

BPC Green Builders

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"We made more power than the house used." Homeowner









PROJECT DATA

- Layout: 3 bdrm, 2.5 bath, 2 fls + bsmt, 4,345 ft²
- Climate: IECC 5A, cold
- Completed: January 2020
- Category: Custom for Buyer >3,000 ft²

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 36; with PV -13
- Annual Energy Costs: without PV \$3,150; with PV -\$1,000
- Annual Energy Cost Savings: VS typical new homes) without PV \$5,650; with PV \$9,900
- Annual Energy Savings: without PV 23,000 kWh; with PV 40,600 kWh
- Savings in the First 30 Years: without PV \$235,500; with PV \$414,600

CONTACT

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KEY FEATURES

- Walls: 2x8 16" o.c., R-37 total: dense pack-cellulose, 7/16" sheathing w/taped joints, 3" exterior mineral wool rigid insulation, 1x furring strips, fiber cement siding.
- Roof: Shed roof, R-84.6 total: 16" TJI rafters, R-57.6 dense-pack cellulose, 5%" coated OSB, no overhang, taped joints, topped by 4.5" R-27 SIP with overhangs, ice and water shield, asphalt shingles, ENERGY STAR Cool Roof certified.
- Attic: No attic, vaulted ceilings.
- Foundation: Insulated basement, R-23.7 total: 10" poured concrete wall; on interior 2" closed-cell spray foam behind 2x4 16" o.c. stud wall with dense-pack cellulose. Under slab: vapor barrier, 6" R-28.8 closed-cell EPS rigid foam; 4" EPS at slab edge to foundation walls.
- Windows: Triple-pane, low-e, aluminum-clad vinyl tilt turn frames, U=0.13, SHGC=0.36.
- Air Sealing: 0.58 ACH 50. All wall and roof joints taped, wall to first roof corner taped.
- Ventilation: ERV, MERV 7 filter, bathroom and laundry boost controls.
- HVAC: Ducted Mini-Split Heat Pump, 10.1 HSPF, 15.8 SEER, 2 air handlers, 1 outdoor unit.
- Hot Water: Split heat pump water heater, 83-gal, 4.5 COP. Recirc pump.
- **Lighting:** 100% LED, daylighting.
- Appliances: ENERGY STAR refrigerator, dishwasher, clothes washer, and clothes dryer.
- **Solar:** 14.7 kW; prewired for future battery.
- Water Conservation: EPA WaterSense fixtures. Drought-resistant landscaping. Rain garden.
- Energy Management System: N/A
- Other: Electric vehicle charging station, zero VOC paints. Main floor master.





