

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	122							
15,000-20,999	394	183						
21,000-26,999	665	455	244					
27,000-32,999	937	726	516	305				
33,000-38,999	1,209	998	787	577	366			
39,000-44,999	1,480	1,270	1,059	848	638	427		
45,000-53,999	1,752	1,541	1,331	1,120	909	699	488	
54,000-64,999	2,295	2,085	1,874	1,663	1,453	1,242	1,031	610
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	142							
15,000-20,999	414	213						
21,000-26,999	686	485	285					
27,000-32,999	957	757	556	356				
33,000-38,999	1,229	1,028	828	627	427			
39,000-44,999	1,501	1,300	1,100	899	698	498		
45,000-53,999	1,772	1,572	1,371	1,171	970	770	569	
54,000-64,999	2,316	2,115	1,915	1,714	1,513	1,313	1,112	711
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	150							
15,000-20,999	422	225						
21,000-26,999	693	496	300					
27,000-32,999	965	768	571	375				
33,000-38,999	1,237	1,040	843	646	450			
39,000-44,999	1,508	1,311	1,115	918	721	525		
45,000-53,999	1,780	1,583	1,386	1,190	993	796	600	
54,000-64,999	2,323	2,126	1,930	1,733	1,536	1,340	1,143	749

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	157							
15,000-20,999	429	236						
21,000-26,999	701	507	314					
27,000-32,999	972	779	586	393				
33,000-38,999	1,244	1,051	858	665	472			
39,000-44,999	1,516	1,322	1,129	936	743	550		
45,000-53,999	1,787	1,594	1,401	1,208	1,015	822	629	
54,000-64,999	2,331	2,137	1,944	1,751	1,558	1,365	1,172	786
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	164							
15,000-20,999	436	246						
21,000-26,999	708	518	329					
27,000-32,999	979	790	600	411				
33,000-38,999	1,251	1,061	872	682	493			
39,000-44,999	1,523	1,333	1,144	954	765	575		
45,000-53,999	1,794	1,605	1,415	1,226	1,036	847	657	
54,000-64,999	2,338	2,148	1,959	1,769	1,580	1,390	1,200	821
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	171							
15,000-20,999	443	257						
21,000-26,999	714	528	342					
27,000-32,999	986	800	614	428				
33,000-38,999	1,258	1,072	886	699	513			
39,000-44,999	1,529	1,343	1,157	971	785	599		
45,000-53,999	1,801	1,615	1,429	1,243	1,057	871	684	
54,000-64,999	2,344	2,158	1,972	1,786	1,600	1,414	1,228	855

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	175							
15,000-20,999	447	263						
21,000-26,999	718	534	350					
27,000-32,999	990	806	622	438				
33,000-38,999	1,262	1,078	893	709	525			
39,000-44,999	1,533	1,349	1,165	981	797	613		
45,000-53,999	1,805	1,621	1,437	1,253	1,069	884	700	
54,000-64,999	2,348	2,164	1,980	1,796	1,612	1,428	1,244	875

Table 497. Mini-Split Energy Savings (Heating kWh) for 6.8 HSPF Baseline—Zone 4

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	200							
15,000-20,999	530	300						
21,000-26,999	860	630	400					
27,000-32,999	1,190	960	730	500				
33,000-38,999	1,520	1,290	1,060	830	600			
39,000-44,999	1,850	1,620	1,390	1,160	930	700		
45,000-53,999	2,181	1,950	1,720	1,490	1,260	1,030	800	
54,000-64,999	2,841	2,611	2,380	2,150	1,920	1,690	1,460	999

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	239							
15,000-20,999	569	358						
21,000-26,999	899	688	478					
27,000-32,999	1,229	1,019	808	597				
33,000-38,999	1,559	1,349	1,138	927	717			
39,000-44,999	1,889	1,679	1,468	1,257	1,047	836		
45,000-53,999	2,220	2,009	1,798	1,588	1,377	1,166	956	
54,000-64,999	2,880	2,669	2,458	2,248	2,037	1,826	1,616	1,195
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	259							
15,000-20,999	589	389						
21,000-26,999	919	719	518					
27,000-32,999	1,249	1,049	848	648				
33,000-38,999	1,580	1,379	1,179	978	777			
39,000-44,999	1,910	1,709	1,509	1,308	1,108	907		
45,000-53,999	2,240	2,039	1,839	1,638	1,438	1,237	1,037	
54,000-64,999	2,900	2,699	2,499	2,298	2,098	1,897	1,697	1,296
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	267							
15,000-20,999	597	400						
21,000-26,999	927	730	534					
27,000-32,999	1,257	1,060	864	667				
33,000-38,999	1,587	1,390	1,194	997	800			
39,000-44,999	1,917	1,721	1,524	1,327	1,130	934		
45,000-53,999	2,247	2,051	1,854	1,657	1,461	1,264	1,067	
54,000-64,999	2,908	2,711	2,514	2,317	2,121	1,924	1,727	1,334

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	274							
15,000-20,999	604	411						
21,000-26,999	934	741	548					
27,000-32,999	1,264	1,071	878	685				
33,000-38,999	1,595	1,401	1,208	1,015	822			
39,000-44,999	1,925	1,732	1,539	1,345	1,152	959		
45,000-53,999	2,255	2,062	1,869	1,676	1,483	1,290	1,096	
54,000-64,999	2,915	2,722	2,529	2,336	2,143	1,950	1,757	1,371
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	281							
15,000-20,999	611	422						
21,000-26,999	941	752	562					
27,000-32,999	1,271	1,082	892	703				
33,000-38,999	1,602	1,412	1,223	1,033	844			
39,000-44,999	1,932	1,742	1,553	1,363	1,174	984		
45,000-53,999	2,262	2,072	1,883	1,693	1,504	1,314	1,125	
54,000-64,999	2,922	2,733	2,543	2,353	2,164	1,974	1,785	1,406
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	288							
15,000-20,999	618	432						
21,000-26,999	948	762	576					
27,000-32,999	1,278	1,092	906	720				
33,000-38,999	1,608	1,422	1,236	1,050	864			
39,000-44,999	1,939	1,752	1,566	1,380	1,194	1,008		
45,000-53,999	2,269	2,083	1,896	1,710	1,524	1,338	1,152	
54,000-64,999	2,929	2,743	2,557	2,370	2,184	1,998	1,812	1,440

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	292							
15,000-20,999	622	438						
21,000-26,999	952	768	584					
27,000-32,999	1,282	1,098	914	730				
33,000-38,999	1,612	1,428	1,244	1,060	876			
39,000-44,999	1,942	1,758	1,574	1,390	1,206	1,022		
45,000-53,999	2,273	2,088	1,904	1,720	1,536	1,352	1,168	
54,000-64,999	2,933	2,749	2,565	2,380	2,196	2,012	1,828	1,460

Heating, Early Retirement of an Electric Resistance Furnace

Table 498. Mini-Split Energy Savings (Heating kWh) for 3.412 HSPF Baseline—Zone 4

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,083							
15,000-20,999	1,855	1,625						
21,000-26,999	2,627	2,397	2,167					
27,000-32,999	3,399	3,169	2,939	2,709				
33,000-38,999	4,171	3,941	3,711	3,481	3,250			
39,000-44,999	4,943	4,713	4,483	4,253	4,022	3,792		
45,000-53,999	5,715	5,485	5,255	5,024	4,794	4,564	4,334	
54,000-64,999	7,259	7,029	6,798	6,568	6,338	6,108	5,878	5,417

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,123							
15,000-20,999	1,894	1,684						
21,000-26,999	2,666	2,456	2,245					
27,000-32,999	3,438	3,228	3,017	2,806				
33,000-38,999	4,210	3,999	3,789	3,578	3,368			
39,000-44,999	4,982	4,771	4,561	4,350	4,139	3,929		
45,000-53,999	5,754	5,543	5,333	5,122	4,911	4,701	4,490	
54,000-64,999	7,298	7,087	6,876	6,666	6,455	6,244	6,034	5,613
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,143							
15,000-20,999	1,915	1,714						
21,000-26,999	2,687	2,486	2,286					
27,000-32,999	3,458	3,258	3,057	2,857				
33,000-38,999	4,230	4,030	3,829	3,629	3,428			
39,000-44,999	5,002	4,802	4,601	4,401	4,200	4,000		
45,000-53,999	5,774	5,574	5,373	5,173	4,972	4,772	4,571	
54,000-64,999	7,318	7,117	6,917	6,716	6,516	6,315	6,115	5,714
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,150							
15,000-20,999	1,922	1,726						
21,000-26,999	2,694	2,497	2,301					
27,000-32,999	3,466	3,269	3,073	2,876				
33,000-38,999	4,238	4,041	3,845	3,648	3,451			
39,000-44,999	5,010	4,813	4,616	4,420	4,223	4,026		
45,000-53,999	5,782	5,585	5,388	5,192	4,995	4,798	4,602	
54,000-64,999	7,326	7,129	6,932	6,735	6,539	6,342	6,145	5,752

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,158							
15,000-20,999	1,930	1,737						
21,000-26,999	2,702	2,508	2,315					
27,000-32,999	3,473	3,280	3,087	2,894				
33,000-38,999	4,245	4,052	3,859	3,666	3,473			
39,000-44,999	5,017	4,824	4,631	4,438	4,245	4,052		
45,000-53,999	5,789	5,596	5,403	5,210	5,017	4,824	4,631	
54,000-64,999	7,333	7,140	6,947	6,754	6,561	6,368	6,175	5,789
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,165							
15,000-20,999	1,937	1,747						
21,000-26,999	2,709	2,519	2,330					
27,000-32,999	3,480	3,291	3,101	2,912				
33,000-38,999	4,252	4,063	3,873	3,684	3,494			
39,000-44,999	5,024	4,835	4,645	4,456	4,266	4,077		
45,000-53,999	5,796	5,607	5,417	5,228	5,038	4,849	4,659	
54,000-64,999	7,340	7,150	6,961	6,771	6,582	6,392	6,203	5,824
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,172							
15,000-20,999	1,943	1,757						
21,000-26,999	2,715	2,529	2,343					
27,000-32,999	3,487	3,301	3,115	2,929				
33,000-38,999	4,259	4,073	3,887	3,701	3,515			
39,000-44,999	5,031	4,845	4,659	4,473	4,287	4,101		
45,000-53,999	5,803	5,617	5,431	5,245	5,059	4,872	4,686	
54,000-64,999	7,347	7,161	6,975	6,788	6,602	6,416	6,230	5,858

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1,176							
15,000-20,999	1,947	1,763						
21,000-26,999	2,719	2,535	2,351					
27,000-32,999	3,491	3,307	3,123	2,939				
33,000-38,999	4,263	4,079	3,895	3,711	3,527			
39,000-44,999	5,035	4,851	4,667	4,483	4,299	4,114		
45,000-53,999	5,807	5,623	5,439	5,255	5,070	4,886	4,702	
54,000-64,999	7,351	7,167	6,983	6,798	6,614	6,430	6,246	5,878

Climate Zone 5: West Region, El Paso

See Table 499 through Table 502 for the energy savings (kWh) per heating load type associated with a mini-split heat pump replacing another heat pump for all five Texas climate zones.

The following deemed savings assume no back-up electric resistance heat for the efficient case.

Heating, New Construction/Replace-on-Burnout

Table 499. Mini-Split Energy Savings (Heating kWh) for 8.2 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	81							
15,000-20,999	667	122						
21,000-26,999	1,253	708	163					
27,000-32,999	1,839	1,294	749	203				
33,000-38,999	2,425	1,880	1,334	789	244			
39,000-44,999	3,011	2,465	1,920	1,375	830	285		
45,000-53,999	3,596	3,051	2,506	1,961	1,416	871	325	
54,000-64,999	4,768	4,223	3,678	3,133	2,587	2,042	1,497	407

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	174							
15,000-20,999	760	261						
21,000-26,999	1,345	846	348					
27,000-32,999	1,931	1,432	933	434				
33,000-38,999	2,517	2,018	1,519	1,020	521			
39,000-44,999	3,103	2,604	2,105	1,606	1,107	608		
45,000-53,999	3,689	3,190	2,691	2,192	1,693	1,194	695	
54,000-64,999	4,861	4,362	3,863	3,364	2,865	2,366	1,867	869
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	222							
15,000-20,999	808	333						
21,000-26,999	1,393	918	443					
27,000-32,999	1,979	1,504	1,029	554				
33,000-38,999	2,565	2,090	1,615	1,140	665			
39,000-44,999	3,151	2,676	2,201	1,726	1,251	776		
45,000-53,999	3,737	3,262	2,787	2,312	1,837	1,362	887	
54,000-64,999	4,908	4,434	3,959	3,484	3,009	2,534	2,059	1,109
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	240							
15,000-20,999	826	360						
21,000-26,999	1,411	946	480					
27,000-32,999	1,997	1,531	1,065	599				
33,000-38,999	2,583	2,117	1,651	1,185	719			
39,000-44,999	3,169	2,703	2,237	1,771	1,305	839		
45,000-53,999	3,755	3,289	2,823	2,357	1,891	1,425	959	
54,000-64,999	4,927	4,461	3,995	3,529	3,063	2,597	2,131	1,199

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	257							
15,000-20,999	843	386						
21,000-26,999	1,429	972	514					
27,000-32,999	2,015	1,557	1,100	643				
33,000-38,999	2,601	2,143	1,686	1,229	771			
39,000-44,999	3,186	2,729	2,272	1,815	1,357	900		
45,000-53,999	3,772	3,315	2,858	2,400	1,943	1,486	1,029	
54,000-64,999	4,944	4,487	4,029	3,572	3,115	2,658	2,200	1,286
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	274							
15,000-20,999	860	411						
21,000-26,999	1,446	997	548					
27,000-32,999	2,031	1,583	1,134	685				
33,000-38,999	2,617	2,168	1,719	1,271	822			
39,000-44,999	3,203	2,754	2,305	1,856	1,408	959		
45,000-53,999	3,789	3,340	2,891	2,442	1,993	1,544	1,096	
54,000-64,999	4,961	4,512	4,063	3,614	3,165	2,716	2,267	1,369
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	290							
15,000-20,999	876	435						
21,000-26,999	1,462	1,021	580					
27,000-32,999	2,048	1,607	1,166	725				
33,000-38,999	2,633	2,193	1,752	1,311	870			
39,000-44,999	3,219	2,778	2,338	1,897	1,456	1,015		
45,000-53,999	3,805	3,364	2,923	2,483	2,042	1,601	1,160	
54,000-64,999	4,977	4,536	4,095	3,654	3,213	2,773	2,332	1,450

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	299							
15,000-20,999	885	449						
21,000-26,999	1,471	1,035	599					
27,000-32,999	2,057	1,621	1,185	749				
33,000-38,999	2,643	2,207	1,771	1,334	898			
39,000-44,999	3,229	2,793	2,356	1,920	1,484	1,048		
45,000-53,999	3,814	3,378	2,942	2,506	2,070	1,634	1,198	
54,000-64,999	4,986	4,550	4,114	3,678	3,242	2,806	2,369	1,497

Heating, Early Retirement of a Heat Pump

Table 500. Mini-Split Energy Savings (Heating kWh) for 7.7 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	197							
15,000-20,999	840	295						
21,000-26,999	1,484	938	393					
27,000-32,999	2,127	1,582	1,037	492				
33,000-38,999	2,770	2,225	1,680	1,135	590			
39,000-44,999	3,414	2,869	2,324	1,778	1,233	688		
45,000-53,999	4,057	3,512	2,967	2,422	1,877	1,332	786	
54,000-64,999	5,344	4,799	4,254	3,709	3,164	2,619	2,073	983

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	289							
15,000-20,999	932	434						
21,000-26,999	1,576	1,077	578					
27,000-32,999	2,219	1,720	1,221	723				
33,000-38,999	2,863	2,364	1,865	1,366	867			
39,000-44,999	3,506	3,007	2,508	2,009	1,511	1,012		
45,000-53,999	4,150	3,651	3,152	2,653	2,154	1,655	1,156	
54,000-64,999	5,437	4,938	4,439	3,940	3,441	2,942	2,443	1,445
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	337							
15,000-20,999	980	505						
21,000-26,999	1,624	1,149	674					
27,000-32,999	2,267	1,792	1,317	842				
33,000-38,999	2,911	2,436	1,961	1,486	1,011			
39,000-44,999	3,554	3,079	2,604	2,129	1,654	1,179		
45,000-53,999	4,198	3,723	3,248	2,773	2,298	1,823	1,348	
54,000-64,999	5,485	5,010	4,535	4,060	3,585	3,110	2,635	1,685
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	355							
15,000-20,999	999	533						
21,000-26,999	1,642	1,176	710					
27,000-32,999	2,285	1,819	1,354	888				
33,000-38,999	2,929	2,463	1,997	1,531	1,065			
39,000-44,999	3,572	3,106	2,640	2,175	1,709	1,243		
45,000-53,999	4,216	3,750	3,284	2,818	2,352	1,886	1,420	
54,000-64,999	5,503	5,037	4,571	4,105	3,639	3,173	2,707	1,775

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	372							
15,000-20,999	1,016	559						
21,000-26,999	1,659	1,202	745					
27,000-32,999	2,303	1,846	1,388	931				
33,000-38,999	2,946	2,489	2,032	1,574	1,117			
39,000-44,999	3,590	3,132	2,675	2,218	1,761	1,303		
45,000-53,999	4,233	3,776	3,319	2,861	2,404	1,947	1,490	
54,000-64,999	5,520	5,063	4,606	4,148	3,691	3,234	2,777	1,862
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	389							
15,000-20,999	1,033	584						
21,000-26,999	1,676	1,227	778					
27,000-32,999	2,320	1,871	1,422	973				
33,000-38,999	2,963	2,514	2,065	1,616	1,167			
39,000-44,999	3,606	3,158	2,709	2,260	1,811	1,362		
45,000-53,999	4,250	3,801	3,352	2,903	2,454	2,005	1,557	
54,000-64,999	5,537	5,088	4,639	4,190	3,741	3,292	2,844	1,946
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	405							
15,000-20,999	1,049	608						
21,000-26,999	1,692	1,251	811					
27,000-32,999	2,336	1,895	1,454	1,013				
33,000-38,999	2,979	2,538	2,097	1,657	1,216			
39,000-44,999	3,623	3,182	2,741	2,300	1,859	1,418		
45,000-53,999	4,266	3,825	3,384	2,944	2,503	2,062	1,621	
54,000-64,999	5,553	5,112	4,671	4,231	3,790	3,349	2,908	2,026

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	415							
15,000-20,999	1,058	622						
21,000-26,999	1,702	1,265	829					
27,000-32,999	2,345	1,909	1,473	1,037				
33,000-38,999	2,989	2,552	2,116	1,680	1,244			
39,000-44,999	3,632	3,196	2,760	2,324	1,888	1,451		
45,000-53,999	4,275	3,839	3,403	2,967	2,531	2,095	1,659	
54,000-64,999	5,562	5,126	4,690	4,254	3,818	3,382	2,946	2,073

Table 501. Mini-Split Energy Savings (Heating kWh) for 6.8 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	473							
15,000-20,999	1,255	710						
21,000-26,999	2,037	1,492	947					
27,000-32,999	2,819	2,274	1,729	1,184				
33,000-38,999	3,601	3,056	2,511	1,966	1,420			
39,000-44,999	4,383	3,838	3,293	2,748	2,202	1,657		
45,000-53,999	5,165	4,620	4,075	3,529	2,984	2,439	1,894	
54,000-64,999	6,729	6,184	5,638	5,093	4,548	4,003	3,458	2,367

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	566							
15,000-20,999	1,348	849						
21,000-26,999	2,130	1,631	1,132					
27,000-32,999	2,912	2,413	1,914	1,415				
33,000-38,999	3,693	3,195	2,696	2,197	1,698			
39,000-44,999	4,475	3,976	3,477	2,979	2,480	1,981		
45,000-53,999	5,257	4,758	4,259	3,760	3,261	2,763	2,264	
54,000-64,999	6,821	6,322	5,823	5,324	4,825	4,326	3,827	2,829
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	614							
15,000-20,999	1,396	921						
21,000-26,999	2,178	1,703	1,228					
27,000-32,999	2,960	2,485	2,010	1,535				
33,000-38,999	3,741	3,267	2,792	2,317	1,842			
39,000-44,999	4,523	4,048	3,573	3,098	2,624	2,149		
45,000-53,999	5,305	4,830	4,355	3,880	3,405	2,930	2,455	
54,000-64,999	6,869	6,394	5,919	5,444	4,969	4,494	4,019	3,069
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	632							
15,000-20,999	1,414	948						
21,000-26,999	2,196	1,730	1,264					
27,000-32,999	2,978	2,512	2,046	1,580				
33,000-38,999	3,760	3,294	2,828	2,362	1,896			
39,000-44,999	4,541	4,075	3,610	3,144	2,678	2,212		
45,000-53,999	5,323	4,857	4,391	3,925	3,460	2,994	2,528	
54,000-64,999	6,887	6,421	5,955	5,489	5,023	4,557	4,091	3,160

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	649							
15,000-20,999	1,431	974						
21,000-26,999	2,213	1,756	1,299					
27,000-32,999	2,995	2,538	2,080	1,623				
33,000-38,999	3,777	3,320	2,862	2,405	1,948			
39,000-44,999	4,559	4,102	3,644	3,187	2,730	2,272		
45,000-53,999	5,341	4,883	4,426	3,969	3,512	3,054	2,597	
54,000-64,999	6,905	6,447	5,990	5,533	5,075	4,618	4,161	3,246
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	666							
15,000-20,999	1,448	999						
21,000-26,999	2,230	1,781	1,332					
27,000-32,999	3,012	2,563	2,114	1,665				
33,000-38,999	3,794	3,345	2,896	2,447	1,998			
39,000-44,999	4,576	4,127	3,678	3,229	2,780	2,331		
45,000-53,999	5,357	4,909	4,460	4,011	3,562	3,113	2,664	
54,000-64,999	6,921	6,472	6,023	5,575	5,126	4,677	4,228	3,330
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	682							
15,000-20,999	1,464	1,023						
21,000-26,999	2,246	1,805	1,364					
27,000-32,999	3,028	2,587	2,146	1,705				
33,000-38,999	3,810	3,369	2,928	2,487	2,046			
39,000-44,999	4,592	4,151	3,710	3,269	2,828	2,388		
45,000-53,999	5,374	4,933	4,492	4,051	3,610	3,169	2,729	
54,000-64,999	6,937	6,497	6,056	5,615	5,174	4,733	4,292	3,411

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	692							
15,000-20,999	1,473	1,037						
21,000-26,999	2,255	1,819	1,383					
27,000-32,999	3,037	2,601	2,165	1,729				
33,000-38,999	3,819	3,383	2,947	2,511	2,075			
39,000-44,999	4,601	4,165	3,729	3,293	2,857	2,420		
45,000-53,999	5,383	4,947	4,511	4,075	3,638	3,202	2,766	
54,000-64,999	6,947	6,511	6,075	5,638	5,202	4,766	4,330	3,458

Heating, Early Retirement of an Electric Resistance Furnace

Table 502. Mini-Split Energy Savings (Heating kWh) for 3.412 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,563							
15,000-20,999	4,390	3,844						
21,000-26,999	6,216	5,671	5,126					
27,000-32,999	8,043	7,498	6,953	6,407				
33,000-38,999	9,870	9,324	8,779	8,234	7,689			
39,000-44,999	11,696	11,151	10,606	10,061	9,516	8,970		
45,000-53,999	13,523	12,978	12,432	11,887	11,342	10,797	10,252	
54,000-64,999	17,176	16,631	16,086	15,541	14,995	14,450	13,905	12,815

9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,655							
15,000-20,999	4,482	3,983						
21,000-26,999	6,309	5,810	5,311					
27,000-32,999	8,135	7,636	7,137	6,638				
33,000-38,999	9,962	9,463	8,964	8,465	7,966			
39,000-44,999	11,789	11,290	10,791	10,292	9,793	9,294		
45,000-53,999	13,615	13,116	12,617	12,118	11,619	11,120	10,621	
54,000-64,999	17,268	16,770	16,271	15,772	15,273	14,774	14,275	13,277
9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,703							
15,000-20,999	4,530	4,055						
21,000-26,999	6,357	5,882	5,407					
27,000-32,999	8,183	7,708	7,233	6,758				
33,000-38,999	10,010	9,535	9,060	8,585	8,110			
39,000-44,999	11,837	11,362	10,887	10,412	9,937	9,462		
45,000-53,999	13,663	13,188	12,713	12,238	11,763	11,288	10,813	
54,000-64,999	17,316	16,841	16,367	15,892	15,417	14,942	14,467	13,517
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,721							
15,000-20,999	4,548	4,082						
21,000-26,999	6,375	5,909	5,443					
27,000-32,999	8,201	7,735	7,269	6,803				
33,000-38,999	10,028	9,562	9,096	8,630	8,164			
39,000-44,999	11,855	11,389	10,923	10,457	9,991	9,525		
45,000-53,999	13,681	13,215	12,749	12,283	11,817	11,351	10,886	
54,000-64,999	17,334	16,869	16,403	15,937	15,471	15,005	14,539	13,607

10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,739							
15,000-20,999	4,565	4,108						
21,000-26,999	6,392	5,935	5,478					
27,000-32,999	8,219	7,761	7,304	6,847				
33,000-38,999	10,045	9,588	9,131	8,674	8,216			
39,000-44,999	11,872	11,415	10,957	10,500	10,043	9,586		
45,000-53,999	13,699	13,241	12,784	12,327	11,870	11,412	10,955	
54,000-64,999	17,352	16,895	16,437	15,980	15,523	15,066	14,608	13,694
11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,755							
15,000-20,999	4,582	4,133						
21,000-26,999	6,409	5,960	5,511					
27,000-32,999	8,235	7,787	7,338	6,889				
33,000-38,999	10,062	9,613	9,164	8,715	8,266			
39,000-44,999	11,889	11,440	10,991	10,542	10,093	9,644		
45,000-53,999	13,715	13,266	12,818	12,369	11,920	11,471	11,022	
54,000-64,999	17,369	16,920	16,471	16,022	15,573	15,124	14,675	13,777
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,772							
15,000-20,999	4,598	4,157						
21,000-26,999	6,425	5,984	5,543					
27,000-32,999	8,252	7,811	7,370	6,929				
33,000-38,999	10,078	9,637	9,197	8,756	8,315			
39,000-44,999	11,905	11,464	11,023	10,582	10,141	9,701		
45,000-53,999	13,731	13,291	12,850	12,409	11,968	11,527	11,086	
54,000-64,999	17,385	16,944	16,503	16,062	15,621	15,181	14,740	13,858

12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2,781							
15,000-20,999	4,608	4,172						
21,000-26,999	6,434	5,998	5,562					
27,000-32,999	8,261	7,825	7,389	6,953				
33,000-38,999	10,088	9,651	9,215	8,779	8,343			
39,000-44,999	11,914	11,478	11,042	10,606	10,170	9,734		
45,000-53,999	13,741	13,305	12,869	12,432	11,996	11,560	11,124	
54,000-64,999	17,394	16,958	16,522	16,086	15,650	15,213	14,777	13,905

Deemed Summer Demand Savings Tables⁵⁶⁶

Refer to Appendix A, Table 443 through Table 462.

Deemed Winter Demand Savings Tables⁵⁶⁷

Table 503 through Table 522 present the winter demand savings (kW) for all five Texas climate zones. In each table, the capacity of the efficient unit is represented in the columns and the capacity of the existing unit is represented in the rows. The savings are in the intersection of the appropriate efficient and existing capacities. Replacements where there has been to change in capacity are highlighted in light blue.

The rightsizing savings specified in the tables below are only applicable to replace-on-burnout and early retirement projects. New construction projects are not eligible to receive deemed savings for system rightsizing.⁵⁶⁸

The following heating savings assume no back-up electric resistance heat for the efficient case.

⁵⁶⁶ Rated capacity ranges are specified based on normal rounding convention between capacity categories (values at and above the midpoint round up, while values below the midpoint round down).

⁵⁶⁷ Rated capacity ranges are specified with a 5 percent tolerance in accordance with AHRI Standard 210/240 to account for systems that are rated slightly below the applicable nominal capacity. AHRI Standard 210/240. Table J1.

http://www.ahrinet.org/App_Content/ahri/files/STANDARDS/AHRI/AHRI_Standard_210-240_2017.pdf.

⁵⁶⁸ For projects using a custom baseline, see TRM Volume 4.

Climate Zone 1: Panhandle Region, Amarillo

Heating, New Construction/Replace-on-Burnout

Table 503. Mini-Split Winter Demand Savings for 8.2 HSPF Baseline—Zone 1

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.60							
15,000-20,999	1.26	0.89						
21,000-26,999	1.93	1.56	1.19					
27,000-32,999	2.60	2.23	1.86	1.49				
33,000-38,999	3.26	2.89	2.53	2.16	1.79			
39,000-44,999	3.93	3.56	3.19	2.82	2.45	2.08		
45,000-53,999	4.60	4.23	3.86	3.49	3.12	2.75	2.38	
54,000-64,999	5.93	5.56	5.19	4.82	4.46	4.09	3.72	2.98
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.66							
15,000-20,999	1.33	0.99						
21,000-26,999	1.99	1.65	1.32					
27,000-32,999	2.66	2.32	1.98	1.65				
33,000-38,999	3.33	2.99	2.65	2.31	1.97			
39,000-44,999	3.99	3.66	3.32	2.98	2.64	2.30		
45,000-53,999	4.66	4.32	3.99	3.65	3.31	2.97	2.63	
54,000-64,999	6.00	5.66	5.32	4.98	4.64	4.31	3.97	3.29

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.69							
15,000-20,999	1.36	1.04						
21,000-26,999	2.03	1.70	1.38					
27,000-32,999	2.69	2.37	2.05	1.73				
33,000-38,999	3.36	3.04	2.72	2.39	2.07			
39,000-44,999	4.03	3.70	3.38	3.06	2.74	2.42		
45,000-53,999	4.69	4.37	4.05	3.73	3.41	3.08	2.76	
54,000-64,999	6.03	5.71	5.38	5.06	4.74	4.42	4.10	3.45
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.70							
15,000-20,999	1.37	1.05						
21,000-26,999	2.04	1.72	1.41					
27,000-32,999	2.70	2.39	2.07	1.76				
33,000-38,999	3.37	3.06	2.74	2.42	2.11			
39,000-44,999	4.04	3.72	3.41	3.09	2.78	2.46		
45,000-53,999	4.71	4.39	4.07	3.76	3.44	3.13	2.81	
54,000-64,999	6.04	5.72	5.41	5.09	4.78	4.46	4.15	3.51
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.71							
15,000-20,999	1.38	1.07						
21,000-26,999	2.05	1.74	1.43					
27,000-32,999	2.72	2.41	2.10	1.79				
33,000-38,999	3.38	3.07	2.76	2.45	2.14			
39,000-44,999	4.05	3.74	3.43	3.12	2.81	2.50		
45,000-53,999	4.72	4.41	4.10	3.79	3.48	3.17	2.86	
54,000-64,999	6.05	5.74	5.43	5.12	4.81	4.50	4.19	3.57

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.73							
15,000-20,999	1.39	1.09						
21,000-26,999	2.06	1.76	1.45					
27,000-32,999	2.73	2.42	2.12	1.82				
33,000-38,999	3.39	3.09	2.79	2.48	2.18			
39,000-44,999	4.06	3.76	3.45	3.15	2.85	2.54		
45,000-53,999	4.73	4.42	4.12	3.82	3.51	3.21	2.90	
54,000-64,999	6.06	5.76	5.46	5.15	4.85	4.54	4.24	3.63
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.74							
15,000-20,999	1.40	1.11						
21,000-26,999	2.07	1.77	1.47					
27,000-32,999	2.74	2.44	2.14	1.84				
33,000-38,999	3.41	3.11	2.81	2.51	2.21			
39,000-44,999	4.07	3.77	3.48	3.18	2.88	2.58		
45,000-53,999	4.74	4.44	4.14	3.84	3.55	3.25	2.95	
54,000-64,999	6.07	5.78	5.48	5.18	4.88	4.58	4.28	3.69
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.74							
15,000-20,999	1.41	1.12						
21,000-26,999	2.08	1.78	1.49					
27,000-32,999	2.74	2.45	2.15	1.86				
33,000-38,999	3.41	3.12	2.82	2.53	2.23			
39,000-44,999	4.08	3.78	3.49	3.19	2.90	2.60		
45,000-53,999	4.75	4.45	4.16	3.86	3.56	3.27	2.97	
54,000-64,999	6.08	5.79	5.49	5.19	4.90	4.60	4.31	3.72

Heating, Early Retirement of a Heat Pump

Table 504. Mini-Split Winter Demand Savings for 7.7 HSPF Baseline—Zone 1

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.67							
15,000-20,999	1.38	1.01						
21,000-26,999	2.09	1.72	1.35					
27,000-32,999	2.79	2.42	2.05	1.68				
33,000-38,999	3.50	3.13	2.76	2.39	2.02			
39,000-44,999	4.20	3.84	3.47	3.10	2.73	2.36		
45,000-53,999	4.91	4.54	4.17	3.80	3.43	3.06	2.69	
54,000-64,999	6.32	5.95	5.58	5.22	4.85	4.48	4.11	3.37
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.74							
15,000-20,999	1.44	1.10						
21,000-26,999	2.15	1.81	1.47					
27,000-32,999	2.85	2.52	2.18	1.84				
33,000-38,999	3.56	3.22	2.89	2.55	2.21			
39,000-44,999	4.27	3.93	3.59	3.25	2.92	2.58		
45,000-53,999	4.97	4.64	4.30	3.96	3.62	3.28	2.95	
54,000-64,999	6.39	6.05	5.71	5.37	5.03	4.70	4.36	3.68

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.77							
15,000-20,999	1.48	1.15						
21,000-26,999	2.18	1.86	1.54					
27,000-32,999	2.89	2.57	2.24	1.92				
33,000-38,999	3.59	3.27	2.95	2.63	2.31			
39,000-44,999	4.30	3.98	3.66	3.33	3.01	2.69		
45,000-53,999	5.01	4.68	4.36	4.04	3.72	3.40	3.08	
54,000-64,999	6.42	6.10	5.77	5.45	5.13	4.81	4.49	3.84
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.78							
15,000-20,999	1.49	1.17						
21,000-26,999	2.19	1.88	1.56					
27,000-32,999	2.90	2.58	2.27	1.95				
33,000-38,999	3.61	3.29	2.97	2.66	2.34			
39,000-44,999	4.31	4.00	3.68	3.37	3.05	2.73		
45,000-53,999	5.02	4.70	4.39	4.07	3.76	3.44	3.12	
54,000-64,999	6.43	6.12	5.80	5.48	5.17	4.85	4.54	3.91
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.79							
15,000-20,999	1.50	1.19						
21,000-26,999	2.21	1.90	1.59					
27,000-32,999	2.91	2.60	2.29	1.98				
33,000-38,999	3.62	3.31	3.00	2.69	2.38			
39,000-44,999	4.32	4.01	3.70	3.39	3.08	2.77		
45,000-53,999	5.03	4.72	4.41	4.10	3.79	3.48	3.17	
54,000-64,999	6.44	6.13	5.82	5.51	5.20	4.89	4.58	3.96

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.80							
15,000-20,999	1.51	1.21						
21,000-26,999	2.22	1.91	1.61					
27,000-32,999	2.92	2.62	2.31	2.01				
33,000-38,999	3.63	3.32	3.02	2.72	2.41			
39,000-44,999	4.34	4.03	3.73	3.42	3.12	2.81		
45,000-53,999	5.04	4.74	4.43	4.13	3.82	3.52	3.22	
54,000-64,999	6.45	6.15	5.85	5.54	5.24	4.93	4.63	4.02
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.82							
15,000-20,999	1.52	1.22						
21,000-26,999	2.23	1.93	1.63					
27,000-32,999	2.93	2.64	2.34	2.04				
33,000-38,999	3.64	3.34	3.04	2.74	2.45			
39,000-44,999	4.35	4.05	3.75	3.45	3.15	2.85		
45,000-53,999	5.05	4.75	4.46	4.16	3.86	3.56	3.26	
54,000-64,999	6.46	6.17	5.87	5.57	5.27	4.97	4.67	4.08
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.82							
15,000-20,999	1.53	1.23						
21,000-26,999	2.23	1.94	1.64					
27,000-32,999	2.94	2.64	2.35	2.05				
33,000-38,999	3.65	3.35	3.06	2.76	2.46			
39,000-44,999	4.35	4.06	3.76	3.47	3.17	2.88		
45,000-53,999	5.06	4.76	4.47	4.17	3.88	3.58	3.29	
54,000-64,999	6.47	6.18	5.88	5.58	5.29	4.99	4.70	4.11

Table 505. Mini-Split Winter Demand Savings for 6.8 HSPF Baseline—Zone 1

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.86							
15,000-20,999	1.66	1.29						
21,000-26,999	2.46	2.09	1.72					
27,000-32,999	3.26	2.89	2.52	2.15				
33,000-38,999	4.06	3.69	3.32	2.95	2.58			
39,000-44,999	4.86	4.49	4.12	3.75	3.38	3.01		
45,000-53,999	5.66	5.29	4.92	4.55	4.18	3.81	3.45	
54,000-64,999	7.26	6.89	6.52	6.15	5.78	5.41	5.05	4.31
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.92							
15,000-20,999	1.72	1.39						
21,000-26,999	2.52	2.19	1.85					
27,000-32,999	3.32	2.99	2.65	2.31				
33,000-38,999	4.12	3.79	3.45	3.11	2.77			
39,000-44,999	4.92	4.59	4.25	3.91	3.57	3.23		
45,000-53,999	5.72	5.39	5.05	4.71	4.37	4.03	3.70	
54,000-64,999	7.32	6.99	6.65	6.31	5.97	5.63	5.30	4.62

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.96							
15,000-20,999	1.76	1.43						
21,000-26,999	2.56	2.23	1.91					
27,000-32,999	3.36	3.03	2.71	2.39				
33,000-38,999	4.16	3.83	3.51	3.19	2.87			
39,000-44,999	4.96	4.63	4.31	3.99	3.67	3.35		
45,000-53,999	5.76	5.43	5.11	4.79	4.47	4.15	3.83	
54,000-64,999	7.36	7.03	6.71	6.39	6.07	5.75	5.43	4.78
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.97							
15,000-20,999	1.77	1.45						
21,000-26,999	2.57	2.25	1.94					
27,000-32,999	3.37	3.05	2.74	2.42				
33,000-38,999	4.17	3.85	3.54	3.22	2.91			
39,000-44,999	4.97	4.65	4.34	4.02	3.71	3.39		
45,000-53,999	5.77	5.45	5.14	4.82	4.51	4.19	3.87	
54,000-64,999	7.37	7.05	6.74	6.42	6.11	5.79	5.47	4.84
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.98							
15,000-20,999	1.78	1.47						
21,000-26,999	2.58	2.27	1.96					
27,000-32,999	3.38	3.07	2.76	2.45				
33,000-38,999	4.18	3.87	3.56	3.25	2.94			
39,000-44,999	4.98	4.67	4.36	4.05	3.74	3.43		
45,000-53,999	5.78	5.47	5.16	4.85	4.54	4.23	3.92	
54,000-64,999	7.38	7.07	6.76	6.45	6.14	5.83	5.52	4.90

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.99							
15,000-20,999	1.79	1.49						
21,000-26,999	2.59	2.29	1.98					
27,000-32,999	3.39	3.09	2.78	2.48				
33,000-38,999	4.19	3.89	3.58	3.28	2.98			
39,000-44,999	4.99	4.69	4.38	4.08	3.78	3.47		
45,000-53,999	5.79	5.49	5.18	4.88	4.58	4.27	3.97	
54,000-64,999	7.39	7.09	6.78	6.48	6.18	5.87	5.57	4.96
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.00							
15,000-20,999	1.80	1.50						
21,000-26,999	2.60	2.30	2.01					
27,000-32,999	3.40	3.10	2.81	2.51				
33,000-38,999	4.20	3.90	3.61	3.31	3.01			
39,000-44,999	5.00	4.70	4.41	4.11	3.81	3.51		
45,000-53,999	5.80	5.50	5.21	4.91	4.61	4.31	4.01	
54,000-64,999	7.40	7.10	6.81	6.51	6.21	5.91	5.61	5.01
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.01							
15,000-20,999	1.81	1.51						
21,000-26,999	2.61	2.31	2.02					
27,000-32,999	3.41	3.11	2.82	2.52				
33,000-38,999	4.21	3.91	3.62	3.32	3.03			
39,000-44,999	5.01	4.71	4.42	4.12	3.83	3.53		
45,000-53,999	5.81	5.51	5.22	4.92	4.63	4.33	4.04	
54,000-64,999	7.41	7.11	6.82	6.52	6.23	5.93	5.64	5.05

Heating, Early Retirement of an Electric Resistance Furnace

Table 506. Mini-Split Winter Demand Savings for 3.412 HSPF Baseline—Zone 1

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.06							
15,000-20,999	3.46	3.09						
21,000-26,999	4.86	4.49	4.12					
27,000-32,999	6.26	5.89	5.52	5.15				
33,000-38,999	7.66	7.29	6.92	6.55	6.18			
39,000-44,999	9.06	8.69	8.32	7.95	7.58	7.21		
45,000-53,999	10.45	10.09	9.72	9.35	8.98	8.61	8.24	
54,000-64,999	13.25	12.88	12.51	12.14	11.78	11.41	11.04	10.30
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.12							
15,000-20,999	3.52	3.18						
21,000-26,999	4.92	4.58	4.24					
27,000-32,999	6.32	5.98	5.64	5.31				
33,000-38,999	7.72	7.38	7.04	6.70	6.37			
39,000-44,999	9.12	8.78	8.44	8.10	7.77	7.43		
45,000-53,999	10.52	10.18	9.84	9.50	9.17	8.83	8.49	
54,000-64,999	13.32	12.98	12.64	12.30	11.96	11.63	11.29	10.61

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.15							
15,000-20,999	3.55	3.23						
21,000-26,999	4.95	4.63	4.31					
27,000-32,999	6.35	6.03	5.71	5.39				
33,000-38,999	7.75	7.43	7.11	6.79	6.46			
39,000-44,999	9.15	8.83	8.51	8.19	7.86	7.54		
45,000-53,999	10.55	10.23	9.91	9.58	9.26	8.94	8.62	
54,000-64,999	13.35	13.03	12.70	12.38	12.06	11.74	11.42	10.77
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.17							
15,000-20,999	3.57	3.25						
21,000-26,999	4.97	4.65	4.33					
27,000-32,999	6.36	6.05	5.73	5.42				
33,000-38,999	7.76	7.45	7.13	6.82	6.50			
39,000-44,999	9.16	8.85	8.53	8.22	7.90	7.58		
45,000-53,999	10.56	10.25	9.93	9.61	9.30	8.98	8.67	
54,000-64,999	13.36	13.04	12.73	12.41	12.10	11.78	11.47	10.83
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.18							
15,000-20,999	3.58	3.27						
21,000-26,999	4.98	4.67	4.36					
27,000-32,999	6.38	6.07	5.76	5.45				
33,000-38,999	7.78	7.47	7.16	6.85	6.54			
39,000-44,999	9.17	8.86	8.56	8.25	7.94	7.63		
45,000-53,999	10.57	10.26	9.95	9.64	9.33	9.02	8.71	
54,000-64,999	13.37	13.06	12.75	12.44	12.13	11.82	11.51	10.89

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.19							
15,000-20,999	3.59	3.29						
21,000-26,999	4.99	4.68	4.38					
27,000-32,999	6.39	6.08	5.78	5.48				
33,000-38,999	7.79	7.48	7.18	6.87	6.57			
39,000-44,999	9.19	8.88	8.58	8.27	7.97	7.67		
45,000-53,999	10.59	10.28	9.98	9.67	9.37	9.06	8.76	
54,000-64,999	13.38	13.08	12.78	12.47	12.17	11.86	11.56	10.95
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.20							
15,000-20,999	3.60	3.30						
21,000-26,999	5.00	4.70	4.40					
27,000-32,999	6.40	6.10	5.80	5.50				
33,000-38,999	7.80	7.50	7.20	6.90	6.60			
39,000-44,999	9.20	8.90	8.60	8.30	8.00	7.70		
45,000-53,999	10.60	10.30	10.00	9.70	9.40	9.10	8.80	
54,000-64,999	13.39	13.10	12.80	12.50	12.20	11.90	11.60	11.01
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.21							
15,000-20,999	3.61	3.31						
21,000-26,999	5.01	4.71	4.41					
27,000-32,999	6.40	6.11	5.81	5.52				
33,000-38,999	7.80	7.51	7.21	6.92	6.62			
39,000-44,999	9.20	8.91	8.61	8.32	8.02	7.73		
45,000-53,999	10.60	10.31	10.01	9.72	9.42	9.13	8.83	
54,000-64,999	13.40	13.11	12.81	12.51	12.22	11.92	11.63	11.04

Climate Zone 2: North Region, Dallas/Fort Worth

Heating, New Construction/Replace-on-Burnout

Table 507. Mini-Split Winter Demand Savings for 8.2 HSPF Baseline—Zone 2

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.50							
15,000-20,999	1.12	0.75						
21,000-26,999	1.74	1.37	1.00					
27,000-32,999	2.36	1.99	1.62	1.25				
33,000-38,999	2.98	2.61	2.24	1.87	1.50			
39,000-44,999	3.61	3.23	2.86	2.49	2.12	1.75		
45,000-53,999	4.23	3.86	3.48	3.11	2.74	2.37	2.00	
54,000-64,999	5.47	5.10	4.73	4.36	3.98	3.61	3.24	2.50
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.56							
15,000-20,999	1.18	0.84						
21,000-26,999	1.81	1.47	1.13					
27,000-32,999	2.43	2.09	1.75	1.41				
33,000-38,999	3.05	2.71	2.37	2.03	1.69			
39,000-44,999	3.67	3.33	2.99	2.65	2.31	1.97		
45,000-53,999	4.29	3.95	3.61	3.27	2.93	2.59	2.25	
54,000-64,999	5.53	5.19	4.85	4.51	4.17	3.83	3.49	2.81

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.60							
15,000-20,999	1.22	0.89						
21,000-26,999	1.84	1.51	1.19					
27,000-32,999	2.46	2.14	1.81	1.49				
33,000-38,999	3.08	2.76	2.43	2.11	1.79			
39,000-44,999	3.70	3.38	3.05	2.73	2.41	2.08		
45,000-53,999	4.32	4.00	3.68	3.35	3.03	2.71	2.38	
54,000-64,999	5.57	5.24	4.92	4.60	4.27	3.95	3.62	2.98
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.61							
15,000-20,999	1.23	0.91						
21,000-26,999	1.85	1.53	1.22					
27,000-32,999	2.47	2.15	1.84	1.52				
33,000-38,999	3.09	2.78	2.46	2.14	1.82			
39,000-44,999	3.71	3.40	3.08	2.76	2.44	2.13		
45,000-53,999	4.34	4.02	3.70	3.38	3.07	2.75	2.43	
54,000-64,999	5.58	5.26	4.94	4.63	4.31	3.99	3.67	3.04
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.62							
15,000-20,999	1.24	0.93						
21,000-26,999	1.86	1.55	1.24					
27,000-32,999	2.48	2.17	1.86	1.55				
33,000-38,999	3.10	2.79	2.48	2.17	1.86			
39,000-44,999	3.73	3.41	3.10	2.79	2.48	2.17		
45,000-53,999	4.35	4.04	3.72	3.41	3.10	2.79	2.48	
54,000-64,999	5.59	5.28	4.97	4.66	4.34	4.03	3.72	3.10

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.63							
15,000-20,999	1.25	0.95						
21,000-26,999	1.87	1.57	1.26					
27,000-32,999	2.49	2.19	1.88	1.58				
33,000-38,999	3.12	2.81	2.50	2.20	1.89			
39,000-44,999	3.74	3.43	3.13	2.82	2.51	2.21		
45,000-53,999	4.36	4.05	3.75	3.44	3.14	2.83	2.52	
54,000-64,999	5.60	5.30	4.99	4.68	4.38	4.07	3.77	3.16
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.64							
15,000-20,999	1.26	0.96						
21,000-26,999	1.88	1.58	1.28					
27,000-32,999	2.51	2.21	1.91	1.61				
33,000-38,999	3.13	2.83	2.53	2.23	1.93			
39,000-44,999	3.75	3.45	3.15	2.85	2.55	2.25		
45,000-53,999	4.37	4.07	3.77	3.47	3.17	2.87	2.57	
54,000-64,999	5.61	5.31	5.01	4.71	4.41	4.11	3.81	3.21
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.65							
15,000-20,999	1.27	0.97						
21,000-26,999	1.89	1.59	1.30					
27,000-32,999	2.51	2.22	1.92	1.62				
33,000-38,999	3.13	2.84	2.54	2.24	1.95			
39,000-44,999	3.75	3.46	3.16	2.86	2.57	2.27		
45,000-53,999	4.38	4.08	3.78	3.48	3.19	2.89	2.59	
54,000-64,999	5.62	5.32	5.02	4.73	4.43	4.13	3.84	3.24

Heating, Early Retirement of a Heat Pump

Table 508. Mini-Split Winter Demand Savings for 7.7 HSPF Baseline—Zone 2

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.58							
15,000-20,999	1.24	0.87						
21,000-26,999	1.90	1.53	1.16					
27,000-32,999	2.56	2.19	1.82	1.45				
33,000-38,999	3.22	2.85	2.48	2.11	1.74			
39,000-44,999	3.88	3.51	3.14	2.77	2.40	2.02		
45,000-53,999	4.54	4.17	3.80	3.43	3.06	2.69	2.31	
54,000-64,999	5.86	5.49	5.12	4.75	4.38	4.01	3.63	2.89
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.64							
15,000-20,999	1.30	0.96						
21,000-26,999	1.96	1.62	1.28					
27,000-32,999	2.62	2.28	1.94	1.60				
33,000-38,999	3.28	2.94	2.60	2.26	1.92			
39,000-44,999	3.94	3.60	3.26	2.92	2.58	2.24		
45,000-53,999	4.60	4.26	3.92	3.58	3.25	2.91	2.57	
54,000-64,999	5.93	5.59	5.25	4.91	4.57	4.23	3.89	3.21

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.67							
15,000-20,999	1.33	1.01						
21,000-26,999	1.99	1.67	1.35					
27,000-32,999	2.66	2.33	2.01	1.69				
33,000-38,999	3.32	2.99	2.67	2.35	2.02			
39,000-44,999	3.98	3.65	3.33	3.01	2.68	2.36		
45,000-53,999	4.64	4.31	3.99	3.67	3.34	3.02	2.70	
54,000-64,999	5.96	5.63	5.31	4.99	4.66	4.34	4.02	3.37
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.69							
15,000-20,999	1.35	1.03						
21,000-26,999	2.01	1.69	1.37					
27,000-32,999	2.67	2.35	2.03	1.72				
33,000-38,999	3.33	3.01	2.69	2.38	2.06			
39,000-44,999	3.99	3.67	3.35	3.04	2.72	2.40		
45,000-53,999	4.65	4.33	4.01	3.70	3.38	3.06	2.75	
54,000-64,999	5.97	5.65	5.34	5.02	4.70	4.38	4.07	3.43
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.70							
15,000-20,999	1.36	1.05						
21,000-26,999	2.02	1.71	1.40					
27,000-32,999	2.68	2.37	2.06	1.75				
33,000-38,999	3.34	3.03	2.72	2.41	2.09			
39,000-44,999	4.00	3.69	3.38	3.07	2.76	2.44		
45,000-53,999	4.66	4.35	4.04	3.73	3.42	3.10	2.79	
54,000-64,999	5.98	5.67	5.36	5.05	4.74	4.43	4.11	3.49

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.71							
15,000-20,999	1.37	1.06						
21,000-26,999	2.03	1.72	1.42					
27,000-32,999	2.69	2.39	2.08	1.77				
33,000-38,999	3.35	3.05	2.74	2.43	2.13			
39,000-44,999	4.01	3.71	3.40	3.09	2.79	2.48		
45,000-53,999	4.67	4.37	4.06	3.76	3.45	3.14	2.84	
54,000-64,999	5.99	5.69	5.38	5.08	4.77	4.46	4.16	3.55
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.72							
15,000-20,999	1.38	1.08						
21,000-26,999	2.04	1.74	1.44					
27,000-32,999	2.70	2.40	2.10	1.80				
33,000-38,999	3.36	3.06	2.76	2.46	2.16			
39,000-44,999	4.02	3.72	3.42	3.12	2.82	2.52		
45,000-53,999	4.68	4.38	4.08	3.78	3.48	3.18	2.88	
54,000-64,999	6.00	5.70	5.40	5.10	4.80	4.50	4.20	3.60
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.73							
15,000-20,999	1.39	1.09						
21,000-26,999	2.05	1.75	1.45					
27,000-32,999	2.71	2.41	2.11	1.82				
33,000-38,999	3.37	3.07	2.77	2.48	2.18			
39,000-44,999	4.03	3.73	3.44	3.14	2.84	2.54		
45,000-53,999	4.69	4.39	4.10	3.80	3.50	3.20	2.91	
54,000-64,999	6.01	5.71	5.42	5.12	4.82	4.53	4.23	3.63

Table 509. Mini-Split Winter Demand Savings for 6.8 HSPF Baseline—Zone 2

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.77							
15,000-20,999	1.52	1.15						
21,000-26,999	2.28	1.91	1.53					
27,000-32,999	3.03	2.66	2.29	1.92				
33,000-38,999	3.79	3.41	3.04	2.67	2.30			
39,000-44,999	4.54	4.17	3.80	3.43	3.06	2.68		
45,000-53,999	5.30	4.92	4.55	4.18	3.81	3.44	3.07	
54,000-64,999	6.80	6.43	6.06	5.69	5.32	4.95	4.58	3.84
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.83							
15,000-20,999	1.58	1.24						
21,000-26,999	2.34	2.00	1.66					
27,000-32,999	3.09	2.75	2.41	2.07				
33,000-38,999	3.85	3.51	3.17	2.83	2.49			
39,000-44,999	4.60	4.26	3.92	3.58	3.24	2.90		
45,000-53,999	5.36	5.02	4.68	4.34	4.00	3.66	3.32	
54,000-64,999	6.87	6.53	6.19	5.85	5.51	5.17	4.83	4.15

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.86							
15,000-20,999	1.62	1.29						
21,000-26,999	2.37	2.05	1.73					
27,000-32,999	3.13	2.80	2.48	2.16				
33,000-38,999	3.88	3.56	3.23	2.91	2.59			
39,000-44,999	4.64	4.31	3.99	3.67	3.34	3.02		
45,000-53,999	5.39	5.07	4.74	4.42	4.10	3.77	3.45	
54,000-64,999	6.90	6.58	6.25	5.93	5.61	5.28	4.96	4.31
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.87							
15,000-20,999	1.63	1.31						
21,000-26,999	2.38	2.07	1.75					
27,000-32,999	3.14	2.82	2.50	2.19				
33,000-38,999	3.89	3.58	3.26	2.94	2.62			
39,000-44,999	4.65	4.33	4.01	3.70	3.38	3.06		
45,000-53,999	5.40	5.09	4.77	4.45	4.13	3.82	3.50	
54,000-64,999	6.91	6.60	6.28	5.96	5.64	5.33	5.01	4.37
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.89							
15,000-20,999	1.64	1.33						
21,000-26,999	2.40	2.08	1.77					
27,000-32,999	3.15	2.84	2.53	2.22				
33,000-38,999	3.91	3.59	3.28	2.97	2.66			
39,000-44,999	4.66	4.35	4.04	3.73	3.41	3.10		
45,000-53,999	5.42	5.10	4.79	4.48	4.17	3.86	3.55	
54,000-64,999	6.92	6.61	6.30	5.99	5.68	5.37	5.06	4.43

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.90							
15,000-20,999	1.65	1.35						
21,000-26,999	2.41	2.10	1.80					
27,000-32,999	3.16	2.86	2.55	2.25				
33,000-38,999	3.92	3.61	3.31	3.00	2.69			
39,000-44,999	4.67	4.37	4.06	3.75	3.45	3.14		
45,000-53,999	5.43	5.12	4.82	4.51	4.20	3.90	3.59	
54,000-64,999	6.94	6.63	6.32	6.02	5.71	5.41	5.10	4.49
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.91							
15,000-20,999	1.66	1.36						
21,000-26,999	2.42	2.12	1.82					
27,000-32,999	3.17	2.87	2.57	2.27				
33,000-38,999	3.93	3.63	3.33	3.03	2.73			
39,000-44,999	4.68	4.38	4.08	3.78	3.48	3.18		
45,000-53,999	5.44	5.14	4.84	4.54	4.24	3.94	3.64	
54,000-64,999	6.95	6.65	6.35	6.05	5.75	5.45	5.15	4.55
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.92							
15,000-20,999	1.67	1.37						
21,000-26,999	2.42	2.13	1.83					
27,000-32,999	3.18	2.88	2.59	2.29				
33,000-38,999	3.93	3.64	3.34	3.04	2.75			
39,000-44,999	4.69	4.39	4.10	3.80	3.50	3.20		
45,000-53,999	5.44	5.15	4.85	4.55	4.26	3.96	3.66	
54,000-64,999	6.95	6.66	6.36	6.06	5.77	5.47	5.17	4.58

Heating, Early Retirement of an Electric Resistance Furnace

Table 510. Mini-Split Winter Demand Savings for 3.412 HSPF Baseline—Zone 2

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.00							
15,000-20,999	3.37	3.00						
21,000-26,999	4.74	4.37	4.00					
27,000-32,999	6.11	5.74	5.37	5.00				
33,000-38,999	7.48	7.11	6.74	6.37	6.00			
39,000-44,999	8.85	8.48	8.11	7.74	7.37	7.00		
45,000-53,999	10.22	9.85	9.48	9.11	8.74	8.37	8.00	
54,000-64,999	12.96	12.59	12.22	11.85	11.48	11.11	10.74	9.99
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.06							
15,000-20,999	3.43	3.09						
21,000-26,999	4.80	4.46	4.12					
27,000-32,999	6.17	5.83	5.49	5.15				
33,000-38,999	7.54	7.20	6.86	6.52	6.19			
39,000-44,999	8.91	8.58	8.24	7.90	7.56	7.22		
45,000-53,999	10.29	9.95	9.61	9.27	8.93	8.59	8.25	
54,000-64,999	13.03	12.69	12.35	12.01	11.67	11.33	10.99	10.31

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.09							
15,000-20,999	3.47	3.14						
21,000-26,999	4.84	4.51	4.19					
27,000-32,999	6.21	5.88	5.56	5.24				
33,000-38,999	7.58	7.25	6.93	6.61	6.28			
39,000-44,999	8.95	8.62	8.30	7.98	7.65	7.33		
45,000-53,999	10.32	9.99	9.67	9.35	9.02	8.70	8.38	
54,000-64,999	13.06	12.74	12.41	12.09	11.77	11.44	11.12	10.47
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.11							
15,000-20,999	3.48	3.16						
21,000-26,999	4.85	4.53	4.21					
27,000-32,999	6.22	5.90	5.58	5.27				
33,000-38,999	7.59	7.27	6.95	6.64	6.32			
39,000-44,999	8.96	8.64	8.33	8.01	7.69	7.37		
45,000-53,999	10.33	10.01	9.70	9.38	9.06	8.74	8.43	
54,000-64,999	13.07	12.75	12.44	12.12	11.80	11.49	11.17	10.53
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.12							
15,000-20,999	3.49	3.18						
21,000-26,999	4.86	4.55	4.24					
27,000-32,999	6.23	5.92	5.61	5.30				
33,000-38,999	7.60	7.29	6.98	6.67	6.36			
39,000-44,999	8.97	8.66	8.35	8.04	7.73	7.41		
45,000-53,999	10.34	10.03	9.72	9.41	9.10	8.79	8.47	
54,000-64,999	13.08	12.77	12.46	12.15	11.84	11.53	11.22	10.59

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.13							
15,000-20,999	3.50	3.19						
21,000-26,999	4.87	4.57	4.26					
27,000-32,999	6.24	5.94	5.63	5.32				
33,000-38,999	7.61	7.31	7.00	6.70	6.39			
39,000-44,999	8.98	8.68	8.37	8.07	7.76	7.45		
45,000-53,999	10.35	10.05	9.74	9.44	9.13	8.83	8.52	
54,000-64,999	13.09	12.79	12.48	12.18	11.87	11.57	11.26	10.65
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.14							
15,000-20,999	3.51	3.21						
21,000-26,999	4.88	4.58	4.28					
27,000-32,999	6.25	5.95	5.65	5.35				
33,000-38,999	7.62	7.32	7.02	6.72	6.42			
39,000-44,999	8.99	8.69	8.39	8.09	7.79	7.49		
45,000-53,999	10.36	10.06	9.76	9.46	9.16	8.86	8.56	
54,000-64,999	13.11	12.81	12.51	12.21	11.91	11.61	11.30	10.70
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	2.15							
15,000-20,999	3.52	3.22						
21,000-26,999	4.89	4.59	4.29					
27,000-32,999	6.26	5.96	5.67	5.37				
33,000-38,999	7.63	7.33	7.04	6.74	6.44			
39,000-44,999	9.00	8.70	8.41	8.11	7.81	7.52		
45,000-53,999	10.37	10.07	9.78	9.48	9.18	8.89	8.59	
54,000-64,999	13.11	12.82	12.52	12.22	11.92	11.63	11.33	10.74

Climate Zone 3: South Region, Houston

Heating, New Construction/Replace-on-Burnout

Table 511. Mini-Split Winter Demand Savings for 8.2 HSPF Baseline—Zone 3

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.05							
15,000-20,999	0.40	0.07						
21,000-26,999	0.76	0.43	0.10					
27,000-32,999	1.11	0.78	0.45	0.12				
33,000-38,999	1.47	1.14	0.81	0.48	0.15			
39,000-44,999	1.82	1.49	1.16	0.83	0.50	0.17		
45,000-53,999	2.17	1.84	1.51	1.19	0.86	0.53	0.20	
54,000-64,999	2.88	2.55	2.22	1.89	1.56	1.23	0.90	0.25
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.11							
15,000-20,999	0.46	0.16						
21,000-26,999	0.81	0.51	0.21					
27,000-32,999	1.17	0.87	0.56	0.26				
33,000-38,999	1.52	1.22	0.92	0.62	0.32			
39,000-44,999	1.88	1.57	1.27	0.97	0.67	0.37		
45,000-53,999	2.23	1.93	1.63	1.32	1.02	0.72	0.42	
54,000-64,999	2.94	2.64	2.33	2.03	1.73	1.43	1.13	0.53

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.13							
15,000-20,999	0.49	0.20						
21,000-26,999	0.84	0.56	0.27					
27,000-32,999	1.20	0.91	0.62	0.34				
33,000-38,999	1.55	1.26	0.98	0.69	0.40			
39,000-44,999	1.90	1.62	1.33	1.04	0.76	0.47		
45,000-53,999	2.26	1.97	1.68	1.40	1.11	0.82	0.54	
54,000-64,999	2.97	2.68	2.39	2.11	1.82	1.53	1.24	0.67
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.14							
15,000-20,999	0.50	0.22						
21,000-26,999	0.85	0.57	0.29					
27,000-32,999	1.21	0.93	0.64	0.36				
33,000-38,999	1.56	1.28	1.00	0.72	0.43			
39,000-44,999	1.92	1.63	1.35	1.07	0.79	0.51		
45,000-53,999	2.27	1.99	1.71	1.42	1.14	0.86	0.58	
54,000-64,999	2.98	2.70	2.41	2.13	1.85	1.57	1.29	0.72
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.16							
15,000-20,999	0.51	0.23						
21,000-26,999	0.86	0.59	0.31					
27,000-32,999	1.22	0.94	0.66	0.39				
33,000-38,999	1.57	1.30	1.02	0.74	0.47			
39,000-44,999	1.93	1.65	1.37	1.10	0.82	0.54		
45,000-53,999	2.28	2.00	1.73	1.45	1.17	0.90	0.62	
54,000-64,999	2.99	2.71	2.44	2.16	1.88	1.61	1.33	0.78

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.17							
15,000-20,999	0.52	0.25						
21,000-26,999	0.87	0.60	0.33					
27,000-32,999	1.23	0.96	0.69	0.41				
33,000-38,999	1.58	1.31	1.04	0.77	0.50			
39,000-44,999	1.94	1.66	1.39	1.12	0.85	0.58		
45,000-53,999	2.29	2.02	1.75	1.48	1.20	0.93	0.66	
54,000-64,999	3.00	2.73	2.46	2.18	1.91	1.64	1.37	0.83
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.18							
15,000-20,999	0.53	0.26						
21,000-26,999	0.88	0.62	0.35					
27,000-32,999	1.24	0.97	0.70	0.44				
33,000-38,999	1.59	1.33	1.06	0.79	0.53			
39,000-44,999	1.95	1.68	1.41	1.15	0.88	0.61		
45,000-53,999	2.30	2.03	1.77	1.50	1.23	0.97	0.70	
54,000-64,999	3.01	2.74	2.47	2.21	1.94	1.68	1.41	0.88
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.18							
15,000-20,999	0.53	0.27						
21,000-26,999	0.89	0.63	0.36					
27,000-32,999	1.24	0.98	0.72	0.45				
33,000-38,999	1.60	1.33	1.07	0.81	0.54			
39,000-44,999	1.95	1.69	1.42	1.16	0.90	0.63		
45,000-53,999	2.31	2.04	1.78	1.51	1.25	0.99	0.72	
54,000-64,999	3.01	2.75	2.49	2.22	1.96	1.70	1.43	0.90

Heating, Early Retirement of a Heat Pump

Table 512. Mini-Split Winter Demand Savings for 7.7 HSPF Baseline—Zone 3

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.12							
15,000-20,999	0.51	0.18						
21,000-26,999	0.90	0.57	0.24					
27,000-32,999	1.29	0.96	0.63	0.30				
33,000-38,999	1.67	1.34	1.02	0.69	0.36			
39,000-44,999	2.06	1.73	1.40	1.07	0.75	0.42		
45,000-53,999	2.45	2.12	1.79	1.46	1.13	0.80	0.48	
54,000-64,999	3.23	2.90	2.57	2.24	1.91	1.58	1.25	0.59
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.17							
15,000-20,999	0.56	0.26						
21,000-26,999	0.95	0.65	0.35					
27,000-32,999	1.34	1.04	0.74	0.44				
33,000-38,999	1.73	1.43	1.13	0.83	0.52			
39,000-44,999	2.12	1.82	1.52	1.21	0.91	0.61		
45,000-53,999	2.51	2.21	1.90	1.60	1.30	1.00	0.70	
54,000-64,999	3.29	2.98	2.68	2.38	2.08	1.78	1.48	0.87

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.20							
15,000-20,999	0.59	0.31						
21,000-26,999	0.98	0.69	0.41					
27,000-32,999	1.37	1.08	0.80	0.51				
33,000-38,999	1.76	1.47	1.19	0.90	0.61			
39,000-44,999	2.15	1.86	1.57	1.29	1.00	0.71		
45,000-53,999	2.54	2.25	1.96	1.68	1.39	1.10	0.81	
54,000-64,999	3.31	3.03	2.74	2.45	2.17	1.88	1.59	1.02
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.21							
15,000-20,999	0.60	0.32						
21,000-26,999	0.99	0.71	0.43					
27,000-32,999	1.38	1.10	0.82	0.54				
33,000-38,999	1.77	1.49	1.21	0.93	0.64			
39,000-44,999	2.16	1.88	1.60	1.31	1.03	0.75		
45,000-53,999	2.55	2.27	1.98	1.70	1.42	1.14	0.86	
54,000-64,999	3.33	3.04	2.76	2.48	2.20	1.92	1.64	1.07
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.23							
15,000-20,999	0.61	0.34						
21,000-26,999	1.00	0.73	0.45					
27,000-32,999	1.39	1.12	0.84	0.56				
33,000-38,999	1.78	1.50	1.23	0.95	0.68			
39,000-44,999	2.17	1.89	1.62	1.34	1.06	0.79		
45,000-53,999	2.56	2.28	2.01	1.73	1.45	1.18	0.90	
54,000-64,999	3.34	3.06	2.78	2.51	2.23	1.95	1.68	1.13

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.24							
15,000-20,999	0.62	0.35						
21,000-26,999	1.01	0.74	0.47					
27,000-32,999	1.40	1.13	0.86	0.59				
33,000-38,999	1.79	1.52	1.25	0.98	0.71			
39,000-44,999	2.18	1.91	1.64	1.37	1.09	0.82		
45,000-53,999	2.57	2.30	2.03	1.75	1.48	1.21	0.94	
54,000-64,999	3.35	3.07	2.80	2.53	2.26	1.99	1.72	1.18
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.24							
15,000-20,999	0.63	0.37						
21,000-26,999	1.02	0.76	0.49					
27,000-32,999	1.41	1.15	0.88	0.61				
33,000-38,999	1.80	1.53	1.27	1.00	0.73			
39,000-44,999	2.19	1.92	1.66	1.39	1.12	0.86		
45,000-53,999	2.58	2.31	2.05	1.78	1.51	1.25	0.98	
54,000-64,999	3.36	3.09	2.82	2.56	2.29	2.02	1.76	1.22
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.25							
15,000-20,999	0.64	0.38						
21,000-26,999	1.03	0.76	0.50					
27,000-32,999	1.42	1.15	0.89	0.63				
33,000-38,999	1.81	1.54	1.28	1.02	0.75			
39,000-44,999	2.19	1.93	1.67	1.40	1.14	0.88		
45,000-53,999	2.58	2.32	2.06	1.79	1.53	1.27	1.00	
54,000-64,999	3.36	3.10	2.83	2.57	2.31	2.04	1.78	1.25

Table 513. Mini-Split Winter Demand Savings for 6.8 HSPF Baseline—Zone 3

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.29							
15,000-20,999	0.76	0.43						
21,000-26,999	1.23	0.90	0.57					
27,000-32,999	1.70	1.37	1.04	0.72				
33,000-38,999	2.18	1.85	1.52	1.19	0.86			
39,000-44,999	2.65	2.32	1.99	1.66	1.33	1.00		
45,000-53,999	3.12	2.79	2.46	2.13	1.80	1.47	1.14	
54,000-64,999	4.07	3.74	3.41	3.08	2.75	2.42	2.09	1.43
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.34							
15,000-20,999	0.81	0.51						
21,000-26,999	1.29	0.99	0.68					
27,000-32,999	1.76	1.46	1.16	0.85				
33,000-38,999	2.23	1.93	1.63	1.33	1.03			
39,000-44,999	2.70	2.40	2.10	1.80	1.50	1.20		
45,000-53,999	3.18	2.88	2.57	2.27	1.97	1.67	1.37	
54,000-64,999	4.12	3.82	3.52	3.22	2.92	2.61	2.31	1.71

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.37							
15,000-20,999	0.84	0.56						
21,000-26,999	1.32	1.03	0.74					
27,000-32,999	1.79	1.50	1.21	0.93				
33,000-38,999	2.26	1.97	1.69	1.40	1.11			
39,000-44,999	2.73	2.45	2.16	1.87	1.59	1.30		
45,000-53,999	3.21	2.92	2.63	2.34	2.06	1.77	1.48	
54,000-64,999	4.15	3.86	3.58	3.29	3.00	2.72	2.43	1.85
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.38							
15,000-20,999	0.85	0.57						
21,000-26,999	1.33	1.05	0.76					
27,000-32,999	1.80	1.52	1.24	0.95				
33,000-38,999	2.27	1.99	1.71	1.43	1.15			
39,000-44,999	2.74	2.46	2.18	1.90	1.62	1.34		
45,000-53,999	3.22	2.94	2.65	2.37	2.09	1.81	1.53	
54,000-64,999	4.16	3.88	3.60	3.32	3.04	2.75	2.47	1.91
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.39							
15,000-20,999	0.86	0.59						
21,000-26,999	1.34	1.06	0.78					
27,000-32,999	1.81	1.53	1.26	0.98				
33,000-38,999	2.28	2.01	1.73	1.45	1.18			
39,000-44,999	2.75	2.48	2.20	1.93	1.65	1.37		
45,000-53,999	3.23	2.95	2.67	2.40	2.12	1.85	1.57	
54,000-64,999	4.17	3.90	3.62	3.34	3.07	2.79	2.51	1.96

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.40							
15,000-20,999	0.87	0.60						
21,000-26,999	1.35	1.08	0.80					
27,000-32,999	1.82	1.55	1.28	1.01				
33,000-38,999	2.29	2.02	1.75	1.48	1.21			
39,000-44,999	2.77	2.49	2.22	1.95	1.68	1.41		
45,000-53,999	3.24	2.97	2.70	2.42	2.15	1.88	1.61	
54,000-64,999	4.18	3.91	3.64	3.37	3.10	2.83	2.55	2.01
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.41							
15,000-20,999	0.88	0.62						
21,000-26,999	1.36	1.09	0.82					
27,000-32,999	1.83	1.56	1.30	1.03				
33,000-38,999	2.30	2.04	1.77	1.50	1.24			
39,000-44,999	2.77	2.51	2.24	1.98	1.71	1.44		
45,000-53,999	3.25	2.98	2.71	2.45	2.18	1.92	1.65	
54,000-64,999	4.19	3.93	3.66	3.39	3.13	2.86	2.59	2.06
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.42							
15,000-20,999	0.89	0.63						
21,000-26,999	1.36	1.10	0.84					
27,000-32,999	1.84	1.57	1.31	1.04				
33,000-38,999	2.31	2.04	1.78	1.52	1.25			
39,000-44,999	2.78	2.52	2.25	1.99	1.73	1.46		
45,000-53,999	3.25	2.99	2.73	2.46	2.20	1.94	1.67	
54,000-64,999	4.20	3.93	3.67	3.41	3.14	2.88	2.62	2.09

Heating, Early Retirement of an Electric Resistance Furnace

Table 514. Mini-Split Winter Demand Savings for 3.412 HSPF Baseline—Zone 3

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.51							
15,000-20,999	2.60	2.27						
21,000-26,999	3.68	3.35	3.02					
27,000-32,999	4.77	4.44	4.11	3.78				
33,000-38,999	5.85	5.52	5.19	4.86	4.53			
39,000-44,999	6.94	6.61	6.28	5.95	5.62	5.29		
45,000-53,999	8.02	7.69	7.36	7.03	6.70	6.37	6.05	
54,000-64,999	10.19	9.86	9.53	9.20	8.87	8.54	8.22	7.56
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.57							
15,000-20,999	2.65	2.35						
21,000-26,999	3.74	3.44	3.13					
27,000-32,999	4.82	4.52	4.22	3.92				
33,000-38,999	5.91	5.61	5.30	5.00	4.70			
39,000-44,999	6.99	6.69	6.39	6.09	5.79	5.48		
45,000-53,999	8.08	7.78	7.47	7.17	6.87	6.57	6.27	
54,000-64,999	10.25	9.95	9.64	9.34	9.04	8.74	8.44	7.84

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.60							
15,000-20,999	2.68	2.39						
21,000-26,999	3.77	3.48	3.19					
27,000-32,999	4.85	4.56	4.28	3.99				
33,000-38,999	5.94	5.65	5.36	5.08	4.79			
39,000-44,999	7.02	6.73	6.45	6.16	5.87	5.59		
45,000-53,999	8.11	7.82	7.53	7.25	6.96	6.67	6.38	
54,000-64,999	10.28	9.99	9.70	9.42	9.13	8.84	8.55	7.98
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.61							
15,000-20,999	2.69	2.41						
21,000-26,999	3.78	3.50	3.21					
27,000-32,999	4.86	4.58	4.30	4.02				
33,000-38,999	5.95	5.67	5.38	5.10	4.82			
39,000-44,999	7.03	6.75	6.47	6.19	5.91	5.62		
45,000-53,999	8.12	7.84	7.55	7.27	6.99	6.71	6.43	
54,000-64,999	10.29	10.01	9.72	9.44	9.16	8.88	8.60	8.03
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.62							
15,000-20,999	2.70	2.43						
21,000-26,999	3.79	3.51	3.23					
27,000-32,999	4.87	4.60	4.32	4.04				
33,000-38,999	5.96	5.68	5.41	5.13	4.85			
39,000-44,999	7.04	6.77	6.49	6.21	5.94	5.66		
45,000-53,999	8.13	7.85	7.58	7.30	7.02	6.75	6.47	
54,000-64,999	10.30	10.02	9.75	9.47	9.19	8.92	8.64	8.09

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.63							
15,000-20,999	2.71	2.44						
21,000-26,999	3.80	3.53	3.26					
27,000-32,999	4.88	4.61	4.34	4.07				
33,000-38,999	5.97	5.70	5.43	5.15	4.88			
39,000-44,999	7.05	6.78	6.51	6.24	5.97	5.70		
45,000-53,999	8.14	7.87	7.60	7.32	7.05	6.78	6.51	
54,000-64,999	10.31	10.04	9.77	9.49	9.22	8.95	8.68	8.14
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.64							
15,000-20,999	2.72	2.46						
21,000-26,999	3.81	3.54	3.27					
27,000-32,999	4.89	4.63	4.36	4.09				
33,000-38,999	5.98	5.71	5.44	5.18	4.91			
39,000-44,999	7.06	6.80	6.53	6.26	6.00	5.73		
45,000-53,999	8.15	7.88	7.62	7.35	7.08	6.82	6.55	
54,000-64,999	10.32	10.05	9.79	9.52	9.25	8.99	8.72	8.19
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.64							
15,000-20,999	2.73	2.46						
21,000-26,999	3.81	3.55	3.29					
27,000-32,999	4.90	4.63	4.37	4.11				
33,000-38,999	5.98	5.72	5.46	5.19	4.93			
39,000-44,999	7.07	6.80	6.54	6.28	6.01	5.75		
45,000-53,999	8.15	7.89	7.63	7.36	7.10	6.84	6.57	
54,000-64,999	10.32	10.06	9.80	9.53	9.27	9.01	8.74	8.22

Climate Zone 4: Valley Region, Corpus Christi

Heating, New Construction/Replace-on-Burnout

Table 515. Mini-Split Winter Demand Savings for 8.2 HSPF Baseline—Zone 4

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.04							
15,000-20,999	0.30	0.06						
21,000-26,999	0.57	0.32	0.07					
27,000-32,999	0.84	0.59	0.34	0.09				
33,000-38,999	1.10	0.85	0.61	0.36	0.11			
39,000-44,999	1.37	1.12	0.87	0.62	0.38	0.13		
45,000-53,999	1.63	1.39	1.14	0.89	0.64	0.40	0.15	
54,000-64,999	2.17	1.92	1.67	1.42	1.18	0.93	0.68	0.18
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.08							
15,000-20,999	0.35	0.12						
21,000-26,999	0.61	0.38	0.16					
27,000-32,999	0.88	0.65	0.42	0.20				
33,000-38,999	1.14	0.92	0.69	0.46	0.24			
39,000-44,999	1.41	1.18	0.96	0.73	0.50	0.28		
45,000-53,999	1.68	1.45	1.22	1.00	0.77	0.54	0.32	
54,000-64,999	2.21	1.98	1.75	1.53	1.30	1.07	0.85	0.39

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.10							
15,000-20,999	0.37	0.15						
21,000-26,999	0.63	0.42	0.20					
27,000-32,999	0.90	0.68	0.47	0.25				
33,000-38,999	1.17	0.95	0.73	0.52	0.30			
39,000-44,999	1.43	1.22	1.00	0.78	0.57	0.35		
45,000-53,999	1.70	1.48	1.27	1.05	0.83	0.62	0.40	
54,000-64,999	2.23	2.01	1.80	1.58	1.37	1.15	0.94	0.50
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.11							
15,000-20,999	0.38	0.16						
21,000-26,999	0.64	0.43	0.22					
27,000-32,999	0.91	0.70	0.48	0.27				
33,000-38,999	1.17	0.96	0.75	0.54	0.33			
39,000-44,999	1.44	1.23	1.02	0.80	0.59	0.38		
45,000-53,999	1.71	1.49	1.28	1.07	0.86	0.65	0.44	
54,000-64,999	2.24	2.03	1.81	1.60	1.39	1.18	0.97	0.54
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.12							
15,000-20,999	0.38	0.18						
21,000-26,999	0.65	0.44	0.23					
27,000-32,999	0.92	0.71	0.50	0.29				
33,000-38,999	1.18	0.97	0.77	0.56	0.35			
39,000-44,999	1.45	1.24	1.03	0.82	0.62	0.41		
45,000-53,999	1.71	1.51	1.30	1.09	0.88	0.67	0.47	
54,000-64,999	2.25	2.04	1.83	1.62	1.41	1.21	1.00	0.58

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.12							
15,000-20,999	0.39	0.19						
21,000-26,999	0.66	0.45	0.25					
27,000-32,999	0.92	0.72	0.51	0.31				
33,000-38,999	1.19	0.98	0.78	0.58	0.37			
39,000-44,999	1.45	1.25	1.05	0.84	0.64	0.44		
45,000-53,999	1.72	1.52	1.31	1.11	0.91	0.70	0.50	
54,000-64,999	2.25	2.05	1.85	1.64	1.44	1.23	1.03	0.62
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.13							
15,000-20,999	0.40	0.20						
21,000-26,999	0.66	0.46	0.26					
27,000-32,999	0.93	0.73	0.53	0.33				
33,000-38,999	1.20	1.00	0.80	0.60	0.40			
39,000-44,999	1.46	1.26	1.06	0.86	0.66	0.46		
45,000-53,999	1.73	1.53	1.33	1.13	0.93	0.73	0.53	
54,000-64,999	2.26	2.06	1.86	1.66	1.46	1.26	1.06	0.66
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.14							
15,000-20,999	0.40	0.20						
21,000-26,999	0.67	0.47	0.27					
27,000-32,999	0.93	0.74	0.54	0.34				
33,000-38,999	1.20	1.00	0.80	0.61	0.41			
39,000-44,999	1.47	1.27	1.07	0.87	0.67	0.48		
45,000-53,999	1.73	1.53	1.34	1.14	0.94	0.74	0.54	
54,000-64,999	2.26	2.07	1.87	1.67	1.47	1.27	1.08	0.68

Heating, Early Retirement of a Heat Pump

Table 516. Mini-Split Winter Demand Savings for 7.7 HSPF Baseline—Zone 4

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.09							
15,000-20,999	0.38	0.13						
21,000-26,999	0.67	0.43	0.18					
27,000-32,999	0.97	0.72	0.47	0.22				
33,000-38,999	1.26	1.01	0.76	0.52	0.27			
39,000-44,999	1.55	1.30	1.06	0.81	0.56	0.31		
45,000-53,999	1.84	1.60	1.35	1.10	0.85	0.60	0.36	
54,000-64,999	2.43	2.18	1.93	1.68	1.44	1.19	0.94	0.45
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.13							
15,000-20,999	0.42	0.20						
21,000-26,999	0.72	0.49	0.26					
27,000-32,999	1.01	0.78	0.55	0.33				
33,000-38,999	1.30	1.07	0.85	0.62	0.39			
39,000-44,999	1.59	1.37	1.14	0.91	0.69	0.46		
45,000-53,999	1.89	1.66	1.43	1.21	0.98	0.75	0.53	
54,000-64,999	2.47	2.24	2.02	1.79	1.56	1.34	1.11	0.66

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.15							
15,000-20,999	0.45	0.23						
21,000-26,999	0.74	0.52	0.31					
27,000-32,999	1.03	0.81	0.60	0.38				
33,000-38,999	1.32	1.11	0.89	0.67	0.46			
39,000-44,999	1.61	1.40	1.18	0.97	0.75	0.54		
45,000-53,999	1.91	1.69	1.48	1.26	1.04	0.83	0.61	
54,000-64,999	2.49	2.28	2.06	1.84	1.63	1.41	1.20	0.77
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.16							
15,000-20,999	0.45	0.24						
21,000-26,999	0.75	0.53	0.32					
27,000-32,999	1.04	0.83	0.61	0.40				
33,000-38,999	1.33	1.12	0.91	0.70	0.48			
39,000-44,999	1.62	1.41	1.20	0.99	0.78	0.56		
45,000-53,999	1.92	1.70	1.49	1.28	1.07	0.86	0.65	
54,000-64,999	2.50	2.29	2.08	1.86	1.65	1.44	1.23	0.81
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.17							
15,000-20,999	0.46	0.25						
21,000-26,999	0.75	0.55	0.34					
27,000-32,999	1.05	0.84	0.63	0.42				
33,000-38,999	1.34	1.13	0.92	0.72	0.51			
39,000-44,999	1.63	1.42	1.22	1.01	0.80	0.59		
45,000-53,999	1.92	1.72	1.51	1.30	1.09	0.88	0.68	
54,000-64,999	2.51	2.30	2.09	1.88	1.68	1.47	1.26	0.85

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.18							
15,000-20,999	0.47	0.27						
21,000-26,999	0.76	0.56	0.35					
27,000-32,999	1.05	0.85	0.65	0.44				
33,000-38,999	1.35	1.14	0.94	0.73	0.53			
39,000-44,999	1.64	1.43	1.23	1.03	0.82	0.62		
45,000-53,999	1.93	1.73	1.52	1.32	1.11	0.91	0.71	
54,000-64,999	2.52	2.31	2.11	1.90	1.70	1.50	1.29	0.88
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.18							
15,000-20,999	0.48	0.28						
21,000-26,999	0.77	0.57	0.37					
27,000-32,999	1.06	0.86	0.66	0.46				
33,000-38,999	1.35	1.15	0.95	0.75	0.55			
39,000-44,999	1.65	1.45	1.25	1.04	0.84	0.64		
45,000-53,999	1.94	1.74	1.54	1.34	1.14	0.94	0.74	
54,000-64,999	2.52	2.32	2.12	1.92	1.72	1.52	1.32	0.92
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.19							
15,000-20,999	0.48	0.28						
21,000-26,999	0.77	0.57	0.38					
27,000-32,999	1.07	0.87	0.67	0.47				
33,000-38,999	1.36	1.16	0.96	0.76	0.57			
39,000-44,999	1.65	1.45	1.25	1.06	0.86	0.66		
45,000-53,999	1.94	1.74	1.55	1.35	1.15	0.95	0.75	
54,000-64,999	2.53	2.33	2.13	1.93	1.73	1.54	1.34	0.94

Table 517. Mini-Split Winter Demand Savings for 6.8 HSPF Baseline—Zone 4

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.22							
15,000-20,999	0.57	0.32						
21,000-26,999	0.93	0.68	0.43					
27,000-32,999	1.28	1.03	0.79	0.54				
33,000-38,999	1.64	1.39	1.14	0.89	0.65			
39,000-44,999	1.99	1.74	1.50	1.25	1.00	0.75		
45,000-53,999	2.35	2.10	1.85	1.60	1.36	1.11	0.86	
54,000-64,999	3.06	2.81	2.56	2.31	2.07	1.82	1.57	1.08
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.26							
15,000-20,999	0.61	0.39						
21,000-26,999	0.97	0.74	0.51					
27,000-32,999	1.32	1.10	0.87	0.64				
33,000-38,999	1.68	1.45	1.22	1.00	0.77			
39,000-44,999	2.03	1.81	1.58	1.35	1.13	0.90		
45,000-53,999	2.39	2.16	1.93	1.71	1.48	1.25	1.03	
54,000-64,999	3.10	2.87	2.65	2.42	2.19	1.97	1.74	1.29

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.28							
15,000-20,999	0.63	0.42						
21,000-26,999	0.99	0.77	0.56					
27,000-32,999	1.34	1.13	0.91	0.70				
33,000-38,999	1.70	1.48	1.27	1.05	0.84			
39,000-44,999	2.05	1.84	1.62	1.41	1.19	0.98		
45,000-53,999	2.41	2.19	1.98	1.76	1.55	1.33	1.12	
54,000-64,999	3.12	2.90	2.69	2.47	2.26	2.04	1.83	1.39
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.29							
15,000-20,999	0.64	0.43						
21,000-26,999	1.00	0.79	0.57					
27,000-32,999	1.35	1.14	0.93	0.72				
33,000-38,999	1.71	1.50	1.28	1.07	0.86			
39,000-44,999	2.06	1.85	1.64	1.43	1.22	1.00		
45,000-53,999	2.42	2.21	1.99	1.78	1.57	1.36	1.15	
54,000-64,999	3.13	2.92	2.71	2.49	2.28	2.07	1.86	1.44
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.29							
15,000-20,999	0.65	0.44						
21,000-26,999	1.01	0.80	0.59					
27,000-32,999	1.36	1.15	0.95	0.74				
33,000-38,999	1.72	1.51	1.30	1.09	0.88			
39,000-44,999	2.07	1.86	1.66	1.45	1.24	1.03		
45,000-53,999	2.43	2.22	2.01	1.80	1.60	1.39	1.18	
54,000-64,999	3.14	2.93	2.72	2.51	2.31	2.10	1.89	1.47

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.30							
15,000-20,999	0.66	0.45						
21,000-26,999	1.01	0.81	0.61					
27,000-32,999	1.37	1.16	0.96	0.76				
33,000-38,999	1.72	1.52	1.32	1.11	0.91			
39,000-44,999	2.08	1.87	1.67	1.47	1.26	1.06		
45,000-53,999	2.43	2.23	2.03	1.82	1.62	1.41	1.21	
54,000-64,999	3.14	2.94	2.74	2.53	2.33	2.12	1.92	1.51
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.31							
15,000-20,999	0.67	0.46						
21,000-26,999	1.02	0.82	0.62					
27,000-32,999	1.38	1.18	0.97	0.77				
33,000-38,999	1.73	1.53	1.33	1.13	0.93			
39,000-44,999	2.09	1.89	1.69	1.48	1.28	1.08		
45,000-53,999	2.44	2.24	2.04	1.84	1.64	1.44	1.24	
54,000-64,999	3.15	2.95	2.75	2.55	2.35	2.15	1.95	1.55
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.31							
15,000-20,999	0.67	0.47						
21,000-26,999	1.02	0.83	0.63					
27,000-32,999	1.38	1.18	0.98	0.79				
33,000-38,999	1.73	1.54	1.34	1.14	0.94			
39,000-44,999	2.09	1.89	1.69	1.50	1.30	1.10		
45,000-53,999	2.45	2.25	2.05	1.85	1.65	1.45	1.26	
54,000-64,999	3.16	2.96	2.76	2.56	2.36	2.16	1.97	1.57

Heating, Early Retirement of an Electric Resistance Furnace

Table 518. Mini-Split Winter Demand Savings for 3.412 HSPF Baseline—Zone 4

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.16							
15,000-20,999	1.99	1.74						
21,000-26,999	2.82	2.57	2.32					
27,000-32,999	3.65	3.40	3.15	2.90				
33,000-38,999	4.47	4.23	3.98	3.73	3.48			
39,000-44,999	5.30	5.05	4.81	4.56	4.31	4.06		
45,000-53,999	6.13	5.88	5.63	5.39	5.14	4.89	4.64	
54,000-64,999	7.79	7.54	7.29	7.04	6.80	6.55	6.30	5.80
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.20							
15,000-20,999	2.03	1.80						
21,000-26,999	2.86	2.63	2.41					
27,000-32,999	3.69	3.46	3.23	3.01				
33,000-38,999	4.52	4.29	4.06	3.84	3.61			
39,000-44,999	5.34	5.12	4.89	4.66	4.44	4.21		
45,000-53,999	6.17	5.94	5.72	5.49	5.26	5.04	4.81	
54,000-64,999	7.83	7.60	7.37	7.15	6.92	6.69	6.47	6.01

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.22							
15,000-20,999	2.05	1.84						
21,000-26,999	2.88	2.67	2.45					
27,000-32,999	3.71	3.49	3.28	3.06				
33,000-38,999	4.54	4.32	4.11	3.89	3.67			
39,000-44,999	5.37	5.15	4.93	4.72	4.50	4.29		
45,000-53,999	6.19	5.98	5.76	5.55	5.33	5.11	4.90	
54,000-64,999	7.85	7.63	7.42	7.20	6.99	6.77	6.55	6.12
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.23							
15,000-20,999	2.06	1.85						
21,000-26,999	2.89	2.68	2.47					
27,000-32,999	3.72	3.51	3.29	3.08				
33,000-38,999	4.55	4.33	4.12	3.91	3.70			
39,000-44,999	5.37	5.16	4.95	4.74	4.53	4.32		
45,000-53,999	6.20	5.99	5.78	5.57	5.35	5.14	4.93	
54,000-64,999	7.86	7.65	7.43	7.22	7.01	6.80	6.59	6.16
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.24							
15,000-20,999	2.07	1.86						
21,000-26,999	2.90	2.69	2.48					
27,000-32,999	3.73	3.52	3.31	3.10				
33,000-38,999	4.55	4.35	4.14	3.93	3.72			
39,000-44,999	5.38	5.17	4.97	4.76	4.55	4.34		
45,000-53,999	6.21	6.00	5.79	5.59	5.38	5.17	4.96	
54,000-64,999	7.87	7.66	7.45	7.24	7.03	6.83	6.62	6.20

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.25							
15,000-20,999	2.08	1.87						
21,000-26,999	2.90	2.70	2.50					
27,000-32,999	3.73	3.53	3.32	3.12				
33,000-38,999	4.56	4.36	4.15	3.95	3.75			
39,000-44,999	5.39	5.18	4.98	4.78	4.57	4.37		
45,000-53,999	6.22	6.01	5.81	5.61	5.40	5.20	4.99	
54,000-64,999	7.87	7.67	7.47	7.26	7.06	6.85	6.65	6.24
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.26							
15,000-20,999	2.08	1.88						
21,000-26,999	2.91	2.71	2.51					
27,000-32,999	3.74	3.54	3.34	3.14				
33,000-38,999	4.57	4.37	4.17	3.97	3.77			
39,000-44,999	5.40	5.20	5.00	4.80	4.60	4.39		
45,000-53,999	6.22	6.02	5.82	5.62	5.42	5.22	5.02	
54,000-64,999	7.88	7.68	7.48	7.28	7.08	6.88	6.68	6.28
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.26							
15,000-20,999	2.09	1.89						
21,000-26,999	2.92	2.72	2.52					
27,000-32,999	3.74	3.55	3.35	3.15				
33,000-38,999	4.57	4.37	4.18	3.98	3.78			
39,000-44,999	5.40	5.20	5.00	4.81	4.61	4.41		
45,000-53,999	6.23	6.03	5.83	5.63	5.44	5.24	5.04	
54,000-64,999	7.88	7.69	7.49	7.29	7.09	6.89	6.70	6.30

Climate Zone 5: West Region, El Paso

Heating, New Construction/Replace-on-Burnout

Table 519. Mini-Split Winter Demand Savings for 8.2 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.03							
15,000-20,999	0.26	0.05						
21,000-26,999	0.49	0.28	0.06					
27,000-32,999	0.72	0.50	0.29	0.08				
33,000-38,999	0.95	0.73	0.52	0.31	0.10			
39,000-44,999	1.17	0.96	0.75	0.54	0.32	0.11		
45,000-53,999	1.40	1.19	0.98	0.77	0.55	0.34	0.13	
54,000-64,999	1.86	1.65	1.43	1.22	1.01	0.80	0.58	0.16
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.07							
15,000-20,999	0.30	0.10						
21,000-26,999	0.52	0.33	0.14					
27,000-32,999	0.75	0.56	0.36	0.17				
33,000-38,999	0.98	0.79	0.59	0.40	0.20			
39,000-44,999	1.21	1.02	0.82	0.63	0.43	0.24		
45,000-53,999	1.44	1.24	1.05	0.86	0.66	0.47	0.27	
54,000-64,999	1.90	1.70	1.51	1.31	1.12	0.92	0.73	0.34

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.09							
15,000-20,999	0.32	0.13						
21,000-26,999	0.54	0.36	0.17					
27,000-32,999	0.77	0.59	0.40	0.22				
33,000-38,999	1.00	0.82	0.63	0.44	0.26			
39,000-44,999	1.23	1.04	0.86	0.67	0.49	0.30		
45,000-53,999	1.46	1.27	1.09	0.90	0.72	0.53	0.35	
54,000-64,999	1.92	1.73	1.54	1.36	1.17	0.99	0.80	0.43
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.09							
15,000-20,999	0.32	0.14						
21,000-26,999	0.55	0.37	0.19					
27,000-32,999	0.78	0.60	0.42	0.23				
33,000-38,999	1.01	0.83	0.64	0.46	0.28			
39,000-44,999	1.24	1.05	0.87	0.69	0.51	0.33		
45,000-53,999	1.46	1.28	1.10	0.92	0.74	0.56	0.37	
54,000-64,999	1.92	1.74	1.56	1.38	1.19	1.01	0.83	0.47
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.10							
15,000-20,999	0.33	0.15						
21,000-26,999	0.56	0.38	0.20					
27,000-32,999	0.79	0.61	0.43	0.25				
33,000-38,999	1.01	0.84	0.66	0.48	0.30			
39,000-44,999	1.24	1.06	0.89	0.71	0.53	0.35		
45,000-53,999	1.47	1.29	1.11	0.94	0.76	0.58	0.40	
54,000-64,999	1.93	1.75	1.57	1.39	1.22	1.04	0.86	0.50

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.11							
15,000-20,999	0.34	0.16						
21,000-26,999	0.56	0.39	0.21					
27,000-32,999	0.79	0.62	0.44	0.27				
33,000-38,999	1.02	0.85	0.67	0.50	0.32			
39,000-44,999	1.25	1.07	0.90	0.72	0.55	0.37		
45,000-53,999	1.48	1.30	1.13	0.95	0.78	0.60	0.43	
54,000-64,999	1.94	1.76	1.59	1.41	1.23	1.06	0.88	0.53
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.11							
15,000-20,999	0.34	0.17						
21,000-26,999	0.57	0.40	0.23					
27,000-32,999	0.80	0.63	0.45	0.28				
33,000-38,999	1.03	0.86	0.68	0.51	0.34			
39,000-44,999	1.26	1.08	0.91	0.74	0.57	0.40		
45,000-53,999	1.48	1.31	1.14	0.97	0.80	0.62	0.45	
54,000-64,999	1.94	1.77	1.60	1.43	1.25	1.08	0.91	0.57
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.12							
15,000-20,999	0.35	0.18						
21,000-26,999	0.57	0.40	0.23					
27,000-32,999	0.80	0.63	0.46	0.29				
33,000-38,999	1.03	0.86	0.69	0.52	0.35			
39,000-44,999	1.26	1.09	0.92	0.75	0.58	0.41		
45,000-53,999	1.49	1.32	1.15	0.98	0.81	0.64	0.47	
54,000-64,999	1.95	1.78	1.61	1.43	1.26	1.09	0.92	0.58

Heating, Early Retirement of a Heat Pump

Table 520. Mini-Split Winter Demand Savings for 7.7 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.08							
15,000-20,999	0.33	0.12						
21,000-26,999	0.58	0.37	0.15					
27,000-32,999	0.83	0.62	0.40	0.19				
33,000-38,999	1.08	0.87	0.66	0.44	0.23			
39,000-44,999	1.33	1.12	0.91	0.69	0.48	0.27		
45,000-53,999	1.58	1.37	1.16	0.94	0.73	0.52	0.31	
54,000-64,999	2.09	1.87	1.66	1.45	1.23	1.02	0.81	0.38
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.11							
15,000-20,999	0.36	0.17						
21,000-26,999	0.61	0.42	0.23					
27,000-32,999	0.87	0.67	0.48	0.28				
33,000-38,999	1.12	0.92	0.73	0.53	0.34			
39,000-44,999	1.37	1.17	0.98	0.78	0.59	0.39		
45,000-53,999	1.62	1.42	1.23	1.04	0.84	0.65	0.45	
54,000-64,999	2.12	1.93	1.73	1.54	1.34	1.15	0.95	0.56

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.13							
15,000-20,999	0.38	0.20						
21,000-26,999	0.63	0.45	0.26					
27,000-32,999	0.88	0.70	0.51	0.33				
33,000-38,999	1.14	0.95	0.77	0.58	0.39			
39,000-44,999	1.39	1.20	1.02	0.83	0.65	0.46		
45,000-53,999	1.64	1.45	1.27	1.08	0.90	0.71	0.53	
54,000-64,999	2.14	1.95	1.77	1.58	1.40	1.21	1.03	0.66
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.14							
15,000-20,999	0.39	0.21						
21,000-26,999	0.64	0.46	0.28					
27,000-32,999	0.89	0.71	0.53	0.35				
33,000-38,999	1.14	0.96	0.78	0.60	0.42			
39,000-44,999	1.39	1.21	1.03	0.85	0.67	0.48		
45,000-53,999	1.64	1.46	1.28	1.10	0.92	0.74	0.55	
54,000-64,999	2.15	1.97	1.78	1.60	1.42	1.24	1.06	0.69
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.15							
15,000-20,999	0.40	0.22						
21,000-26,999	0.65	0.47	0.29					
27,000-32,999	0.90	0.72	0.54	0.36				
33,000-38,999	1.15	0.97	0.79	0.61	0.44			
39,000-44,999	1.40	1.22	1.04	0.87	0.69	0.51		
45,000-53,999	1.65	1.47	1.29	1.12	0.94	0.76	0.58	
54,000-64,999	2.15	1.98	1.80	1.62	1.44	1.26	1.08	0.73

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.15							
15,000-20,999	0.40	0.23						
21,000-26,999	0.65	0.48	0.30					
27,000-32,999	0.90	0.73	0.55	0.38				
33,000-38,999	1.16	0.98	0.81	0.63	0.46			
39,000-44,999	1.41	1.23	1.06	0.88	0.71	0.53		
45,000-53,999	1.66	1.48	1.31	1.13	0.96	0.78	0.61	
54,000-64,999	2.16	1.99	1.81	1.63	1.46	1.28	1.11	0.76
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.16							
15,000-20,999	0.41	0.24						
21,000-26,999	0.66	0.49	0.32					
27,000-32,999	0.91	0.74	0.57	0.40				
33,000-38,999	1.16	0.99	0.82	0.65	0.47			
39,000-44,999	1.41	1.24	1.07	0.90	0.73	0.55		
45,000-53,999	1.66	1.49	1.32	1.15	0.98	0.80	0.63	
54,000-64,999	2.17	1.99	1.82	1.65	1.48	1.31	1.13	0.79
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.16							
15,000-20,999	0.41	0.24						
21,000-26,999	0.66	0.49	0.32					
27,000-32,999	0.91	0.74	0.57	0.40				
33,000-38,999	1.17	1.00	0.83	0.66	0.49			
39,000-44,999	1.42	1.25	1.08	0.91	0.74	0.57		
45,000-53,999	1.67	1.50	1.33	1.16	0.99	0.82	0.65	
54,000-64,999	2.17	2.00	1.83	1.66	1.49	1.32	1.15	0.81

Table 521. Mini-Split Winter Demand Savings for 6.8 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.18							
15,000-20,999	0.49	0.28						
21,000-26,999	0.79	0.58	0.37					
27,000-32,999	1.10	0.89	0.67	0.46				
33,000-38,999	1.40	1.19	0.98	0.77	0.55			
39,000-44,999	1.71	1.50	1.28	1.07	0.86	0.65		
45,000-53,999	2.02	1.80	1.59	1.38	1.16	0.95	0.74	
54,000-64,999	2.63	2.41	2.20	1.99	1.77	1.56	1.35	0.92
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.22							
15,000-20,999	0.53	0.33						
21,000-26,999	0.83	0.64	0.44					
27,000-32,999	1.14	0.94	0.75	0.55				
33,000-38,999	1.44	1.25	1.05	0.86	0.66			
39,000-44,999	1.75	1.55	1.36	1.16	0.97	0.77		
45,000-53,999	2.05	1.86	1.66	1.47	1.27	1.08	0.88	
54,000-64,999	2.66	2.47	2.27	2.08	1.88	1.69	1.49	1.10

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.24							
15,000-20,999	0.54	0.36						
21,000-26,999	0.85	0.66	0.48					
27,000-32,999	1.15	0.97	0.78	0.60				
33,000-38,999	1.46	1.27	1.09	0.90	0.72			
39,000-44,999	1.76	1.58	1.39	1.21	1.02	0.84		
45,000-53,999	2.07	1.88	1.70	1.51	1.33	1.14	0.96	
54,000-64,999	2.68	2.49	2.31	2.12	1.94	1.75	1.57	1.20
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.25							
15,000-20,999	0.55	0.37						
21,000-26,999	0.86	0.67	0.49					
27,000-32,999	1.16	0.98	0.80	0.62				
33,000-38,999	1.47	1.28	1.10	0.92	0.74			
39,000-44,999	1.77	1.59	1.41	1.23	1.04	0.86		
45,000-53,999	2.08	1.90	1.71	1.53	1.35	1.17	0.99	
54,000-64,999	2.69	2.51	2.32	2.14	1.96	1.78	1.60	1.23
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.25							
15,000-20,999	0.56	0.38						
21,000-26,999	0.86	0.69	0.51					
27,000-32,999	1.17	0.99	0.81	0.63				
33,000-38,999	1.47	1.30	1.12	0.94	0.76			
39,000-44,999	1.78	1.60	1.42	1.24	1.06	0.89		
45,000-53,999	2.08	1.91	1.73	1.55	1.37	1.19	1.01	
54,000-64,999	2.69	2.52	2.34	2.16	1.98	1.80	1.62	1.27

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.26							
15,000-20,999	0.56	0.39						
21,000-26,999	0.87	0.69	0.52					
27,000-32,999	1.18	1.00	0.82	0.65				
33,000-38,999	1.48	1.30	1.13	0.95	0.78			
39,000-44,999	1.79	1.61	1.43	1.26	1.08	0.91		
45,000-53,999	2.09	1.92	1.74	1.56	1.39	1.21	1.04	
54,000-64,999	2.70	2.53	2.35	2.17	2.00	1.82	1.65	1.30
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.27							
15,000-20,999	0.57	0.40						
21,000-26,999	0.88	0.70	0.53					
27,000-32,999	1.18	1.01	0.84	0.67				
33,000-38,999	1.49	1.31	1.14	0.97	0.80			
39,000-44,999	1.79	1.62	1.45	1.28	1.10	0.93		
45,000-53,999	2.10	1.92	1.75	1.58	1.41	1.24	1.06	
54,000-64,999	2.71	2.53	2.36	2.19	2.02	1.85	1.67	1.33
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	0.27							
15,000-20,999	0.57	0.40						
21,000-26,999	0.88	0.71	0.54					
27,000-32,999	1.18	1.01	0.84	0.67				
33,000-38,999	1.49	1.32	1.15	0.98	0.81			
39,000-44,999	1.80	1.62	1.45	1.28	1.11	0.94		
45,000-53,999	2.10	1.93	1.76	1.59	1.42	1.25	1.08	
54,000-64,999	2.71	2.54	2.37	2.20	2.03	1.86	1.69	1.35

Heating, Early Retirement of an Electric Resistance Furnace

Table 522. Mini-Split Winter Demand Savings for 3.412 HSPF Baseline—Zone 5

8.5-8.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.00							
15,000-20,999	1.72	1.50						
21,000-26,999	2.43	2.22	2.00					
27,000-32,999	3.14	2.93	2.72	2.51				
33,000-38,999	3.86	3.65	3.43	3.22	3.01			
39,000-44,999	4.57	4.36	4.15	3.93	3.72	3.51		
45,000-53,999	5.29	5.07	4.86	4.65	4.43	4.22	4.01	
54,000-64,999	6.71	6.50	6.29	6.08	5.86	5.65	5.44	5.01
9.0-9.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.04							
15,000-20,999	1.75	1.56						
21,000-26,999	2.47	2.27	2.08					
27,000-32,999	3.18	2.99	2.79	2.60				
33,000-38,999	3.89	3.70	3.50	3.31	3.12			
39,000-44,999	4.61	4.41	4.22	4.02	3.83	3.63		
45,000-53,999	5.32	5.13	4.93	4.74	4.54	4.35	4.15	
54,000-64,999	6.75	6.55	6.36	6.17	5.97	5.78	5.58	5.19

9.5-9.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.06							
15,000-20,999	1.77	1.59						
21,000-26,999	2.48	2.30	2.11					
27,000-32,999	3.20	3.01	2.83	2.64				
33,000-38,999	3.91	3.73	3.54	3.36	3.17			
39,000-44,999	4.63	4.44	4.26	4.07	3.89	3.70		
45,000-53,999	5.34	5.16	4.97	4.78	4.60	4.41	4.23	
54,000-64,999	6.77	6.58	6.40	6.21	6.03	5.84	5.66	5.29
10.0-10.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.06							
15,000-20,999	1.78	1.60						
21,000-26,999	2.49	2.31	2.13					
27,000-32,999	3.21	3.02	2.84	2.66				
33,000-38,999	3.92	3.74	3.56	3.37	3.19			
39,000-44,999	4.63	4.45	4.27	4.09	3.91	3.72		
45,000-53,999	5.35	5.17	4.98	4.80	4.62	4.44	4.26	
54,000-64,999	6.78	6.59	6.41	6.23	6.05	5.87	5.68	5.32
10.5-10.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.07							
15,000-20,999	1.78	1.61						
21,000-26,999	2.50	2.32	2.14					
27,000-32,999	3.21	3.03	2.86	2.68				
33,000-38,999	3.93	3.75	3.57	3.39	3.21			
39,000-44,999	4.64	4.46	4.28	4.11	3.93	3.75		
45,000-53,999	5.35	5.18	5.00	4.82	4.64	4.46	4.28	
54,000-64,999	6.78	6.60	6.43	6.25	6.07	5.89	5.71	5.35

11.0-11.4 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.08							
15,000-20,999	1.79	1.62						
21,000-26,999	2.51	2.33	2.15					
27,000-32,999	3.22	3.04	2.87	2.69				
33,000-38,999	3.93	3.76	3.58	3.41	3.23			
39,000-44,999	4.65	4.47	4.30	4.12	3.95	3.77		
45,000-53,999	5.36	5.19	5.01	4.84	4.66	4.48	4.31	
54,000-64,999	6.79	6.61	6.44	6.26	6.09	5.91	5.74	5.39
11.5-11.9 HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.08							
15,000-20,999	1.80	1.63						
21,000-26,999	2.51	2.34	2.17					
27,000-32,999	3.23	3.05	2.88	2.71				
33,000-38,999	3.94	3.77	3.60	3.42	3.25			
39,000-44,999	4.65	4.48	4.31	4.14	3.97	3.79		
45,000-53,999	5.37	5.19	5.02	4.85	4.68	4.51	4.34	
54,000-64,999	6.79	6.62	6.45	6.28	6.11	5.93	5.76	5.42
12.0+ HSPF								
Size (Btuh) Post	< 15,000	15,000-20,999	21,000-26,999	27,000-32,999	33,000-38,999	39,000-44,999	45,000-53,999	54,000-64,999
Size (Btuh) Pre								
< 15,000	1.09							
15,000-20,999	1.80	1.63						
21,000-26,999	2.52	2.35	2.17					
27,000-32,999	3.23	3.06	2.89	2.72				
33,000-38,999	3.94	3.77	3.60	3.43	3.26			
39,000-44,999	4.66	4.49	4.32	4.15	3.98	3.81		
45,000-53,999	5.37	5.20	5.03	4.86	4.69	4.52	4.35	
54,000-64,999	6.80	6.63	6.46	6.29	6.12	5.95	5.78	5.44

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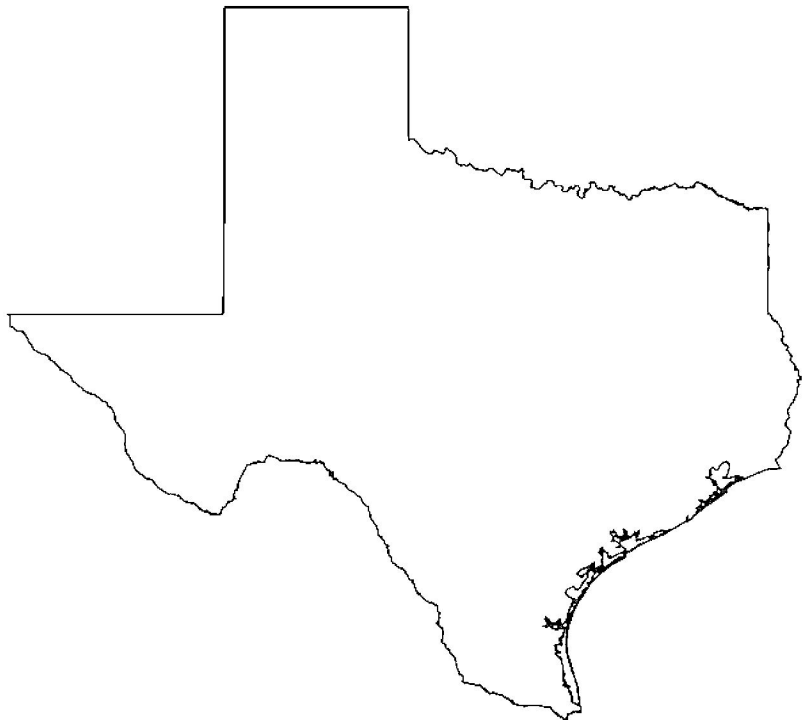
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Acknowledgments

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This version of the Texas Technical Reference Manual was primarily developed from program documentation and measure savings calculators used by the Texas Electric Utilities and their Energy Efficiency Services Providers (EESPs) to support their energy efficiency efforts, and original source material from petitions filed with the Public Utility Commission of Texas by the utilities, their consultants and EESPs such as Frontier Energy (TXu 1-904-705), ICF, CLEAResult and Nexant. Portions of the Technical Reference Manual are copyrighted 2001-2017 by the Electric Utility Marketing Managers of Texas (EUMMOT), while other portions are copyrighted 2001-2018 by Frontier Energy. Certain technical content and updates were added by the EM&V team to provide further explanation and direction as well as consistent structure and level of information.

TRM Technical Support

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1. INTRODUCTION

This volume of the TRM contains the deemed savings for nonresidential measures that have been approved for use in Texas by the PUCT. This volume includes instructions regarding various savings calculators and reference sources of the information. The TRM serves as a centralized source of deemed savings values; where appropriate, measurement and verification (M&V) methods by measure category are noted for informational purposes only regarding the basis of projected and claimed savings.

Table 1 provides an overview of the nonresidential measures contained within Volume 3 and the types of deemed savings estimates available for each one. There are five types of deemed savings estimates identified:

- Point estimates that provide a single deemed savings value that corresponds to a single measure or type of technology.
- Deemed saving tables that provide energy and peak savings as a function of size, capacity, building type, efficiency level, or other inputs.
- Savings algorithms that require user-defined inputs that must be gathered on-site and the identification of default inputs where primary data could not be collected. In many cases, these algorithms are provided as references to deemed savings tables, point estimates, or calculator explanations.
- Calculators are used by different utilities and implementers to calculate energy savings for different measures. In many cases, there are several different calculators available for a single measure. Sometimes their background calculators are similar, and in other cases, estimates can vary greatly between each calculator.
- M&V methods are also used for some measures to calculate savings in the event that standard equipment is not used, or the specified building types do not apply. For some of these measures, both a simplified M&V approach and a full M&V approach may be allowed by the utility. M&V methods as a source of claimed and projected savings are noted for informational purposes only. Standardized M&V approaches that have been reviewed by the EM&V team are incorporated into Volume 4: Measurement and Verification Protocols of this TRM.

Please consult Volume I: Overview and User Guide, Section 4: Structure and Content, for details on the organization of the measure templates presented in this volume.

Table 1. Nonresidential Deemed Savings by Measure Category

Measure category	Measure description	Point estimates	Deemed savings tables	Savings algorithm	Calculator	M&V	10.0 update
Lighting	Lamps and fixtures	–	–	X	X	X	Corrected DesignLights Consortium (DLC) version requirements omitted from final TRM v8.0; added guidance for field adjustable lights; addressed savings path for solar fixtures; added guidance for new construction exterior lighting zone selection; added guidance for building type selection; clarified midstream outdoor coincident factor is winter peak
	Lighting controls	–	–	X	X	X	Added guidance for field adjustable lights; clarified baseline controls for new construction projects
	Exterior photocell and time clock repair	–	–	X	X	X	TRM v10.0 origin
	LED traffic signals	–	–	X	X	X	General reference checks and text edits

Measure category	Measure description	Point estimates	Deemed savings tables	Savings algorithm	Calculator	M&V	10.0 update
HVAC	Air conditioning and heat pump tune-ups	–	–	X	–	X	No revision
	Split and packaged air conditioners and heat pumps	–	–	X	X	X	Added additional guidance for selection of building types for complex projects; incremented remaining useful life (RUL) table for code compliance
	HVAC chillers	–	–	X	X	X	Added guidance for redundant chiller configurations; incremented RUL table for code compliance
	Package terminal air conditioners/heat pumps, and room air conditioners	–	–	X	X	X	Incremented RUL table for code compliance
	Computer room air conditioners	–	–	X	X	–	No revision
	Computer room air handler motor efficiency	–	–	X	X	–	Added guidance for rounding down motor size in the baseline efficiency lookup table
	HVAC variable frequency drives	–	X	X	–	–	Added guidance for rounding down motor size in the baseline efficiency lookup table
	Condenser air evaporative pre-cooling	–	–	X	–	X	No revision
	High-volume low-speed fans	–	–	X	–	–	No revision
	Small commercial evaporative cooling	–	X	X	–	–	No revision
	Small commercial smart thermostats	–	–	X	X	X	TRM v10.0 origin
Building envelope	ENERGY STAR® cool roofs	X	–	X	X	–	Changed eligibility criteria from strictly ENERGY STAR to Cool Roof Rating Council (CRRC) certification
	Window treatments	X	–	X	X	–	No revision
	Entrance and exit door air infiltration	–	X	X	–	–	No revision

Measure category	Measure description	Point estimates	Deemed savings tables	Savings algorithm	Calculator	M&V	10.0 update
Food service	ENERGY STAR® combination ovens	–	X	X	–	–	Updated specification and deemed savings to comply with ENERGY STAR Commercial Ovens Program Requirements Version 3.0
	ENERGY STAR® electric convection ovens	–	X	X	–	–	Updated specification and deemed savings to comply with ENERGY STAR Commercial Ovens Program Requirements Version 3.0
	ENERGY STAR® dishwashers	–	X	X	–	–	Corrected mismatch between formula definitions and variables; replaced URL for ENERGY STAR listing
	ENERGY STAR® hot food holding cabinets	–	X	X	–	–	Minor formatting
	ENERGY STAR® electric fryers	–	X	X	–	–	Minor variable definition updates
	ENERGY STAR® electric steam cookers	–	X	X	–	–	Corrected formula error and minor variable definition updates
	ENERGY STAR® ice makers	–	X	X	–	–	No revision
	Demand controlled kitchen ventilation	–	X	X	–	–	Updated formulas and corrected table error
	Pre-rinse spray valves	–	X	X	–	–	Updated formulas and variable definitions
	Vacuum-sealing and packaging machines	–	X	–	–	–	No revision