Modernizing inside and out at The Fedroy Apartments

Project Overview

Apartments — King County

The Fedroy Apartments Seattle, WA

- Built in 1910
- 3 floors

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- 16 units with master gas meter
- Equipment installed:
 - NTI Trinity 94.7% high efficiency boiler
 - NTI Trin & Stor Storage Tank
- Contractor: Northwest Hydronic Heating, Inc.
- System cost: \$17,500
- Incremental cost of high efficiency upgrade: \$6,682
- PSE incentive: \$4,570
- Savings: 15% annually
- Simple payback after grant: 2.6 years

When property manager Josh Fletcher acquired The Fedroy Apartments in Seattle in 2013, he bought into the charm of the 1910 building, as well as the systems of a 1910 building. Specifically, the large boiler—originally coal and later converted to natural gas—was very old. "The boiler inspector said ours was one of the oldest ones still in service in the city," chuckles Fletcher. And amazingly, the well-built boiler still did its job, providing heat to the 16 unit three-story building—supplemented by a second boiler for water heating—despite a few seasonal hassles. Each year Fletcher found it harder to find contractors who knew how to maintain an older system, including shutting it down in the late spring and starting it back up again in the fall.

After about a year and a half of building ownership, Fletcher undertook a large project to modernize the look of the building, which included new windows. He then called Puget Sound Energy (PSE) to learn about rebates for energy efficiency improvements. After the free audit of his building, conducted by the PSE Multifamily Retrofit Program, Fletcher learned that in addition to incentives for window upgrades, he could get incentives for insulation and a boiler replacement to help offset project costs.





"I've already talked to other property owners in this area and urged them to work with PSE to complete upgrades," says Fletcher. He added that while the upgrades probably would have happened eventually, the PSE rebates influenced him to do the work now and help make up the costs. "PSE was great to work with."

Fedroy Apartments owner
Josh Fletcher

The boiler upgrade was not 'prescriptive' so PSE conducted an analysis on the building's current efficiency level and gave Fletcher a custom rebate based on the estimated energy savings. Replacing the windows—Fletcher's original goal—was most important to him from an aesthetic standpoint, but the decision to move forward with the insulation and boiler replacement were driven by the PSE rebates. "Once we made the decision to invest in these capital projects, it helped to bundle everything as one large project and get the rebates from PSE."

With windows replaced and insulation added to the ceiling and walls, the attention turned to the boiler room. In it were two boilers: one for radiator space heating in the tenant units and another one to provide domestic hot water. The contractor, Northwest Hydronic Heating, Inc., was able to replace both boilers with one NTI Trinity FT 94.7 percent efficiency wall-hung boiler that provides both heat and hot water to all the resident units.

"With the old boilers gone and the new boiler mounted on the wall, there's a lot more room. The unit is smaller – but it's mighty – and does the job of two," says Fletcher.

PSE estimates that the new high efficiency boiler will reduce natural gas use by 15 percent, saving approximately \$900 a year, with a simple payback of the incremental upgrade cost in just two-and-ahalf years after PSE rebates.

The Fedroy's units are not individually metered; heating and hot water costs are passed on to tenants as a flat fee. Fletcher expects that with the reduced heating costs from the more efficient boiler system and the window and insulation improvements, tenants will see their monthly utility fee reduced as well.

