

Module Design Inc.

ZERO
ENERGY READY HOME

2019 WINNER

Housing
Innovation
Awards

Pittsburgh Panel House | Pittsburgh, PA | ModuleHousing.com



"The ZERH program is both affordable and aligns perfectly with what our customers want." Module Design









PROJECT DATA

• Layout: 1 bdrm, 1 bath, 1 fl, 880 ft²

Climate: IECC 5A, coldCompleted: May 2019

Category: custom for buyer

MODELED PERFORMANCE DATA

• **HERS Index:** without PV 42

- Annual Energy Costs: without PV \$950
- Annual Energy Cost Savings: (vs typical new homes) without PV \$850
- Annual Energy Savings: without PV 6,300 kWh
- Savings in the First 30 Years: \$36,150

CONTACT

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KEY FEATURES

- **Walls:** Factory-built wall panels, R-35 total: 9.5" I-joists at 24" o.c. dense-packed with cellulose; 7/16" coated OSB sheathing, rain screen, fiber cement panels.
- **Roof:** Flat roof, $\frac{5}{6}$ " drywall, $\frac{7}{16}$ " coated OSB sheathing, 14" I-Joists at 24" o.c.; 5.5" tapered poly-iso rigid foam, 90-mil EPDM roof membrane.
- **Attic:** Unvented hot roof, 14" R-51 blown cellulose in joist cavities, 5.5" R-31 tapered polyiso rigid foam above roof sheathing.
- **Foundation:** Slab on grade; stem wall: 4" EPS rigid foam, 10" CMU with filled cores, damp proofing, 3" EPS rigid foam, cementitious parging; 6" EPS rigid foam under slab.
- **Windows:** Triple-pane, argon-filled, low-e3, uPVC and fiberglass casement frames, U=0.13, SHGC=0.56.
- Air Sealing: 2.5 ACH 50. All sill plates and panel joints gasketed.
- Ventilation: ERV with integrated timer, MERV 8 filter.
- HVAC: Ductless mini-split heat pump, 17 SEER, 2 indoor units, 1 outdoor compressor.
- Hot Water: Heat pump water heater, 3.55 UEF, 45-gal.; compact distribution.
- Lighting: 95% LED, integrated smart lighting controls, daylighting.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, and clothes washer.
- Solar: Solar ready.
- Water Conservation: EPA WaterSense fixtures and toilets.
- Energy Management System: Programmable thermostat, smart lighting controls.
- Other: Handicapped accessible doors, halls, bathrooms; no/low-VOC paints, cabinets.





