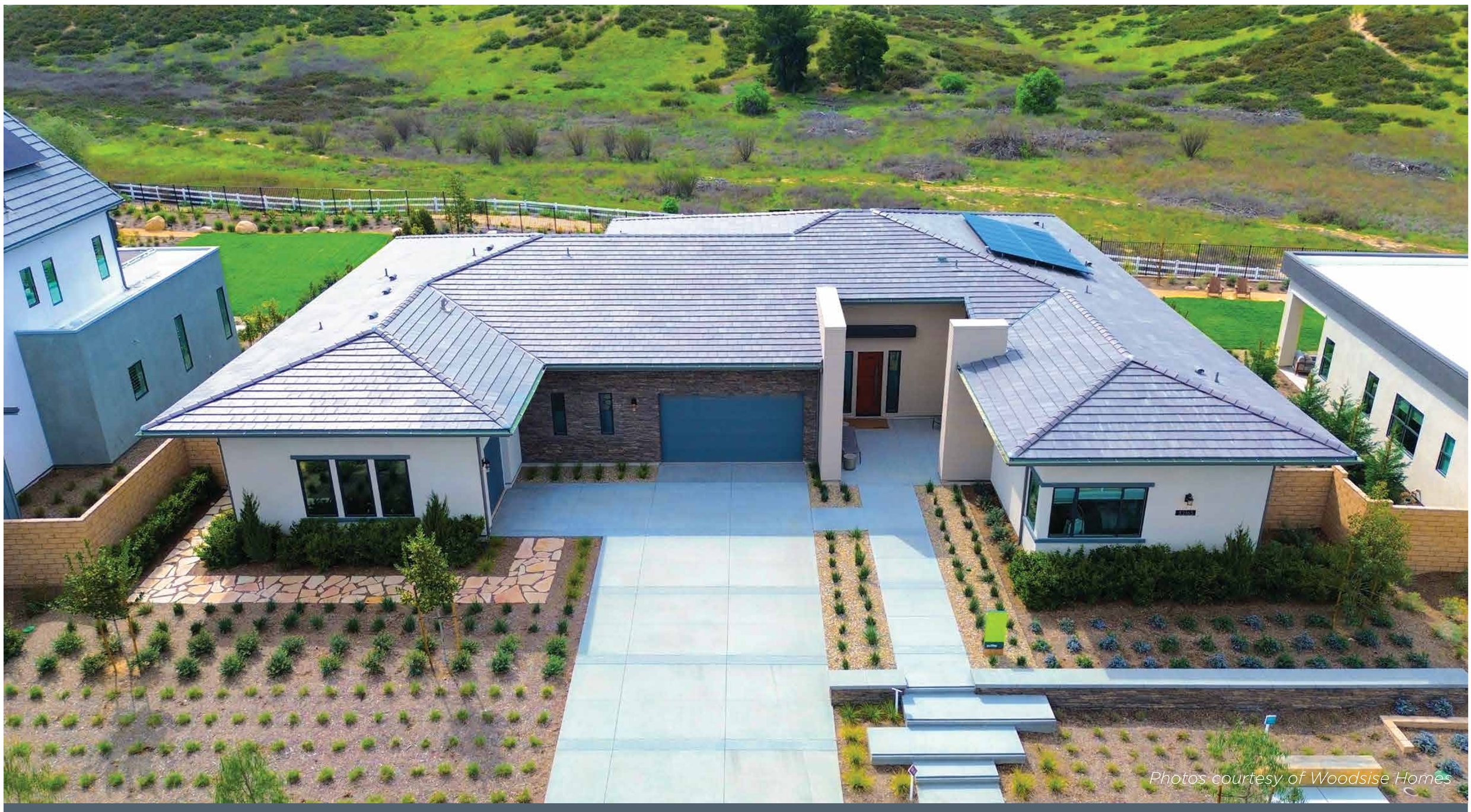
Woodside Homes

The Kiri Plan at Sommers Bend | Temecula, CA | WoodsideHomes.com

U.S. DOE ZERO ENERGY READY HOME 2024 WINNER *Housing Innovation Awards*



Photos courtesy of Woodsise Homes

"This project exemplifies how integrated design and technology can lead to carbon emission reductions while maintaining high living standards." *Woodside Homes*

PROJECT DATA

- **Layout:** 4 bdrm, 4.5 bath, 1 fl, 3,874 ft^2
- **Climate:** IECC 3B, mixed-dry
- **Completed:** October 2023
- **Category:** Production

MODELED PERFORMANCE DATA

- **ERI:** without PV 41; with PV -1
- **Annual Energy Costs:** without PV $4,650; with PV $0
- **Annual Energy Cost Savings:** (versus typical new homes) without PV $5,450; with PV $10,100
- **Annual Energy Savings:** without PV 15,540 kWh; with PV 29,245 kWh
- **Savings in the First 30 Years:** without PV $227,650; with PV $422,500

KEY FEATURES

- **Walls:** Laminated wooden post and beam and metal joints. R-19.23 total: 4.7″ medium-density spray foam, ⅜″ OSB, 1″ EPS foam, 1-coat stucco.
- **Roof:** Hip truss roof, ½″ OSB, felt underlayment, wood battens, concrete tiles.
- **Attic:** Unvented: 11″ R-30 open-cell spray foam. 24″ raised-heel energy trusses.
- **Foundation:** Slab on grade.
- **Windows:** Double-pane windows, U=0.27, SHGC=0.18. 4-foot overhangs and covered patios.
- **Air Sealing:** 1.8 ACH50; all openings are gasketed and all penetrations sealed.
- **Ventilation:** ERV, integrated with HVAC system. Boost settings controlled manually and by CO_2 and humidity sensors.
- **HVAC:** Central air-source heat pump, 9.36 HSPF, 15.8 SEER.
- **Hot Water:** Heat pump water heater, 80-gal, 4.07 UEF. Demand recirculation.
- **Lighting and Appliances:** ENERGY STAR appliances.
- **Solar:** 12.4-kW PV, 54-kWh batteries.
- **Energy Management System:** PV energy production and storage monitored through an app. System automatically optimizes energy storage to reduce grid power usage during peak demand times.
- **Other:** 2 Electric vehicle chargers. Laminated wood and steel foundation system.

CONTACT

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U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

For more information on the DOE Zero Energy Ready Home program, go to https://www.energy.gov/eere/buildings/zero-energy-ready-home-program or scan the QR code.

Building America U.S. DEPARTMENT OF ENERGY

Sept. 2024, PNNL-SA-204003