data breaches** or information loss were reported
- Employee confidence and cyber hygiene significantly improved
- Reinforced our commitment to a security-first culture rooted in awareness, responsiveness, and innovation

Takeaway

Insights from incident response exercises and real-world events continuously inform updates to our policies, training modules, and technical controls, driving a cycle of ongoing improvement. This initiative reflects our proactive cybersecurity ethos empowering employees as the first line of defense while continuously evolving its technical safeguards.

Looking Ahead

As we continue to expand and deepen our digital capabilities, we remain steadfast in our commitment to safeguarding our information assets and empowering our people. Moving forward, we will focus on broadening our cyber awareness programs across all departments and levels, ensuring that cybersecurity is a shared responsibility throughout the organisation. We are excited to deploy advanced AI-driven threat detection tools that will enhance our ability to identify and respond to emerging risks swiftly. At the same time, we will strengthen employee engagement, fostering a culture where every individual takes ownership of cybersecurity. Our governance frameworks will continue to evolve through regular reviews, keeping us aligned with the latest threat landscape and compliance requirements. Together, we are building a resilient and secure future for ReNew.

ENERGY MARKETS

Redefining Renewable Energy Trading

We are at the forefront of pioneering sustainable energy solutions by leveraging data, technology, and expertise to navigate regulatory changes, digital transformation, and increasing demand for flexible power procurement in India's evolving energy market. Our strategic expansion into emerging energy domains underscores our commitment to innovation and sustainability. Our journey took a transformative leap in FY 2024-25, marked by groundbreaking initiatives in grid aggregation, digital tools, forecasting systems, and focused expansion into evolving areas of the energy sector. These efforts have strengthened our position as a leader in the energy sector, enabling us to better navigate the complexities of the evolving market.

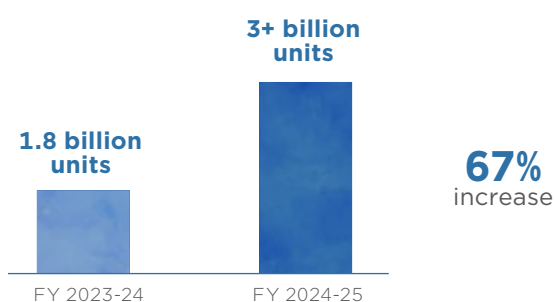
Our offerings include innovative green energy solutions, strategic hedging across the entire value chain, and expert energy management services. We specialise in asset and resource optimisation to maximise performance and value. Additionally, we tailor market-specific and bespoke products to meet the unique needs of our clients. This year, we have achieved several key milestones that underscore our commitment to excellence in the energy markets.

Key Performance Indicators FY 2024-25

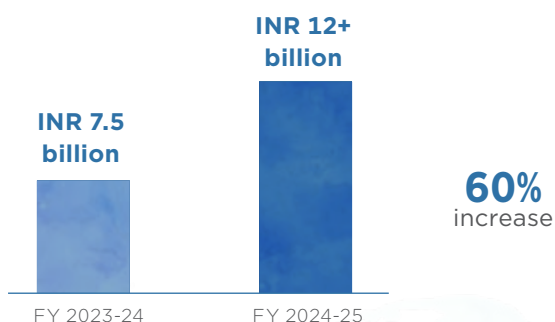
Total asset managed: 2+ GW

Value Addition percentage: 7%

Total Energy Managed



Total Transaction Value*



* ReNew does not retain the entirety of this transaction value

Grid Aggregation: Pioneering Compliance and Efficiency

This year, **we became India's first Independent Power Producer (IPP) to implement grid-level aggregation at the Inter-State Transmission System (ISTS), marking a pioneering step in operational excellence and market innovation.** Spearheading this multi-stakeholder initiative at the GSS Fatehgarh III pooling station, ReNew played a front-runner's role in driving the concept to execution. This strategic move enabled more efficient management of generation deviations and led to a significant reduction in deviation penalties. By the end of FY 2024-25, we had successfully brought one-third of our ISTS capacity under this aggregation model.

Beyond improving grid compliance, this milestone underscores our ability to collaborate across stakeholders and implement complex, system-wide solutions at scale further reinforcing our leadership in India's evolving power markets.

Turning Data into Market Advantage

Our strength lies in our ability to convert data into insight. We process over **15,000** data points today, with plans to scale to over **150,000**. This granular understanding of the market fuels smarter decision-making across time horizons whether it is day-ahead, real-time, or long-term.

With AI/ML-driven bidding tools and advanced market modelling platforms like **Plexos**, we simulate scenarios, assess risks, and optimise returns. Utilising Plexos, we leverage advanced modeling techniques to develop comprehensive forecasts encompassing long-term price projections, capacity optimisation, short-term price dynamics, and the integration of Battery Energy Storage Systems (BESS), among others. This approach enables us to create robust models that underpin our strategic insights and operational efficiencies.

Reading the Market, Responding with Precision

During the year, we witnessed a notable reversal in historical price trends-midday real-time market (RTM) prices began consistently surpassing day-ahead market (DAM) and green day-ahead market (GDAM) rates, a shift from prior patterns. Our advanced models and AI/ML tools enabled us to anticipate this evolving trend ahead of the curve.

Leveraging these insights, we swiftly recalibrated our bidding strategy to align with the changing market dynamics, demonstrating agility, foresight, and a deeply responsive approach to real-time trading.

Digitalisation at the Core of Our Energy Strategy

Our in-house platforms, Sakshaat and Smart Scheduler, are the digital engines behind our trading and scheduling operations - backed by a 24x7 state-of-the-art Trading Control Room and Scheduling Control Centre that ensure round-the-clock agility and precision.

Sakshaat, our cutting-edge energy trading platform, has transformed the way we operate boosting manpower productivity effectively, unlocking end-to-end transparency, and enabling seamless scalability. Integrated tightly with our ETRM system, Sakshaat provides real-time visibility and empowers teams to make faster, data-driven decisions.

Smart Scheduler revolutionises real-time scheduling and complex data processing effortlessly managing data flows from FTP, API, and OPC sources. It automates everything from bid submissions to custom dashboards and deviation tracking, reducing human error, enhancing compliance, and driving performance at scale.

Together, Sakshaat and Smart Scheduler form the core of our intelligent, agile, and high-performance energy market operations.

Super Forecaster: Redefining Accuracy

To further sharpen our forecasting capabilities, we developed Super Forecaster, a next-generation predictive platform that dynamically selects the best forecast using a blend of AI and ML via an automated forecast engine.

By integrating inputs from SCADA, weather APIs, and historical generation data, Super Forecaster improves our ability to align generation with market signals. This helps reduce deviation penalties and ensures better revenue realisation, making it a critical part of our operations.

Stepping into the Future: Pumped Storage and Policy Advocacy

As we look to the future, we are actively expanding into Pumped Storage Projects (PSPs). Our efforts span across multiple states including **Uttar Pradesh, Maharashtra, Odisha and Chhattisgarh**. We have engaged in shaping policies from project site allocations to securing fiscal incentives and ISTS waiver eligibility.

Internally, we are building digital frameworks and project management tools specific to PSPs and investing in a dedicated team of hydro and civil engineering professionals to lead this next phase of growth.

ReNew continues to play a leading role in shaping India's clean energy landscape through strategic engagement, institutional collaboration, and multi-level advocacy. **From advocating the Green Real-Time Market (GRTM) to improve renewable energy integration, to successfully influencing regulatory changes such as ISTS waiver eligibility and transmission cost inclusion under budgetary support, we have consistently worked with central bodies like Central Electricity Regulatory Commission (CERC) to advance industry-wide reforms.** At the state level, our efforts have enabled key policy shifts for Pumped Storage Projects (PSPs) across Madhya Pradesh, Telangana, and Chhattisgarh streamlining processes, unlocking incentives, and creating a more enabling environment for early-stage developers. These initiatives highlight our commitment to long-term partnerships and proactive stakeholder engagement to drive systemic, market-positive transformation and support India's broader hydropower development and renewable energy goals.

TRAILBLAZERS IN SUSTAINABLE INNOVATION

Green Innovation Engine: ReNew Centre of Excellence

The ReNew Centre of Excellence (CoE) continues to make significant strides in advancing research, fostering collaboration, and driving innovation in the renewable energy sector. Below is an overview of key research projects, activities, and initiatives undertaken throughout the 2024-25 period, highlighting the growing impact of our intellectual capital. By fostering collaborations, engaging with academia, and driving research in cutting-edge energy technologies, the ReNew Centre of Excellence continues to make valuable contributions to the global renewable energy ecosystem. These initiatives reinforce ReNew's positioning as a leading green tech company committed to developing sustainable energy solutions and advancing intellectual capital for a greener future.



Research & Innovation Expansion

- Achieved **55% growth** in technical research projects, increasing from 11 to 17
- **50% increase** in patent filings, increasing submissions from 4 to 6, with 4 additional patents in progress



Program Scale-up

- **6 times** expansion in Women Entrepreneurship support programs



Strategic Initiatives

- New flagship lecture series - "**Energising a Sustainable Future**" featuring IIT Delhi Director
- Industry-academia bridge - "**RE-Search 2022**" workshop connecting faculty expertise with industry challenges
- Expanded outreach portfolio - Multiple webinars, industry events, and workshops added



Sustained Excellence

- Maintained startup funding (2 student-led startups supported)
- Consistent talent engagement (15+ PhDs and post-docs retained)

Research Projects

1. Long-term Trends and Co-variability in Wind, Solar, and Precipitation Resources

This project focuses on understanding the long-term trends and spatio-temporal variations of key renewable energy resources-wind, solar irradiance, and precipitation across different states in India. By analysing data spanning 20 years for wind, 10 years for solar irradiance, and 50 years for precipitation (IMD), the research aims to explore the co-variability and fluctuations in these resources over the past decade. Insights from this study are expected to inform better resource planning and improve the efficiency of renewable energy systems.

2. Sodium-Sulphur Battery Development

The Centre of Excellence (CoE) is pioneering the development of room-temperature sodium-sulphur batteries designed for long-term stationary energy storage. These batteries are expected to meet the growing demand for energy storage solutions, addressing the challenges associated with balancing intermittent renewable energy sources like solar and wind. This breakthrough has the potential to transform the storage landscape and contribute to sustainable energy deployment.

3. Biochar Permanence

The project investigated process optimisation for biomass conversion to stable biochar as a carbon sequestration strategy. By developing conditions that enhance both carbon capture and soil enrichment, the research produced an empirical framework for assessing biochar permanence.

Collaborative Activities & Workshops

1. Energising Lecture Series 2K25

As part of our Energising Lecture Series, ReNew CoE hosted an expert talk on "Capacity Building in the Solar Sector" by Dr. Mohammad Rihan, Director General of the National Institute of Solar Energy (NISE), on 7th May 2025 at IIT Delhi. The talk focused on advancing solar energy solutions, policy frameworks, and the future of India's solar energy landscape.



Expert Talk on Capacity Building in the Solar Sector by Dr. Mohammad Rihan, Director General, National Institute of Solar Energy

2. German Delegation Visit to ReNew Centre of Excellence

On 17th February 2025, a distinguished delegation from leading German research institutions and industry associations visited the ReNew CoE. The visit aimed to establish deeper collaborations and explore opportunities for joint research in renewable energy. Discussions centred on technology exchange, innovation partnerships, and strengthening global ties to accelerate renewable energy development.



A German delegation visited the ReNew Centre of Excellence (CoE) to gain exposure and understanding of ongoing renewable energy research and its impact

3. ReNew G.O.L.D Workshop in Collaboration with IIT Delhi

In collaboration with IIT Delhi, ReNew CoE organised a workshop for the ReNew Graduate Engineering Trainee (GET) batch. The workshop was held in two phases: the first session took place at TERI Gurgaon, and the second session involved hands-on lab visits at IIT Delhi. This initiative is part of our ongoing commitment to building a skilled workforce for the renewable energy sector.



Workshop at IIT Delhi for ReNew's Graduate Engineering Trainee batch

4. Clean Tech Accelerator Training program

The Clean Tech Accelerator Program was launched in 2024 in partnership with SIDBI and Foundation for Innovation and intends to foster 25 Green tech startups to deliver innovative and impactful solutions to solve real world sustainability challenges, scale up their revenues and accelerate their valuation. 30% of the selected startups are women led and started. The outcome of the accelerator program was the capacity building of these green tech startups by strengthening their business skills, increasing exposure to industry knowledge, and improving overall business performance.

5. Workshop on Renewable Energy Integration into Power Systems

On 23rd-24th September 2024, the CoE co-hosted a highly successful two-day workshop at IIT Delhi, focusing on the integration of renewable energy into power systems. Organised by the Department of Electrical Engineering and the ReNew CoE, the workshop covered key challenges, emerging solutions, and innovative approaches to integrating renewable energy sources into modern power grids. It provided participants with valuable insights into power system design, stability, and future grid modernisation.



Promoting a culture of learning and development, a two-day workshop was organised at IIT Delhi for the Graduate Engineering Trainees

Recognition and Awards

Sumant Sinha Sustainability Leadership Award

The Sumant Sinha Sustainability Leadership Award is presented annually to an IIT Delhi student who has made significant contributions in the fields of sustainability, energy, waste management, environment, and climate change. In 2024, the award was given to Dr. Nadeem Beigh and Dr. Thochi Seb Rengma for their groundbreaking research.

- **Dr. Nadeem Beigh (Electrical Engineering):** The research focused on developing alternative power and sensing solutions that can replace environmentally harmful power electronics and wearables.
- **Dr. Thochi Seb Rengma (Mechanical Engineering):** The work is dedicated to harnessing India's vast hydro potential by exploring sustainable solutions for utilising the country's vast network of over 450 rivers.

The prize includes a monetary award, which encourages young researchers to pursue innovative solutions in sustainability.

WAY FORWARD

As we continue to expand and deepen our capabilities across various domains, we remain steadfast in our commitment to nurturing and harnessing our intellectual capital. Moving forward, we will focus on fostering innovation across all departments and levels, ensuring that creativity and knowledge-sharing are integral to our organisational culture. We are excited to deploy advanced AI-driven tools to drive efficiency and innovation in the energy market, enhancing our ability to adapt and thrive in a dynamic environment. At the same time, we will strengthen employee engagement, fostering a culture where every individual contributes to and takes ownership of our collective intellectual growth. Our governance frameworks will continue to evolve through regular reviews, keeping us aligned with the latest industry advancements and compliance requirements. Together, we are building a future of innovation and excellence for ReNew.