

# Neopor® GPS Energy Savings Guide for Existing Homes

Insulated Vinyl Siding • Fanfold Underlayment • Continuous Insulation Sheathing

## Neopor® is Smart Insulation

BASF Neopor® GPS is a graphite polystyrene (GPS) rigid thermal foam insulation that gives builders maximum efficiency, cost-effectiveness and sustainability on construction projects. It's unique silver-gray color and exceptional insulation characteristics are a result of high-purity graphite that reflects and absorbs radiant energy, decreasing the materials thermal conductivity and increasing its R-value.

- Excellent insulation value of R-5 per inch enabling the use of thinner boards
- Exceptional moisture resistance with maximum water absorption by volume of less than 1%
- New polymeric flame retardant (PolyFR) with a better environmental profile

This means that Neopor® can result in serious annual energy savings for you when used as your preferred insulation material.



*Flip the page to learn the potential savings from using Neopor® Insulation*

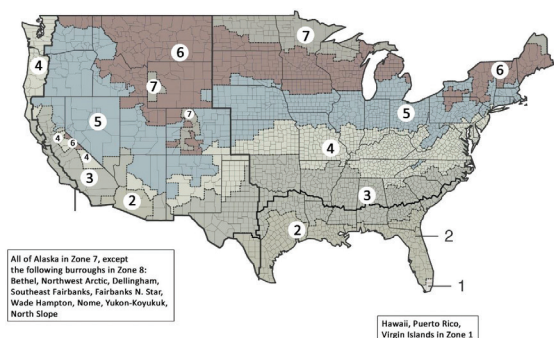
**Existing Homes**

## Neopor Potential Energy Savings Chart

You can determine the money **Neopor insulated vinyl siding, wall underlayment and insulated wall sheathing** will potentially save you on your annual energy bills by using the table to the right. Just follow these steps:

1. Find the city nearest to you in the first column.
2. Use the All Electric or Gas/Electric columns, depending on what type of energy your home uses.
3. Scan across to the thickness of Neopor that you will be using. This is your potential savings!

## U.S. Climate Zone Map



Source: U.S. Department of Energy

### Methodology

Energy and cost savings were determined using RESNET REM software (V14.6.1). New Home savings were based on the current IECC (International Energy Conservation Code) requirements in each state for building envelope and mechanical equipment construction. New Home potential annual savings were based on the current IECC (International Energy Conservation Code) requirements in each state for building envelope and mechanical equipment construction. U.S. Department of Energy data was used to determine the relevant climate zone as well as the heating and cooling degree days for each location. A representative 2200 ft<sup>2</sup>, 2-story home with 3-bedrooms, slab-on-grade, 2x4 walls, truss roof, and worst-case solar orientation was defined using U.S. Bureau of the Census and U.S. DOE Energy Information Administration data.

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State-MSA	Climate Zone	Existing Homes							
		Potential Annual Energy Savings based on				Neopor Thickness (\$)			
		All Electric				Gas/Electric			
		1/4"	1/2"	3/4"	1"	1/4"	1/2"	3/4"	1"
AL-Birmingham	3	55	93	113	130	38	65	78	89
AK-Anchorage	7	306	508	609	692	101	170	206	236
AZ-Phoenix	2	44	73	89	102	52	86	105	120
AR-Little Rock	3	61	100	122	139	44	71	86	107
CA-Los Angeles	3	20	33	40	46	19	32	38	44
CA-San Diego	3	18	31	37	42	15	26	32	38
CA-San Francisco	3	35	58	69	80	26	44	53	61
CO-Denver	5	142	236	282	321	57	97	117	134
CT-Hartford	5	131	216	259	295	55	92	112	128
DE-Dover	4	102	169	203	230	52	88	106	121
FL-Miami	1	17	29	35	39	24	40	48	55
FL-Orlando	2	19	31	38	43	22	37	44	51
FL-Tampa	2	22	39	47	54	28	47	57	64
GA-Atlanta	3	54	93	114	131	37	62	75	86
HI-Honolulu	1	21	36	43	50	30	51	62	71
ID-Boise	6	128	212	253	288	58	98	119	135
IL-Chicago	5	165	272	327	371	60	101	122	140
IN-Indianapolis	5	136	226	271	308	55	94	113	129
IA-Des Moines	5	174	289	346	394	62	104	126	145
KS-Wichita	5	111	185	221	252	53	91	110	126
KY-Louisville	4	94	155	187	211	47	78	94	108
LA-New Orleans	2	35	58	70	81	32	55	66	76
ME-Portland	6	179	296	354	401	64	109	132	152
MD-Baltimore	4	91	152	182	206	49	84	101	115
MA-Boston	5	114	190	228	258	53	88	107	123
MI-Detroit	5	154	253	304	344	0	100	120	138
MN-Minneapolis	6	229	381	457	520	72	124	149	171
MS-Jackson	2	49	86	103	119	38	66	80	91
MO-St. Louis	4	111	184	221	252	52	88	106	122
MT-Billings	6	192	318	382	434	65	109	131	151
NE-Omaha	5	167	277	333	377	60	102	124	142
NV-Las Vegas	3	59	99	121	138	55	93	113	129
NH-Manchester	6	132	218	262	297	55	95	114	131
NJ-Trenton	5	96	160	191	217	49	83	101	115
NM-Albuquerque	4	78	133	161	185	50	85	102	117
NY-New York	4	90	151	182	207	50	84	101	116
NC-Charlotte	3	60	102	124	142	42	71	85	98
NC-Raleigh	4	64	106	128	147	41	69	83	95
ND-Fargo	7	278	465	560	637	85	144	173	199
OH-Cincinnati	5	107	178	213	242	51	86	104	120
OK-Oklahoma City	3	75	124	150	170	45	75	92	105
OR-Portland	5	68	116	140	160	42	70	85	98
PA-Philadelphia	4	96	161	192	219	50	85	103	118
RI-Providence	5	122	203	244	277	54	91	111	126
SC-Columbia	3	49	85	104	119	36	61	74	84
SD-Sioux Falls	6	225	374	450	511	72	122	148	168
TN-Nashville	4	76	125	151	172	44	74	90	102
TX-Dallas	3	52	88	108	123	44	73	88	100
TX-Austin	2	44	74	88	100	40	67	80	92
TX-Houston	3	37	63	76	88	34	57	69	78
TX-San Antonio	2	44	72	86	98	40	66	79	90
UT-Salt Lake City	5	116	192	231	261	59	99	120	137
VA-Charlottesville	4	73	121	145	166	44	74	90	102
VT-Burlington	6	213	354	424	482	70	118	142	163
DC-Washington	4	85	142	171	195	49	83	101	115
WA-Seattle	5	66	111	134	152	39	66	79	91
WV-Charleston	4	95	158	190	216	46	79	94	108
WI-Milwaukee	6	187	310	371	421	66	111	134	155
WY-Cheyenne	6	172	286	342	389	65	109	132	151

\* Please consider that annual savings potential varies with climate zone, heating degree days and also local energy code.