

Inputs Assumptions Workbook Residential Home Heating Electrification Costs

<https://climate.ny.gov/-/media/Project/Climate/Files/IA-Tech-Supplement-Annex-1-Input-Assumptions.ashx>

2021-12-29-IA-Tech-Supplement-Annex I-Inputs-Assumptions

Component Costs and Total Electrification Estimate		Basic Shell						Deep Shell						
		Single Family		Small Multi Family		Large Multi Family		Single Family		Small Multi Family		Large Multi Family		
		ASHP	GSHP	ASHP	GSHP	ASHP	GSHP	ASHP	GSHP	ASHP	GSHP	ASHP	GSHP	
Air Source Heat Pump		\$ 14,678		\$ 13,643		\$ 26,873		\$ 14,678		\$ 13,643		\$ 26,873		
Electric Resistance		\$ 1,140		\$ 1,140		\$ 1,140		\$ 1,140		\$ 1,140		\$ 1,140		
Ground Source Heat Pump	\$/device		\$ 34,082		\$ 25,515		\$ 39,974		\$ 34,082		\$ 25,515		\$ 39,974	
Building Shell			\$ 6,409	\$ 6,409	\$ 13,011	\$ 13,011	\$ 22,669	\$ 22,669	\$ 45,136	\$ 45,136	\$ 41,353	\$ 41,353	\$ 32,775	\$ 32,775
Reference Shell			\$ -	\$ -	\$ 6,723	\$ 6,723	\$ 3,590	\$ 3,590	\$ -	\$ -	\$ 6,723	\$ 6,723	\$ 3,590	\$ 3,590
Shell Differential			\$ 6,409	\$ 6,409	\$ 6,288	\$ 6,288	\$ 19,079	\$ 19,079	\$ 45,136	\$ 45,136	\$ 34,631	\$ 34,631	\$ 29,185	\$ 29,185
Heating Electrification Total			\$ 22,227	\$ 40,491	\$ 21,071	\$ 31,803	\$ 47,092	\$ 59,053	\$ 60,954	\$ 79,218	\$ 49,414	\$ 60,146	\$ 57,198	\$ 69,159

Single Family	Distillate Boiler	\$ 9,260	\$ 12,967	\$ 31,231				\$ 51,694	\$ 69,958				
	Distillate Furnace	\$ 4,190	\$ 18,037	\$ 36,301				\$ 56,764	\$ 75,028				
	Efficient Distillate Boiler	\$ 11,585	\$ 10,642	\$ 28,906				\$ 49,369	\$ 67,633				
	Efficient Distillate Furnace	\$ 6,515	\$ 15,712	\$ 33,976				\$ 54,439	\$ 72,703				
	Efficient Gas Boiler	\$ 8,975	\$ 13,252	\$ 31,516				\$ 51,979	\$ 70,243				
	Efficient Gas Furnace	\$ 3,085	\$ 19,142	\$ 37,406				\$ 57,869	\$ 76,133				
	Gas Boiler	\$ 7,645	\$ 14,582	\$ 32,846				\$ 53,309	\$ 71,573				
	Gas Furnace	\$ 2,705	\$ 19,522	\$ 37,786				\$ 58,249	\$ 76,513				
	Hybrid Oil Electric Heat Pump	\$ 14,678	\$ 7,549	\$ 25,813				\$ 46,276	\$ 64,540				
	Hybrid Gas Electric Heat Pump	\$ 14,678	\$ 7,549	\$ 25,813				\$ 46,276	\$ 64,540				
	LPG Furnace	\$ 4,190	\$ 18,037	\$ 36,301				\$ 56,764	\$ 75,028				
	Wood Stoves	\$ 7,550	\$ 14,677	\$ 32,941				\$ 53,404	\$ 71,668				
Small Multi Family	Distillate Boiler	\$ 9,260		\$ 11,811	\$ 22,543					\$ 40,154	\$ 50,886		
	Distillate Furnace	\$ 4,190		\$ 16,881	\$ 27,613					\$ 45,224	\$ 55,956		
	Efficient Distillate Boiler	\$ 11,585		\$ 9,486	\$ 20,218					\$ 37,829	\$ 48,561		
	Efficient Distillate Furnace	\$ 6,515		\$ 14,556	\$ 25,288					\$ 42,899	\$ 53,631		
	Efficient Gas Boiler	\$ 8,975		\$ 12,096	\$ 22,828					\$ 40,439	\$ 51,171		
	Efficient Gas Furnace	\$ 3,085		\$ 17,986	\$ 28,718					\$ 46,329	\$ 57,061		
	Gas Boiler	\$ 7,645		\$ 13,426	\$ 24,158					\$ 41,769	\$ 52,501		
	Gas Furnace	\$ 2,705		\$ 18,366	\$ 29,098					\$ 46,709	\$ 57,441		
	Hybrid Oil Electric Heat Pump	\$ 13,643		\$ 7,428	\$ 18,160					\$ 35,771	\$ 46,503		
	Hybrid Gas Electric Heat Pump	\$ 13,643		\$ 7,428	\$ 18,160					\$ 35,771	\$ 46,503		
	LPG Furnace	\$ 4,190		\$ 16,881	\$ 27,613					\$ 45,224	\$ 55,956		
	Wood Stoves	\$ 7,550		\$ 13,521	\$ 24,253					\$ 41,864	\$ 52,596		
Large Multi Family	Distillate Boiler	\$ 9,260				\$ 37,832	\$ 49,793					\$ 47,938	\$ 59,899
	Distillate Furnace	\$ 4,190				\$ 42,902	\$ 54,863					\$ 53,008	\$ 64,969
	Efficient Distillate Boiler	\$ 11,585				\$ 35,507	\$ 47,468					\$ 45,613	\$ 57,574
	Efficient Distillate Furnace	\$ 6,515				\$ 40,577	\$ 52,538					\$ 50,683	\$ 62,644
	Efficient Gas Boiler	\$ 8,975				\$ 38,117	\$ 50,078					\$ 48,223	\$ 60,184
	Efficient Gas Furnace	\$ 3,085				\$ 44,007	\$ 55,968					\$ 54,113	\$ 66,074
	Gas Boiler	\$ 7,645				\$ 39,447	\$ 51,408					\$ 49,553	\$ 61,514
	Gas Furnace	\$ 2,705				\$ 44,387	\$ 56,348					\$ 54,493	\$ 66,454
	Hybrid Oil Electric Heat Pump	\$ 26,873				\$ 20,219	\$ 32,180					\$ 30,325	\$ 42,286
	Hybrid Gas Electric Heat Pump	\$ 26,873				\$ 20,219	\$ 32,180					\$ 30,325	\$ 42,286
	LPG Furnace	\$ 4,190				\$ 42,902	\$ 54,863					\$ 53,008	\$ 64,969
	Wood Stoves	\$ 7,550				\$ 39,542	\$ 51,503					\$ 49,648	\$ 61,609