

Wood Pellet Boiler

Kalemi Dene School, N'Dilo

System Overview:

The Wood Pellet Boiler system at Kalemi Dene School in N'Dilo is the newest addition to the Government of the Northwest Territories' (GNWT) group of Pellet Boilers. With the school grand opening on September 25th the boiler became the fifth boiler being used by the GNWT.

Heat and hot water are provided to the facility by three (3) Bosch MESys 23kW Wood Pellet Boilers. Combined they contribute up to 69kW of heat under full load. The Wood Pellet system at the school is estimated to use almost 60 tonnes of pellets per year.



Kalemi Dene School under construction in N'Dilo

As with the rest of the Wood Pellet Boilers there in a traditional Oil powered boiler to function as a back up and to assist if the heating load exceeds the output of the 3 Bosch MESys Boilers.

Performance Data:

Boiler Rated Output: 69 kW (Max)

Equivalent Annual Oil Amount¹: 30,000 L

Annual Pellet Usage²: 59 tonnes

Potential Annual Savings²: \$20,100

Annual GHG Reduction¹: 80 tonnes CO₂^{eq}

The reduction in GHG emissions is equivalent to removing 15 midsize passenger vehicles from the roads.

¹ GNWT Estimation

² Calculation based on GNWT estimated values