



**race2**  
REDUCE

A BOMA Toronto Initiative

# Race toolkit

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## what you need to know to get started

We've put together this toolkit to help you take advantage of commercial incentives that exist to help both small and large businesses reduce energy consumption.

**In order to ensure that savings are real and verified, savings under the program should go through Save on Energy or OPSaver.**

If you have an energy savings that you can support and is not through either of the programs listed above, please contact [kpinto@bomatoronto.org](mailto:kpinto@bomatoronto.org) to ensure that these savings are included in the race results.

**Access Our Database of Allied Members to see how they can help you take advantage of these savings opportunities**

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## step 1: understanding your building

Before you can undertake Energy Conservation Measures within your building, it is crucial to understand the baseline conditions and low to no cost opportunities that exist to help your property achieve energy savings.

The Energy Audit is the foundation for identifying EEMS (Energy Efficiency Measures) and understanding your building.

Get started with an Energy Audit using the tenant or landlord audit incentives available through Save on Energy.

### **FOR TENANTS - FOR LANDLORDS**

#### **What are the advantages of using the Save on Energy audit funding?**

Using the funding provides you with a framework to ensure you are receiving an audit that will meet the standards of Toronto Hydro. These requirements include requirements like the following to make sure you get the most out of your audit:

1. a description of the major existing electricity-using equipment including lighting, all sources of heating and cooling, their energy consumption and fuel type as well as the manufacturer, model number, age, physical condition and estimated remaining years of service;
2. a complete breakdown of current building electricity usage (i.e., operating schedule), consumption and costs by end-use type from above as determined by a metered utility data analysis and a lighting audit;
3. an analysis of irregularities in electricity use patterns, with suggestions as to their possible causes;
4. an analysis and ranking of the recommended measures and their resulting net effect on electricity consumption for each energy source, and electricity peak demand reduction for the eligible Facility (highlighting low-cost and no-cost opportunities)

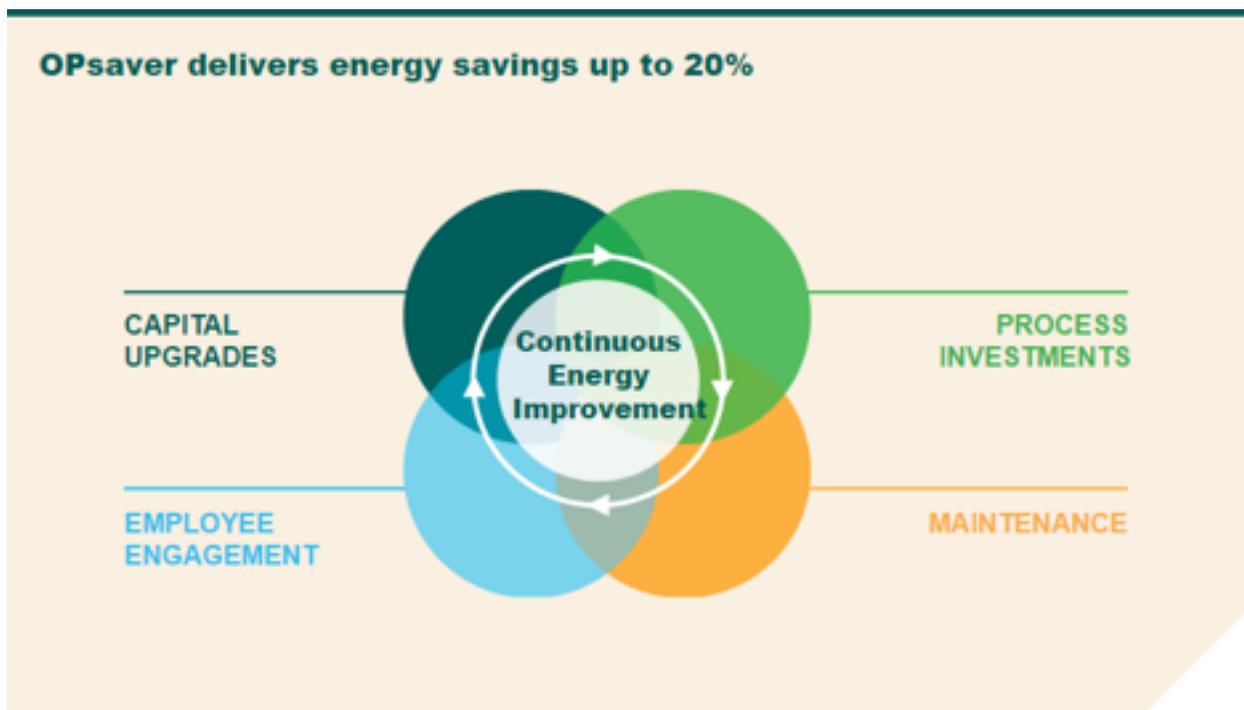
**See the full list of audit requirements from Save on Energy**



## step 2: creating an energy management strategy

Creating a long-term Energy Management Strategy has a number of benefits. Joining the race2reduce, with our 3 year collective target of 10% energy savings means that you'll be well positioned to take advantage of programs like OpSaver.

With a long term Energy Management Strategy, you'll be able to not only identify but also plan for energy savings opportunities.



In addition to these savings, OpSaver provides annually paid incentives of 2.5c/kwh for savings over your baseline.

**Now is the perfect time to start! See if you qualify here!**



## step 3: implementing measures

Once you can identify opportunities for Energy Savings through an Energy audit and Energy Management Strategy, the next step is to act on cost-effective Energy Efficiency Measures.

To help you take advantage of programs that work best for your building, a number of resources are available that provide you with the financial incentives and expertise you need to make a project work.

**Learn more about retrofit programs here:**

### LIGHTING

#### Occupancy Sensors

The most obvious candidates for occupancy controls are areas that have unpredictable occupancy patterns, such as, meeting rooms, cafeterias, stairwells, restrooms and garages. For industrial customers, look at your warehouse and loading docks. Consider any area of low occupancy where it is safe to turn off some or all of the lights until they're needed.

This type of a project is typically the easiest and most sensible energy savings technologies to implement. Installation is relatively clean and quick and the payback time can be minimal.

#### Lighting Retrofits

Why Lighting Upgrades? The savings are immediate and payback is quick on some projects – within a year! Additionally, upgrading to LEDs provides several energy saving and maintenance reduction benefits:

- ▶ LEDs use up to 75% less energy – so you'll save on ongoing electricity costs
- ▶ LEDs last up to 25x longer – so you'll save on maintenance costs too
- ▶ Now available in a wide variety of shapes, sizes and attractive colours, from warm yellows to bright whites that mimic daylight, LEDs can enhance the experience of customers and staff
- ▶ LEDs are durable so they won't shatter and create a safety hazard

### VFDS

A variable frequency drive (VFD) can control both the speed and torque of a motor to meet the demands of the process it's driving. Since VFDs provide a continuous range of speed control, they can greatly improve a system's overall efficiency.

Typically, VFDs eliminate the need for dampers and valves, which throttle the output of a fixed-speed motor and result in wasted energy.

Past applications have shown energy savings between 10 to 40 per cent. Paybacks on installations range from two to four years. Watch real examples here.



## **HVAC**

Upgrading your heating, ventilation and air conditioning systems when it is time for an upgrade is an excellent opportunity to realize energy savings at your building. At these crucial times, it's important to look at the systems that are best for your space and will provide long term benefits and savings.

You may qualify for incentives up to \$40,000 over four phases to analyze your system and make upgrades. Further funds are available for larger upgrades or replacements. With upgrades, you can look to overall electricity savings of up to 15%.

## **TENANT ENGAGEMENT**

Tenant Engagement is pivotal to the success of Energy Management in general and for implementing any of the Energy Efficiency Programs mentioned above. It has been demonstrated both in Canada and other countries such as Australia that interactive tools are key drivers for retrofits within common areas and tenant spaces within a building. Further, the partnership between landlords and tenants can foster creativity and result in programs that were not thought of before.

# step 4: review and continual improvement

Even after operational and capital measures have been undertaken in commercial buildings, it is important to continually review performance at least annually to ensure that the steps you have taken remain in place. Through continual review and improvement, it's possible to not only maintain but accrue further savings through operational excellence.

At this stage, organizations can choose to enroll in programs like BOMA BEST or report to programs like REALPac's Energy and Water Benchmarking or even global programs like GRESB in order to help themselves stay on the of the ball.