



One Riverfront Case Study | Avon, Colorado

Project Data

Project Location	Avon, CO
Climate Zone	6B
Placed in Service	2024
Size (sf)	102,990 sf
Floors (#)	6-stories + 2-stories parking garage
Units (#)	46 condos + 13 townhomes
Buildings (#)	5 buildings (1 condo building + 4 townhomes buildings)
Construction Type	New
Fuel-Type	All-Electric



Overview

One Riverfront is a luxury lodging development located in Avon, CO, designed to deliver a high-end guest experience while advancing ambitious sustainability and energy efficiency goals. The project features an all-electric design that integrates high-performance energy efficiency strategies and onsite renewable energy to significantly reduce operational energy use and greenhouse gas emissions.

Electrification Strategies and Features

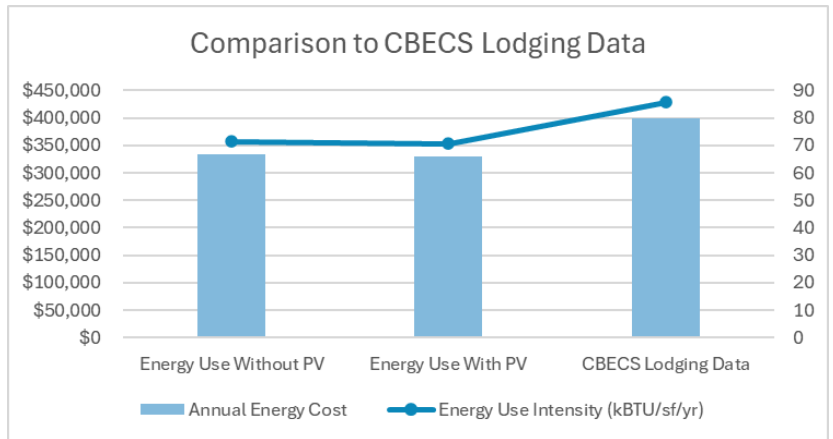
The design of the project aligns with regional climate objectives including the Town of Avon’s goals to reduce community wide carbon emissions and transition toward a low-carbon built environment. These goals informed a design that prioritizes efficiency, electrification, and long-term resilience in a cold, high-altitude climate.

The table below highlights the project’s primary design features. The design is anchored by a high-performance envelope, which reduces heating loads and infiltration of outdoor air. The project features a fully electric design with fan coil units served by a high-efficiency, water-cooled chiller and a centralized all-electric boiler plant that serves space conditioning, domestic hot water, snowmelt, and pool heating. Additionally, appliances such as ranges and fireplaces that are traditionally gas-fired are also fully electric which is an approach that is unprecedented in luxury design.



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Roof	R-30 cavity insulation + R-32.4 continuous insulation (U-0.015)
Exterior Walls	R-20 batt in 2 x 6 metal studs + 2.6" (R-12.9) continuous insulation (U-0.045)
Windows	U-0.32, SHGC-0.26
Lighting	0.20 W/sf interior
HVAC, DHW, Snowmelt, Pool Heating	Hydronic fan coil units 0.61 kW/ton water cooled chiller Heating served by all-electric boiler plant
PV	25 kW PV system



¹<https://www.eia.gov/consumption/commercial/data/2018/ce/pdf/e2.pdf>

Successes & Lessons Learned

Designed without natural gas service, it is on track to be the first fully electric luxury condominium building in Eagle County. This project lays the foundation for future all-electric luxury developments to further reduce their carbon footprints through the utilization of heat pumps and other all-electric technologies.

Through its integrated approach to electrification, efficiency, and renewable energy, One Riverfront demonstrates that luxury lodging developments in Colorado’s mountain communities can achieve exceptional performance while meaningfully reducing energy consumption and carbon emissions. The project serves as a model for future hospitality developments seeking to align premium guest experiences with long-term sustainability and climate resilience.

	Without PV	With PV
Total Annual Energy (kBTU)	10,634,194	10,514,774
Total GHG Emissions (lbs CO2)	2,861,134	2,829,004
Total GHG Intensity (lbsCO2/sf/yr)	19.2	19.0
Social Cost of Carbon (2025 2050)	\$107,717 \$150,545	\$106,508 \$148,854