



IEEN NEWSLETTER

INTERNATIONAL HYDROGEN ENERGY EXPERT SEMINAR: BUILDING INTERNATIONAL PARTNERSHIPS FOR HYDROGEN ENERGY HARVESTING

On June 26, 2023, the 2023 Hydrogen Energy Expert Seminar, an annual forum organized by the International Energy Expert Network (IEEN), was convened on Jeju Island. This seminar ran in parallel with the 2023 KIEA International Summer Conference and was jointly hosted by the Korea International Economic Association (KIEA). Its primary purpose was to serve as a platform for experts in the field of hydrogen energy, representing various nations including South Korea, China, Kenya, Sri Lanka, and Mongolia. The central focus was to establish a collaborative network and explore opportunities for cooperation within the hydrogen industry and policy development context, with a specific emphasis on fostering synergy between South Korea and emerging economies.



Under the guidance of Professor Yoon Hee Ha, who serves as the director of the BK21 Education Research Center for Sustainable Energy Resource Technology-Policy-Data and holds the position of organizing chair of the IEEN, the seminar set forth several key objectives. These encompassed the promotion of hydrogen economy and ecosystem, dissemination of the most recent national insights pertinent to related business sectors, facilitation of discussions concerning collaborative models, and augmentation of accessibility and participation levels for both domestic and international energy entities and experts. Ultimately, the seminar sought to delineate practical pathways for expanding networking engagement, unveiling prospective business avenues, and facilitating international expansion within the hydrogen energy sector.



KEY HIGHLIGHTS FROM PRESENTATIONS:



Bumhee An, Senior Vice President, Korea National Oil Corporation

Korea's government is actively planning to establish a clean hydrogen and ammonia infrastructure, focusing on blue hydrogen to open up the hydrogen market. The plan includes securing overseas hydrogen plants and utilizing CCS projects to serve as carbon storage facilities. Clean energy hub infrastructures will be developed to supply hydrogen and ammonia to power plants.

Young-ju Kim, Assistant Vice President, Korea Electric Power Corporation

Korea's carbon-neutral policy prioritizes hydrogen and ammonia as core elements in overcoming the energy trilemma and energy transition. Korea Electric Power Corporation (KEPCO) aims to utilize hydrogen and ammonia in both upstream and downstream sectors, reduce equipment conversion, develop hydrogen blending technology, and seek technological and financial cooperation with Southeast Asian countries.



Dong Paeng, Team Head, SK E&S

SK E&S is committed to expanding its eco-friendly energy business and advancing its hydrogen business to a global level. They intend to overcome geographical constraints by utilizing blue hydrogen and green hydrogen produced from renewable sources. SK E&S plans to build an LNG-based blue hydrogen cluster in Boryeong, South Korea, and has established a joint venture with the U.S. hydrogen company Plug to produce hydrogen fuel cells and electrolysis equipment.

Chang-se Kim, Director, Jeju Special Self-Governing Province

Jeju Island is focusing on becoming a green hydrogen global hub to ensure energy security and contribute to achieving national renewable energy goals. They are actively pursuing projects such as a 3 MW green hydrogen production facility and a 12.5 MW green hydrogen production project. Jeju also plans to introduce hydrogen buses, clean vehicles, and expand its usage to trucks and ships.



Chunji Xuan, Associate Professor, Jilin University

China has designated hydrogen energy as a key industry and is one of the world's largest hydrogen producers. However, a significant portion of hydrogen production in China is grey hydrogen, and hydrogen technology advancement remains incomplete. China's government has outlined key policy objectives through its medium and long-term hydrogen development plan, including green hydrogen production and hydrogen vehicle deployment.

Jane Nyaboke Mbogo, Senior Research Engineer, Kenya Electricity Generating Company PLC., Kenya

Kenya's green hydrogen economy development emphasizes five critical elements: national vision, regulatory reinforcement, innovation and technology support, improved access to low-cost funding, and the promotion of key infrastructure construction. Kenya is currently planning its green hydrogen strategy, leveraging its geothermal resources for green hydrogen production, which is expected to be cost-effective. However, challenges include the absence of hydrogen-related infrastructure and the relatively small domestic market.



Harshanath Dayan Karunarathna Kandeheyalage, Research Engineer, Sustainable Energy Authority, Sri Lanka

Sri Lanka is highlighted as having significant potential in green hydrogen production and exports. The country is considering green hydrogen production through offshore and onshore wind power projects and is strategically located for international hydrogen trade. Sri Lanka is eager to collaborate with South Korea and is currently in the process of developing hydrogen policies and roadmaps, with announcements expected later this year.

Lkhagvademberel Battsengel, Department Head, National Power Transmission Grid Company, Mongolia

Mongolia's energy sector faces challenges as it imports 20% of its electricity from China and Russia, with high energy demand during long and harsh winters. Mongolia's government is actively planning to implement green hydrogen production as part of its New Recovery Policy, focusing on harnessing its abundant renewable energy resources. However, constraints include policy inconsistencies, the absence of legal frameworks, limited autonomous investment decisions, water scarcity, and a lack of hydrogen-related research. Mongolia aims to develop a green hydrogen industry to meet regional demand for clean energy.

