Colorado Multifamily Affordable Housing Electrification Hub

colorado affordable housing Fruita Mews Case Study | Fruita, Colorado



Project data

Project Location	Fruita
IECC Climate Zone	5
HTC Deal Type	Federal 9 percent Housing Tax Credits
Completed	2024
Size (sf)	48,431
Levels (#)	2
Units (#)	50 (9 one- bedroom, 31 two-bedroom, 11 three-bedroom)
Buildings (#)	11
Construction Type	New construction
Fuel Type	All-electric
Green Building Certifications	National Green Building Standard – Bronze, Energy Star, IECC 2018 Compliant
Total Development Cost	\$22,906,981 (2024)
Operational Cost (PUPA)	\$5,230



Overview

Fruita Mews, undertaken by developer IndiBuild, is intended to help meet the need and desire for more affordable housing demonstrated in the 2021 Grand Valley Housing Needs Assessment as well as the City of Fruita's 2020 Comprehensive Plan. At the outset of the project, the IndiBuild team conducted outreach and engagement activities with local government, schools, major employers, and more to help educate the community about affordable housing and to better understand their needs and perspectives. The result is an affordable community of 50 townhomes serving residents with incomes between 30% and 100% of the Area Median Income (AMI). The community features several amenities for residents, including a clubhouse for afterschool science, technology, engineering and mathematics (STEM) programming and homeownership classes, communal greenspace, an outdoor amphitheater, connection to the local nature trail, and safe walking routes to local schools.

Electrification strategies and features



Water Heating Individual electric resistance water heaters



Ventilation Constant exhaust



Space Heating & Cooling Split system, centrally ducted cold climate heat pump

Cooking Electric resistance stoves

Planning and design approach

It was important to the IndiBuild team that the Fruita community received high-quality affordable housing. As this is the first Housing Tax Credit development in Fruita, IndiBuild coordinated closely with the local government to support the establishment of a housing authority to partner with on the project.

Moreover, IndiBuild was guided by its values to provide housing that offers more than just shelter for residents, but the opportunity to be in community. The team designed the site to reflect the surrounding neighborhood.

The decision to build all-electric was a natural one for the IndiBuild team, who focuses on housing that is both "attainable and sustainable." The project team chose to prioritize highly efficient design, evidenced by the decision to use a split system, centrally ducted, cold climate heat pump in Fruita Mews. This is a best-inclass space conditioning system that can operate in heat pump mode at outdoor air temperatures below zero degrees Fahrenheit. Split systems such as this also offer higher efficiency compared to packaged systems and fossil fuel systems, contributing to lower operating costs. Although there is a higher upfront cost associated with this system compared to less efficient heat pump systems and even fossil fuel alternatives, it was important to the IndiBuild mission to implement this highly efficient system.

To learn more about electric space heating and cooling, visit our technical roadmap

Water heating is provided to units through electric resistance water heaters in each townhome. This system, while not as efficient as its heat pump counterpart, offers a lower up-front cost to developers. Having made a significant investment in the highly efficient space heating and cooling system at Fruita Mews, this was a trade-off that the project team was willing to make.

To learn more about electric water heating, visit our technical roadmap

Fruita Mews employs constant exhaust ventilation. In this system, the negative pressure in the units generated by kitchen or bathroom exhaust fans actively draws fresh air from the outdoors into each apartment. This strategy provides a cost-efficient alternative for installation and maintenance compared to other ventilation methods and is commonly used in affordable housing development to provide better indoor air quality for residents.

To learn more about ventilation, visit our technical roadmap

Fruita Mews is solar-ready, and the IndiBuild team hopes to implement a solar garden on the property in the future, but did not have the budget for this initially. IndiBuild won't be able to provide credits to residents on their energy bills through the solar garden when it is built due to policies set by the electric cooperative that services the property. The credits will help lower operating costs for the property's clubhouse and other common spaces, however.

To learn more about renewable energy generation, visit our technical roadmap



Financing and cost

The total development cost (TDC) of Fruita Mews was \$22.9 million. The per unit per annum (PUPA) cost is \$5,230 (2024). This is lower than the Mesa County average of \$7,419 which includes older developments (CHFA Per Unit Per Annum (PUPA) Reporting).

When the IndiBuild team decided to design an all-electric property, the team chose to pursue funds through the High Efficiency Electric Heating and Appliances (HEEHA) grant program through the Colorado Energy Office. This program, which is no longer accepting applications, supported community efforts to switch to high efficiency electric heat and appliances. The IndiBuild team was awarded \$1.39 Million in HEEHA funds to make the upfront investment in efficient, all-electric building systems for Fruita Mews. Notably, the team wanted to purchase electric clothes dryers using some of their HEEHA funds, but the bill that funded the program did not explicitly state that funds could be used for that purpose. The IndiBuild team successfully worked to support a bill amendment so they could use their funds to purchase the electric clothes dryers.

The team is also in the process of certifying to obtain 45L tax credits through their electrification efforts, a tax credit for eligible new or substantially reconstructed homes that meet applicable ENERGY STAR home program or DOE Zero Energy Ready Home (ZERH) program requirements. Fruita Mews is certifying to Energy Star.

To learn more about current funding, financing, and incentive opportunities that support all-electric development, visit our Resource Finder

Successes

Although Fruita Mews has only been operational for a short time, the project team has been successful in developing high-quality affordable housing. Additionally, the development of all-electric affordable housing outside of the Front Range can be considered a success in itself, and Fruita Mews offers a roadmap and learnings for developers pursuing a similar approach in non-urban communities throughout Colorado.

The IndiBuild team reported successful community engagement and bridge-building throughout the development of Fruita Mews. The team reported that they worked with the area's largest employers to create affirmative marketing programs, worked with state agencies and lawmakers to secure critical funding for the project, and engaged local organizations to provide resident services, all in service of addressing a critical need for affordable housing in Fruita.





Lessons learned

The IndiBuild team had hoped to construct a community solar garden at Fruita Mews and offer discounts to residents through virtual net metering, but early in the design phase it became apparent that the electric cooperative serving the property did not have policies supportive of this arrangement. IndiBuild notes that it is important to discuss solar generation with your utility provider, especially in rural areas serviced by cooperatives, to understand restrictions early in the design phase. Although IndiBuild still hopes to develop a solar array at Fruita Mews, they decided not to proceed with one in the initial phase of development.

Importantly, the IndiBuild team noted that it was difficult to find contractors experienced with all-electric development for this project. They found that local contractors did not have as much experience with the requirements and reporting associated with some of the incentives used in all-electric projects, and largely hired subcontractors from across the Western Slope and Front Range for this reason. The team accepted the increased cost associated with the distance these subcontractors had to travel to work with them on Fruita Mews.

Project team

Developer	IndiBuild
Architect	alm2s
General Contractor	Bryan Construction
Structural Engineer	Raker Rhodes Engineering
Civil Engineer	Vortex Engineering, Inc.
Mechanical, Electrical, and Plumbing (MEP) Engineer	Integrated Mechanical; APS, Inc.
Energy Engineer	Group14 Engineering

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