ENERGY PROJECTS SEGMENT



LTS 3000 Heavylift cum Pipelay Vessel in Saudi Waters

The Energy Projects segment comprises of:

- a) Hydrocarbon Business
- b) CarbonLite Solutions Business
- c) Green & Clean Energy Business

As businesses across the globe move towards decarbonisation, and, as a part of the strategy to become a major player in the energy transition space, the Company has repurposed its Energy-Power business to CarbonLite Solutions business from the current year.



Financial performance of the segment

The Energy segment achieved order inflows of ₹ 87,569 crore in FY 2024-25, registering a growth of 18.7% over the previous year on receipt of an ultra-mega order in the Hydrocarbon business and BTG (boiler-turbinegenerator) orders in CarbonLite Solutions business. The share of international orders declined to 60% from 87% in FY 2023-24.



The Energy segment's revenue at ₹40,689 crore for the year grew by 37.6% y-o-y due to a strong pick-up in the execution momentum, mainly in the Hydrocarbon business. The Power business, on the other hand, registered a decline due to

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Expansion of Marine Terminal for Juaymah NGL Facilities, Kingdom of Saudi Arabia

a lower opening order book. The share of international revenue in FY 2024-25 at the segment level was higher at 66% compared to 58% in the previous year on the execution of large international projects in the Hydrocarbon business.

The segment's operating margin declined to 8.4% from 10.0%, mainly due to new orders being in the early stage of execution in Hydrocarbon business.

Funds employed by the segment as on March 31, 2025, at ₹ 2,482 crore, decreased by 57.1% y-o-y mainly due to reduction in contract assets in some large value Hydrocarbon projects.

Hydrocarbon Business

Overview

The Hydrocarbon business provides integrated 'design and build' turnkey solutions across multiple geographies. The business executes projects encompassing engineering, procurement, fabrication, construction, installation, project management and asset life services.

Backed by digitalisation and cutting-edge innovation, the business has integrated capabilities across the value chain, including in-house front-end design and detailed engineering, project management, procurement, modular fabrication facilities, onshore and offshore construction, installation, and commissioning. Major fabrication facilities are located in India and in the Middle East. In India, the Engineering, Procurement & Project Management Centres are located at Mumbai, Vadodara and Chennai, and modular fabrication facilities are at Hazira (near Surat) and Kattupalli (near Chennai). The overseas presence of the business is predominantly in the Middle East, i.e. in KSA, UAE, Qatar, Kuwait, Oman and Algeria. A project management office with a training facility, a heavy wall pressure vessel manufacturing unit and a piping factory have been established in the Kingdom of Saudi Arabia (KSA). The business has also invested in a state-of-the-art modular fabrication facility at Sohar in Oman.

The business caters to clients across the hydrocarbon value chain through the following business verticals and units:

Offshore

The Offshore business offers lumpsum turnkey EPCIC (Engineering, Procurement, Construction, Installation and Commissioning) solutions for wellhead platforms, riser platforms, process platforms, accommodation platforms, subsea pipelines, brownfield developments, decommissioning projects, deepwater structures, manifolds, as well as transportation and installation services to the global offshore oil & gas industry.

The Offshore business has dedicated comprehensive in-house engineering capabilities that offer 'Fit for Purpose' engineering solutions, which cover the complete project lifecycle, from concept to commissioning. As a one-stop solution



Full Conversion Hydrocracker Unit for Hindustan Petroleum Corporation Ltd. (HPCL), Visakhapatnam, Andhra Pradesh

EPCIC player, the business has in-house fabrication facilities focussed on quality and timely dispatches. The Company's marine assets include a self-propelled heavy-lift-cum-pipe-lay vessel, LTS 3000, held through a joint venture, and a wholly owned pipe-lay barge, LTB 300. These assets facilitate faster offshore installation and support timely project completion.

As an engineering partner of choice for both domestic and international markets, the Offshore project management team aims to deliver complex offshore projects in a timebound manner with the highest quality standards in a safe and incident-free environment.

Onshore EPC

The Onshore business provides end-to-end 'Design to Build' LumpSum Turnkey (LSTK) EPC solutions across the midstream and downstream segments of the hydrocarbon value chain. Its expertise spans oil & gas processing and treatment facilities, oil & gas field development, petroleum refining, petrochemicals, fertiliser, cross-country pipelines, crude oil and product storage tanks & terminals, cryogenic storage/LNG tanks & terminals, coal / pet-coke gasification, complex composite work, CMEI (Civil Mechanical Electrical Instrumentation) on an LSTK basis.

With a proven track record of concurrent execution of multiple mega / ultra-mega projects across domestic and international markets, the business collaborates with a diverse range of technology process licensors, ensuring efficient and cutting-edge project execution.

Modular Fabrication

The Modular Fabrication business specialises in supplying plants and modular systems built as solutions for the offshore, onshore oil & gas, and offshore wind farm industries, with the capability to deliver modules up to 6,600 MT.

Its dedicated engineering and project management expertise is extensive and draws on the strengths of the EPC businesses for both offshore and onshore projects. Offshore solutions encompass structures and modules for oil & gas and wind farm projects, including deepwater subsea structures, oil & gas manifolds, jack-up rigs and mobile offshore production units (MOPU). Onshore offerings cover process and pipe rack modules, skids, structures, static equipment / pressure vessels and columns, modular specialty furnaces and prefabricated control rooms / substation buildings (E-houses).

World-class modular fabrication facilities are strategically located at Hazira (India's west coast), Kattupalli (India's east coast), Sohar (Oman) and Jubail (KSA). The combined annual capacity for fabrication is estimated at about 60 million manhours or 200,000 MT. The heavy wall pressure vessel manufacturing facility in KSA primarily caters to the local requirement of offshore and onshore projects in the Kingdom.

Modular engineering capability also includes tailored 'Print to Build' solutions for technology companies, particularly in renewables and decarbonisation space. The business delivers modules to clients in North America, Europe, Africa, the Middle East, Asia and Australia.

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Ready-to-install Modules fabricated at Kattupalli facility, for the world's largest Green Hydrogen plant in Kingdom of Saudi Arabia

Advanced Value Engineering & Technology Services (AdVENT)

Leveraging its expertise in high-end engineering and the execution of technically complex EPC projects, the AdVENT business unit delivers customer-centric solutions for various elements of hydrocarbon industry value chain.

AdVENT's technical capabilities enable it to offer tailored engineering solutions from concept to commissioning. The business offers EPC project solutions, integrated modular solutions, refinery technology solutions and sustainable waste-to-energy solutions.

The business also focusses on technology-backed petrochemicals and downstream chemical industries that are the building blocks of high-value industrial end-products.

Asset Management

The Asset Management business delivers differentiated and value-added services across a wide spectrum of solutions to hydrocarbon and allied process Industries.

These comprehensive asset management solutions cover operations, maintenance, performance enhancement and health assessment of critical assets. The business complements the organisation's EPC project offerings for a mutually beneficial engagement over the life-cycle of assets.

The comprehensive operations and maintenance outsourcing model covers consulting, asset integrity, asset performance improvement and specialised services based on the client requirements.

Offshore Wind

The Offshore Wind business is dedicated to advancing clean and sustainable energy solutions. This business provides turnkey EPCI (Engineering, Procurement, Construction, Transportation, and Installation) services, specialising in both offshore HVAC/HVDC substations and Wind Turbine Generator (WTG) foundations encompassing both fixed and floating structures. The business is supported by strong multidisciplinary teams, strategic partnerships with key industry stakeholders and a robust supplier network. The Company's factory establishments include three state-ofthe-art fabrication facilities in Oman and India, operating under the principle of 'Think Global, Act Local'. The business operates in the Far East, Europe and the United States.

Business Environment

As the transition to sustainable energy accelerates, both energy-producing and energy-consuming nations are striving to balance the need for continued investments to support domestic growth with the long-term emission reduction goals aligned with their respective Net Zero commitments.

The renewable energy sector continues to gain traction, fuelled by clean energy demand, policy support and rapid technological advancements. In addition, the growing emphasis on energy efficiency and carbon reduction is boosting demand for CCUS (Carbon Capture, Utilisation & Storage) projects.



HVAC Offshore Substation and WTG's Monopile

Expansion of offshore projects continued to gain momentum in the Middle East. Qatar's increasing focus on LNG investments could see production increase from 77 MTPA in 2024 to 142 MTPA by 2030. These present significant growth opportunities for the business.

The business faces risks from currency and commodity price fluctuation, supply chain disruptions and talent shortage. Geopolitical tensions, including the Red Sea and Russia-Ukraine crises, have intensified commodity price volatility and logistic bottlenecks.

To counter these risks, the business has been steadily diversifying its supply chain, hedging currency and commodity exposures, and increasing its focus on implementing modular solutions.

In the US, suspended oil & gas projects are being revived, with awards expected by FY 2025-26, alongside opportunities in blue hydrogen, ammonia and petrochemicals. In India, upstream firms are increasing O&M outsourcing, while downstream players focus on utility maintenance.

Growing emphasis on energy efficiency and carbon reduction is boosting demand for modular fabrication in CCUS (Carbon Capture, Utilisation & Storage) projects.

To maintain its competitive edge, the business continues to expand collaboration efforts with industrial and energy technology companies. The business continues to strengthen its footprint in the Middle East for specialised services. With a focus on innovation, digitalisation and sustainability, the business remains well-positioned for long-term growth.

Major Achievements

Major Orders Won:

- Ultra-mega offshore contract from Qatar Energy LNG for the North Field Production Sustainability Offshore Compression Project (NFPS COMP 4)
- Order from Oil & Natural Gas Corporation (ONGC) for Daman Upside Development Project-Wellhead Platforms & Pipelines (DUDP-WP), off India's west coast
- Order from ONGC for the eighth phase of Pipeline
 Replacement Project (PRPVIII Group B) off India's west coast
- Order from Rashtriya Chemicals and Fertilizers Limited (RCF) (a Gol undertaking with Navaratna status), a leading fertilisers and chemicals manufacturing company for License, Engineering, Procurement and Construction (L-EPC) of a 1,200 MTPD (DAP basis) NPK fertiliser plant along with associated utilities and off-site facilities at their Thal unit in Raigad district

Projects Completed:

- Successful decommissioning of offshore facilities for BG Exploration and Production India in the Tapti field, located off India's west coast
- Mechanical completion and Performance Guarantee Test Run (PGTR) of Phase-IIIB LNG Storage Tanks for Petronet LNG Ltd. Dahej LNG Terminal Expansion
- Mechanical completion of 30 jackets, i.e. 10 jackets in Safaniyah, 9 jackets in Safaniyah and Ribyan, and 11 jackets in Safaniyah and Zuluf fields (Saudi Aramco)

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Overall view of Cairn Oil & Gas: Upstream Onshore - Gas Processing for Vedanta Limited, Rajasthan

- Mechanical completion achieved in ARBI8 refurbishment project (Saudi Aramco - CRPO-75)
- Offshore jacket fabrication and load-out of (Mcdermott Middle East Inc.) Marjan Increment Program Package-I

Significant Initiatives

Productivity Enhancement

The business continues to implement initiatives aimed at enhancing productivity across operations. The business has reinforced process improvements and lean execution strategies by focusing on streamlining workflows, eliminating redundancies and empowering its workforce. These measures have resulted in reduced turnaround times, improved resource efficiency, a higher overall output and ensuring that projects are delivered within stringent timelines and budgets.

Value Engineering

Value engineering remains a cornerstone of the business strategy, driving cost efficiencies while at the same time maintaining high quality and safety standards. By standardising designs, adopting templatisation, minimising rework and implementing robust surplus management, the business has significantly optimised resource consumption. These practices have facilitated enhanced execution efficiencies, ensured on-time project completion and improved bottom-line performance.

Digitalisation and Automation

The business is investing in advanced digital tools to enhance project execution. 4D visualisation, AI/ML-driven analytics, VR simulations and predictive tools are optimising planning, safety and efficiency. Increased automation across fabrication yards is minimising manual intervention, while Generative AI is set to further improve decision-making and resource allocation.

Smart Procurement

The business is advancing its procurement strategies by integrating smart, data-driven methodologies to enhance cost-effectiveness and supply chain efficiency. The adoption of e-procurement platforms, data analytics for spend optimisation and vendor consolidation initiatives have strengthened supplier relationships and improved cost control. By fostering partnerships and implementing intelligent sourcing mechanisms, the business is ensuring resilient procurement processes that align with project needs and market dynamics.

Outlook

Oil prices remain the key to capital investments in the hydrocarbon sector. OPEC+ production strategies continue to influence market stability and thus investment cycles. Despite near-term price volatility, KSA, the UAE and Qatar continue to invest in offshore oil & gas development.



3D Model of Numaligarh Refinery Limited (NRL), Assam

Significant EPC opportunities are expected to open up in India with ~68 MMTPA of additional refining capacity planned. The government's push to increase the share of natural gas to 15% of the energy mix by 2030 is also expected to drive investments in pipeline infrastructure, LNG terminals and gas-based projects.

The offshore wind industry has grown rapidly, reaching ~80 GW by the end of 2024, clocking 28% CAGR over the past five years. While Europe dominates - led by the UK, Germany, Netherlands and Denmark, Asian markets like India, Taiwan, Vietnam, Japan and South Korea also present growth opportunities for the business.

India's offshore wind energy market has been progressing steadily. Viability Gap Funding (VGF) has been approved to the tune of ₹7,450 crore for 1 GW projects in Gujarat and Tamil Nadu. With 4 GW of projects in the pipeline, India's share of the global offshore wind market could reach ~3% by the early 2030s.

Sustainability-driven investments in CCUS (Carbon Capture, Utilisation & Storage) and energy-efficient designs are shaping industry trends. The business is adapting to refinerypetrochemical integration and decarbonisation solutions to maintain competitiveness.

In the Middle East, localisation policies like IKTVA (Saudi Arabia) and ICV (UAE) continue to shape project awards, emphasising local partnerships and regional execution capabilities. The business remains highly competitive, with participation from European, Korean and Chinese EPC players in bids across the hydrocarbon value chain.

Labour shortage, increasing raw material costs and inflation in general can present challenges to project cost structures. Demand for skilled labour in the Middle East and Southeast Asia has impacted workforce availability. The business has countered these challenges through procurement optimisation, automation and strategic partnerships to ensure cost competitiveness. The business has also enhanced execution efficiency through real-time project monitoring, automation and Advanced Work Packaging (AWP).

Despite a strong order backlog in FY 2024-25, the business secured a near record-high value of order inflows - in Saudi Arabia and Qatar - thus reinforcing its status as a trusted partner. In India, while ongoing projects set new benchmarks, capacity expansion in refining, petro-chemical and LNG infrastructure present long-term growth opportunities for the business.

Despite prevailing uncertainties, the business maintains a positive outlook on the future of the hydrocarbon sector. With strategic partnerships, digital transformation and sustainability initiatives, the business remains well equipped to navigate industry shifts and drive long-term growth across upstream, midstream and downstream segments. Corporate Overview Management Discussion and Analysis Integrated Report

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Jafurah Export Pipeline Project for Saudi Aramco, Kingdom of Saudi Arabia



Financial performance of the business

The Hydrocarbon business achieved order inflows of ₹ 63,400 crore in FY 2024-25, registering a decline of 10.6% over the previous year, due to base effect. During the year, business secured its largest ever single value order in Qatar. The share of international orders is 82% in FY 2024-25 compared to 90% in the previous year.



The Hydrocarbon business recorded revenue of ₹ 38,618 crore for the year, registering a growth of 45.6% y-o-y, due to a robust pick-up in execution momentum of a large order book. The share of international revenue in FY 2024-25 was higher at 69% of the total revenue as compared to 65% in the previous year, largely reflective of a robust opening international order book.

The operating margin of the business declined to 8.4% from 10.3%, mainly reflective of stage of execution of the order book.



2x660 MW Tanda Thermal Power Plant, Uttar Pradesh

CarbonLite Solutions Business

Overview

L&T Energy - CarbonLite Solutions (LTECLS), erstwhile L&T Energy - Power, has established itself as a leading EPC player offering turnkey solutions for the BTG (boilerturbine-generator) island components of coal-based power plants - encompassing design, engineering, procurement, manufacturing, construction and commissioning.

L&T Energy - Power was rechristened to LTECLS in FY 2024-25 as part of L&T's broader shift towards sustainability. The business aims to leverage its existing expertise to develop and deliver solutions for carbon-capture projects, nuclear projects (turbine island) and pumped storage plant turbines. The business shall continue to offer BTG solutions for coal-based power plants within the country to support energy security of India.

The business operates from L&T Knowledge City, Vadodara and has access to integrated state-of-the-art manufacturing facilities at Hazira for ultra-supercritical and supercritical boilers, turbines and generators, pulverisers, axial fans, air preheaters and electrostatic precipitators. The facilities are equipped to deliver equipment aggregating to 4,000 MW.

The business has the following joint venture (JV) companies within its fold:

L&T-MHI Power Boilers Private Limited, a JV with Mitsubishi Heavy Industries (MHI), Japan – the world's leading power equipment maker, for the design, manufacturing, erection and commissioning of ultra-supercritical / supercritical boilers, up to a rating of 1,000 MW.

L&T-MHI Power Turbine Generators Private Limited, a JV with Mitsubishi Heavy Industries (MHI), Japan and Mitsubishi Electric Corp. (MELCO), Japan for the manufacture of steam turbines and generators (STG) with a capacity ranging from 660 MW to 1,000 MW. The Company is engaged in design, manufacture, erection and commissioning of ultrasupercritical / supercritical turbines and generators.

L&T Howden Private Limited, a JV with Howden Holdings B.V, is in the business of regenerative air preheaters and variable pitch axial fans for power plants.

L&T - Sargent & Lundy Limited, a JV with Sargent & Lundy LLC, USA, is engaged in the business of providing design, engineering and project management services for power projects.

Business Environment

In FY 2024-25, India's peak power demand reached a record high of 250 GW and is projected to reach 458 GW by FY 2031-32.

After a prolonged period of subdued capacity addition, India's coal-based thermal power sector regained momentum in FY 2024-25. During the year, ~20 GW of coal-based power projects were awarded. The Government of India (GoI) has set a target of minimum 80 GW additional coal-based capacity by FY 2031-32.

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Boiler manufacturing facility at Hazira, Gujarat

Nuclear power is expected to play a pivotal role in achieving India's energy transition goal of becoming net zero by 2070. To reach this goal, the Gol has set an aspirational plan of setting up 100 GW of nuclear power capacity by 2047 under the *Viksit Bharat* Initiative.

To meet the target of net zero emissions by 2070, the Gol is developing a policy framework for carbon capture projects to curb CO₂ emissions from thermal power plants.

There is a growing need to balance the cyclical nature of renewable power supply to the national grid with enhanced storage capacities. To this end, the GoI, through both the public and private sectors, aims to add ~20 GW of pumped storage hydro power plant capacity over the medium-term.

Major Achievements

Some of the major achievements by the business during the year include:

- Notification of Award (NOA) received for BTG Package from a central utility for a 3x800 MW power project in Bihar
- Limited Notice to Proceed (LNTP) received for BTG package from a central utility for a 2x800 MW power project in Madhya Pradesh
- Commercial operation declared for one unit each in a 2x660 MW and a 3x660 MW power projects in Uttar Pradesh
- Boiler light-up achieved for one unit each in 2x660 MW and 3x660 MW power projects in Bihar and Uttar Pradesh, respectively
- Performance guarantee test completed for two flue gas desulphurisation (FGD) units for central utility projects in Madhya Pradesh and West Bengal

- Completion of facilities for two FGD units for central utility projects in Odisha
- Reliability test run completed for four FGD units for central utility projects in Chhattisgarh, Madhya Pradesh and West Bengal

Significant Initiatives

To improve profitability and on-time execution, the business has introduced various operational excellence initiatives. Digital and analytical levers such as Artificial Intelligence (including Machine Learning), IoT-isation, Immersive Technologies like Virtual Reality, BIM and Drones, Process Automation, Business Intelligence and Analytics are now a part of the day-to-day operations of the business. The goal to achieve excellence in QEHS - Quality, Environment, Health and Safety - remains a core focus area for all businesses under LTECLS umbrella.

Outlook

India's GDP is expected to grow at a steady pace of ~6.25-6.50% p.a. over the near to medium-term. To sustain this growth momentum, it is imperative to ensure the country's energy security. In order to mitigate the risk of relying solely on renewable sources of energy, India is increasing its coal-based power capacity to ensure a stable and costeffective source of electricity. It is therefore likely that coalbased power will continue to coexist with other sources of renewable energy for the foreseeable future in India.



2x660 MW Khargone Thermal Power Plant, Madhya Pradesh (India's first ultra-supercritical power plant)



The CarbonLite Solutions business recorded an order inflow of ₹ 24,153 crore for the year ended March 31, 2025, registering a growth of more than 100% as compared to the previous year, largely aided by the receipt of two BTG orders from a leading thermal power generation company in India.



The CarbonLite Solutions business revenue at ₹ 2,059 crore declined by 32.4% on a y-o-y basis, with tapering of execution of jobs in the portfolio and a lower opening order book.

The operating margin improved to 11.9% from 8.7%, mainly due to a change in job mix.

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Green Hydrogen Plant at L&T's A. M. Naik Heavy Engineering Complex in Hazira, Gujarat

L&T Green & Clean Energy Business

Overview

The Green & Clean Energy business reinforces the Group's commitment to a more sustainable future by aligning its business goals, with global decarbonisation efforts. Through the business, the Company is committed to developing a clean energy ecosystem that is integrated, scalable, sustainable and aligned with international energy transition efforts. The Company's Green Energy vision is centred on three business pillars encompassing the Green Energy value chain – EPC, Manufacturing and Development.

Business Model

The business operates across three principal segments:

1. EPC (L&T Energy Green Tech Limited – LTEGL)

The EPC division leverages L&T's experience in complex energy infrastructure projects, including gas-to-power (G2P) and combined cycle power plants, based on LNG, NG, liquid fuels. The business is actively pursuing green hydrogen, ammonia (NH3) and methanol (CH4) projects by integrating renewable power with hydrogen production, thereby offering turnkey clean energy solutions for domestic and international markets.

2. Manufacturing (L&T Electrolysers Limited – LTEL, a wholly owned subsidiary of LTEGL)

At the core of the Manufacturing vertical is LTEL, a wholly owned subsidiary of LTEGL. LTEL manufactures

modular, high-efficiency pressurised alkaline electrolysers at its state-of-the-art, robotic-enabled factory in Hazira, Gujarat. With an initial capacity of 400 MW, the facility has already achieved over 80% indigenisation, reinforcing the *Aatmanirbhar Bharat* initiative.

3. Development

The Development segment is spearheading the creation of large-scale green hydrogen and derivative assets across India, with plans to develop, own and operate clean energy plants. It integrates upstream renewable sources with downstream hydrogen-based solutions, targeting offtake agreements, partnerships and export opportunities. The business has recently set up a special purpose vehicle company (L&T Green Energy Kandla Private Limited – LTEGK, a wholly owned subsidiary of LTEGL) to pursue the initiatives proposed in the segment.

Business Environment

The green hydrogen ecosystem continues to gain momentum due to its ability to decarbonise hard-to-abate sectors like fertilisers, steel, refining, chemicals and heavy mobility. Despite short-term challenges around cost parity, policy frameworks and infrastructure, the sector saw accelerated investment in 2024 — particularly in Europe and Asia — with strong backing from regulatory programmes like the EU Hydrogen Strategy and Japan / South Korea's transition roadmaps.

In India, the National Green Hydrogen Mission with an outlay of ₹ 20,000 crore aims for 5 MMTPA of annual green hydrogen production capacity by 2030. Programmes like SIGHT are catalysing demand through long-term procurement bids by





India's 1st indigenously developed Electrolyser at A. M. Naik Heavy Engineering Complex, Hazira, Gujarat

public sector oil companies. India's cost-competitive solar and wind potential makes it an attractive hydrogen export hub.

L&T's comprehensive strategy — spanning renewable generation, electrolyser manufacturing, hydrogen production and derivatives — places it in a unique position to unlock value across the entire green energy value chain.

Key Milestones and Achievements

EPC & Development

- □ PLI award received under the SIGHT programme for 90 kTPA green hydrogen production with maximum allocated incentive of ₹ 300 crore
- First front-end engineering and design (FEED) order for a green ammonia facility executed for a global client
- 500 acres of land acquired in Kandla through auction for project development for setting up of a green hydrogen and its derivative production plant

Electrolyser Manufacturing

- 400 MW annual electrolyser capacity set up at Hazira
- First indigenously manufactured electrolyser dispatched to Deendayal Port Authority (DPA), Kandla
- ^D Fully robotic electrolyser stack assembly line commissioned
- Advanced gas purification systems to achieve 99.999% purity hydrogen

Strategic Initiatives

L&T is undertaking forward and backward integration across the hydrogen value chain:

- Technology partnerships for renewable energy, hydrogen storage, ammonia synthesis, shipping, and port logistics
- Global collaborations to access markets, offtake agreements and secure EPC-technology pipeline with global developers
- Expansion plans to scale electrolyser capacity to gigawatt-level
- R&D through the 'New Energy Technology Lab' focusing on next-generation green technologies

Outlook

The clean energy business expects measured but sustained growth in the green hydrogen and its derivatives space. While the long-term fundamentals remain strong, near-term priorities include:

- Achieving cost competitiveness through scale, technology localisation and backward integration
- Securing bankable offtake contracts to de-risk investments
- Driving policy advocacy for an enabling regulatory environment and low-cost financing mechanisms
- Building scalable manufacturing and integrated development capabilities to address both domestic and global demand

By blending innovation with execution strength, the Green & Clean Energy business is poised to become a leading player in India's energy transformation and an active contributor to the global net zero movement.