



H₂O Degree Integrates Energy-Harvesting Radiator Controls into Its Wireless Network Energy Submetering System

Radiator control system features actuators utilizing EnOcean energy harvesting technology

Bensalem, PA—July 30, 2019—[H₂O Degree](#), manufacturer of advanced two-way wireless submetering systems for



tenant billing, leak detection, utility conservation and building automation system integration in multi-family facilities introduces the [HCH0104 Hydronic Radiator Control System](#) providing wireless control of energy-harvesting radiator actuators. This new capability combines H₂O Degree's M5445x programmable, wireless Smart Thermostat, a Zigbee to EnOcean wireless bridge interface and one or more HCV0104 wireless radiator actuators per unit. The wireless radiator actuators feature EnOcean energy harvesting technology, eliminating the need for cable connections or batteries.

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The system is ideal for Multi-Family properties where they have a central plant hydronic heating system generating hot water to radiators throughout the property to deliver heat to each apartment. The H₂O Degree HCV0104 Wireless Radiator Actuator mounts directly onto thermostatic radiator valve bodies where it controls the room temperature, based on signals from the H₂O Degree Smart Thermostat and Zigbee to EnOcean Bridge. The HCV0104 Wireless Radiator Actuator contains a thermoelectric harvesting module, internal energy storage, an electromechanical valve actuator, a radio module and microcontroller. The HCB0104 Smart Thermostat and Bridge communicates wirelessly with the H₂O Degree cloud server.

Property managers can view all the thermostat values such as set points and temperature readings on H₂O Degree dashboards and adjust units individually or adjust all units site-wide. Residents can be given access to their in-unit thermostat through a web-based portal or mobile application that allows remote control of their temperature setpoints that wirelessly actuate the radiator valves. In addition to the advanced control, the system can be used to generate utility data to bill tenants for their specific usage of energy for heating through the run-time feature in the thermostat. This not only allows property managers to pass the cost onto tenants but creates an incentive for behavioral change among tenants to conserve energy.

"The energy-harvesting feature of this new wireless radiator actuator makes the unit ideal for retrofit installation and cost-sensitive projects where cabling cost is prohibitive," says Don Millstein, H₂O Degree's President. "Integrating this capability with our Smart Thermostat technology further adds to H₂O's value proposition."

A recently acquired pre-war property in the Northeast deployed this system as part of their capital expense plan when rehabbing the property. The wireless radiator actuators and thermostats were installed in 1,000 occupied apartment units with controls added to 3,000 radiators. During the installation residents experienced very little disruption with an increase in individual comfort control. "I can keep my apartment the temperature I want it to be without opening a window in the winter," says a current resident.

To learn more about H₂O Degree's submetering and leak detection systems, please go to www.h2odegree.com. A catalog can be downloaded [here](#).

About H₂O Degree

H₂O Degree manufactures a broad line of wireless mesh, radio-based submetering and leak detection systems that measure individual apartment or condo use of water, domestic hot water energy, boiler and chiller energy, electricity, gas and BTUs. The systems are ideal for tenant billing, leak detection reporting down to the toilet level and energy analytics. The company also offers Green Thermostats, which track energy use and apartment temperature while allowing tenants and property owners to set temperature set-points and schedules, adjust set-back temperatures when tenants are away or asleep, report HVAC maintenance issues, and provide control for vacant utility cost. For more information, please go to: www.h2odegree.com

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