



Wood Pellets



Wood Pellet Delivery Truck

Biomass Energy in the NWT

Firewood was the main heat source in the Northwest Territories (NWT) until it was replaced by oil. The rising fuel costs has inspired a renewed interest in wood, and new technologies have made it a reliable source of energy. Wood pellets are one of those technologies.

Made of compressed sawdust, a tonne of wood pellets contains the equivalent of about 500 liters of oil. A 40lb bag of pellets sold for \$6 is the equivalent cost of heating oil at 67 cents per litre. Wood pellets are also considered not to add greenhouse gases to the atmosphere.

Where do wood pellets come from?

Sawdust from lumber production is usually used to make pellets. Bagged pellets found in retail stores now come from mills all over Canada. However, closer sources from Alberta or British Columbia usually mean lower prices.

Can we produce wood pellets in the NWT?

Wood pellet production in southern Canada uses large volumes of waste wood available from the forestry industry. The NWT's current forestry industry is small and new sources for wood would be needed for a pellet mill. This wood could come from:

- Road building and maintenance clearance
- Harvesting trees specifically for pellets
- Forest fire burn areas
- Fast growing willow or poplar trees

Note: Biomass boilers and furnaces are made to burn one specific type of wood at a time. Burning different types of biomass, like wood chips, would require a specialized system.

Key Facts

- The NWT used an estimated 30,000 tonnes of wood pellets in 2015.

- The GNWT continues to install wood pellet boilers in its facilities.
- An estimated 13,500 cords of wood are used annually in the NWT.
- Wood pellets and cord wood provide approximately 9% of all the NWT's heating needs.
- Biomass is renewable and carbon neutral when harvested sustainably. This means that it does not contribute directly to climate change.
- Biomass emits more air pollution than heating oil or propane.
- People should only burn dry wood in certified wood or pellet stoves; this minimizes the amount of pollution emitted.

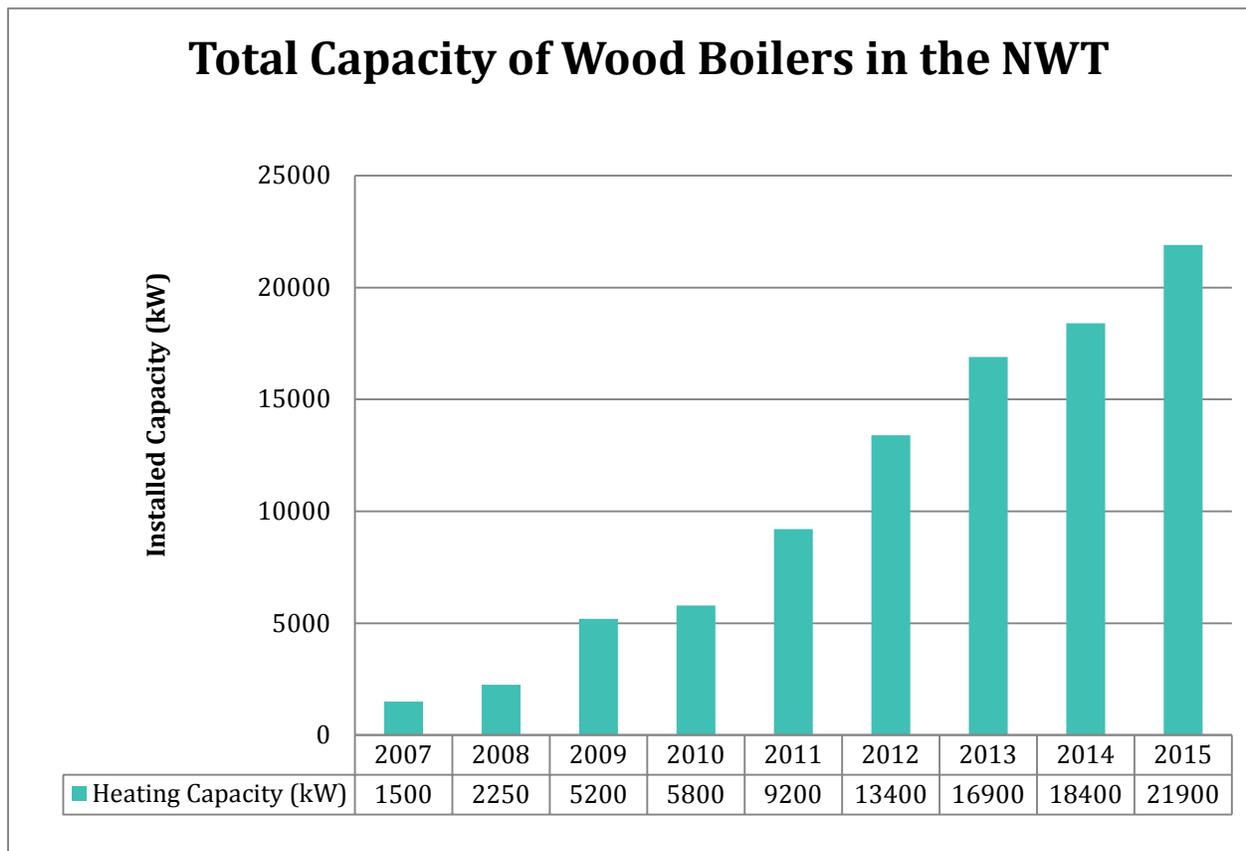


Figure 1 – Cumulative capacity of large pellet boilers in the NWT in Kilowatt