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K&L Gates' The Energizer – Volume 49

A biweekly update on blockchain technology applications, distributed energy resources, and other innovative technologies in the energy sector.

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There is a lot of buzz around blockchain technology, distributed energy resources ("DERs"), microgrids, and other technological innovations in the energy industry. As these innovations develop, energy markets will undergo substantial changes to which consumer and industry participants alike will need to adapt and leverage. Every other week, K&L Gates' The Energizer will highlight emerging issues or stories relating to the use of blockchain technology, DERs, and other innovations driving the energy industry forward. To subscribe to The Energizer newsletter, please click here.

GE and BlackRock Launch Distributed Solar and Storage Business.

- General Electronic Renewable Energy ("GE Renewable Energy") announced recently a partnership with BlackRock Real Assets to expand GE Renewable Energy's distributed solar and storage operations. GE Renewable Energy has reportedly developed approximately 125 projects in 15 different states since 2012. The partnership with BlackRock Real Assets will create a new entity, "Distributed Solar Development," that will focus on expanding GE Renewable Energy's current work in designing, developing, and asset management of distributed solar and storage projects. It also will allow GE Renewable Energy to own the projects it is developing for the first time. Moving forward, GE Renewable Energy will own 80% of Distributed Solar Development and BlackRock Real Assets will control the other 20%.
- Distributed Solar Development will focus on attracting customers in the commercial, industrial, and public sectors. It currently specializes in carport solar PV systems but has also developed rooftop and greenfield projects, and front-of-meter, distribution-grid-connected systems. BlackRock Real Assets has a long history of investing in utility-scale renewable projects, with reportedly \$5 billion invested in over 250 wind and solar projects to date. Its partnership with GE Renewable Energy is a part of its shift into investment in distributed-scale solar projects. BlackRock Real Assets believes there is significant growth opportunity in the American solar power market.

400-MW Montana Pumped Storage Hydro Project Funded.

On July 8, 2019, <u>Absaroka Energy announced</u> its 400-megawatt ("MW") Montana pumped storage hydro project (the "Gordon Butte Project") had secured a lead equity investor, <u>Copenhagen Infrastructure Partners</u>. First proposed in 2010, the \$1 billion closed-loop system previously secured construction and operating permits from the <u>Federal Energy Regulatory Commission</u> in 2016. Absaroka Energy is still searching for utilities to purchase the Gordon Butte Project's electricity and storage attributes before it will begin construction, which the company hopes could start as soon as 2020.

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• The Gordon Butte Project will connect to the nearby Colstrip twin 500 kV transmission lines and serve as a carbon-neutral alternative to natural gas peaking facilities, thus enabling greater renewable energy penetration into the Pacific Northwest grid. Building a pumped storage hydro system allows for the integration of renewable energy in complementary ways, first serving as a "battery" that uses excess power produced by wind and solar resources to pump water from a lower reservoir to a second higher reservoir, and then releasing water from the higher reservoir when electricity demand peaks, which turns hydropower turbines and supplies electricity back to the grid.

Major Chinese Energy Service Provider to Develop Blockchain Platform for LNG.

- On July 24, 2019, VeChain, a blockchain platform, issued a press release describing developments in its partnership with ENN Energy Holdings Limited, a large Chinese energy service provider, and Shanghai Gas, a state-owned energy company, to trace and account for liquefied natural gas ("LNG") transactions. The companies first signed a strategic cooperation agreement in August 2018 at the China International Gas & Heating Technology and Equipment Exhibition. The parties agreed to develop an LNG tracking system with the VeChain blockchain platform.
- The platform, VeChainThor, uses Internet-of-Things devices to ensure management throughout the supply-chain, including amount and location of LNG in holding tanks, logistical information for trucking to retailers, and quality reports throughout. Local distributors will cross-validate and verify the information with the LNG received on the blockchain platform.
- The development will allow the Chinese government to better account for and manage China's growing LNG market. China continues to transition from a coal-based energy economy to a natural gas-based economy. Blockchain will help facilitate this transition as national and international LNG markets will be able to more assuredly rely on the accuracy, security, and efficiency the technology provides.

Indonesian NEWX Energy to Implement Blockchain Smart City Ecosystem.

- On July 15, 219, NewX Energy issued a press release describing its initiative to form a new "smart city ecosystem." The recently formed Southeast Asian company is founded by Christien New, the current Chairman of PT Bintan Power Plant of Indonesia, which began construction in 2015. NewX Energy will use a token-based system to transform "traditional electricity plants into multi-service provider[s]." Through a loyalty program, the endeavor seeks to enhance many other services for its energy customers, such as banking and shopping. The loyalty program will incorporate a "dual-token model" using a "USDN" token tied to the U.S. dollar, and a "NXE" token tied to powering "one or many virtual mining machines of users."
- NewX Energy seeks to transform areas of Indonesia with the lowest levels of electrification. By utilizing blockchain technology, the company hopes to create an energy market that will utilize smart contracts, state-of-the-art security, and transparent and accountable transactions. NewX Energy joins other companies who have proposed the integration of digital tokens into energy markets to create new commercial ties between consumers and energy producers, and to make energy transactions, from distribution to payment, more efficient.

