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Avista, Duke Energy invest in grid edge software technology to deliver benefits to customers

- Investment will create first collaborative, utility-led development of “open source” software for utility smart grid platforms

SPOKANE, Wash. – Avista Development, a wholly owned unregulated subsidiary of Spokane, Wash.-based Avista Corp. (**NYSE: AVA**) and Duke Energy (**NYSE: DUK**) today announced a joint investment in Open Energy Solutions Inc. (OES) to develop open source software for grid edge technology solutions. These solutions will deliver significant benefits to customers, including information and tools to help them manage their energy usage.

This marks the first time multiple utilities have collaborated to create open source software, spurring innovation and creating a new market for this technology.

“This groundbreaking approach to meeting the needs of utility customers in the future will allow unrivaled creativity and thinking around energy management solutions, forever changing how technology interacts with utility grid systems, and ultimately paving the way for more control and information management for the utility customer of the future,” says Ed Schlect, Chief Strategy Officer and Vice President, Avista Corp.

This partnership builds upon the Duke Energy Emerging Technology Office’s (ETO) pioneering work to explore open grid standards through the creation of the Open Field Message Bus (OpenFMB™).

“Imagine our entire utility grid operating in a similar way to a smart phone operating system – flexible, useful and resilient. Through this partnership, we will make that type of system available for the energy grid, putting more tools in the hands of our customers,” said Brian Savoy, Duke Energy’s senior vice president of business transformation and technology. “This platform will provide customers more options in how they interact with their energy company, while also delivering sustainable value and economic growth as we build a smarter energy future.”

The software will use interoperability concepts and distributed intelligence, allowing utilities to more efficiently integrate, coordinate and optimize diverse assets. This includes the energy grid, traditional and renewable generation, customer assets and more.

OES will make the software available to users in an open source format, promoting widespread adoption and support for this software as many utilities make upgrades to the energy grid. Duke Energy and Avista’s investment in OES will help to expedite the creation of the first version of the software.

OES, founded by the ITOCHU Corporation of Japan, has been instrumental in supporting and accelerating the implementation of work undertaken by Duke Energy’s

ETO and currently provides open source software in support of Duke Energy's interoperability efforts.

"When we formed OES, we saw a potential opportunity to transform an industry," said Takuji Motooka, Executive Councillor at ITOCHU Corporation. "We look forward to a more strategic relationship with both Duke Energy and Avista through our mutual interest in the work OES is undertaking."

This work builds upon the industry's progress in modernizing the power grid and will help utilities of all sizes access systems that may have been out of reach – ultimately delivering more options to customers.

"We see this as an opportunity to fill a gap the industry has previously been unable to fill with more traditional centralized software solutions," said Wade Malcolm, CEO of OES.

About Avista

Avista Corp. is an energy company involved in the production, transmission and distribution of energy as well as other energy-related businesses. Avista Development is a non-utility subsidiary of Avista Corp., seeks to profitably invest retained earnings in real estate, businesses, technology and other assets that strategically leverage the strengths of partnerships, enhance the economic vitality of Avista's utility service areas and further Avista's commitment to innovation that shapes the future. [Avista Utilities](#) is the operating division of Avista Corp. that provides electric service to 383,000 customers and natural gas to 349,000 customers. Its service territory covers 30,000 square miles in eastern Washington, northern Idaho and parts of southern and eastern Oregon, with a population of 1.6 million. Alaska Energy and Resources Company is an Avista subsidiary that provides retail electric service in the city and borough of Juneau, Alaska, through its subsidiary [Alaska Electric Light and Power Company](#). Avista stock is traded under the ticker symbol "AVA." For more information about Avista, please visit www.avistacorp.com.

Avista Contact:

Media: Kelly Conley—kelly.conley@avistacorp.com
Avista 24/7 Media Access 509.495.4174

Duke Energy

Headquartered in Charlotte, N.C., Duke Energy (NYSE: DUK) is one of the largest energy holding companies in the U.S., with approximately 29,000 employees and a generating capacity of 49,500 megawatts. The company is transforming its customers' experience, modernizing its energy grid, generating cleaner energy and expanding its natural gas infrastructure to create a smarter energy future for the people and communities it serves.

The company's Electric Utilities and Infrastructure unit serves approximately 7.6 million retail electric customers in six states – North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky. Its Gas Utilities and Infrastructure unit distributes natural gas to approximately 1.6 million customers in five states – North Carolina, South Carolina,

Tennessee, Ohio and Kentucky. Its Commercial Renewables unit operates a growing renewable energy portfolio across the U.S.

A Fortune 125 company, Duke Energy was named to Fortune's 2018 "World's Most Admired Companies" list and Forbes' 2018 "America's Best Employers" list.

More information about the company is available at duke-energy.com. The [Duke Energy News Center](#) includes news releases, fact sheets, photos, videos and other materials. Duke Energy's [illumination](#) features stories about people, innovations, community topics and environmental issues. Follow Duke Energy on [Twitter](#), [LinkedIn](#), [Instagram](#) and [Facebook](#).

Contact: Catherine Butler
24-Hour: 800.559.3853

About ITOCHU

The history of ITOCHU Corporation dates back to 1858 when the Company's founder Chubei Itoh commenced linen trading operations. Since then, ITOCHU has evolved and grown over 150 years.

With approximately 110 bases in 63 countries, ITOCHU, one of the leading *sogo shosha*, is engaging in domestic trading, import/export, and overseas trading of various products such as textile, machinery, metals, minerals, energy, chemicals, food, general products, realty, information and communications technology, and finance, as well as business investment in Japan and overseas.

Contact: Kenji Katsumoto
81-3-3497-7293

About Open Energy Solutions Inc. (OES)

Open Energy Solutions Inc. provides a variety of advanced technology services and development for regulated and unregulated energy suppliers and their customers. Founded in late 2016, OES is headquartered in Santa Clara, California with staff situated throughout the United States. More information is available at openenergysolutionsinc.com.

OES Contact

Wade Malcolm
408-850-7219
info@openenergysolutionsinc.com