

Rentricity Completes its First Clean Energy In-Conduit Hydropower Projects in the State of Alaska

Safety-Certified Flow-to-Wire Systems energized at two locations within Anchorage Water & Wastewater Utility Infrastructure

NEW YORK, NEW YORK, USA, January 16, 2024 /EINPresswire.com/ -- Rentricity Inc., the premier in-conduit hydropower company, based in New York City has completed its first projects within the gravity-fed water pipelines of Anchorage Water & Wastewater Utility (AWWU), the largest water/wastewater operator in Alaska. Rentricity's Flow-to-Wire system (F2W) captures excess pressure within water distribution pipelines, converting it into clean energy for the electric grid or the customer's onsite use. The two systems, totaling 70 kilowatts of clean



AWWU Flow-to-Wire Configuration

energy (energy for about 25 to 40 average homes), were fully commissioned in 2021 and 2023 respectively and are located within above and below ground water distribution facilities. These are a first-of-a-kind projects for Rentricity in the state of Alaska which were designed as part of

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Todd Carroll, AWWU

water infrastructure upgrades, now with the added benefit of improving the carbon-footprint and reducing the electricity costs of AWWU.

The projects use Rentricity's NSF 61/372 certified Flow-to-Wire systems which includes cost-effective Cornell reverse-pump turbines with a state-of-the-art control system for power integration, monitoring and control. "Rentricity is

excited about these projects partnering locally with design engineers and managing the logistical

demands of working across a few time zones." said Al Spinell, Rentricity's COO. He added, "The AWWU sites will be a great best practice case study for water operators seeking to rebuild their infrastructure with multiple energy recovery assets now part of normal daily operations." The site designs include touchscreen control systems as well as a remote monitoring and control from an AWWU control room located miles away from each site.

"These systems are seamlessly integrated into our water supply and distribution operations" says Todd Carroll, Project Manager at AWWU. "The power generated helps us meet our strategic plan goal for increased energy efficiency." he added. The first AWWU deployment includes a 40-kilowatt Rentricity NSF/ANSI/CAN 61 &372 certified Cornell pump-as-turbine unit within the City's water distribution



AWWU Pressure Reducing-Energy Recovery Station



system located in an above ground pressure reducing station. The 40kW facility offsets the power demand of a nearby AWWU Operations Facility, with excess power being delivered to Chugach Electric's grid. A second NSF/ANSI/CAN 61 &372 certified unit capable of generating 30 kilowatts was commissioned in 2023 at a below ground vault that reduces pressure from an upstream supply reservoir which delivers potable water to storage tanks for eventual distribution to AWWU's customers. The 30kW facility transfers all of the generated clean power directly on Chugach's grid. AWWU maintains total control of the systems at all times with on-site control through the operator displays and remote control through a remote interface with the F2W system.

Partnered with the Cornell Pump Company, Rentricity has certified 22 PAT's to meet the certification requirements for NSF/ANSI/CAN 61: Drinking Water System Components – Health Effects and NSF/ANSI/CAN 372: Drinking Water System Components - Lead Content. These drinking water industry standards establish minimum health effects requirements for the chemical contaminants and impurities indirectly imparted into drinking water from products, components, and materials used in drinking water systems. Only the certified turbines will display WQA's Gold Seal Logo to indicate compliance to NSF/ANSI/CAN 61 & 372 standards, which are required by state regulators for city drinking water and industrial food and beverage applications.: Flow-to-Wire WQA Certification Listing.

Rentricity continues to develop design standards and frameworks for partnering with engineering firms embarking on major infrastructure upgrades providing "energy recovery-ready" designs and cost-effective solutions helping to make in-conduit hydropower a part of every water system in the United States. Rentricity has completed over 30 installations in North America for drinking and industrial water applications including food processing and irrigation contributing 1.3 million megawatt hours per year of clean energy offsets.

About Rentricity Inc.

Rentricity Inc. (<u>www.rentricity.com</u>) is the nation's leader in producing clean, renewable energy from in-conduit hydropower applications in drinking, agricultural irrigation and industrial water systems. The Company is based in New York City and can be reached at (732) 319-4501.

About AWWU

Anchorage Water & Wastewater Utility is owned by the Municipality of Anchorage. The utility includes over 1,600 miles of water and sewer pipes, appurtenances, and water treatment plants.

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