



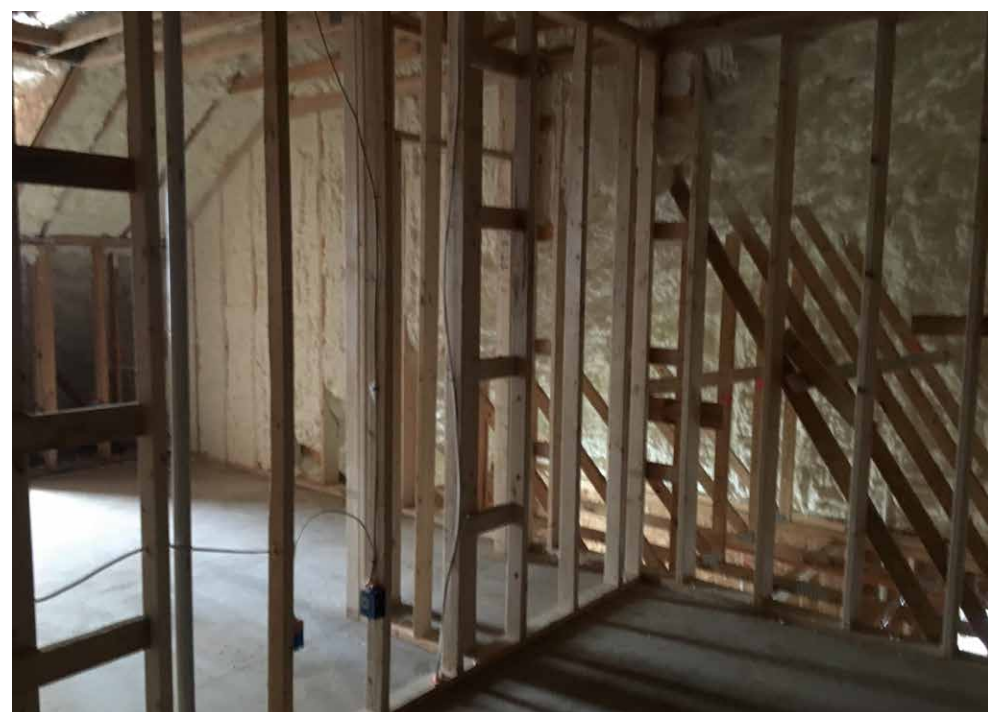
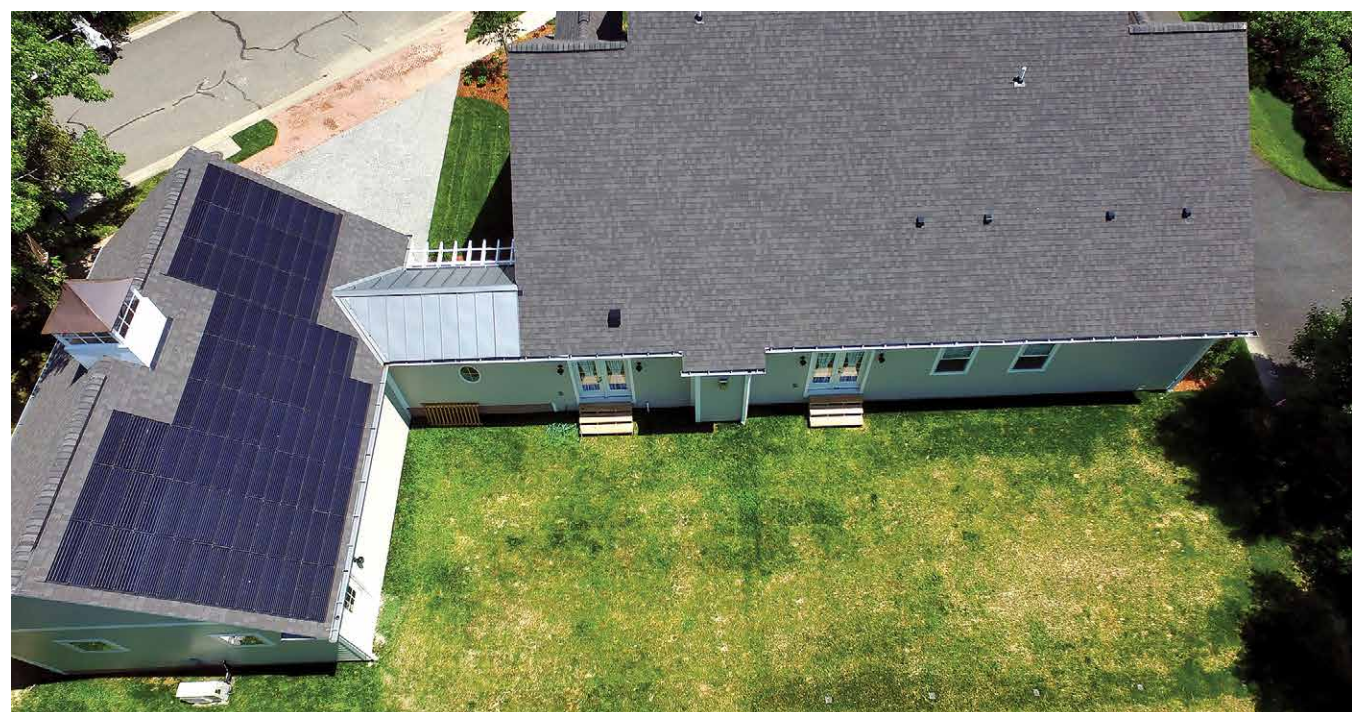
High Performance Homes

Hope for Health | Easton, MD | hphpa.com



Photos courtesy of High Performance Homes

“Zero Energy Ready Home...can surely serve as a model for other builders across the country.” *Home owner*



PROJECT DATA

- **Layout:** 4 bdrm, 3.5 bath, 2 fls, 5,359 ft²
- **Climate:** IECC 4A, mixed-humid
- **Completed:** April 2019
- **Category:** custom for buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 45; with PV 29
- **Annual Energy Costs:** without PV \$2,350; with PV \$1,500
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$1,500; with PV \$2,350
- **Annual Energy Savings:** with PV 28,00 kWh
- **Savings in the First 30 Years:** \$100,000

CONTACT

Kiere DeGrandchamp
and Amy Whaley
717-359-4663
awhaley@hphpa.com

KEY FEATURES

- **Walls:** SIPs, R-30 total: 6.5" R-23 SIP walls, 4.5" R-15 SIP rim bands sealed with 1" closed-cell spray foam and R-13 batt between the floor joists; house wrap; fiber cement siding.
- **Roof:** Gable roof; 15-lb felt, 5/8" OSB, ice-and-water shield at eaves, valleys and gables, kick-out flashing, 5" sidewall flashing; asphalt shingles and aluminum roofing.
- **Attic:** Unvented attic, R-56 total: closed and open-cell spray foam, 15" raised heel trusses.
- **Foundation:** Unvented crawlspace; 8" CMU, R-15, 2" closed-cell spray foam over dirt floor and up walls and piers to plywood subfloor. Exterior covered with waterproofing, scratch coat drain plane, air space, weep holes, and brick over entire foundation.
- **Windows:** Double-pane, argon-filled, low-e2, vinyl single-hung frames, U=0.25, SHGC=0.27.
- **Air Sealing:** 1.1 ACH 50.
- **Ventilation:** ERV with HEPA filter, MERV 14 filter on heat pump; garage exhaust fan.
- **HVAC:** Air-to-water heat pump, 19.2 EER; rigid metal ducts in conditioned space.
- **Hot Water:** Ground-source heat pump 55-gal. desuperheater, 4.9 COP, 19.2 EER; backup: .93 EF electric 55-gal. tank water heater; central manifold with PEX pipe; recirc pump.
- **Lighting:** 100% LED, integrated lighting controls.
- **Appliances:** ENERGY STAR refrigerators and dishwasher.
- **Solar:** 6.5-kW PV system.
- **Water Conservation:** WaterSense fixtures, drip irrigation with moisture sensors.
- **Energy Management System:** Internet control of lighting, security, energy usage.
- **Other:** Wide doors/halls, curbless shower, low/no-VOCs, UV air cleaner.



Energy Efficiency &
Renewable Energy



For more information on the **DOE Zero Energy Ready Home** program, go to <http://energy.gov/eere/buildings/zero-energy-ready-home> or scan the QR code.



PNNL-SA-147375 September 2019