

# Green Insights: ESG Matters

Monthly Newsletter- December 2024

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- India's Renewable Energy Surge: A Global Clean Power Leader Emerges

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## Editor's Note

Dear Readers,

Dear Readers, Welcome to our Seventh Edition of our newsletter '**Green Insights: ESG Matters**'. As the global focus on sustainability intensifies, businesses are increasingly recognising the importance of integrating ESG considerations into their operations. From reducing carbon footprints to enhancing social impact, companies are embracing a more holistic approach to value creation that goes beyond financial performance. In this edition, we explore the latest trends, developments, and best practices in the realm of sustainability and responsible corporate conduct. We also take a closer look 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 together towards a more sustainable and responsible future.

Warm regards,

[T S Vishwanath]

*VeK in conversation with MOEFCC*

## **Beyond COP 29: What lies ahead for India**

*VeK's interaction with MoEFCC deep dives into the evolving carbon market in India, which will be overlooked by the Bureau of Energy Efficiency*

The 29th meeting of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change concluded in Azerbaijan on November 24th, 2024, indicating the beginning of many new initiatives. One of the major decisions of COP 29 was implementing Article 6<sup>1</sup>, setting a carbon market in action. As we juggle compliance and voluntary mechanisms, significant changes are expected in the coming days. Indian companies, MSME clusters, and gram panchayats will now have access to three markets: the Indian Carbon Market administered by the Bureau of Energy Efficiency (BEE), the voluntary carbon market, and the international carbon market.



The BEE, which takes the role of administrator of the market, is set to develop a portal to facilitate transactions at both domestic and international levels. Trading will adhere to Article 6.2<sup>2</sup>, which emphasizes bilateral and multilateral agreements, and Article 6.4<sup>3</sup>, which focuses on the establishment of a global carbon market. Currently,

discussions are underway with countries such as Korea, Sweden, and Singapore under Article 6.2 provisions, while negotiations with Japan are nearing finalization. These initiatives involve 14 activities that encompass adopting innovative and emerging technologies to mitigate climate change. The Memorandum of Understanding (MoU) will outline the rules for these agreements and ongoing attention to predetermined activities, including renewable energy storage, solar

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<sup>1</sup> Article 6: It sets out provisions of voluntary cooperation between countries to achieve their climate targets.

<sup>2</sup> Article 6.2: It allows countries to exchange emissions reductions and removals through bilateral agreements.

<sup>3</sup> Article 6.4: It establishes an international carbon credit trading system.

thermal power, offshore wind, green hydrogen, compressed biogas, and advanced mobility solutions such as fuel cells.

Moreover, the Perform, Achieve, and Trade (PAT) Scheme, introduced in 2012 to target emissions reductions in sectors like aluminum, fertilizer, thermal power, cement, iron and steel, and pulp and paper, will be transitioning gradually into a Carbon Credit Trading System (CCTS) framework. This new approach will phase in targeted strategies for the 17 sectors identified in areas with energy, industry, agriculture, waste handling and disposal, forestry, and transport included in the first phase, focusing on mitigating emissions from major contributors such as cement, iron, and steel, and pulp, thereby fostering credit trading among sectors. Agroforestry is one key sector that is expected to generate a huge number of credits. Observing how this demand-driven market operates without establishing a floor or forbearance price will be crucial.

As global efforts toward collective climate action unfold, Internationally Transferrable Mitigation Outcomes (ITMOs) are becoming operational across more nations. Ghana pioneered ITMO exports at COP 27, while Singapore and Papua New Guinea formalized a carbon credit trading agreement at COP 28. Additionally, COP 29 witnessed Switzerland and Thailand successfully completing their inaugural carbon credit sales. Looking ahead, COP 30, aptly dubbed the "Nature COP," will be held in Brazil, the heart of the Amazon rainforest, where we can anticipate an increase in participation from countries worldwide.

Another significant development in COP 29 is the tripling of climate finance for developing countries from USD 100 billion a year to USD 300 billion. However, the required estimated amount was around USD 2.4 trillion per year. Though the gap is huge, the amount is expected to gear things up positively.

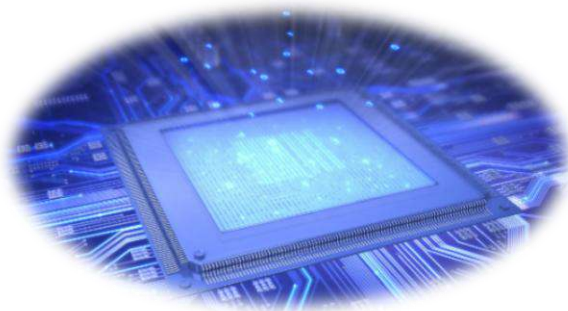


It is a fact that the conference commenced under challenging circumstances, exemplified by newly elected U.S. President Donald Trump's announcement of his withdrawal from the Paris Agreement and the collapse of Germany's government, a key player in advocating for the European Union's contributions to climate finance. Despite these setbacks, the conference also illuminates various opportunities for nations to advance their climate initiatives. The

European Union's decision to ban the sale of petrol and diesel cars by 2035 signals opportunities for Indian industries to enter a potentially rising sustainable market.

## News from the World

### 1. Microsoft's Water-Wise Revolution: Datacenter Cooling Goes Zero-Waste



In a groundbreaking leap for sustainable technology, Microsoft is transforming data center cooling with its innovative zero-water approach. By implementing a closed-loop water circulation system, the company will save approximately 125 million liters of water per datacenter annually, dramatically improving its

Water Usage Effectiveness (WUE). This pioneering design, set to roll out across new facilities starting August 2024, represents a critical step in addressing global water stress. Piloting these advanced cooling technologies in Arizona and Wisconsin, Microsoft is not just reducing environmental impact but setting a new standard for the tech industry's sustainability efforts. With Chairman Satya Nadella emphasizing ongoing commitment to water conservation, the company is proving that cutting-edge technology and environmental responsibility can go hand in hand.

### 2. Green Tech's Carbon Capture Breakthrough: Turning Industrial Waste into Climate Hope

In a bold move to combat climate change, Google, Stripe, and the Frontier coalition are investing \$80 million in cutting-edge carbon capture technologies that transform unlikely industrial sites into CO<sub>2</sub> removal powerhouses. By targeting paper mills and sewage plants with innovative techniques like oil field carbon capture and limestone filtration, these tech pioneers are working to dramatically reduce carbon removal costs from current high prices to an ambitious \$100





per ton. This strategic investment not only supports emerging climate technologies but also demonstrates how traditional industries can become unexpected heroes in the fight against global warming, potentially paving the way for removing billions of tons of CO<sub>2</sub> annually.

### **3. EU's Packaging Revolution: Transforming Waste into Opportunity**

The European Union has unveiled groundbreaking regulations that will fundamentally reshape packaging waste management, targeting a comprehensive transformation by 2030. Mandating 100% recyclable packaging, the new rules will dramatically reduce single-use plastics, require up to 65% recycled content in plastic bottles, and introduce strict bans on items like mini hotel toiletries and pre-packed fruit packaging. This ambitious framework goes beyond waste management, representing a strategic shift towards a circular economy that aims to prevent waste generation entirely. By setting binding targets for recycling, re-use, and waste reduction, the EU is positioning itself as a global leader in sustainable packaging practices, turning environmental challenges into innovative solutions.

## **News from India**

### **1. India's Solar Revolution: Homegrown Energy Takes Center Stage**

India is set to transform its clean energy landscape with a groundbreaking policy mandating locally-produced solar cells in all projects from June 2026. Aimed at reducing the current 70% dependence on Chinese solar components, this strategic move will dramatically boost domestic



manufacturing capacity, with projections showing solar panel production reaching 95 GW by 2025. Major players like Tata Power, Reliance Industries, and Adani Group are rapidly expanding their solar cell production, supporting India's ambitious goal of

reaching 500 GW of non-fossil fuel capacity by 2030. This bold initiative not only strengthens India's renewable energy sector but also positions the country as a global leader in sustainable technology and economic self-reliance.

## 2. Tata Power and Bhutan: Powering a Clean Energy Future



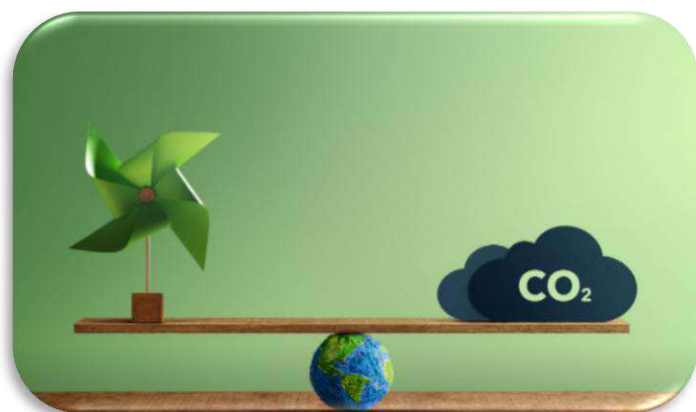
Tata Power has signed a groundbreaking partnership with Bhutan's Druk Green Power Corporation to develop 5,000 megawatts (MW) of clean energy generation capacity. This ambitious project is a significant step towards Bhutan's goal of reaching 25,000 MW of electricity generation by 2040. While the partnership includes a 500 MW

solar power component, the majority of the project focuses on hydropower, with four major hydroelectric projects: 1,125 MW Dorjilung HEP, 740 MW Gongri Reservoir, 1,800 MW Jeri Pumped Storage, 364 MW Chamkharchhu IV.

The collaboration not only aims to diversify Bhutan's energy mix beyond traditional hydropower but also strengthens regional energy security. As noted by Tata Power's CEO Dr. Praveer Sinha, this partnership represents a milestone in clean energy cooperation between India and Bhutan, showcasing Tata Power's emerging role as a regional clean energy leader.

## 3. India's Renewable Energy Surge: A Global Clean Power Leader Emerges

India is rapidly establishing itself as a renewable energy powerhouse, with remarkable growth in clean energy deployment. Between April and November 2024, the country added nearly 15 gigawatts (GW) of renewable energy capacity – almost double the previous year's figure. Notably, November





2024 alone saw 2.3 GW of new capacity added, a four-fold increase from the same month in 2023.

Union Minister Pralhad Joshi highlighted India's significant achievements, revealing that the total installed non-fossil fuel energy capacity has reached 214 GW, representing a 14% year-on-year increase. Despite being a major coal resource holder, India maintains one of the lowest per capita emissions globally – just one-third of the global average.

Key initiatives driving this growth include:

- A Production-Linked Incentive scheme worth INR 24,000 crore
- Establishment of 50 solar parks with a cumulative 38 GW capacity by 2025-2026
- PM Surya Ghar Muft Bijli Yojana targeting 1 crore solar installations by 2026-2027

The government remains committed to its ambitious goal of achieving 500 GW of non-fossil fuel-based capacity by 2030, positioning India as a global leader in the renewable energy transition.



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