

# Mandalay Homes

U.S. DOE

ZERO

ENERGY READY HOME

2021 WILNIER

Housing
Innovation
Awards

Foothills Lot 8 | Prescott, AZ | 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 ft<sup>2</sup>

Climate: IECC 4B, mixed-dryCompleted: June 2020

• Category: Production

#### MODELED PERFORMANCE DATA

- **HERS Index:** without PV 45; with PV 34
- 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

## CONTACT

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# 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: 3/4" 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.





