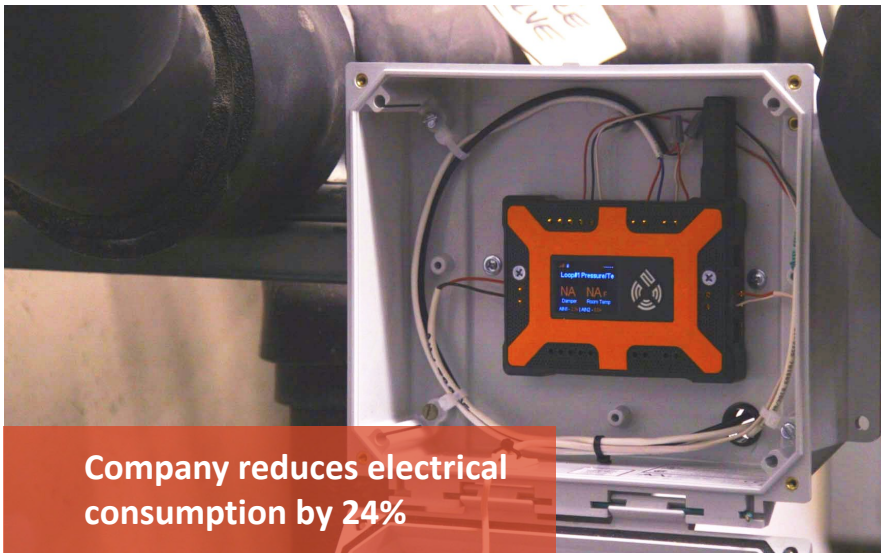


MERRICK, INC. TESTIMONIAL

ORGANIZATION GAINS FUTURE-PROOF
CONTROLS WITH IoT-BASED BMS



“ As sustainable and as environmentally friendly as this system is to our local community, a lot of our decisions came through the ROI and whether 75F could reduce our monthly expenses for utilities so we can use those dollars to meet our mission. ”

John Wayne Barker | Executive Director

CHALLENGE

Merrick, Inc. is a non-profit corporation that provides life enrichment services and work support to more than 375 people with intellectual or developmental disabilities.

When the organization began its search for a controls system in 2019, their geothermal system included a three-pump station with no monitoring capabilities, two ERV units that ran 24/7, seven thermostats, 23 heat pumps and a greenhouse with a boiler and radiant in-floor heat.

Before installing 75F, Merrick’s legacy controls system was outdated and no longer supported. Due to insufficient monitoring and alerts, a heat pump failure that could not be solved for two months caused employees to wear their winter coats in the office. Their organization needed a future-proof building management system that is proactive, comprehensive, and allows real-time, remote access and control.

AT A GLANCE

Location	St. Paul, Minnesota
75F Solutions	75F Hydronic and Heat Pump Control
Square Footage	52,000
Heat Pumps	23
Previous System	SageMAX front end with American Auto-Matrix

SOLUTION

Merrick paired with Minify Energy to find a building controls solution that would modernize their facility and simultaneously drive energy efficiency with the organization’s geothermal building system.

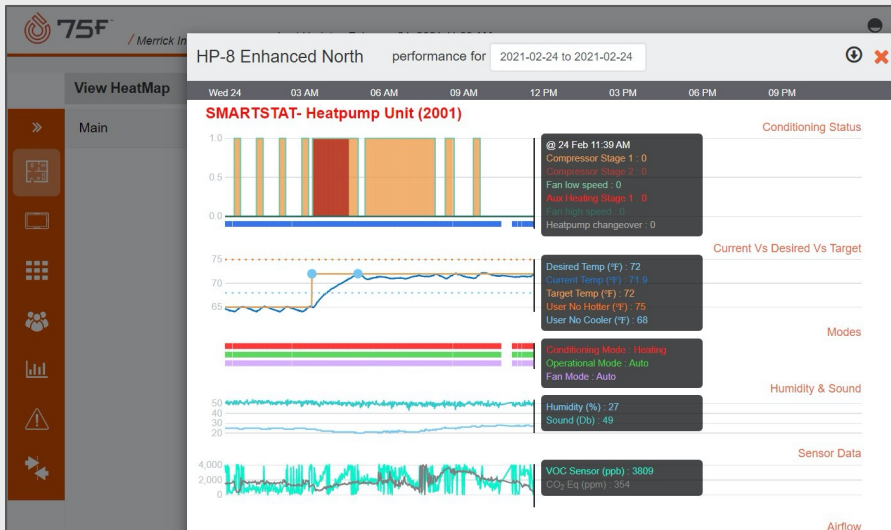
Minify identified 75F for its future-proof reliability and Internet of Things-enabled features such as real-time alerts and remote control. Merrick also chose 75F over competitors for the fast and easy installation process.

75F installed three Central Control Units, 23 Smart Stats, six Smart Nodes, and enabled boiler and hydronic well pump monitoring. Using a combination of state and municipal grants, rebates, low-interest financing, and using utility savings as payment, Merrick was able to cover 25 percent of their project cost and achieve a five-year ROI.

RESULT

After installing 75F, Merrick is enjoying a projected annual savings of \$10,000 per year, an overall 24 percent reduction in electricity use, and an ROI of just under five years.

In addition to energy savings, Merrick’s occupants report improved comfort in the 52,000 square-foot space. Thanks to modern monitoring and alerts, Merrick is now able to catch system problems before they cause long-term issues; when one of the building’s constant-volume ERV units began drawing in uncomfortably cold air, the facility manager was quickly able to pinpoint and solve the issue.



“ 75F provides a drone view of our building and different zones. Just looking at that view, you can understand which zone is out of parameters and really focus your attention on that zone without worrying about the rest of the building. ”

John Wayne Barker | Executive Director

75F Facilisight

Facilisight is 75F's building intelligence suite of web and mobile apps. The Facilisight application offers invaluable insight into your buildings' performance and simple, intuitive control over complex parameters.

75F's sensors and building management system deliver over a million data points daily per fifty thousand square feet of space, including temperature, humidity, VOCs, CO2, light, and sound levels. Facilisight's heatmap reflects this data in real time and can help users understand energy and equipment performance, plus how their buildings react to thermal loads.

Beyond data visualization, Facilisight makes responding to alerts and controlling building parameters easier. With remote access, operational managers no longer need to physically access a building to assess issues in the space.

The screenshot displays the 75F Facilisight Alerts interface. At the top left, the 75F logo and 'Merrick Inc.' are visible. The user's name 'Ben V' is shown at the top right. The main area is titled 'Alerts' and contains a list of alerts. On the left, there is a sidebar with a 'Manage Notification' section and a list of alert severity counts: Severe (0), Moderate (0), and Low (5). There is also a 'Hide Fixed Alerts' checkbox.

Status	Date/Time	Description
Low	2021-02-24 03:14:37 am	Smart Stat Airflow temp is out of bounds
Low	2021-02-23 03:10:35 am	Smart Stat Airflow temp is out of bounds
Moderate	2021-02-22 05:53:05 pm	WiFi Disconnected
Low	2021-02-22 03:06:33 am	Smart Stat Airflow temp is out of bounds
Low	2021-02-21 09:10:32 am	Smart Stat Airflow temp is out of bounds
Low	2021-02-20 10:03:30 am	Smart Stat Airflow temp is out of bounds
Low	2021-02-19 03:28:28 am	Smart Stat Airflow temp is out of bounds
Low	2021-02-18 08:42:26 am	Smart Stat Airflow temp is out of bounds

75F Hydronic and Heat Pump Control

75F offers a flexible and easily installed IoT-based building management system to help balance and optimize efficient operations in new builds or retrofits to existing hydronic systems in commercial buildings.

Gain insights on the performance of your boilers and energy retention or loss through the loop. Easily-installed inlet and outlet temperature sensors, plus mobile and web accessible 75F® Facilisight™ software deliver multi-site, multi-system remote monitoring all from a single pane of glass. The system senses loop temperature and automatically adjusts the mixing valve to reach set point mixed water.

Get remote control and diagnostics of many heat pumps to easily identify faulty equipment and optimize performance through predictive analytics and wireless mesh networking. Combine this with 75F's hydronics package to get a holistic understanding of your plant and how it affects heat pump performance.

75F offers remote and automatically controlled mixing of hot supply water and cooler return water, including modulated incremental micro-adjustments to allow fine-tuning of your hot water mixing. The solution can pre-emptively sense and plan to meet demand.

To learn more about 75F's IoT-based Building Management System, visit www.75f.io.