Sustainability & Transformation Report 2025

Stancor Tubulars
PIPING SOLUTIONS

Decarbonising India's Development

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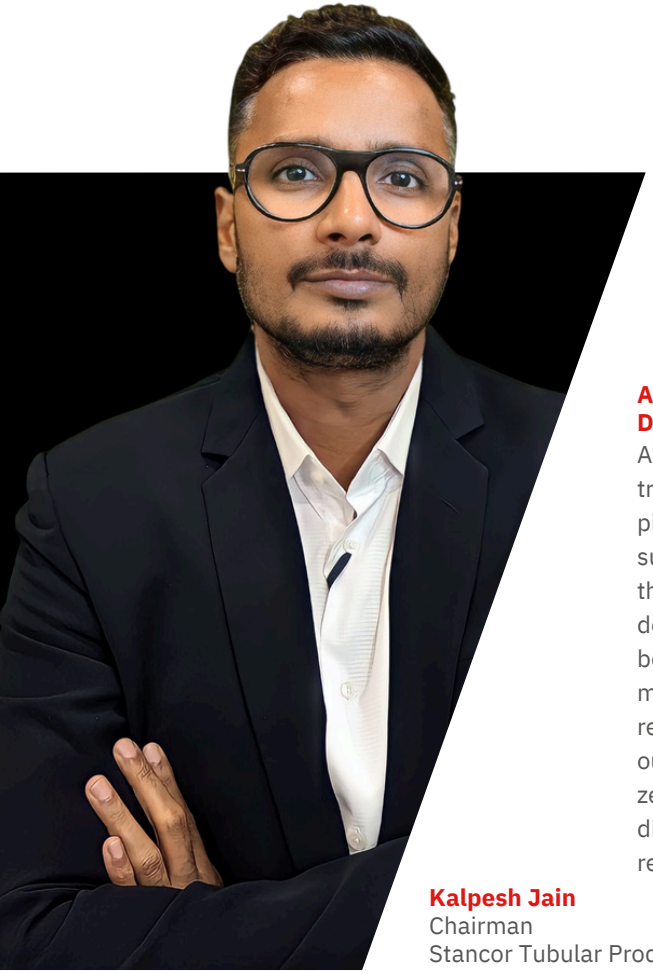


An Opportunity and an Imperative: Decarbonising India's Development

At Stancor Tubulars, we are committed to transforming the stainless steel seamless pipe industry in India by embedding sustainability and climate responsibility at the core of our operations. Our journey is defined by innovation, efficiency, and a bold vision: to make Indian pipe manufacturing globally competitive, future-ready, and climate-resilient. This document outlines our actionable roadmap to achieve zero carbon emissions and zero liquid discharge, ensuring we lead the way in responsible industrial growth

Kalpesh Jain
Chairman
Stancor Tubular Products Pvt. Ltd.

Since our inception in 2020, Stancor Tubulars has rapidly evolved, investing in state-of-the-art infrastructure and adopting best-in-class technologies to cater to critical sectors such as Oil & Gas, Petrochemicals, and Power. Our journey so far has been focused on delivering high-performance tubular solutions while minimising our environmental impact.

Yet, as we grow, we are deeply aware of our responsibility—not just to produce world-class products, but to do so sustainably. Decarbonising production, improving material efficiency, and reducing energy consumption are at the core of our strategy. We are actively exploring the adoption of renewable energy, optimising resource usage, and introducing digitalised quality controls to reduce waste and emissions.

India is poised for significant industrial growth, and infrastructure development will drive a surge in demand for seamless pipes. Our goal is to meet this rising demand while staying committed to a zero-carbon future. We aim to double our production capacity by 2030, while ensuring every ton we produce is aligned with global benchmarks for sustainability and quality.

This report also highlights our future roadmap —scaling capacity, investing in green technologies, exploring circular production methods, and strengthening global partnerships. As we work toward these goals, we stay grounded in our core values: integrity, innovation, and impact.

As a proud Indian manufacturer with a global vision, Stancor Tubulars is ready to lead the next wave of transformation in the steel industry. Together, with our customers and stakeholders, we're forging a future that's not just stronger—but smarter and cleaner.

Our focus on R&D is pivotal to staying ahead of the curve. We are collaborating with material scientists, industry experts, and academic institutions to develop advanced pipe grades tailored to extreme environments and high-performance applications. The global manufacturing sector faces an urgent call to decarbonize, with projections indicating a 240% rise in emissions by 2050 if current practices persist. As demand for seamless pipes is set to triple over the next decade, Stancor Tubulars is pioneering a new era of sustainable production—decoupling growth from emissions and resource consumption through operational excellence and advanced technologies.

At its core, the task is to redefine steel manufacturing by merging efficiency with sustainability at scale.

FOREWORD

Chairman's letter

> “At its core, the task is to redefine steel manufacturing by merging efficiency with sustainability at scale..”

We are committed to transforming the way stainless steel seamless pipes are produced in India. At Stancor Tubulars Pvt. Ltd., our focus is not only on delivering unmatched product quality—but on building a process that is efficient, environmentally responsible, and future-ready. Our journey since 2020 has been defined by constant innovation and a bold vision: to make Indian pipe manufacturing globally competitive, sustainable, and smart.

Our aim is to minimise carbon intensity across our operations through a shift toward clean energy integration, digitalisation, and low-waste production. As we explore advanced material recovery systems, water reuse cycles, and green power alternatives, we're ensuring our infrastructure is designed not just for capacity—but for climate resilience.

The road to net-zero pipe manufacturing is complex, especially in a high-demand, high-precision sector like ours. It requires coordinated support from policymakers, industry peers, and customers. Strong demand signals, incentives for green manufacturing, and technical collaboration will be essential to unlock the full potential of low-emission production models in India.

At Stancor Tubulars, we're also evaluating the adoption of digital twin technologies, waste heat recovery systems, and AI-based predictive maintenance to improve process efficiency while cutting emissions. These technologies, while capital-intensive today, offer promising returns in the long term—both for the business and the planet.

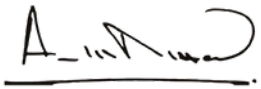
We firmly believe that our role extends beyond product delivery. As an industrial manufacturer, we play a critical role in shaping a sustainable ecosystem that balances economic growth with environmental stewardship. Our R&D initiatives are centered on developing next-gen tubular solutions with lighter carbon footprints and longer lifecycle performance for key industries like oil & gas, power, and petrochemicals.

One of the core purposes of this report is to invite dialogue and deeper engagement. We want to collaborate with our stakeholders—clients, government, researchers, and partners—to help accelerate innovation, standardise sustainability metrics, and lead the charge for clean manufacturing.

We are also actively working to make our supply chain more transparent, traceable, and resilient. From raw material sourcing to final dispatch, each phase is being optimised to reduce environmental impact while maintaining delivery speed and global compliance standards. Our partners and vendors are an essential part of this journey, and we are committed to helping them adopt greener practices as well.

Looking ahead, our growth strategy focuses not only on scale but on impact. As we explore new export markets and develop specialised grades for critical applications, we are guided by the principles of responsibility, innovation, and long-term value creation. At Stancor Tubulars, we are not just producing pipes—we are shaping the foundation for a smarter, stronger, and more sustainable tomorrow.

Kalpesh Jain Chairman



This Sustainability Outlook outlines the urgent steps Stancor Tubulars is taking—and plans to take—in driving the stainless steel pipe industry toward a lower-carbon future. It is structured across three focus areas:

1. **Decarbonising pipe production:**
   This section explains the current manufacturing practices and explores key levers for lowering emissions, including energy-efficient furnaces, AI-based monitoring, and circular material usage
2. **Our sustainability blueprint:**
   Here we present Stancor's actionable roadmap—highlighting ongoing clean tech integration, operational reforms, and our 2030 targets for emission reduction, renewable energy use, and zero liquid discharge
3. **Policy alignment & partnerships:**
   This part outlines how supportive government policies, fiscal incentives, and ecosystem collaborations can accelerate our transition to net-zero and enhance the global competitiveness of Indian manufacturers.

A pivotal moment for Indian manufacturing

A TRANSFORMATIONAL DECADE:

3x

growth in seamless pipe demand expected in the next 10 years across energy, petrochemical, and infrastructure sectors.

1st

Indian manufacturer to explore AI-integrated, low-emission pipe production at industrial scale.

THE URGENCY:

18%

of total emissions in metal-based industries are linked to process heat and outdated production methods.

240%

expected rise in emissions by 2050 from pipe manufacturing if existing practices continue unchecked.

60%

increase in operating costs when switching to fully renewable-based operations without transitional support.

SECTION 1:
Pathways for decarbonising pipe manufacturing

Making Pipes

Pipes is produced from two basic sources:
– The primary method, where solid round steel billets are heated and pierced to form hollow pipes using high-temperature rolling and rotary piercing techniques.
– The secondary method, which uses recycled steel billets or scrap-based input material melted in electric arc furnaces (EAF) before pipe forming.
Understanding these routes is vital to reducing emissions across pipe manufacturing and unlocking energy and material efficiencies.

Primary Method

The traditional route of manufacturing seamless pipes begins with virgin steel billets, typically produced through carbon-intensive processes like the blast furnace–basic oxygen furnace (BF-BOF) method. These billets are heated in rotary hearth or induction furnaces and then undergo rotary piercing to form hollow shells. These shells are elongated and refined through rolling and sizing mills to achieve the desired seamless pipe dimensions and strength.
While robust and established, this method is energy-intensive and contributes significantly to greenhouse gas (GHG) emissions due to its reliance on fossil fuels and high thermal requirements.

A cleaner alternative involves using DRI-based billets (Direct Reduced Iron). Here, iron ore is reduced into sponge iron using natural gas or hydrogen, eliminating the need for coke or coal. The sponge iron is then melted in electric arc or induction furnaces and cast into billets for seamless pipe production.
This shift offers substantial environmental benefits—gas-based DRI can reduce carbon emissions by up to 60% compared to coal-based methods. If powered by renewable electricity and green hydrogen, emissions could approach net-zero levels.
However, adoption remains limited in India due to key challenges:

- Shortage of high-grade iron ore required for efficient DRI production.
- High cost gap between imported natural gas and cheaper coal.
- Limited green power access, especially in industrial zones.

To overcome these barriers, India must align its policies, energy access, and raw material strategies. Measures like securing long-term iron ore supply, creating gas-coal pricing parity, and investing in renewable power infrastructure are essential. Promoting R&D for energy-efficient furnaces will also accelerate adoption.
With strategic support, India's pipe manufacturing industry can transition to low-emission production and lead the global push for sustainable steel solutions.

SECTION 1:
Pathways for decarbonising steel

Secondary Method

The secondary route involves producing seamless pipes using scrap steel instead of virgin iron ore. Scrap is melted in an electric arc furnace (EAF) with minimal virgin steel added, then remoulded into new billets for pipe production. This process consumes only about one-eighth of the energy required to make steel from iron ore and emits far less CO_2.

Currently, 20–25% of global steel is made via this method, but adoption in developing countries like India is limited due to smaller scrap inventories and underdeveloped collection infrastructure. Strengthening scrap processing and expanding recycling networks can significantly reduce emissions and production costs, supporting circular economy goals.

Decarbonising steel

At Stancor Tubulars, we recognize that decarbonising steel production is not just a climate imperative but also a pathway to innovation, efficiency, and long-term competitiveness. As global focus intensifies on clean manufacturing, we are adopting five strategic pathways to drive our sustainability agenda:

1. Operational Efficiency

From raw material sourcing to final dispatch, every stage of seamless pipe production offers opportunities to cut emissions. At Stancor, we are continuously optimizing our processes by reducing energy input per ton, recovering and reusing waste heat, and upgrading furnace technologies. In the near term, we focus on process digitization, automation, and AI to drive smarter operations. In the long term, we aim to integrate high-efficiency equipment such as regenerative burners and low-NOx furnaces to minimize environmental impact while enhancing product quality

2. Circular Economy for Steel

Steel is 100% recyclable, making it a natural fit for a circular economy. We prioritize the use of high-quality scrap to reduce reliance on virgin iron sources. This not only minimizes emissions but also enhances material efficiency and cost-effectivenes
With India being a net scrap importer, building a local scrap ecosystem is critical. Our partnerships with scrap providers and infrastructure investments are designed to secure a steady, sustainable supply chain while promoting circularity within our operations

3. Scaling Up Low-Carbon Fuel Sources

Reducing dependency on fossil fuels is a key pillar of our roadmap. Where possible, we are shifting toward lower-emission energy sources such as natural gas and exploring the integration of biomass and waste-derived fuels in our heat treatment and melting stages.

This transition helps reduce both direct and indirect emissions, positioning Stancor as a leader in cleaner pipe manufacturing technologies.

4. Greener Grid

As we rely more on electric-based processes like induction and arc furnaces, access to clean electricity becomes vital. We are working toward increasing our share of renewable energy through open access models and green power purchase agreements.

By powering our operations with solar and wind sources, we aim to slash Scope 2 emissions and align our plant operations with global climate goals.

5. Net-Zero Technology Innovations: Hydrogen & CCUS

To meet long-term decarbonisation goals, we are actively exploring cutting-edge technologies like green hydrogen-based DRI and carbon capture, utilization, and storage (CCUS). While still in early stages, we believe these will be instrumental in achieving net-zero emissions by 2050.

Our team is also collaborating with technology partners and R&D institutions to pilot innovations that can significantly reduce residual emissions in the steelmaking chain.

SECTION 1:
Pathways for decarbonising steel

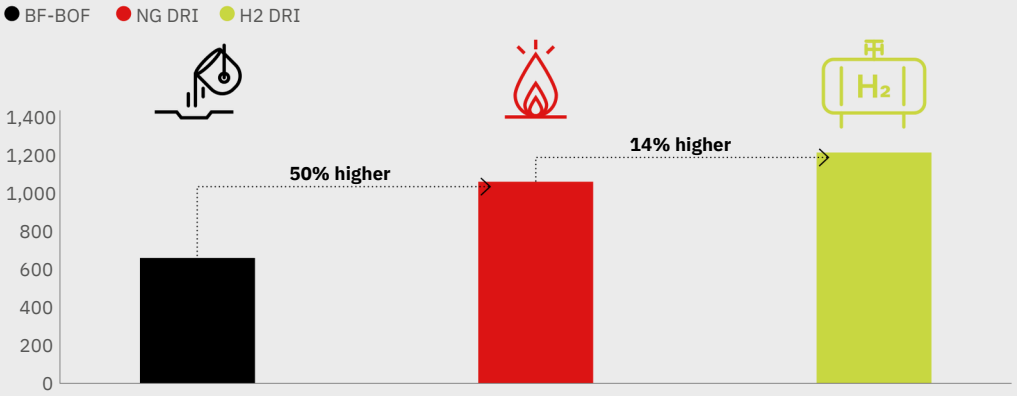
The Economic Challenge: The Price of Coal, Gas, and Green Hydrogen

The cost of producing steel through BF-BOF versus gas- or hydrogen-based DRI-EAF methods is significantly impacted by the price and availability of coking coal, natural gas, and renewable energy.
As illustrated by industry data, there can be up to a 50% increase in energy-related costs per tonne for gas-based DRI-EAF steel compared to BF-BOF steel. This is largely because India lacks adequate domestic reserves of natural gas, relying instead on costly global imports. Events such as the Ukraine crisis have further driven up prices, making energy inputs increasingly volatile.

At Stancor Tubulars, we understand this challenge first-hand. As we scale up our seamless pipe production using greener technologies, securing affordable and consistent energy sources—especially natural gas—is critical. The rising competition for gas from sectors like agriculture and power adds to the complexity.
While we remain committed to future-ready, low-carbon manufacturing, green hydrogen remains nearly 2x costlier than conventional routes and is not yet accessible at scale in India due to insufficient renewable energy infrastructure.

By being transparent about these challenges, Stancor Tubulars aims to foster dialogue across the steel value chain. We are actively collaborating with energy partners, policymakers, and industrial stakeholders to develop long-term strategies for affordable, scalable green energy adoption.
We believe that by addressing these core issues together, we can unlock a more sustainable future for India's stainless steel sector.

HYDROGEN-BASED DRI IS ~2X MORE EXPENSIVE THAN BF-BOF-BASED STEEL (2021)12



Note: Units are US$ per tonne of crude steel (US$/tcs)
Source: Indian Steel Association, drawn from Industry, Civil research estimates

12 Indian Steel Association: Pathway to Low Carbon Emission Steel, p29 (2022)

SECTION 1:
Pathways for decarbonising steel

CCUS: Carbon Capture, Utilisation, and Storage

Traditional blast furnaces remain central to global steelmaking and continue to play a significant role in India's growing demand for steel. However, if India is to align with global net-zero goals, integrating Carbon Capture, Utilisation and Storage (CCUS) into the steel production process will be essential.

Industry reports show that CCUS needs to scale drastically—potentially capturing 7.2 GT of CO_2 annually by 2050—to meet future sustainability targets. Encouragingly, pilot projects have already demonstrated the feasibility of integrating carbon capture with blast furnaces. This enables CO_2 to be reused in industrial processes or stored underground, helping reduce emissions from the BF-BOF route.

At Stancor Tubulars, we're closely monitoring advancements in CCUS technology, especially as research suggests India has the geological potential to scale this at speed. While commercial-scale adoption remains a challenge, early progress indicates this could be a viable part of our sustainability strategy in the years ahead.

A critical next step involves building regional storage infrastructure, encouraging investment, and ensuring new generation furnaces are designed to support CCUS integration.

Direct Electrolysis

Another emerging route is direct electrolysis, which allows steel production through the direct reduction of iron ore using electricity instead of carbon. Although still in early development, international trials —especially those led by global steel leaders—have yielded encouraging results.

At Stancor Tubulars, we see this as a game-changer. While commercialisation may take time, the potential to produce steel with zero fossil fuel input opens new doors for decarbonisation in the long run.

Each of these levers—CCUS, direct electrolysis, and others—offers unique opportunities and challenges. Some rely on emerging technologies, others on region-specific resources, making them difficult to scale uniformly.

For India, and companies like Stancor Tubulars, the optimal path forward will depend on local infrastructure, energy availability, and policy support.

What's clear is that the steel industry cannot depend on a single solution to decarbonise. Instead, progress must happen on multiple fronts, staying adaptive and responsive to both breakthroughs and barriers.

SECTION 2:

Our strategy

> “We see a focused roadmap toward decarbonisation and are fully committed to transforming our industry — that is why Stancor Tubulars is actively investing in clean technologies, sustainable sourcing, and innovative partnerships to future-proof our operations and lead the way in green manufacturing.”

We understand there is no single route to a greener future. The journey to decarbonising stainless steel requires a flexible, multi-dimensional approach. At Stancor Tubulars, we are aligning our processes with international sustainability goals while adapting to India’s unique industrial ecosystem.

We believe progress starts with efficient, low-emission manufacturing models and a strong push toward fossil-free production. That’s why we’re making strategic investments across our plant operations to enhance energy efficiency and minimise environmental impact.

Our focus lies in:

- Upgrading furnace systems and transitioning toward electric induction models.
- Integrating renewable energy sources and exploring solar-powered units for auxiliary operations.
- Recycling and reusing process water and heat to reduce overall resource consumption.
- Shifting toward low-emission raw materials with traceable, responsible sourcing.

By 2030, we aim to reduce our operational emissions by over 25% and lay the foundation for a net-zero supply chain by 2045, aligned with India's broader decarbonisation targets.

We are also actively collaborating with technology partners, material scientists, and sustainability experts to explore breakthrough innovations in green steelmaking — including carbon capture methods and hydrogen-based heating technologies. These partnerships enable us to stay agile and ahead of global environmental standards.

> “We begin by setting ambitious emission reduction goals, backed by actionable timelines, while building a transparent roadmap that supports our vision for sustainable growth and leadership in clean steel manufacturing.”

As part of our long-term strategy, we are embedding ESG principles across our operations and supply chain, while driving awareness and accountability at every level of the organisation. Our people are at the heart of this transformation, and we continue to invest in training and development to build a culture that champions sustainability.

Haresh Jain
Director
Stancor Tubular Products Pvt. Ltd.

SECTION 2:
Our strategy

Targeting 25% emissions intensity reduction by 2030

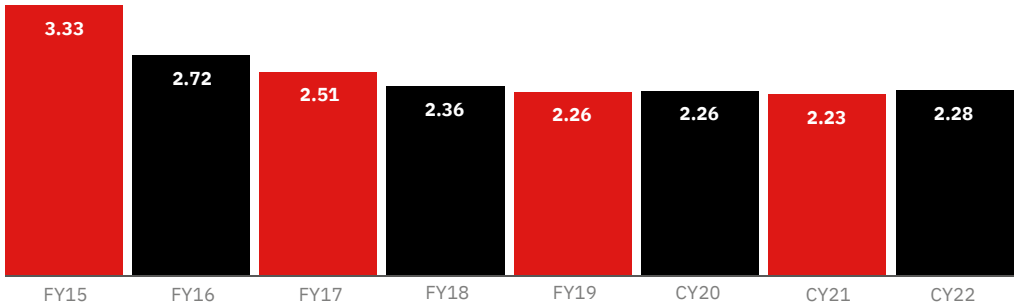
To align with India's decarbonisation roadmap and global climate goals, Stancor Tubulars is enhancing its production strategy through cleaner, smarter, and more responsible operations. Our commitment is to reduce emissions intensity by 25% by 2030, without compromising on growth or quality.

Three areas are particularly important for us to reach that goal:

1. **Energy-efficient plant operations**
2. **Integration of renewable energy**
3. **Sustainable raw material sourcing**

1. Energy-Efficient Plant Operations
As part of our commitment to a sustainable future, Stancor Tubulars is prioritising operational excellence through energy-efficient processes. With the growing need to decarbonise the stainless steel sector, we are actively modernising our plant with future-ready technologies that reduce power consumption and optimise performance:
– Induction Heating Systems: We are phasing out traditional, high-emission furnaces and transitioning to electric induction heating systems. These systems not only reduce carbon emissions significantly but also offer precise temperature control, leading to better product consistency and energy savings.
– Smart Production Automation: Automation is being integrated into key production lines to streamline operations, reduce manual errors, and optimise shift-wise energy usage. From pipe forming to finishing, every stage is monitored for efficiency gains.
– Heat Recovery Mechanisms: Advanced heat exchangers are being installed to capture and repurpose waste heat generated during processes like annealing and pickling. This reclaimed energy is then used for pre-heating or other auxiliary functions, cutting down on overall fuel demand.
– IoT-Enabled Energy Monitoring: We are deploying real-time energy monitoring systems powered by IoT and machine learning. These systems help us track consumption patterns, predict equipment maintenance needs, and make data-driven decisions for continual improvement in efficiency.

THE JOURNEY SO FAR: REDUCED EMISSIONS INTENSITY BY A THIRD SINCE 2015



SECTION 2:
Our strategy

2. Integration of Renewable Energy

At Stancor Tubulars, our decarbonisation roadmap is rooted in transitioning towards cleaner, renewable energy sources. As energy-intensive manufacturing players, we acknowledge our responsibility to reduce dependency on fossil fuels and lower our carbon emissions across Scope 1 and Scope 2 categories.

– Solar-Powered Infrastructure: We are actively deploying photovoltaic (PV) solar systems across available rooftop and ground-mounted spaces within our plant premises. These systems are designed to power non-core yet essential operations such as administrative buildings, security outposts, warehouse illumination, and groundwater pumping stations. Over time, we aim to expand this capacity to support selected production utilities as well.

– Green Power Procurement through PPAs: To further strengthen our commitment to sustainability, we are engaging with independent power producers (IPPs) and state-approved green energy suppliers to establish long-term Power Purchase Agreements (PPAs). This approach enables us to source solar and wind power directly into our grid, reducing our reliance on thermal power and contributing to India's national renewable targets.

– Energy Storage & Grid Stability: Recognising the intermittent nature of renewables, we are designing our plant infrastructure to be battery storage-ready. The incorporation of high-capacity energy storage systems in the future will allow us to store excess energy during peak generation and use it during high-demand or non-sunny hours—ensuring operational continuity and improved grid reliability.

– Decentralised Energy Strategy: Alongside central power procurement, we are also exploring decentralised renewable units within plant sub-sections, allowing localized solar-powered clusters that further reduce transmission losses and energy costs.

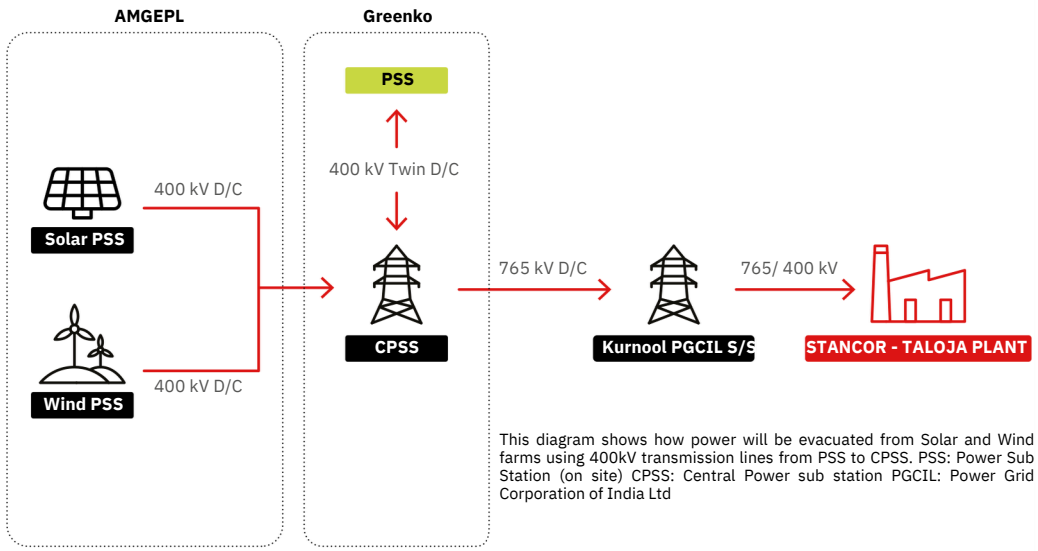
3. Sustainable Raw Material Sourcing

Raw materials are at the heart of stainless steel production, and we are working to make our sourcing practices more circular, responsible, and transparent.

– Recycled Stainless Steel Scrap: By increasing the share of high-quality scrap in our melt mix, we are significantly lowering the carbon footprint of our finished products. Recycling requires less energy than processing virgin ore, making it an essential component of our decarbonisation strategy.

– Traceable, Low-Emission Inputs: We collaborate with verified suppliers who adhere to environmentally conscious mining and refining practices. This includes the use of ferro-alloys and metals sourced through ethical and sustainable supply chains, backed by material traceability documentation.

– Closed-Loop Material Recovery: Efforts are underway to develop a circular loop where off-cuts and waste from internal processes are collected, reprocessed, and reused—minimising both raw material waste and environmental impact.



This diagram shows how power will be evacuated from Solar and Wind farms using 400kV transmission lines from PSS to CPSS. PSS: Power Sub Station (on site) CPSS: Central Power sub station PGCIL: Power Grid Corporation of India Ltd

SECTION 2:
Our strategy

Currently, Stancor Tubulars has a scrap mix of approximately 5–7% in stainless steel seamless pipe manufacturing. As part of our long-term decarbonisation strategy, we aim to increase this to over 15% by 2030.
To achieve this goal, we have laid out a phased roadmap focused on three pillars:

Phase 1: Modernize existing melting and processing facilities and develop an advanced stainless steel scrap yard and segregation unit within our main production plant. This will increase our in-house scrap processing capacity and enhance traceability.

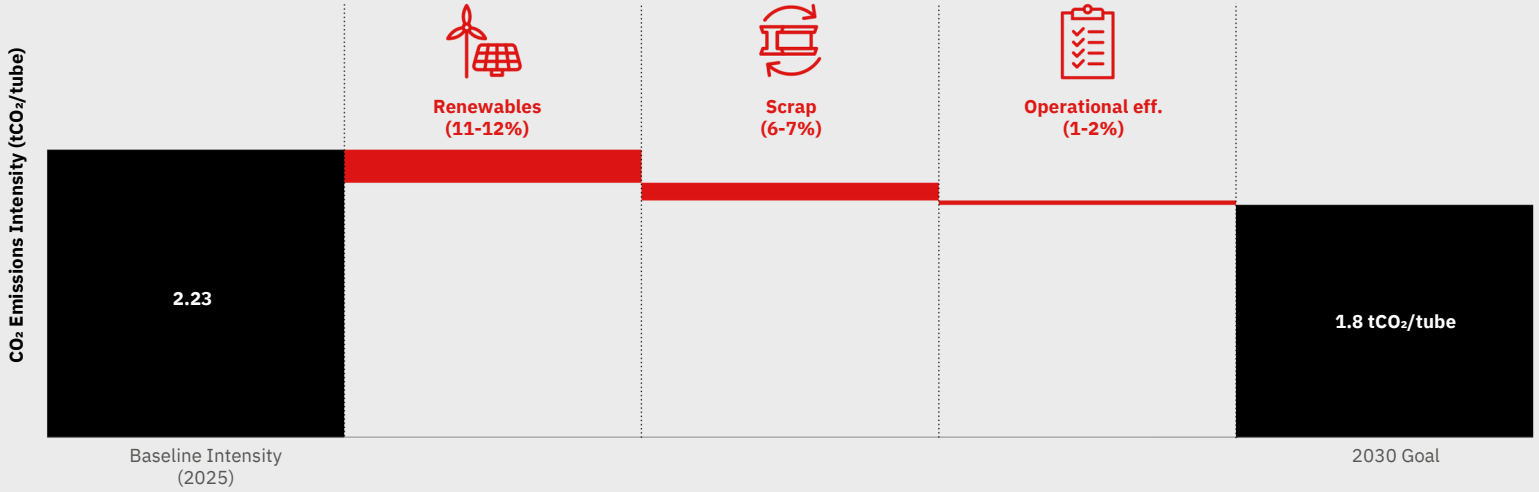
Phase 2: Establish decentralized scrap collection and processing hubs near major industrial zones, such as automotive and fabrication clusters, to streamline and scale high-grade scrap sourcing.

Phase 3: Collaborate with clients and industry networks to expand post-consumer and industrial scrap sourcing, including efforts to integrate recycled material from downstream product life cycles. We aim to foster a circular supply chain for stainless steel.

India currently imports a significant volume of stainless steel scrap. As global demand for scrap increases, domestic availability and pricing are becoming critical issues. We are actively engaging with stakeholders and policymakers to promote scrap generation and efficient recycling infrastructure in India.

Delivering on these three strategic levers will enable us to reduce total emissions intensity to 1.8 tCO_2/tube by 2030 — a 20% reduction.

OUR ROADMAP TO 2030



As with any transformation, success will depend on external enablers, including access to land for renewable installations, availability of certified scrap, and supportive government policies. We believe collective industry and policy alignment is key to accelerating decarbonisation.
In the next section, we outline specific areas where government and industry collaboration can unlock India's low-carbon manufacturing potential.

SECTION 2:
Our strategy

Investing in breakthroughs

Stancor Tubulars is committed to pioneering technologies that support India's transition toward low-carbon industrial manufacturing. We believe stainless steel seamless pipe production can become significantly cleaner through innovative process enhancements and alternative energy solutions. We're actively exploring and investing in these breakthroughs—with strong emphasis on policy and industry collaboration to scale them.

Green hydrogen

Why does it matter

Green hydrogen holds potential to decarbonise high-temperature industrial processes, including stainless steel pipe manufacturing. It can replace fossil-based fuels used during the heat treatment, annealing, or other downstream operations. However, due to current cost, supply limitations, and scalability challenges in India, the adoption of green hydrogen remains in the early stages.

What needs to happen

– To accelerate green hydrogen adoption in India's industrial landscape, the following initiatives are critical:

- Policy Push: Programs like the National Green Hydrogen Mission and Green Hydrogen Policy must ensure affordable hydrogen access for industrial SMEs like Stancor Tubulars.
- Pilot-Scale Hydrogen Corridors: Establishment of hydrogen-ready industrial zones with renewable energy integration and electrolyzer clusters to facilitate green hydrogen distribution.
- Public-Private Partnerships (PPP): Partial government funding to retrofit existing thermal processing systems with hydrogen-ready infrastructure.

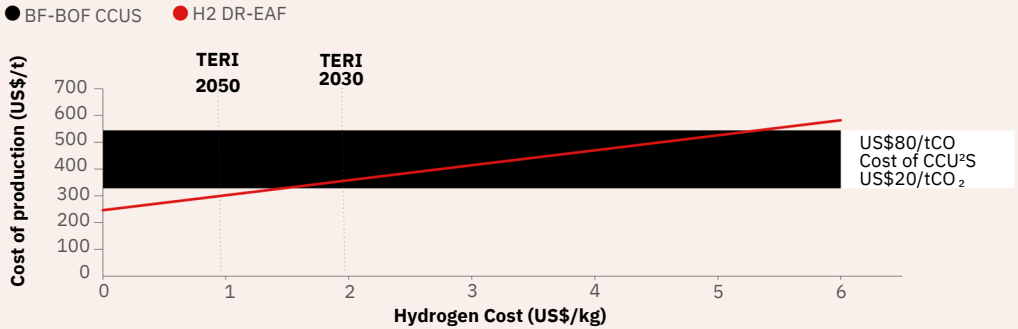
Financial Incentives:

- GST and duty rebates on hydrogen-related equipment and capex.
- R&D support for local electrolyzer production, focusing on lower-cost alternatives to expensive elements like platinum or iridium.

Strategic Focus

Since nearly 70% of green hydrogen costs stem from renewable energy, India's investments in solar and wind infrastructure will directly impact hydrogen affordability. At Stancor Tubulars, we see this as a double benefit—enabling green hydrogen adoption and reducing overall production emissions through renewable sourcing.

MAKING THE HYDROGEN ROUTE VIABLE: US$1 PER KILOGRAM



Source: Energy Transition Commission and The Energy Resources Institute (TERI).
Note: tCO2 refers to the cost of carbon capture and storage, not to carbon price.

SECTION 2:
Our strategy

CCUS: Carbon Capture, Utilisation, and Storage

Industry reports show that CCUS needs to scale drastically—potentially capturing 7.2 GT of CO_2 annually by 2050—to meet future sustainability targets. Encouragingly, pilot projects have already demonstrated the feasibility of integrating carbon capture with blast furnaces. This enables CO_2 to be reused in industrial processes or stored underground, helping reduce emissions from the BF-BOF route.

At Stancor Tubulars, we're closely monitoring advancements in CCUS technology, especially as research suggests India has the geological potential to scale this at speed. While commercial-scale adoption remains a challenge, early progress indicates this could be a viable part of our sustainability strategy in the years ahead.

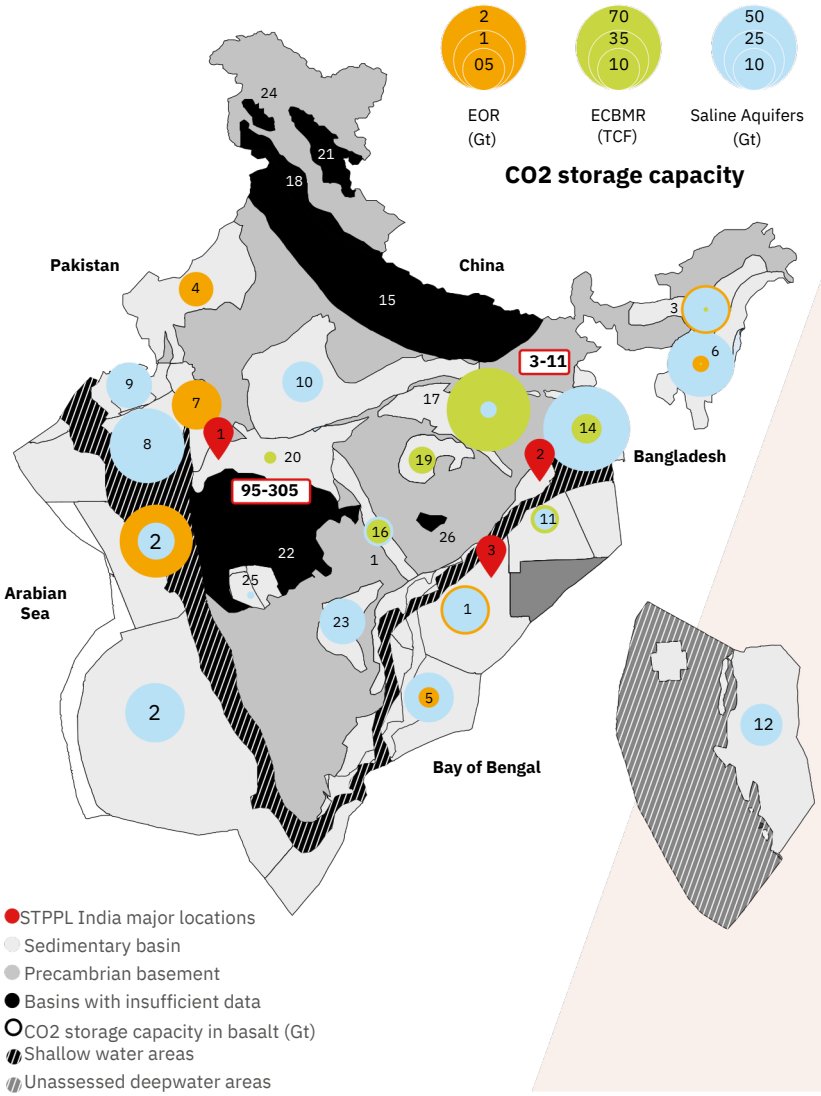
Direct Electrolysis

Another emerging route is direct electrolysis, which allows steel production through the direct reduction of iron ore using electricity instead of carbon. Although still in early development, international trials—especially those led by global steel leaders—have yielded encouraging results.

At Stancor Tubulars, we see this as a game-changer. While commercialisation may take time, the potential to produce steel with zero fossil fuel input opens new doors for decarbonisation in the long run.

SECTION 2:
Our strategy

MAJOR SEDIMENTARY BASINS IN INDIA, SHOWING CO2 STORAGE POTENTIAL



CCUS

Why does it matter

A critical part of the long-term solution is making the upcoming steel capacities in India future-ready to deploy CCUS technologies that can capture CO2 gases, and either reuse or store them safely at identified sequestration sites.

What needs to happen

– Pilots and prototypes – we need to prove that CCUS technology can work effectively and economically.

– Plan – to make CCUS viable in the Indian context, concerted efforts will be needed to accelerate its deployment. For example, the Indian government has already taken some steps in that direction, identifying CCUS as a priority area in its Second Biennial Update Report for the United Nations Framework Convention on Climate Change.

– Scale – ultimately, we need to finance a stable external economic environment to deploy CCUS at scale.

Our focus Stancor Tublars India is embarking on a programme of activity to help unlock this breakthrough.
We are:

– Developing **prototype CCUS activity** across Stancor Tubulars and Stancor, which are already demonstrating the pathways to decarbonise the BF-BOF route by using the Smart Carbon route, participating in Japan's COURSE50 programme, and implementing CCUS.

– Embarking on a **large-scale research project** into the feasibility of CCUS at scale in India. We are working with the Indian Institute of Technology Bombay, to study the geology surrounding our facilities to implement CCUS at scale. Early indications are that India's geology and the location of our plants make this a viable option, and this research will help us develop a pathway for development and deployment.

– Actively exploring **place-based partnerships in the Hazira Industrial belt** where we can collaborate with research institutions and other industrial companies across a range of sectors to create local clusters to achieve greater efficiency, speed and scale in the deployment of CCUS.

Note on graph: Major sedimentary basins in India, showing CO2 storage potential through CO2 EOR, ECBMR, in saline aquifers, and in basalt. The area of the circles represents the relative capacities of the basins, and the storage capacity range in basalts have been marked in a red box. The basins corresponding to the numbers (1–26) are mentioned in the legend. The basins marked in grey have been omitted from this study due to availability of limited data.
Source: 'A systematic capacity assessment and classification of geologic CO2 storage systems in India', Indian Institute of Technology Bombay, 2021.
The red pins represent the locations of Stancor Tublars India's major plants: 1 Hazira, 2 Paradip, 3 Vizag.

SECTION 2:
Our strategy

Partnering across the system

– Given the evolving demands of critical industries, collaboration has become essential for sustainable growth and technological advancement. At Stancor Tubular Products Pvt. Ltd., we believe real progress happens when industry, academia, and innovation ecosystems come together. We actively build strategic partnerships across sectors and geographies to accelerate transformation and support the future of responsible manufacturing.

Some recent highlights include:

1. Advanced Materials Innovation Programme

– Innovation is central to strengthening the future of stainless steel seamless tubular solutions. In 2025, Stancor Tubulars launched the Advanced Materials Innovation Programme, a structured initiative that supports R&D in Duplex, Super Duplex, and Nickel Alloy metallurgy for extreme industrial environments.

– The programme is driven by Stancor Tubulars in collaboration with leading engineering institutes, bringing extensive experience in corrosion science and metallurgical development to scale breakthrough solutions from concept to commercial application.

– The initiative began with a technical workshop series focusing on subsea and high-pressure pipeline challenges, followed by an intensive testing and qualification schedule designed to validate performance across demanding sectors such as Oil & Gas, Petrochemicals and Offshore operations.

2. Renewable energy transition for round-the-clock sustainability

– Stancor Tubulars is integrating renewable energy into its manufacturing ecosystem as part of a strategic transition towards low-carbon production. The solar power expansion project contributes significantly to reducing CO_2 emissions and provides long-term operational resilience.

– The project, targeted for substantial completion by mid-2026, is expected to reduce annual carbon emissions by a significant margin while supporting national renewable energy capacity growth.

– Through continuous improvement in energy efficiency and automation, Stancor Tubulars strengthens its sustainability roadmap with measurable progress aligned with global ESG expectations.

3. ZLD and water sustainability collaboration

– Stancor Tubulars has partnered with environmental engineering specialists to implement Zero Liquid Discharge (ZLD) technology across its facilities, reinforcing the company's commitment to responsible and resource-efficient manufacturing.

– This initiative combines advanced filtration and recycling systems to recover and reuse 100% industrial wastewater, minimising freshwater consumption and environmental impact.

– The partnership supports long-term sustainability accountability and creates a scalable model that can be implemented across future facility expansions.

4. Joint engineering collaboration with global EPCs

– Stancor Tubulars has recently established engineering partnerships with international EPC organisations and industry leaders to explore new application-driven tubular solutions for mission-critical projects.

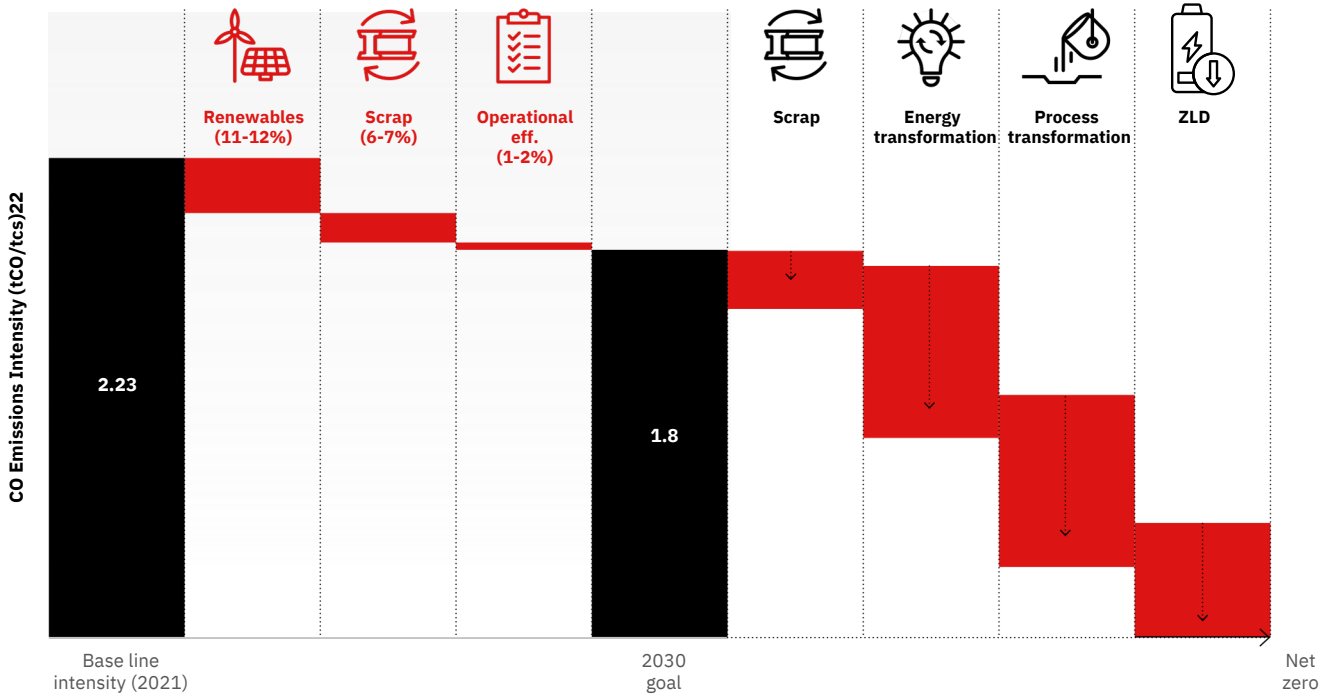
Project engineering collaboration focus:

- Custom tubular development: Joint testing and performance optimisation for round-the-clock project requirements.
- Hydrogen pipeline readiness: Evaluating material suitability for H_2-based energy transition.
- Application-based performance trials: Integrated support for real-time project environments.

– To support these objectives, joint working groups are being created across supply chain and engineering teams to drive continuous improvement and customer-centric innovation. ave recently developed

SECTION 2:
Our strategy

THE JOURNEY TO NET ZERO These important actions across the value chain will help lay the foundations for Stancor Tubulars to reach carbon neutrality over the longer term



Up to 2030, the waterfall chart shows a breakdown of the 20% reduction in CO2 emissions intensity we are targeting, taking into account the announced projects and initiatives outlined in this report. The waterfall chart beyond 2030 is for illustrative purposes only, and shows estimates of the emissions reductions potential of key levers based on best available data and the latest thinking outlined in major reports from expert bodies.
The bars correspond to the key breakthrough levers that have been outlined above, and our ambition is that the actions, partnerships and research we are undertaking in those areas will lay the foundations for the emissions reduction potential estimated in the levers post 2030.

SECTION 3:

POLICY TO ACCELERATE PROGRESS

> “Given the complexity and scale of the task at hand, and the speed at which it must happen, ambitious policy and regulation will be key to creating the enabling conditions for progress.”

Indian government and business alike are clear about the opportunities of low carbon steelmaking, which could provide the backbone of a more resilient, self-reliant, competitive economy that by some estimates could create 50 million new high-skilled jobs in India by 2070.20

At this time, the right policy frameworks are still being determined. Our role is to play an active part in the Mission Green Steel framework being developed, and we are actively involved in all of the 13 taskforces established to deliver a concrete plan.

Having consulted across our business

we see seven key areas where policy can help accelerate decarbonisation. We will be bringing these to our discussions as part of that taskforce, and are committed to supporting the government to develop effective policy in these areas:

1. Demand signals: The government is one of the biggest buyers of steel in India. A clear commitment to increase procurement of low carbon steel over time will allow producers to plan for the future, and scale lower carbon production with confidence. These efforts should be underpinned by the development of robust procurement standards, which provide clarity on what counts as low carbon steel over time.
2. Carbon market: The development of efficient carbon markets that promote decarbonisation investments will act as a critical enabler for decarbonisation. Although the government has laid out the building blocks for CCTS (Carbon Credit Trading Scheme), they are at a very nascent stage in India and should be a key point of focus in coming years.
3. Infrastructure:
   - Green grid: The drive to a renewable powered national energy grid is a very important foundation for decarbonising our sector and the economy. India has developed an ambitious agenda of supplying 50% of power from renewable energy by 203021, with one of the lowest levelised costs of electricity globally.22

SECTION 3:
Policy to accelerate progress

The Indian government is spearheading industrial transformation through major initiatives such as the National Green Hydrogen Mission, Renewable Energy expansion, and Production-Linked Incentive (PLI) schemes. We fully support the government's commitment to building a strong, sustainable and globally competitive manufacturing ecosystem, and believe the stainless steel tubular sector can play an important role in this development.

4. CO_2 infrastructure networks:

For long-term decarbonisation, establishing an efficient network of carbon capture, utilisation and storage (CCUS) pipelines will be essential. Policy support enabling the development and scaling of CO_2 transport systems will unlock industrial adoption, including in steel and alloy processing. Incentives to make CCUS commercially viable could accelerate progress and create a foundation for cleaner production.

5. Foreign direct investment:

Decarbonising manufacturing will require substantial long-term capital infusion, making the attraction of foreign investment a priority. Clear policy direction and consistent regulatory frameworks from the government can significantly strengthen investor confidence, particularly for international companies seeking opportunities in high-performance materials, hydrogen infrastructure, and renewable-energy–integrated production.

6. Hydrogen:

Hydrogen has the potential to become a critical enabler for industrial decarbonisation, particularly in applications such as future hydrogen-compatible pipeline systems and low-carbon industrial heating. We strongly support the National Green Hydrogen Mission and are committed to working collaboratively with government and research partners to advance hydrogen readiness. Pilot projects and early industrial testing will be key to accelerating progress.

7. Scrap & circular economy

Increasing scrap metal availability within India will play a substantial role in driving circular manufacturing and reducing dependence on imports. As demand continues to rise globally, policy support to expand domestic scrap processing could unlock significant capacity and strengthen self-reliance.
India's extensive coastline positions the country uniquely to expand ship recycling and metal recovery capabilities. By encouraging investment in modern recycling facilities, the government could help realise an additional 3–4 million tonnes of scrap generation annually.

Automotive recycling reforms represent another major opportunity. The government has taken strong steps through End-of-Life Vehicle (ELV) regulations to incentivise structured recycling. We welcome the policy and call for continued acceleration to support stable scrap supply for the manufacturing sector.

The rapid expected rise in demand requires urgent and determined progress toward certified low-carbon material manufacturing. Financial institutions, including global development banks and private investors, can play a pivotal role in directing funding toward cleaner production models.

International collaboration will also be essential to enable technology transfer and investment required for hydrogen pipelines, green manufacturing and circular economy growth. We encourage continued alignment between domestic policy and international partnerships to reinforce India's leadership in sustainable industrial development.

(Note: This framework represents Stancor Tubulars' sustainability and decarbonisation direction. Forward-looking statements are subject to evolving regulatory conditions and industry developments.)

Stancor Tubulars

PIPING SOLUTIONS

Sustainability & Transformation Report 2025

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