THE ENERGIZER – VOLUME 76

Date: 9 October 2020

Energy Newsletter

By: Natalie J. Reid

FERC FINDS ESRS CAN BE A "LOAD-SHAPE MODIFYING DEVICE" FOR DEMAND RESPONSE

On 17 September 2020, the Federal Energy Regulatory Commission ("FERC") granted a petition for declaratory order (172 FERC ¶ 61,249) regarding the interpretation of a full requirements power purchase agreement ("FRPPA") involving energy storage resources ("ESRs").[1] North Carolina Eastern Municipal Power Agency ("NCEMPA"), a joint agency including 32 cities and towns in eastern N.C., filed the petition for declaratory order requesting that FERC find a FRPPA allowed NCEMPA and its municipal members to use battery storage technology on their systems.

FERC found that Order No. 841, issued before FRPPA's execution, allowed ESRs to be deployed as demand-response devices by the municipal purchaser. FERC noted that none of the FRPPA's language prohibited using the ESRs for demand response, and, when used as proposed, ESRs would be indistinguishable from demand response resources that modify the timing of energy consumption.

FERC stated the ESR "technology is inherently a load-shape modifying device, designed not to reduce a customer's overall load but to shift the incidence of such load, i.e., to manage the customer's demands." By granting the petition, FERC allowed the NCEMPA members to use ESRs on their systems to manage customer loads, such as by charging ESRs during off-peak periods and discharging them during expected peak load periods to minimize coincident peak hour demands.

SPANISH GOVERNMENT SETS A NEW STANDARD FOR HYDROGEN INDUSTRY INVESTMENT

Spain recently announced its plans to invest US$10.5 billion (€8.9 billion) in green hydrogen production to promote a less carbon-intensive fuel market by 2030. Green hydrogen is distinct from other types of hydrogen-based energy because it is derived entirely from water electrolyzed by energy generated from a renewable source.

The Spanish government issued a roadmap to build four gigawatts of green hydrogen capacity over the next ten years, increasing its current production capacity by a factor of almost 1500. The Spanish plan includes 60 specific measures to help establish a hydrogen supply chain and specifically targets manufacturing plants with a capacity to produce 300 to 600 megawatts of green hydrogen by 2024. Once enacted, the plan requires a benchmark review of national progress every three years.

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

Spain joins France and Germany as the third European Union (EU) member to announce a major investment in green hydrogen. These three nations have pledged to produce 15.5 gigawatts of green hydrogen by 2030. These investments fit within the EU's goal to reduce greenhouse gas emission by at least 55 percent in 2030 and to become carbon neutral by 2050.

ANOTHER MAJOR U.S. UTILITY COMMITS TO NET ZERO EMISSIONS BY 2050

On 1 October 2020, National Grid became the most recent major utility operating in the United States to pledge to reduce its carbon emissions. National Grid has committed to reducing the net emissions of its U.S. operations to zero by 2050. National Grid is a U.K.-owned electric and gas utility that serves more than 20 million customers throughout New York, Massachusetts, and Rhode Island.

The plan focuses on ten key areas, including: (1) demand response, (2) decarbonizing the gas network through utilization of natural gas and hydrogen, (3) reducing methane emissions and working to reduce emissions through all value chains, (4) implementing new technologies to decarbonize heat, (5) interconnecting renewables with a 21st century grid system, (6) enabling optimizing distributed generation, (7) utilizing storage, (8) eliminating SF6 emissions, (9) advancing clean transportation, and (10) investing in large scale carbon management.

National Grid's announcement comes on the heels of announcements by Ameran, Entergy, Dominion Energy, Duke Energy, Southern Company, Xcel Energy, Public Service Enterprise Group, DTE Energy, and WEC Energy Group to reduce their operations' net emissions to zero by 2050. National Grid's announcement is likely an indicator of what is to come—continued momentum to reduce carbon emissions among industry players within and outside of the utility arena.

FLOATING SOLAR PANELS COULD PAIR WITH HYDROPOWER PROJECTS TO INCREASE ENERGY GENERATION

A new article authored by the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) has assessed the feasibility of developing hybrid systems of floating solar panels located within hydropower plants. The article describes whether resources exist to support hybrid solar-hydropower projects, irrespective of cost. The researchers estimate that adding floating solar panels to the reservoirs located at most hydropower facilities could produce as much as 7.6 terawatts of potential power from solar photovoltaic (PV) systems alone, or approximately 10,600 terawatt-hours of potential annual generation.

The potential benefits of pairing floating PV with hydropower include reducing transmission costs by linking the PV systems to a common substation. Additionally, the two technologies can complement each other. The greatest potential for solar power generation exists during dry seasons while rainy seasons present the best opportunity for hydropower generation. Accordingly, operators of a hybrid system could use pumped storage hydropower as a means of storing excess solar generation.

NREL estimates that 379,068 freshwater hydropower reservoirs across the planet could host floating PV systems paired with hydropower. Previous research by NREL indicated that installing floating solar panels on man-made U.S. reservoirs could generate about 10 percent of the United States' annual electricity production. Currently,

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

hybrid floating solar/hydropower systems are a nascent technology, and only one such system has been installed at a facility in Portugal.

FOOTNOTES

[1] N. Carolina E. Mun. Power Agency, 172 FERC ¶ 61,249 (2020).

KEY CONTACTS



NATALIE J. REID
ASSOCIATE

SEATTLE
+1.206.370.6557
NATALIE.REID@KLGATES.COM

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.