THE ENERGIZER – VOLUME 87

Date: 8 April 2021

Energy Alert

By: Natalie J. Reid

INDUSTRY STAKEHOLDERS ANNOUNCE FORMATION OF CLEAN HYDROGEN FUTURE COALITION

On 22 March 2021, a diverse group of energy industry stakeholders announced the formation of the Clean Hydrogen Future Coalition (CHFC). Comprised of some of the largest utilities and unions in the United States—including Duke Energy, Chevron, the International Brotherhood of Electrical Workers, the Tennessee Valley Authority, and Siemens Energy, among others—the CHFC's will promote clean hydrogen as a key pathway to achieving global decarbonization objectives while also increasing U.S. global competitiveness.

CHFC announced its formation in part by drafting a letter urging the Biden Administration to include a role for clean hydrogen in their forthcoming infrastructure plans. CHFC notes that clean hydrogen could help accelerate the decarbonization of the economy and integrate energy resources such as renewables, nuclear, and fossil fuels with carbon capture and storage technology. CHFC also argues that clean hydrogen has a variety of additional applications, such as fertilizer production, replacement fuel in petroleum refining, electricity and chemical production, and in food and pharmaceutical production.

CHFC advocates for an expanded role for the United States in global clean hydrogen production, and intends to identify specific actions that the United States can take to scale the full supply chain for clean hydrogen production, transport, storage, and use.

PEROVSKITE SOLAR MODULES EXCEED 20 PERCENT EFFICIENCY

On 2 April 2021, Wuxi Utmost Light Technology Co Ltd. (UtmoLight) announced it had achieved a 20.5 percent power conversion efficiency for its perovskite mini-module with a 63.98 cm^2 designated area. Such efficiency is the highest recorded efficiency for perovskite modules. The international test center, Japan Electrical Safety & Environment Technology Laboratories, has reportedly certified UtmoLight's results.

Perovskite solar cells are a third-generation photovoltaic technology. Although they are more efficient and cheaper than conventional photovoltaics such as crystalline silicon solar cells, their efficiency decreases rapidly as module size increases, mainly due to the difficulty of preparing high-quality perovskite films over large areas through conventional production methods. UtmoLight plans to build production lines for manufacturing large-area perovskite solar modules to accelerate the commercialization of its perovskite photovoltaic technology.

©2005-2026 K&L Gates LLP. All Rights Reserved.

GREEN HYDROGEN FUND BACKED BY CORPORATE ENERGY HEAVYWEIGHTS

On 5 April 2021, Plug Power, Chart Industries, Inc., and Baker Hughes announced a joint investment in FiveT: a European-based Hydrogen Fund (Fund) that will invest exclusively in infrastructure projects for developing and delivering green hydrogen production, storage, and distribution projects at scale. Plug Power will fund US$200 million, and Chart Industries and Baker Hughes will each fund an addition US$60 million. In total, the Fund seeks to raise an additional US$1.185 billion (€1 billion) from both financial and industrial investors by the third quarter of 2021. The Fund will make investments in 2022.

The Fund could help propel green hydrogen technological development, which could help many countries around the world, including the United States, meet local, federal and international emission reduction commitments.

TRI ENERGY PARTNERSHIP PROGRESSES TOWARDS MODULAR REACTOR IN WASHINGTON

On 1 April, Energy Northwest, Grant County Public Utility District, and X-energy (collectively TRi Energy Partnership) entered into a Memorandum of Understanding (MOU) to develop a small modular nuclear reactor in Richland, Washington. The MOU commits all three members to collaborate and share resources to best evaluate the siting, licensing, permitting, construction, and operation of a 320 MWe Xe-100 advanced nuclear power plant. The project was selected in 2020 as one of three recipients of the Department of Energy (DOE) Advanced Reactor Demonstration Program Awards. DOE will invest US$1.23 billion in the project over seven years.

The Xe-100 is an 80MWe scalable high-temperature, gas cooled reactor capable of producing up to 320 MWe of electricity by using tristructural isotropic (TRISO)[i] particle fuel. The reactor is designed to integrate into regional electricity systems providing base and, load-following carbon-free power and industrial process heat. The TRi Energy Partnership announced that the Xe-100 reactor will be located near Energy Northwest's Columbia facility.

FOOTNOTES

[i] TRISO consists of a uranium, carbon, and oxygen fuel kernel, which is encapsulated in three layers of carbon and ceramic-based coating that prevents radioactive fission products from being released.

KEY CONTACTS



NATALIE J. REID
ASSOCIATE

SEATTLE
+1.206.370.6557
NATALIE.REID@KLGATES.COM

©2005-2026 K&L Gates LLP. All Rights Reserved.

This publication/newsletter is for informational purposes and does not contain or convey legal advice. The information herein should not be used or relied upon in regard to any particular facts or circumstances without first consulting a lawyer. Any views expressed herein are those of the author(s) and not necessarily those of the law firm's clients.

©2005-2026 K&L Gates LLP. All Rights Reserved.