VeK
POLICY ADVISORY & RESEARCH

THE GREEN CLOCK

ESG MATTERS

MONTHLY NEWSLETTER

March 2025, Issue 03, Volume 2

Editor's Note

Dear Readers, Welcome to Third Edition Vol. 2 of our newsletter, 'The Green Clock: ESG Matters'. As the global focus on sustainability intensifies, businesses increasingly recognise the importance of integrating ESG considerations into their operations. From reducing carbon footprints to enhancing social impact, companies embrace a more holistic approach to value creation beyond financial performance. This edition explores the latest trends, developments, and best practices in sustainability and responsible corporate conduct. We also look closely at key sustainability trends shaping the business world, from the rise of renewable energy to the growing emphasis on diversity and inclusion. We hope you find this edition of our newsletter informative and inspiring as we journey towards a more sustainable and responsible future.

Warm regards,

[T S Vishwanath]

Kindly note, the name of the ESG newsletter has been changed from "Green Insights: ESG Matters" to "The Green Clock: ESG Matters" from this edition."

Table of Contents

India's Green Hydrogen Ambitions: Powering a Sustainable Future by 2030

Green hydrogen has long been heralded as a solution to the world's growing energy and climate crisis. Tracing its origins back to the early research on electrolysis in the 19th century, hydrogen's potential as a clean fuel has been explored for decades. However, it remained an elusive proposition, hindered by high costs and a lack of scalable technology. As the urgency to decarbonise industries intensified, nations across the globe sought alternatives to fossil fuels, leading to a renewed focus on hydrogen produced through electrolysis using renewable energy. India, with its ambitious climate commitments and growing energy demands, has emerged as a key player in this transformative shift.

The launch of India's National Green Hydrogen Mission in January 2023 marked a significant milestone. With an initial allocation of INR19,744 crore, the mission aims to position India as a global hub for green hydrogen production, reducing dependence on imported fossil fuels while fostering self-reliance in clean energy. The target of producing five million metric tonnes of green hydrogen annually by 2030 has set the stage for a dramatic overhaul of India's energy landscape, supported by large-scale investments, policy incentives, and infrastructural advancements.

Among the flagship projects driving this mission forward is the green hydrogen manufacturing facility at Kandla Port, set to commence production by June 2025. This initiative underlines the country's commitment to leveraging its extensive coastline for renewable energy projects, particularly through offshore wind integration with electrolysers. Additionally, significant

momentum is witnessed in the railway sector, where India is poised to introduce its first green hydrogen-powered trains. These developments signify a broader push towards sustainable mobility, further enhancing the role of green hydrogen in decarbonising transport networks.

India's aspirations in this sector are not confined to domestic consumption. The country is eyeing substantial export potential, particularly to energy-hungry markets in Europe and Asia. Estimates suggest that by 2030, India's green hydrogen exports could reach USD 10-12 billion, bolstered by international collaborations and favourable trade policies. With countries seeking to diversify their energy sources away from conventional hydrocarbons, Indian manufacturers benefit from early investments in infrastructure, technological innovation, and regulatory support.

However, the road to achieving these targets is fraught with challenges. The cost of green hydrogen production remains a critical hurdle, driven by the high capital expenditure on electrolysers and renewable energy capacity. While the government has introduced incentives, including production-linked subsidies and viability gap funding, sustained policy support is essential to bridge the cost disparity between green hydrogen and conventional fuels. Furthermore, a robust storage, transportation, and distribution ecosystem must be developed to ensure seamless integration across industries.

Scaling up research and development will also be pivotal in India's success in this domain. Advancements in electrolyser efficiency, storage solutions such as ammonia and methanol carriers, and sectoral applications in refining, steelmaking, and heavy transport must be prioritised. Additionally, collaborations between public and private stakeholders will be instrumental in fostering

innovation, driving down costs, and expanding India’s competitive edge in the global green hydrogen market.

While the foundation for a green hydrogen economy is laid, the path ahead demands meticulous execution and continuous course correction. India’s ambition to become a leader in this space hinges on its ability to blend policy vision with ground-level implementation. With the right mix of incentives, technological progress, and infrastructure development, the country stands at the cusp of an energy transition that could redefine its industrial landscape, ensuring sustainability and economic growth in equal measure. The success of this mission will not only reshape India’s energy narrative but also contribute to the global fight against climate change, setting a precedent for emerging economies navigating the green transition.

News from the World

Nordea's Landmark Carbon Removal Deal: 68,000 Tonnes to be Captured in Danish Biogas Project

Nordea, a North European financial services company, has signed a multi-year agreement with Inherit Carbon Solutions, a Norwegian startup, to remove at least 68,000 tonnes of CO2. This is a significant step in its strategy to achieve net-zero emissions by 2050. Nordea's first major carbon removal deal, this partnership will see Inherit capture CO2 from a Danish biogas plant, liquefy it, and store it geologically under the North Sea. This initiative directly supports Nordea's 2030 target of achieving a net positive carbon contribution, where its high-quality carbon removal credits

exceed its operational emissions. It showcases its commitment to scaling innovative carbon removal technologies.

Rio Tinto Secures 2.7GW of Renewable Energy for Australian Aluminum Operations

Rio Tinto, one of the world's biggest producers and processors of iron ore, copper, aluminium and a range of other minerals and materials, has finalised a 20-year agreement with Edify Energy to source 2.7GW of renewable solar and wind energy, including battery storage, for its aluminium production in Queensland, Australia. Edify Energy is an Australian renewable energy investment company that will build, own and operate this project. This deal, comprising two solar power stations with 600MWac solar and 600MW/2,400MWh battery storage, aims to power the Boyne aluminium smelter and two refineries in Gladstone. The agreement will cover 80% of the Boyne smelter's annual electricity demand, reducing its Scope 1 and 2 emissions by 70%, or 5.6 million tonnes of CO2 equivalent annually. This initiative supports Rio Tinto's goal of achieving net-zero emissions by 2050 and reducing operational emissions by 50% by 2030, marking a significant step towards decarbonising Australian aluminium operations.

EU's Omnibus Package: Balancing Simplification and Strategic Sustainability

The European Commission's Omnibus simplification package significantly recalibrates the EU's sustainability reporting landscape by narrowing the mandatory reporting scope to companies with over 1,000 employees, shifting from the previous threshold of 250 employees with EUR 50 million turnover or EUR 25 million balance sheet. This adjustment to the CSRD, CSDDD, and EU Taxonomy frameworks aims to reduce implementation complexity while preserving Green Deal fundamentals. However, it risks creating sustainability data gaps across value chains as smaller companies and listed SMEs move to voluntary reporting.

Despite these regulatory shifts, forward-thinking businesses leverage sustainability reporting as a strategic transformation tool rather than a compliance exercise, focusing on material issues, cross-functional integration, value creation, and systematic capacity building. The CSRD's double materiality principle continues to offer powerful strategic insights by connecting sustainability to core business functions. At the same time, climate scenario analysis enables companies to anticipate risks and build resilience—particularly relevant as climate-related losses mount, with insurers paying out over 3.6 trillion in environmental hazard compensation in the past four years alone.

News from India

ESG Investments: A Long-Term Strategic Imperative for Indian CEOs

Indian CEOs, like their global counterparts, are increasingly viewing ESG investments through a long-term lens, expecting significant returns within five to ten years, according to KPMG's 2024 India CEO Outlook. Despite challenges like capital intensity, complex supply chains, and the intersection with AI, businesses are recognizing ESG's pivotal role in achieving net-zero goals, enhancing stakeholder trust, and securing a competitive edge. Strategies include integrating ESG into core operations to reduce costs and emissions, exploring new market opportunities with low-carbon products, and building brand reputation through customer relationships and positive social impact. With growing regulatory focus, consumer demand for sustainable products, and technological advancements, ESG is becoming integral to business strategy, driving operational and business model changes and positioning Indian companies for long-term growth and global competitiveness.

Indore Launches India's First PPP Green Waste Processing Plant

Indore has inaugurated India's first Public-Private Partnership (PPP) green waste processing plant under the Swachh Bharat Mission-Urban, aiming to revolutionise urban waste management. This facility will convert approximately 30-70 tons of daily green waste (wood, branches, leaves, flowers) into valuable products like wooden pellets and sawdust, offering alternatives to coal and plastic. The Indore Municipal Corporation (IMC) will provide land and waste, earning royalty, while Astronomical Industries Private Limited will handle infrastructure and operations. The plant will produce eco-friendly fuel, packing materials, furniture composites, fertilisers, and biodegradable tableware, contributing to a circular economy. This initiative supports environmental sustainability, reduces pollution, controls the Air Quality Index (AQI), and generates revenue, aligning with the vision of Garbage-Free Cities.

CleanMax and Osaka Gas Launch Joint Venture for Indian Renewable Energy

CleanMax, a Brookfield-backed renewable energy provider, and Osaka Gas have established a joint venture, CleanMax Osaka Gas Renewable Energy (CORE), to address the growing demand for renewable energy in India's corporate sector. This strategic

partnership aims to deploy wind-solar hybrid solutions, beginning with a significant 400-megawatt (MW) portfolio in Karnataka. The initial phase will see 300 MW operational within six months, representing an INR 1,500 crore investment, with an additional 100 MW planned for development within two years.

CORE, owned by CleanMax, will leverage the company's established expertise in engineering and implementing renewable energy projects. The venture is supported by Osaka Gas Singapore and the Japan Bank for International Cooperation (JBIC), marking Osaka Gas's entry into India's green energy market.

Karnataka, a hub for technology and industrial companies, will be the initial focus, with further geographic expansion under consideration. CleanMax, with its presence across multiple Indian states and international markets, brings substantial experience to the partnership. The joint venture aims to capitalise on India's increasing shift towards sustainable energy solutions, providing reliable and cost-effective renewable power to corporate clients.

VeK

POLICY ADVISORY
& RESEARCH

VeK is a policy advisory and research firm, distinguished by its data-driven approach to analyse policy and regulatory developments in India and globally. For Further Information, please contact: Leah Miriam George, Senior Associate at +91 7994722955 or email at leah@vekpolicy.com