CONTACT

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.

David Everson
855-955-6466
dave@mandalayhomes.com

"Homeowners will send us their electric bills because they didn’t expect them to be that low." Builder

PROJECT DATA

• Layout: 2 bdrm, 2 bath, 1 fl, 1,872 ft²
• Climate: IECC 4B, mixed-dry
• Completed: June 2020
• Category: Production

MODELED PERFORMANCE DATA

• HERS Index: without PV 45; with PV $950
• Annual Energy Costs: without PV $1,300; with PV $950
• Annual Energy Cost Savings: (vs typical new homes) without PV $1,000; with PV $1,400
• Annual Energy Savings: without PV 8,200 kWh; with PV 11,100 kWh
• Savings in the First 30 Years: without PV $41,200; with PV $55,900

KEY FEATURES

• Walls: 2x6, 16” o.c., R-21 total: advance framed; R-21 open-cell spray foam in cavity, house wrap, exterior lath, stucco.
• Roof: Truss gabled roof: ¾” plywood, synthetic underlayment, asphalt shingles.
• Attic: Unvented attic: 7” R-30 open-cell spray foam on underside of roof deck.
• Foundation: Slab on grade.
• Windows: Double-pane, argon-filled, low-e2, vinyl frame, U=0.29, SHGC=0.23.
• Air Sealing: 0.63 ACH50, open-cell spray foam in walls and attic. Aerosol whole-house sealant.
• Ventilation: ERV w/MERV 12 filter. Exhaust fans in baths and laundry, master bath fan has humidity sensor. MERV 8 filters in returns in hall and bedrooms. 16 SRE, 73 CFM, 52 Watts.
• HVAC: Central air-source heat pump, 9.6 HSPF, 17 SEER, two-stage compressor.
• Hot Water: Heat pump, 50-gal, 3.42 EF.
• Lighting: 100% LED.
• Appliances: ENERGY STAR refrigerator, dishwasher, exhaust fan.
• Solar: 1.9-kW PV, 10-kWh battery storage, rooftop panels.
• Water Conservation: Low-flow fixtures, central manifold PEX piping, recirculation pump, drip and predictive irrigation, stormwater management practices.
• Energy Management System: PV tracking, battery usage timed to avoid peak rates.
• Other: EV charging, low/no-VOC cabinets, carpets, flooring, paints, caulks, glues. In-duct hydrogen-peroxide air purifier.