

TIP OF THE WEEK

NIGHT WALK

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- Choose the time when the building is unoccupied.
- **Get at least two staff members for the job**: preferably the facilities manager and a building engineer, who can easily discover if something is not right.
- Schedule night walks at least once every three months.
- Depending on the size of the building, **dedicate at least an hour** to the walk.
- Look for the following things:
 - Air movement, extreme temperature fluctuations, and humidity levels
 - Vibrations, rattling, and other mechanical noises coming from HVAC, lighting, etc.
 - Electrical and mechanical system temperatures
 - Office equipment and lights left on
 - Overlit areas both inside and around the building
 - Dark areas both inside and around the building
 - Condensation around HVAC systems
 - Air diffusers blocked by furniture
 - Water spots, puddles, or dripping water
 - Odours (mould, overheating electrical equipment, chemicals, etc.)
- Start in the mechanical rooms, but cover the entire building.





Night walk to detect unnecessary energy consumption

Night walks in your unoccupied office building – basically simple energy audits performed at night – can help uncover operational issues that affect building performance, energy efficiency, and water conservation.

Normally HVAC, lighting, and building automation systems are working as intended, but even if only one component is "secretly" malfunctioning, it can impact the entire facility. These kinds of problems are usually easily addressed, providing immediate energy efficiency and building performance improvements.



Tips for doing the walk:

- 1. Choose the time when the building is unoccupied.
- 2. **Get at least two staff members for the job**: preferably the facilities manager and a building engineer, who can easily discover if something is not right.
- 3. Schedule night walks at least once every three months.
- 4. Depending on the size of the building, **dedicate at least an hour to the walk** (a large building might require about 15 minutes per floor).

5. Look for the following things:

- Air movement, extreme temperature fluctuations, and humidity levels
- Vibrations, rattling, and other mechanical noises coming from HVAC, lighting, etc.
- Electrical and mechanical system temperatures
- Office equipment and lights left on
- Overlit areas both inside and around the building
- Dark areas both inside and around the building
- Condensation around HVAC systems
- · Air diffusers blocked by furniture
- Water spots, standing water, or dripping water
- Odours (mould, overheating electrical equipment, chemicals, etc.)









- 6. Start in the mechanical rooms, but cover the entire building reviewing the EMS programming in case the building has such to determine if all HVAC equipment and lighting is off as scheduled. The walk should cover the entire building, but key spaces to visit include: mechanical rooms, areas near the top of the building, including the top of stairwells and the roof, the main lobby and elevator lobbies, a typical office space in each HVAC zone.
- 7. For detailed instructions on what to check and what the causes of certain problems might be, <u>read this guide!</u>

Top tips for champions

Useful tools for your walk include: flashlight with good batteries, a camera for documenting findings, temperature sensor and/ or portable data logger that includes temperature and humidity sensors and a small toolkit for accessing filters and mixing boxes, etc.

Did you know?

Sometimes it is difficult to tell whether computers are left on, as they might be in sleep mode, or if a heater under a desk is on because you may not see or hear it, not to mention the everpresent chargers for cell phones, laptops, tablets, etc. that most people leave on all night. These plug loads can be <u>as much as 15-20%</u> of an office building's electric load.

Further reading:

http://betterbricks.com/sites/default/files/Office/bb wintactics nightwalks d4.pdf http://blog.vista-films.com/2014/11/find-out-how-your-building-uses-energy-at-night/

