

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF

Paul Meade - Appeal Respecting Nova Scotia Power Incorporated Billing Dispute

RESPONSE OF THE APPLICANT TO INFORMATION REQUESTS

The Applicant, Paul Meade, provides the following responses to the Information Requests of the Nova Scotia Energy Board.

REQUEST IR-1

IR-1(A)

What kind of heat pump did you install? When was it installed?

Response:

1. The heat pump installed at our residence is a Lennox SL22KLV-060-230A02, together with a new Lennox CBK48MVT-060-230-71 air handler and Lennox S40 Smart Thermostat.
2. The complete system was installed on October 28, 2025.

IR-1(B)

Do you use the heat pump for air conditioning?

Response:

3. Yes. The Lennox system is used for both heating and air conditioning.

IR-1(C)

Why did you require an upgrade to 400 amp service?

Response:

4. Prior to the renovation, our electrical panel had begun tripping. Our electrician advised us that the existing panel was old and should be replaced.
5. Because we were also installing a new HVAC system, the electrician recommended that this would be an appropriate time to upgrade the electrical service to 400 amps, thereby providing additional capacity and "future-proofing" the home.
6. The 400-amp upgrade was therefore undertaken as part of the modernization of the home's electrical infrastructure and in anticipation of potential future electrical requirements.

IR-1(D)

What was your heating system before the heat pump was installed? Was it electric heat?

Response:

7. The house was constructed in 1987 and originally used a geothermal heating system installed when the house was built. The geothermal system exchanged heat with the water and incorporated a water-to-air system that, by 2024-2025, was old and relatively inefficient.
8. During the winter of 2024-2025, the line carrying fluid to and from the water source failed. We were initially unaware that this had occurred because the system incorporated an electric resistance coil for emergency or backup heating.
9. As a result, for approximately four months our home was effectively heated exclusively by the electric resistance backup system.

10. The effect on our electricity consumption was readily apparent. Our historical electricity consumption had generally been approximately 70 kWh/day, whereas consumption increased to approximately 150 kWh/day when the electric resistance coil became the principal source of heat.
11. This provided us with an unusual but useful real-world comparison: heating the house using an inefficient electric resistance coil approximately doubled the electricity consumption to which we had historically been accustomed.
12. We subsequently undertook substantial energy-efficiency improvements to the residence. These included insulating the basement, replacing the existing windows with triple-pane windows, and replacing the old geothermal system with the new high-efficiency Lennox heat-pump system described above.
13. Notwithstanding those improvements, the March 2026 NS Power invoice reported 21,376 kWh over 152 days, equivalent to approximately 140.6 kWh/day. The invoice was for \$4,222.15.
14. That reported consumption is particularly difficult to reconcile with our experience during the failure of the geothermal system. It suggests electricity consumption approaching the level experienced when the home was being heated principally by electric resistance heat, despite the subsequent installation of a substantially more efficient heating system and other energy-efficiency improvements.
15. The emergency electric resistance heating in the new Lennox system is designed to operate only when temperatures fall to approximately 20 below zero. Such temperatures are relatively uncommon in the Halifax area. Accordingly, the emergency resistance heating would not ordinarily be expected to operate as the home's principal source of heat.
16. The Applicant's historical consumption estimates are also generally consistent with NS Power's own historical billing records, which show substantially lower average daily consumption during numerous previous billing periods. Accordingly, the comparison with approximately 141 kWh/day in the disputed period is based not solely upon my recollection, but also upon NS Power's historical consumption records for the same residence.

IR-1(E)

Did you install/replace any appliances during the renovation?

Response:

17. No. We did not install or replace household appliances as part of the renovation.
18. The electric-vehicle charging equipment was already present and therefore did not constitute a new electrical load associated with the renovation.

IR-1(F)

Have you made any recent investments that require electricity, such as electric vehicles or hybrid cars?

Response:

19. We purchased our first electric vehicle in March 2021, when we moved into the house, and at that time installed a 32-amp home charger.
20. When we purchased our second electric vehicle in June 2024, we continued to use the same charger for both vehicles.
21. The smaller electric vehicle is ordinarily used for daily transportation. The newer vehicle is used primarily for longer trips and therefore considerably less frequently.
22. At the time of this response, the newer vehicle has accumulated approximately 22,000 kilometres over 27 months, illustrating its relatively limited use.

23. Importantly, home charging of electric vehicles has been part of the household's electricity consumption since March 2021 and therefore predates the disputed billing period by several years.
24. No additional EV charger or comparable major new electrical load was installed during the renovation that would, in our view, explain the substantial increase reflected in the March 2026 billing.
25. Accordingly, there was no new EV charging load introduced at or near the beginning of the disputed October 2025-March 2026 period. The same 32-amp charging arrangement had already been incorporated into the home's electricity consumption for approximately four and one-half years.

IR-1(G)

Please provide a copy of the February 2026 EnerGuide report.

Response:

26. A copy of the February 2026 EnerGuide report has been uploaded with this response.

REQUEST IR-2

IR-2(A)

Do you have any available documentation as to when Auto Pay was turned off?

Response:

27. NS Power's records show that I accessed the MyAccount portal on March 31, 2026.
28. Those records do not specifically state that Auto Pay was disabled during that session. I therefore do not represent them as direct documentary proof of the cancellation itself.
29. I do, however, specifically recall disabling Auto Pay at that time. After doing so, the Auto Pay indication on the MyAccount dashboard appeared greyed out, which I understood to indicate that Auto Pay had been turned off.
30. I subsequently accessed the account on two additional occasions specifically to confirm that Auto Pay remained disabled. I also showed the disabled Auto Pay status to my wife so that she could independently see that it had been turned off.
31. NS Power has stated that disabling Auto Pay after an invoice has been issued does not cancel a payment that has already been scheduled and that such a payment must be cancelled separately. I understand that NS Power has been asked to provide documentation supporting that policy.
32. If NS Power relies upon such a policy to justify the withdrawal from my bank account, I respectfully submit that it is important to establish not only what the policy currently says, but what policy and PAD terms were actually in effect when I disabled Auto Pay on March 31, 2026.
33. I therefore respectfully request that NS Power provide the version of the Auto Pay terms, PAD Agreement, policy or procedure that was in effect on March 31, 2026, together with its original creation date, effective date and any subsequent revision dates.
34. I further request the revision history, approval records, document metadata, publication records or other contemporaneous records sufficient to establish when the relevant cancellation provision was created, approved and implemented.
35. In particular, I request that NS Power identify the specific provision that it says authorized withdrawal of the \$4,222.15 after I disabled Auto Pay, and provide evidence showing that this provision was communicated or made available to me before March 31, 2026.

36. I also request confirmation as to whether the relevant Auto Pay policy, PAD Agreement, procedure or customer-facing disclosure was created, amended, clarified or otherwise revised at any time after March 31, 2026. If so, I request that NS Power identify each change and its effective date.
37. The timing is material because a policy created, amended or clarified after March 31, 2026 would not, by itself, establish the terms governing my authorization at the time I disabled Auto Pay. Contemporaneous documentation would permit the Board to determine what terms actually applied at the relevant time.
38. A copy of NS Power's records showing my access to the MyAccount portal is being provided with this response.

IR-2(B)

Did you check your bank account at the time to determine if a withdrawal had been made?

Response:

39. Yes.
40. NS Power issued the disputed bill on March 27, 2026. The bill identified an automatic payment of \$4,222.15, scheduled for late April 2026.
41. I disabled Auto Pay on March 31, 2026, well before the scheduled withdrawal date.
42. NS Power subsequently withdrew \$4,222.15 from our chequing account.
43. Following the NS Power cybersecurity incident, we had instructed our bank to notify us whenever an amount exceeding \$500 was withdrawn from our account. We therefore received notification of the disputed withdrawal.
44. The withdrawal was subsequently disputed with RBC. RBC conducted an investigation over a period of several weeks and ultimately returned the funds to our account on June 11, 2026.
45. The significance of the withdrawal is addressed more fully in my substantive submission, including the question of authorization following cancellation of Auto Pay and the PAD requirements reflected in Payments Canada Rule H1.

IR-2(C)

Please provide a scanned copy of the bank statement showing the disputed withdrawal.

Response:

46. A copy of the relevant bank statement has been uploaded with this response.

IR-2(D)

Please provide a screenshot or documentation of the IP addresses you referenced on April 28, 2026.

Response:

47. A copy of the relevant documentation has been uploaded with this response. I note that the records contain two entries associated with the IP address 127.0.0.1: a "Payment" entry at approximately 6:04 a.m. on March 31, 2026, and a "RecurringCancel" entry at approximately 6:00 a.m. on April 28, 2026.
48. I understand that 127.0.0.1 is a loopback or "localhost" address rather than the public Internet address of a customer's external Internet connection. I therefore do not understand how these entries could represent actions that I personally initiated through my residential Internet connection.
49. The times associated with these entries are also significant. I do not normally wake before approximately 8:00 a.m., and I did not access my NS Power account at 6:04 a.m. on March 31 or

6:00 a.m. on April 28. The records themselves show other customer sign-in activity later in the day using different IP addresses.

50. I specifically recall accessing MyAccount on March 31 and disabling Auto Pay. After doing so, the Auto Pay indication on my dashboard was greyed out. I subsequently checked the account on two further occasions to confirm that Auto Pay remained disabled and also showed the disabled status to my wife.
51. Of particular concern is that, when I first reviewed the account-access information approximately one month earlier, I do not recall seeing the March 31 "Payment" entry now associated with 127.0.0.1. I cannot independently establish when that record was created, and I therefore do not allege that it was deliberately backdated. However, its apparent later appearance raises a question that I believe NS Power should be required to explain.
52. I respectfully request that NS Power identify what the 127.0.0.1 address represents in its records; whether the March 31 "Payment" and April 28 "RecurringCancel" events were generated by NS Power's internal systems rather than by my customer session; when those records were actually created; whether the displayed dates and times represent the time of the underlying action or the time of a system-generated record; and why the records show a "RecurringCancel" event on April 28 when I had disabled Auto Pay on March 31.
53. These records raise a related question concerning NS Power's explanation of how Auto Pay operates. I disabled Auto Pay on March 31. The records now contain a March 31 "Payment" entry at approximately 6:04 a.m. associated with 127.0.0.1, and an April 28 "RecurringCancel" entry at approximately 6:00 a.m. associated with the same address. I did not initiate either action at those times.
54. I therefore respectfully request that NS Power explain whether these entries were generated by its internal systems, what action each entry represents, when each record was actually created, and whether the displayed date and time represent the customer's action or a subsequent system-generated event.
55. I also request that NS Power explain the relationship between these system entries and its position that the \$4,222.15 payment had already been scheduled and remained payable by automatic withdrawal notwithstanding my cancellation of Auto Pay.
56. In particular, if NS Power contends that its system automatically preserved the scheduled withdrawal after I disabled Auto Pay, I respectfully request identification of the provision of the PAD Agreement or Auto Pay terms in effect on March 31, 2026 that authorized that result.
57. I am not suggesting that the records establish that NS Power deliberately altered or backdated information. I cannot determine that from the information available to me. My concern is that the records contain entries that I do not recognize as actions I performed, at times when I was not accessing my account, and associated with an address that does not appear to represent my external Internet connection.
58. These matters should be capable of objective verification from NS Power's own system records, policy version history and PAD documentation. I therefore respectfully request that NS Power provide that information so that the Board can determine what occurred and what authorization was in effect at the relevant time.
59. NS Power's descriptions also appear to require clarification. Its July 17 submission states that Auto Pay "has remained disabled on the account since March 31, 2026." Elsewhere, NS Power states that the recurring payment cancelled on April 28 after the disputed payment had been extracted. The system record likewise contains a "RecurringCancel" event at approximately 6:00 a.m. on April 28. I respectfully request that NS Power reconcile these descriptions and identify precisely when

Auto Pay was disabled, what occurred on April 28, and whether the April 28 event was a customer-initiated action or an internally generated consequence of my March 31 instruction.

60. Because NS Power has stated that MyAccount Auto Pay transactions are processed “via KUBRA,” I also respectfully request the relevant KUBRA transaction and audit records for my account for March 27 through April 28, 2026, including timestamps and event types relating to the creation, modification, cancellation and processing of the disputed payment and recurring Auto Pay authorization.

REQUEST IR-3

IR-3(A)

Have you considered that cold winter temperatures during November to March could have caused an increase in your electricity consumption?

Response:

61. Yes. I have specifically considered winter temperatures as a potential explanation for the increase in electricity consumption.

Historical Winter Consumption

62. Historically, our electricity consumption would ordinarily increase during the winter from approximately 50-70 kWh/day to approximately 100 kWh/day, although actual consumption naturally varied between billing periods.
63. The significant exception occurred after the geothermal system failed during the winter of 2024-2025 and the house became dependent upon electric resistance backup heat. During that period, average daily electricity consumption rose dramatically.
64. This provides an important comparison because we know from actual experience approximately what happens to the home's electricity consumption when inefficient electric resistance heating becomes the principal source of heat.

Winter 2025-2026

65. The new high-efficiency Lennox heat pump was installed on October 28, 2025.
66. Despite the replacement of the failed geothermal system, the energy-efficiency renovations to the home, and the installation of the new heat pump, NS Power subsequently reported 21,376 kWh of consumption over 152 days, or approximately 140.6 kWh/day, for the period ending March 24, 2026.

Weather Conditions

67. I also examined weather conditions during the disputed period. Based upon the Environment and Climate Change Canada information I reviewed, the monthly average temperatures for the Halifax area were approximately:

Month	Average Temperature
October 2025	12.2°C
November 2025	5.2°C
December 2025	-1.5°C
January 2026	-3.2°C
February 2026	-2.5°C
March 2026	0.5°C

68. The emergency electric resistance heating in the new Lennox system is designed to operate only when temperatures fall to approximately 20 below zero. Such temperatures are relatively uncommon in the Halifax area. Accordingly, during the comparatively mild winter of 2025-2026, the emergency resistance heating would not be expected to operate as the home's principal source of heat.
69. Those temperatures do not, in my view, provide an obvious explanation for electricity consumption approaching that experienced when the home was dependent upon electric resistance heating.

Inspection of the Lennox System

70. I also took affirmative steps to determine whether the new HVAC system itself might explain the high consumption.
71. Wilson Mechanical, the company that installed the Lennox system, conducted several service inspections.
72. On each occasion, I was advised that the system was operating as expected.
73. A service technician also reviewed monthly Lennox operating information with me and advised that the heat-pump system could not, based upon those operating records, account for electricity consumption at the level reflected in the NS Power billing.
74. In addition, a Lennox Regional Technician reviewed the system to confirm its operating efficiency.

Conclusion Regarding Weather

75. I therefore do not dismiss weather as a factor. Winter temperatures plainly affect the electricity required to heat a home.
76. My concern is instead one of magnitude.
77. The question is whether winter weather can reasonably explain an average consumption of approximately 141 kWh/day after substantial efficiency improvements and installation of a modern high-efficiency heat pump, particularly when that level approaches what we experienced when the home was being heated principally by inefficient electric resistance heat.
78. In these circumstances, I respectfully submit that it remains important for NS Power to provide sufficient account-specific evidence to substantiate the reported consumption and demonstrate that the complete metering and billing process accurately measured the electricity actually consumed by our home.
79. My concern is also heightened by NS Power's acknowledgement that, when meter #2517219 was installed, it was not properly established in NS Power's Customer Information System and that this administrative error resulted in approximately five months of consumption not being billed in the ordinary course. I recognize that this administrative error does not itself establish that the meter reading was incorrect. It does, however, reinforce why I believe it is reasonable to request complete account-specific verification of the metering, data-transfer and billing process associated with the disputed 152-day invoice.

DOCUMENTS PROVIDED WITH THESE RESPONSES

Reference	Document
IR-1(G)	February 2026 EnerGuide Report
IR-2(A)	NS Power records showing MyAccount portal access
IR-2(C)	Bank statement showing disputed NS Power withdrawal

IR-2(D)	IP-address/access documentation
IR-2(D)	IP-address/access documentation, including the 127.0.0.1 entries

DECLARATION

I have answered the Board's Information Requests to the best of my knowledge and have identified where statements are based upon my recollection, records available to me, or information provided to me by service technicians.

Respectfully submitted,

Paul Meade

Date: _____

HOMEOWNER INFORMATION SHEET

ENERGUIDE

Your EnerGuide® rating and this report are based on data collected and, where necessary, presumed from your evaluation. Rating calculations are made using standard operating conditions.



Rating: 137 gigajoules per year (GJ/year)

Heated floor area: 620.7 m² (6681.2 ft²)

Rated energy intensity: 0.22 GJ/m²/year

Evaluated by: LARBI TOUMI

Quality assured by: BUILDINGEXPERT

File number: 2S6SD00501

Data collected: June 18, 2025

Year built: 1990

[NRCan.gc.ca/myenerguide](https://nrcan.gc.ca/myenerguide)

HOW YOUR RATING IS CALCULATED:

- I. Rated annual energy consumption 137 GJ/year
 II. Minus renewable energy contribution - 0 GJ/year
 Equals your **EnerGuide rating** = 137 GJ/year

I. Your rated annual energy consumption is the total amount of energy your house would use in a year based on the EnerGuide Rating System standard operating conditions. For your house, this includes 73.45 GJ of passive solar gain.

Energy Sources	Rated Consumption (GJ/year)	Equivalent Units (per year)	Greenhouse Gas Emissions (tonnes/year)
Electricity	137	38145 kWh	27.4
Total	137		27.4

II. On-site renewable power generation systems can offset some or even all of your home's energy consumption. Renewable energy contributions are factored differently for your rating and your greenhouse gas emissions calculations.¹

On-Site Renewable Energy	Estimated Contribution (GJ/year)	Equivalent Units (per year)	Offset Greenhouse Gas Emissions (tonnes/year)
Electricity	0	0 kWh	0.0
Solar water heating	0	0	0.0
Total	0		0.0

HOW YOUR CONSUMPTION COMPARES:

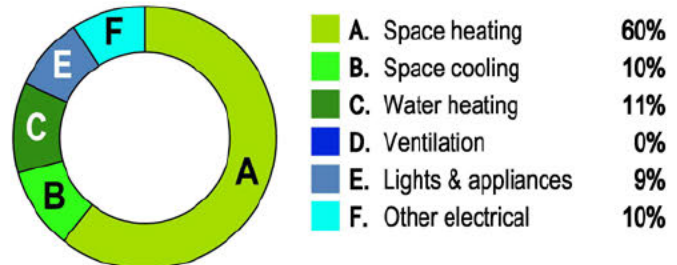
Compared to a typical new house, your house uses:

23.5% less energy;

27.3% less energy, when excluding the estimated energy consumption of lighting, appliances and electronics.

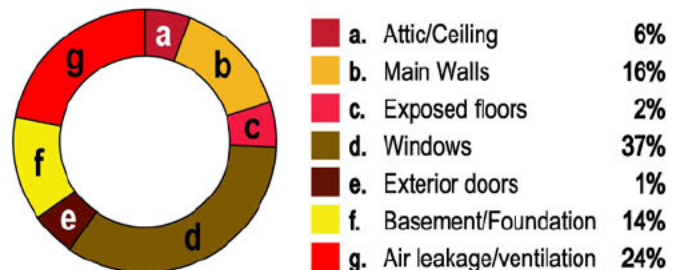
HOW YOUR RATED ENERGY IS USED:

The chart below represents the breakdown of rated annual energy consumption in your home under standard operating conditions. You can use these figures as a guide to help identify where you can lower home energy costs through proper home maintenance, efficient home operation, energy efficiency renovations or equipment replacement.



WHERE YOUR HOME LOSES HEAT:

Houses lose heat through their exterior shell, or building envelope. The chart below shows where and how your home loses heat. The quality and upkeep of your home can have a major impact on the amount of energy your heating and cooling systems use annually.



*EnerGuide is an official mark of Natural Resources Canada. Refer to the glossary section for an explanation of relevant terms.

HOUSE DETAILS

BUILDING ENVELOPE

ATTIC/CEILING

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
#01 HIP MF: Attic/hip	8.57 (48.7)	6.56 (37.2)	17.4 (187)
#02 GABLE 2ND: Attic/gable	8.57 (48.7)	8.19 (46.5)	154.3 (1661)
#03 CATHEDRAL: Cathedral	5.36 (30.5)	5.17 (29.3)	104.8 (1129)

MAIN WALLS

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
#02 MF F NONE ADJ: 38x140 mm (2x6 in) Wood frame	3.24 (18.4)	3.14 (17.9)	25 (269)
#01 MF F L R B WOOD: 38x140 mm (2x6 in) Wood frame	3.24 (18.4)	3.38 (19.2)	146.5 (1576)
#03 2ND F L R B WOOD: 38x140 mm (2x6 in) Wood frame	3.24 (18.4)	3.39 (19.2)	208.2 (2241)

EXPOSED FLOORS

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
Floor: #01 EXPOSED FLOOR ADJ	4.93 (28.0)	4.92 (27.9)	66.3 (714)
Floor: #02 EXPOSED FLOOR	4.93 (28.0)	5.44 (30.9)	8.4 (90)
Floor: #03 EXPOSED FLOOR	4.93 (28.0)	5.44 (30.9)	1.3 (14)

WINDOWS

#	TYPE	U-factor W/m ² • °C (Btu/h • ft ² • °F)	RSI (R)
2	Wood, Skylight, Double, No low E	3.8 (0.67)	0.26 (1.5)
1	Wood, Skylight, Double, No low E	3.7 (0.66)	0.27 (1.5)
5	Wood, Hinged, Double, No low E	3 (0.53)	0.33 (1.9)
5	Wood, Hinged, Double, No low E	2.9 (0.52)	0.34 (1.9)
3	Wood, Patio door, Double, No low E	2.9 (0.51)	0.34 (2.0)
36	Wood, Fixed, Double, No low E	2.9 (0.51)	0.34 (2.0)
3	Vinyl, Fixed, Double, No low E	2.8 (0.49)	0.36 (2.1)
Total window area: 76.31 m ² (821.4 ft ²)			

EXTERIOR DOORS

#	TYPE	U-factor W/m ² • °C (Btu/h • ft ² • °F)	RSI (R)
4	Steel polystyrene core	1 (0.18)	0.98 (5.6)
Total door area: 9 m ² (96.8 ft ²)			

BASEMENT/FOUNDATION

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
#01 BASEMENT concrete walls: exterior	N/A	N/A	142 (1528)
#01 BASEMENT concrete walls: interior	3.24 (18.4)	2.66 (15.0)	142 (1528)
#01 BASEMENT header	3.52 (20.0)	3.82 (21.7)	2.6 (28)
#01 BASEMENT header	3.52 (20.0)	4.01 (22.8)	14.7 (158)
#01 BASEMENT Pony Wall	3.24 (18.4)	1.99 (11.0)	33.1 (357)
#01 BASEMENT slab	N/A	N/A	187.4 (2017)

AIRTIGHTNESS

Air leakage rate at 50 pascals	4.36 air changes/hour
Equivalent leakage area	2538.3 cm ² (393 in ²)
Normalized leakage area	2.3 cm ² /m ² (3.3 in ² /100 ft ²)

MECHANICAL SYSTEMS

SPACE HEATING

TYPE	OUTPUT SIZE	EFFICIENCY
Electric furnace	30.5 kW 104500 BTU/h	100% Steady State
Water-source heat pump	21.35 kW 73000 BTU/h	2COP
Wood fireplace	2 kW 7000 BTU/h	35% Steady State
Advanced airtight wood stove	2 kW 7000 BTU/h	70% Steady State
Baseboard/Hydronic/Plenum heaters	2 kW 7000 BTU/h	100% Steady State
Design heating load: 27.30 kW – refer to glossary for details		

SPACE COOLING

TYPE	OUTPUT SIZE	EFFICIENCY
Water-source heat pump	21.35 kW 73000 BTU/h	2 COP
Design cooling load: 14.47 kW		

HOUSE DETAILS

WATER HEATING

TYPE	TANK VOLUME	EFFICIENCY
Electric storage tank	181L (48 USG)	0.90

WHOLE-HOME VENTILATION

TYPE	AIR FLOW RATE	EFFICIENCY
Heat recovery ventilator	27.99 L/s (59 cfm)	55%

HEATED FLOOR AREA

Above-grade area	433.3 m ² (4664 ft ²)
Below-grade area	187.4 m ² (2017 ft ²)

A typical new house

have been used to calculate your home's EnerGuide Rating. The rating assumes a standard number of occupants and energy use patterns. This allows for comparison of energy use across houses so that the house is rated and not the operation of the house by the occupants. The values are:

Airtightness

describes how well the building envelope resists air leakage and is measured in air changes per hour at 50 pascals (ACH@50 Pa). The fewer air changes per hour, the more airtight the building envelope is. Equivalent leakage area is another way of describing the airtightness of the building envelope. It represents the size of a single hole in your building envelope if all the individual air leakage holes or gaps were added together. The smaller the equivalent leakage area, the less energy you will need to control the temperature of your home (but you will still need to ensure that you have adequate ventilation).

Design heating/cooling loads

provide an estimate of the capacity of the heating and cooling equipment needed to maintain your home at 22 °C in the winter and 24 °C in the summer and are provided for guidance only. Before having a new heating/cooling system installed, your heating/cooling contractor should perform an independent, detailed heat loss/heat gain calculation on your home in order to select the appropriate equipment.

Gigajoule (GJ)

is a unit of energy. It can be used as a measure of any type of energy that is consumed or produced in your home. Specifically, one GJ is the equivalent of 278 kWh of electricity, 27m³ of natural gas, 26 L of oil, 39 L of propane, or 947 817 BTUs. One GJ is roughly equal to the energy from two standard barbeque propane tanks or 30 litres of gas in a car's gas tank.

Greenhouse gas emissions

are the amounts of carbon dioxide, methane and nitrous oxide that are produced directly, by burning fossil and solid fuels, or indirectly, through the production of electricity. Greenhouse gas emissions are expressed in carbon dioxide equivalent units. Greenhouse gas emissions are calculated by multiplying the quantity of fuel or electricity used in your home by the emission factors for the particular energy source. Electricity factors vary by province because there are different emissions associated with each province's method of producing electricity. One tonne of greenhouse gas emissions is equivalent to the CO₂ emissions produced by driving an average efficiency mid-size vehicle from Toronto to Vancouver.

Heated floor area

represents the total useable area of your home that is heated, measured at the interior of the outer walls or of the walls attached to other buildings.

Insulation values

are expressed in RSI (m² · °C/W) or R-value (h · ft² · °F/Btu) and represent the resistance to the flow of heat of a given thickness of insulation or construction assembly. The higher the RSI-value (R-value), the better the performance. The nominal value represents

the resistance to the flow of heat of just the insulation while the effective value represents the resistance to the flow of heat of the entire wall, ceiling or floor assembly considering the structure, insulation, framing, sheathing and all finishing.

On-site renewable energy contributions

are subtracted from the rated annual energy consumption to calculate the EnerGuide rating. For the calculation of the rated greenhouse gas emissions, on-site electricity generation only offsets emissions associated with electricity consumption, whereas a solar water heater reduces the emissions that would have been produced from the source of energy used to heat water.

Passive solar gain

is the heat from the sun that influences your home's heating and cooling requirements. Generally, south facing windows provide more solar gain.

Rated energy intensity

is calculated by dividing your rated annual energy consumption by your home's heated floor area. It allows you to compare the annual energy use of homes of different sizes on a "per square metre" basis.

Standard operating conditions

have been used to calculate your home's EnerGuide Rating. The rating assumes a standard number of occupants and energy use patterns. This allows for comparison of energy use across houses so that the house is rated and not the operation of the house by the occupants. The values are:

- Two adults and one child, at home 50% of the time;
- Hot water use of 158 - 197 L/day, variable depending on incoming ground water temperature and year the house was built;
- Thermostat settings of 21°C for daytime heating, 18°C for nighttime heating and 25°C for cooling; and
- Lighting, appliance and other electrical loads of 19.5 kWh/day.

U-factor

measures heat transferred through windows and doors, expressed in W/m² · °C (BTU/h · ft² · °F). The lower the U-factor, the better the energy efficiency of a window. The inverse of U-factor (1/U-factor) identifies the resistance to the flow of heat, expressed in RSI. The higher the RSI, the better the window is at resisting heat loss. You can use these values to choose more energy efficient windows.

For more details and additional terms, please visit NRCan.gc.ca/myenerguide.

ENERGUIDE

Data collected: June 18, 2025

File number: [REDACTED]

Evaluated by: LARBI TOUMI

137 This house
GJ/year

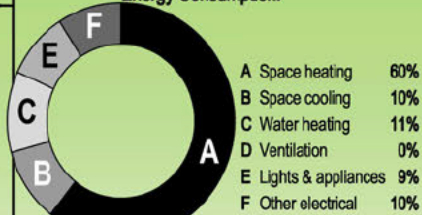


One gigajoule (GJ) equals the energy from two BBQ propane tanks

Rated Annual Energy Consumption	137 GJ
• Electricity	137
On-site renewable energy contributions	- 0 GJ
• Electricity	0
• Solar water heating	0
EnerGuide Rating:	= 137 GJ

Figures may not add up due to rounding.

Breakdown of Rated Annual Energy Consumption:

Rated Energy Intensity: 0.22 GJ/m²/year

Rated Greenhouse Gas Emissions: 27.4 tonnes/year

The energy consumption indicated on your utility bills may be higher or lower than your EnerGuide rating. This is because standard assumptions have been made regarding how many people live in your house and how the home is operated. Your rating is based on the condition of your house on the day it was evaluated.

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NEXT STEPS

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Everyone uses energy in their house differently. This report was developed using standard operating conditions as explained in the glossary. Therefore, your EnerGuide rating will not match your utility bills.

UPGRADE CONSIDERATIONS

Before undertaking upgrades or renovations, find out about appropriate products and installation techniques, and ensure that all renovations meet local building codes and by-laws. Natural Resources Canada does not endorse the services of any contractor, nor any specific product, and accepts no liability in the selection of materials, products, contractors nor performance of workmanship.

Where your energy advisor has identified a potential health or safety concern such as insufficient outdoor air, risk of combustion fumes entering your house or risk of exposure to asbestos, they have endeavoured to provide a warning in this report. However, energy advisors are not required to have expertise in health and safety matters, and homeowners are solely responsible for consulting a qualified professional to determine potential hazards before undertaking any upgrades or renovations.

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HOMEOWNER INFORMATION SHEET

ENERGUIDE

Your EnerGuide® rating and this report are based on data collected and, where necessary, presumed from your evaluation. Rating calculations are made using standard operating conditions.



Rating: 112 gigajoules per year (GJ/year)

Heated floor area: 620.7 m² (6681.2 ft²)

Rated energy intensity: 0.18 GJ/m²/year

Evaluated by: Salani Khutjwe

Quality assured by: BUILDINGEXPERT

File number: 2S9WE00367

Data collected: February 19, 2026

Year built: 1990

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HOW YOUR RATING IS CALCULATED:

- I. Rated annual energy consumption 112 GJ/year
 - II. Minus renewable energy contribution - 0 GJ/year
- Equals your **EnerGuide rating** = 112 GJ/year

I. Your rated annual energy consumption is the total amount of energy your house would use in a year based on the EnerGuide Rating System standard operating conditions. For your house, this includes 61.76 GJ of passive solar gain.

Energy Sources	Rated Consumption (GJ/year)	Equivalent Units (per year)	Greenhouse Gas Emissions (tonnes/year)
Electricity	112	30997 kWh	22.3
Total	112		22.3

II. On-site renewable power generation systems can offset some or even all of your home's energy consumption. Renewable energy contributions are factored differently for your rating and your greenhouse gas emissions calculations.¹

On-Site Renewable Energy	Estimated Contribution (GJ/year)	Equivalent Units (per year)	Offset Greenhouse Gas Emissions (tonnes/year)
Electricity	0	0 kWh	0.0
Solar water heating	0	0	0.0
Total	0		0.0

HOW YOUR CONSUMPTION COMPARES:

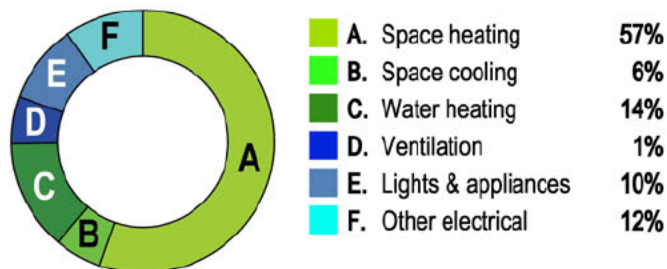
Compared to a typical new house, your house uses:

37.1% less energy;

43.4% less energy, when excluding the estimated energy consumption of lighting, appliances and electronics.

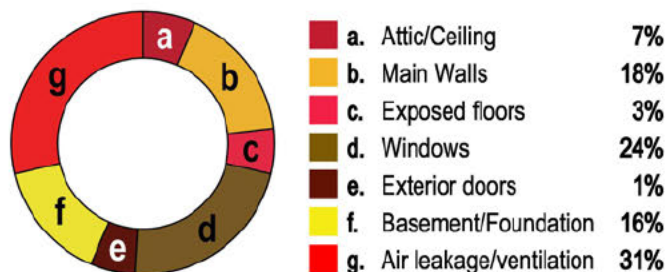
HOW YOUR RATED ENERGY IS USED:

The chart below represents the breakdown of rated annual energy consumption in your home under standard operating conditions. You can use these figures as a guide to help identify where you can lower home energy costs through proper home maintenance, efficient home operation, energy efficiency renovations or equipment replacement.



WHERE YOUR HOME LOSES HEAT:

Houses lose heat through their exterior shell, or building envelope. The chart below shows where and how your home loses heat. The quality and upkeep of your home can have a major impact on the amount of energy your heating and cooling systems use annually.



*EnerGuide is an official mark of Natural Resources Canada. Refer to the glossary section for an explanation of relevant terms.

HOUSE DETAILS

BUILDING ENVELOPE

ATTIC/CEILING

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
#01 HIP MF: Attic/hip	8.57 (48.7)	6.56 (37.2)	17.4 (187)
#02 GABLE 2ND: Attic/gable	8.57 (48.7)	8.19 (46.5)	154.3 (1661)
#03 CATHEDRAL: Cathedral	5.36 (30.5)	5.17 (29.4)	104.8 (1129)

MAIN WALLS

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
#02 MF F NONE ADJ: 38x140 mm (2x6 in) Wood frame	3.24 (18.4)	3.14 (17.9)	25 (269)
#01 MF F L R B WOOD: 38x140 mm (2x6 in) Wood frame	3.24 (18.4)	3.38 (19.2)	146.5 (1576)
#03 2ND F L R B WOOD: 38x140 mm (2x6 in) Wood frame	3.24 (18.4)	3.39 (19.2)	208.2 (2241)

EXPOSED FLOORS

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
Floor: #01 EXPOSED FLOOR ADJ	4.93 (28.0)	4.92 (27.9)	66.3 (714)
Floor: #02 EXPOSED FLOOR	4.93 (28.0)	5.44 (30.9)	8.4 (90)
Floor: #03 EXPOSED FLOOR	4.93 (28.0)	5.44 (30.9)	1.3 (14)

WINDOWS

#	TYPE	U-factor W/m ² • °C (Btu/h • ft ² • °F)	RSI (R)
2	Wood, Skylight, Double, No low E	3.8 (0.67)	0.26 (1.5)
1	Wood, Skylight, Double, No low E	3.7 (0.66)	0.27 (1.5)
3	Vinyl, Fixed, Double, No low E	2.8 (0.49)	0.36 (2.1)
3	Vinyl, Patio door, Double, Low E	2 (0.36)	0.49 (2.8)
3	Vinyl, Fixed, Double, Low E	2 (0.34)	0.51 (2.9)
5	Vinyl, Fixed, Double, Low E	1.9 (0.34)	0.52 (3.0)
1	Vinyl, Fixed, Double, Low E	1.9 (0.33)	0.53 (3.0)
2	Vinyl, Fixed, Double, Low E	1.9 (0.33)	0.53 (3.0)
5	Vinyl, Fixed, Triple, Low E	1.5 (0.26)	0.67 (3.8)

WINDOWS (Continued)

#	TYPE	U-factor W/m ² • °C (Btu/h • ft ² • °F)	RSI (R)
1	Vinyl, Fixed, Triple, Low E	1.5 (0.26)	0.68 (3.8)
10	Vinyl, Fixed, Triple, Low E	1.4 (0.25)	0.70 (3.9)
1	Vinyl, Hinged, Triple, Low E	1.4 (0.25)	0.70 (4.0)
1	Vinyl, Fixed, Triple, Low E	1.4 (0.25)	0.71 (4.0)
3	Vinyl, Fixed, Triple, Low E	1.4 (0.24)	0.72 (4.1)
9	Vinyl, Fixed, Triple, Low E	1.4 (0.24)	0.73 (4.1)
5	Vinyl, Fixed, Triple, Low E	1.3 (0.24)	0.74 (4.2)
Total window area: 76.31 m ² (821.4 ft ²)			

EXTERIOR DOORS

#	TYPE	U-factor W/m ² • °C (Btu/h • ft ² • °F)	RSI (R)
4	Steel polystyrene core	1 (0.18)	0.98 (5.6)
Total door area: 9 m ² (96.8 ft ²)			

BASEMENT/FOUNDATION

TYPE	INSULATION VALUE		AREA m ² (ft ²)
	Nominal RSI (R)	Effective RSI (R)	
#01 BASEMENT concrete walls: exterior	N/A	N/A	142 (1528)
#01 BASEMENT concrete walls: interior	3.24 (18.4)	2.66 (15.0)	142 (1528)
#01 BASEMENT header	3.52 (20.0)	3.82 (21.7)	2.6 (28)
#01 BASEMENT header	3.52 (20.0)	4.01 (22.8)	14.7 (158)
#01 BASEMENT Pony Wall	3.24 (18.4)	1.99 (11.0)	33.1 (357)
#01 BASEMENT slab	N/A	N/A	187.4 (2017)

AIRTIGHTNESS

Air leakage rate at 50 pascals	3.86 air changes/hour
Equivalent leakage area	2620.5 cm ² (406 in ²)
Normalized leakage area	2.3 cm ² /m ² (3.4 in ² /100 ft ²)

MECHANICAL SYSTEMS

SPACE HEATING

TYPE	OUTPUT SIZE	EFFICIENCY
Electric furnace	27 kW 92500 BTU/h	100% Steady State
Central split air-source heat pump	16.12 kW 55000 BTU/h	9.6HSPF
Wood fireplace	2 kW 7000 BTU/h	35% Steady State
Advanced airtight wood stove	2 kW 7000 BTU/h	70% Steady State

HOUSE DETAILS

SPACE HEATING (Continued)

TYPE	OUTPUT SIZE	EFFICIENCY
Baseboard/Hydronic/Plenum heaters	2 kW 7000 BTU/h	100% Steady State
Design heating load: 24.11 kW – refer to glossary for details		

SPACE COOLING

TYPE	OUTPUT SIZE	EFFICIENCY
Central split air-source heat pump	16.12 kW 55000 BTU/h	19.5 SEER
Design cooling load: 13.12 kW		

WATER HEATING

TYPE	TANK VOLUME	EFFICIENCY
Electric storage tank	181L (48 USG)	0.90

WHOLE-HOME VENTILATION

TYPE	AIR FLOW RATE	EFFICIENCY
Heat recovery ventilator	27.99 L/s (59 cfm)	55%

HEATED FLOOR AREA

Above-grade area	433.3 m ² (4664 ft ²)
Below-grade area	187.4 m ² (2017 ft ²)

GLOSSARY

A typical new house

have been used to calculate your home's EnerGuide Rating. The rating assumes a standard number of occupants and energy use patterns. This allows for comparison of energy use across houses so that the house is rated and not the operation of the house by the occupants. The values are:

Airtightness

describes how well the building envelope resists air leakage and is measured in air changes per hour at 50 pascals (ACH@50 Pa). The fewer air changes per hour, the more airtight the building envelope is. Equivalent leakage area is another way of describing the airtightness of the building envelope. It represents the size of a single hole in your building envelope if all the individual air leakage holes or gaps were added together. The smaller the equivalent leakage area, the less energy you will need to control the temperature of your home (but you will still need to ensure that you have adequate ventilation).

Design heating/cooling loads

provide an estimate of the capacity of the heating and cooling equipment needed to maintain your home at 22 °C in the winter and 24 °C in the summer and are provided for guidance only. Before having a new heating/cooling system installed, your heating/cooling contractor should perform an independent, detailed heat loss/heat gain calculation on your home in order to select the appropriate equipment.

Gigajoule (GJ)

is a unit of energy. It can be used as a measure of any type of energy that is consumed or produced in your home. Specifically, one GJ is the equivalent of 278 kWh of electricity, 27m³ of natural gas, 26 L of oil, 39 L of propane, or 947 817 BTUs. One GJ is roughly equal to the energy from two standard barbeque propane tanks or 30 litres of gas in a car's gas tank.

Greenhouse gas emissions

are the amounts of carbon dioxide, methane and nitrous oxide that are produced directly, by burning fossil and solid fuels, or indirectly, through the production of electricity. Greenhouse gas emissions are expressed in carbon dioxide equivalent units. Greenhouse gas emissions are calculated by multiplying the quantity of fuel or electricity used in your home by the emission factors for the particular energy source. Electricity factors vary by province because there are different emissions associated with each province's method of producing electricity. One tonne of greenhouse gas emissions is equivalent to the CO₂ emissions produced by driving an average efficiency mid-size vehicle from Toronto to Vancouver.

Heated floor area

represents the total useable area of your home that is heated, measured at the interior of the outer walls or of the walls attached to other buildings.

Insulation values

are expressed in RSI (m² • °C/W) or R-value (h • ft² • °F/Btu) and represent the resistance to the flow of heat of a given thickness of insulation or construction assembly. The higher the RSI-value (R-value), the better the performance. The nominal value represents

the resistance to the flow of heat of just the insulation while the effective value represents the resistance to the flow of heat of the entire wall, ceiling or floor assembly considering the structure, insulation, framing, sheathing and all finishing.

On-site renewable energy contributions

are subtracted from the rated annual energy consumption to calculate the EnerGuide rating. For the calculation of the rated greenhouse gas emissions, on-site electricity generation only offsets emissions associated with electricity consumption, whereas a solar water heater reduces the emissions that would have been produced from the source of energy used to heat water.

Passive solar gain

is the heat from the sun that influences your home's heating and cooling requirements. Generally, south facing windows provide more solar gain.

Rated energy intensity

is calculated by dividing your rated annual energy consumption by your home's heated floor area. It allows you to compare the annual energy use of homes of different sizes on a "per square metre" basis.

Standard operating conditions

have been used to calculate your home's EnerGuide Rating. The rating assumes a standard number of occupants and energy use patterns. This allows for comparison of energy use across houses so that the house is rated and not the operation of the house by the occupants. The values are:

- Two adults and one child, at home 50% of the time;
- Hot water use of 158 - 197 L/day, variable depending on incoming ground water temperature and year the house was built;
- Thermostat settings of 21°C for daytime heating, 18°C for nighttime heating and 25°C for cooling; and
- Lighting, appliance and other electrical loads of 19.5 kWh/day.

U-factor

measures heat transferred through windows and doors, expressed in W/m² • °C (BTU/h • ft² • °F). The lower the U-factor, the better the energy efficiency of a window. The inverse of U-factor (1/U-factor) identifies the resistance to the flow of heat, expressed in RSI. The higher the RSI, the better the window is at resisting heat loss. You can use these values to choose more energy efficient windows.

For more details and additional terms, please visit NRCan.gc.ca/myenerguide.

ENERGUIDE

Data collected: February 19, 2026

File number: [REDACTED]

Evaluated by: Salani Khutjwe

112 This house
GJ/year



▲ 0 GJ/year
Best energy performance

▲ 178 GJ/year
A typical new house

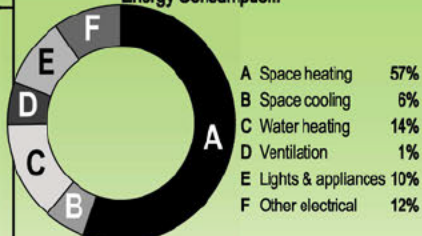
Uses most energy

One gigajoule (GJ) equals the energy from two BBQ propane tanks

Rated Annual Energy Consumption	112 GJ
• Electricity	112
On-site renewable energy contributions	- 0 GJ
• Electricity	0
• Solar water heating	0
EnerGuide Rating:	= 112 GJ

Figures may not add up due to rounding.

Breakdown of Rated Annual Energy Consumption:



Rated Energy Intensity: 0.18 GJ/m²/year

Rated Greenhouse Gas Emissions: 22.3 tonnes/year

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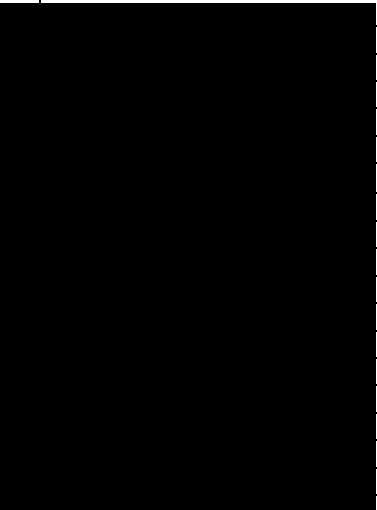
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NS POWER PORTAL ACTIVITY / IP ADDRESS RECORD

Transcribed from handwritten record

Time	Date	Activity / Event	IP Address
10:15	March 30, 2026	Sign-in	
14:48	March 30, 2026	Sign-in	
6:04	March 31, 2026	Payment	
8:21	March 31, 2026	Sign-in	
8:24	March 31, 2026	AutoPayEdit	
8:24	March 31, 2026	Activated Auto Pay of \$2,200.00	
12:29	March 31, 2026	Sign-in	
15:17	April 8, 2026	Sign-in	
6:00	April 28, 2026	RecurringCancel	
8:20	April 28, 2026	Sign-in	
8:24	April 28, 2026	Sign-in	
14:38	April 28, 2026	Sign-in	
14:52	April 28, 2026	Sign-in	
14:52	April 28, 2026	View Document	
14:54	April 28, 2026	Sign-in	
14:55	April 28, 2026	View Document	
14:56	April 28, 2026	View Document	
15:05	April 28, 2026	Sign-in	

Source: BRWA8934A9476F0_000268.pdf (one-page handwritten record).