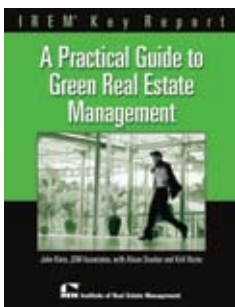


## DIALING FOR DOLLARS Controlling thermostats and temperatures produces low-cost energy savings



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**JUST A SINGLE DEGREE CHANGE CAN SHARPLY AFFECT THE AMOUNT OF ENERGY YOU USE** and the dollars you spend. Your buildings can experience energy savings between 2 to 4 percent, per degree by which set temperature points are raised or lowered during the cooling and heating seasons, respectively, (depending on location, equipment efficiencies and other factors).

Throughout the real estate industry, a very narrow range around 72 degrees Fahrenheit is typically the standard set point in both summer and winter. In practice, optimal temperatures vary, based on geographic locations, personal preferences, and even clothing styles. During the summer in Miami, for example, you may be able to raise your set point temperature as high as 76 degrees because tenants will be dressed for the hot weather outside. In colder climates—Chicago in the winter—you may be able to set the temperature at 68 degrees since tenants will bundle up against the snow and wind.

Experiment with adjusting set points one degree at a time, but remember, you won't please everyone. Aim for the set point that makes the majority of tenants comfortable *and* achieves energy management goals.

Be sure to lock or remove thermostats in publicly accessible spaces to prevent unauthorized adjustments. Evidence shows if the chief engineer controls the temperature, overall energy performance and tenant satisfaction will be greater than if tenants make frequent adjustments. Energy costs can be all over the map in the latter case and systems will work harder—increasing wear and tear. If you do allow tenants to control thermostats, reset them to the optimal set point each night so tenants' overrides are only temporary.

Another good practice is to calibrate thermostats periodically, ensuring that they are measuring the true temperature. The U.S. Environmental Protection Agency (EPA) estimates calibrating thermostats can produce whole-building energy savings of up to 3 percent. You can purchase an inexpensive temperature gauge, measure the temperature at each thermostat, compare the two readings, and if necessary, adjust the thermostat reading. Further, encourage building engineers to verify that actual temperature readings in the building match the temperatures represented in the energy management system (EMS) or building automation system (BAS).

Make sure thermostats are properly placed in areas you want to condition. Thermostats located near doorways, for example, can give a misleading picture of the temperature in tenant spaces and cause HVAC systems to work harder for no reason. Additionally, thermostat locations sometimes change as a result of space reconfigurations that happen during tenant improvements.

If you can control temperature set-backs with an EMS, optimize your HVAC schedule according to tenants' hours of occupancy. In general, during unoccupied hours, set temperatures back a minimum of 10 degrees (without going below 55 degrees during the heating season and above 88 degrees during the cooling season).

You'll find you can squeeze out energy savings just by managing temperatures. Keeping a sharp eye on energy efficiency, along with educating tenants, will reward you with more than an improved bottom line—tenant retention, a higher environmental consciousness and a reputation for progressive property management. ■