



- E3 ECO GROUP INC.
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- Contact: John Doe
- Energuide Plan Review
- Project: New Home Evaluation
- Address: 123 – ABC Street, Vancouver, BC V1V 1V1

Plans for the above mentioned house have been reviewed using EnerGuide for New Houses evaluation procedures.

The construction characteristics assumed as the base case are as noted on the plans and in the specs you submitted, as follows:

Base case – Assumptions - Residence as above	
Location (weather file)	Vancouver, BC
Ceiling	Trusses @ 24" o/c, R-51 insulation
Exterior walls above grade	2x6 @ 16" o/c, R-22 batt
Windows	Double glazed, low e, argon, insulated spacer, aluminum clad wood.
Basement	ICF – R 24 block with concrete pour
Air tightness	Based on 5.5 ACH
Heating – Combo System	Mid efficiency condensing boiler 80% AFUE
HRV Ventilation	170 CFM supply and exhaust – CSA F326 standards
Fireplace	70% efficiency – 70 000 BTU's – Wood fired – Used 10% of the time.
Basement slab	Insulated with 2.5" of extruded polystyrene – full slab

The Design Heat Loss for the house at 12.20 °F is:	39678.50	BTU/hr
Energide for New House rating for this house is:	74	Scale of 100
Estimated Annual Space + DHW* Consumption is:	24949.65	kWh
Estimated Greenhouse Gas Emissions:	9.55	tonnes/year

* DHW – Domestic Hot Water
 * cfm – cubic feet per minute

Upgrade N file

The following items need to be changed, from the base case assumption noted above.

Reduce Air Leakage	Reduce Air changes to 2.50 – and a calculated Equivalent Leakage Area to 123.0 square inches.
Upgrade Space Boiler to High Efficiency Tankless	Efficiency of 92% or better

The Design Heat Loss for the house at 12.20 °F is:	35233.81	BTU/hr
Energide for New House rating for this house is:	78	Scale of 100
Estimated Annual Space + DHW* Consumption is:	19669.34	kWh
Estimated Greenhouse Gas Emissions:	8.56	tonnes/year
* DHW – Domestic Hot Water		
* cfm – cubic feet per minute		

With Solar Hot Water Panels at 18,500 Mega joules – as per Taylor Munro

The Design Heat Loss for the house at 12.20 °F is:	35233.81	BTU/hr
Energide for New House rating for this house is:	81	Scale of 100
Estimated Annual Space + DHW* Consumption is:	15740.78	kWh
Estimated Greenhouse Gas Emissions:	7.85	tonnes/year
* DHW – Domestic Hot Water		

Upgrade Strategies Reviewed based on upgrades to N file.

- Windows with a hard coat low E brought the N file upgrade case from 78.4 to 78.8 rounding up equates to an EGNH rating of 79.
- Upgrading the Domestic Hot Water Boiler to 92% = EGNH of 79.3
- Upgrading the Domestic Hot Water Boiler to 96% = EGNH of 79.4
- Upgrading the Domestic Hot Water Boiler to 96% and Boiler for Space Heating to 94% = EGNH of 79.6 = 80

If you have any questions, please call, *Troy Glasner at 604-836-4229*

Notes:

1. Design Heat loss calculation is based on design conditions assumed. This figure can be used to size the heating system, although unit size will have to take into account system efficiency, operating conditions and provide a margin for quick recovery.
2. The calculated energy consumption estimates are based on data entered and assumptions made within the computer program based on standard user profiles. The estimates may not reflect actual energy requirements of this house due to variations in weather, actual construction details used performance of equipment, lifestyle and number of occupants.
3. Modeled using HOT 2000 Version 10.20 EGNH – file P and N for John Doe.