

China's Steel Industry Emissions Surge by 4.1% in 2024 Amid Production Decline

Updated on: Jan 22, 2025

Synopsis: Despite a decrease in steel production, China's steel industry saw a 4.1% rise in emissions in 2024. Increased reliance on blast furnace capacities over electric arc furnaces led to higher emissions, as the sector's environmental footprint remains a challenge.

Satellite-Empowered Carbon Monitoring: Tracking Europe's Steel Plants' Emissions with TROPOMI

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Synopsis: The Dutch TROPOMI space instrument is transforming the way we track carbon monoxide emissions, with its ability to map emissions from Europe's largest steel plants. This advanced satellite technology offers a reliable, transparent, and consistent method for monitoring emissions, supporting government efforts to enforce climate regulations and help industries comply with international agreements like the Paris Climate Accord.

DAVID ROL's Green Steel Revolution: Partnering with ArcelorMittal for a Sustainable Future

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Synopsis: DAVID ROL, a French manufacturer, has partnered with ArcelorMittal to integrate XCarb® recycled steel tubes into its products, significantly reducing carbon emissions. This move aligns with DAVID ROL's sustainability goals and highlights its commitment to supporting global CO₂ reduction targets.

Nel Hydrogen Secures \$7 Million Order for PEM Electrolysers for US Steel Mill

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Synopsis: Nel Hydrogen US has received a \$7 million purchase order for two PEM electrolysis units from a major US steel producer. The units will be used for hydrogen production at a new steel mill, continuing Nel's partnership with the customer.

Steel Slag: A Surprising Ally in the Battle Against Climate Change

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Synopsis: A byproduct from steel production, steel slag, is now being used to help reduce carbon emissions. By accelerating the natural process of carbon capture, steel slag can absorb large amounts of CO₂, turning it into a stable form of calcium carbonate. Companies like Alkali Earth are tapping into this potential to not only reduce the carbon footprint of steel production but also sell carbon credits to fund their efforts.

Czech Billionaire Daniel Kretinsky Eyes Uniper Amid German Government's Stake Sale

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Synopsis: Czech billionaire Daniel Kretinsky, through his energy holding EPH, is one of the contenders to purchase a majority stake in Uniper, the German energy giant that was nationalized during Europe's energy crisis in 2022. Germany, currently holding 99.12% of Uniper, is considering selling its share in what could be one of Europe's largest deals in 2025.

China's Unyielding Commitment to Global Cooperation: Defending WHO and the Paris Climate Accord Amid US Withdrawal

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Synopsis: On January 21, 2025, China reaffirmed its commitment to the World Health Organization and the Paris Climate Accord, following US President Donald Trump's orders to withdraw from both international frameworks. Trump's decision, made on his first day back in office, was a continuation of his stance against global cooperation on health and climate issues. In contrast, China emphasized the importance of international collaboration and pledged to support these organizations in their global efforts.

The Paris Climate Agreement: What It Covers, What It Doesn't, & the Impact of US Withdrawal

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Synopsis: The Paris Climate Agreement, formed in 2015, seeks to curb global warming by limiting emissions of greenhouse gases like carbon dioxide. The agreement is structured to allow each country to voluntarily set and update their emission reduction targets, fostering wide participation. While this flexible framework has made it easier for nations to join, it also leaves room for insufficient action. The withdrawal of the United States under President Donald Trump raised significant concerns about global climate

leadership, especially considering the U.S.'s historical role as a major emitter and economic power.

The Paris Climate Agreement: Flexibility Over Exit as Nations Navigate Environmental Commitments

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Synopsis: The Paris Climate Agreement allows countries to set their own carbon emission targets, which can be revised without penalties. This flexibility provides nations with the autonomy to take climate action based on their own circumstances. Despite President Trump's decision to withdraw for the second time, the Paris Agreement's non-binding nature renders such exits unnecessary, leaving the future of global climate collaboration in question.

UAE's Groundbreaking Carbon Emission Reduction Certificates Pave the Way for a Sustainable Future

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Synopsis: Etihad Rail, the developer and operator of the UAE National Railway Network, has launched the region's first-ever "CO₂ Emission Avoidance and Reduction Certificates." These certificates offer a measurable and transparent way for businesses to quantify their carbon savings from choosing rail transport over other forms of transport. This initiative supports the UAE's Net Zero by 2050 strategy, aligning with international climate goals and helping businesses improve their sustainability efforts.

Cryosphere Crisis: The International Year of Glaciers' Preservation to Combat Melting Ice

Updated on: Jan 22, 2025

Synopsis: On January 21st, 2025, UNESCO and the World Meteorological Organization launched the International Year of Glaciers' Preservation to raise awareness of the critical role glaciers play in providing freshwater to over 2 billion people. As glaciers rapidly melt due to climate change, this initiative seeks global action to protect these vital resources for environmental, economic, and cultural sustainability.

Aviation's Decarbonization Odyssey: Sustainable Aviation Fuel and the Path to Net-Zero Emissions

Updated on: Jan 22, 2025

Synopsis: A recent study by MIT researchers reveals that Sustainable Aviation Fuel is a key solution for reducing aviation's carbon emissions, particularly in Latin America where air travel is projected to grow significantly. While SAF has the potential to cut emissions by 60% by 2050, achieving net-zero aviation emissions by that time will require extensive investments, operational improvements, and regional policy support to make SAF commercially viable.

Harnessing Solar Energy for Methane Conversion: A Breakthrough in Green Alcohol Production

Updated on: Jan 22, 2025

Synopsis: A revolutionary method to convert methane into valuable alcohols like ethanol using solar energy has been developed by researchers. This new approach uses a photocatalytic system to selectively transform methane into ethanol, a more valuable chemical, while overcoming significant scientific and practical challenges.

Harnessing Earth's Subsurface: MIT's Revolutionary Method to Create Clean Ammonia

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Synopsis: MIT engineers have proposed a groundbreaking method to produce clean ammonia by utilizing Earth's natural heat, pressure, and minerals underground, avoiding the fossil-fuel-heavy processes typically used in ammonia production. This innovation could significantly reduce carbon emissions from ammonia manufacturing and offer a sustainable path for global fertilizer production.