

HOT2000

Natural Resources CANADA
Version 11.10



File: MyHouse.h2k
House

Weather Library: C:\HOT2000 v11.10b20288\Dat\Wth2020.dir
Weather Data for: TORONTO CITY CENTRE, ONTARIO

Builder Code:

Data Entry by:
Date of entry: 10/27/2022

Company:

Client name: ,
Street address:
City: TORONTO CITY CENTRE **Region:** ONTARIO
Postal code: **Telephone:**

GENERAL HOUSE CHARACTERISTICS

House type: Single Detached
Number of storeys: Two storeys
Plan shape:
Front orientation: East
Year House Built: 1966

Wall colour: Red **Absorptivity:** 0.74
Roof colour: Blue **Absorptivity:** 0.51

Soil Condition: Normal conductivity (dry sand, loam, clay)

Water Table Level: Normal (7-10m/23-33ft)

House Thermal Mass Level: (C) Heavy, masonry

Effective mass fraction 1.000

Occupants :
2 Adults for 90.0% of the time
1 Children for 50.0% of the time
0 Infants for 0.0% of the time

Sensible Internal Heat Gain From Occupants: 3.28 kWh/day

HOUSE TEMPERATURES

Heating Temperatures

Main Floor	Daytime Setpoint:	71.6 °F
	Nighttime Setpoint:	69.0 °F
	Nighttime Setback Duration:	8.0 Hours
	24 Hour Average:	70.7 °F
Basement	Setpoint:	66.2 °F
	TEMP. Rise from 70.7 °F:	9.9 °F

**Cooling Temperature: Main Floor + 75.00 °F
Basement:**

Basement is- Heated:Yes Cooled: Yes **Separate T/S: No**
Fraction of internal gains released in basement : 0.150

Indoor design temperatures for equipment sizing

Heating:	71.6 °F
Cooling:	75.2 °F

WINDOW CHARACTERISTICS

Label	Location	#	Overhang Width (ft)	Header Height (ft)	Tilt deg	Curtain Factor	Shutter (R)
South							
Kitchen Window S	Ceiling01	1	1.35	8.26	90.0	1.00	0.00
Bathroom	Second level	1	1.35	0.66	90.0	1.00	0.00
South0003	Foundation - 1	1	1.35	16.26	90.0	1.00	0.00
South0004	Foundation - 1	1	1.35	16.26	90.0	1.00	0.00
Kitchen S	Main floor	1	1.35	8.26	90.0	1.00	0.00
East							
Living E	Main floor	1	1.35	8.26	90.0	1.00	0.00
Playroom E	Main floor	1	1.35	8.26	90.0	1.00	0.00
Master 1	Second level	1	1.35	0.66	90.0	1.00	0.00
Bedroom2 1	Second level	1	1.35	0.66	90.0	1.00	0.00
Bedroom2 2	Second level	1	1.35	0.66	90.0	1.00	0.00
Master 2	Second level	1	1.35	0.66	90.0	1.00	0.00
West							
Kitchen W	Main floor	1	1.35	8.26	90.0	1.00	0.00

Bedroom3	Foundation - 1	1	1.35	0.66	90.0	1.00	0.00
Bedroom4	Second level	1	1.35	0.66	90.0	1.00	0.00
Master 2	Entrance Door	1	1.35	0.66	90.0	1.00	0.00
West0007	Foundation - 1	1	1.35	16.26	90.0	1.00	0.00
Dining W	Main floor	1	1.35	8.26	90.0	1.00	0.00
Bedroom3	Second level	1	1.35	0.66	90.0	1.00	0.00

Label	Type	#	Window Width (ft)	Window Height (ft)	Total Area (ft²)	Window R	SHGC	ER*
South								
Kitchen Window S	200004	1	3.92	2.75	10.77	1.929	0.6446	65.5
Bathroom	200004	1	1.92	3.00	5.75	1.904	0.6030	62.7
South0003	202002	1	1.11	0.97	1.08	1.741	0.4332	49.0
South0004	202002	1	1.11	0.97	1.08	1.741	0.4332	49.0
Kitchen S	200004	1	3.92	2.75	10.77	1.929	0.6446	65.5
East								
Living E	200004	1	8.00	5.00	40.00	1.968	0.6982	69.1
Playroom E	200032	1	8.00	5.00	40.00	2.000	0.6927	69.0
Master 1	200004	1	2.92	3.58	10.45	1.929	0.6442	65.5
Bedroom2 1	200004	1	2.92	3.58	10.45	1.929	0.6442	65.5
Bedroom2 2	200004	1	2.92	3.58	10.45	1.929	0.6442	65.5
Master 2	200004	1	2.92	3.58	10.45	1.929	0.6442	65.5
West								
Kitchen W	200004	1	3.92	2.75	10.77	1.929	0.6446	65.5
Bedroom3	200004	1	4.92	2.83	13.93	1.936	0.6557	66.3
Bedroom4	200004	1	4.92	2.83	13.93	1.936	0.6557	66.3
Master 2	200004	1	4.92	2.83	13.93	1.936	0.6557	66.3
West0007	202002	1	1.11	0.97	1.08	1.741	0.4332	49.0
Dining W	200032	1	4.67	4.33	20.22	1.992	0.6649	67.2
Bedroom3	200004	1	4.92	2.83	13.93	1.936	0.6557	66.3

*ER Window Energy Rating (ER 2009) estimated for actual dimensions, and Air tightness type: CSA - A1;
Leakage rate = 1.86 L/s.m²

Above grade fraction of wall area occupied by windows: 12.1 %

WINDOW CODE SCHEDULE

Name	Internal Code	Description (Glazings, Coatings, Fill, Spacer, Type, Frame)
200004	200004	Double/double with 1 coat, Clear, 13 mm Air, Metal, Picture, Vinyl, ER* = 11.5, Eff. R= 1.95
202002	202002	Double/double with 1 coat, Clear, 6 mm Air, Metal, Picture, Wood, ER* = 3.0, Eff. R= 1.72
200032	200032	Double/double with 1 coat, Clear, 13 mm Air, Metal, Semi-sash slider, Wood, ER* = 12.3, Eff. R= 1.99

* Window Standard Energy Rating (ER 2009) estimated for assumed dimensions, and Air tightness type: CSA - A1; Leakage rate = 1.86 L/s.m²

BUILDING PARAMETER DETAILS
CEILING COMPONENTS

	Construction Type	Code Type	Roof Slope	Heel Ht. (ft)	Section Area (ft²)	R. Value (R)
Ceiling01	Attic/hip	Attic28	4.000/12	0.33	738.03	25.51

CEILING CODE SCHEDULE

Name	Internal Code	Description (Structure, typ/size, Spacing, Insull, 2, Int., Sheathing, Exterior, Studs)
Attic28	2201C09000	Wood frame, 38x89 mm (2x4 in), 400 mm (16 in), RSI 4.9 (R 28) Blown mineral fibre, None, Lath & plaster, N/A, N/A, N/A

MAIN WALL COMPONENTS

Label	Lintel Type	Fac. Dir	Number of Corn.	Number of Inter.	Height (ft)	Perim. (ft)	Area (ft²)	R. Value (R)
Main floor Type: User specified	100	N/A	4	4	8.00	108.67	869.36	12.02
Second level Type: User specified	100	N/A	4	4	7.60	108.67	825.87	12.02
MW hdr-02 Type: 1800100520		N/A	4	4	0.75	108.67	81.50	11.17

WALL CODE SCHEDULE

Name	Internal Code	Description (Structure, typ/size, Spacing, Insull, 2, Int., Sheathing, Exterior, Studs)
1800100520	1800100520	Floor header, N/A, N/A, RSI 1.41 @ 64 mm (R 8 @ 2.5") batt, None, N/A, Plywood/Particle board 12.7 mm (1/2 in), Hollow metal/vinyl cladding, N/A

DOORS

Label	Type	Height (ft)	Width (ft)	Gross Area (ft²)	R. Value (R)
Entrance Door Loc: Main floor	Solid wood	6.66	2.89	19.23	2.21
Sliding Door Loc: Main floor	User specified	6.33	5.67	35.89	1.90

FOUNDATIONS

Foundation Name: Foundation - 1
Foundation Type: Basement

Volume: 5027.4 ft³

Data Type: Library **Opening to Main Floor:** 16.79 ft²

Total Wall Height: 7.25 ft **Non-Rectangular**
Depth Below Grade: 6.90 ft **Floor Perimeter:** 105.34 ft
Floor Area: 693.44 ft²

Interior wall type: 0000000 **R-value:** 7.15 R
Exterior wall type: User specified **R-Value:** 0.00 R
Number of corners : 4
Lintel type: Bsmnt Lintel
Added to slab type : N/A **R-Value:** 3.00 R
Floors Above 4231000660 **R-Value:** 4.01 R
Found.:

Exposed areas for: Foundation - 1
Exposed Perimeter: 105.34 ft

Configuration: BCIA_1
- concrete walls and floor
- interior surface of wall insulated over full-height
- top of slab fully insulated
- any first storey construction type

FOUNDATION CODE SCHEDULE

Floors Above Foundation

Name	Internal Code	Description (Structure, typ/size, Spacing, Insul1, 2, Int., Sheathing, Exterior, Drop Framing)
4231000660	4231000660	Wood frame, 38x235 mm (2x10 in), 400 mm (16 in), None, None, None, Plywood/Particle board 15.5 mm (5/8 in), Wood, No

FOUNDATION FLOOR HEADER COMPONENTS

Label	Lintel Type	Fac. Dir	Number of Corn.	Number of Inter.	Height (ft)	Perim. (ft)	Area (ft ²)	R. Value (R)
BW hdr-01 (Location:Foundation - 1) Type: 0000000000	N/A	N/A	4	4	0.75	105.33	79.48	12.02

Lintel Code Schedule

Name	Code	Description (Type, Material, Insulation)
100	100	Double, Wood, None
Bsmnt Lintel	100	Double, Wood, None

ROOF CAVITY INPUTS

Gable Ends		Total Area:	0.00 ft ²
Sheathing Material	Plywood/Part. bd 9.5 mm (3/8 in)		0.47 R
Exterior Material:	Hollow metal/vinyl cladding		0.62 R
Sloped Roof		Total Area:	777.94 ft ²
Sheathing Material	Plywood/Part. bd 12.7 mm (1/2 in)		0.63 R
Exterior Material:	Asphalt shingles		0.44 R
Total Cavity Volume:	1670.7 ft ³	Ventilation Rate:	0.50 ACH/hr

BUILDING ASSEMBLY DETAILS

Label	Construction Code	Nominal (R)	System (R)	Effective (R)
CEILING COMPONENTS				
Ceiling01	Attic28	28.21	29.36	25.51
MAIN WALL COMPONENTS				
MW hdr-02	1800100520	8.01	11.17	11.17
FLOORS ABOVE BASEMENTS				
Foundation - 1	4231000660	0.00	4.01	4.01

BUILDING PARAMETERS SUMMARY
ZONE 1 : Above Grade

Component	Area ft ² Gross	Area ft ² Net	Effective (R)	Heat Loss Mil.BTU	% Annual Heat Loss
Ceiling	738.03	727.26	25.51	4.31	4.87
Main Walls	1776.73	1524.43	11.97	21.69	24.49
Doors	55.12	41.19	1.94	4.29	4.84
South Windows	27.29	27.29	1.92	2.86	3.23
East Windows	121.81	121.81	1.96	12.49	14.11
West Windows	72.78	72.78	1.95	7.52	8.49
ZONE 1 Totals:				53.16	60.04

INTER-ZONE Heat Transfer : Floors Above Basement

Area ft ² Gross	Area ft ² Net	Effective (R)	Heat Loss Mil.BTU
693.44	693.44	4.007	4.33

ZONE 2 : Basement

Component	Area ft ² Gross	Area ft ² Net	Effective (R)	Heat Loss Mil.BTU	% Annual Heat Loss
Walls above grade	36.87	19.71	-	0.65	0.73
South windows	2.15	2.15	1.74	0.23	0.26
West windows	15.01	15.01	1.92	1.47	1.66
Basement floor header	79.48	79.48	12.02	1.55	1.75
Below grade foundation	1420.27	1420.27	-	12.75	14.40
ZONE 2 Totals:				16.65	18.81

Air Leakage and Mechanical Ventilation

House	Air Change	Heat Loss	% Annual
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Volume		Mil.BTU	Heat Loss
17620.91 ft ³	0.228 ACH	18.734	21.16

AIR LEAKAGE AND MECHANICAL VENTILATION

Building Envelope Surface Area: 4051.38 ft²

Air Leakage Test Results at 50 Pa. 4.39 ACH
(0.2 in H₂O) =

Equivalent Leakage Area @ 10 Pa 126.80 L/s
=

Terrain Description			Height (ft)
@ Weather Station :	Open flat terrain, grass	Anemometer:	32.8
@ Building site :	Suburban, forest	Height of the highest ceiling:	19.5

Local Shielding:

Walls: Heavy

Flue : Light

Leakage Fractions-

Ceiling: 0.200

Walls: 0.650

Floors: 0.150

Normalized Leakage Area @ 10 Pa: 0.0313 in²/ft²

Estimated Airflow to cause a 5 Pa 276 cfm

Pressure Difference:

Estimated Airflow to cause a 10 Pa 432 cfm

Pressure Difference:

F326 VENTILATION REQUIREMENTS

Kitchen, Living Room, Dining Room	3 rooms @ 2.4 cfm: 31.8 cfm
Utility Room	1 rooms @ 2.4 cfm: 10.6 cfm
Bedroom	1 rooms @ 4.7 cfm: 21.2 cfm
Bedroom	2 rooms @ 10.6 cfm: 21.2 cfm
Bathroom	2 rooms @ 2.4 cfm: 21.2 cfm
Other	2 rooms @ 2.4 cfm: 21.2 cfm
Basement Rooms	0.0 cfm

SECONDARY FANS & OTHER EXHAUST APPLIANCES

Control	Supply (cfm)	Exhaust (cfm)
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Other Fans	Continuous	0.00	0.00
Dryer	Continuous	-	3.16

Dryer is vented outdoors

Rated Fan Power 0.00 Watts

NEW ERS VENTILATION DATA

Whole House Systems

Air Distribution/circulation type: Forced air heating ductwork
Air Distribution/circulation fan power: 0.00 Watts
Operation schedule: 480.00 min/day

Supplementary Systems

System # 1 Type: Dryer
Manufacturer:
Model:
Airflow Supply Rate: 0.00 **Exhaust:** 80.52 cfm **Fan Power:** 0.00 Watts
 cfm
Operation schedule: 56.53 min/day

AIR LEAKAGE AND MECHANICAL VENTILATION SUMMARY

F326 Required continous ventilation: 127.133 cfm (0.43 ACH)
Other Continuous Supply Flow Rates: 0.000 cfm (0.00 ACH)
Other Continuous Exhaust Flow Rates: 0.000 cfm (0.00 ACH)
Total house ventilation is Balanced
Gross Air Leakage and Mechanical Ventilation Energy Load: 18.007 Mil.BTU
Seasonal Heat Recovery Ventilator Efficiency: 0.000 %
Estimated Ventilation Electrical Load: 0.000 Mil.BTU
Heating Hours:
Estimated Ventilation Electrical Load: 0.000 Mil.BTU
Non-Heating Hours:
Net Air Leakage and Mechanical Ventilation Load: 18.734 Mil.BTU

SPACE HEATING SYSTEM

PRIMARY Heating Fuel: Natural Gas
Equipment: Furnace/Boiler with spark ignition
Manufacturer: Wizard SPH man
Model: Lennox G26
Specified Output Capacity: 49999.68 BTU/h
Steady State Efficiency: 92.00 %
Fan Mode: Auto
ECM Motor: No
Low Speed Fan Power: 0 watts
High Speed Fan Power: 284 watts
Flue Diameter: 5.00 In

AIR CONDITIONING SYSTEM

System Type: Central split system
Manufacturer: Wizard A/C man
Model: Wizard A/C mod
Capacity: 24000 BTU/hr
SEER 8.00 **Rated COP** 2.348
Sensible Heat Ratio: 0.76
Indoor Fan Flow Rate: 873.03 RSI **Fan Power (watts)** 319.32
Ventilator Flow Rate: 0.00 RSI **Crankcase Heater Power (watts):** 60.00
Fraction of windows Openable: 0.000 **ECM Motor:** No
Cooling system capacity sizing factor: 1.000
Economizer control: N/A **Indoor Fan Operation:** Auto

Air Conditioner is integrated with the Heating System

DOMESTIC WATER HEATING SYSTEM

PRIMARY Water Heating Fuel: Natural gas
Water Heating Equipment: Conventional tank
Energy Factor: 0.554
Manufacturer: Wizard DHW man
Model: Wizard DHW mod

Tank Capacity:	40.0 U.S.Gal	Tank Blanket Insulation:	0.0 R
Tank Location:	Basement		
Pilot Energy :	0.0 BTU/h	Flue Diameter:	3.0 In

ANNUAL DOMESTIC WATER HEATING SUMMARY

Daily Hot Water Consumption:	49.8 U.S.Gal
Hot Water Temperature:	131.0 °F
Estimated Domestic Water Heating Load:	12.378 Mil.BTU

Primary Domestic Water Heating Energy Consumption:	23.332 Mil.BTU
Primary System Seasonal Efficiency:	53.1%

ANNUAL SPACE HEATING SUMMARY

Gross Space Heat Loss:	88.550 Mil.BTU
Gross Space Heating Load:	85.730 Mil.BTU
Usable Internal Gains:	24.121 Mil.BTU
Usable Internal Gains Fraction:	27.2 %
Usable Solar Gains:	18.776 Mil.BTU
Usable Solar Gains Fraction:	21.2 %
Auxiliary Energy Required:	42.845 Mil.BTU
Space Heating System Load:	42.845 Mil.BTU
Furnace/Boiler Seasonal efficiency:	80.5 %
Furnace/Boiler Annual Energy Consumption:	50.708 Mil.BTU

DESIGN SPACE HEATING AND COOLING LOADS

Design Heat Loss* at 2.7 °F (2.09 BTU/h / Ft³):	36821 BTU/h
Design Cooling Load* for July at (83.3 ° F):	19130 BTU/h

* Please refer to notes at the end of this report.

ANNUAL SPACE COOLING SUMMARY

Design Sensible Heat Ratio: 0.769
Estimated Annual Space Cooling Energy: 2963.42 kWh
Seasonal COP (January to December): 1.877

BASE LOADS SUMMARY

	kwh/day	Annual kWh
Interior Lighting	2.60	949.00
Appliances	6.30	2299.40
Other	9.70	3540.50
Exterior Use	0.90	328.50
HVAC Fans		
HRV/Exhaust	0.00	0.00
Space Heating	0.65	238.96
Space Cooling	0.84	307.65
Total Average Electrical Load	21.00	7664.02

FAN OPERATION SUMMARY (kWh)

Hours	HRV/Exhaust Fans	Space Heating	Space Cooling
Heating	0.0	239.0	0.0
Neither	0.0	0.0	0.0
Cooling	0.0	0.0	307.7
Total	0.0	239.0	

ENERGY CONSUMPTION SUMMARY REPORT

Estimated Annual Space Heating Energy Consumption	= 54360.02 MJ	= 15100.01 kWh
Ventilator Electrical Consumption: Heating Hours	= 0.00 MJ	= 0.00 kWh
Estimated Annual DHW Heating Energy Consumption	= 24616.25 MJ	= 6837.85 kWh
ESTIMATED ANNUAL SPACE + DHW ENERGY CONSUMPTION	= 78976.27 MJ	= 21937.85 kWh
Estimated Greenhouse Gas Emissions	12.342 tonnes/year	

ESTIMATED ANNUAL FUEL CONSUMPTION SUMMARY

Fuel	Space Heating	Space Cooling	DHW Heating	Baseloads	Ventilation	Total
Natural Gas (MCF)	50.7	0.0	23.3	0.0	0.0	74.0
Electricity (kWh)	239.0	2963.4	0.0	7117.4	0.0	10319.8

ESTIMATED ANNUAL FUEL CONSUMPTION COSTS

Fuel Costs Library = Embedded

RATE	Electricity (Ottawa97)	Natural Gas (Ottawa08)	Oil (Ottawa08)	Propane (Ottawa08)	Wood (Sth Ont)	Total
\$	933.55	1268.29	0.00	0.00	0.00	2201.84

Fuel Costs Library Listing

Filename = Embedded

Record # 1	Fuel: Electricity		
Rate ID = Ottawa97	Hydro Rate Block		
Rate Block		Dollars	Charge
	kWhr	Per kWhr	(\$)
Minimum	0.0		10.000
1	250.0	0.0999	
2	99999.0	0.0702	

Record # 2

Fuel: Natural Gas

Rate ID = Ottawa08

Gas Rate Block

Rate Block		Dollars	Charge
	m3	Per m3	(\$)
Minimum	0.0		14.000
1	30.0	0.5338	
2	85.0	0.5277	
3	170.0	0.5229	
4	99999.0	0.5194	

Record # 3

Fuel: Oil

Rate ID = Ottawa08

Oil Rate Block

Rate Block		Dollars	Charge
	Litre	Per Litre	(\$)
Minimum	0.0		0.000
1	99999.0	1.1750	

Record # 4

Fuel: Propane

Rate ID = Ottawa08

Propane Rate Block

Rate Block		Dollars	Charge
	Litre	Per Litre	(\$)
Minimum	0.0		0.000
1	99999.0	0.7200	

Record # 5

Fuel: Wood

Rate ID = Sth Ont

Cord Rate

Rate Block		Dollars	Charge
	Cord	Per Cord	(\$)
Minimum	0.0		0.000
1	99999.0	210.0000	

MONTHLY ENERGY PROFILE

Month	Energy Load (Mil.BTU)	Internal Gains (Mil.BTU)	Solar Gains (Mil.BTU)	Aux. Energy (Mil.BTU)	HRV Eff. %
Jan	15.454	2.690	1.947	10.817	0.0
Feb	13.457	2.426	2.597	8.434	0.0
Mar	12.118	2.688	3.500	5.929	0.0
Apr	8.291	2.610	3.173	2.508	0.0
May	3.901	1.869	2.032	0.000	0.0
Jun	2.125	1.852	0.275	0.000	0.0
Jul	0.000	0.000	0.000	0.000	0.0
Aug	0.000	0.000	0.000	0.000	0.0
Sep	2.191	1.933	0.266	0.003	0.0
Oct	6.046	2.726	2.085	1.235	0.0
Nov	9.130	2.626	1.472	5.032	0.0
Dec	13.017	2.701	1.428	8.888	0.0
Ann	85.730	24.121	18.776	42.845	0.0

FOUNDATION ENERGY PROFILE

Month	Heat Loss (Mil.BTU)				Total
	Crawl Space	Slab	Basement	Walkout	
Jan	0.000	0.000	0.359	0.000	0.359
Feb	0.000	0.000	0.280	0.000	0.280
Mar	0.000	0.000	0.197	0.000	0.197
Apr	0.000	0.000	0.083	0.000	0.083
May	0.000	0.000	0.000	0.000	0.000
Jun	0.000	0.000	0.000	0.000	0.000
Jul	0.000	0.000	0.000	0.000	0.000
Aug	0.000	0.000	0.000	0.000	0.000
Sep	0.000	0.000	0.000	0.000	0.000
Oct	0.000	0.000	0.041	0.000	0.041
Nov	0.000	0.000	0.167	0.000	0.167
Dec	0.000	0.000	0.295	0.000	0.295
Ann	0.000	0.000	1.423	0.000	1.423

FOUNDATION TEMPERATURES & VENTILATION PROFILE

Month	Temperature (Deg °F)			Air Change Rate		Heat Loss (Mil.BTU)
	Crawl Space	Basement	Walkout	Natural	Total	

Jan	0.0	67.0	0.0	0.356	0.366	3.923
Feb	0.0	66.8	0.0	0.341	0.352	3.305
Mar	0.0	67.2	0.0	0.295	0.305	2.680
Apr	0.0	68.1	0.0	0.248	0.259	1.593
May	0.0	69.7	0.0	0.172	0.183	0.731
Jun	0.0	71.5	0.0	0.119	0.130	0.239
Jul	0.0	73.0	0.0	0.094	0.105	0.077
Aug	0.0	73.2	0.0	0.093	0.104	0.068
Sep	0.0	71.9	0.0	0.125	0.135	0.265
Oct	0.0	70.1	0.0	0.199	0.210	1.008
Nov	0.0	68.9	0.0	0.257	0.267	1.802
Dec	0.0	67.7	0.0	0.322	0.332	3.044
Ann	0.0	69.6	0.0	0.218	0.228	18.734

SPACE HEATING SYSTEM PERFORMANCE

Month	Space Heating Load (Mil.BTU)	Furnace Input (Mil.BTU)	Pilot Light (Mil.BTU)	Indoor Fans (Mil.BTU)	Heat Pump Input (Mil.BTU)	Total Input (Mil.BTU)	System Cop
Jan	10.817	12.108	0.000	0.206	0.000	12.314	0.878
Feb	8.434	9.522	0.000	0.160	0.000	9.683	0.871
Mar	5.929	6.932	0.000	0.113	0.000	7.045	0.842
Apr	2.508	3.258	0.000	0.048	0.000	3.306	0.759
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Jun	0.000	0.495	0.000	0.000	0.000	0.495	0.000
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sep	0.002	0.492	0.000	0.000	0.000	0.492	0.005
Oct	1.235	1.864	0.000	0.023	0.000	1.888	0.654
Nov	5.032	5.967	0.000	0.096	0.000	6.063	0.830
Dec	8.888	10.068	0.000	0.169	0.000	10.237	0.868
Ann	42.845	50.708	0.000	0.815	0.000	51.523	0.805

AIR CONDITIONING SYSTEM PERFORMANCE

Month	Sensible Load (Mil.BTU)	Latent Load (Mil.BTU)	AirCond Energy (kWh)	Fan Energy (kWh)	Ventilator Energy (kWh)	Crankcase Heater (kWh)	Total Energy (kWh)	COP	Av.RH %
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Jan	0.000	0.000	0.0	0.0	0.0	44.6	44.6	0.0	0.0
Feb	0.000	0.000	0.0	0.0	0.0	40.3	40.3	0.0	0.0
Mar	0.009	0.001	1.3	0.2	0.0	44.3	45.8	0.1	39.7
Apr	0.058	0.003	8.1	1.1	0.0	40.6	49.8	0.4	35.4
May	1.118	0.125	154.6	21.3	0.0	19.2	195.1	1.9	40.0
Jun	3.280	0.513	462.3	61.7	0.0	1.2	525.3	2.1	42.4
Jul	4.858	0.737	685.3	89.3	0.0	0.1	774.7	2.1	41.9
Aug	4.548	0.753	650.7	84.8	0.0	0.0	735.6	2.1	42.5
Sep	2.432	0.463	359.0	47.6	0.0	4.3	410.9	2.1	44.1
Oct	0.064	0.022	12.5	1.7	0.0	39.4	53.5	0.5	48.9
Nov	0.000	0.000	0.0	0.0	0.0	43.2	43.2	0.0	0.0
Dec	0.000	0.000	0.0	0.0	0.0	44.6	44.6	0.0	0.0
Ann	16.367	2.616	2333.9	307.7	0.0	321.9	2963.4	1.9	42.4

MONTHLY ESTIMATED ENERGY CONSUMPTION BY DEVICE (Mil.BTU)

Month	Space Heating		DHW Heating		Lights & Appliances	HRV & FANS	Air Conditioner
	Primary	Secondary	Primary	Secondary			
Jan	12.108	0.000	2.134	0.000	2.063	0.206	0.152
Feb	9.522	0.000	1.948	0.000	1.863	0.160	0.138
Mar	6.932	0.000	2.131	0.000	2.063	0.113	0.156
Apr	3.258	0.000	1.996	0.000	1.996	0.052	0.166
May	0.000	0.000	2.006	0.000	2.063	0.073	0.593
Jun	0.495	0.000	1.803	0.000	1.996	0.211	1.582
Jul	0.000	0.000	1.868	0.000	2.063	0.305	2.339
Aug	0.000	0.000	1.847	0.000	2.063	0.289	2.221
Sep	0.492	0.000	1.742	0.000	1.996	0.162	1.240
Oct	1.864	0.000	1.880	0.000	2.063	0.029	0.177
Nov	5.967	0.000	1.910	0.000	1.996	0.096	0.147
Dec	10.068	0.000	2.067	0.000	2.063	0.169	0.152
Ann	50.708	0.000	23.332	0.000	24.286	1.865	9.062

ESTIMATED FUEL COSTS (Dollars)

Month	Electricity	Natural Gas	Oil	Propane	Wood	Total
Jan	67.23	224.65	0.00	0.00	0.00	291.88
Feb	61.89	183.90	0.00	0.00	0.00	245.78
Mar	65.40	148.49	0.00	0.00	0.00	213.88
Apr	62.97	92.38	0.00	0.00	0.00	155.36

May	73.55	44.15	0.00	0.00	0.00	117.70
Jun	95.36	48.54	0.00	0.00	0.00	143.90
Jul	114.24	42.10	0.00	0.00	0.00	156.34
Aug	111.50	41.78	0.00	0.00	0.00	153.28
Sep	87.34	47.57	0.00	0.00	0.00	134.91
Oct	64.10	70.04	0.00	0.00	0.00	134.14
Nov	63.49	131.05	0.00	0.00	0.00	194.54
Dec	66.47	193.66	0.00	0.00	0.00	260.14
Ann	933.55	1268.29	0.00	0.00	0.00	2201.84

The calculated heat losses and energy consumptions are only estimates, based upon the data entered and assumptions within the program. Actual energy consumption and heat losses will be influenced by construction practices, localized weather, equipment characteristics and the lifestyle of the occupants.