



Stockell Custom Homes

Sunset Hills Custom Home | Sunset Hills, MO | Stockellhomes.com



Photos courtesy of Stockell Custom Homes

"This summer is looking promising with little to no electrical bill and a very little gas bill." Homeowners



PROJECT DATA

- **Layout:** 5 bdrm, 5 bath, 2 fl + bsmt, 7,629 ft²
- **Climate:** IECC 4A, mixed-humid
- **Completed:** December 2021
- **Category:** Custom for Buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 36; with PV 1
- **Annual Energy Costs:** without PV \$1,600; with PV \$450
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$2,900; with PV \$4,250
- **Annual Energy Savings:** without PV 36,100 kWh, 130 therms; with PV 52,800 kWh, 130 therms
- **Savings in the First 30 Years:** without PV \$141,200; with PV \$206,400

CONTACT

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KEY FEATURES

- **Walls:** 2x6, 16" o.c., R-24 total: advanced framed, R-23 blown fiberglass, R-3 insulated coated OSB sheathing with seams taped, vinyl and stone veneer siding.
- **Roof:** Shed truss roof: coated OSB, synthetic felt, architectural shingles or standing-seam metal roofing; continuous ridge vents.
- **Attic:** Vented attic, R-65 total: 2" open-cell spray-foam on attic floor, 22" blown fiberglass.
- **Foundation:** Insulated basement: 1.5" cc foam sprayed on interior behind 2x4 framed walls with R-13 batt. On exterior, spray-applied rubber waterproofing, dimpled plastic drainboard.
- **Windows:** Double-pane, argon-filled, vinyl-framed, low-e2; fixed and casement; fixed awnings and motorized blinds, U=0.25, SHGC=0.27.
- **Air Sealing:** 2.04 ACH50; sheathing taped at all seams. Sill and drywall gaskets.
- **Ventilation:** ERV with separate ducting to every room, MERV 13 filters. Dehumidifier. Dampened dedicated makeup air for range hood and dryer.
- **HVAC:** Two ground-source heat pumps, 22.2-24.8 EER, 3.9-4.4 COP.
- **Hot Water:** Ground source heat pump preheats water for two gas tankless water heaters.
- **Lighting:** 100% LED; daylight sensors, timers, controls, 3 solar tubes.
- **Appliances:** ENERGY STAR dishwasher, refrigerator.
- **Solar:** 18-kW rooftop panels, three 14-kW batteries for 42 kW total storage.
- **Water Conservation:** WaterSense fixtures; PEX piping; adaptive recirculation pump.
- **Energy Management System:** Wi-Fi energy monitoring system tracks PV production and usage of every appliance. Carbon emissions monitor. Smart thermostats.
- **Other:** Recycled-content concrete and roofing shingles. Electric vehicle charger installed.

