

Appendix D: Residential Measure Assumptions

1159	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 without louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 without louvered sides and reverse cycle < 14000 Btu/h	Time of Sale	AC unit	12	\$40.0	8	0.011	0.0
1160	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 without louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 without louvered sides and reverse cycle < 14000 Btu/h	New Construction	AC unit	12	\$40.0	8	0.011	0.0
1161	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 without louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 without louvered sides and reverse cycle < 14000 Btu/h	Time of Sale	AC unit	12	\$40.0	8	0.011	0.0
1162	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 without louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 without louvered sides and reverse cycle < 14000 Btu/h	New Construction	AC unit	12	\$40.0	8	0.011	0.0
1163	Multifamily	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 15	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,518.0	4323	0.232	0.0
1164	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 15	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,518.0	4361	0.232	0.0
1165	Multifamily	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 16	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,655.0	4348	0.249	0.0

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1166	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 16	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,655.0	4390	0.249	0.0
1167	Multi-family	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 17	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,792.0	4371	0.264	0.0
1168	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 17	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,792.0	4415	0.264	0.0
1169	Multi-family	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 18	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,929.0	4390	0.277	0.0
1170	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Air Source Heat Pump	SEER 18	Existing electric resistance with AC/dual baseline = heat pump	Early Replacement	per ton	18	\$1,929.0	4437	0.277	0.0
1171	Multi-family	Heat Pump	HVAC	Air Source Heat Pump	SEER 15	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	268	0.019	0.0
1172	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 15	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	272	0.019	0.0
1173	Multi-family	Heat Pump	HVAC	Air Source Heat Pump	SEER 16	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	294	0.037	0.0
1174	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 16	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	300	0.037	0.0

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1175	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 17	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	316	0.052	0.0
1176	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 17	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	326	0.052	0.0
1177	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 18	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	336	0.065	0.0
1178	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 18	Federal minimum SEER14 and HSPF 8.2 equipment	New Construction	per ton	18	\$137.0	348	0.065	0.0
1179	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 15	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	268	0.019	0.0
1180	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 15	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	272	0.019	0.0
1181	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 16	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	294	0.037	0.0
1182	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 16	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	300	0.037	0.0
1183	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 17	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	316	0.052	0.0
1184	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 17	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	326	0.052	0.0

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1185	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 18	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	336	0.065	0.0
1186	Single Family & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 18	Federal minimum SEER14 and HSPF 8.2 equipment	Time of Sale	per ton	18	\$137.0	348	0.065	0.0
1187	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Closed Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2555	0.222	0.0
1188	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Closed Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2592	0.222	0.0
1189	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Closed Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	5011	0.254	0.0
1190	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Closed Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	5054	0.254	0.0
1191	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	Time of Sale	per ton	25	\$2,021.0	1178	0.044	0.0
1192	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	Time of Sale	per ton	25	\$2,021.0	1186	0.044	0.0
1193	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	New Construction	per ton	25	\$2,021.0	957	0.042	0.0
1194	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	New Construction	per ton	25	\$2,021.0	965	0.042	0.0

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1195	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Federal standard central AC, electric resistance heating	Time of Sale	per ton	25	\$1,100.0	5082	0.132	0.0
1196	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Federal standard central AC, electric resistance heating	Time of Sale	per ton	25	\$1,100.0	5105	0.132	0.0
1197	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Federal standard central AC, electric resistance heating	New Construction	per ton	25	\$1,100.0	4796	0.093	0.0
1198	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Federal standard central AC, electric resistance heating	New Construction	per ton	25	\$1,100.0	4811	0.093	0.0
1199	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2579	0.238	0.0
1200	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2619	0.238	0.0
1201	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	5035	0.270	0.0
1202	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to air - Open Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	5081	0.270	0.0
1203	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	Time of Sale	per ton	25	\$2,021.0	691	0.058	0.0

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1204	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	Time of Sale	per ton	25	\$2,021.0	702	0.058	0.0
1205	Multi-family	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	New Construction	per ton	25	\$2,021.0	1178	0.044	0.0
1206	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	New Construction	per ton	25	\$2,021.0	1186	0.044	0.0
1207	Multi-family	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Federal standard central AC, electric resistance heating	Time of Sale	per ton	25	\$1,100.0	4485	0.078	0.0
1208	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Federal standard central AC, electric resistance heating	Time of Sale	per ton	25	\$1,100.0	4497	0.078	0.0
1209	Multi-family	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Federal standard central AC, electric resistance heating	New Construction	per ton	25	\$1,100.0	5082	0.132	0.0
1210	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Federal standard central AC, electric resistance heating	New Construction	per ton	25	\$1,100.0	5105	0.132	0.0
1211	Multi-family	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2864	0.277	0.0
1212	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2913	0.277	0.0

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1213	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	5321	0.309	0.0
1214	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Closed Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	5374	0.309	0.0
1215	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	Time of Sale	per ton	25	\$2,021.0	981	0.090	0.0
1216	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	Time of Sale	per ton	25	\$2,021.0	999	0.090	0.0
1217	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	New Construction	per ton	25	\$2,021.0	691	0.058	0.0
1218	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	SEER 14, HSPF 8.2, 11.8 EER ASHP	New Construction	per ton	25	\$2,021.0	702	0.058	0.0
1219	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Federal standard central AC, electric resistance heating	Time of Sale	per ton	25	\$1,100.0	4797	0.124	0.0
1220	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Federal standard central AC, electric resistance heating	Time of Sale	per ton	25	\$1,100.0	4819	0.124	0.0
1221	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Federal standard central AC, electric resistance heating	New Construction	per ton	25	\$1,100.0	4485	0.078	0.0
1222	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Federal standard central AC, electric	New Construction	per ton	25	\$1,100.0	4497	0.078	0.0

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													resistance heating	
1223	Multifamily	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2267	0.224	0.0	
1224	Single Family & Duplex	Heat Pump	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Existing air source heat pump	Early Replacement	per ton	25	\$3,957.0	2305	0.224	0.0	
1225	Multifamily	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	4724	0.256	0.0	
1226	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ground Source Heat Pump	ENERGY STAR Water to water - Open Loop	Existing AC, electric heating	Early Replacement	per ton	25	\$3,957.0	4766	0.256	0.0	
1227	Single Family & Duplex	Heat Pump	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing ducted ASHP	Retrofit	per unit	18	\$3,750.0	2085	0.036	0.0	
1228	Multifamily	Heat Pump	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing ducted ASHP	Retrofit	per unit	18	\$3,750.0	1355	0.023	0.0	
1229	Single Family & Duplex	Electric Resistance Heat/No CAC	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating (no AC)	Retrofit	per unit	18	\$3,750.0	4588	0.000	0.0	
1230	Multifamily	Electric Resistance Heat/No CAC	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating (no AC)	Retrofit	per unit	18	\$3,750.0	2982	0.000	0.0	
1231	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with PTAC/PTHP	Retrofit	per unit	18	\$3,750.0	5098	0.322	0.0	

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1232	Multifamily	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with PTAC/PTHP	Retrofit	per unit	18	\$3,750.0	3314	0.209	0.0
1233	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with room AC	Retrofit	per unit	18	\$3,750.0	5128	0.376	0.0
1234	Multifamily	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with room AC	Retrofit	per unit	18	\$3,750.0	3333	0.244	0.0
1235	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with SPVAC/SPVH P < 65kBtu/hr	Retrofit	per unit	18	\$3,750.0	5008	0.134	0.0
1236	Multifamily	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1.5-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with SPVAC/SPVH P < 65kBtu/hr	Retrofit	per unit	18	\$3,750.0	3255	0.087	0.0
1237	Single Family & Duplex	Heat Pump	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump	Existing ducted ASHP	Retrofit	per unit	18	\$3,000.0	272	0.019	0.0
1238	Single Family & Duplex	Heat Pump	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing ducted ASHP	Retrofit	per unit	18	\$3,000.0	1407	0.024	0.0
1239	Multifamily	Heat Pump	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing ducted ASHP	Retrofit	per unit	18	\$3,000.0	915	0.015	0.0
1240	Single Family & Duplex	Electric Resistance Heat/No CAC	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating (no AC)	Retrofit	per unit	18	\$3,000.0	3099	0.000	0.0

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1241	Multi-family	Electric Resistance Heat/No CAC	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating (no AC)	Retrofit	per unit	18	\$3,000.0	2014	0.000	0.0
1242	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with PTAC/PTHP	Retrofit	per unit	18	\$3,000.0	3439	0.215	0.0
1243	Multi-family	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with PTAC/PTHP	Retrofit	per unit	18	\$3,000.0	2236	0.140	0.0
1244	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with room AC	Retrofit	per unit	18	\$3,000.0	3459	0.251	0.0
1245	Multi-family	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with room AC	Retrofit	per unit	18	\$3,000.0	2248	0.163	0.0
1246	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with SPVAC/SPVH P < 65kBtu/hr	Retrofit	per unit	18	\$3,000.0	3379	0.089	0.0
1247	Multi-family	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	1-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with SPVAC/SPVH P < 65kBtu/hr	Retrofit	per unit	18	\$3,000.0	2196	0.058	0.0
1248	Single Family & Duplex	Heat Pump	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing ducted ASHP	Retrofit	per unit	18	\$4,500.0	2195	0.048	0.0
1249	Multi-family	Heat Pump	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing ducted ASHP	Retrofit	per unit	18	\$4,500.0	1427	0.031	0.0

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1250	Single Family & Duplex	Electric Resistance Heat/No CAC	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating (no AC)	Retrofit	per unit	18	\$4,500.0	4740	0.000	0.0
1251	Multi Family	Electric Resistance Heat/No CAC	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating (no AC)	Retrofit	per unit	18	\$4,500.0	3081	0.000	0.0
1252	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with PTAC/PTHP	Retrofit	per unit	18	\$4,500.0	5422	0.430	0.0
1253	Multi Family	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with PTAC/PTHP	Retrofit	per unit	18	\$4,500.0	3524	0.279	0.0
1254	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with room AC	Retrofit	per unit	18	\$4,500.0	5460	0.501	0.0
1255	Multi Family	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with room AC	Retrofit	per unit	18	\$4,500.0	3549	0.326	0.0
1256	Single Family & Duplex	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with SPVAC/SPVH P < 65kBtu/hr	Retrofit	per unit	18	\$4,500.0	5300	0.179	0.0
1257	Multi Family	AC/Electric Resistance Heat	HVAC	Ductless Heat Pump	2-Ton Ductless Heat Pump (first installed in home)	Existing electric resistance heating with SPVAC/SPVH P < 65kBtu/hr	Retrofit	per unit	18	\$4,500.0	3445	0.116	0.0
1258	Single Family & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Time of Sale	per unit	13	\$1,000.0	1961	0.093	0.0

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1259	Single Family & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	New Construction	per unit	13	\$1,000.0	1961	0.093	0.0
1260	Single Family & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Retrofit	per unit	13	\$1,575.0	1961	0.093	0.0
1261	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Time of Sale	per unit	13	\$1,000.0	1344	0.064	0.0
1262	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	New Construction	per unit	13	\$1,000.0	1344	0.064	0.0
1263	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Retrofit	per unit	13	\$1,575.0	1344	0.064	0.0
1264	Single Family & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Time of Sale	per unit	13	\$1,000.0	2279	0.108	0.0
1265	Single Family & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	New Construction	per unit	13	\$1,000.0	2279	0.108	0.0
1266	Single Family & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Retrofit	per unit	13	\$1,575.0	2279	0.108	0.0

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1267	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Time of Sale	per unit	13	\$1,000.0	1604	0.076	0.0
1268	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	New Construction	per unit	13	\$1,000.0	1604	0.076	0.0
1269	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.0	Electric Water Heater	Retrofit	per unit	13	\$1,575.0	1604	0.076	0.0
1270	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Time of Sale	per unit	13	\$1,134.0	2229	0.106	0.0
1271	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	New Construction	per unit	13	\$1,134.0	2229	0.106	0.0
1272	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Retrofit	per unit	13	\$1,703.0	2229	0.106	0.0
1273	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Time of Sale	per unit	13	\$1,134.0	1524	0.072	0.0
1274	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	New Construction	per unit	13	\$1,134.0	1524	0.072	0.0

\*Residential applicability factors were developed only for measures included in the potential analyses.

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1275	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Retrofit	per unit	13	\$1,703.0	1524	0.072	0.0
1276	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Time of Sale	per unit	13	\$1,134.0	2593	0.123	0.0
1277	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	New Construction	per unit	13	\$1,134.0	2593	0.123	0.0
1278	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Retrofit	per unit	13	\$1,703.0	2593	0.123	0.0
1279	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Time of Sale	per unit	13	\$1,134.0	1822	0.086	0.0
1280	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	New Construction	per unit	13	\$1,134.0	1822	0.086	0.0
1281	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Heat Pump Water Heaters	Heat Pump Water Heater EF 2.35	Electric Water Heater	Retrofit	per unit	13	\$1,703.0	1822	0.086	0.0
1282	SingleFamily & Duplex	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	1.93% Energy-Use Reduction	Legacy Program Participants - currently receiving HER	Retrofit	per home	1	\$1.0	181	0.008	0.0

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1283	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	1.93% Energy-Use Reduction	Legacy Program Participants - currently receiving HER	Retrofit	per home	1	\$1.0	83	0.004	0.0
1284	Single Family & Duplex	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	1.93% Energy-Use Reduction	Legacy Program Participants - currently receiving HER	Retrofit	per home	1	\$1.0	419	0.018	0.0
1285	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	1.93% Energy-Use Reduction	Legacy Program Participants - currently receiving HER	Retrofit	per home	1	\$1.0	196	0.008	0.0
1286	Single Family & Duplex	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - first year	Retrofit	per home	1	\$1.0	181	0.008	0.0
1287	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - first year	Retrofit	per home	1	\$1.0	83	0.004	0.0
1288	Single Family & Duplex	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - first year	Retrofit	per home	1	\$1.0	419	0.018	0.0
1289	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - first year	Retrofit	per home	1	\$1.0	196	0.008	0.0
1290	Single Family & Duplex	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - second year	Retrofit	per home	1	\$1.0	181	0.008	0.0

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1291	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - second year	Retrofit	per home	1	\$1.0	83	0.004	0.0
1292	Single Family & Duplex	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - second year	Retrofit	per home	1	\$1.0	419	0.018	0.0
1293	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2017	6% Expansion Program Participant in 2017 - second year	Retrofit	per home	1	\$1.0	196	0.008	0.0
1294	Single Family & Duplex	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020- first year	Retrofit	per home	1	\$1.0	181	0.008	0.0
1295	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020- first year	Retrofit	per home	1	\$1.0	83	0.004	0.0
1296	Single Family & Duplex	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020- first year	Retrofit	per home	1	\$1.0	419	0.018	0.0
1297	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020- first year	Retrofit	per home	1	\$1.0	196	0.008	0.0
1298	Single Family & Duplex	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020- second year	Retrofit	per home	1	\$1.0	181	0.008	0.0

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1299	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020-second year	Retrofit	per home	1	\$1.0	83	0.004	0.0
1300	Single Family & Duplex	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020-second year	Retrofit	per home	1	\$1.0	419	0.018	0.0
1301	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2020	6% Expansion Program Participant in 2020-second year	Retrofit	per home	1	\$1.0	196	0.008	0.0
1302	Single Family & Duplex	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-first year	Retrofit	per home	1	\$1.0	181	0.008	0.0
1303	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-first year	Retrofit	per home	1	\$1.0	83	0.004	0.0
1304	Single Family & Duplex	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-first year	Retrofit	per home	1	\$1.0	419	0.018	0.0
1305	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-first year	Retrofit	per home	1	\$1.0	196	0.008	0.0
1306	Single Family	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 -	Retrofit	per home	1	\$1.0	181	0.008	0.0

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	&Duple				Expansion Participant in 2023	remaining customers-second year							
1307	Multifamily	Gas Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-second year	Retrofit	per home	1	\$1.0	83	0.004	0.0
1308	SingleFamily &Duple	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-second year	Retrofit	per home	1	\$1.0	419	0.018	0.0
1309	Multifamily	Electric Heating	Other	Residential Mailed Home Energy Report (HER)	Average Behavioral Whole-house Energy-Use Reduction of Expansion Participant in 2023	Expansion Program Participant in 2023 - remaining customers-second year	Retrofit	per home	1	\$1.0	196	0.008	0.0
1310	SingleFamily &Duple	Gas Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	Legacy Program Participants - currently enrolled in C3 platform w/eHER	Retrofit	per home	1	\$1.0	189	0.000	0.0
1311	Multifamily	Gas Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	Legacy Program Participants - currently opt-in C3 platform w/eHER	Retrofit	per home	1	\$1.0	87	0.000	0.0
1312	SingleFamily &Duple	Electric Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	Legacy Program Participants - currently opt-in C3 platform w/eHER	Retrofit	per home	1	\$1.0	439	0.000	0.0
1313	Multifamily	Electric Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	Legacy Program Participants - currently	Retrofit	per home	1	\$1.0	205	0.000	0.0

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						opt-in C3 platform w/eHER							
1314	Singl eFamily & Duplex	Gas Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - first 3 years	Retrofit	per home	1	\$1.0	356	0.000	0.0
1315	Mult ifamily	Gas Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - first 3 years	Retrofit	per home	1	\$1.0	164	0.000	0.0
1316	Singl eFamily & Duplex	Electric Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - first 3 years	Retrofit	per home	1	\$1.0	825	0.000	0.0
1317	Mult ifamily	Electric Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - first 3 years	Retrofit	per home	1	\$1.0	386	0.000	0.0
1318	Singl eFamily & Duplex	Gas Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - Year 4th and after	Retrofit	per home	1	\$1.0	189	0.000	0.0
1319	Mult ifamily	Gas Heating	Other	Residential Web-based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - Year 4th and after	Retrofit	per home	1	\$1.0	87	0.000	0.0

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1320	Singl eFa mily &Du plex	Electric Heating	Other	Residential Web- based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - Year 4th and after	Retrofit	per home	1	\$1.0	439	0.000	0.0
1321	Mult ifami ly	Electric Heating	Other	Residential Web- based Platform with eHER	Energy-Use Reduction	New Customers enroll to Web-based Platform with eHER - Year 4th and after	Retrofit	per home	1	\$1.0	205	0.000	0.0
1322	All	Gas Heating	Other	Smart WiFi Thermostat	Smart WiFi Thermostat	Non- programmab le Thermostat	Retrofit	per home	5	\$225.0	234	0.188	0.0
1323	All	Gas Heating	Other	Connected homes - Old Remove	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	538	0.188	0.0
1324	Singl eFa mily &Du plex	Electric Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	1945	0.000	0.0
1325	Mult ifami ly	Electric Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	1184	0.000	0.0
1326	Singl eFa mily &Du plex	Electric Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	1945	0.000	0.0

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1327	Multifamily	Electric Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	1184	0.000	0.0
1328	SingleFamily & Duplex	Gas Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	256	0.000	72.9
1329	Multifamily	Gas Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	131	0.000	47.4
1330	SingleFamily & Duplex	Gas Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	256	0.000	72.9
1331	Multifamily	Gas Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	131	0.000	47.4
1332	SingleFamily & Duplex	Electric Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	1945	0.000	0.0
1333	Multifamily	Electric Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	1184	0.000	0.0

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1334	Singl eFa mily &Du plex	Heat Pump	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	1325	0.000	0.0
1335	Mult ifami ly	Heat Pump	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	781	0.000	0.0
1336	Singl eFa mily &Du plex	Heat Pump	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	1325	0.000	0.0
1337	Mult ifami ly	Heat Pump	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	781	0.000	0.0
1338	Singl eFa mily &Du plex	Gas Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	67	0.000	72.9
1339	Mult ifami ly	Gas Heating	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	44	0.000	47.4
1340	Singl eFa mily &Du plex	Heat Pump	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web- based platform with eHER	Home w/no web-based platform and non- programmab le Thermostat	Retrofit	per unit	5	\$225.0	1325	0.000	0.0

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1341	Multifamily	Heat Pump	Other	Connected homes	Connected homes = Smart WiFi Thermostat + Web-based platform with eHER	Home w/no web-based platform and non-programmable Thermostat	Retrofit	per unit	5	\$225.0	781	0.000	0.0
1342	Single Family & Duplex	Gas Heating	Other	Home Energy Audit & Retrofit Single Family: Tier 2	Home Energy Audit & Retrofit Single Family: Tier 2	Home Energy Audit & Retrofit Single Family: Tier 2	Retrofit	per home	1	\$1.0	0	0.000	0.0
1343	Multifamily	Gas Heating	Other	Home Energy Audit & Retrofit Multifamily: Tier 1	0	Home Energy Audit & Retrofit Multifamily: Tier 1	Direct Install	per home	25	\$100.0	0	0.000	0.0
1344	Single Family & Duplex	Electric Heating	Other	Home Energy Audit & Retrofit Single Family: Tier 2	Home Energy Audit & Retrofit Single Family: Tier 2	Home Energy Audit & Retrofit Single Family: Tier 2	Retrofit	per home	1	\$1.0	0	0.000	0.0
1345	Multifamily	Electric Heating	Other	Home Energy Audit & Retrofit Multifamily: Tier 1	0	Home Energy Audit & Retrofit Multifamily: Tier 1	Direct Install	per home	25	\$100.0	0	0.000	0.0
1346	All	Gas Heating	Other	Low-Income Residential Retrofit Program - LI Post2015 savings	Program Level Average Upgrades	Low-Income Residential Retrofit Program - LI Post2015 savings	Retrofit	per program	12	\$6,035,635.3	3608526	2046.600	0.0
1347	All	Electric Heating	Other	Low-Income Residential Retrofit Program - LI Post2015 savings	Program Level Average Upgrades	Low-Income Residential Retrofit Program - LI Post2015 savings	Retrofit	per program	12	\$6,035,635.3	3608526	2046.600	0.0
1348	All	Gas Heating	Other	Public Housing Authority Efficient Living - PHAEL Post2015 savings	Program Level Average Upgrades	Public Housing Authority Efficient Living - PHAEL Post2015 savings	Retrofit	per home	13	\$373,052.8	1865264	325.280	0.0

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1349	All	Electric Heating	Other	Public Housing Authority Efficient Living - PHAEL Post2015 savings	Program Level Average Upgrades	Public Housing Authority Efficient Living - PHAEL Post2015 savings	Retrofit	per home	13	\$373,052.8	1865264	325.280	0.0
1350	All	Gas Heating	Other	EE Affordable Housing Construction - EEAHC Post2015 savings	Program Level Average Upgrades	EE Affordable Housing Construction - EEAHC Post2015 savings	New Construction	per home	12	\$311,922.6	1559613	231.210	0.0
1351	All	Electric Heating	Other	EE Affordable Housing Construction - EEAHC Post2015 savings	Program Level Average Upgrades	EE Affordable Housing Construction - EEAHC Post2015 savings	New Construction	per home	12	\$311,922.6	1559613	231.210	0.0
1352	All	Gas Heating	Lighting	Omnidirectional A-type LED lamps	37.2 W LED installed in year 2019	Pre 2020 lamp of 72W; switching to 45.4W EISA post-2020 compliant lamp	Time of Sale	per lamp	1	\$1.8	31	0.003	0.0
1353	All	Electric Heating	Lighting	Omnidirectional A-type LED lamps	37.2 W LED installed in year 2019	Pre 2020 lamp of 72W; switching to 45.4W EISA post-2020 compliant lamp	Time of Sale	per lamp	1	\$1.8	24	0.003	0.0
1354	All	Gas Heating	Other	Pool Pumps	Single Speed High Efficiency Pool Pump	Baseline Pool Pump as specified in Ameren MO	Retrofit	per building	10	\$85.0	694	0.357	0.0
1355	All	Electric Heating	Other	Pool Pumps	Single Speed High Efficiency Pool Pump	Baseline Pool Pump as specified in Ameren MO	Retrofit	per building	10	\$85.0	694	0.357	0.0
1356	All	Gas Heating	Other	Pool Pumps	Two Speed High Efficiency Pool Pump	Baseline Pool Pump as specified in Ameren MO	Retrofit	per building	10	\$579.0	1081	0.796	0.0

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1357	All	Electric Heating	Other	Pool Pumps	Two Speed High Efficiency Pool Pump	Baseline Pool Pump as specified in Ameren MO	Retrofit	per building	10	\$579.0	1081	0.796	0.0
1358	All	Gas Heating	Other	Pool Pumps	VFD on Swimming Pool Pump	Baseline Pool Pump as specified in Ameren MO	Retrofit	per building	10	\$425.0	1543	0.528	0.0
1359	All	Electric Heating	Other	Pool Pumps	VFD on Swimming Pool Pump	Baseline Pool Pump as specified in Ameren MO	Retrofit	per building	10	\$425.0	1543	0.528	0.0
1360	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 4.0 TV + 20% (21-30")	Time of Sale	per unit	6	\$1.0	48	0.012	0.0
1361	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 4.0 TV + 20% (31-40")	Time of Sale	per unit	6	\$1.0	72	0.019	0.0
1362	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 4.0 TV + 20% (41-50")	Time of Sale	per unit	6	\$1.0	107	0.027	0.0
1363	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 4.0 TV + 20% (51-60")	Time of Sale	per unit	6	\$1.0	163	0.041	0.0
1364	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 4.0 TV + 20% (>60")	Time of Sale	per unit	6	\$1.0	257	0.065	0.0
1365	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 4.0 TV + 35% (21-30")	Time of Sale	per unit	6	\$1.0	49	0.012	0.0
1366	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 4.0 TV + 35% (31-40")	Time of Sale	per unit	6	\$1.0	73	0.019	0.0
1367	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 4.0 TV + 35% (41-50")	Time of Sale	per unit	6	\$1.0	108	0.027	0.0
1368	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 4.0 TV + 35% (51-60")	Time of Sale	per unit	6	\$1.0	164	0.041	0.0

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1369	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 4.0 TV + 35% (>60")	Time of Sale	per unit	6	\$1.0	258	0.065	0.0
1370	All	Electric Heating	Electronics	ENERGY STAR + 10% Display	ENERGY STAR + 10% Display	ENERGY STAR Display	Time of Sale	per unit	5	\$1.0	19	0.002	0.0
1371	All	Electric Heating	Electronics	ENERGY STAR + 30% Display	ENERGY STAR + 30% Display	ENERGY STAR Display	Time of Sale	per unit	5	\$1.0	30	0.004	0.0
1372	All	Electric Heating	Consumer Electronics	ENERGY STAR + 50 % Display	ENERGY STAR + 50 % Display	ENERGY STAR Display	Time of Sale	per unit	5	\$1.0	40	0.005	0.0
1373	All	Electric Heating	Consumer Electronics	ENERGY STAR PC	ENERGY STAR PC	Conventional PC	Time of Sale	per unit	4	\$1.0	77	0.012	0.0
1374	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 4.0 TV + 20% (21-30")	Time of Sale	per unit	6	\$1.0	48	0.012	0.0
1375	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 4.0 TV + 20% (31-40")	Time of Sale	per unit	6	\$1.0	72	0.019	0.0
1376	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 4.0 TV + 20% (41-50")	Time of Sale	per unit	6	\$1.0	107	0.027	0.0
1377	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 4.0 TV + 20% (51-60")	Time of Sale	per unit	6	\$1.0	163	0.041	0.0
1378	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 4.0 TV + 20% (>60")	Time of Sale	per unit	6	\$1.0	257	0.065	0.0
1379	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 4.0 TV + 35% (21-30")	Time of Sale	per unit	6	\$1.0	49	0.012	0.0
1380	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 4.0 TV + 35% (31-40")	Time of Sale	per unit	6	\$1.0	73	0.019	0.0

\*Residential applicability factors were developed only for measures included in the potential analyses.

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1381	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 4.0 TV + 35% (41-50")	Time of Sale	per unit	6	\$1.0	108	0.027	0.0
1382	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 4.0 TV + 35% (51-60")	Time of Sale	per unit	6	\$1.0	164	0.041	0.0
1383	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 4.0 TV + 35% (>60")	Time of Sale	per unit	6	\$1.0	258	0.065	0.0
1384	All	Gas Heating	Electronics	ENERGY STAR + 10% Display	ENERGY STAR + 10% Display	ENERGY STAR Display	Time of Sale	per unit	5	\$1.0	19	0.002	0.0
1385	All	Gas Heating	Electronics	ENERGY STAR + 30% Display	ENERGY STAR + 30% Display	ENERGY STAR Display	Time of Sale	per unit	5	\$1.0	30	0.004	0.0
1386	All	Gas Heating	Consumer Electronics	ENERGY STAR + 50 % Display	ENERGY STAR + 50 % Display	ENERGY STAR Display	Time of Sale	per unit	5	\$1.0	40	0.005	0.0
1387	All	Gas Heating	Consumer Electronics	ENERGY STAR PC	ENERGY STAR PC	Conventional PC	Time of Sale	per unit	4	\$1.0	77	0.012	0.0
1388	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 4.0 TV + 20% (21-30")	New Construction	per unit	6	\$1.0	48	0.012	0.0
1389	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 4.0 TV + 20% (31-40")	New Construction	per unit	6	\$1.0	72	0.019	0.0
1390	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 4.0 TV + 20% (41-50")	New Construction	per unit	6	\$1.0	107	0.027	0.0
1391	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 4.0 TV + 20% (51-60")	New Construction	per unit	6	\$1.0	163	0.041	0.0
1392	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 4.0 TV + 20% (>60")	New Construction	per unit	6	\$1.0	257	0.065	0.0

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1393	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 4.0 TV + 35% (21-30")	New Construction	per unit	6	\$1.0	49	0.012	0.0
1394	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 4.0 TV + 35% (31-40")	New Construction	per unit	6	\$1.0	73	0.019	0.0
1395	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 4.0 TV + 35% (41-50")	New Construction	per unit	6	\$1.0	108	0.027	0.0
1396	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 4.0 TV + 35% (51-60")	New Construction	per unit	6	\$1.0	164	0.041	0.0
1397	All	Electric Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 4.0 TV + 35% (>60")	New Construction	per unit	6	\$1.0	258	0.065	0.0
1398	All	Electric Heating	Electronics	ENERGY STAR + 10% Display	ENERGY STAR + 10% Display	ENERGY STAR Display	New Construction	per unit	5	\$1.0	19	0.002	0.0
1399	All	Electric Heating	Electronics	ENERGY STAR + 30% Display	ENERGY STAR + 30% Display	ENERGY STAR Display	New Construction	per unit	5	\$1.0	30	0.004	0.0
1400	All	Electric Heating	Consumer Electronics	ENERGY STAR + 50 % Display	ENERGY STAR + 50 % Display	ENERGY STAR Display	New Construction	per unit	5	\$1.0	40	0.005	0.0
1401	All	Electric Heating	Consumer Electronics	ENERGY STAR PC	ENERGY STAR PC	Conventional PC	New Construction	per unit	4	\$1.0	77	0.012	0.0
1402	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 6.0 TV + 20% (21-30")	ENERGY STAR 4.0 TV + 20% (21-30")	New Construction	per unit	6	\$1.0	48	0.012	0.0
1403	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 6.0 TV + 20% (31-40")	ENERGY STAR 4.0 TV + 20% (31-40")	New Construction	per unit	6	\$1.0	72	0.019	0.0
1404	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 6.0 TV + 20% (41-50")	ENERGY STAR 4.0 TV + 20% (41-50")	New Construction	per unit	6	\$1.0	107	0.027	0.0

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1405	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 6.0 TV + 20% (51-60")	ENERGY STAR 4.0 TV + 20% (51-60")	New Construction	per unit	6	\$1.0	163	0.041	0.0
1406	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 6.0 TV + 20% (>60")	ENERGY STAR 4.0 TV + 20% (>60")	New Construction	per unit	6	\$1.0	257	0.065	0.0
1407	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 6.0 TV + 35% (21-30")	ENERGY STAR 4.0 TV + 35% (21-30")	New Construction	per unit	6	\$1.0	49	0.012	0.0
1408	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 6.0 TV + 35% (31-40")	ENERGY STAR 4.0 TV + 35% (31-40")	New Construction	per unit	6	\$1.0	73	0.019	0.0
1409	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 6.0 TV + 35% (41-50")	ENERGY STAR 4.0 TV + 35% (41-50")	New Construction	per unit	6	\$1.0	108	0.027	0.0
1410	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 6.0 TV + 35% (51-60")	ENERGY STAR 4.0 TV + 35% (51-60")	New Construction	per unit	6	\$1.0	164	0.041	0.0
1411	All	Gas Heating	Consumer Electronics	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 6.0 TV + 35% (>60")	ENERGY STAR 4.0 TV + 35% (>60")	New Construction	per unit	6	\$1.0	258	0.065	0.0
1412	All	Gas Heating	Electronics	ENERGY STAR + 10% Display	ENERGY STAR + 10% Display	ENERGY STAR Display	New Construction	per unit	5	\$1.0	19	0.002	0.0
1413	All	Gas Heating	Electronics	ENERGY STAR + 30% Display	ENERGY STAR + 30% Display	ENERGY STAR Display	New Construction	per unit	5	\$1.0	30	0.004	0.0
1414	All	Gas Heating	Consumer Electronics	ENERGY STAR + 50 % Display	ENERGY STAR + 50 % Display	ENERGY STAR Display	New Construction	per unit	5	\$1.0	40	0.005	0.0
1415	All	Gas Heating	Consumer Electronics	ENERGY STAR PC	ENERGY STAR PC	Conventional PC	New Construction	per unit	4	\$1.0	77	0.012	0.0
1416	Single Family	AC/Electric Resistance Heat	HVAC	AC Tune-up w/iManifold device	SEER 10	Central Air Conditioning Unit	Retrofit	per home	2	\$100.0	103	0.053	0.0

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1417	Singl eFam ily &Du plex	AC/Gas Heat	HVAC	AC Tune-up w/iManifold device	SEER 10	Central Air Conditioning Unit	Retrofit	per home	2	\$100.0	103	0.053	0.0
1418	Mult ifami ly	AC/Elect ric Resistan ce Heat	HVAC	AC Tune-up w/iManifold device	SEER 10	Central Air Conditioning Unit	Retrofit	per home	2	\$100.0	46	0.027	0.0
1419	Mult ifami ly	AC/Gas Heat	HVAC	AC Tune-up w/iManifold device	SEER 10	Central Air Conditioning Unit	Retrofit	per home	2	\$100.0	46	0.027	0.0

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
1	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement only	ENERGY STAR V 2.0 casement only	Time of Sale	0.64	No	No	6%	30%	100%	IL TRM
2	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement only	ENERGY STAR V 2.0 casement only	New Construction	0.64	No	No	6%	30%	100%	IL TRM
3	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement only	ENERGY STAR V 2.0 casement only	Time of Sale	0.64	No	No	94%	30%	100%	IL TRM
4	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement only	ENERGY STAR V 2.0 casement only	New Construction	0.64	No	No	94%	30%	100%	IL TRM
5	All	AC/Electric Resistance Heat	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement only	average existing room air conditioner casement only	Early Replacement	0.41	No	No	3%	30%	100%	IL TRM
6	All	AC/Gas Heat	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement only	average existing room air conditioner	Early Replacement	0.41	No	No	69%	30%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
7	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement-slider	ENERGY STAR V 2.0 casement-slider	Time of Sale	0.54	No	No	6%	30%	100%	IL TRM
8	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement-slider	ENERGY STAR V 2.0 casement-slider	New Construction	0.54	No	No	6%	30%	100%	IL TRM
9	All	Electric Heating	Appliances	CEE Tier 2 Room Air Conditioner	CEE Tier 2 with reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with reverse cycle < 14000 Btu/h	Time of Sale	1.17	Yes	No	6%	30%	100%	IL TRM
10	All	Electric Heating	Appliances	CEE Tier 2 Room Air Conditioner	CEE Tier 2 with reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with reverse cycle < 14000 Btu/h	New Construction	1.17	Yes	No	6%	30%	100%	IL TRM
11	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement-slider	ENERGY STAR V 2.0 casement-slider	Time of Sale	0.54	No	No	94%	30%	100%	IL TRM
12	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement-slider	ENERGY STAR V 2.0 casement-slider	New Construction	0.54	No	No	94%	30%	100%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
13	All	AC/Electric Resistance Heat	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement-slider	average existing room air conditioner casement-slider	Early Replacement	0.53	No	No	3%	30%	100%	IL TRM
14	All	AC/Gas Heat	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 casement-slider	average existing room air conditioner casement only	Early Replacement	0.53	No	No	69%	30%	100%	IL TRM
15	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 with louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with louvered sides and reverse cycle < 14000 Btu/h	Time of Sale	0.75	No	No	6%	30%	100%	IL TRM
16	All	Electric Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 with louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with louvered sides and reverse cycle < 14000 Btu/h	New Construction	0.75	No	No	6%	30%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
17	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 with louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with louvered sides and reverse cycle < 14000 Btu/h	Time of Sale	0.75	No	No	94%	30%	100%	IL TRM
18	All	Gas Heating	Appliances	CEE Tier 1 and ENERGY STAR V3.0 Room Air Conditioner	CEE Tier 1 and ENERGY STAR V3.0 with louvered sides and reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with louvered sides and reverse cycle < 14000 Btu/h	New Construction	0.75	No	No	94%	30%	100%	IL TRM
19	All	Gas Heating	Appliances	CEE Tier 2 Room Air Conditioner	CEE Tier 2 with reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with reverse cycle < 14000 Btu/h	Time of Sale	1.17	Yes	No	94%	30%	100%	IL TRM
20	All	Gas Heating	Appliances	CEE Tier 2 Room Air Conditioner	CEE Tier 2 with reverse cycle < 14000 Btu/h	ENERGY STAR V 2.0 with reverse cycle < 14000 Btu/h	New Construction	1.17	Yes	No	94%	30%	100%	IL TRM
21	All	Electric Heating	Appliances	ENERGY STAR Air Purifier/Cleaner	ENERGY STAR Air Purifier/Cleaner CADR 101-150	Conventional unit	Time of Sale	4.01	Yes	Yes	6%	36%	98%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
22	All	Electric Heating	Appliances	ENERGY STAR Air Purifier/Cleaner - RPP	ENERGY STAR Air Purifier/Cleaner CADR 101-150	Conventional unit	Time of Sale	4.01	#N/A	Yes	6%	36%	98%	IL TRM
23	All	Electric Heating	Appliances	ENERGY STAR Air Purifier/Cleaner	ENERGY STAR Air Purifier/Cleaner CADR 101-150	Conventional unit	New Construction	4.01	Yes	Yes	6%	36%	98%	IL TRM
24	All	Gas Heating	Appliances	ENERGY STAR Air Purifier/Cleaner	ENERGY STAR Air Purifier/Cleaner CADR 101-150	Conventional unit	Time of Sale	4.01	Yes	Yes	94%	36%	98%	IL TRM
25	All	Gas Heating	Appliances	ENERGY STAR Air Purifier/Cleaner - RPP	ENERGY STAR Air Purifier/Cleaner CADR 101-150	Conventional unit	Time of Sale	4.01	#N/A	Yes	94%	36%	98%	IL TRM
26	All	Gas Heating	Appliances	ENERGY STAR Air Purifier/Cleaner	ENERGY STAR Air Purifier/Cleaner CADR 101-150	Conventional unit	New Construction	4.01	#N/A	Yes	94%	36%	98%	IL TRM
27	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	2.23	Yes	Yes	11%	80%	68%	IL TRM
28	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	2.23	Yes	Yes	11%	80%	68%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
29	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	2.23	Yes	Yes	2%	80%	68%	IL TRM
30	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	2.23	Yes	Yes	2%	80%	68%	IL TRM
31	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	1.33	Yes	Yes	86%	80%	68%	IL TRM
32	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	1.33	Yes	Yes	86%	80%	68%	IL TRM
33	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	1.33	Yes	Yes	86%	80%	68%	IL TRM
34	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	1.33	Yes	Yes	86%	80%	68%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
35	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	1.53	Yes	Yes	11%	80%	68%	IL TRM
36	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	1.53	Yes	Yes	11%	80%	68%	IL TRM
37	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	1.53	No	Yes	2%	80%	68%	IL TRM
38	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	1.53	No	Yes	2%	80%	68%	IL TRM
39	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	0.63	No	No	86%	80%	68%	IL TRM
40	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	0.63	No	No	86%	80%	68%	IL TRM
41	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	0.63	Yes	No	86%	80%	68%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
42	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	0.63	Yes	No	86%	80%	68%	IL TRM
43	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	1.02	Yes	No	11%	80%	68%	IL TRM
44	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	1.02	Yes	No	11%	80%	68%	IL TRM
45	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	1.02	No	No	2%	80%	68%	IL TRM
46	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	1.02	No	No	2%	80%	68%	IL TRM
47	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	0.53	No	No	86%	80%	68%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
48	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	New Construction	0.53	No	No	86%	80%	68%	IL TRM
49	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	0.53	No	No	86%	80%	68%	IL TRM
50	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (Electric dryer)	minimum federal standard Clothes Washer (Electric dryer)	Time of Sale	0.53	No	No	86%	80%	68%	IL TRM
51	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	0.71	No	No	11%	80%	68%	IL TRM
52	All	Electric DHW w/Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	0.71	No	No	11%	80%	68%	IL TRM
53	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	0.71	No	No	2%	80%	68%	IL TRM
54	All	Electric DHW w/Non-Electric Heating Rate	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	0.71	No	No	2%	80%	68%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
55	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	0.22	No	No	86%	80%	68%	IL TRM
56	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	New Construction	0.22	No	No	86%	80%	68%	IL TRM
57	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	0.22	#N/A	No	86%	80%	68%	IL TRM
58	All	Gas Water Heater	Appliances	ENERGY STAR and CEE Tier 2 and 3 Clothes Washers	ENERGY STAR Most Efficient Clothes Washer (gas dryer)	minimum federal standard Clothes Washer (gas dryer)	Time of Sale	0.22	#N/A	No	86%	80%	68%	IL TRM
59	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wire-through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wire-through the door ice service	New Construction	0.72	No	Yes	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
60	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	Retrofit	0.18	No	Yes	6%	99%	69%	IL TRM
61	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	Time of Sale	0.72	No	Yes	6%	99%	69%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
62	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	New Construction	0.72	No	Yes	94%	99%	69%	IL TRM
63	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	Retrofit	0.18	No	Yes	94%	99%	69%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
64	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/withhout through the door ice service	federal standard refrigerator-freezer/automatic defrost/ottom mounted freezer/withhout through the door ice service	Time of Sale	0.72	No	Yes	94%	99%	69%	IL TRM
65	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/sid emounted freezer/withhout through the door ice service	federal standard refrigerator-freezer/automatic defrost/sid emounted freezer/withhout through the door ice service	New Construction	0.86	No	Yes	6%	99%	69%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
66	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	Retrofit	0.22	No	Yes	6%	99%	69%	IL TRM
67	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	Time of Sale	0.86	No	Yes	6%	99%	69%	IL TRM
68	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	New Construction	0.86	No	Yes	94%	99%	69%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
69	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) refrigerator-freezer/automatic defrost/side mounted freezer/automatic defrost/side mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side mounted freezer/with through the door ice service	Retrofit	0.22	No	Yes	94%	99%	69%	IL TRM
70	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) refrigerator-freezer/automatic defrost/side mounted freezer/automatic defrost/side mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side mounted freezer/with through the door ice service	Time of Sale	0.86	No	Yes	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.







Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
77	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	New Construction	0.79	No	Yes	6%	99%	69%	IL TRM
78	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	Retrofit	0.20	No	Yes	6%	99%	69%	IL TRM
79	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	Time of Sale	0.79	No	Yes	6%	99%	69%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
80	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	New Construction	0.79	No	Yes	94%	99%	69%	IL TRM
81	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	Retrofit	0.20	No	Yes	94%	99%	69%	IL TRM
82	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	Time of Sale	0.79	No	Yes	94%	99%	69%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
85	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) Refrigerator	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	Time of Sale	0.58	No	Yes	6%	99%	69%	IL TRM
86	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) Refrigerator	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	New Construction	0.58	No	Yes	94%	99%	69%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
87	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/wing through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wing through the door ice service & refrigerator w/ automatic defrost	Retrofit	0.15	No	Yes	94%	99%	69%	IL TRM
88	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq 25\%$ better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/wing through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wing through the door ice service & refrigerator w/ automatic defrost	Time of Sale	0.58	No	Yes	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
89	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq$ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	New Construction	0.57	No	Yes	6%	99%	69%	IL TRM
90	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq$ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Retrofit	0.14	No	Yes	6%	99%	69%	IL TRM
91	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq$ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Time of Sale	0.57	No	Yes	6%	99%	69%	IL TRM
92	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 ( $\geq$ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	New Construction	0.57	No	Yes	94%	99%	69%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
93	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Retrofit	0.14	No	Yes	94%	99%	69%	IL TRM
94	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Time of Sale	0.57	No	Yes	94%	99%	69%	IL TRM
95	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerators&Refrigerator-freezer/manual defrost	New Construction	0.49	No	Yes	6%	99%	69%	IL TRM
96	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerators&Refrigerator-freezer/manual defrost	Retrofit	0.12	No	Yes	6%	99%	69%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
97	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	Time of Sale	0.49	No	Yes	6%	99%	69%	IL TRM
98	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	New Construction	0.49	No	Yes	94%	99%	69%	IL TRM
99	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	Retrofit	0.12	No	Yes	94%	99%	69%	IL TRM
100	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	Time of Sale	0.49	No	Yes	94%	99%	69%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
101	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.30	No	No	6%	99%	69%	IL TRM
102	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.30	No	No	94%	99%	69%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
103	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.48	No	No	6%	99%	69%	IL TRM
104	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.48	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
105	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/automatic defrost/side-mounted freezer without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.50	No	No	6%	99%	69%	IL TRM
106	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/automatic defrost/side-mounted freezer without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.50	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
107	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.30	No	No	6%	99%	69%	IL TRM
108	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) refrigerator-freezer/automatic defrost/top mounted freezer through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.30	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
109	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.31	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
110	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.31	No	No	94%	99%	69%	IL TRM
111	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.41	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
112	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerator-freezer/partial automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.41	No	No	94%	99%	69%	IL TRM
113	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerators&Refrigerator-freezer/manual defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.42	No	No	6%	99%	69%	IL TRM
114	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: CEE Tier 2 (≥ 25% better than federal standard) Refrigerators&Refrigerator-freezer/manual defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.42	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
115	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.20	No	No	6%	99%	69%	IL TRM
116	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.20	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
117	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.24	No	No	6%	99%	69%	IL TRM
118	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.24	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
119	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.41	No	No	6%	99%	69%	IL TRM
120	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.41	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
121	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/side-mounted freezer/without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.48	No	No	6%	99%	69%	IL TRM
122	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/side-mounted freezer/without through the door ice service	average existing refrigerator with average remaining useful life	Early Replacement	0.48	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
123	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.28	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
124	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.28	No	No	94%	99%	69%	IL TRM
125	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.40	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
126	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.40	No	No	94%	99%	69%	IL TRM
127	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerators&Refrigerator-freezer/manual defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.42	No	No	6%	99%	69%	IL TRM
128	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Early Replacement: Estar (≥ 20% better than federal standard) Refrigerators&Refrigerator-freezer/manual defrost	average existing refrigerator with average remaining useful life	Early Replacement	0.42	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
129	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	New Construction	0.96	No	No	6%	99%	69%	IL TRM
130	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Retrofit	0.08	No	No	6%	99%	69%	IL TRM
131	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Time of Sale	0.96	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
132	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	New Construction	0.96	No	No	94%	99%	69%	IL TRM
133	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Retrofit	0.08	Yes	No	94%	99%	69%	IL TRM
134	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	federal standard refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Time of Sale	0.96	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
135	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	New Construction	1.01	Yes	No	6%	99%	69%	IL TRM
136	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wit hout through the door ice service	Retrofit	0.09	Yes	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
137	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wi hout through the door ice service	federal standard refrigerator-freezer/automatic defrost/ottom mounted freezer/wi hout through the door ice service	Time of Sale	1.01	No	No	6%	99%	69%	IL TRM
138	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/ottom mounted freezer/wi hout through the door ice service	federal standard refrigerator-freezer/automatic defrost/ottom mounted freezer/wi hout through the door ice service	New Construction	1.01	Yes	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
139	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	Retrofit	0.09	Yes	No	94%	99%	69%	IL TRM
140	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	federal standard refrigerator-freezer/automatic defrost/bottom mounted freezer/wire through the door ice service	Time of Sale	1.01	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
141	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer with through the door ice service	New Construction	1.05	Yes	No	6%	99%	69%	IL TRM
142	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer with through the door ice service	Retrofit	0.09	Yes	No	6%	99%	69%	IL TRM
143	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer with through the door ice service	Time of Sale	1.05	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
144	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	New Construction	1.05	Yes	No	94%	99%	69%	IL TRM
145	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	Retrofit	0.09	No	No	94%	99%	69%	IL TRM
146	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	federal standard refrigerator-freezer/automatic defrost/side-mounted freezer/with through the door ice service	Time of Sale	1.05	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
147	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/side mounted freezer/automatic defrost/side mounted freezer/wire through the door ice service	federal standard Refrigerator-freezer/automatic defrost/side mounted freezer/wire through the door ice service	New Construction	0.96	No	No	6%	99%	69%	IL TRM
148	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/side mounted freezer/automatic defrost/side mounted freezer/wire through the door ice service	federal standard Refrigerator-freezer/automatic defrost/side mounted freezer/wire through the door ice service	Retrofit	0.08	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
149	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/side mounted freezer/automatic defrost/side mounted freezer/wire through the door ice service	federal standard Refrigerator-freezer/automatic defrost/side mounted freezer/wire through the door ice service	Time of Sale	0.96	No	No	6%	99%	69%	IL TRM
150	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/side mounted freezer/automatic defrost/side mounted freezer/wire through the door ice service	federal standard Refrigerator-freezer/automatic defrost/side mounted freezer/wire through the door ice service	New Construction	0.96	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.



Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
153	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	New Construction	0.82	No	No	6%	99%	69%	IL TRM
154	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	Retrofit	0.07	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
155	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	Time of Sale	0.82	No	No	6%	99%	69%	IL TRM
156	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/wire through the door ice service & refrigerator w/ automatic defrost	New Construction	0.82	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
157	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/w/ hout through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/w/ hout through the door ice service & refrigerator w/ automatic defrost	Retrofit	0.07	No	No	94%	99%	69%	IL TRM
158	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/automatic defrost/top mounted freezer/w/ hout through the door ice service & refrigerator w/ automatic defrost	federal standard Refrigerator-freezer/automatic defrost/top mounted freezer/w/ hout through the door ice service & refrigerator w/ automatic defrost	Time of Sale	0.82	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
159	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	New Construction	0.80	No	No	6%	99%	69%	IL TRM
160	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Retrofit	0.07	No	No	6%	99%	69%	IL TRM
161	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Time of Sale	0.80	No	No	6%	99%	69%	IL TRM
162	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	New Construction	0.80	No	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
163	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Retrofit	0.07	No	No	94%	99%	69%	IL TRM
164	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/partial automatic defrost	federal standard Refrigerator-freezer/partial automatic defrost	Time of Sale	0.80	No	No	94%	99%	69%	IL TRM
165	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerators&Refrigerator-freezer/manual defrost	New Construction	0.68	No	No	6%	99%	69%	IL TRM
166	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerators&Refrigerator-freezer/manual defrost	Retrofit	0.06	No	No	6%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
167	All	Electric Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	Time of Sale	0.68	No	No	6%	99%	69%	IL TRM
168	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	New Construction	0.68	No	No	94%	99%	69%	IL TRM
169	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	Retrofit	0.06	#N/A	No	94%	99%	69%	IL TRM
170	All	Gas Heating	Appliances	ENERGY STAR and CEE Tier 2 Refrigerator	Estar (≥ 20% better than federal standard) Refrigerator-freezer/manual defrost	federal standard Refrigerator-freezer/manual defrost	Time of Sale	0.68	#N/A	No	94%	99%	69%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
171	All	Electric Heating	Appliances	ENERGY STAR Clothes Dryer	ENERGY STAR Clothes Dryer (Electric)	minimum federal Clothes Dryer (Electric)	New Construction	0.94	No	No	6%	20%	100%	IL TRM
172	All	Electric Heating	Appliances	ENERGY STAR Clothes Dryer - RPP	ENERGY STAR Clothes Dryer (Electric)	minimum federal Clothes Dryer (Electric)	Time of Sale	0.94	#N/A	Yes	6%	20%	100%	IL TRM
173	All	Gas Heating	Appliances	ENERGY STAR Clothes Dryer	ENERGY STAR Clothes Dryer (Electric)	minimum federal Clothes Dryer (Electric)	New Construction	0.94	No	No	94%	60%	100%	IL TRM
174	All	Gas Heating	Appliances	ENERGY STAR Clothes Dryer - RPP	ENERGY STAR Clothes Dryer (Electric)	minimum federal Clothes Dryer (Electric)	Time of Sale	0.94	#N/A	Yes	94%	60%	100%	IL TRM
175	All	Electric Heating	Appliances	ENERGY STAR Clothes Dryer	ENERGY STAR Clothes Dryer (Gas)	minimum federal Clothes Dryer (Gas)	New Construction	0.29	No	No	6%	20%	100%	IL TRM
176	All	Electric Heating	Appliances	ENERGY STAR Clothes Dryer	ENERGY STAR Clothes Dryer (Gas)	minimum federal Clothes Dryer (Gas)	Time of Sale	0.29	No	No	6%	20%	100%	IL TRM
177	All	Gas Heating	Appliances	ENERGY STAR Clothes Dryer	ENERGY STAR Clothes Dryer (Gas)	minimum federal Clothes Dryer (Gas)	New Construction	0.29	#N/A	No	94%	60%	100%	IL TRM
178	All	Gas Heating	Appliances	ENERGY STAR Clothes Dryer	ENERGY STAR Clothes Dryer (Gas)	minimum federal Clothes Dryer (Gas)	Time of Sale	0.29	#N/A	No	94%	60%	100%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
179	All	Electric Heating	Appliances	ENERGY STAR Dehumidifier V 3	<75 pints/day, ≥1.85 L/kWh	>54 to ≤ 75 pints/day, ≥ 1.70 L/kWh	Time of Sale	1.50	Yes	Yes	6%	23%	1%	IL TRM
180	All	Electric Heating	Appliances	ENERGY STAR Dehumidifier V 3	<75 pints/day, ≥1.85 L/kWh	>54 to ≤ 75 pints/day, ≥ 1.70 L/kWh	New Construction	1.50	Yes	Yes	6%	23%	1%	IL TRM
181	All	Gas Heating	Appliances	ENERGY STAR Dehumidifier V 3	<75 pints/day, ≥1.85 L/kWh	>54 to ≤ 75 pints/day, ≥ 1.70 L/kWh	Time of Sale	1.50	Yes	Yes	94%	23%	1%	IL TRM
182	All	Gas Heating	Appliances	ENERGY STAR Dehumidifier V 3	<75 pints/day, ≥1.85 L/kWh	>54 to ≤ 75 pints/day, ≥ 1.70 L/kWh	New Construction	1.50	Yes	Yes	94%	23%	1%	IL TRM
183	All	Electric Heating	Appliances	ENERGY STAR Dehumidifier V 3	75 to ≤185 pints/day, ≥2.80 L/kWh	>75 to ≤185 pints/day, ≥2.5 L/kWh	Time of Sale	2.70	Yes	Yes	6%	23%	1%	IL TRM
184	All	Electric Heating	Appliances	ENERGY STAR Dehumidifier V 3	75 to ≤185 pints/day, ≥2.80 L/kWh	>75 to ≤185 pints/day, ≥2.5 L/kWh	New Construction	2.70	Yes	Yes	6%	23%	1%	IL TRM
185	All	Gas Heating	Appliances	ENERGY STAR Dehumidifier V 3	75 to ≤185 pints/day, ≥2.80 L/kWh	>75 to ≤185 pints/day, ≥2.5 L/kWh	Time of Sale	2.70	#N/A	Yes	94%	23%	1%	IL TRM
186	All	Gas Heating	Appliances	ENERGY STAR Dehumidifier V 3	75 to ≤185 pints/day, ≥2.80 L/kWh	>75 to ≤185 pints/day, ≥2.5 L/kWh	New Construction	2.70	#N/A	No	94%	23%	1%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
187	All	Electric Heating	Appliances	ENERGY STAR Dishwasher (standard; electric DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	Time of Sale	0.19	No	No	6%	67%	81%	IL TRM
188	All	Electric Heating	Appliances	ENERGY STAR Dishwasher (standard; electric DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	New Construction	0.19	No	No	6%	67%	81%	IL TRM
189	All	Gas Heating	Appliances	ENERGY STAR Dishwasher (standard; electric DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	Time of Sale	0.19	#N/A	No	94%	67%	81%	IL TRM
190	All	Gas Heating	Appliances	ENERGY STAR Dishwasher (standard; electric DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	New Construction	0.19	#N/A	No	94%	67%	81%	IL TRM
191	All	Electric Heating	Appliances	ENERGY STAR Dishwasher (standard; gas DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	New Construction	0.11	No	No	6%	67%	81%	IL TRM
192	All	Electric Heating	Appliances	ENERGY STAR Dishwasher (standard; gas DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	New Construction	0.11	No	No	6%	67%	81%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
193	All	Gas Heating	Appliances	ENERGY STAR Dishwasher (standard; gas DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	New Construction	0.11	#N/A	No	94%	67%	81%	IL TRM
194	All	Gas Heating	Appliances	ENERGY STAR Dishwasher (standard; gas DHW)	295 kwh/year, 4.25 gal/cycle	307 kWh/year, 5.0 gal/cycle	New Construction	0.11	#N/A	No	94%	67%	81%	IL TRM
195	All	Electric Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - chest and all others	NAECA - chest and all others	Time of Sale	0.68	No	No	6%	31%	80%	IL TRM
196	All	Gas Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - chest and all others	NAECA - chest and all others	Time of Sale	0.68	No	No	94%	31%	80%	IL TRM
197	All	Electric Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - chest and all others	NAECA - chest and all others	New Construction	0.68	No	No	6%	31%	80%	IL TRM
198	All	Gas Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - chest and all others	NAECA - chest and all others	New Construction	0.68	No	No	94%	31%	80%	IL TRM
199	All	Electric Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - Upright/m anual defrost	NAECA - Upright/m anual defrost	Time of Sale	0.77	No	No	6%	31%	80%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
200	All	Gas Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - Upright/m annual defrost	NAECA - Upright/m annual defrost	Time of Sale	0.77	No	No	94%	31%	80%	IL TRM
201	All	Electric Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - Upright/m annual defrost	NAECA - Upright/m annual defrost	New Construction	0.77	Yes	No	6%	31%	80%	IL TRM
202	All	Gas Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - Upright/m annual defrost	NAECA - Upright/m annual defrost	New Construction	0.77	Yes	No	94%	31%	80%	IL TRM
203	All	Electric Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - upright/automatic defrost	NAECA - upright/automatic defrost	Time of Sale	1.03	Yes	No	6%	31%	80%	IL TRM
204	All	Gas Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - upright/automatic defrost	NAECA - upright/automatic defrost	Time of Sale	1.03	Yes	No	94%	31%	80%	IL TRM
205	All	Electric Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - upright/automatic defrost	NAECA - upright/automatic defrost	New Construction	1.03	No	No	6%	31%	80%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
206	All	Gas Heating	Appliances	ENERGY STAR Freezer	10% more efficient than NAECA - upright/automatic defrost	NAECA - upright/automatic defrost	New Construction	1.03	No	No	94%	31%	80%	IL TRM
207	All	Electric Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact chest	NAECA - compact chest	Time of Sale	0.51	No	No	6%	31%	80%	IL TRM
208	All	Gas Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact chest	NAECA - compact chest	Time of Sale	0.51	No	No	94%	31%	80%	IL TRM
209	All	Electric Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact chest	NAECA - compact chest	New Construction	0.51	Yes	No	6%	31%	80%	IL TRM
210	All	Gas Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact chest	NAECA - compact chest	New Construction	0.51	Yes	No	94%	31%	80%	IL TRM
211	All	Electric Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/automatic defrost	NAECA - compact upright/automatic defrost	Time of Sale	1.01	Yes	No	6%	31%	80%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
212	All	Gas Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/automatic defrost	NAECA - compact upright/automatic defrost	Time of Sale	1.01	Yes	No	94%	31%	80%	IL TRM
213	All	Electric Heating	Appliances	ENERGY STAR Freezer - RPP	20% more efficient than NAECA - compact upright/automatic defrost	NAECA - compact upright/automatic defrost	Time of Sale	1.01	#N/A	Yes	6%	31%	80%	IL TRM
214	All	Gas Heating	Appliances	ENERGY STAR Freezer - RPP	20% more efficient than NAECA - compact upright/automatic defrost	NAECA - compact upright/automatic defrost	Time of Sale	1.01	#N/A	Yes	94%	31%	80%	IL TRM
215	All	Electric Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/automatic defrost	NAECA - compact upright/automatic defrost	New Construction	1.01	No	No	6%	31%	80%	IL TRM
216	All	Gas Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/automatic defrost	NAECA - compact upright/automatic defrost	New Construction	1.01	No	No	94%	31%	80%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
217	All	Electric Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/manual defrost	NAECA - compact upright/manual defrost	Time of Sale	0.70	#N/A	No	6%	31%	80%	IL TRM
218	All	Gas Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/manual defrost	NAECA - compact upright/manual defrost	Time of Sale	0.70	#N/A	No	94%	31%	80%	IL TRM
219	All	Electric Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/manual defrost	NAECA - compact upright/manual defrost	New Construction	0.70	#N/A	No	6%	31%	80%	IL TRM
220	All	Gas Heating	Appliances	ENERGY STAR Freezer	20% more efficient than NAECA - compact upright/manual defrost	NAECA - compact upright/manual defrost	New Construction	0.70	#N/A	No	94%	31%	80%	IL TRM
221	All	Electric Heating	Appliances	Freezer Recycling	Recycling post-1990 chest and all others freezers	Keeping post-1990 chest and all others freezers	Early Retirement	3.35	Yes	Yes	6%	31%	12%	IL TRM
222	All	Gas Heating	Appliances	Freezer Recycling	Recycling post-1990 chest and all others freezers	Keeping post-1990 chest and all others freezers	Early Retirement	3.35	Yes	Yes	94%	31%	12%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
223	All	Electric Heating	Appliances	Freezer Recycling	Recycling post-1990 upright/automatic defrost freezer	Keeping post-1990 upright/automatic defrost freezer	Early Retirement	3.44	Yes	Yes	6%	31%	12%	IL TRM
224	All	Gas Heating	Appliances	Freezer Recycling	Recycling post-1990 upright/automatic defrost freezer	Keeping post-1990 upright/automatic defrost freezer	Early Retirement	3.44	Yes	Yes	94%	31%	12%	IL TRM
225	All	Electric Heating	Appliances	Freezer Recycling	Recycling post-1990 Upright/manual defrost freezer	Keeping post-1990 Upright/manual defrost freezer	Early Retirement	3.44	Yes	Yes	6%	31%	12%	IL TRM
226	All	Gas Heating	Appliances	Freezer Recycling	Recycling post-1990 Upright/manual defrost freezer	Keeping post-1990 Upright/manual defrost freezer	Early Retirement	3.44	Yes	Yes	94%	31%	12%	IL TRM
227	All	Electric Heating	Appliances	Freezer Recycling	Recycling pre-1990 chest and all others freezers	Keeping pre-1990 chest and all others freezers	Early Retirement	4.83	Yes	Yes	6%	31%	88%	IL TRM
228	All	Gas Heating	Appliances	Freezer Recycling	Recycling pre-1990 chest and all others freezers	Keeping pre-1990 chest and all others freezers	Early Retirement	4.83	Yes	Yes	94%	31%	88%	IL TRM
229	All	Electric Heating	Appliances	Freezer Recycling	Recycling pre-1990 upright/automatic defrost freezer	Keeping pre-1990 upright/automatic defrost freezer	Early Retirement	4.91	#N/A	Yes	6%	31%	88%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
230	All	Gas Heating	Appliances	Freezer Recycling	Recycling pre-1990 upright/automatic defrost freezer	Keeping pre-1990 upright/automatic defrost freezer	Early Retirement	4.91	#N/A	Yes	94%	31%	88%	IL TRM
231	All	Electric Heating	Appliances	Freezer Recycling	Recycling pre-1990 Upright/manual defrost freezer	Keeping pre-1990 Upright/manual defrost freezer	Early Retirement	4.91	#N/A	Yes	6%	31%	88%	IL TRM
232	All	Gas Heating	Appliances	Freezer Recycling	Recycling pre-1990 Upright/manual defrost freezer	Keeping pre-1990 Upright/manual defrost freezer	Early Retirement	4.91	#N/A	Yes	94%	31%	88%	IL TRM
233	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Keeping post-1990 refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Early Retirement	2.52	Yes	Yes	6%	99%	15%	IL TRM
234	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Keeping post-1990 refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Early Retirement	2.52	Yes	Yes	94%	99%	15%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
235	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator-freezer/automatic defrost/bottom mounted freezer/without through the door ice service	Keeping post-1990 refrigerator-freezer/automatic defrost/bottom mounted freezer/without through the door ice service	Early Retirement	2.52	Yes	Yes	6%	99%	15%	IL TRM
236	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator-freezer/automatic defrost/bottom mounted freezer/without through the door ice service	Keeping post-1990 refrigerator-freezer/automatic defrost/bottom mounted freezer/without through the door ice service	Early Retirement	2.52	Yes	Yes	94%	99%	15%	IL TRM
237	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator-freezer/automatic defrost/side mounted freezer/with through the door ice service	Keeping post-1990 refrigerator-freezer/automatic defrost/side mounted freezer/with through the door ice service	Early Retirement	4.05	Yes	Yes	6%	99%	15%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
238	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator-freezer/automatic defrost/side mounted freezer with through the door ice service	Keeping post-1990 refrigerator-freezer/automatic defrost/side mounted freezer with through the door ice service	Early Retirement	4.05	Yes	Yes	94%	99%	15%	IL TRM
239	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Keeping post-1990 refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Early Retirement	4.05	Yes	Yes	6%	99%	15%	IL TRM
240	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Keeping post-1990 refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Early Retirement	4.05	Yes	Yes	94%	99%	15%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
241	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	Keeping post-1990 Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	Early Retirement	2.52	Yes	Yes	6%	99%	15%	IL TRM
242	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	Keeping post-1990 Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	Early Retirement	2.52	Yes	Yes	94%	99%	15%	IL TRM
243	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 Refrigerator-freezer/partial automatic defrost	Keeping post-1990 Refrigerator-freezer/partial automatic defrost	Early Retirement	2.52	Yes	Yes	6%	99%	15%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
244	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 Refrigerator-freezer/partial automatic defrost	Keeping post-1990 Refrigerator-freezer/partial automatic defrost	Early Retirement	2.52	Yes	Yes	94%	99%	15%	IL TRM
245	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling post-1990 Refrigerators&Refrigerator-freezer/manual defrost	Keeping post-1990 Refrigerators&Refrigerator-freezer/manual defrost	Early Retirement	2.52	Yes	Yes	6%	99%	15%	IL TRM
246	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling post-1990 Refrigerators&Refrigerator-freezer/manual defrost	Keeping post-1990 Refrigerators&Refrigerator-freezer/manual defrost	Early Retirement	2.52	Yes	Yes	94%	99%	15%	IL TRM
247	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	Keeping pre-1990 refrigerator-freezer/automatic defrost/top mounted freezer/through the door ice service	Early Retirement	4.35	Yes	Yes	6%	99%	85%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
248	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Keeping pre-1990 refrigerator - freezer/automatic defrost/top mounted freezer/through the door ice service	Early Retirement	4.35	Yes	Yes	94%	99%	85%	IL TRM
249	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 refrigerator - freezer/automatic defrost/bottom mounted freezer/through the door ice service	Keeping pre-1990 refrigerator - freezer/automatic defrost/bottom mounted freezer/through the door ice service	Early Retirement	4.35	Yes	Yes	6%	99%	85%	IL TRM
250	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 refrigerator - freezer/automatic defrost/bottom mounted freezer/through the door ice service	Keeping pre-1990 refrigerator - freezer/automatic defrost/bottom mounted freezer/through the door ice service	Early Retirement	4.35	Yes	Yes	94%	99%	85%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
251	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 refrigerator-freezer/automatic defrost/side mounted freezer with through the door ice service	Keeping pre-1990 refrigerator-freezer/automatic defrost/side mounted freezer with through the door ice service	Early Retirement	5.88	Yes	Yes	6%	99%	85%	IL TRM
252	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 refrigerator-freezer/automatic defrost/side mounted freezer with through the door ice service	Keeping pre-1990 refrigerator-freezer/automatic defrost/side mounted freezer with through the door ice service	Early Retirement	5.88	Yes	Yes	94%	99%	85%	IL TRM
253	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Keeping pre-1990 Refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Early Retirement	5.88	Yes	Yes	6%	99%	85%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
254	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Keeping pre-1990 Refrigerator-freezer/automatic defrost/side mounted freezer without through the door ice service	Early Retirement	5.88	Yes	Yes	94%	99%	85%	IL TRM
255	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	Keeping pre-1990 Refrigerator-freezer/automatic defrost/top mounted freezer without through the door ice service & refrigerators w/ automatic defrost	Early Retirement	4.35	Yes	Yes	6%	99%	85%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
256	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerator-freezer/automatic defrost/top mounted freezer/without through the door ice service & refrigerators w/ automatic defrost	Keeping pre-1990 Refrigerator-freezer/automatic defrost/top mounted freezer/without through the door ice service & refrigerators w/ automatic defrost	Early Retirement	4.35	Yes	Yes	94%	99%	85%	IL TRM
257	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerator-freezer/partial automatic defrost	Keeping pre-1990 Refrigerator-freezer/partial automatic defrost	Early Retirement	4.35	#N/A	Yes	6%	99%	85%	IL TRM
258	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerator-freezer/partial automatic defrost	Keeping pre-1990 Refrigerator-freezer/partial automatic defrost	Early Retirement	4.35	#N/A	Yes	94%	99%	85%	IL TRM
259	All	Electric Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerators&Refrigerator-freezer/manual defrost	Keeping pre-1990 Refrigerators&Refrigerator-freezer/manual defrost	Early Retirement	4.35	#N/A	Yes	6%	99%	85%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
260	All	Gas Heating	Appliances	Refrigerator Recycling	Recycling pre-1990 Refrigerators&Refrigerator-freezer/manual defrost	Keeping pre-1990 Refrigerators&Refrigerator-freezer/manual defrost	Early Retirement	4.35	#N/A	Yes	94%	99%	85%	IL TRM
261	All	Gas Heating	Appliances	Room Air Conditioner Recycling	Recycling old unit	existing inefficient room air conditioner, EER 7.7	Early Retirement	2.05	#N/A	Yes	94%	30%	100%	IL TRM
262	All	Electric Heating	Appliances	Room Air Conditioner Recycling	Recycling old unit	existing inefficient room air conditioner, EER 7.7	Early Retirement	2.05	#N/A	Yes	6%	30%	100%	IL TRM
263	All	Electric Heating	Consumer Electronics	Smart Strip	5 plug smart strip	standard power strip	Time of Sale	0.74	No	No	6%	100%	98%	IL TRM
264	SingleFamily &Duplex	Electric Heating	Consumer Electronics	Smart Strip	5 plug smart strip	standard power strip	Direct Install	0.74	No	No	2%	100%	98%	IL TRM
265	Multifamily	Electric Heating	Consumer Electronics	Smart Strip	5 plug smart strip	standard power strip	Direct Install	0.75	No	No	13%	62%	98%	IL TRM
266	All	Gas Heating	Consumer Electronics	Smart Strip	5 plug smart strip	standard power strip	Time of Sale	0.74	No	No	94%	62%	98%	IL TRM
267	SingleFamily &Duplex	Gas Heating	Consumer Electronics	Smart Strip	5 plug smart strip	standard power strip	Direct Install	0.74	No	No	98%	100%	98%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
268	Multifamily	Gas Heating	Consumer Electronics	Smart Strip	5 plug smart strip	standard power strip	Direct Install	0.75	No	No	87%	100%	98%	IL TRM
269	All	Electric Heating	Consumer Electronics	Smart Strip	7 plug smart strip	standard power strip	Time of Sale	0.83	No	Yes	6%	100%	98%	IL TRM
270	SingleFamily & Duplex	Electric Heating	Consumer Electronics	Smart Strip	7 plug smart strip	standard power strip	Direct Install	0.83	No	Yes	2%	100%	98%	IL TRM
271	Multifamily	Electric Heating	Consumer Electronics	Smart Strip	7 plug smart strip	standard power strip	Direct Install	0.84	#N/A	Yes	13%	100%	98%	IL TRM
272	All	Gas Heating	Consumer Electronics	Smart Strip	7 plug smart strip	standard power strip	Time of Sale	0.83	#N/A	Yes	94%	100%	98%	IL TRM
273	SingleFamily & Duplex	Gas Heating	Consumer Electronics	Smart Strip	7 plug smart strip	standard power strip	Direct Install	0.83	#N/A	Yes	98%	100%	98%	IL TRM
274	Multifamily	Gas Heating	Consumer Electronics	Smart Strip	7 plug smart strip	standard power strip	Direct Install	0.84	#N/A	Yes	87%	100%	98%	IL TRM
275	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	Retrofit	2.79	Yes	Yes	8%	62%	99%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
276	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	Retrofit	2.79	Yes	No	1%	62%	99%	IL TRM
277	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Faucet Aerators and Showerheads	1.5 GPM or less	2.25 GPM or more	Retrofit	2.79	#N/A	Yes	8%	62%	99%	IL TRM
278	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	Retrofit	2.79	Yes	No	1%	62%	99%	IL TRM
279	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	Retrofit	4.31	#N/A	Yes	20%	62%	93%	IL TRM
280	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	Retrofit	4.31	#N/A	No	4%	62%	93%	IL TRM
281	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	New Construction	2.79	#N/A	Yes	8%	62%	99%	IL TRM
282	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	New Construction	2.79	#N/A	Yes	1%	62%	99%	IL TRM
283	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	New Construction	4.31	#N/A	Yes	20%	62%	93%	IL TRM

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284	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Bathroom Low Flow Aerators	1.5 GPM or less	2.25 GPM or more	New Construction	4.31	#N/A	Yes	4%	62%	93%	IL TRM
285	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	Retrofit	8.01	Yes	Yes	8%	62%	99%	IL TRM
286	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	Retrofit	8.01	Yes	No	1%	62%	99%	IL TRM
287	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Faucet Aerators and Showerheads	2.2 GPM or less	2.75 GPM or more	Retrofit	8.01	#N/A	Yes	8%	62%	99%	IL TRM
288	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	Retrofit	8.01	#N/A	No	1%	62%	99%	IL TRM
289	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	Retrofit	6.29	#N/A	Yes	20%	62%	93%	IL TRM
290	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	Retrofit	6.29	#N/A	No	4%	62%	93%	IL TRM
291	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	New Construction	8.01	#N/A	Yes	8%	62%	99%	IL TRM

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292	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	New Construction	8.01	#N/A	Yes	1%	62%	99%	IL TRM
293	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	New Construction	6.56	#N/A	Yes	20%	62%	93%	IL TRM
294	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Kitchen Low Flow Aerators	2.2 GPM or less	2.75 GPM or more	New Construction	6.56	#N/A	Yes	4%	62%	93%	IL TRM
295	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Direct Install	10.37	Yes	Yes	8%	100%	60%	IL TRM
296	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Retrofit	7.54	Yes	No	8%	100%	60%	IL TRM
297	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Retrofit	10.67	Yes	No	8%	100%	60%	IL TRM
298	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Time of Sale	11.32	Yes	No	8%	100%	60%	IL TRM
299	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Direct Install	8.23	Yes	Yes	20%	100%	60%	IL TRM

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300	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Retrofit	11.66	Yes	No	20%	100%	60%	IL TRM
301	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Time of Sale	10.37	Yes	No	20%	100%	60%	IL TRM
302	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Direct Install	7.54	Yes	No	1%	100%	60%	IL TRM
303	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Retrofit	10.67	Yes	No	1%	100%	60%	IL TRM
304	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Retrofit	11.32	Yes	No	1%	100%	60%	IL TRM
305	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Time of Sale	8.23	Yes	No	1%	100%	60%	IL TRM
306	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Direct Install	11.66	Yes	No	4%	100%	60%	IL TRM

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307	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Retrofit	7.54	Yes	No	4%	100%	60%	IL TRM
308	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	Time of Sale	8.23	Yes	No	4%	100%	60%	IL TRM
309	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	New Construction	7.54	Yes	Yes	8%	100%	60%	IL TRM
310	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	New Construction	8.23	Yes	Yes	20%	100%	60%	IL TRM
311	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	New Construction	7.54	Yes	Yes	1%	100%	60%	IL TRM
312	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.5 GPM	2.5 GPM	New Construction	8.23	Yes	Yes	4%	100%	60%	IL TRM
313	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Direct Install	8.16	Yes	No	8%	100%	60%	IL TRM
314	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Retrofit	5.32	Yes	No	8%	100%	60%	IL TRM

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315	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Time of Sale	7.54	Yes	No	8%	100%	60%	IL TRM
316	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Direct Install	8.91	Yes	No	20%	100%	60%	IL TRM
317	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Retrofit	5.81	Yes	No	20%	100%	60%	IL TRM
318	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Time of Sale	8.24	Yes	No	20%	100%	60%	IL TRM
319	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Direct Install	8.16	Yes	No	1%	100%	60%	IL TRM
320	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Retrofit	5.32	Yes	No	1%	100%	60%	IL TRM
321	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Time of Sale	7.54	Yes	No	1%	100%	60%	IL TRM
322	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Direct Install	8.91	Yes	No	4%	100%	60%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
323	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Retrofit	5.81	Yes	No	4%	100%	60%	IL TRM
324	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	1.75 GPM	2.5 GPM	Time of Sale	8.24	Yes	No	4%	100%	60%	IL TRM
325	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Direct Install	5.94	Yes	No	8%	100%	60%	IL TRM
326	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Retrofit	3.10	Yes	No	8%	100%	60%	IL TRM
327	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Time of Sale	4.40	#N/A	No	8%	100%	60%	IL TRM
328	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Direct Install	6.49	#N/A	No	20%	100%	60%	IL TRM
329	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Retrofit	3.39	#N/A	No	20%	100%	60%	IL TRM
330	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Time of Sale	4.81	#N/A	No	20%	100%	60%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
331	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Direct Install	5.94	#N/A	No	1%	100%	60%	IL TRM
332	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Retrofit	3.10	#N/A	No	1%	100%	60%	IL TRM
333	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Time of Sale	4.40	#N/A	No	1%	100%	60%	IL TRM
334	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Direct Install	6.49	#N/A	No	4%	100%	60%	IL TRM
335	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Retrofit	3.39	#N/A	No	4%	100%	60%	IL TRM
336	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Low flow shower head	2 GPM	2.5 GPM	Time of Sale	4.81	#N/A	No	4%	100%	60%	IL TRM
337	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-16	50 gal No wrap (R-8)	Retrofit	2.34	Yes	No	11%	20%	76%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
338	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-16	50 gal No wrap (R-8)	Direct Install	2.34	Yes	No	11%	20%	76%	IL TRM
339	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-16	50 gal No wrap (R-8)	Retrofit	2.34	Yes	No	2%	20%	76%	IL TRM
340	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-16	50 gal No wrap (R-8)	Direct Install	2.34	Yes	No	2%	20%	76%	IL TRM
341	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-10)	Retrofit	1.62	Yes	No	11%	20%	76%	IL TRM
342	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-8)	Retrofit	2.64	Yes	No	11%	20%	76%	IL TRM
343	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-10)	Direct Install	1.62	Yes	No	11%	20%	76%	IL TRM
344	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-8)	Direct Install	2.64	Yes	No	11%	20%	76%	IL TRM
345	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-10)	Retrofit	1.62	Yes	No	2%	20%	76%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
346	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-8)	Retrofit	2.64	Yes	No	2%	20%	76%	IL TRM
347	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-10)	Direct Install	1.62	Yes	No	2%	20%	76%	IL TRM
348	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-18	50 gal No wrap (R-8)	Direct Install	2.64	Yes	No	2%	20%	76%	IL TRM
349	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-12)	Retrofit	1.19	Yes	No	11%	20%	76%	IL TRM
350	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-10)	Retrofit	1.87	Yes	No	11%	20%	76%	IL TRM
351	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-12)	Direct Install	1.19	#N/A	No	11%	20%	76%	IL TRM
352	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-10)	Direct Install	1.87	#N/A	No	11%	20%	76%	IL TRM
353	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-12)	Retrofit	1.19	#N/A	No	2%	20%	76%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
354	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-10)	Retrofit	1.87	#N/A	No	2%	20%	76%	IL TRM
355	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-12)	Direct Install	1.19	#N/A	No	2%	20%	76%	IL TRM
356	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-20	50 gal No wrap (R-10)	Direct Install	1.87	#N/A	No	2%	20%	76%	IL TRM
357	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-22	50 gal No wrap (R-12)	Retrofit	1.39	#N/A	No	11%	20%	76%	IL TRM
358	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-22	50 gal No wrap (R-12)	Direct Install	1.39	#N/A	No	11%	20%	76%	IL TRM
359	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-22	50 gal No wrap (R-12)	Retrofit	1.39	#N/A	No	2%	20%	76%	IL TRM
360	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Tank Wrap	50 gal: R-22	50 gal No wrap (R-12)	Direct Install	1.39	#N/A	No	2%	20%	76%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
361	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Retrofit	1.35	#N/A	No	11%	100%	78%	IL TRM
362	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	New Construction	1.35	#N/A	Yes	11%	100%	78%	IL TRM
363	All	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Time of Sale	1.35	#N/A	No	11%	100%	78%	IL TRM
364	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Retrofit	2.02	#N/A	No	2%	100%	78%	IL TRM
365	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	New Construction	2.02	#N/A	Yes	2%	100%	78%	IL TRM
366	All	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Time of Sale	2.02	#N/A	No	2%	100%	78%	IL TRM
367	SingleFamily & Duplex	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Direct Install	1.69	#N/A	Yes	8%	100%	78%	IL TRM
368	Multifamily	Electric DHW w/Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Direct Install	1.69	#N/A	No	20%	100%	78%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
369	SingleFamily & Duplex	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Direct Install	1.69	#N/A	No	1%	100%	78%	IL TRM
370	Multifamily	Electric DHW w/Non-Electric Heating Rate	Hot Water	Water Heater Temp Setback	120 degrees	≥ 130 degrees	Direct Install	1.69	#N/A	No	4%	100%	78%	IL TRM
371	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 15	Existing air source heat pump	Early Replacement	1.14	No	No	5%	100%	100%	IL TRM
372	SingleFamily & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 15	Existing air source heat pump	Early Replacement	1.16	No	Yes	0%	100%	100%	IL TRM
373	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 16	Existing air source heat pump	Early Replacement	1.08	No	No	5%	100%	100%	IL TRM
374	SingleFamily & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 16	Existing air source heat pump	Early Replacement	1.10	No	Yes	0%	100%	100%	IL TRM
375	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 17	Existing air source heat pump	Early Replacement	1.03	No	No	5%	100%	100%	IL TRM
376	SingleFamily & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 17	Existing air source heat pump	Early Replacement	1.05	No	Yes	0%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
377	Multifamily	Heat Pump	HVAC	Air Source Heat Pump	SEER 18	Existing air source heat pump	Early Replacement	0.98	Yes	No	5%	100%	100%	IL TRM
378	SingleFamily & Duplex	Heat Pump	HVAC	Air Source Heat Pump	SEER 18	Existing air source heat pump	Early Replacement	1.00	Yes	Yes	0%	100%	100%	IL TRM
379	Multifamily	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 15	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.64	Yes	No	4%	100%	100%	IL TRM
380	SingleFamily & Duplex	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 15	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.64	Yes	Yes	0%	100%	100%	IL TRM
381	Multifamily	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 16	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.63	Yes	No	4%	100%	100%	IL TRM
382	SingleFamily & Duplex	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 16	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.62	Yes	Yes	0%	100%	100%	IL TRM
383	Multifamily	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 17	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.61	Yes	No	4%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
384	SingleFamily &Duplex	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 17	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.61	Yes	Yes	0%	100%	100%	IL TRM
385	Multifamily	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 18	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.60	Yes	No	4%	100%	100%	IL TRM
386	SingleFamily &Duplex	Electric Resistance Heat/No CAC	HVAC	Air Source Heat Pump	SEER 18	Existing electric resistance no AC/dual baseline = heat pump	Early Replacement	0.59	Yes	Yes	0%	100%	100%	IL TRM
387	SingleFamily &Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	Time of Sale	1.22	No	Yes	1%	100%	93%	IL TRM
388	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	Time of Sale	1.15	No	No	4%	100%	93%	IL TRM
389	SingleFamily &Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	Time of Sale	1.22	No	Yes	86%	100%	93%	IL TRM
390	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	Time of Sale	1.15	No	No	40%	100%	93%	IL TRM
391	SingleFamily &Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	New Construction	1.22	No	Yes	1%	100%	93%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
392	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	New Construction	1.15	No	Yes	4%	100%	93%	IL TRM
393	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	New Construction	1.22	No	Yes	86%	100%	93%	IL TRM
394	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Federal minimum SEER13 equipment	New Construction	1.15	No	Yes	40%	100%	93%	IL TRM
395	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.20	No	Yes	1%	100%	93%	IL TRM
396	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.19	No	No	4%	100%	93%	IL TRM
397	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.20	No	Yes	86%	100%	93%	IL TRM

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398	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 14.5	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.19	No	No	40%	100%	93%	IL TRM
399	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	Time of Sale	0.78	No	No	1%	100%	93%	IL TRM
400	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	Time of Sale	0.74	No	No	4%	100%	93%	IL TRM
401	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	Time of Sale	0.78	No	No	86%	100%	93%	IL TRM
402	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	Time of Sale	0.74	No	No	40%	100%	93%	IL TRM
403	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	New Construction	0.78	No	Yes	1%	100%	93%	IL TRM
404	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	New Construction	0.74	No	Yes	4%	100%	93%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
405	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	New Construction	0.78	No	Yes	86%	100%	93%	IL TRM
406	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Federal minimum SEER13 equipment	New Construction	0.74	No	Yes	40%	100%	93%	IL TRM
407	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.20	No	No	1%	100%	93%	IL TRM
408	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.19	No	No	4%	100%	93%	IL TRM
409	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.20	No	No	86%	100%	93%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
410	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 15	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.19	No	No	40%	100%	93%	IL TRM
411	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	Time of Sale	0.73	No	Yes	1%	100%	93%	IL TRM
412	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	Time of Sale	0.69	No	No	4%	100%	93%	IL TRM
413	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	Time of Sale	0.73	No	Yes	86%	100%	93%	IL TRM
414	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	Time of Sale	0.69	No	No	40%	100%	93%	IL TRM
415	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	New Construction	0.73	No	Yes	1%	100%	93%	IL TRM
416	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	New Construction	0.69	No	Yes	4%	100%	93%	IL TRM

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417	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	New Construction	0.73	No	Yes	86%	100%	93%	IL TRM
418	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Federal minimum SEER13 equipment	New Construction	0.69	No	Yes	40%	100%	93%	IL TRM
419	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.22	No	Yes	1%	100%	93%	IL TRM
420	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.21	No	No	4%	100%	93%	IL TRM
421	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.22	No	Yes	86%	100%	93%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
422	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 16	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.21	No	No	40%	100%	93%	IL TRM
423	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	Time of Sale	0.69	No	No	1%	100%	93%	IL TRM
424	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	Time of Sale	0.65	No	No	4%	100%	93%	IL TRM
425	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	Time of Sale	0.69	No	No	86%	100%	93%	IL TRM
426	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	Time of Sale	0.65	No	No	40%	100%	93%	IL TRM
427	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	New Construction	0.69	No	No	1%	100%	93%	IL TRM
428	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	New Construction	0.65	No	No	4%	100%	93%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
429	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	New Construction	0.69	No	No	86%	100%	93%	IL TRM
430	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Federal minimum SEER13 equipment	New Construction	0.65	No	No	40%	100%	93%	IL TRM
431	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.23	No	No	1%	100%	93%	IL TRM
432	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.22	No	No	4%	100%	93%	IL TRM
433	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.23	No	No	86%	100%	93%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
434	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 17	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.22	No	No	40%	100%	93%	IL TRM
435	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	Time of Sale	0.64	No	No	1%	100%	93%	IL TRM
436	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	Time of Sale	0.61	No	No	4%	100%	93%	IL TRM
437	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	Time of Sale	0.64	No	No	86%	100%	93%	IL TRM
438	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	Time of Sale	0.61	No	No	40%	100%	93%	IL TRM
439	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	New Construction	0.64	No	No	1%	100%	93%	IL TRM
440	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	New Construction	0.61	No	No	4%	100%	93%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
441	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	New Construction	0.64	No	No	86%	100%	93%	IL TRM
442	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Federal minimum SEER13 equipment	New Construction	0.61	No	No	40%	100%	93%	IL TRM
443	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.24	No	No	1%	100%	93%	IL TRM
444	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.23	No	No	4%	100%	93%	IL TRM
445	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.24	No	No	86%	100%	93%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
446	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 18	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.23	No	No	40%	100%	93%	IL TRM
447	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	Time of Sale	0.60	No	No	1%	100%	93%	IL TRM
448	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	Time of Sale	0.57	No	No	4%	100%	93%	IL TRM
449	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	Time of Sale	0.60	No	No	86%	100%	93%	IL TRM
450	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	Time of Sale	0.57	No	No	40%	100%	93%	IL TRM
451	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	New Construction	0.60	No	No	1%	100%	93%	IL TRM
452	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	New Construction	0.57	No	No	4%	100%	93%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
453	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	New Construction	0.60	No	No	86%	100%	93%	IL TRM
454	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Federal minimum SEER13 equipment	New Construction	0.57	No	No	40%	100%	93%	IL TRM
455	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.25	No	No	1%	100%	93%	IL TRM
456	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.24	No	No	4%	100%	93%	IL TRM
457	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.25	No	No	86%	100%	93%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
458	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 19	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.24	No	No	40%	100%	93%	IL TRM
459	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	Time of Sale	0.57	No	No	1%	100%	93%	IL TRM
460	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	Time of Sale	0.54	No	No	4%	100%	93%	IL TRM
461	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	Time of Sale	0.57	No	No	86%	100%	93%	IL TRM
462	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	Time of Sale	0.54	No	No	40%	100%	93%	IL TRM
463	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	New Construction	0.57	No	No	1%	100%	93%	IL TRM
464	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	New Construction	0.54	No	No	4%	100%	93%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
465	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	New Construction	0.57	No	No	86%	100%	93%	IL TRM
466	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Federal minimum SEER13 equipment	New Construction	0.54	No	No	40%	100%	93%	IL TRM
467	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.27	No	No	1%	100%	93%	IL TRM
468	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.25	No	No	4%	100%	93%	IL TRM
469	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.27	No	No	86%	100%	93%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.

## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
470	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 20	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.25	No	No	40%	100%	93%	IL TRM
471	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	Time of Sale	0.56	No	No	1%	100%	93%	IL TRM
472	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	Time of Sale	0.53	No	No	4%	100%	93%	IL TRM
473	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	Time of Sale	0.56	#N/A	No	86%	100%	93%	IL TRM
474	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	Time of Sale	0.53	#N/A	No	40%	100%	93%	IL TRM
475	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	New Construction	0.56	#N/A	No	1%	100%	93%	IL TRM
476	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	New Construction	0.53	#N/A	No	4%	100%	93%	IL TRM

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## Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
477	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	New Construction	0.56	#N/A	No	86%	100%	93%	IL TRM
478	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Federal minimum SEER13 equipment	New Construction	0.53	#N/A	No	40%	100%	93%	IL TRM
479	SingleFamily & Duplex	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.28	#N/A	No	1%	100%	93%	IL TRM
480	Multifamily	AC/Electric Resistance Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.26	#N/A	No	4%	100%	93%	IL TRM
481	SingleFamily & Duplex	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.28	#N/A	No	86%	100%	93%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
482	Multifamily	AC/Gas Heat	HVAC	Central Air Conditioning > 14.5 SEER	SEER 21	Shifting baseline from existing AC equipment to Federal minimum SEER13 equipment	Early Replacement	0.26	#N/A	No	40%	100%	93%	IL TRM
483	SingleFamily & Duplex	AC/Gas Heat	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	5.12	#N/A	Yes	86%	100%	100%	IL TRM
484	SingleFamily & Duplex	Gas Heat (No AC)	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	2.68	#N/A	Yes	13%	100%	100%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
485	SingleFamily &Duplex	AC/Electric Heat	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	8.06	#N/A	Yes	1%	100%	100%	IL TRM
486	SingleFamily &Duplex	Electric Resistance Heat/No CAC	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	5.61	#N/A	Yes	0%	100%	100%	IL TRM
487	SingleFamily &Duplex	Heat Pump	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	5.10	#N/A	Yes	0%	100%	100%	IL TRM

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Appendix D: Residential Measure Assumptions

Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
488	SingleFamily &Duplex	AC/Gas Heat	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	5.87	#N/A	No	86%	100%	100%	IL TRM
489	SingleFamily &Duplex	Gas Heat (No AC)	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	3.14	#N/A	No	13%	100%	100%	IL TRM
490	SingleFamily &Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	9.85	#N/A	No	1%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
491	SingleFamily &Duplex	Electric Resistance Heat/No CAC	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	7.13	#N/A	No	0%	100%	100%	IL TRM
492	SingleFamily &Duplex	Heat Pump	HVAC	Duct Insulation and Sealing	50% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	50% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	5.68	#N/A	No	0%	100%	100%	IL TRM
493	Multifamily	AC/Gas Heat	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	5.08	#N/A	No	40%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
494	Multifamily	Gas Heat (No AC)	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	2.53	#N/A	No	47%	100%	100%	IL TRM
495	Multifamily	AC/Electric Resistance Heat	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	8.53	#N/A	No	4%	100%	100%	IL TRM
496	Multifamily	Electric Resistance Heat/No CAC	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	5.97	#N/A	No	4%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
497	Multifamily	Heat Pump	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	Retrofit	5.38	#N/A	No	5%	100%	100%	IL TRM
498	Multifamily	AC/Gas Heat	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	2.00	#N/A	No	40%	100%	100%	IL TRM
499	Multifamily	Gas Heat (No AC)	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	1.03	#N/A	No	47%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
500	Multifamily	AC/Electric Resistance Heat	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	3.58	#N/A	No	4%	100%	100%	IL TRM
501	Multifamily	Electric Resistance Heat/No CAC	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	2.60	#N/A	No	4%	100%	100%	IL TRM
502	Multifamily	Heat Pump	HVAC	Duct Insulation and Sealing	90% or more ducts inside envelope   Connections sealed with mastic   Ducts outside envelope are insulated to R8	90% or more ducts inside envelope   Significant leaks   Ducts outside envelope are insulated to R4 to R7	New Construction	2.06	#N/A	No	5%	100%	100%	IL TRM

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Measure ID	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Baseline Definition	Measure Type	Measure TRC	Measure Included in Economic Potential Analysis	Measure Included in Achievable Potential Analysis	Applicability to Building Type*	Technical Feasibility*	Not-Yet-Adopted Rate*	References
503	All	AC/Gas Heat	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	Time of Sale	10.82	#N/A	Yes	69%	100%	100%	IL TRM
504	All	AC/Gas Heat	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	New Construction	10.82	#N/A	Yes	69%	100%	100%	IL TRM
505	All	AC/Electric Resistance Heat	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	Time of Sale	11.80	#N/A	Yes	3%	100%	100%	IL TRM
506	All	AC/Electric Resistance Heat	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	New Construction	11.80	#N/A	Yes	3%	100%	100%	IL TRM
507	All	Electric Resistance Heat/No CAC	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	Time of Sale	8.93	#N/A	Yes	1%	100%	100%	IL TRM
508	All	Electric Resistance Heat/No CAC	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	New Construction	8.93	#N/A	Yes	1%	100%	100%	IL TRM
509	All	Heat Pump	HVAC	Furnace Blower Motor	Brushless permanent magnet (BPM) blower motor	non-BPM blower motor	Time of Sale	11.80	#N/A	Yes	2%	100%	100%	IL TRM

\*Residential applicability factors were developed only for measures included in the potential analyses.