

Energy retrofits catch on in the Treasure Valley

A pilot project is phasing in upgrades at a Downtown Boise office building. New lights and temperature control equipment are part of an overhaul of an iconic Garden City hotel.

By SVEN BERG

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New LED lights at a concert by Boise's Fabulous Chancellors on New Year's Eve at the Riverside Hotel. DARIN OSWALD — doswald@idahostatesman.com

More income, not less spending, might be the best reason to make buildings more efficient.

Of course, saving money on electricity, gas and other utilities makes commercial buildings more profitable. But the bigger boost might come from making them look better and feel more comfortable, which increases their value and encourages tenants to stay.

The problem is that it's difficult to compare the predictable cost of retrofitting a building against the potential cost of doing nothing. So owners and managers of Treasure Valley buildings have been reluctant to plunge into large numbers of retrofits.

“We know that there's value in there, but it's hard to put a number on it,” says Sheree Willhite, commercial program specialist and a professional engineer for Idaho Power.

“For example, less turnover in your building — well, how many days do you not have a tenant in there? And if you upgrade your building and your tenants are more comfortable and they want to stay longer, they work longer hours because they're more comfortable in the building. There's a lot of those numbers that you can't put a value on. It is showing the real estate market that there is real value beyond the utility savings.”

RENEWAL INITIATIVE

Idaho Power has joined other utilities around the Northwest to form the Northwest Energy Efficiency Alliance. The alliance is sponsoring the Existing Building Renewal Initiative, a pilot program to make four buildings in the region more energy-efficient. The buildings are in Missoula, Mont., Portland, Seattle and Boise.

The Boise building is Capitol Gateway Plaza, 1211 W. Myrtle St., home of Regence Blue Shield of Idaho. Commercial real estate firm Thornton Oliver Keller manages the building for a group of owners that includes Sun Valley residents Nathan Thomas and Everett Davis, as well as a company run by Thornton Oliver Keller partners Michael Ballantyne and Michael Keller. The owners hope new lights, heating equipment and other upgrades make it more profitable. The key, Willhite says, is looking at the building as a whole instead of fixing problems as they come up that might be symptoms of larger inefficiencies.

PILOT BUILDING

At Capitol Gateway's three-floor, 32,000-square-foot building No. 2, the process started with what Willhite calls “sealing the envelope” — industry-speak for eliminating as many energy leaks as possible.

Ballantyne, Thornton Oliver Keller's managing partner, says a couple of costly but easily fixed problems were found. First, a wall near the building's entrance was never properly insulated. That led to complaints from tenants that some areas of the building were too cold.

Second, the top of the elevator shaft wasn't sealed, allowing heat to escape the building. Third, the temperature-control system was bringing too much outside air into the building for heating or cooling. The system needs to bring some outside air inside to keep the building's air supply from getting too stale. But a certain percentage of the air should be recirculated from inside and mixed with the fresh outside air to reduce the amount of energy needed to heat or cool it.

Without looking at the building as a whole, Willhite says, the owner might have assumed an expensive new heating system was the answer to these problems. And, in fact, Thornton Oliver

Keller has installed a new boiler, and new heat pumps are on the to-do list. But those items will come as old equipment fails, Willhite says. Combined with structural improvements, they should reap greater dividends than if new equipment were the only change.

Scientists for the University of Idaho's Integrated Design Lab in Boise predicted the building's total retrofit would cost \$11.43 per square foot — about \$350,000. It's expected to wrap up in 2016.

The renewal initiative's regional budget, which includes all four projects, for 2014 is \$1.025 million, says Veronica Marzilli, spokeswoman for the energy-efficiency alliance.

THE WORLD'S PROBLEM

In a global sense, retrofitting old buildings is better than tearing them down and building new ones, says Gunnar Gladics, a research scientist for the Integrated Design Lab.

“An existing building already has so much embodied energy in it,” Gladics says. “A lot of resources and energy went into production of the building already.”

Reusing an old building instead of building a new one reduces carbon emissions, Gladics says, even if the old building hasn't had energy-efficient retrofits.

“If we can take it the next step and keep the old building, reuse it, and make it energy-efficient, then there's a huge impact for us,” he says.

The goal of the utilities' Existing Building Renewal program is to reduce energy use in the four pilot buildings by 50 percent. The expected yield for Capitol Gateway is around 45 percent, Gladics says. The Missoula building, a much less efficient structure, could end up using 75 percent less energy, he says.

“They start it this way. There's pilot projects and there's market tests, and it's a market transformation,” Gladics says. “What they want to do is to push this stuff up to the bleeding edge. Show that it can be done, show that it makes sense for the business, and then the ball starts rolling.”

LOW-HANGING FRUIT

Willhite says lights are the place to start with any energy-efficiency push, whether it's in a 100,000-square-foot office building or a 1,000-square-foot home. Replacing old, energy-sucking fluorescent bulbs with new, smaller, more efficient fluorescent models is easy, cheap and yields plenty of savings, she says. LED lights are even more efficient than the newer fluorescent bulbs, but they're more expensive.

“Look at the basics first,” Willhite says. “We're not out there trying to sell you the best of the best. We're not on the cutting edge. We're trying to sell you the most cost-effective thing.”

David Johnson, co-owner of the Riverside Hotel in Garden City, has already heeded that advice. Since buying the hotel two years ago, he's changed out hundreds of old incandescent bulbs for efficient LED lights in the ballroom, a side entrance and a lounge area called The Sapphire Room. Johnson says more LEDs are on their way to a chandelier in the hotel lobby. Besides saving money, the new lights make the hotel's lighting less harsh than it would be with fluorescent bulbs.

Johnson expects his out-of-pocket lighting investment — about \$55,000 — to pay off in three to four years. More expensive upgrades, such as double-pane windows and new heating and cooling systems, will pay for themselves over a longer period.

To attract interest from building owners, improvements must have a payback of what Ballantyne calls the “magical threshold” — no longer than seven years.

Running an energy-efficient building takes more than physical upgrades, he says. That's one reason Thornton Oliver Keller put all of its building managers through the LEED certification process.

Now, as more clients and owners expect energy efficiencies, the company's managers know how to operate lights and equipment to maximize energy savings.

“It's not real sexy,” Ballantyne says. “It's just thoughtful. And it takes time, and it takes a manager who understands it.”

THE GREEN LEASE

Lease structures haven't caught up to technological and operational efficiencies in commercial buildings, Ballantyne says. That's a big reason so many building owners are reluctant to spend money on retrofits.

The way most commercial office leases are written, Ballantyne says, tenants, not owners, save money when a building's operating costs — such as utility payments — decrease. That must change before retrofits gain any serious traction, he says.

A “green lease” would pass energy savings to owners who invest in efficiencies.

“If you can write the lease in such a way that says, ‘Hey, if I lower your utility costs by 10 percent, I capture 10 percent as landlord,’ then there's a payback to it,” Ballantyne says. “The legalese is very important, and there's honestly not a lot of attorneys in town who understand how to write green leases and understand the big picture, so they're pretty valuable.”

THE BIG PICTURE

Idaho Power and its fellow utilities have been paying for the Existing Building Renewal Initiative and offering incentives for broader energy-saving measures because reducing customers' energy use saves the utilities money, Willhite says.

That may not seem to make sense, since the utilities are paying customers to buy less of their product. The key is to look at the big picture, Willhite says. The more energy utilities save, the longer they can delay building expensive new plants to meet increasing energy demand. That also means they can delay customer rate increases.

The energy alliance pays for design and engineering services in its pilot buildings. The idea is to show other commercial building owners that energy-efficiency upgrades really can reap profits.

“It’s an investment. What is the difference between investing this and investing in some bond?” Gladics says. “You can try to get all the pretty marble and fancy stuff that looks good, but if you’re ignoring all the comfort issues and modernizing the lights and all those kinds of aspects, you’re still going to have unhappy tenants in the end.”

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