A lowered second-floor wall height decreased the volume of the house... and reduced heating and cooling loads in the building.  

John Slater, builder, Energy Vision Homes

Energy Vision Homes
Hollis House | Hollis, NH | EnergyVisionHomes.com

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PROJECT DATA
- **Layout:** 4 bdrm, 2.5 bath, 2 fl, 3,197 ft²
- **Climate:** IECC 5A, cold
- **Completed:** February 2022
- **Category:** Custom for Buyer

MODELED PERFORMANCE DATA
- **HERS Index:** without PV 26; with PV -7
- **Annual Energy Costs:** without PV $1,650; with PV $200
- **Annual Energy Costs Savings:** vs typical new homes without PV $4,850; with PV $6,500
- **Annual Energy Savings:** without PV 8,800 kWh; with PV 27,750 kWh
- **Savings in the First 30 Years:** without PV $197,750; with PV $264,250

**KEY FEATURES**

- **Walls:** 2x6, 24 in. o.c., total R-41: ⅝” drywall; 1-⅝” service cavity, vapor-open membrane, 5-⅝” dense-pack fiberglass in wall cavity, ½” CDX plywood, vapor-open WRB, 5” mineral wool board, ¼” furring strips/drainage plane, cedar siding.
- **Roof:** Truss gable roof, ¾” CDX sheathing, self-adhered bituminous membrane over whole roof, fiberglass shingles; 22” raised heel trusses.
- **Attic:** Vented attic with 18” R-38 blown fiberglass.
- **Foundation:** Basement, ¾” drywall, 2x4 24” o.c., vapor-open membrane, 1” Type IX closed-cell EPS, 10” concrete, self-adhered membrane, 5” mineral wool, dimple mat.
- **Windows:** Triple-pane, low-e2, argon-filled, vinyl-framed, tilt-turn; U=0.15, SHGC=0.51.
- **Air Sealing:** 0.60 ACH 50. Sub-slab poly and vapor-open wall and ceiling air barriers were taped together at seams. All penetrations sealed with tape and fluid-applied flashing.
- **Ventilation:** ERV, 116 CFM, 44 Watt, SRE 83; separately ducted, MERV 13 filter, CO₂ sensor.
- **HVAC:** Ducted mini-split heat pump; 11 HSPF, 18 SEER, 3 indoor air handlers, 3 outdoor compressors. Rigid metal ducts, sealed and insulated, compact design, in conditioned space.
- **Hot Water:** Heat pump water heater, 65 gallon, EF 3.85; in basement.
- **Lighting:** 100% LED, large windows used throughout the home.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer, primary water heater.
- **Solar:** 9.75-kW of solar panels; installed on barn roof.
- **Water Conservation:** EPA WaterSense certified whole house.
- **Energy Management System:** PV software tracks production. Wi-Fi HVAC controls.
- **Other:** All materials Green Guard Gold Certified. No Redlist products were used.