

NET ZERO Fact Sheet



Basalt Vista || Net Zero Energy Neighborhood || Basalt, CO

Habitat for Humanity of the Roaring Fork Valley has teamed up with the Community Office for Resource Efficiency (CORE) to add another advantage to the Basalt Vista affordable neighborhood this added benefit is to pursue the lowest possible utility bill for each resident. The project -- Basalt Vista -- is designed to provide affordable, sustainable homeownership for Roaring Fork School District employees and workers in Pitkin County. The first phase of construction, completion of nine homes, will begin in Fall 2018.



Goal: The Basalt Vista project team is looking to make the new affordable housing community a showcase neighborhood and provide a template for building affordable net zero energy communities.

Net-Zero: Simply put, net-zero energy buildings produce as much energy in a year as they consume. The model in achieving this result is to build as efficiently as you can upfront, by meeting or beating strict new energy codes; then installing onsite renewable energy systems to produce that power where it is needed.

Game-plan:

1. **Electrification:** The project is looking to power and heat this new neighborhood solely with electricity. Each home's traditional furnace will be replaced with a high-performing cold-climate air-source heat pump. These units provide heating 2-3 times more efficiently than traditional electric baseboards during the heating season and will also provide efficient cooling in the summer, with no additional equipment to buy or install.
2. **High-Performance Building Envelope:** A fundamental step in creating a net-zero neighborhood is to build the homes as air-tight and well-insulated as possible. Habitat is committed to meeting or even exceeding the new IECC 2015 code. A report by the Pacific Northwest National Laboratory determined that a home built to the 2015 IECC code uses 33% less energy than the standard home constructed to the 2009 energy code.
3. **On-site Energy Production:** The final step was to meet the total electrical demand with on-site renewable energy production. This will come in the form of an 8KW rooftop solar system for every unit. These solar panels will be delivering excess energy to the Holy Cross Energy grid during sunny days in order to "bank" that energy for when the homes will need to draw that power - at night and on cloudy days.

Valued Partnerships:

- Roaring Fork School District: donating land
- Pitkin County: funding for infrastructure (road & utilities) and rooftop solar
- Town of Basalt: reducing permit fees
- Holy Cross Energy: donating equipment on first 4 units for a pilot with NREL to study impacts of distributed energy.
- Bryant-Colorado: free heating and cooling units

Design + Construction Team:

- 2757 design+build co. || FCI Constructors || REG || Sunsense Solar