September 20, 2022

Equinix and NUS Centre for Energy Research & Technology Partner to Advance Hydrogen Technologies for Data Centers

Collaboration will explore and develop hydrogen fuel technologies for green data centers in tropical climates, with a long-term goal of adapting them for use in Equinix's global network

SINGAPORE and REDWOOD CITY, Calif., Sept. 20, 2022 /PRNewswire/ -- Continuing its efforts to advance the sustainability of digital infrastructure and reach its climate neutral targets, aligned to science-based targets, by 2030, Equinix, Inc. (Nasdaq: EQIX) today announced a partnership with the Centre for Energy Research & Technology (CERT) under the National University of Singapore's (NUS) College of Design and Engineering to explore technologies that enable the use of hydrogen as a green fuel source for mission-critical data center infrastructure.

Together, Equinix and CERT will launch the world's first research project to compare the efficiency of proton-exchange membrane (PEM) fuel cells and fuel-flexible linear generator technologies. PEM fuel cells are a leading contender for hydrogen energy, while fuel-flexible linear generators enable operators to easily switch between various clean fuel options including hydrogen, biogas and various renewable liquid fuels. Adoption of these technologies may allow data centers to reduce carbon emissions while meeting the rising demand for data, colocation and interconnection services.

The research collaboration between Equinix and CERT will involve a holistic assessment of the suitability of these technologies for tropical data centers, considering local climatic conditions, site constraints, power demand, supply chain, fuel storage capabilities as well as local regulatory policies.

This research initiative comes under a Memorandum of Understanding (MOU) signed earlier this year between the two partners. Under the MOU, CERT will conduct a comprehensive analysis of technologies identified in collaboration with Equinix, to determine the operational viability of the technologies at scale. Based on the results of the research, Equinix expects to develop proof-of-concept projects within its global network of data centers for real-world testing and to support incorporation into future data center designs. By driving innovation in Singapore, the Equinix and CERT partnership aims to accelerate disruptive technologies that can reduce the carbon footprint of global data centers, particularly in tropical locations.

This partnership forms part of Equinix's *Future First* strategy that underscores the company's commitment to greening the digital economy. Green hydrogen has been identified as a viable source of sustainable energy for data centers. However, hydrogen generation on an industrial scale remains several years away from being commercially viable, making it

imperative to assess and adopt alternatives even as global research and development continues.

Quotes:

Yee May Leong, Managing Director, South Asia, Equinix
"Data centers serve as the conduit powering the digital economy, and greening their operations can drive the rise of sustainable business throughout the broader economic landscape. Working with like-minded partners like the Centre for Energy Research & Technology at NUS empowers us with the combined experience and expertise to advance the growth of digital economies in line with environmental obligations, benefiting the data center industry, global economies, and the planet."

Associate Professor Lee Poh Seng, Director, Centre for Energy Research and Technology, NUS College of Design and Engineering
"Sustainability is a key pillar of the global economy. To complement the efforts made by the public sector, timely progress also requires collaboration with stakeholders in the private sector and academia. We are keen to work with industry partners like Equinix, which is known for its sustainability efforts and provides us access to a global network of data centers that can serve as a testbed for a more accurate assessment of operational viability. Through this partnership, we look forward to playing a driving role for green data center innovations that can be applied in Singapore and globally."

Reaffirming Equinix's commitment to creating a more sustainable future for the environment, the company has been recognized with a host of sustainability awards across the Asia-Pacific region. In 2022, Equinix was named Asia's Green Company of the Year at the Asia Corporate Excellence & Sustainability Awards, the Singapore Data Centre Services Company of the Year by Frost & Sullivan, and received the Green Innovation Award under the MNC Category at the 2022 Singapore Environmental Achievement Awards.

Highlights / Key Facts:

- Under this partnership, Equinix and NUS CERT will be conducting a comprehensive analysis to compare two clean on-site power generation technologies for data centers of the future. These technologies include:
    - PEM fuel cells are becoming increasingly popular due to their ability to generate power with hydrogen and oxygen. Some designs can also run the process in reverse to produce pure hydrogen for future use with just water and electricity.
    - Fuel-flexible linear generators offer the ability to switch between fuels like hydrogen, biogas and various renewable liquid fuels, enabling the installation of infrastructure that can be easily adapted to evolving market developments, empowering organizations with enhanced agility.
- Equinix was the first in the data center industry to commit to becoming climate neutral, aligned to approved science-based targets, for emissions reduction across global operations and supply chain by 2030. In addition, Equinix continues to evaluate for on-site solar opportunities, onsite generation from fuel cells, and any other distributed low-carbon technology that fits with its overall strategy.

- Equinix's renewable energy coverage has been over 90% since 2018. In 2021, the company achieved 95% renewable energy coverage. Year-over-year, Equinix has increased our procurement of renewables by 16% on a GWh-basis.

- Earlier this year, Equinix announced the opening of its first Co-Innovation Facility (CIF), located in its DC15 International Business Exchange™ (IBX®) data center at the Equinix Ashburn Campus in the Washington, D.C. area. The CIF is a component of its Data Center of the Future Initiative and is a new capability that enables innovative partners to work with Equinix on trialing and developing methodologies that may be used to help define the future of digital infrastructure and services.

About Equinix
Equinix (Nasdaq: EQIX) is the world's digital infrastructure company. Digital leaders harness Equinix's trusted platform to bring together and interconnect foundational infrastructure at software speed. Equinix enables organizations to access all the right places, partners and possibilities to scale with agility, speed the launch of digital services, deliver world-class experiences and multiply their value, while supporting their sustainability goals.

Forward-Looking Statements
This press release contains forward-looking statements that involve risks and uncertainties. Such forward-looking statements are based on current expectations, including, but not limited to, statements regarding Equinix's sustainability objective and goals and the MOU with CERT. Actual results may differ materially from expectations discussed in such forward-looking statements. Factors that might cause such differences include, but are not limited to, risks to our business and operating results related to the COVID-19 pandemic; the current inflationary environment; foreign currency exchange rate fluctuations; increased costs to procure power and the general volatility in the global energy market; the challenges of acquiring, operating and constructing IBX and xScale® data centers and developing, deploying and delivering Equinix products and solutions; unanticipated costs or difficulties relating to the integration of companies we have acquired or will acquire into Equinix; a failure to receive significant revenues from customers in recently built out or acquired data centers; failure to complete any financing arrangements contemplated from time to time; competition from existing and new competitors; the ability to generate sufficient cash flow or otherwise obtain funds to repay new or outstanding indebtedness; the loss or decline in business from our key customers; risks related to our taxation as a REIT and other risks described from time to time in Equinix filings with the Securities and Exchange Commission. In particular, see recent and upcoming Equinix quarterly and annual reports filed with the Securities and Exchange Commission, copies of which are available upon request from Equinix. Equinix does not assume any obligation to update the forward-looking information contained in this press release.

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