

## colorado affordable housing Alta Verde Brief Case Study | Breckenridge, Colorado



### Project data

Project Location	Breckenridge, CO
Climate Zone	7
Housing Tax Credit	Federal 9 percent Housing Tax Credits
Placed in Service	2022
Size (sf)	81,358 sf
Floors (#)	2
Units (#)	80 (38 one-bedroom, 36 two-bedroom, eight three-bedroom)
Buildings (#)	3
Construction Type	New
Fuel Type	All-electric
Green Building Certifications	Zero Energy Ready Homes (ZERH) Certification
Total Development Cost	\$32,337,000 (2022)

### Overview

Alta Verde is a net-zero apartment community located in Breckenridge. Its design serves a dual purpose: to address the town's pressing need for increased housing supply while striving to meet robust sustainability objectives. This development represents an ambitious all-electric design, employing enough energy efficient strategies and solar onsite to offset energy consumption. Alta Verde went into service in late 2022. The project earned Gorman & Company the American Planning Association Colorado Chapter's 2022 Merit Award for Sustainability and Planning, and ULI Colorado's 2023 Innovation Award.



## Electrification strategies and features



### Water Heating

Individual electric resistance water heaters



### Space Heating & Cooling

Individual cold climate split system heat pumps



### Ventilation

In-unit energy recovery ventilation (ERV)



### Cooking

Electric resistance stoves

## Planning and design approach

Alta Verde received the US Department of Energy’s Zero Energy Ready Homes (ZERH) certification in addition to its all-electric status. Alta Verde’s design features a 650 kilowatt (kW) photovoltaic (PV) solar system designed to produce enough energy onsite to offset all of the property’s energy consumption. This works in tandem with an enhanced building envelope and electric HVAC and domestic hot water systems. This design was driven largely by the [Summit County Climate Action Plan](#) and requirements by the Town of Breckenridge to cut carbon emissions in half by 2030 and achieve net-zero status by 2050.

Alta Verde uses cold climate split system heat pump technology. Breckenridge, in International Energy Conservation Code (IECC) climate zone 7, can have extended sub-freezing temperatures that can challenge heat pump efficiency. Conventional heat pumps switch to less-efficient electric resistance heating in extremely low temperatures. Cold climate heat pumps, however, can operate efficiently even in temperatures as low as negative 20 degrees Fahrenheit without switching to resistance heating, ensuring that buildings in cold climates can enjoy the benefits of efficient heating. *To learn more about [electric space heating and cooling](#), visit our [technical roadmap](#).*

This development approached sustainability by focusing on their climate, envelope efficiency, and systems to optimize performance. This comprehensive approach is critical to maximizing the impact of high-performance building to operate efficiently and to meet the needs of residents.



## Project team

Developer	Gorman & Company
Architect	Gorman Architectural, LLC
Landscape Architect	Norris Design
General Contractor	Gorman General Contractors, LLC
Structural	Martin/Martin Consulting Engineers
Civil	Ware Malcomb
Mechanical, Electrical, and Plumbing (MEP)	Given & Associates, Inc.
Energy	Group14 Engineering

[multifamily-ehub@chfainfo.com](mailto:multifamily-ehub@chfainfo.com)  
[multifamily-ehub.chfainfo.com](http://multifamily-ehub.chfainfo.com)