



# Amaris Custom Homes

Eden Prairie | Eden Prairie, MN | MinnesotaGreenHomeBuilder.com



Photos courtesy of Amaris Custom Homes

"We are delighted by our beautiful, net-zero energy, green home of our dreams." Home owner



## PROJECT DATA

- **Layout:** 5 bdrm, 3 bath, 1 fl + bsmt, 3,184 ft<sup>2</sup>
- **Climate:** IECC 6A, cold
- **Completed:** June 2019
- **Category:** custom for buyer

### MODELED PERFORMANCE DATA

- **HERS Index:** without PV 40; with PV -2
- **Annual Energy Costs:** without PV \$1,600; with PV \$100
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$2,650; with PV \$4,100
- **Annual Energy Savings:** without 11,714 kWh, 733 Therms; with PV 27,900 kWh, 700 Therms
- **Savings in the First 30 Years:** 199,400

## CONTACT

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## KEY FEATURES

- **Walls:** 2x4 LSL studs 24" o.c., advanced framing, R-25 total: 2" closed-cell spray foam in cavities; 2" R-10 rigid foam, 7/16" OSB sheathing, house wrap, engineered wood siding.
- **Roof:** Gable roof, engineered roof trusses at 24" o.c., 1/2" OSB sheathing, ice-and-water shield, continuous ridge vent, #15 felt, architectural asphalt shingles; 2-ft overhangs.
- **Attic:** Vented attic; R-60 total: 2" R-14 closed-cell spray foam on attic floor, R-46 blown fiberglass, 15.25" raised-heel trusses, baffles.
- **Foundation:** Insulated basement, R-23 total: 1/2" drywall, 2x4 studs at 24" o.c., R-13 closed-cell spray foam, 8" poured concrete walls, polymer asphalt waterproof, 2" R-10 rigid foam.
- **Windows:** Triple-pane, argon-filled, low-e2, fiberglass casement frames, U=0.22, SHGC=0.23.
- **Air Sealing:** 0.59 ACH 50; acoustical sealant of sill plates, glue and sealant at wood-to-wood.
- **Ventilation:** ERV, timed bath fans, MERV 16 filters; motion-sensored garage exhaust fan.
- **HVAC:** 96% AFUE gas furnace; 19.2 SEER central air-source heat pump; sealed metal ducts.
- **Hot Water:** Electric tank, 0.95 EF, 100-gal.; compact distribution with PEX piping, smart recirculation pump, R-3 insulation on all hot water lines.
- **Lighting:** 100% LED.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, and washing machine.
- **Solar:** 12.28-kW PV system.
- **Water Conservation:** EPA WaterSense fixtures and toilets; 250 ft<sup>2</sup> rain garden.
- **Energy Management System:** Wi-Fi-enabled smart thermostat and PV tracking.
- **Other:** ADA-compliant doors, hallways, bathrooms, kitchen bar; electric vehicle charging station.

