TERI Hosts Global Research Leaders at the 6th RD20 Conference: Accelerating Clean Energy Collaboration Among G20 Countries

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The 6th RD20 Conference, a prestigious global forum for advancing clean energy technologies, began today at the India Habitat Centre, New Delhi. Organized by The Energy and Resources Institute (TERI), in collaboration with the Ministry of New and Renewable Energy (MNRE), this is the first time the conference is being held outside Japan, highlighting India's leadership in global energy innovation. Over five days, leading research institutions, industry experts, and policymakers from G20 nations will convene to explore innovative pathways for achieving carbon neutrality through

enhanced international collaboration in the clean energy domain.

Global research leaders at the inaugural session

Launched in 2019, the RD20 platform serves as a global hub for exchanging ideas, research, and best practices to address pressing energy challenges. It facilitates international collaborations that accelerate the development and deployment of cutting-edge technologies, particularly in domains such as green hydrogen, sustainable biofuels, life cycle analysis (LCA), and renewable energy.

Dr Vibha Dhawan, Director General, TERI, welcomed the participants and stressed the importance of innovation. *As a member of the RD20 institution hosting the RD20 Conference in India is a significant milestone, reflecting TERI's commitment of advancing research and deploying clean energy technologies. We follow the green path and want to show to the world that development is possible along with reducing the carbon footprint*," she said.

In his inaugural address, **Shri PK Singh, Secretary, Ministry**

of New and Renewable Energy (MNRE), and the '**Guest of Honour**' for the event, expressed that MNRE has shaped the renewable energy space in the country and is helping India move towards deployment of clean energy. *It is great to see India hosting the RD20 for the first time, with focus on biofuel, bioenergy and green hydrogen, a subject we are passionate about. We intend to emerge as a global leader in this field and work together for a cleaner and greener world*," he further added.

The first day's technical sessions included discussions on green hydrogen technologies and sustainable biofuels. Leading the session on hydrogen, **Mr Pierre Serre-Combe, Deputy Director, CEA, France**, said, "*Green hydrogen is a unique solution to reach the challenging net zero goals. The goal is to identify technical barriers and challenges for hydrogen transportation, storage, and end-use, R&D efforts to address those barriers, and potential collaboration opportunities.*"

Shri Alok Sharma, Director of R&D, Indian Oil Corporation Ltd. (IOCL), discussed on the various facets of hydrogen opportunities and challenges from the Indian perspective. Sharing his insights on the National Green Hydrogen Mission, he emphasized, "*The outlay for different hydrogen projects, is Rs 455 crore up to 2029-30 for low carbon steel projects, Rs 496 crore up to 2025-26 for mobility pilot projects, Rs 115 crore up to 2025-26 for shipping pilot projects and Rs 400 crore up to 2025-26 for hubs and other projects*.

Discussing the advancements in biofuels and their contribution to a circular economy, **Dr Sangita Kasture, Advisor and Head of Bioenergy, MNRE**, remarked, "*We need to work together within India, both domestically and internationally, as innovations are key for achieving high performance in bio-refineries. Collaboration is essential to address recent challenges, and increased investments from both the public and private sectors are crucial for enhancing the share of bioenergy in the renewable energy landscape*.

The technical session on hydrogen highlighted sustainable solutions for a circular economy. **Prof Dr Christopher** Hebling from Fraunhofer Institute, Germany shed light on the global challenges and solutions in the hydrogen sector. Speaking on the drivers for expected globally increased energy demand, he noted, *"We cannot just come down and decrease our energy demand. There are many drivers – electrification & increasing energy demand, hydrogen-based energy carriers and chemical feedstock, artificial intelligence, negative emission technologies, space emissions and increase in use for seawater desalination.*

Afternoon sessions discussed about India targets for sustainable energy transition through green energy. **Dr AK Tripathi, Scientist G, MNRE**, said, *"India aims to achieve net zero emissions by 2017, with a short-term goal of 500 gigawatts, through non-fossil fuel-based energy systems. By 2030, the country aims to reduce cumulative electric power instalment to 50% fossil fuel resources, with 46% already achieved. The fourth target is to reduce GDP emission intensity by 45% of 2005 levels. India is working on reducing fossil fuel consumption in major sectors, such as electricity generation and gas production.*

Dr Mitsuharu Oguma from AIST, Japan, discussed biodiesel, its feedstock, properties, and the importance of controlling fuel quality, emphasizing its relevance in various countries. He said, *"ERIA (Economic Research Institute for ASEAN and East Asia), is an international initiative aimed at controlling pollution. Additionally, there are effects of oxidation stability on fuel tank corrosion, specifically referencing BBD (Biodiesel Blend Diesel)."*

The RD20 Conference aims to build joint research initiatives, address shared challenges, and foster partnerships among academia, industry, and governments. The event will culminate in a closed-door leader's session workshop, where G20 members will chart actionable collaborations to overcome technical,

policy, and economic barriers in clean energy.

Continuing until December 6, the conference features technical sessions, policy dialogues, collaborative discussions, technical sessions and technical site tour that will shape the roadmap for international cooperation in clean energy. TERI, as India's representative in RD20, continues to advance impactful projects, reinforcing the country's leadership in the global transition to carbon neutrality.

About TERI

The Energy and Resources Institute (TERI), based in India, is an independent, multi-dimensional research organization with capabilities in policy research, technology development, and implementation. An innovator and agent of change in the energy, environment, climate change and sustainability space, TERI has pioneered conversations and action in these areas for nearly five decades. Headquartered in New Delhi, it has centres in six Indian cities, and is supported by a multi-disciplinary team of scientists, sociologists, economists, engineers, administrative professional and state-of-the-art infrastructure.