

## **Hydrogen Plasma in Steel Production: A Cutting-Edge Solution to Emission-Free Metal Manufacturing**

March 10, 2025

Synopsis: Steel is a fundamental material used across industries—from infrastructure to automotive. However, the production process is one of the leading sources of carbon dioxide (CO<sub>2</sub>) emissions globally, responsible for roughly 7% of total CO<sub>2</sub> emissions. The traditional method of producing steel uses carbon, often from coal or coke, to reduce ores and extract metals. This method results in significant CO<sub>2</sub> emissions, making steel production a critical target for sustainable technologies. Hydrogen plasma, an innovative approach, offers a potential solution to decarbonize the steel industry by replacing carbon with hydrogen, producing nearly zero emissions in the process.

## **Michael Sheen Clears \$1 Million Debt for 900 South Wales Residents Impacted by Tata Steel Closure**

March 10, 2025

Synopsis: Hollywood actor Michael Sheen has taken an extraordinary step to support his hometown of Port Talbot in South Wales by clearing \$1 million worth of debt for 900 individuals affected by Tata Steel's closure. The actor, known for his roles in *Twilight* and *A Very Royal Scandal*, went beyond mere donations by launching a debt acquisition company, helping people trapped by the harsh realities of a predatory debt system.

## **ArcelorMittal Brazil Launches Babilonia Centro Wind Farm in Bahia**

March 10, 2025

Synopsis: ArcelorMittal Brazil has begun operations at the Babilonia Centro Wind Farm located in Bahia. The project, a joint venture with Casa dos Ventos, features 28 wind turbines and started operating 13 weeks ahead of schedule. ArcelorMittal now generates 85% of the energy needed for its Brazilian operations from renewable sources.

## **China's Bold Move to Expand Its National Carbon Market for a Greener Future**

March 10, 2025

Synopsis: China, the world's largest emitter of greenhouse gases, is taking significant steps to enhance its environmental sustainability efforts. The country intends to expand its national carbon market to include more sectors and promote lower carbon emissions. This ambitious plan is expected to make a substantial contribution to reducing China's carbon footprint and provide a model for other nations to follow in the fight against climate change.

## **Poilievre's Stark Warning: Liberals' Carbon Tax Could Propel Canadian Steel Industry Into Trump's Arms**

March 10, 2025

Synopsis: Pierre Poilievre, the Conservative leader of Canada, has raised alarm over the Liberal government's carbon tax, claiming it could push Canadian steel firms into aligning with U.S. President Donald Trump's policies. The tax, according to Poilievre, risks destabilizing Canada's steel industry by raising costs, making companies vulnerable to external pressures that could threaten Canada's sovereignty and economic autonomy.

### **IAS Hosts Intensive Electric Arc Furnace Course to Master Steelmaking's Future Trends**

March 10, 2025

Synopsis: The Instituto Argentino de Siderurgia is hosting a comprehensive Electric Arc Furnace course from April to May 2025. This virtual course will delve into the core principles of EAF technology, covering its historical development, operational mechanisms, and its role in the sustainable future of steel production. With English translation available, the course is open to a global audience of professionals looking to master EAF technology's innovations and applications.

### **Chhattisgarh's Floating Solar Revolution: Bhilai Steel Plant Pioneers Green Energy**

March 10, 2025

Synopsis: Chhattisgarh is leading the charge in renewable energy with the state's first floating solar power plant at the Bhilai Steel Plant, marking a significant shift towards sustainable energy. This project aims to reduce carbon emissions, enhance solar panel efficiency, and provide eco-friendly power to one of India's largest steel producers.

### **Pioneering Off-Site PPA Agreement: Třinecké Železárny Partners with ČEZ ESCO for Clean Energy Transition**

March 10, 2025

Synopsis: ČEZ ESCO has signed its first off-site Power Purchase Agreement with Třinecké Železárny, the largest steel manufacturer in the Czech Republic. This partnership will supply the steelworks with 4.4 GWh annually of emission-free electricity from ČEZ's Vrskaň photovoltaic plant. The move is a significant part of Třinecké Železárny's commitment to reducing energy consumption and advancing its sustainability efforts.

### **Trump's Challenge to Biden's Climate Legacy: Will America's Clean Energy Momentum Persist?**

March 10, 2025

Synopsis: President Donald Trump has signed multiple executive orders reversing key climate initiatives from the Biden administration, such as exiting the Paris Climate Agreement and halting offshore wind leases. Despite these efforts, some of Biden's climate policies, such as fuel efficiency standards and the Inflation Reduction Act, may prove difficult to dismantle or face legal challenges. The momentum behind Biden's clean energy transition may slow under Trump but is unlikely to be fully reversed, experts argue.

### **US Banks Retreat from Net Zero Commitment: Will New Climate Laws Force Accountability?**

March 10, 2025

Synopsis: The six largest U.S. banks, Bank of America, Citigroup, Goldman Sachs, JP Morgan, Morgan Stanley, and Wells Fargo, have withdrawn from the United Nations' Net Zero Banking Alliance, which aimed for net-zero emissions by 2050. The banks' exit comes after conservative lawmakers and regulators pressured them over ESG initiatives. This move has spurred calls for stronger climate regulations, as critics argue that voluntary initiatives are insufficient to drive real change in reducing emissions and holding banks accountable for financing fossil fuels.

### **Green Bonds Unveiled: Driving Carbon Neutrality & Renewable Energy in China & the USA**

March 10, 2025

Synopsis: This study investigates the impact of green bonds in reducing CO<sub>2</sub> emissions and promoting renewable energy generation in China and the USA, the largest issuers of green bonds and CO<sub>2</sub> emitters. By applying nonlinear quantile methods, the research shows that green bonds have significantly reduced transportation-related CO<sub>2</sub> emissions in both countries. It also boosted solar and wind electricity generation in China but had limited effectiveness in the USA. These findings offer valuable insights for policymakers aiming to achieve carbon neutrality and increase the share of renewable energy.

### **Repositioning Coal Power to Propel China's Net-Zero Transition: A Pathway to a Sustainable Future**

March 10, 2025

Synopsis: China's transition to a net-zero power system is an ambitious challenge, largely due to its heavy dependence on coal. This article examines how repositioning coal power plants, changing their role from baseload providers to flexibility providers, can facilitate the integration of renewable energy, reduce system transition costs, and mitigate stranded assets. Using advanced modeling techniques, the study proposes a

pathway for China's energy transition that considers both economic and environmental implications.

### **Global Heatwave in Spring 2025: La Niña Fades, Unprecedented Temperatures Loom**

March 10, 2025

Synopsis: As the La Niña weather event begins to fade, the world is bracing for a spring and early summer marked by above-average temperatures. This shift, influenced by natural climate events like La Niña and human-driven climate change, is expected to bring intensified heat, especially across the U.S. Southwest. Regions such as Arizona, New Mexico, and Texas are set to experience temperature surges up to 4 degrees higher than historical norms. These changes may exacerbate drought conditions and threaten agricultural productivity, while the Pacific Northwest will see colder-than-usual weather. This article explores the impact of La Niña's fade and the ongoing global heat trend.

### **Verdant Exodus: Decoding the Paradoxes of China's Coal Power Phaseout & Its Impact on Socio-Economics & Well-Being**

March 10, 2025

Synopsis: This study explores the dual socio-economic and well-being effects of China's coal power phaseout between 2014 and 2020. While rural and urban incomes saw declines of 3.1% and 1.9%, respectively, individuals reported improved happiness and life satisfaction. The findings highlight a paradox where macroeconomic challenges coexist with better subjective well-being, stressing the importance of equitable decarbonization policies.

### **The Antarctic Circumpolar Current: Earth's Oceanic Juggernaut Faces a Threatened Slowdown by 2050**

March 10, 2025

Synopsis: The Antarctic Circumpolar Current is a critical force in the global climate system, connecting the world's major oceans and playing a pivotal role in nutrient distribution and climate regulation. A new study forecasts that climate change could slow this powerful current by 20% by 2050. Melting Antarctic ice, along with warming oceans, could disrupt its flow, leading to increased climate variability, accelerated global warming, and threats to marine biodiversity. While further research is needed, this study raises serious concerns about the future of our planet's climate and ecosystems.

### **Tata Motors' Hydrogen Trucks Trial: Pioneering India's Green Mobility Future**

March 10, 2025

Synopsis: Tata Motors has launched India's first-ever hydrogen-powered truck trials, aiming to revolutionize the country's freight transportation sector. The 16 trucks, featuring advanced hydrogen combustion and fuel cell technologies, will be tested on major routes across India for the next two years, under the National Green Hydrogen Mission. This initiative aligns with India's vision of achieving net-zero emissions by 2070 and promises to accelerate the transition to sustainable, clean, and smart mobility in the trucking industry.

### **Lhyfe & INOCEL Forge Green Hydrogen Alliance to Propel Sustainable Power Generation**

March 10, 2025

Synopsis: Lhyfe, a global leader in renewable green hydrogen production, has signed a four-year contract with INOCEL to supply up to 140 metric tons of green hydrogen. This partnership will support the development of INOCEL's advanced fuel cells, which are crucial for decarbonizing mobile and stationary power generation across various industries. By combining hydrogen with oxygen, these fuel cells generate electricity without producing CO<sub>2</sub> emissions, offering clean energy for sectors such as mobility, maritime, and stationary power generation.

### **Morocco's Bold Green Hydrogen Leap: \$32 Billion Investment Across 6 Groundbreaking Projects**

March 10, 2025

Synopsis: Morocco has selected six major green hydrogen projects in the Sahara, totaling \$32 billion. Led by national and international firms, these projects aim to produce ammonia, fuel, and steel as part of Morocco's ambitious green hydrogen strategy. The projects are set to transform Morocco into a key player in the global energy market.

### **Harnessing Sunlight: Artificial Photosynthesis Marks Breakthrough in Green Hydrogen Production**

March 10, 2025

Synopsis: Researchers at the University of Trento have made a significant advancement in artificial photosynthesis, a promising process for producing clean hydrogen without relying on fossil fuels. Their innovative use of graphitic carbon nitride (g-C<sub>3</sub>N<sub>4</sub>), a sustainable photocatalyst, has shown superior performance in producing hydrogen from water, driven by sunlight. This discovery could accelerate the transition to green hydrogen, offering a cleaner, sustainable energy future.

### **Olectra Greentech Orders Over 2,000 Electric Bus Chassis from BYD, Cementing Green Mobility Leadership**

March 10, 2025

Synopsis: Olectra Greentech, a leading Indian electric bus manufacturer, has placed a significant order for 2,325 electric bus chassis from BYD, citing the Blade battery's superior safety and performance. The collaboration highlights the growing importance of electric mobility in India's public transport sector. This move comes as Olectra continues to expand its electric fleet across the nation, contributing to cleaner, greener urban mobility solutions.