

# GreenGuard® SIDING UNDERLAYMENT ENERGY CHART



Determine the estimated Potential Savings you can achieve by installing GreenGuard Siding Underlayment products.

How To Read This Chart

- 1 Find the State and City "Where You Live" or are closest to. Highlight that entire row.
- 2 Go to the section headed "Your Current Heat Source" and select the current heating source used in your home – choose either Electric Heat or Gas Heat.
- 3 Then, follow the Heat Source column down to the header titled "Your Current Insulation Level" and select the one

that currently applies to your home – select either Low Insulation or Moderate Insulation.

- 4 Finally, follow that column down and choose one product under the heading "GreenGuard Siding Underlayment Products." Follow this column down to the row that corresponds to "Where You Live" to see the estimated potential

savings you can achieve by installing this product.

**Example**  
 1 Kansas City, MO  
 2 Electric Heat  
 3 Low Insulation  
 4 By adding SL3/4" GreenGuard Siding Underlayment, this homeowner would save approximately \$855 per year.

1

WHERE YOU LIVE			
State	City	Heating Degree Days	Cooling Degree Days
AK	Anchorage	10,570	
AL	Birmingham	2,918	1,797
AL	Montgomery	2,224	2,212
AR	Fort Smith	3,478	1,894
AR	Little Rock	3,155	2,005
AZ	Phoenix	1,350	4,162
AZ	Tucson	1,678	2,954
CA	Los Angeles	1,458	727
CA	Sacramento	2,666	850
CA	San Diego	1,256	984
CA	San Francisco	3,016	65
CO	Colorado Springs	6,415	419
CO	Denver	6,020	679
CO	Grand Junction	5,548	1,183
CT	Hartford	6,151	677
DC	Washington	5,006	973
DE	Wilmington	4,937	1,046
FL	Jacksonville	1,434	2,551
FL	Miami	200	4,198
FL	Tampa	725	3,427
GA	Atlanta	2,991	1,667
GA	Savannah	1,847	2,365
IA	Des Moines	6,497	1,036
ID	Boise	5,861	754
IL	Chicago	6,536	752
IL	Rock Island	6,500	579
IL	Springfield	5,688	1,141
IN	Evansville	4,708	1,376
IN	Indianapolis	5,615	1,014
IN	Merrillville	6,000	
IN	South Bend	6,331	728
KS	Topeka	5,265	1,304
KY	Lexington	4,783	1,140
KY	Louisville	4,514	1,288
LA	Baton Rouge	1,669	2,690
LA	New Orleans	1,513	2,655
LA	Shreveport	2,264	2,368
MA	Boston	5,641	678
MD	Baltimore	4,707	1,137
MD	Cumberland	5,200	1,289
MD	Frederick	5,090	670
ME	Bangor	8,000	220
ME	Portland	7,378	268
MI	Detroit	6,569	626
MI	Grand Rapids	6,973	534
MI	Sit. St. Marie	9,316	131
MN	Duluth	9,818	180
MN	Minneapolis	7,981	682
MN	Rochester	8,250	472

2

YOUR CURRENT HEAT SOURCE															
Electric Heat								Gas Heat							
3															
YOUR CURRENT INSULATION LEVEL															
Low Insulation				Moderate Insulation				Low Insulation				Moderate Insulation			
4															
GreenGuard SIDING UNDERLAYMENT PRODUCTS															
XP14	XP38	SL1/2"	SL3/4"	XP14	XP38	SL1/2"	SL3/4"	XP14	XP38	SL1/2"	SL3/4"	XP14	XP38	SL1/2"	SL3/4"
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
762	928	1,308	1,452	232	291	442	505	447	544	767	851	136	171	259	296
298	363	512	568	91	114	173	197	211	257	362	402	64	81	122	140
260	317	447	496	79	99	151	172	194	236	333	370	59	74	112	128
340	414	584	648	104	130	197	225	236	288	405	450	72	90	137	156
313	381	537	597	95	120	182	207	219	267	376	417	67	84	127	145
172	210	296	328	52	66	100	114	132	161	226	251	40	50	76	87
230	280	394	438	70	88	133	152	180	219	308	342	55	69	104	119
157	191	269	299	48	60	91	104	113	138	195	216	35	43	66	75
245	298	420	466	74	93	142	162	165	201	283	314	50	63	96	109
121	147	207	230	37	46	70	80	83	101	143	159	25	32	48	55
221	269	379	421	67	84	128	146	131	160	225	250	40	50	76	87
475	577	814	904	144	181	275	314	283	344	486	539	86	108	164	187
451	548	773	858	137	172	261	298	271	330	465	516	82	103	157	179
420	511	720	799	128	160	243	278	254	309	436	484	77	97	147	168
471	574	809	898	144	180	223	312	288	350	494	548	88	110	167	190
391	476	671	744	119	149	227	259	241	294	414	460	73	92	140	160
398	484	682	757	121	152	231	263	250	305	429	477	76	96	145	166
214	261	368	408	65	82	124	142	171	209	294	326	52	65	99	113
164	200	282	313	50	63	95	109	158	193	271	301	48	60	92	105
171	208	293	325	52	65	99	113	149	181	256	284	45	57	86	99
300	365	515	571	91	115	174	199	211	256	361	401	64	80	122	139
224	272	383	426	68	85	130	148	168	205	289	321	51	64	98	111
509	620	814	970	155	194	295	337	315	383	541	600	96	120	183	209
441	536	756	839	134	168	255	292	266	323	456	506	81	101	154	176
510	621	876	972	155	195	296	338	315	384	541	600	96	120	183	209
502	611	862	956	153	192	291	332	308	375	529	587	94	118	179	204
462	562	792	879	141	176	268	306	292	355	501	556	89	111	169	193
401	488	688	764	122	153	233	266	261	317	447	496	79	99	151	173
450	548	772	857	137	172	261	298	282	344	485	538	86	108	164	187
468	569	802	891	142	179	271	310	289	351	495	549	88	110	167	191
490	596	840	932	149	187	284	324	300	366	515	572	91	115	174	199
442	538	759	842	135	169	256	293	285	347	489	543	87	109	165	189
402	489	690	765	122	153	233	266	259	315	445	493	79	99	150	172
385	409	661	733	117	147	223	255	250	305	429	477	76	96	145	166
223	272	383	426	84	105	159	182	174	211	298	331	68	86	130	149
211	257	362	402	64	81	122	140	166	202	285	316	51	63	96	110
262	319	450	500	80	100	152	174	195	237	334	371	59	74	113	129
432	526	741	823	132	165	250	286	264	321	452	504	80	101	153	175
392	477	673	747	119	150	227	260	252	306	432	480	77	96	146	167
421	513	723	802	128	161	244	279	266	324	456	507	81	102	154	176
416	507	714	793	127	159	241	276	264	322	454	504	81	101	153	175
582	708	909	1109	177	232	337	385	343	418	589	654	105	131	199	227
540	657	926	1028	164	206	313	357	320	389	548	609	97	122	185	212
500	608	857	951	152	191	290	331	303	369	520	578	92	116	176	201
528	642	905	1005	161	201	306	349	319	389	548	608	97	122	185	211
672	818	1153	1280	205	257	390	445	394	479	676	750	120	150	228	261
708	862	1215	1349	216	270	411	469	415	505	712	790	126	158	241	275
596	726	1023	1135	182	228	346	395	358	435	614	682	109	137	207	237
616	750	1057	1173	188	235	357	408	370	450	634	704	113	141	214	245



# GreenGuard® SIDING UNDERLAYMENT ENERGY CHART

1 WHERE YOU LIVE				2 YOUR CURRENT HEAT SOURCE															
State	City	Heating Degree Days	Cooling Degree Days	3 YOUR CURRENT INSULATION LEVEL								4 GreenGuard SIDING UNDERLAYMENT PRODUCTS							
				Low Insulation				Moderate Insulation				Low Insulation				Moderate Insulation			
				XP14	XP38	SL1/2"	SL3/4"	XP14	XP38	SL1/2"	SL3/4"	XP14	XP38	SL1/2"	SL3/4"	XP14	XP38	SL1/2"	SL3/4"
				\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
MO	Kansas City	5,249	1,043	449	546	770	855	137	171	260	297	292	356	501	556	89	112	169	193
MO	Springfield	4,638	1,320	403	490	691	767	123	154	233	267	264	322	453	503	80	101	153	175
MO	St. Louis	4,758	1,534	403	491	692	768	123	154	234	267	261	318	448	497	80	100	151	173
MS	Jackson	2,467	2,215	278	339	478	530	85	106	161	184	205	249	351	390	62	78	119	136
MT	Great Falls	7,741	388	560	682	962	1067	171	214	325	371	329	401	565	627	100	126	191	218
MT	Helena	8,031	386	581	707	997	1107	177	222	337	385	342	416	586	650	104	130	198	226
NC	Asheville	4,308	787	363	441	622	690	110	138	210	240	231	285	401	445	71	89	136	155
NC	Charlotte	3,341	1,582	318	387	546	605	97	121	184	210	218	265	374	415	66	83	126	144
NC	Greensboro	3,848	693	342	416	587	652	104	131	198	227	227	277	390	433	69	87	132	150
NC	Raleigh	3,465	828	318	387	545	605	97	121	184	210	214	261	367	408	65	82	124	142
NC	Wilmington	2,429	1,005	243	296	418	464	74	93	141	161	171	208	293	325	52	65	99	113
ND	Bismarck	8,968	488	663	807	1137	1262	202	253	384	439	395	481	678	752	122	151	229	261
NE	Omaha	6,413	1,037	511	622	877	974	156	195	296	339	320	389	549	609	97	122	185	212
NH	Concord	7,554	328	563	686	967	1073	172	215	327	373	338	411	580	643	103	129	196	224
NJ	Newark	4,888	1,201	395	480	677	752	120	151	229	261	249	303	427	474	76	95	144	165
NM	Albuquerque	4,425	1,244	361	440	620	688	110	138	209	239	229	279	393	436	70	87	133	152
NM	Roswell	3,267	1,776	301	367	517	574	92	115	175	199	204	248	350	388	62	78	118	135
NV	Las Vegas	2,407	3,201	222	271	382	423	68	85	129	147	150	183	258	287	46	57	87	100
NY	Albany	6,894	507	524	638	899	998	160	200	304	347	318	387	546	606	97	121	184	211
NY	Buffalo	6,747	477	504	613	864	959	153	192	292	333	302	368	518	575	92	115	175	200
NY	New York	5,027	921	403	491	692	768	123	154	234	267	253	308	434	482	77	97	147	168
NY	Rochester	6,713	229	504	613	864	959	153	192	292	333	303	369	520	578	92	116	176	201
NY	Syracuse	6,785	195	513	624	879	976	156	196	297	339	310	377	532	590	94	118	180	205
OH	Akron/Canton	6,148	270	468	570	803	891	143	179	271	310	285	346	408	542	87	109	165	188
OH	Cincinnati	4,410	636	371	451	636	706	113	142	215	246	239	291	410	456	73	91	139	158
OH	Cleveland	6,097	302	471	573	808	897	143	180	273	312	289	352	496	550	88	110	168	191
OH	Columbus	5,708	797	448	545	769	853	136	171	260	297	278	338	476	529	85	106	161	184
OH	Dayton	5,678	657	450	548	772	857	137	172	261	298	281	341	481	534	85	107	163	186
OK	Oklahoma City	3,659	1,859	350	425	600	666	106	133	203	231	240	292	412	458	73	92	139	159
OK	Tulsa	3,691	2,017	362	441	621	690	110	138	210	240	252	307	432	480	77	96	146	167
OR	Portland	4,522	371	331	403	568	630	101	126	192	219	196	238	336	373	60	75	113	130
PA	Allentown	6,409	378	499	607	856	950	152	190	289	330	307	374	527	585	94	117	178	203
PA	Harrisburg	5,201	488	410	499	704	781	125	157	238	271	255	310	437	485	78	97	148	169
PA	Lancaster	5,400	350	430	523	738	819	131	164	249	285	269	327	461	512	82	103	156	178
PA	Philadelphia	4,954	1,101	399	486	785	761	122	153	232	264	251	306	431	479	77	96	146	166
PA	Pittsburgh	5,968	654	462	562	792	879	141	176	268	306	283	345	486	540	86	108	164	188
RI	Providence	5,884	606	448	545	768	852	136	171	259	296	272	331	466	518	83	104	158	180
SC	Charleston	2,013	2,266	233	284	401	445	71	89	135	155	173	211	297	330	53	66	100	115
SC	Columbia	2,649	1,966	279	339	478	531	85	106	162	185	200	243	343	380	61	76	116	132
SC	Greenville	3,272	1,473	312	380	535	596	95	119	181	207	214	261	368	408	65	81	124	142
SD	Pierre	7,283	550	557	677	955	1060	169	213	323	369	339	413	582	646	103	130	197	225
TN	Knoxville	3,937	1,266	353	429	605	672	107	135	204	234	236	286	403	448	72	90	136	156
TN	Memphis	3,082	2,118	300	365	514	571	91	114	174	198	208	253	356	396	63	79	120	138
TN	Nashville	3,729	1,616	343	417	588	653	104	131	199	227	231	282	397	441	70	88	134	153
TX	Amarillo	4,258	1,354	372	452	638	708	113	142	215	246	245	298	420	466	74	93	142	162
TX	Dallas/Ft. Worth	2,370	1,787	270	329	464	515	82	103	157	179	200	243	343	380	61	76	116	132
TX	Houston	1,599	2,700	232	283	399	442	71	89	135	154	185	225	317	351	56	70	107	122
TX	Lubbock	3,422	1,053	329	401	565	627	100	126	191	218	227	277	390	433	69	87	132	150
UT	Salt Lake City	5,765	1,047	439	535	754	837	134	168	255	291	267	325	459	509	81	102	155	177
UT	St. George	3,103	1,684	282	343	483	537	86	108	163	187	189	230	324	360	58	72	110	125
VA	Norfolk	3,495	1,422	328	387	545	605	97	121	184	210	213	260	366	406	65	81	124	141
VA	Richmond	3,963	1,348	350	426	600	667	107	134	203	232	232	282	397	441	71	88	134	153
VA	Roanoke	4,360	1,052	370	451	636	705	113	141	215	245	240	292	412	457	73	92	139	159
VT	Burlington	7,771	388	571	695	980	1088	174	218	331	378	339	413	582	646	103	130	197	225
WA	Seattle	4,908	167	354	431	607	674	108	135	205	234	207	252	356	395	63	79	120	137
WA	Spokane	6,842	398	498	606	855	949	152	190	289	330	294	358	504	560	89	112	170	195
WI	Green Bay	8,089	381	593	722	1018	1130	181	227	344	393	352	428	603	670	107	134	204	233
WI	Madison	7,499	242	562	684	964	1070	171	215	326	372	338	411	580	644	103	129	196	224
WI	Milwaukee	7,324	479	548	667	940	1043	167	209	318	363	329	400	565	627	100	126	191	218
WV	Charleston	4,646	1,031	385	468	680	733	117	147	223	255	246	300	422	469	75	94	143	163
WY	Casper	7,534	149	552	671	947	1051	168	211	320	365	327	398	561	622	99	125	189	216
WY	Cheyenne	7,326	285	534	650	916	1017	163	204	310	354	315	384	541	601	96	120	183	209

Assumptions used in model:  
 2,000 square feet of resided wall area • Heating efficiencies 70% for gas and 100% for electric resistance •  
 Cooling unit with 7.0 seasonal efficiency rating (SEER) • Natural gas price - \$1.28 per CCF (100 cubic feet or 1 therm) •  
 Electricity price - \$0.1065 per KWH

Heating and Cooling Degree Days are a measure devised by the U.S. Department of Energy to describe the variability of temperature over time, during a year, from a base of 65°F.

This is an estimate of savings potential from added R-Value, not a promise of realized savings.

This estimate does not constitute an express or implied guarantee of energy savings. It is intended only as an illustration of the difference of added R-Value where all other conditions are equal. The estimate of savings is based on the assumptions as stated, which are standardized numbers. Actual conditions for any given period of time vary for each home and lifestyle. Actual savings will be determined by many factors impossible to include in an energy model.

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GreenGuard® Products are ENERGY STAR qualified products as a part of EPA's Home Sealing Effort.

