



ORIX to Invest in U.S.-Based Next-Generation Large-Scale Energy Storage Startup

TOKYO, Japan – December 21, 2015 - ORIX Corporation (“ORIX”), a leading integrated financial services group, today announced it has acquired a stake in the U.S.-based startup UniEnergy Technologies, LLC (“UET”), which develops and manufactures advanced large-scale energy storage systems. ORIX has acquired 10% of the voting rights in the holding company that owns 100% of UET’s stock by purchasing preferred voting shares that the holding company issued through a third-party allocation.

UET is a startup founded in 2012 by two researchers who developed a next-generation vanadium electrolyte while working at the U.S. Department of Energy’s Pacific Northwest National Laboratory (PNNL). UET is licensing the vanadium electrolyte technology from PNNL under a long-term competitive agreement. The next-generation vanadium redox flow battery (VRB) commercialized into a utility-class system by UET can be left charged for long periods of time, easily accommodates large capacities, and is long-lasting compared to existing energy storage technologies. By significantly increasing the energy density and operating temperature of the electrolyte, UET has also succeeded in reducing the VRB’s installation space, a drawback from the previous VRB technologies.

An integrated manufacturer of vanadium energy storage systems based in Dalian, China took note of UET’s technological capabilities and has held a stake in the startup since its founding. Now, ORIX is joining as an investor through a sale of shares aimed at business expansion. Besides working to expand sales in the U.S. market, UET also has its sights set on future expansion in the Chinese and Japanese markets with the partnership of its shareholders.

In the U.S., renewable power generation has been growing due to public investment and regulatory policy. As a result, large-scale energy storage systems are increasingly being installed to stabilize and make more resilient power supplies which can be affected by factors such as renewable intermittency, weather disruptions, and other electric grid events. There is also an intensifying drive among large energy consumers like commercial buildings to lower their electricity bills by using large-scale energy storage systems to reduce demand charges¹ billed based on peak energy usage. Against this backdrop, the U.S. market for large-scale energy storage systems is projected to exceed 1 billion dollar in 2019, a nearly eightfold increase from 2014².

In addition to domestic projects like renewable power generation and electricity retailing, ORIX is also working to expand its energy business overseas, with efforts including investment in energy-related businesses in the Philippines and the establishment of an investment fund with the Asian Development Bank and Robeco. ORIX will continue to pursue investment in the promising energy markets both in Japan and around the world.

■About UET

Name:	UniEnergy Technologies, LLC
Location:	4333 Harbour Pointe Blvd SW, Suite A, Mukilteo, WA 98275
Representative:	Zhenguo Gary Yang (President & CEO)
Established:	March 2012

¹ In many electricity service areas in the US, a charge corresponding to a customer’s peak demand for the period is added to their electricity bill. Since demand charges can account for 30-70% of electricity costs, means of reducing them are highly-sought.

² Source: GTM Research, *U.S. Energy Storage Monitor/May 2015*

Business: R&D, production, and distribution of large-scale energy storage systems (redox flow batteries) using next-generation vanadium electrolytes

Website: <http://www.uettechnologies.com/>

■ Example of a large-scale next-generation VRB installation

- An initiative for Washington-based Avista Utilities (energy provider)
- Energy storage system installed on distribution circuit operated by Avista since April 2015 at the manufacturing campus of Schweitzer Engineering
- Installation enables multiple use cases, including energy shifting including renewable integration and ramping; regulation including frequency, voltage, and reactive power; islanding; black start; and 4-cycle seamless switching
- Output: 1 MW / Capacity: 3.2 MWh



Contact Information:

ORIX Corporation
Corporate Planning Department
Tel: +81-3-3435-3121

About ORIX:

ORIX Corporation (TSE: 8591; NYSE: IX) is a financial services group which provides innovative products and services to its customers by constantly pursuing new businesses. Established in 1964, from its start in the leasing business, ORIX has advanced into neighboring fields and at present has expanded into the lending, investment, life insurance, banking, asset management, automobile-related, real estate and environment and energy-related businesses. Since its first overseas expansion into Hong Kong in 1971, ORIX has spread its business globally by establishing locations in a total of 36 countries and regions across the world. Moving forward, ORIX aims to contribute to society while continuing to capture new business opportunities. For more details, please visit our website: <http://www.orix.co.jp/grp/en/>

Caution Concerning Forward Looking Statements:

These documents may contain forward-looking statements about expected future events and financial results that involve risks and uncertainties. Such statements are based on our current expectations and are subject to uncertainties and risks that could cause actual results to differ materially from those described in the forward-looking statements. Factors that could cause such a difference include, but are not limited to, those described under “Risk Factors” in the Company’s annual report on Form 20-F filed with the United States Securities and Exchange Commission and under “4. Risk Factors” of the “Summary of Consolidated Financial Results” of the “Consolidated Financial Results April 1, 2014 – March 31, 2015.”