



Opportunity Council's Laurel Forest project exceeds the 2018 Washington State Energy Code by 27%

A case study of PSE's Multifamily New Construction incentive estimation using energy modeling

Project overview

The Laurel Forest project in Bellingham, WA exemplifies how energy efficiency and community support can go hand in hand. Completed in December 2023, this 60,960 square foot affordable senior living facility includes 56 residential units, a childcare facility, offices, and parking. Designed to address both the housing crisis and the childcare shortage, Laurel Forest provides affordable homes for older adults, with rent intentionally set below market rates. By co-locating the senior living and childcare facility, the project fosters intergenerational learning opportunities.

Through Puget Sound Energy's (PSE) Multifamily New Construction program, implemented by Willdan, the team collaborated to identify high-impact energy efficiency measures.

Energy savings at a glance



ELECTRIC SAVINGS

132,222 kWh



ENERGY GRANT

\$79,000



ENERGY COST SAVINGS

\$13,222 (27%)

Willdan provided energy modeling support, benchmarking guidance, and details on incentives offered by PSE, ensuring the project remained both energy-conscious and economically viable. In addition to the energy efficiency measures, the energy model helped the team evaluate how incorporating a solar photovoltaic system could reduce operating costs and environmental impact. As a low-income housing development, Laurel Forest qualified for PSE's 50% incentive bonus, offering significant financial support to maximize energy performance. This combination of innovative design, sustainable strategies, and community-focused development helped create a model for future affordable housing projects.



"Working with Puget Sound Energy on the Laurel Forest Apartments created many opportunities for the project to pursue additional features that benefit the Bellingham community while also decreasing the project's carbon emissions. In collaboration with Wildan Energy Solutions, PSE provided essential energy projections for the building, allowing Opportunity Council to make informed decisions when prioritizing the various energy-saving features available to the project during the construction process... Puget Sound is a valuable community partner in the development of affordable housing, and we look forward to working with them again in our future projects."

Turner Campbell,
Opportunity Council

Energy efficiency strategies

The team refined strategies to optimize energy savings throughout the design process, including:

- Incorporating advanced insulation (including R-40 roof insulation), higher-performance glazing systems, and a white reflective roof into the building envelope to improve thermal efficiency.
- A central heat pump water heater system provides efficient water heating, and low-flow kitchen and bathroom fixtures help reduce water use.
- The HVAC system features split system heat pumps and energy recovery ventilators to improve heating, cooling, and ventilation efficiency.
- ENERGY STAR® refrigerator, which reduces plug load energy consumption by using fewer watts per hour than standard models.
- Evaluating the feasibility of a 40kW solar PV system to support on-site energy generation.
- LED lighting is used throughout, with occupancy and daylighting sensors to enhance energy savings.

About PSE's Multifamily New Construction grant program

The program provides grants for energy-efficient equipment and design strategies that exceed Washington State Energy Code requirements. We support business owners and developers with an array of financial incentives designed to help new buildings reduce energy usage and costs. Our incentives can help customers save up to 100% of the cost to exceed current energy code requirements.