

By the Numbers

3.68 mmBtu/hr

222,000 square feet

2 Viessmann Pyrot 540 pellet boilers

60-ton pellet silo

500 tons of pellets/year

\$40,000 in fuel savings

47,000 fossil fuel offset

\$1,700,000 in total costs

\$360,000 SAPHIRE grant

Southern Berkshire Regional School District

SBRSD is a small, close-knit community dedicated to preparing students for global citizenship and advancing their intellectual growth and creative thinking. In January 2015 the district installed two wood pellet boilers at the Sheffield campus, and now over 750 students are educated in a building with a near-zero carbon footprint. To further the effectiveness of the new boiler system, the district increased the building's energy efficiency by adding roof insulation.

The pellet boilers replaced an oil system to heat the 220,000 square foot building and are supplemented by an oil burner on the coldest days, in shoulder seasons, and if the price of oil drops substantially. No matter the weather, there is always reliable heating for the school.

The pellet boilers are engineered to be low emission, employing a primary and secondary combustion chamber. Exhaust gas is recirculated and combusted, greatly reducing stack emissions. Oxygen levels are continuously monitored and adjusted for the most efficient combustion. The system is also equipped with a 3000-gallon thermal storage tank.

In the 2015-2016 heating season, SBRSD saved \$40,000 on heating fuel and prevented the combustion of 47,000 gallons of oil- a significant action to combat global climate change.

The project was supported by a grant from SAPHIRE, a DOER initiative to improve energy efficiency and increase renewable energy in schools, and the MSBA. Grants covered roughly 40% of the total project cost.



Pellet Silo



Pellet Boilers