



ENERGY BENCHMARKING PAYS OFF

TRACKING ENERGY USE HELPS OFFICE BUILDING SAVE 30%

Back in 2014, the 1201 Lloyd building, located in NE Portland's Lloyd EcoDistrict, had a respectable, but unexceptional, ENERGY STAR® rating of 75—the lowest score that still qualifies for certification. According to property manager Lisa Klein, 75% of 1201 Lloyd's tenants are government agencies, which require the property to be ENERGY STAR-certified. Together with building engineer Don Leland, Klein embarked upon a journey to benchmark the building's energy performance and make smart investments to improve building performance.

HVAC and lighting investments reap rewards

The transformation began when the property management team looked for energy-saving solutions from Energy Trust of Oregon and other partners—BetterBricks, Conserve Energy, Lloyd EcoDistrict, Ameresco and Klein's HVAC vendors. These partnerships helped Klein and Leland uncover several inefficiencies in building systems that were ripe for improvement. Energy Trust provided technical assistance in the form of engineering studies, as well as cash incentives to help reduce upfront costs.

To get started, the team first addressed the HVAC system. The engineering study showed that the makeup air unit was running 24/7, which was wasting a significant amount of energy. A retro-commissioning project was completed to improve efficiency of the unit. Further energy savings were achieved when the building's HVAC system was retrofitted with a variable frequency drive (VFD) and demand-control ventilation (DVC).

Next, the building staff evaluated 1201 Lloyd's interior lighting and came up with a plan for an LED lighting upgrade on several floors. The results are improved quality of lighting for tenants and significantly lower energy costs for building managers. There was also a benefit for the maintenance crew, since LEDs are longer-lasting than the fluorescent T8 lighting it replaced.

PROJECT DETAILS

Years of benchmarking experience:
since 2014

Building type: Office building

Location: Portland, Oregon

Project floor area: 233,740 sq. ft.

2018 ENERGY STAR rating: 85

Site Energy Use Intensity (EUI): 54.6

Annual energy savings: 1 million kWh
and 3,000 therms



Over the course of four years, numerous energy-efficiency projects were completed—**saving a staggering total of over one million kilowatt hours of electricity and 3,000 therms of gas in first-year savings alone.** Each year savings continue to grow as 1201 Lloyd implements additional energy-efficiency projects.

Energy-saving strategy raises score, reduces costs

The building’s success story shows how tapping into the available network of support can help property managers make tangible, incremental improvements to a building to improve building performance and reduce their energy-related operating costs. 1201 Lloyd completed its most recent energy efficiency project in 2018 and is on track for even lower energy costs in 2019. By continually benchmarking and tracking performance, 1201 Lloyd has been able to reduce their energy use by 30% since starting energy benchmarking.

“Since we’re involved with the Lloyd EcoDistrict, we’re really proud of our accomplishment and in doing the best we can to see energy efficiency improve within this area,” said Klein. “If other managers are looking to improve the energy efficiency of their buildings, talk to your utility providers, HVAC providers, Energy Trust, Green Building Services or other companies that offer those types of services. My advice is to talk to as many people as you can, because it’s the best way to take action.”

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Lisa Klein
property manager



Find out how Energy Trust can help improve the energy performance of your building, visit www.energytrust.org/energybenchmarking, call 1.866.605.1676 or email existingbuildings@energytrust.org.