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Jeonbuk-do, international cooperation in the field of sulgeon sea and green hydrogen... A stepping stone for the Jeonbuk hydrogen industry to enter the world

[Korea Hydrogen Environment Newspaper] Jeonbuk Special Self-Governing Province has joined hands with India's leading energy companies to accelerate the entry of hydrogen companies in the province into the global market. This cooperation is expected to be an important turning point for the Jeonbuk hydrogen industry to secure competitiveness in the international stage and leap into the global market.

[Korea Hydrogen Environment Newspaper] Jeonbuk Special Self-Governing Province has joined hands with India's leading energy companies to accelerate the entry of hydrogen companies in the province into the global market. This cooperation is expected to be an important turning point for the Jeonbuk hydrogen industry to secure competitiveness in the international stage and leap into the global market.

On the 29th, Jeonbuk Province announced that it had signed a business agreement (MOU) with GH2 Solar and KPI Green Hydrogen & Ammonia, a major energy company in India, with Ahes Co., Ltd., a hydrogen company in the province.

Governor Kim Kwan-young and CEO of Ahes Co., Ltd. Lee Jung-hee, CEO of GH2 Solar's Anurag Jain, President of KPI Green Hydrogen & Ammonia's Robbi Rajasekharam, President of KP Group Moinul & former director of both sides attended the ceremony.

Through this agreement, Jeonbuk-guk-do and participating companies agreed to cooperate with each other in ▲exchange of water-electric hared facilities technology ▲promotion of joint projects in the green hydrogen field ▲expanding the local market in Indo. This MOU is expected to be an opportunity for the Jeonbuk hydrogen industry to build a global cooperation network beyond a simple local industry.

Ahes Co., Ltd. is a company specializing in alkaline water-fired stacks, and after signing an export contract with GH2 Solar for a total of 376.5 billion won for 5 years last year, it has recently achieved a real result of 2 billion

won and has entered the Indian market in earnest. GH2 Solar is an Indian company focusing on solar EPC and green hydrogen and energy storage system business, and won a 525MW water supply project from the Energy Corporation of India (SECI) in 2024.

KP Group, headquartered in Gujarat, India, is a global energy and infrastructure company that has secured a renewable energy generation capacity of 7.26GW. We are promoting the production of green hydrogen and ammonia based on water-based water through its subsidiary KPI Green Hydrogen & Ammonia.

With this agreement as an opportunity, the province plans to expand the support for hydrogen companies in the province to enter overseas markets, and actively support international joint projects and market development. Through this, while increasing the competitiveness of the company, it is also expected to create jobs for young people and research personnel in the region. The expansion of the industrial ecosystem centered on the hydrogen industry is expected to revitalize the entire Jeonbuk economy.

Kim Gwan-young, Governor of Jeonbuk Province, said, "This agreement is a cooperation model that combines the technology of Jeonbuk hydrogen companies with India's capital and market, and it will be an important opportunity for Korean companies to leap into the global market." "Jeollabuk-do will continue to foster the hydrogen industry as a new growth engine in the future through corporate support and strengthening global networks."

pv magazine

The Hydrogen Stream: KP Group signs MoU with Korea's Jeonbuk province, AHES, and GH2 Solar

KP Group has signed a Memorandum of Understanding (MoU) with South Korea's Jeonbuk State, South Korea's AHES Co., Ltd., and GH2 Solar to collaborate on the large-scale deployment of electrolysis-based green hydrogen solutions.

OCTOBER 6, 2025 UMA GUPTA AND SERGIO MATALUCCI

KP Group

KP Group has signed a Memorandum of Understanding (MoU) with South Korea's Jeonbuk State, South Korea's AHES Co., Ltd., and GH2 Solar to collaborate on the large-scale deployment of electrolysis-based green hydrogen solutions.

'Under the MoU, Jeonbuk State will implement supportive policies and support the enhancement of the technological capabilities of electrolyser companies, while AHES will supply high-quality, efficient, and reliable alkaline electrolyser stacks, along with manufacturing expertise, technology, and long-term operational know-how," stated KP Group. "GH2 Solar will promote Balance of Plant (BoP) manufacturing and support commissioning of electrolyser systems. KPI Green Hydrogen & Ammonia will invest in and establish large-scale green hydrogen production facilities using AHES electrolyser stacks."

Japanese researchers developed a solid hydrogen battery that operates at 90 °C, achieving reversible hydrogen gas absorption and release. The battery, with magnesium hydride (MgH2) as the anode and hydrogen (H2) gas as the cathode, uses a solid electrolyte, Ba0.5Ca0.35Na0.15H1.85, which can transport hydrogen ions. "This material has an anti-α-AgI-type crystal structure, well known for its superionic conductivity. In this structure, barium, calcium, and sodium occupy body-centered positions, while H– move through face-sharing tetrahedral and octahedral sites, allowing them to migrate freely," said the Institute of Science Tokyo. During charging, MgH2 releases H–, which migrate through the Ba0.5Ca0.35Na0.15H1.85 electrolyte to the H2 electrode, where they are oxidized to release H2 gas. During discharging, the reverse occurs: H2 gas at the cathode is reduced to H–, which move through the electrolyte to the anode and react with Mg to form MgH2. According to the researchers, the battery overcomes the high-temperature and low-capacity limits of earlier methods. The paper "High-capacity, reversible hydrogen storage using H−-conducting solid electrolytes" was published on *Science*.

Researchers at **Chung-Ang University** proposed chloride-resistant ruthenium (Ru)-based nanocatalysts for direct electrolysis and hydrogen production from seawater. "The crystalline/amorphous Ru heterostructure exhibits 37× higher activity than commercial Pt catalysts in alkaline water electrolysis, enabling cost-effective hydrogen generation," said the South Korean researchers. The team led by Haeseong Jang employed a g-C3N4-mediated pyrolysis strategy to synthesize nitrogen-doped carbon-supported Ru nanoclusters with a crystalline–amorphous heterostructure (a/c-Ru@NC). g-C3N4 serves as both a nitrogen source and a scaffold that anchors Ru^{3+} ions through N-coordination sites. "During pyrolysis, reductive gases released from g-C3N4 reduce Ru^{3+} in situ to metallic Ru nanoparticles, while Ru–N bonding disrupts atomic order in the core, forming an amorphous Ru phase."

Elcogen officially opened its solid oxide fuel cell (SOFC) factory on the outskirts of Tallinn, Estonia. The 14,000 m² facility increases Elcogen's available production capacity from 10 MW to 360 MW. "Elcogen's components – cells, stacks and modules – are integrated into third-party systems for a wide range of applications including distributed energy, off-grid and stationary power, industrial backup, green hydrogen production, and Power-to-X solutions," said the Estonian company.

The Electricity Generating Authority of Thailand (**EGAT**) and **Chulalongkorn** University signed a research fund agreement to research hydrogen production from renewable energy. "The collaboration aims to promote development focused on the environment, society, and governance guided by international standards, while also translating the principles into practical applications," said the Thai authority.

August Weckermann commissioned a new hydrogen plant at its Eisenbach site, Germany, based on a 300 kW electrolysis plant, hydrogen storage with a total capacity of 1.4 tonnes, and a fuel cell with an electrical output of up to 200 kW. The plant is part of a system also based on photovoltaics, and a redox flow battery with a storage capacity of 3,000 kWh. "The goal is to achieve a degree of self-sufficiency of up to 85 percent", said Bernard Gruppe, the German company commissioned with the process engineering planning, in an emailed press release.

RenewableWatch

KP Group inks agreements to explore opportunities in green hydrogen space

October 6, 2025

KP Group, through its subsidiary KPI Green Hydrogen and Ammonia, has inked agreements with several organisations, namely Jeonbuk Province, GH2 Solar Limited, and AHES Co Limited. Under this partnership, the companies aim to share expertise in water-based hydrogen production technology, collaborate on developing large-scale green hydrogen projects, and support the expansion of this clean fuel market in India and overseas.

Earlier this month, KPI Green Hydrogen & Ammonia Private Limited, a KP Group company, inked a MoU with AHES Co. Limited and GH2 Solar Limited to establish and operate a green ammonia production facility in India.

Furthermore, in the same month GH2 Solar Limited, in a joint venture with AHES Limited, announced to set up an electrolyser manufacturing facility in Gwalior, Madhya Pradesh.

SME STREET

KP Group Partners with South Korea Firms for Green Hydrogen

KP Group signs MoU with Jeonbuk State, AHES, and GH2 Solar to expand global green hydrogen production and advance sustainable energy collaboration.

KP Group, one of India's largest renewable energy conglomerates, signed a landmark Memorandum of Understanding (MoU) with South Korea's Jeonbuk State, South Korea's AHES Co., Ltd., and GH2 Solar Pvt. Ltd. to accelerate the expansion of the global green hydrogen (electrolyser) market. The MoU, signed in Jeonju, South Korea, establishes a collaborative framework to promote carbon neutrality, advance hydrogen-industry technology, and promote economic growth through the large-scale deployment of electrolysis-based green hydrogen solutions.

The ceremony was attended by Governor Kwan-young Kim of Jeonbuk State, AHES CEO Joong-Hee Lee, GH2 Solar's Director Anurag Jain, KPI Green Hydrogen & Ammonia's CEO, Robbi Rajasekharam, and KP Green Engineering's Whole Time Director Moinul Kadva.

Under the MoU, Jeonbuk State will implement supportive policies and support the enhancement of the technological capabilities of electrolyser companies, while AHES will supply high-quality, efficient, and reliable alkaline electrolyser stacks, along with manufacturing expertise, technology, and long-term operational know-how.

GH2 Solar will promote Balance of Plant (BoP) manufacturing and support commissioning of electrolyser systems. KPI Green Hydrogen & Ammonia will invest in and establish large-scale green hydrogen production facilities using AHES electrolyser stacks.

Dr. Faruk G. Patel, Chairman & Managing Director of KP Group, said, "This strategic partnership signifies an important leap towards a cleaner energy future. By combining Jeonbuk's policy leadership, AHES's proven electrolyser technology, GH2 Solar's market expertise, and KP Group's proven execution capabilities, we are creating a powerful global alliance. Together, we will accelerate the transition to green hydrogen and support India's vision to become a global hub for sustainable energy."

The Jeonbuk State government views this agreement as a gateway for Korean hydrogen companies to expand internationally, enhance competitiveness, create jobs, and establish a global cooperative network in the green hydrogen sector.

The MoU marks a significant step for Surat-headquartered KP Group, which already has ~6+ GW of executed and under-development renewable energy capacity. Through KPI Green Hydrogen & Ammonia, the Group is driving large-scale electrolysis-based hydrogen and ammonia production. The company is on track to commission a green hydrogen plant by the end of this year.

The latest MoU comes just weeks after KP Group entered into a strategic partnership with AHES and GH2 Solar to establish and operate a Green Ammonia plant with a capacity of 1 lakh tonnes per annum.

RENEWABLE MIRROR
An Outlook of the Renewable & Green Energy

KP Group Signs Landmark Green Hydrogen MOU with South Korea's Jeonbuk Province

KP Group, GH2 Solar, and AHES Co., Ltd. sign MoU with Jeonbuk Special Self-Governing Province to boost global green hydrogen cooperation.

KP Group, through KPI Green Hydrogen & Ammonia, signed a landmark Memorandum of Understanding (MOU) with Jeonbuk Special Self-Governing Province, South Korea, along with energy leaders GH2 Solar Limited and AHES Co., Ltd.

This collaboration marks a pivotal step in strengthening international cooperation for clean energy, especially in the emerging global green hydrogen sector.

The agreement establishes a robust framework for advancing Technology exchange in water electrolysis and hydrogen facilities, Expansion of the green hydrogen market across India and international geographies, and Joint development of large-scale green hydrogen projects.

His Excellency Kim Kwan-young, Governor of Jeonbuk Province, remarked, "This agreement is a cooperation model that combines the technology of Jeonbuk hydrogen companies with India's capital and market, and it will be an important opportunity for Korean companies to leap into the global market."

Commenting on the partnership, Dr. Faruk G. Patel, Chairman & Managing Director of KP Group, said: "This agreement is a synergy of vision and execution. By combining the advanced technological expertise of our Korean partners with India's vast market opportunities and KP Group's proven strength in renewable execution, we are accelerating the global shift towards a sustainable hydrogen economy. This aligns perfectly with our 'Vision Forward' strategy and India's clean energy transition goals."

With a secured renewable portfolio of 6+ GW, including solar, wind, and hybrid assets, KP Group is uniquely positioned to scale up green hydrogen and ammonia production in India and beyond. This collaboration will Strengthen KP Group's leadership in renewable energy and green fuels, Enhance competitiveness in global green hydrogen markets, Generate employment opportunities across India and Korea.

For Jeonbuk Province, the agreement is expected to serve as a catalyst for boosting its local hydrogen companies in overseas markets, supporting youth employment and research, and revitalizing the regional economy through hydrogen ecosystem expansion.

KPI Green Energy, KP Energy, and KP Green Engineering, as part of the KP Group, are committed to shaping a sustainable future by delivering innovative renewable energy and infrastructure solutions for the development of green hydrogen and ammonia projects.

THE NEW INDIAN

KP Group Signs Landmark MoU with South Korea's Jeonbuk, AHES, and GH2 to Boost Global Green Hydrogen Expansion

New Delhi: Surat-headquartered KP Group, one of India's leading renewable energy conglomerates, has signed a landmark Memorandum of Understanding (MoU) with South Korea's Jeonbuk State, AHES Co., Ltd., and GH2 Solar Pvt. Ltd. to accelerate the growth of the global green hydrogen (electrolyser) market.

The MoU, inked in Jeonju, South Korea, aims to foster collaboration in carbon neutrality, hydrogen-industry technology advancement, and economic growth through large-scale deployment of electrolysis-based green hydrogen solutions.

The signing ceremony was attended by Governor Kwan-young Kim of Jeonbuk State, AHES CEO Joong-Hee Lee, GH2 Solar Director Anurag Jain, KPI Green Hydrogen & Ammonia CEO Robbi Rajasekharam, and KP Green Engineering Whole-Time Director Moinul Kadva.

Under the agreement, Jeonbuk State will implement supportive policies and enhance the technological capabilities of electrolyser companies. AHES will supply efficient alkaline electrolyser stacks and provide long-term operational know-how, while GH2 Solar will focus on Balance of Plant (BoP) manufacturing and electrolyser commissioning. KP Group's KPI Green Hydrogen & Ammonia will invest in and establish large-scale green hydrogen production facilities using AHES electrolyser stacks.

Dr. Faruk G. Patel, Chairman & Managing Director of KP Group, said, "This strategic partnership signifies an important leap towards a cleaner energy future. By combining Jeonbuk's policy leadership, AHES's proven electrolyser technology, GH2 Solar's market expertise, and KP Group's execution capabilities, we are creating a powerful global alliance. Together, we will accelerate the transition to green hydrogen and support India's vision to become a global hub for sustainable energy."

Jeonbuk State views this collaboration as a gateway for Korean hydrogen companies to expand internationally, enhance competitiveness, create jobs, and build a global cooperative network in the green hydrogen sector.

The MoU marks a significant milestone for KP Group, which already has around 6+ GW of executed and under-development renewable energy capacity. Through KPI Green Hydrogen & Ammonia, the Group is actively driving large-scale electrolysis-based hydrogen and ammonia production and is on track to commission a green hydrogen plant by the end of this year.

This agreement follows KP Group's recent strategic partnership with AHES and GH2 Solar to establish and operate a Green Ammonia plant with a capacity of 1 lakh tonnes per annum.

About KP Group
Founded in 1994 by Dr. Faruk G. Patel, KP Group has grown into a leading Indian conglomerate with a strong presence across Renewable Energy and Green Engineering. Over the past three decades, the Group has evolved from telecom foundations to becoming a key enabler of India's clean energy transition.

As India advances towards its "Net Zero" target by 2070, including 280 GW of solar and 140 GW of wind power, KP Group continues to play a vital role. With plans to commission over 10 GW of renewable energy by 2030, the Group remains committed to delivering sustainable solutions that power India's clean energy future.

CW CONSTRUCTION WORLD.in

KP Group Partners With South Korea On Green Hydrogen

07 Oct 2025 · 1 Min Read · CW Team

KP Group has announced a strategic international partnership with South Korea's Jeonbuk Province to strengthen cooperation in the green hydrogen sector. The agreement, signed on Tuesday, aims to advance the global clean energy ecosystem through technology collaboration and project development.

According to a company filing, KP Group, through its subsidiaries KPI Green Hydrogen and Ammonia, signed a Memorandum of Understanding (MoU) with Jeonbuk Special Self-Governing Province, GH2 Solar Ltd, and AHES Co Ltd. "This collaboration marks a pivotal step in deepening international cooperation for clean energy, particularly in the rapidly emerging green hydrogen sector," said KPI Green Energy.

The agreement focuses on technology exchange in water electrolysis and hydrogen facility development, along with the joint implementation of large-scale green hydrogen projects. It also includes plans to expand the green hydrogen market both in India and internationally.

The partnership underscores KP Group's growing commitment to renewable energy innovation and aligns with India's national ambition to become a global leader in green hydrogen production.