

# Chicago skyscrapers go green, slash energy costs

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Chicago's skyline is going green, as property managers install energy efficient tools like motion-detectors on office lights, in a project officials hope will inspire changes across the United States.

At the riverside Sheraton hotel, chief engineer Ryan Egan cannot get over what his new thermostats can do—or the \$136,000 a year in savings they are producing.

First off, they're tied into the booking management system, which means he can let the room temperature drift beyond standard comfort levels until the moment a guest checks in.

An [infrared sensor](#) means the savings don't stop there. Once the guest leaves the room, the temperature starts to drift again, giving the heating or cooling system a break until it's needed again.

It's not a random drift—the thermostat is programmed to only allow the room to warm up or cool down to the point where it can get back to the pre-set temperature within 12 minutes of the guest's return.

"The brains behind how much it can drift is really interesting," Egan said. "If you're on the shady side (in the summer) it'll drift more because it knows it can recover faster."

The Sheraton is one of 14 major commercial buildings that signed onto the Retrofit Chicago challenge to cut energy use by 20 percent over the

next five years, for savings estimated at more than \$5 million a year.

If they succeed, it will be like taking 8,000 cars off the road.

"The fact that this is the city that built the first skyscraper, we love that we're trying to green the skyline," Karen Weigert, chief sustainability officer for the city of Chicago, told AFP.

Some 70 percent of [greenhouse gas emissions](#) in the Windy City come from the electricity and gas used to heat, cool and power homes, businesses, schools and other government buildings.

In addition to the greening in commercial buildings, the city plans to cut energy use by 20 percent in hundreds of municipal buildings, for an estimated monetary saving of \$20 million a year and emissions savings equivalent to taking about 30,000 vehicles off the road.

It has also launched a program to help retrofit residential properties and expects more big [commercial buildings](#) to join the challenge.

"Fighting climate change can take all sorts of forms. This one happens to also save building owners a lot of money," said Rebecca Stanfield, a senior energy advocate for the Natural Resources Defense Council.

"We're excited about the potential for big property owners who are in the Chicago initiative to use what they learn here in buildings across the country."

A similar program is being promoted by the Department of Energy, which has racked up commitments from schools, cities and businesses to reduce [energy use](#) by 20 percent in 2 billion square feet.

— "They used to run heating and cooling all year" —

AT&T—the first company to sign up for Chicago's challenge—is testing out a host of new energy efficiency technologies at its downtown office tower.

It's just one test kitchen for the telecom giant, as it searches for best practices in its quest to cut emissions company-wide by 20 percent by 2020.

The results so far have been impressive.

They've swapped out ceiling lights with more efficient bulbs and set up motion detectors so the lights aren't burning when technicians and sales staff are away from their desks.

They've put insulated shutters on the air intake system to keep the chill out in winter and the heat out in summer.

They've installed regulators on the big fans that push heated or cooled air through the 1960's era building so they only operate when needed instead of running all day and most of the night.

They've even swapped out the belts on the fan's motors to cut down on energy-sucking slippage.

"There's no question we've identified enough opportunities to save 20 percent," said John Schinter, AT&T's executive director for energy.

All the improvements tested in Chicago will pay for themselves in three years or less, and most will be rolled out to the 1,000 corporate and 500 retail buildings that AT&T is targeting in its sustainability plan, Schinter said.

"If a project doesn't have scalability for an enterprise as large as ours, we

don't spend much corporate time on it," he said in an interview.

Jim Javillet is amazed at how attitudes have changed in the 43 years he's been managing buildings like the AT&T tower.

"In the 60s and 70s they used to run (both) heating and cooling all year—why not," he recalled.

Another big advance came when buildings installed systems to turn most overhead lights off at a set time so they didn't burn all night.

Now, even in the middle of the day, he can see who's away from their desks by the dark spots in the room. And when he walks down an empty hall, he creates a tunnel of light.

These types of innovations are common in countries like Spain and Japan, where energy is more costly and governments have been more aggressive in pushing energy efficient building codes.

But Americans are ready to accept change, said Dan Tishman, whose realty company owns the Sheraton Chicago and nine other major US hotels.

"Consumers in this country are comfortable with motion detectors on lights and other technologies that save [energy](#), like low flush toilets or green roofs, and they appreciate it," said Tishman, who is also chairman of the National Resource Defense Council and heads a leading construction firm.

"I do think that when we implement the changes we are planning, we will be successful and other large hotel properties will follow suit."

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