

High Performance Homes

U.S. DOE

ZERO

ENERGY READY HOME

2018 WINNER

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Rose Acres | Westminster, MD | hphpa.com











PROJECT DATA

- **Layout:** 6 bdrm, 3 bath, 1.5 fl + bsmt, 4,270 ft²
- Climate: IECC 4A, mixed-humid
- Completed: April 2017
- Category: custom for buyer

MODELED PERFORMANCE DATA

- HERS Index: without PV 35; with PV 14
- Annual Energy Costs: without PV \$1,300; with PV \$600
- Annual Energy Cost Savings: (vs typical new homes) without PV \$1,650, with PV \$2,350
- Annual Energy Savings: without PV 18,500 kWh; with PV 26,300 kWh
- Savings in the First 30 Years: \$104,000

CONTACT

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KEY FEATURES

- **Walls:** R-23 6.5" SIPs; house wrap; stone and vinyl siding; 4.5" SIPs; 1" closed-cell spray foam + R-19 batt at rim joists. All joints caulked.
- Roof: Asphalt shingles, 15# felt; all eaves, gables, and valleys have ice-and-water shield; kick-out flashing; 5" sidewall flashing.
- Attic: Vented attic, 1" closed-cell foam sprayed on ceiling deck + R-49 blown fiberglass = R-56 total.
- Foundation: Basement of R-21.3 insulated concrete panel walls; R-10 under slab.
- Windows: Double-pane, single-hung, low-e, argon-filled; U=0.24, SHGC=0.17.
- Air Sealing: 1.1 ACH 50.
- **Ventilation:** Controlled smart switch venting system that calculates makeup air; fresh air intake; timered exhaust.
- HVAC: Ground-source heat pump, 5.3 COP, 24.4 EER, 27.4 SEER; mastic-sealed ducts.
- **Hot Water:** 55-gallon desuperheater + 0.91 EF 55-gallon electric tank water heater. Push button recirculation pump.
- Lighting: 100% LED or CFL, all ENERGY STAR fixtures.
- Appliances: All ENERGY STAR.
- Solar: 5.94-kW PV system.
- Water Conservation: Low-flow fixtures; recirculation pump. Native landscaping.
- Energy Management System: Energy management system.
- Other: Low- or no-VOC products; motion-sensor garage exhaust fan; ADA accessible.





