

Mandalay Homes

Wickenburg Ranch | Wickenburg, AZ | MandalayHomes.com



"What better way to spread the word about healthy, energy-efficient living than through happy, satisfied home owners!" Geoff Ferrell, Mandalay Homes



PROJECT DATA

• Layout: 3 bdrm, 3.5 bath, 1 fl, 2,915 ft²

- Climate: IECC 2B, hot-dry
- Completed: May 2018
- **Category:** production

KEY FEATURES

- Walls: 2x6 and 2x8 24" o.c. advanced framed; R-15 open-cell spray foam + R-4 rigid foam; minimal sheathing; house wrap; stucco, Total = R-19.
- **Roof:** 7/16" coated OSB decking taped at seams; felt; battens; tile roofing. No roof penetrations; all vents through gable ends.
- Attic: Unvented attic; 5.5 to 7.5" R-25 open-cell spray foam on underside of roof deck.

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 46; with PV 25
- **Annual Energy Costs:** without PV \$1,550; with PV \$500
- Annual Energy Cost Savings: (vs typical new homes) without PV \$1,550; with PV \$2,250
- **Annual Energy Savings:** without PV 11,800 kWh; with PV 17,200 kWh
- Savings in the First 30 Years: \$109,600

CONTACT

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Energy Efficiency & Renewable Energy



- Foundation: Post-tensioned slab on grade, uninsulated.
- Windows: Double-pane, low-e, insulated vinyl frames; U=0.32, SHGC=0.13.
- Air Sealing: 0.74 ACH 50; whole-house aerosol sealant.
- Ventilation: ERV.
- HVAC: Zoned, 4-ton, 18 SEER, 9.6 HSPF, ECM controlled motor.
- Hot Water: 50 gal. hybrid heat pump water heater with smart recirculation pump.
- Lighting: 100% luminaire LED lights with integrated dimmers.
- **Appliances:** All ENERGY STAR appliances, including heat pump, ERV, bathroom exhaust fans, kitchen appliances, lighting fixtures, and HVAC equipment.
- Solar: 3.1-kW PV plus battery storage.
- Water Conservation: WaterSense fixtures and appliances, smart irrigation system.
- Energy Management System: Smart home automation.
- **Other:** Low- or no-VOC materials. Wi-Fi-enabled electric car charging station. Passive solar design; daylighting.





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