

The building operations team, which can include the property manager, facility manager, and/or building engineer, comprises the on-site experts who most closely understand the ins and outs of how a building is performing, how systems are operating, and where opportunities for improvement exist. As a member of this team, you are the most closely connected with the building's occupants and, therefore, play a substantial role in communicating among and between stakeholders. This means you need to have ready responses to growing concerns about health and wellness in buildings, as well as interest in building resiliency, efficiency, and electrification.

"The person who manages your building has a bigger impact on your health than your doctor." – Dr. Joseph Allen, Deputy Director of the Harvard Education and Research Center for Occupational Safety & Health

Take the lead

- Understand the latest regulations. Ensure that all building operations staff thoroughly understand the latest rules and regulations about the City's Building Energy Performance Standards (BEPS) and updated building codes, and how they might affect your properties.
- Check your building's performance. The City discloses benchmarking data for all municipal and non-municipal buildings ≥50,000 sq. ft. that are required to comply with its benchmarking regulations. That information is publicly available and published on the City's Covered Buildings List. It's important to verify that your benchmarking data is accurate, because your building's performance data will determine whether or not you are compliant with BEPS.

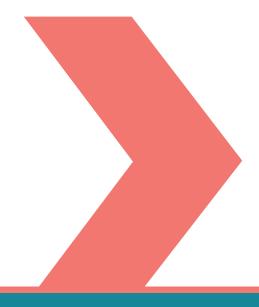
Make a plan

- Talk to the building owner. Ensure that the building's ownership team
 also understands the latest regulation, how their building is
 performing, whether or not it meets the BEPS threshold, and how they
 should be thinking about building performance for the longer term.
- Set a shared goal. Facilitate collaborative conversations with the building's ownership and operations teams to determine the building's performance goals. Ensure that all internal stakeholders and decision makers agree to the goals being set and that they are committed to executing a plan to achieve them.

- Get an energy audit. Hire an expert to conduct an energy audit, if one was not completed recently, to identify all possible areas for perfor mance improvement. This will include analysis of energy demand, consumption, and use patterns, and should cover both base building and tenant equipment and systems. Ensure the audit team focuses on both potential capital improvements as well as operational strategies. Depending on how in depth your audit is, this can also include information about cost and ROI to aid in decision making.
- Develop a strategic energy management plan (SEMP). A strategic
 energy management plan should focus on operational strategies for
 improving existing equipment efficiency, low-cost energy conservation
 tion measures that can be easily implemented without ownership
 approval, and capital planning for larger retrofits and systems
 replacements.

Improve your operations

- Implement the SEMP. Guidance on implementing a SEMP can be found here. Options for improvement may include, but are not limited to:
 - Tracking real-time energy use to understand off-hour loads, demand and consumption patterns, equipment and system runtimes, and opportunities to reduce base load usage.





- Optimizing equipment runtime seasonally, weekly, and daily, with a focus on building recovery during start-up relevant to outside conditions ("operator-based optimal start and stop").
- Assess ventilation systems and sequences (independent of mechanical cooling) and the use of outdoor air requiring conditioning.
- Narrowing the window of simultaneous heating and cooling through control sequences adjustments.
- Leveraging and maximizing use of economizers designed into the system (i.e. air-side or water-side free cooling during favorable weather conditions).
- Conducting a nighttime walkthrough to see what equipment, lights, or systems are running while the building is vacant.
- Working with a building automation system controls contractor to identify more advanced controls strategies, such as discharge and static air reset controls based on space conditions.
- Integrating a continuous (in house, if possible) commissioning plan into the preventive maintenance program.
- Determining the feasibility of using variable frequency drives on electric motors, such as pumps and fans, to limit energy consumption.
- Reviewing options for LED lighting retrofits, including public and back-of-house areas.
- Inspecting the building envelope and entryways regularly for leaks, cracks, or degradation of materials.
- Track the improvements. After developing a SEMP and completing the low or no-cost operational improvements, track the operational improvements.

Communicate with building occupants

- Talk to your tenants. Communicating to your tenants their role and responsibility in ensuring your building's performance is imperative. On-site building staff are poised to do this since there is typically an existing relationship or at least a familiarity between parties. This endeavor is challenging with commercial tenants (even though they can consume up to 80% of a building's energy use) and can be even more challenging for residential buildings with either owned or rented units. Regardless, communication among building users is crucial for helping to maintain or improve building performance.
- Identify an "energy champion." Identify a champion for each tenant
 who is willing to support achieving the owner's building performance
 goals. This person should promote conservation goals among their
 peers and represent the tenant in energy savings conversations with
 building management.

Identify opportunities for tenants. Help your tenants understand what
actions they can take and support additional measures in their space
by explaining available options or connecting them with available
funding opportunities.

Identify opportunities for capital improvements

- Analyze current improvement plans. Determine if there's potential alignment of performance goals, existing or planned building upgrated des, and opportunities presented in the energy audit report.
- Develop a capital improvement plan. Alongside the building's owner' ship team, develop a capital improvement plan that addresses building operations from a financial and energy use perspective. Additionally, consider how aging equipment and existing infrastructure re may help or hinder adaptation to market trends such as building automation, system electrification, resiliency to power emergencies, and rising tenant demand for health and wellness measures. Improvements should provide a positive ROI for easier ownership approval, as well as utilize available incentives and financial programs. It is key that the ownership team understands the BEPS requirements, and potential penalties for non-compliance.

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