Thrive Home Builders
Z.E.N. 2.0 Collection | Denver, CO | ThriveHomeBuilders.com

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“...zero energy.” Home owner

“I love that it’s zero energy.” Home owner

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-138011  September 2018

MODEL PERFORMANCE DATA
• HERS Index: without PV 38; with PV 4
• Annual Energy Costs: without PV $1,450; with PV $-50
• Annual Energy Cost Savings: (vs typical new homes) without PV $2,350; with PV $3,900
• Annual Energy Savings: without PV 8,500 kWh, 500 therms; with PV 21100 kWh, 500 therms
• Savings in the First 30 Years: $190,600

PROJECT DATA
• Layout: 5 bdrm, 4.5 bath, 2 fl + bsmt, 3,945 ft²
• Climate: IECC 5B, cold
• Completed: May 2017
• Category: production

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KEY FEATURES
• Walls: Double walls, staggered studs at 24", 2.5” space between walls, 2-stud open corners, right-sized window headers, open framed wall intersections; R-40.7 total wall, closed-cell spray foam, drywall, ½” OSB sheathing, house wrap, fiber cement siding.
• Roof: Ice-and-water shield; waterproof underlayment; metal drip edge; 30-yr asphalt shingles.
• Attic: Vented attic, R-50 blown-in fiberglass.
• Foundation: Unfinished basement with R-15 unfaced batts.
• Windows: Double-pane, argon-filled, vinyl frames, U=0.24, SHGC=0.22.
• Air Sealing: 2.29 ACH 50.
• Ventilation: ERV, balanced, meets ASHRAE 62.2, MERV 6 filter on ERV, MERV 15 filter on air purifier.
• HVAC: Heat pump, SEER 18.9, 12.2 HSPF; 97.4% AFUE gas back-up furnace.
• Hot Water: Tankless gas water heater with smart recirculation pump, 0.97 EF.
• Lighting: 100% LED.
• Appliances: ENERGY STAR-rated refrigerator, dishwasher, and exhaust fans.
• Solar: 7.93-kW PV system.
• Water Conservation: WaterSense fixtures, drought-tolerant species, drip irrigation.
• Energy Management System: Battery storage.
• Other: Low-VOC paints, low-formaldehyde wood, active radon mitigation, 2 electric vehicle charging stations.

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