



Photos courtesy of Zero Net Now

"It is very satisfying to be able to monitor the house's energy usage and see that far more energy is being generated than used." Homeowner



PROJECT DATA

- **Layout:** 2 bdrm, 2 bath, 3 fls, 3,481 ft²
- **Climate:** IECC 6A, cold
- **Completed:** June 2021
- **Category:** Custom for Buyer >3000 ft²

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 27; with PV -16
- **Annual Energy Costs:** without PV \$1,550; with PV \$300
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$3,350; with PV \$5,500
- **Annual Energy Savings:** without PV 22,200 kWh; with PV 36,400 kWh
- **Savings in the First 30 Years:** without PV \$135,300; with PV \$221,500

CONTACT

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KEY FEATURES

- **Walls:** ICF, R-22 total: 11.25" ICF walls; composite wood siding.
- **Roof:** Truss gable roof: coated OSB taped, full self-adhered membrane, 3/4" furring strips, 5/8" plywood, 2nd self-adhered membrane, solar PV shingles.
- **Attic:** Unvented attic: 10" R-45 medium-density + 2" R-14 high-density spray foam.
- **Foundation:** Insulated daylight basement: R-22 11.25" ICF, above-grade vinyl trim and siding, below-grade cementitious boards. 3.5" R-26 closed-cell spray foam under slab.
- **Windows:** Triple-pane, argon filled, low-e2, vinyl frame, casement style, U=0.17, SHGC=0.19.
- **Air Sealing:** 0.20 ACH50, spray foam under slab, liquid-applied flashings at all rough-openings and penetrations, spray foam under roof and at eaves.
- **Ventilation:** ERV, CO₂ sensors trigger higher speed. Boost settings in baths and kitchen. MERV 6 filter on fresh air intake, MERV 11 filter on supply to air handler, 76 SRE.
- **HVAC:** Ground-source heat pump with one, 3-ton central air handler, ground-loop configuration with a 5.0 COP, AC variable speed compressor, 34 EER, rigid metal ducting.
- **Hot Water:** Ground-source heat pump, 80-gal, 2.66 EF.
- **Lighting:** 100% LED, motion sensors.
- **Appliances:** ENERGY STAR refrigerator, clothes washer, ventless heat pump clothes dryer.
- **Solar:** 11.752 kW, 13.5 kWh battery storage, rooftop shingles.
- **Water Conservation:** EPA WaterSense toilets, central manifold with PEX piping.
- **Energy Management System:** Sensors for CO₂, temp, humidity. Tracking of PV, energy use, HVAC, ERV.
- **Other:** Accessible floorplan, doorways. Low/no-emission paints, adhesives, sealants.

