Hutch Homes (hutchhomesinc.com)

PPL Electric Utilities | High-Performance New Homes

General Information

Location	Carlisle, PA
Layout	2 story, 4 bedrooms, 3 baths
HERS® Index Score	42
Estimated Monthly Bill	$231
Estimated First-Year Savings (compared to Code Home)	$2,029

Energy Contractors

Rater	PA Energy Auditors *paenergyauditors.com*
Mechanical	Kole Brothers *kolebros.com*
Air Sealing	Accurate Insulation *accurateinsulationpa.com*

Key features:

1. **Superior Walls® foundation:** A high-performance home starts with the foundation. In this case, high-density, waterproof concrete forms the backbone of the foundation system. The walls come insulated to an R20 and are craned into place. The entire foundation was set in 2 days.

2. **Continuous insulation:** Most houses only have insulation between wall studs and attic rafters. This insulation is great when installed well, but it doesn't stop heat loss or gain through the framing. This house has insulated ZIP System® R-sheathing (green panels) covering the entire home. It provides continuous R6 insulation covering all the wood framing. The green color is the product's water-resistant layer.

3. **Specialty air sealing:** In addition to interior foams, caulks and gaskets, high-performance homes use specialty tapes to seal around windows, doors, where all the sheathing butts into itself and where the sheathing meets the foundation.

   (A) The black tape is made specially for ZIP System® sheathing. All seams are taped, as well as window and door openings.

   (B) The gray tape allows vapor, but not air, to move through it. That way, the framing around openings can breathe.

Learn more:

Visit **pplelectric.com/HighPerformance** for more information.

Estimated bill and savings based on expected appliance usage in energy-efficient model home. PPL Electric Utilities and its partnering suppliers make no guarantee of usage, costs or savings and are not responsible for any variation in actual usage, costs or savings from this estimate.

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4. **Grade 1 insulation:** Looking around the house now, all you see is walls, windows, doors and trim work. Behind the Sheetrock, there is a world of details that you'll never see — a world of high-performance framing. Better framing creates more room for insulation. This lowers your energy use and increases comfort.

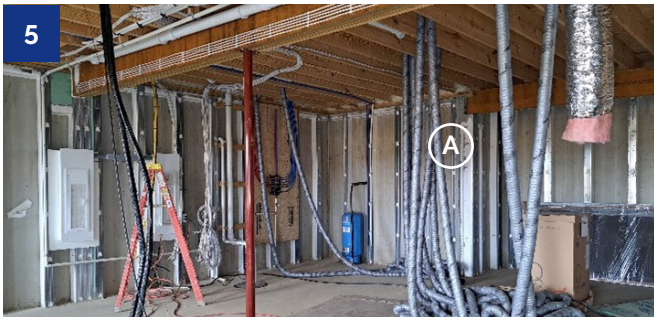
   (A) The attic space is part of the conditioned space of this house. It achieves this by spraying closed-cell foam on the attic walls and roof. This increases the airtightness of the house and allows the HVAC system to function much more efficiently.

   (B) This home has blown fiberglass insulation in the wall cavities with no gaps or voids that could allow heat loss in the winter or heat gain in the summer. This is considered a Grade 1 insulation job.

   (C) As a special upgrade, this home has rockwool insulation placed in all the interior walls for soundproofing.

5. **Mechanicals:** The mechanical systems include plumbing, electric and HVAC. Here's a peek at the high-tech mechanical systems while they're being built out. The smaller ducts hanging on the right **(A)** are for the Zehnder® Energy Recovery Ventilator (ERV). This system is designed to bring fresh air into the house and exhaust all the stale and polluted air you don't want.

6. **Under-slab insulation:** Basement slabs are one of the most overlooked details in homes. They need to be insulated and waterproofed. This photo shows you the 2" foam board insulation laid out on a compacted gravel base. The next step is to cover the entire floor with a waterproof membrane before the slab is poured. This guarantees a warm and dry subfloor for your basement rooms.



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