

Case study
Headwaters Science Center
Bemidji, Minn.



New furnace breathes life into Headwaters Science Center



The story:

Headwaters Science Center (HSC), an educational organization in northern Minnesota, converted a nearly 100-year old building into a hands-on learning space where visitors can explore science and technology through interactive exhibits and programs. It became apparent over time that costly heating and cooling extremes would need to be addressed.

The problem:

Regulating the temperature of this 26,900-square-foot historic facility was almost impossible, and it was exceedingly inefficient in every season. HSC was too hot in the summer and too cold in the winter, and the poor circulation of fresh air

was not optimal for a building with more than 20,000 visitors a year and hundreds of animals in residence. Because of the problematic heating, cooling and ventilation issues, staff frequently had to leave the doors open to let fresh air in.

“Our old system did not bring in enough outside air for a facility with animals, and the cost of running it in the winter and summer was extremely expensive.”

– Lee Furuseth, Executive Director



More than
\$900
saved annually on
natural gas bills



\$2,260
received in rebates



By partnering with Minnesota Energy Resources, Headwaters Science Center was eligible for the following **natural gas rebates totaling \$2,260:**



**High-efficiency
natural gas furnaces**



**Programmable
setback thermostats**



The solution:

In the early stages of the project, HSC talked to their HVAC contractor about how they could improve the temperature efficiency and air quality issues in their building while still meeting their budget goals. The HVAC contractor was able to suggest right-sized equipment that fulfilled those needs and also qualified for rebates, bringing the overall project costs down. The brand-new, energy-efficient heating systems were paired with smart thermostat technology to add convenience managing the system and optimizing energy savings.

The results:

Heating costs decreased by over \$900 annually. HSC was ultimately able to afford operating their new system year-round and achieve a comfortable temperature indoors regardless of the outside temperature. The furnace upgrade also contributed to improved air quality by increasing the fresh air intake and greatly reducing the animal odors, creating a much more pleasant environment for visitors.

“If it weren’t for the natural gas rebates we received from Minnesota Energy Resources, we would not have been able to afford this project.”

– Lee Furuseth, Executive Director