

Soon after performing complete renovation of the building, Group Fox Management awarded Edwards Engineering with a maintenance agreement to maintain the HVAC equipment at The Lofts at River East. The agreement provides regularly scheduled diagnostic and operational inspections, engineering assistance, equipment replacement budgeting, and 24/7/365 response. The goal of the program is to identify issues which could present future problems and to identify opportunities for energy savings.

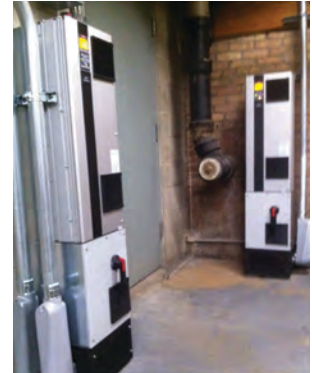
The Lofts at River East has a water source heat pump design application to provide heating and cooling for 285 residences and other heat pumps for the common area – commercial spaces also located on the property. The heat pump design air conditioning system has an open loop side with (2) 100 horsepower circulating pumps. Along with (2) heat exchangers, they transfer heat from the closed loop side of the system.

The closed loop circulation is provided by two (2) 150 horsepower pumps. Edwards Engineering found that these pumps were operating at full motor speed to maintain (and often exceed) the minimum necessary loop pressure ensuring all heat pumps received the water flow that they required to satisfy the building spaces. Edwards Engineering recommended and received authorization to install new Variable Frequency Drives (VFD's) on the two closed loop pumps. The VFD's allow the pump motors to be operated only at the necessary motor speed needed to maintain the loop pressure.

A new pressure differential sensor was installed to provide a reference point to control the VFD's on the pumps. The VFD's are set to maintain a defined pressure differential between the supply and return pipes of the system. The VFD's provide energy savings by reducing motor speed (consumption) to match the overall loads of the system. This provides significant savings during mild outdoor temperatures, low occupancy and individual unit temperature setpoints.

Before performing the project, Edwards Engineering provided ComEd with the required information in helping their engineering group determine that the VFD's would save approximately 84,880 kw per year.

The project took approximately three weeks to order, install, program, and commission. Edwards assisted Adnan Darr, Vice President of Operations for Group Fox Management, with the final application process, and he received the ComEd rebate check for \$18,000.00. The project offers the customer a payback period of 2 years.



"While completing one of the largest reuse projects to date in the City of Chicago, we continually looked for ways to provide green solutions to building and operational issues. Edwards Engineering not only provided us a solution for variable frequency drives on our building water loops to reduce our electric usage, but also worked with ComEd to secure rebate funding for the installation. They helped facilitate much of the paperwork to reduce our capital costs on the front end, and the system they designed will continue to save us money in operational expense costs moving forward. Thanks to the Edwards Engineering team for their efforts!"

Adnan Darr

Vice President of Operations at GroupFox Management

About Us

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Contact Us

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