

Examples for Commercial Pellet Boiler Equipment Cost and Payback

Building Size (Sq Ft)	Pellet boiler size (BTU)	Pellet Boiler and Storage Cost	Installation Cost*	Estimated Annual Fuel Oil Consumption Rate** (Gals)	Fuel Displacement Rate***	Predicted Annual Pellet Usage**** (Tons)	Annual Oil Cost @ \$3.5/gal	Annual Pellet Cost @ \$210/ton	Annual Savings	Simple Payback in Years
5000	125,000	\$30,000	\$10,000	1,750	100%	14.9	\$6,125	\$3,137	\$2,988	13.4
10000	250,000	\$30,000	\$10,000	3,500	100%	29.9	\$12,250	\$6,274	\$5,976	6.7
15000	375,000	\$50,000	\$20,000	5,250	100%	44.8	\$18,375	\$9,412	\$8,963	7.8
20000	500,000	\$75,000	\$20,000	7,000	100%	59.8	\$24,500	\$12,549	\$11,951	7.9
25000	625,000	\$100,000	\$40,000	8,750	100%	74.7	\$30,625	\$15,686	\$14,939	9.4
50000	1,250,000	\$125,000	\$40,000	17,500	100%	149.4	\$61,250	\$31,372	\$29,878	5.5
75000	1,875,000	\$175,000	\$60,000	26,250	100%	224.1	\$91,875	\$47,058	\$44,817	5.2
100000	2,500,000	\$200,000	\$60,000	35,000	100%	298.8	\$122,500	\$62,744	\$59,756	4.4
125000	3,125,000	\$250,000	\$80,000	43,750	100%	373.5	\$153,125	\$78,430	\$74,695	4.4
150000	3,750,000	\$300,000	\$80,000	52,500	100%	448.2	\$183,750	\$94,116	\$89,634	4.2
175000	4,375,000	\$350,000	\$100,000	61,250	100%	522.9	\$214,375	\$109,802	\$104,573	4.3
200000	5,000,000	\$450,000	\$150,000	70,000	100%	597.6	\$245,000	\$125,488	\$119,512	5.0
225000	5,625,000	\$500,000	\$200,000	78,750	100%	672.3	\$275,625	\$141,174	\$134,451	5.2
250000	6,250,000	\$550,000	\$250,000	87,500	100%	747.0	\$306,250	\$156,860	\$149,390	5.4
275000	6,875,000	\$600,000	\$300,000	96,250	100%	821.6	\$336,875	\$172,546	\$164,329	5.5
300000	7,500,000	\$650,000	\$350,000	105,000	100%	896.3	\$367,500	\$188,232	\$179,268	5.6
325000	8,125,000	\$700,000	\$375,000	113,750	100%	971.0	\$398,125	\$203,918	\$194,207	5.5
350000	8,750,000	\$750,000	\$400,000	122,500	100%	1045.7	\$428,750	\$219,604	\$209,146	5.5
375000	9,375,000	\$800,000	\$425,000	131,250	100%	1120.4	\$459,375	\$235,290	\$224,085	5.5
400000	10,000,000	\$850,000	\$450,000	140,000	100%	1195.1	\$490,000	\$250,976	\$239,024	5.4
425000	10,625,000	\$900,000	\$475,000	148,750	100%	1269.8	\$520,625	\$266,662	\$253,963	5.4
450000	11,250,000	\$950,000	\$500,000	157,500	100%	1344.5	\$551,250	\$282,348	\$268,902	5.4
475000	11,875,000	\$1,000,000	\$525,000	166,250	100%	1419.2	\$581,875	\$298,034	\$283,841	5.4
500000	12,500,000	\$1,050,000	\$550,000	175,000	100%	1493.9	\$612,500	\$313,720	\$298,780	5.4

Notes:

*Installation cost estimates will vary depending on existing conditions and are the largest assumed variable when considering this fuel conversion

**Estimated annual fuel oil consumption is based off a factor of 0.35 gals #2 oil per sq ft per year, (will vary depending on climate and building, age and construction, etc)

***Assumes the design of the new pellet system will be capable of replacing 100% of the fossil fuel usage

****Predicted pellet usage is based off estimated annual fuel oil consumption and energy values of 140,000 Btu/gal of #2 oil, 16,400,000 Btu/ton wood pellets