



ENERGYGUIDE

EXTRA HIGH EFFICIENCY GROUND WATER HEAT PUMP

MODELS

GSVS241-A

GSVS301-A

GSVS361-A

GSVS421-A

WPV48C

WPV60C

BARD MANUFACTURING COMPANY
Bryan, Ohio 43506

Since 1914...Moving ahead, just as planned.

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BARD MANUFACTURING COMPANY
BRYAN, OHIO USA 43506**

ENERGYGUIDE INFORMATION

The cost grids on the fact sheets are based upon representative incremental rates that should correspond to the type of fuel being considered and the equipment ratings as shown in the specification sheet for the model being considered.

IMPORTANT

All cost grid data are "estimated yearly operating costs". Your *actual* yearly operating costs are dependent upon such factors as weather severity, routine maintenance items affecting operating efficiency (filters, blowers, etc.), actual heat loss of structure, desired indoor temperatures, living patterns of the occupants, and other items affecting operating time of the heating appliance.

To use the cost grids, it is necessary to know the heat loss of your home or building and the energy rate for your area. If not already known, the heat loss can be calculated by the dealer, builder, architect, etc., and the current energy rates obtained from the appropriate local utility.

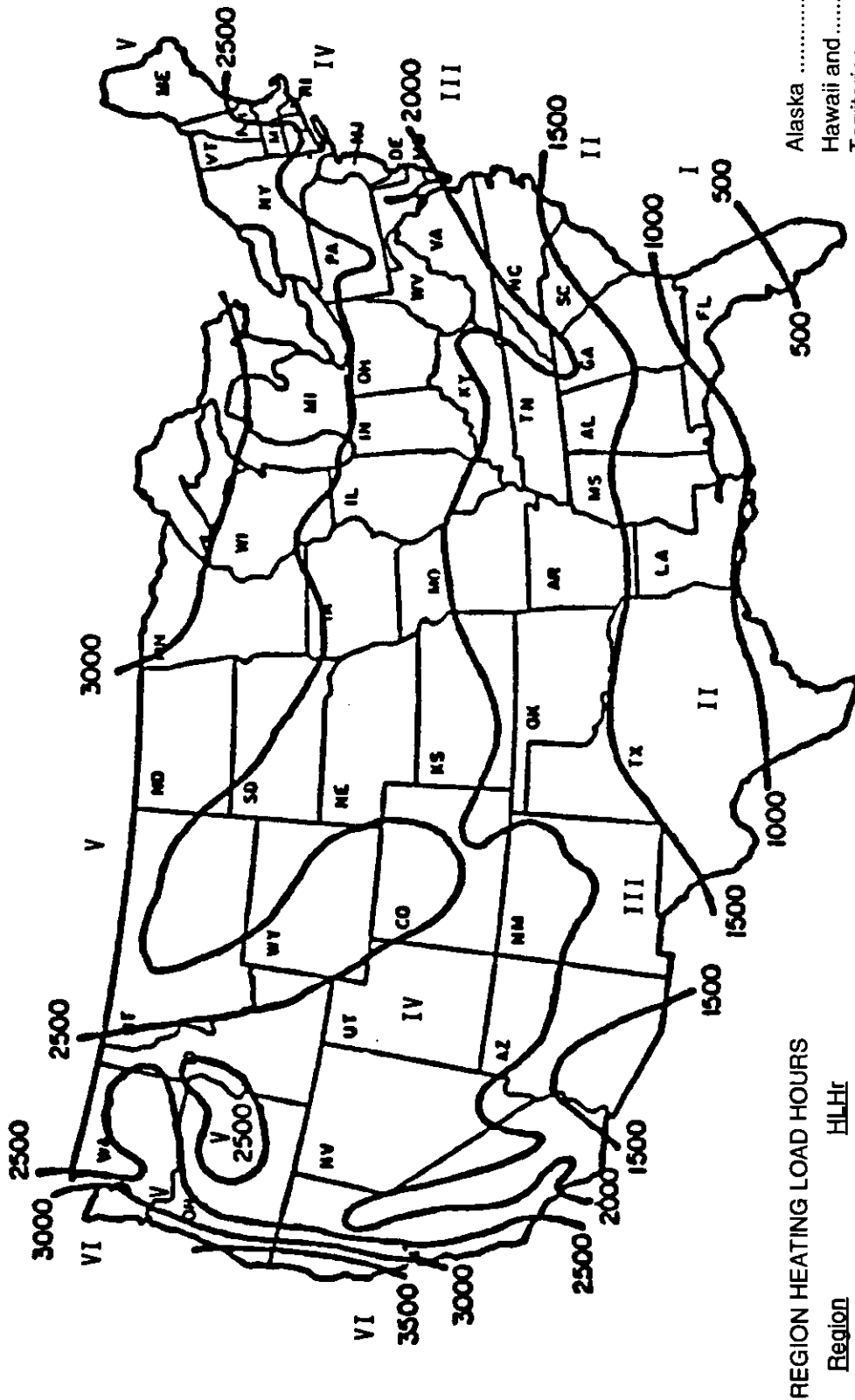
An example of how to use the enclosed information is as follows:

Geographic Location:	Ohio – From Region Map: Region IV
Heat Loss of Building:	70,000 BTU/HR
Heat Appliance Model Desired:	WPV48C

Consulting the Region IV cost grid (1) and moving down the 70,000 Btu/hr (2) column to the \$.11 cost per kilowatt hour line (closest value to actual cost determined by contacting local utility) (3), the Estimated cost per year to operate is \$1,407.00 (4).

COST PER KILOWATT HOUR	HEAT LOSS OF HOUSE (1000 BTU/HR)				
	40	50	60	(2) 70	80
	ESTIMATED \$ PER YEAR TO OPERATE				
\$.05	382	464	546	640	752
\$.07	534	650	765	896	1052
\$.09	686	836	983	1152	1353
\$.11 (3)	839	1021	1201	(4) 1407	1653
\$.13	991	1207	1420	1663	1954
\$.15	1144	1392	1638	1919	2255
\$ Cost based on Region IV (1) Heating load hours (1750)					

ACTUAL HEATING LOAD HOURS (HLH_A) AND REGIONAL HEATING LOAD HOURS (HLH_R) FOR THE UNITED STATES



Alaska 3500 HLH
 Hawaii and 0 HLH
 Territories

REGION HEATING LOAD HOURS

Region	HLH _R
I	750
II	1250
III	1750
IV	2250
V	2750
VI	2750

This map is reasonably accurate for the most parts of the United States but is necessarily highly generalized and consequently not too accurate in mountainous reagoins, particularly the Rockies

**Bard Manufacturing Company
GSVS241-A**

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	10	15	20	Heating load hours (750)		
\$.05	24	35	45			
\$.07	34	49	63			
\$.09	43	63	81			
\$.11	53	76	99			
\$.13	62	90	117			
\$.15	72	104	135			
\$ Cost based on Region I						

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	20	25	30	35	40	Heating load hours (2250)		
\$.05	142	172	206	248	302			
\$.07	198	241	288	347	422			
\$.09	255	310	370	447	542			
\$.11	311	379	452	546	663			
\$.13	368	447	534	645	783			
\$.15	424	516	616	744	904			
\$ Cost based on Region IV								

Heat Loss (1000 BTU/Hr)	15	20	25	Heating load hours (1250)		
\$.05	58	75	92			
\$.07	81	105	129			
\$.09	104	135	165			
\$.11	128	165	202			
\$.13	151	194	238			
\$.15	174	224	275			
\$ Cost based on Region II						

Heat Loss (1000 BTU/Hr)	20	25	30	35	40	Heating load hours (2750)		
\$.05	221	271	319	374	442			
\$.07	309	379	447	523	618			
\$.09	397	487	575	673	794			
\$.11	485	595	702	822	971			
\$.13	573	704	830	971	1147			
\$.15	662	812	957	1121	1324			
\$ Cost based on Region V								

Heat Loss (1000 BTU/Hr)	15	20	25	30	Heating load hours (1750)		
\$.05	82	106	130	156			
\$.07	115	148	181	218			
\$.09	147	191	233	280			
\$.11	180	233	285	342			
\$.13	213	275	336	404			
\$.15	245	317	388	466			
\$ Cost based on Region III							

**Bard Manufacturing Company
GSVS301-A**

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	Heating load hours (750)				
	10	15	20	25	30
\$.05	26	37	48	59	
\$.07	36	52	67	82	
\$.09	46	67	86	105	
\$.11	56	81	105	129	
\$.13	66	96	124	152	
\$.15	76	111	143	175	

Heat Loss (1000 BTU/Hr)	Heating load hours (2250)					
	25	30	35	40	50	60
\$.05	184	216	249	286	387	
\$.07	258	302	348	400	541	
\$.09	331	389	447	515	696	
\$.11	405	475	546	629	850	
\$.13	478	561	645	743	1005	
\$.15	552	647	745	857	1159	

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	Heating load hours (1250)				
	15	20	25	30	40
\$.05	62	80	98	115	
\$.07	86	112	137	161	
\$.09	111	144	176	207	
\$.11	136	176	214	253	
\$.13	160	208	253	298	
\$.15	185	240	292	344	

Heat Loss (1000 BTU/Hr)	Heating load hours (2750)					
	30	35	40	50	60	60
\$.05	336	386	436	563	734	
\$.07	470	540	610	789	1028	
\$.09	604	694	785	1014	1321	
\$.11	738	848	959	1239	1615	
\$.13	872	1002	1133	1464	1908	
\$.15	1006	1157	1307	1689	2202	

Heat Loss (1000 BTU/Hr)	Heating load hours (1750)				
	20	25	30	35	40
\$.05	113	138	163	188	217
\$.07	158	193	227	263	303
\$.09	203	248	292	338	389
\$.11	249	303	357	413	476
\$.13	294	358	422	488	562
\$.15	339	413	487	563	649

\$ Cost based on Region III Heating load hours (1750)

Bard Manufacturing Company
GSVS361-A

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	15	20	25		
	\$.05	36	47	57	
\$.07	51	66	80		
\$.09	65	84	103		
\$.11	79	103	126		
\$.13	94	122	149		
\$.15	108	140	171		

\$ Cost based on Region I Heating load hours (750)

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	30	35	40	50	60
	\$.05	213	243	275	355
\$.07	298	341	385	496	649
\$.09	383	438	494	638	834
\$.11	467	535	604	779	1020
\$.13	552	632	714	921	1205
\$.15	637	729	824	1063	1390

\$ Cost based on Region IV Heating load hours (2250)

Heat Loss (1000 BTU/Hr)	20	25	30	35	
	\$.05	79	96	113	130
\$.07	110	134	157	181	
\$.09	141	172	202	233	
\$.11	172	210	247	284	
\$.13	203	249	292	336	
\$.15	235	287	337	388	

\$ Cost based on Region II Heating load hours (1250)

Heat Loss (1000 BTU/Hr)	30	35	40	50	60
	\$.05	332	382	431	535
\$.07	464	534	603	748	943
\$.09	596	687	776	962	1213
\$.11	729	840	948	1176	1482
\$.13	861	992	1120	1390	1751
\$.15	994	1145	1292	1603	2021

\$ Cost based on Region V Heating load hours (2750)

Heat Loss (1000 BTU/Hr)	25	30	35	40	50
	\$.05	135	159	183	208
\$.07	189	223	256	291	375
\$.09	243	286	329	373	482
\$.11	297	350	402	456	589
\$.13	351	413	475	539	696
\$.15	405	477	548	622	803

\$ Cost based on Region III Heating load hours (1750)

**Bard Manufacturing Company
GSVS421-A**

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	15	20	25	30
\$.05	43	56	68	80
\$.07	60	78	95	112
\$.09	77	100	122	144
\$.11	94	122	149	176
\$.13	111	144	176	208
\$.15	128	166	204	239
\$ Cost based on Region I Heating load hours (750)				
Cost Per KWH				

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	30	35	40	50	60
\$.05	251	287	323	400	498
\$.07	351	402	452	559	697
\$.09	451	517	581	719	897
\$.11	551	632	710	879	1096
\$.13	651	746	839	1038	1295
\$.15	751	861	968	1198	1494
\$ Cost based on Region IV Heating load hours (2250)					
Cost Per KWH					

Heat Loss (1000 BTU/Hr)	20	25	30	35	40
\$.05	93	114	134	153	173
\$.07	130	159	187	215	242
\$.09	167	205	241	276	311
\$.11	204	250	294	337	380
\$.13	241	295	347	398	449
\$.15	278	341	401	459	519
\$ Cost based on Region II Heating load hours (1250)					
Cost Per KWH					

Heat Loss (1000 BTU/Hr)	35	40	50	60	70
\$.05	430	486	594	719	877
\$.07	602	680	831	1006	1227
\$.09	774	874	1069	1293	1577
\$.11	946	1068	1306	1580	1928
\$.13	1118	1262	1544	1868	2278
\$.15	1290	1457	1781	2155	2629
\$ Cost based on Region V Heating load hours (2750)					
Cost Per KWH					

Heat Loss (1000 BTU/Hr)	25	30	35	40	50
\$.05	161	189	217	244	304
\$.07	225	265	303	342	425
\$.09	289	340	390	440	547
\$.11	353	416	476	537	668
\$.13	417	491	563	635	790
\$.15	481	566	649	732	911
\$ Cost based on Region III Heating load hours (1750)					
Cost Per KWH					

**Bard Manufacturing Company
WPV48C**

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	20	25	30	35	40
	66	80	95	109	123
	92	112	133	152	171
Cost Per KWH	118	144	170	196	220
	144	176	208	239	269
	170	208	246	282	318
	196	240	284	326	367
\$ Cost based on Region I Heating load hours (750)					

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	40	50	60	70	80
	382	464	546	640	752
	534	650	765	896	1052
Cost Per KWH	686	836	983	1152	1353
	839	1021	1201	1407	1653
	991	1207	1420	1663	1954
	1144	1392	1638	1919	2255
\$ Cost based on Region IV Heating load hours (2250)					

Heat Loss (1000 BTU/Hr)	25	30	35	40	50
	134	159	182	205	250
	188	222	255	287	350
Cost Per KWH	241	285	328	369	449
	295	348	400	451	549
	348	412	473	532	649
	402	475	546	614	748
\$ Cost based on Region II Heating load hours (1250)					

Heat Loss (1000 BTU/Hr)	50	60	70	80	90
	675	795	915	1056	1220
	944	1113	1280	1478	1708
Cost Per KWH	1214	1430	1646	1900	2196
	1484	1748	2012	2322	2683
	1753	2066	2377	2744	3171
	2023	2384	2743	3166	3659
\$ Cost based on Region V Heating load hours (2750)					

Heat Loss (1000 BTU/Hr)	35	40	50	60	70
	257	290	353	417	488
	360	405	494	584	683
Cost Per KWH	462	521	635	751	877
	565	636	775	917	1072
	667	752	916	1084	1267
	770	868	1057	1251	1462
\$ Cost based on Region III Heating load hours (1750)					

**Bard Manufacturing Company
WPV60C**

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	25	30	35	40	50
\$.05	84	99	114	129	157
\$.07	118	139	160	180	220
\$.09	151	178	205	231	282
\$.11	184	218	251	283	345
\$.13	218	258	296	334	408
\$.15	251	297	342	385	470
\$ Cost based on Region I Heating load hours (750)					

Heat Loss (1000 BTU/Hr)	30	35	40	50	60
\$.05	166	191	215	262	309
\$.07	232	267	301	367	432
\$.09	298	343	387	472	555
\$.11	365	420	473	577	679
\$.13	431	496	559	681	802
\$.15	497	572	645	786	925
\$ Cost based on Region II Heating load hours (1250)					

Heat Loss (1000 BTU/Hr)	40	50	60	70	80
\$.05	304	371	436	503	576
\$.07	425	519	610	703	806
\$.09	547	667	784	904	1036
\$.11	668	815	958	1105	1266
\$.13	789	963	1133	1306	1496
\$.15	911	1111	1307	1507	1727
\$ Cost based on Region III Heating load hours (1750)					

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	60	70	80	90	100
\$.05	572	657	755	867	994
\$.07	801	920	1057	1214	1392
\$.09	1030	1183	1358	1560	1789
\$.11	1258	1446	1660	1907	2186
\$.13	1487	1709	1962	2254	2584
\$.15	1716	1971	2264	2600	2981
\$ Cost based on Region IV Heating load hours (2250)					

Heat Loss (1000 BTU/Hr)	60	70	80	90	100
\$.05	826	949	1071	1213	1375
\$.07	1157	1328	1500	1698	1925
\$.09	1487	1707	1928	2183	2475
\$.11	1817	2086	2357	2668	3025
\$.13	2148	2466	2785	3153	3575
\$.15	2478	2845	3213	3638	4124
\$ Cost based on Region V Heating load hours (2750)					

**Bard Manufacturing Company
WPV60C**

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	25	30	35	40	50
\$.05	84	99	114	129	157
\$.07	118	139	160	180	220
\$.09	151	178	205	231	282
\$.11	184	218	251	283	345
\$.13	218	258	296	334	408
\$.15	251	297	342	385	470
\$ Cost based on Region I (1) Heating load hours (750)					

Estimated Dollars Per Year to Operate

Heat Loss (1000 BTU/Hr)	60	70	80	90	100
\$.05	572	657	755	867	994
\$.07	801	920	1057	1214	1392
\$.09	1030	1183	1358	1560	1789
\$.11	1258	1446	1660	1907	2186
\$.13	1487	1709	1962	2254	2584
\$.15	1716	1971	2264	2600	2981
\$ Cost based on Region IV (1) Heating load hours (2250)					

Heat Loss (1000 BTU/Hr)	30	35	40	50	60
\$.05	166	191	215	262	309
\$.07	232	267	301	367	432
\$.09	298	343	387	472	555
\$.11	365	420	473	577	679
\$.13	431	496	559	681	802
\$.15	497	572	645	786	925
\$ Cost based on Region II (1) Heating load hours (1250)					

Heat Loss (1000 BTU/Hr)	60	70	80	90	100
\$.05	826	949	1071	1213	1375
\$.07	1157	1328	1500	1698	1925
\$.09	1487	1707	1928	2183	2475
\$.11	1817	2086	2357	2668	3025
\$.13	2148	2466	2785	3153	3575
\$.15	2478	2845	3213	3638	4124
\$ Cost based on Region V (1) Heating load hours (2750)					

Heat Loss (1000 BTU/Hr)	40	50	60	70	80
\$.05	304	371	436	503	576
\$.07	425	519	610	703	806
\$.09	547	667	784	904	1036
\$.11	668	815	958	1105	1266
\$.13	789	963	1133	1306	1496
\$.15	911	1111	1307	1507	1727
\$ Cost based on Region III (1) Heating load hours (1750)					

Heat Loss (1000 BTU/Hr)	30	35	40	50	60
\$.05	365	420	474	578	679
\$.07	511	588	663	808	950
\$.09	657	756	853	1039	1222
\$.11	803	924	1042	1270	1493
\$.13	949	1092	1232	1501	1764
\$.15	1095	1260	1421	1732	2036
\$ Cost based on Region VI (1) Heating load hours (2750)					

