



RYAN JOHNSON, PE

Senior Engineer, ryan.johnson@ever-greenenergy.com

Ryan has led engineering and design efforts for district heating, district cooling, and cogeneration systems operated and managed by Ever-Green, as well as other operating systems across the country. Ryan has significant expertise converting buildings from steam to hot water and efficiency improvement, along with distribution system load calculations, hydraulic modeling, pipe stress analysis, and overall economic analysis and system planning.

Education + Certifications

University of
Minnesota Duluth -
Bachelors of Science in
Mechanical Engineering
Technology

Licensed Professional
Engineer

-Minnesota

-Virginia

-Washington DC

Relevant Project Experience

Duluth Energy System Master Plan and System Upgrade. Lead Project Engineer. Primary engineer for the development of the Duluth Steam Master Plan, with implementation at Duluth Energy Systems having recently concluded. Study coordinator for Duluth Energy Systems' initial Canal Park analysis for converting from a district steam system to a hot water district energy system. On the three-year construction project that ended in 2021, Ryan served as the project manager for steam to hot water distribution conversion, along with building hot water conversions. This work included developing basis of distribution system design, bid packets, detailed design, and construction sequencing for over 40 buildings. During construction, Ryan served as an on-site owner's representative for the project as well.

Oberlin College decarbonization. Ryan developed the basis of design documents for the modernization of over 60 buildings on the Oberlin campus as part of their decarbonization program. He is providing ongoing engineering support for building conversions, and is engineering portions of the steam to hot water distribution system.

District Energy Corporation Master Plan. Lead Project Engineer. Evaluated three existing district energy systems, identifying opportunities for system advancement and growth. Recommendations have been approved by the client and Ever-Green is now supporting implementation with Ryan's assistance.

Crystal City and Arlington County Feasibility Study. Lead Project Engineer. Led the analysis of integrating district heating and district cooling systems within the urban corridors of the Crystal City and Courthouse regions of Arlington County. Analyzed over 100 existing buildings to evaluate compatibility, developed hydraulic analysis and preliminary distribution system design, modeled energy center integration, and overall system financial models, along with customer building life cycle cost analysis.

Juneau District Energy System Development Plan. Lead Project Engineer. The project will use sea water heat pump technology coupled with hydro-electric supply as the primary energy source. Led data collection for all prospective system customers, developed an energy center and distribution system plan, and developed a financial model for the prospective system.

Energy Park Utility Company Conversion. Assistant Project Manager. Conversion from a two-pipe to a four-pipe district energy system enabling year-round heating and cooling, improved system reliability, increased customer satisfaction, and additional energy efficiency. Managed cost analysis and design for the mechanical rooms of 24 customer buildings on the system. Assisted with system commissioning, testing, and start-up of systems in each customer building, as well as the primary energy center.