For Approval

Contact:
Roger Halligan
H+A International, Inc.
312-332-4650 Ext. 22
rhalligan@h-a-intl.com

District Energy Growth Drives Tremendous Environmental and Energy Savings Opportunities for the HVACR Industry

New Fluid Flow Technology Solutions Are Key Catalyst

Toronto, January 22, 2024 – Driven by demand for low-cost energy and the growing number of organizations committing to Net-Zero targets, the global market for District Heating and Cooling Systems is expected to expand to over $754 billion by 2032.

As a single source of heating or cooling for multiple buildings, District Energy installations worldwide typically reduce primary energy demand in heating and cooling by 50% and can achieve operational efficiency of up 90%, according to the United Nations Environment Program.

These impressive results are made possible in part by fluid flow technologies designed by HVACR manufacturers such as Armstrong Fluid Technology. Intelligent fluid management systems (iFMS) can now integrate superior pump and control technology into a single packaged solution that can save 30% or more over other parallel pumping configurations. Energy savings can exceed 70% compared to a constant speed system.

Modern variable speed controllers integrate with building BMS systems to provide best-efficiency modulation and staging of pumps, while serving as many as 16 zones.

Armstrong was recently involved with two municipal District Energy Heating Systems in Europe that contributed to an estimated 70% and 45%, respectively, in energy savings to the two projects using the technology described above.

Rambervillers District Heating Eco District

Rambervillers, a village in northeastern France with a population of 20,000, has captured steam from a nearby waste-to-energy plant and converted it into hot water for homes and businesses. As an integral element of the project, Armstrong installed an innovative Design Envelope Intelligent Fluid Management System that integrates pumps and controls with a Design Envelope Integrated Pumping System. Together these technologies reduce pump energy use by 30% or more, compared to standard pump-sequencing systems.

Sarrebourg District Heating System

The French municipality of Sarrebourg wanted to reduce the territory's dependence on fossil fuels by creating a hot-water district heating system using wood heating to provide heat and domestic hot water to nearly 3,000 residential and commercial buildings. Using a 5MW biomass biomass boiler as the heat source, the new system will avoid the emission of more than 123,000 tons of CO over the next 20 years.

By supporting the project with Design Envelope solutions, Armstrong contributed to overall energy savings, reducing pump energy use by 70% compared to an alternative constant-speed system of similar size.

Enwave Chicago

Enwave Chicago currently operates the world's largest interconnected district cooling system, serving 45 million square feet of space in more than 100 buildings in downtown Chicago. Using thermal energy storage from Lake Michigan water, the system reduced its peak electric demand by 30MW resulting in significant energy cost savings. Armstrong supports

the efficiency of the Enwave Chicago system with a large number of Design Envelope pumps.

“As demand continues to grow for District Energy Systems worldwide, the opportunities for innovative HVACR fluid flow systems and solutions will continue to grow as well,” predicts Tony Furst, RSEC Manager – US Application Engineering, Armstrong Fluid Technology.

# # #

About Armstrong Fluid Technology

With eight manufacturing facilities on four continents, and employees around the world, Armstrong Fluid Technology is known as an innovator in the design, engineering and manufacturing of intelligent fluid flow equipment, control solutions and digital technologies.

In the shift toward digitalization and integration of fluid-flow systems, Armstrong leads the industry, bringing edge computing to mechanical systems, approaching energy optimization as a whole-building challenge and advancing the practice of full lifecycle management of mechanical systems. Focusing on HVAC, Plumbing, Gas Transmission and Fire safety applications, we provide energy-efficient and cost-effective solutions to building and facility professionals around the world.

Armstrong Fluid Technology is committed to sustainability. In 2019, Armstrong signed the Net Zero Carbon Buildings Commitment, a program launched by the World Green Building Council. As a signatory to the program, Armstrong has pledged to ensure that all its offices and manufacturing facilities operate at net-zero carbon by the year 2030.

In May 2021, in recognition of our leadership in energy efficiency, carbon footprint reduction and environmental stewardship, Armstrong Fluid Technology received a Queens Enterprise Award for Sustainability. Recognized for 20 years as one of the 50 Best Managed Companies, Armstrong continues to hold Platinum status in the program.

In 2018, the company announced an initiative to reduce greenhouse gas (GHG) emissions among its global customer base by 2 million tons, targeting completion by the year 2022. After reaching that goal earlier than expected, Armstrong has set a new goal of helping customers reduce greenhouse gas (GHG) emissions by 5 million tons, targeting completion by the end of 2025.