

Wood Heat in Vermont: Baseline Assessment for 2016

The Vermont 2016 Wood Heat Baseline Study shows that using local wood fuels to heat buildings helps Vermonters lower their heating bills, keeps energy dollars in the local economy, stimulates local job creation, sustains Vermont's forested working landscape, and reduces our dependence on fossil fuels.

Vermont Advanced Wood Heating Sector



\$12 Million in Annual Benefits



64 Full-time Jobs



6 Million Gallons Displaced Annually

Total Wood Heat in Vermont



\$205 Million in Annual Benefits



1,088 Full-time Jobs



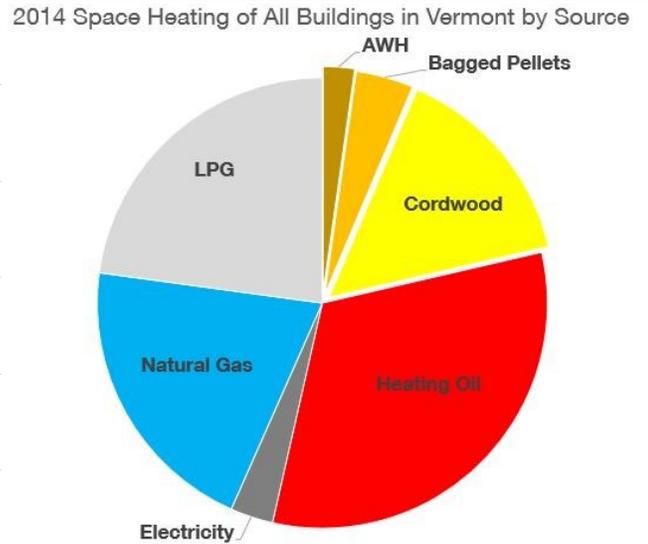
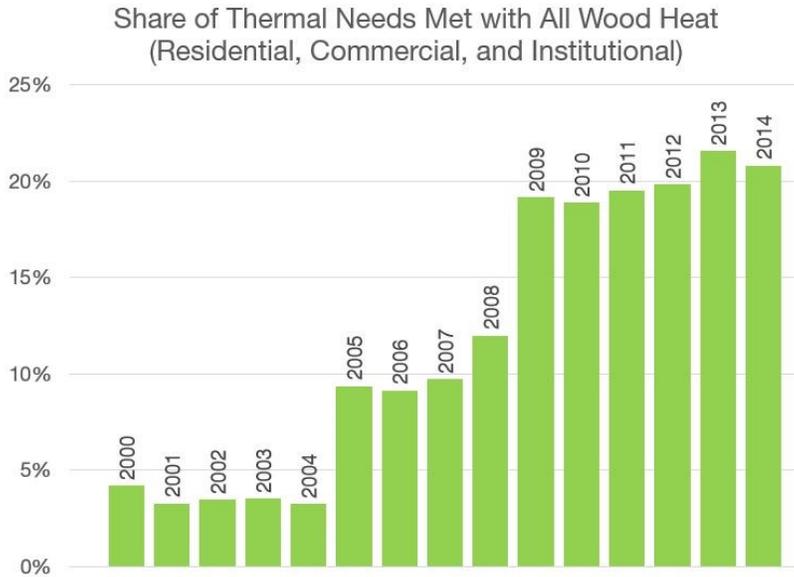
68 Million Gallons Displaced Annually

Advanced Wood Heating Sector in Vermont		All Wood Heat in Vermont	
Operational pellet mills in 2016	2	Homes heated in part with wood	96,951
Expected operational pellet mills in 2018	4	Homes heated in part with wood	38%
Combined capacity of pellet mills in 2016 (tons/year)	37,500	Firewood burned (cords/year)	347,000
Combined capacity of pellet mills expected in 2018 (tons/year)	84,500	Average firewood consumption per household (cords/year)	3.6
Residential systems installed to date	377	Households with pellet heating appliances	31,051
Commercial/institutional systems installed to date	162	Households heated in part with pellets	12%
Bulk pellet fuel consumed by Vermont systems (tons/year)	8,000	Bagged pellets burned (tons/year)	138,530
Woodchip fuel consumed by Vermont systems (tons/year)	79,000	Bagged pellets produced in Vermont burned in Vermont (tons/year)	6,000
Percent of total heating	2%	Percent of total heating	21%

Vermont is the national leader in the use of local wood fuels for heating homes, businesses, community buildings, and district heating. Vermont is home to the greatest concentration of advanced wood heating systems in North America.

Heating buildings accounts for approximately 28% of Vermont's total energy consumption. Traditional cordwood stoves remain a mainstay of home heating in Vermont. Additionally, there is a growing portion of the heating market using chips and pellets to fuel automated advanced boilers and furnaces.

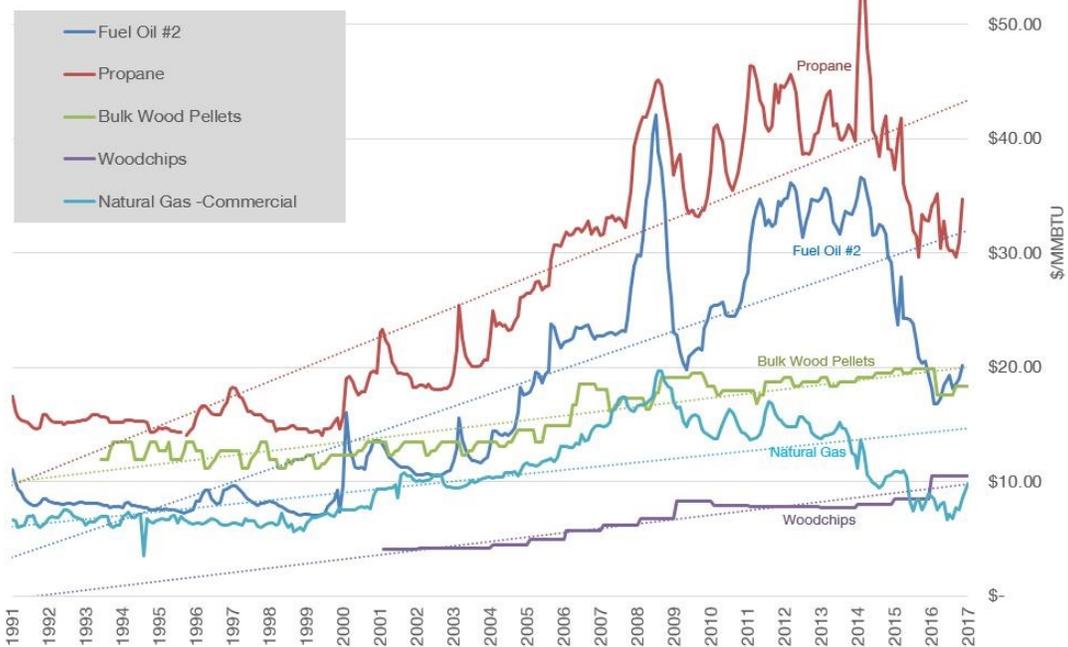
The use of wood heat in Vermont has increased significantly in the last 15 years across the residential, commercial, and institutional sectors. In 2014, wood heat accounted for approximately 21% of Vermont's total heating needs for buildings.



The Advanced Wood Heat market faces many market challenges, but can be expected to continue to grow in the years ahead. The 2016 Vermont Comprehensive Energy Plan (CEP) calls for doubling the use of wood fuel for heating buildings by 2035. Supportive state programs and policies will help, but fossil fuel prices are the primary factor that will determine whether the CEP goal is met and are the greatest market-drivers that will stimulate further demand for alternatives like advanced wood heating into the future.

Average Heating Fuel Price Trends (1991-2017)

(\$/MMBTU of heat after combustion)



The information presented here is part of the 2016 Advanced Wood Heating Baseline report. To access a copy of the full report, please visit -- http://publicservice.vermont.gov/renewable_energy/cedf