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ENERGY MANAGER cuts building energy up to 43%. Energy Manager installs in Apartment Buildings, Hotels and Dorms – reducing HVAC energy in rooms and common areas. Energy Manager:

- Saves you money. Up to 43% of your building's energy bill.
- Raises your building value – by boosting your Net Operating Income.

What's Wrong With OTHER Systems?

1. NO BUILDING NETWORK

Other systems don't offer a building network. They install some equipment in each room, you hope it works correctly, and hope it saves energy. You also hope your employees check every room, adjusting the temperature set-points for each season. And your final hope is that guests won't complain when their HVAC units start behaving oddly, since complaints cost you givebacks.

But the worst part? With other systems, you don't save nearly as much on energy. Why not?

WITHOUT the Energy Manager Network harnessing your building together, you can't centrally monitor or control your rooms; can't find where to save energy; can't schedule heating/cooling; can't forecast use; can't link with front desk software to immediately stop heating/cooling unsold rooms; can't reduce Expected Demand; can't benefit from a database to compare periods; can't limit Peak usage; can't get paid by Demand Response programs; can't discover problems until guests complain and demand givebacks; can't know whether your room settings are matched to exterior climate or out-of-date; and can't adjust anything without walking room to room every time. In short, you don't know what's going on, and have no clue what you're saving on energy. ENERGY MANAGER solves all that, and more.

But occasionally, other systems DO offer a building network. The problem is, they require expensive cables.

2. CABLES REQUIRED FOR BUILDING NETWORK

The biggest problem with other systems is expensive cables. That's IF they offer a building network. It's the only way they can network all your rooms together, and provide any centralized control. Cables are expensive, ugly, and disturb guests during installation. Even worse, drilling your walls causes damage that cannot be repaired. Cables can't be used with concrete/plaster walls, since those materials fall apart when drilled. Energy Manager solves the problem of expensive/ugly cables because it's wireless. We network your entire building together, then place it under your control – without cables. Our thermostats communicate through walls and ceilings, linking your entire property together for complete control.



3. THEIR OCCUPANCY SENSORS AREN'T ACCURATE

THE OBJECTIVE: Sensing when guests are in the room (normal HVAC operation), and sensing when guests have departed (reduced HVAC operation). How do systems tell the difference? With a device called an “occupancy sensor.” The occupancy sensor senses movement, to determine when a guestroom is occupied. But occupancy sensors aren’t foolproof. While they’re waiting for movement, they’re not sure if the room is occupied.

THE PROBLEM: Other systems assume rooms are Unoccupied after they don’t sense motion for a given length of time. What’s the problem there?

- **The guest might still be in the room.** If the guest is asleep and not moving, other systems think the room is Unoccupied – they enter “setback mode” in the middle of the night, allowing guests to become hot or cold. This results in complaints from angry guests, who wake up freezing or sweating. And demand givebacks. But there’s also....

THE OPPOSITE PROBLEM: After guests leave, other systems don’t realize the room is empty. Why is that a problem?

- **Because your HVAC is running, to heat/cool empty rooms.** Other systems don’t see motion, so they wait a set number of minutes (or hours) before deciding the guest must have gone sightseeing – then switch into “Unoccupied” mode and finally reduce HVAC energy. This costs you money, since for a significant length of time, you’ve just paid to heat/cool an empty room. Remember, their time delay CANNOT be shortened to “5 minutes,” since every time the guest sits down or naps, those systems would declare the room unoccupied and suddenly reduce HVAC energy, annoying the guest. Thus, delays are purposely set long, to be forgiving of still periods. This burns your money for 30 minutes to a matter of hours – for an empty room.

OUR SOLUTION: Door Switch.

How does Energy Manager solve these problems? By adding our Door Switch. The door switch is invisible – it’s a small “button” mounted in the doorframe, on the hinge side, so it’s hidden by the door. The door switch is triggered when the guestroom door is opened – telling Energy Manager that someone has just entered or exited.

- **Quicker Setback.** When guests open the door and exit, Energy Manager scans for motion. Finding none within a few minutes, it immediately declares the room Unoccupied, and starts saving you money. Using our software, you can adjust this time limit to your preference.
- **Occupied Stays Occupied.** After Energy Manager declares the room “Occupied” by sensing motion, it won’t change to “Unoccupied” no matter what, unless the door opens again and no motion is detected for a certain length of time. So the room status remains “Occupied” even if guests sleep for 3 days, or sit still watching TV, or spend two hours in the bathroom, or 10 hours meditating in the closet. Until they open the door and trigger another check. This eliminates complaints typical of other systems, which “aren’t sure” if the room is occupied, and torture guests with erratic HVAC behavior. The result? Fewer complaints. Happier guests. Plus, your HVAC only runs for occupied rooms.



- **Motion Override.** No matter what status the room is in, when motion occurs, Energy Manager immediately declares the room Occupied. This overrides the rare situation when the door is swinging closed, but the guest immediately ducks into the bathroom for 45 minutes. As he emerges, he triggers the motion sensor, and the room is automatically declared Occupied.

4. MAIDS / HOUSEKEEPING

THE PROBLEM. Other systems treat the maid like a guest. They falsely assume the maid is the guest, so they think the guest has returned and switch to Occupied mode.

- This returns your HVAC to full energy-burning mode while the maid cleans the room. Wasting your money. Remember, other systems only know “there’s motion.” So they sense motion, and start burning your money for the maid.
- Then, after the maid leaves, those other systems STILL aren’t sure if the room is occupied. They don’t have door switches, so they wait around for “X Hours” in Occupied mode, until they finally give up waiting for motion and their timer switches to Unoccupied mode. So you were burning money for 20 minutes for the maid, then she leaves, and you burn money for another “X Hours” while those systems try to figure out if anyone’s still in the room. That’s every day, in virtually all your rooms – an incredible waste of money. It’s also senseless wear on your HVAC units.

OUR SOLUTION. We noticed something. When maids clean your rooms, they often leave the door ajar.

- With Energy Manager, our door switches know when your guestroom doors are ajar. And they cut your HVAC energy after a minute – the HVAC won’t run. The result?
- Your HVAC stops treating maids like guests. So maids stop wasting your money. In empty Sold rooms, your maids won’t run your HVAC units no matter how much they move – room status remains Unoccupied. (Unsold rooms, of course, always remain in deep setback no matter what happens).
- Also, you stop heating and cooling “the wilderness” outside your rooms. When doors are propped open, the HVAC isn’t running.
- Compare this to other systems, which burn your money treating maids like guests, and wear out your HVAC units in exactly the same way. The Energy Manager result? Lower energy bills. Longer HVAC unit life.

5. INFRARED SIGNALS (IR) MEANS PROBLEMS

Some systems use infrared (IR) signals. We don’t use infrared signals, because infrared is erratic and causes complaints. Energy Manager’s precision wall thermostats control your HVAC units via Wireless RF (radio frequency) – NOT infrared. So our signals DON’T get blocked by suitcases, curtains or furniture. Infrared systems have several problems:

PROBLEMS WITH INFRARED (IR) SYSTEMS

- **Easily Blocked** – Infrared needs line-of-sight communication across the room, from the wall thermostat to the infrared controllers (which are hanging from the HVAC unit). Similar to your TV remote control, infrared can be blocked by people, furniture, curtains and suitcases. Hotels



complain that guests place open suitcases near the HVAC unit, blocking these infrared receivers. When that happens...

- **Batteries Die** – When blocked like this, infrared thermostats can't "see" the HVAC unit, so they "keep trying" constantly to communicate, until their batteries go dead. Leading to....
- **3 New Problems** – In the case of blocked infrared receivers (above), the thermostat batteries die. Now, you've got 3 new problems, in this order:
 - **New Problem #1** – The climate control system stops working (wall thermostat can't see HVAC unit, since it's blocked, so the thermostat batteries go dead). The room gets very hot (summer) or very cold (winter).
 - **New Problem #2** – The guest complains, and you lose a giveback.
 - **New Problem #3** – You must replace the batteries in every room where this happens, as they suddenly die. This requires an engineer visit, further annoying guests – before the system can start working again. It also costs you, since you're replacing batteries constantly. (With Energy Manager, batteries last 12-18 months). But there's more problems with infrared:
- **Ugly Receiver** – Infrared receivers "dangle" from your HVAC units. These are ugly, and can be pulled out or damaged. Also, guests don't like extra cables and mysterious electronic boxes in their rooms. By contrast, Energy Manager's control nodes are totally hidden inside the HVAC unit – invisible to guests.
- **Suites** – Infrared thermostats cannot send signals "around the corner" into the extra rooms of a Suite. This is because infrared requires "line of sight" to control your HVAC units. Thus, in suites/apartments, you need to buy separate thermostats for every single room in the suite/apartment that contains an HVAC unit. For example, a suite with 3 rooms would require 3 infrared wall thermostats to control the 3 HVAC units in that suite. That's more equipment you need to buy, and more batteries you need to replace. By contrast, since Energy Manager uses RF (radio frequency) signals, each suite only requires 1 of our wall thermostats to control an unlimited number of HVAC units in that suite. This is less expensive for you, and less complicated for guests.

Those are just a few of our superior features. They illustrate how Energy Manager saves you more than anyone else can.

Call us. Building Owners, if you cover your building's energy bill, call us. Start saving now.

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