

August 6, 2006

OP-ED CONTRIBUTOR

Energy-Guzzling Office Space

By EDWARD A. WINIARSKI

IMAGINE an S.U.V. parked on the street and left running all night as its driver sleeps soundly in his apartment, undisturbed by how much fuel is burning. Imagine nearly everyone who drives to work and back each day across the metropolitan area doing the same thing. It would be a preposterous waste of money and natural resources, right? The obvious way to conserve fuel and cash would be to turn the car off.

What is apparently not so obvious is that the office buildings we drive to and from hum constantly, sucking up energy by allowing lights, air-conditioners, computers and everything with a plug to buzz all night — and by cooling the air too much all day. Large commercial buildings account for a whopping 65 percent of the total electricity use and 36 percent of total energy use in the United States, according to The Economist magazine. Just look at the empty office towers glowing 24 hours a day across Manhattan's skyline.

During last week's record-breaking triple-digit temperatures, Mayor Michael Bloomberg was right to declare a heat emergency and call on businesses, residents and city employees to conserve energy to avoid a citywide version of the blackout that crippled parts of Queens last month. But more needs to be done, and not only in times of hot weather.

In thousands of offices, right now, workers wear sweaters because it's just too cold. And in winter they peel off the sweaters or even open windows because the indoor air is so warm. Why?

Many office and apartment buildings are heated and cooled by huge boilers and air-conditioners that pump air into rooms with no control or monitoring of whether the rooms are being used. Essentially, these buildings burn fuel 24 hours a day, without regard for how hot or cold people feel.

Several technology companies, including my own, have developed products that monitor where energy is consumed in large buildings, as well as computerized systems capable of turning off the lights and turning down air-conditioning or heat when rooms are not in use. Motion sensors, for example, can be used to shut off the lights and change thermostat settings in an unused conference room or the office of a vacationing employee. Building managers can also monitor and control the energy use in individual rooms by computer, or even long-distance via BlackBerry.

In winter, these strategies enable some buildings to limit boiler use to only four to six hours a day, our company has found.

But investment in this technology has been far too small to keep up with the rising consumption of fuel. For more than 30 years I have worked with scientists and engineers studying how large buildings waste energy and have seen little change in commercial energy use. As their costs have risen with the price of oil, many building owners have simply passed the expense along to tenants in the form of rent increases.

The Green City Buildings Act passed in New York City last October now requires new commercial buildings to include — among other energy-saving features — the technology needed to adjust the use of energy according to need. But old office buildings need to be retrofitted to do the same.

Demand for electricity among Con Edison's 3.2 million customers in New York and Westchester County is growing by more than 1.5 percent each year. City officials predict that by 2012, new power plants will be needed to meet the demand for energy consumption. But if all property owners would do their part to avoid wasting energy at ridiculous rates, the need for new plants could be pushed back.

The price of gasoline has risen so high that many car owners have been moved to go beyond complaining and look for ways to conserve. But drivers are not the only ones who should be paying attention to the cost of oil. Conservation efforts should be the responsibility of those of us who are using the most energy.

Edward A. Winiarski is the head of Optimum Applied Systems, a technology firm that develops energy-saving systems.

[Copyright 2006 The New York Times Company](#)

[Privacy Policy](#) | [Search](#) | [Corrections](#) | [XML](#) | [Help](#) | [Contact Us](#) | [Work for Us](#) | [Site Map](#)
