

# HABITAT

## ARTICLE ARCHIVE

<b>TITLE</b>	<b><i>Curtailement Is Now</i></b>
<b>DESCRIPTION</b>	<i>Curtailement: getting paid for reducing energy use.</i>
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<b>ABSTRACT</b>	Signing up with a curtailment service can allow your building to reduce power while making money at the same time.
<b>ARTICLE TEXT</b>	<p>When the demand for power is high, everyone knows they should try to conserve energy to prevent blackouts and brownouts.</p> <p>But what if you got paid to do the things a good citizen should be doing anyway?</p> <p>Co-ops and condos all over the city are taking part in “curtailment.” Energy consultant Jack Woolams, a senior vice president at Energy Investment Systems (EIS), says the program typically works like this: during actual power emergencies when the demand is so high that the grid is stressed – or during tests twice a year – participants promise to ramp down their power usage, usually for several hours during the afternoon. A so-called curtailment service provider like EIS evaluates the building to determine the amount of power they can promise to reduce. Because they are not using that amount of power, it’s essentially the same as selling the power back, so the co-op or condo is paid for it, Woolams says.</p> <p>At the 240-unit Gotham condo on the Upper East Side, it boiled down to monthly payments of \$2,500 last summer. (That includes EIS’s 25 percent commission.) In the summer of 2007, there were no actual power emergency events, but there were several in 2006, says Gotham superintendent John Scully. “We shut down all the exhaust fans, the common area air-conditioning, and a lot of the lighting in the common areas,” Scully says, describing what he does for both drills and actual events. The building has washer-dryer units on each floor, and those are also closed down for the duration of the test or event. Woolams says in other buildings, garbage compactors, elevators, or health clubs are also temporarily shut down.</p> <p>At The Gotham, residents have not complained about any inconvenience since participation began in the winter of 2005, says Scully. “They live in the city and they know what can happen,” he notes, referring to the city’s major blackouts, most recently in 2003. Managing agent Mike Basile of Cooper Square Realty says the key to getting residents on board is to educate them about the program at the beginning and then to post notices about upcoming disruptions throughout the building.</p> <p>“The events tend to be during a time when most people are at work,” Basile says. The money earned from curtailment is now part of the condo’s budget and is used to keep common charge costs down.</p> <p>EIS currently represents about 11 buildings city-wide that participate in the program. Woolams admits it has been slow to catch on. “You do run into some resistance,” he says. “People like to argue and you run into a lot of ‘NIMBYs’ – they want to do something but they say, ‘Not in my [backyard].’”</p> <p>That sentiment was echoed by Greg Carlson, executive director of the Federation of New York Housing Cooperatives &amp; Condominiums and a founder of the group The Cooperative Coalition to Prevent Blackouts.</p> <p>“No one wants to be a trailblazer,” Carlson says. “If it doesn’t work out, they don’t want to be criticized. Being on a board is not much different than being in government – your members or shareholders are apt to criticize at the drop of a hat.”</p> <p>Experts say several things led more co-ops and condos to participate in curtailment programs. One was when the state changed a rule regarding how co-ops vote to approve participation, says Jim Leonard, vice president of sales and marketing for Intech21, a company that makes advanced submeters that can be used in curtailment programs. (More on those submeters later.) Previously, a board needed a 51 percent majority vote of total shareholders; now the standard is 51 percent of those voting.</p> <p>Leonard says other factors have slowed down participation, most notably, changes in NYSEDA incentives. From 2001 to 2006, the New York State Energy Research and Development Authority provided 50 percent of the total market-rate cost of both the submeter and installation for market-rate buildings. NYSEDA spokesman Ray Hull says the agency paid out \$11.4 million in incentives to residents in 753 buildings under that old program, known as CEM, or Comprehensive Energy Management.</p>

The new incentives fall under the Multifamily Performance Program. When it comes to submetering, it provides up to \$150 per unit for market-rate buildings, as long as the incentives do not exceed 50 percent of the total. Because the total cost of a meter and installation ranges from \$575 to \$650, Leonard says the new incentive is much less sweet. "There is a huge difference," he says.

But Hull notes that the new program was put in place because of requests from consumers. Even though the dollar amounts are lower, he says the program is better because it is simpler, more comprehensive, and easier to use and apply for. In addition, he reports that the early stats on the program show that it works better: in its first 128 days, the CEM program had three applications received and processed; in that same time period for the Multifamily Performance Program, that number was 72.

Curtailment is just one part of what energy experts call demand response programs. "Demand response really means at one level that consumers can affect the price of electricity and its reliability," says Lewis Kwit, president of EIS. Think of it this way, Kwit adds: blackouts and brownouts often arise when the need for power is high – when the city's major power plants are running at their maximum but there is still more demand. In those cases, the city turns to smaller power plants for supplemental power. These are less effective and more costly, which means that the power costs more.

But, if the demand can be lowered at the onset so those less effective and more expensive plants don't have to be tapped, then the cost can remain steady. That's where curtailment comes in. Because participants cut back on their usage, the overall demand goes down, making power more affordable and more reliable for everyone.

At the heart of all New York's energy issues is the Independent System Operator (ISO), the not-for-profit organization that was created after deregulation to supply the state's power needs. Ken Klapp, a spokesman for the ISO, says there is another type of curtailment program known as Emergency Demand Response Program (EDRP), where scaling back is more of a suggestion than an obligation, but the payments are much less and there are fewer participants.

According to the ISO, there are 1,053 participants in the more common type of curtailment program, such as the one that The Gotham is doing, known as Installed Capacity/Special Case Resources Program. But it's hard to nail down how many co-ops and condos are in that total. First off, that number includes both commercial and residential buildings, and each one can be an individual building or an aggregator (like EIS), which represents a number of buildings. But those total participants can offer a reduction of 398 megawatts of electricity – more than 40 percent of the output of the city's Ravenswood 3 power plant, according to Klapp.

In order to participate in a curtailment program, a building must have an advanced master meter that can measure power usage at least on an hourly basis. The meter must also have automatic meter-reading, which means that it is hooked up via phone line, and can transmit data to the ISO.

Another way for co-ops and condos to participate is by taking advantage of real-time pricing, where the amount you pay for electricity is based on when you use it. Power is cheapest from 10 P.M. to 8 A.M. And, one of the ways to make real-time pricing even more lucrative is with submetering, or so-called smart meters, which are installed in each apartment unit and tell residents when power is cheaper and when it is costly.

At The Manhasset, a 124-unit co-op in Manhattan, a deal was inked in September to install 136 smart meters in the buildings' apartments. "Now we have the way for people to be aware when is the cheapest time to use their energy," says board member Ari Mintz. The building still has sponsor-owned commercial space. "People can realize, 'Hey, it's one in the morning – it's a great time to run the dishwasher.'"

The submeters at The Manhasset are the newest incarnation of meters offered by Intech21. The newest models display a red light when the costs are the highest and a green one when they are the lowest. Yellow indicates an average cost, while a flashing red light means that there is a curtailment event ongoing (or a test).

Leonard, of Intech21, has a blunt way to explain to board members the benefits of the latest meter: "When the light is blinking and you turn on your air conditioner, you may be the one who threw the switch who makes the whole thing go dark."

The Manhasset has not yet signed up for the curtailment program but Mintz says he expects the board will take that step soon.

The meters can also offer other benefits. With some minimal infrastructure work the smart meters could be used to balance out the heating in a steam-heated building. At The Manhasset, for instance, the lower floors are overheated while the units on the top floors are heated adequately. The smart meters could read the temperature in each unit and adjust accordingly.

"When it comes to heating, our least amount of savings so far has been 18 percent per year over a three-year period," Leonard says. That amounts to \$144 in savings per year, he says.

In order to take on the smart meter project, The Manhasset needed a general electrical upgrade, which included a master-meter and cost about \$140,000, an amount that will be shared by the co-op and the commercial owner. The smart meter program will cost \$59,000 for the hardware, plus \$130 per meter for installation. NYSERDA is contributing \$45,000 towards the project because The Manhasset qualified under the old CEM program.

Mintz says that between the master-meter and the in-unit smart meters, residents should save between 20 and 25 percent on their Con Edison bills. Leonard says that at one 3,000-unit rental building in Queens, consumption dropped by about 30 percent after smart meters were installed.

Still, when he talks about smart meters, Leonard says he's gotten some interesting responses from board members. "Some people who have lived in a co-op all their lives say, 'What do you mean? Electricity is free,'" Leonard says, laughing. But the most common response reflects both the hopes and fears that boards have about demand response: "They're worried about 'Am I really going to have to pay for what I use?'"