



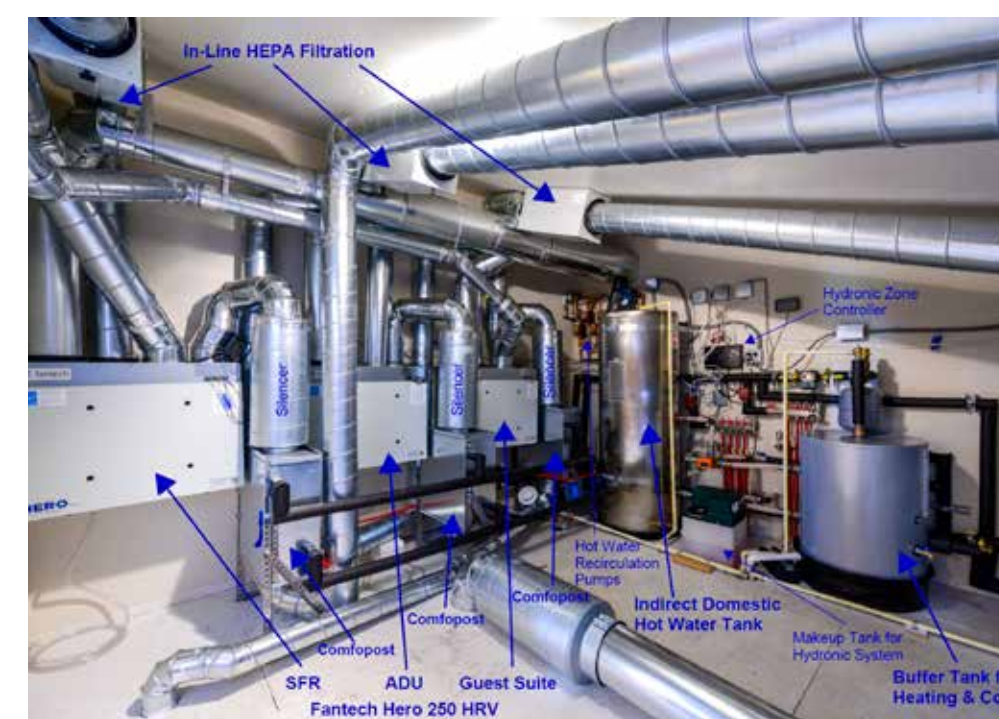
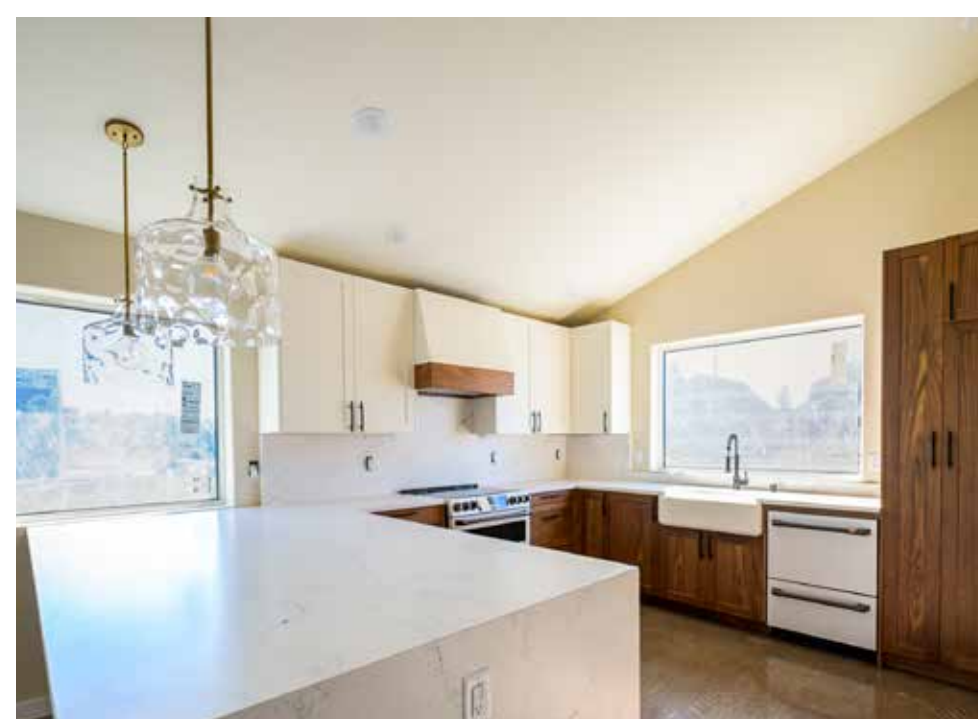
TC Legend Homes

Lynden Powerhouse | Lynden, WA | TCLegendHomes.com



Photos courtesy of TC Legend

“Regardless of conditions [outside], we’ll always have plenty of fresh air.” Homeowners



PROJECT DATA

- **Layout:** 5 bdrm, 5 bath, 2 fl, 2,391 ft²
- **Climate:** IECC 4C, marine
- **Completed:** September 2023
- **Category:** Custom

MODELED PERFORMANCE DATA

- **ERI:** without PV 33; with PV -24
- **Annual Energy Costs:** without PV \$1,100; with PV \$100
- **Annual Energy Cost Savings:** (versus typical new homes) without PV \$1,850; with PV \$3,700
- **Annual Energy Savings:** without PV 11,626.3 kWh, with PV 31,951 kWh
- **Savings in the First 30 Years:** without PV \$77,550; with PV \$155,600

CONTACT

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KEY FEATURES

- **Walls:** SIPs, R-29 total. 6.5" graphite SIPs, self-adhered breathable weather-resistant membrane, plastic mesh, fiber cement siding.
- **Roof:** SIPs gable roof, self-adhering breathable vapor barrier. Metal roofing.
- **Attic:** Unvented vaulted ceilings: 10.25" R-48 graphite EPS SIP panels.
- **Foundation:** Slab on grade with 11.25" R-23.6 ICF stem wall. R-20 foam under slab.
- **Windows:** Triple-pane windows, U=0.16, SHGC=0.45, Low e, argon fill. Extended roof and eaves.
- **Air Sealing:** 0.45 ACH50; All SIP panel joints are double-bead mastic sealed; internal seams are taped, windows are foamed-in, all penetrations sealed with foam; whole-house sealed with aerosolized acrylic.
- **Ventilation:** HRV, integrated with HVAC system. Humidistat, motion sensor, CO2, PM, VOC, and temperature monitor.
- **HVAC:** Air-to-water heat pump, radiant floor heating, 3 fan coils, 4.62 COP.
- **Hot Water:** Air-to-water heat pump, combined domestic hot water and space heating, 80-gal, 4.62 COP. Adaptive recirculation. WaterSense-labeled fixtures.
- **Lighting and Appliances:** LED lighting, ENERGY STAR appliances.
- **Solar:** 17-kW PV, 30.7-kWh batteries.
- **Energy Management System:** IAQ monitoring.
- **Other:** Two EV chargers and an RV charger. 5,000-gallon rainwater cistern for irrigation.

