Air Source Heat Pump - Supplemental Heat: Electric

Efficiency Range: Lower

Heating Season - Average Cost

Heat Pump HSPF: 7.7	Supplemental Heat: 100% Efficient				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08
Heat Pump	$275	$343	$411	$480	$549
Supplemental Heat	$155	$194	$232	$271	$310
Estimated Space Heating Cost	$429	$536	$644	$751	$858

Cooling Season - Average Cost

Heat Pump SEER: 13					
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12
Estimated Space Cooling Costs	$148	$167	$185	$204	$222
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

3/1/2010

Air Source Heat Pump - Supplemental Heat: Electric

Efficiency Range: Medium

Heating Season - Average Cost

Heat Pump HSPF: 8.5	Supplemental Heat: 100% Efficient				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08
Heat Pump	$249	$310	$373	$435	$497
Supplemental Heat	$155	$194	$232	$271	$310
Estimated Space Heating Cost	$403	$504	$605	$706	$806

Cooling Season - Average Cost

Heat Pump SEER: 15					
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12
Estimated Space Cooling Costs	$128	$145	$161	$177	$193
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

3/1/2010

Air Source Heat Pump - Supplemental Heat: Electric

Efficiency Range: Higher

Heating Season - Average Cost

Heat Pump HSPF: 9.4	Supplemental Heat: 100% Efficient				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08
Heat Pump	$225	$281	$337	$393	$449
Supplemental Heat	$155	$194	$232	$271	$310
Estimated Space Heating Cost	$380	$474	$569	$664	$759

Cooling Season - Average Cost

Heat Pump SEER: 16					
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12
Estimated Space Cooling Costs	$121	$136	$151	$166	$181
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

3/1/2010

Air Source Heat Pump - Supplemental Heat : Natural Gas

Efficiency Range: Lower

Heating Season - Average Cost

Heat Pump HSPF: 7.7						Supplemental Heat: 80% AFUE Rating				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08					
Natural Gas Cost $ / Therm							$0.40	$0.50	$0.60	$0.80	$1.00
Heat Pump	$275	$343	$411	$480	$549					
Supplemental Heat							$66	$83	$99	$132	$165
Estimated Space Heating Cost	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet		Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

Cooling Season - Average Cost

Heat Pump SEER: 13										
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12					
Estimated Space Cooling Costs	$148	$167	$185	$204	$222					
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet					

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

3/1/2010

Air Source Heat Pump - Supplemental Heat : Natural Gas

Efficiency Range: Medium

Heating Season - Average Cost

	Heat Pump HSPF: 8.5						Supplemental Heat: 90% AFUE Rating				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08						
Natural Gas Cost $ / Therm							$0.40	$0.50	$0.60	$0.80	$1.00
Heat Pump	$249	$310	$373	$435	$497						
Supplemental Heat							$59	$73	$88	$117	$147
Estimated Space Heating Cost	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet		Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

Cooling Season - Average Cost

	Heat Pump SEER: 15										
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12						
Estimated Space Cooling Costs	$128	$145	$161	$177	$193						
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet						

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

3/1/2010

Air Source Heat Pump - Supplemental Heat : Natural Gas

Efficiency Range: Higher

Heating Season - Average Cost

	Heat Pump HSPF: 9.4						Supplemental Heat: 95% AFUE Rating				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08						
Natural Gas Cost $ / Therm							$0.40	$0.50	$0.60	$0.80	$1.00
Heat Pump	$225	$281	$337	$393	$449						
Supplemental Heat							$56	$69	$83	$111	$139
Estimated Space Heating Cost	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet		Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

Cooling Season - Average Cost

	Heat Pump SEER: 16										
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12						
Estimated Space Cooling Costs	$121	$136	$151	$166	$181						
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet						

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

3/1/2010

Air Source Heat Pump - Supplemental Heat: Propane Gas

Efficiency Range: Lower

Heating Season - Average Cost

Heat Pump HSPF: 7.7						Supplemental Heat: 80% AFUE Rating				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08					
Propane Cost $ / Gal							$1.10	$1.30	$1.60	$1.80	$2.00
Heat Pump	$275	$343	$411	$480	$549					
Supplemental Heat							$199	$236	$290	$326	$363
Estimated Space Heating Cost	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet		Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

Cooling Season - Average Cost

Heat Pump SEER: 13										
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12					
Estimated Space Cooling Costs	$148	$167	$185	$204	$222					
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet					

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

7/1/2010

Air Source Heat Pump - Supplemental Heat: Propane Gas

Efficiency Range: Medium

Heating Season - Average Cost

	Heat Pump HSPF: 8.5						Supplemental Heat: 90% AFUE Rating				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08						
Propane Cost $ / Gal							$1.10	$1.30	$1.60	$1.80	$2.00
Heat Pump	$249	$310	$373	$435	$497						
Supplemental Heat							$177	$209	$258	$290	$322
Estimated Space Heating Cost	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet		Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

Cooling Season - Average Cost

	Heat Pump SEER: 15										
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12						
Estimated Space Cooling Costs	$128	$145	$161	$177	$193						
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet						

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

7/1/2010

Air Source Heat Pump - Supplemental Heat: Propane Gas

Efficiency Range: Higher

Heating Season - Average Cost

Heat Pump HSPF: 9.4							Supplemental Heat: 95% AFUE Rating				
Electric Cost $ / kWh	$0.04	$0.05	$0.06	$0.07	$0.08						
Propane Cost $ / Gal							$1.10	$1.30	$1.60	$1.80	$2.00
Heat Pump	$225	$281	$337	$393	$449						
Supplemental Heat							$168	$199	$244	$275	$305
Estimated Space Heating Cost	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet		Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet

Cooling Season - Average Cost

Heat Pump SEER: 16											
Electric Cost $ / kWh	$0.08	$0.09	$0.10	$0.11	$0.12						
Estimated Space Cooling Costs	$121	$136	$151	$166	$181						
Average Annual Operating Costs	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet	Calculate on Worksheet						

1. Space heating estimates reflect that the heat pump will supply approximately 80% of all space heating requirements.

7/1/2010