



Photos courtesy of Addison Homes

“Many people wonder if a conventionally-styled home can really produce as much electricity as it consumes. This project proves it’s not only possible, it’s practical.” *Todd Usher, builder, Addison Homes*



PROJECT DATA

- **Layout:** 4 bdrm, 3 bath, 2 fl, 2,625 ft²
- **Climate:** IECC 3A, mixed-humid
- **Completed:** November 2015
- **Category:** custom spec

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 47, with PV 0
- **Projected Annual Energy Costs:** without PV \$1,417, with PV \$134
- **Projected Annual Energy Cost Savings:** (vs home built to 2009 IECC) without PV \$1,040 with PV \$2,323
- **Annual Energy Savings:** without PV 9,797 kWh, 85 therms; with PV 22,627 kWh, 85 therms

CONTACT

Todd Usher
todd@addison-homes.com
864-848-2667

KEY FEATURES

- **Walls:** 2x6 24" o.c. advanced framed with insulated headers and 2-stud corners, R-19 unfaced fiberglass batt, OSB, 1" R-5 taped, R-18 total. Vinyl siding.
- **Roof:** Asphalt and PV shingles, ice-and-water shield in valleys and low roofs; kick-out flashing, synthetic felt, drip edge flashing, vent gaskets on all vents, butyl tape at all penetrations.
- **Attic:** 8" open-cell polyurethane spray foam (R-28) on underside of roof.
- **Foundation:** Unvented, conditioned crawlspace, 2" (R-13) foil-faced polyiso foam board on interior, 40-mil liner on floor, up walls and piers; exterior waterproofing.
- **Windows:** Double-pane low-e, U=0.30, SHGC=0.26. Sun tubes and venting skylights.
- **Air Sealing:** 1.4 ACH 50.
- **Ventilation:** Fresh air intake to HVAC return with air cyclor control. MERV 16 filter and photocatalytic oxidation air purifier. Timer-controlled exhaust fans.
- **HVAC:** Central heat pump 21.5 SEER, 10 HSPF. Return registers, balancing dampers.
- **Hot Water:** Tankless gas water heater, 0.97 EF, with smart controller.
- **Lighting:** 95% LED, 5% CFL, skylights, sun tubes, and roof windows.
- **Appliances:** ENERGY STAR clothes washer, refrigerator, dishwasher, ceiling fans, exhaust.
- **Solar:** 8.75-kW solar shingle array, grid tied.
- **Water Conservation:** Low-flow fixtures and toilets. WaterSense irrigation.
- **Energy Management System:** Smart HVAC, solar PV monitoring system.
- **Other:** Low-/no-VOC paints, adhesives; GREENGUARD-certified hardwood flooring, carpet, pad; non-toxic pest control, KCMA ESP-labeled cabinets, no added formaldehyde insulation. Laminated beams, I-joint floors. Finger-jointed trim and cabinets. Universal design.

