



Ministry of Sustainability
& Climate Resiliency
Cayman Islands Government

DO IT YOURSELF: Business Energy Audit

A guide to using less energy and
saving more money





Who is this guide for?

This guide is for businesses of all sizes that want to implement easy improvements to save money and energy at the same time.

In some cases, energy savings can be achieved simply by communicating with employees and making changes to work habits. In other cases, it may require the repair or replacement of certain items.

The checklist is split up into the main elements that comprise a business energy audit. You can choose which sections of this template, and which checks within them, apply to your organisation.



What is a Business Energy Audit?

A business energy audit is an assessment of your business that can help identify wasteful energy issues or practices in your home and highlight opportunities for increased energy efficiency.



How can I use this guide?

This guide includes simple checklists that will show you what to look out for in each work space within your business. You can complete it section by section or all at once.

Simply tick off the action when you have completed it to start saving energy today!



We also have tips and tricks to make the process easier and the issues more identifiable.



Follow our simple checklists to identify the areas in your place of business where you could be saving energy and money!

1. Air Conditioning Systems & Equipment

For most Cayman Islands businesses, cooling systems make up the biggest proportion of monthly electricity usage. That's why it's the top focus of our DIY business energy audit.

- ☐ Ensure your equipment is checked annually by a professional.
- ☐ Check your ductwork for leaks.
Dirt streaks, especially near seams, can indicate air leaks which should be sealed with a duct sealant.
- ☐ Regularly clean your air filters.
These should be changed every 3 months or more often based on manufacturer's recommendations.
- ☐ Keep your ventilation fans clean and maintained.
- ☐ Consider upgrading your cooling system.
If your cooling system is more than 15 years old, consider upgrading to equipment with a higher SEER rating.

2. Insulation & Air Sealing

The next biggest opportunity for energy savings is preventing air leaks around your premises through insulation and air sealing.

Look for gaps or feel for air flow in these areas of your business:

- ☐ Baseboards and edge of flooring
- ☐ Electrical outlets and light switches
- ☐ Windows and doors
- ☐ Recessed lights
- ☐ Attic hatch/trap door
- ☐ Around AC vents or wall units
- ☐ Plumbing coming into the house

Save more energy by...



- ✓ Keeping doors and windows closed when the air-conditioning is on.
- ✓ Consider setting timers on thermostats to match business hours.
- ✓ Ensure unoccupied areas are not being cooled unnecessarily.
- ✓ Never using regular duct tape to repair holes in your duct work.
The adhesive used in general purpose duct tape is not built to withstand the hot and cold temperatures and moisture of an air conditioning system.
- ✓ Using caulk and weatherstrips to air seal your business.
Caulk is generally used for cracks and openings between stationary home components such as door and window frames. Weatherstripping is used to seal components that move, like doors and operable windows.

TOP TIPS

Not sure how to check for air leaks? Here are two different methods to check for air flow or gaps:



Hand Test: Hold your hand up to the area you are checking. If you have an air leak, you will feel air coming through the affected area.

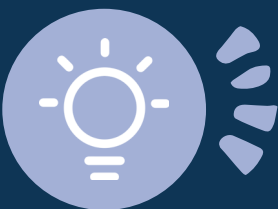


Dollar Bill Test: Test your door and window seals with the dollar bill test. Shut a door or window on a dollar bill. If you can easily pull the dollar bill out, you're losing energy.

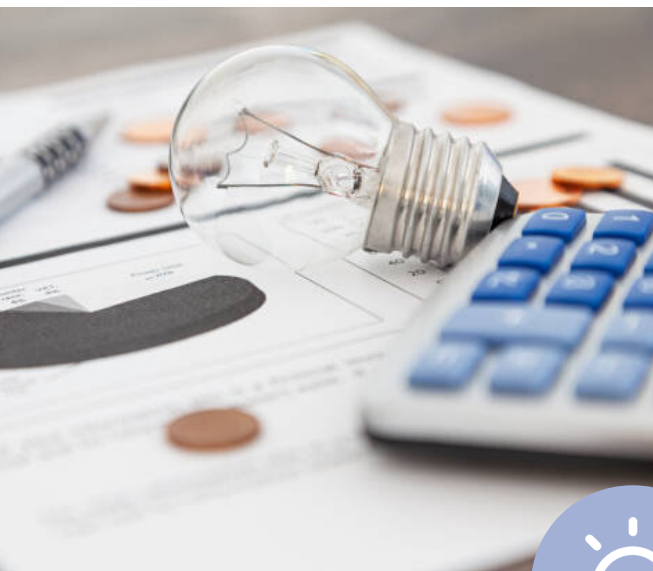


3. Office Equipment

- ☐ Ensure energy saving features are enabled on all IT equipment
- ☐ Consider replacing desktop computers with laptops and docking stations.
- ☐ Consider upgrading printers and copiers to units with power management features.
- ☐ Ensure printers and copiers are in well-ventilated areas.
- ☐ Ensure refrigeration equipment is kept in cool environments, where possible.
- ☐ Ensure your elevators are properly maintained by professionals.



Use dimmers, motion sensors, or occupancy sensors to automatically turn off lighting and office equipment when not in use to reduce energy use and costs.



4. Lighting

- ☐ Upgrade any old lightbulbs to energy efficient, LED lightbulbs.
- ☐ Consider using sensors, dimmers or timers to reduce light use in unused workspaces.
- ☐ Make sure outdoor light fixtures have reflectors, deflectors, or covers to make more efficient use of the light source and reduce light pollution.
- ☐ Use outdoor solar lighting where applicable.



Old lightbulbs should not be disposed of in general household waste. Please take these to the landfill for proper disposal.

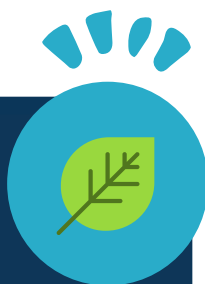
5. Staff Awareness

- ☐ Consider creating a staff energy guide to help employees build energy saving habits.
- ☐ Incorporate energy efficiency awareness as part of the employee onboarding process.
- ☐ Consider assembling an employee committee empowered to implement energy saving programmes and initiatives.
- ☐ Implement a 'switch off' policy for employees to turn off lights and appliances at the end of the day.

Where there is sensitive equipment that should remain on, consider using the 'traffic light system': a red sticker means don't turn off, an amber sticker means only authorised people can switch the appliance off, and green means anyone can.

Save more energy by...

- ☒ Ensuring light switches are accessible and labelled so employees can manually control lighting.
- ☒ Encouraging employees to switch off lights in workspaces that are not in use.
- ☒ Using focused lighting where possible instead of lighting the whole room.
- ☒ Providing guidance on operating energy saving features.
- ☒ Encouraging employees to use the stairs instead of the elevator.
- ☒ Going paperless wherever possible.



6. Water Heating

- ☐ Set your water heater temperature to 120 degrees F.
- ☐ Consider putting a timer on your water heater to match business hours.
- ☐ Consider replacing your old water heating system.
If your water heater is more than 15 years old, it could be time to replace it.
- ☐ Consider switching to a propane or tankless heater.
- ☐ Consider insulating your water heater and any exposed plumbing.
Wrapping your water heater in an insulation blanket or 'tank jacket' can help retain energy.

7. Windows & Doors

- ☐ Check for gaps around windows and doors.
Gaps around windows and doors are a major factor in energy loss. See page 2 for more details on how to check for air leaks.
- ☐ Consider tinting office windows or installing awnings on west-facing windows.
- ☐ If you have a lot of footfall in and out of your building, consider using automatic doors to minimise the amount of heat that escapes



Save more energy by...

- ✓ Closing curtains or blinds on west-facing windows in the afternoon to reduce the burden on your cooling system.
- ✓ Turning off appliances when workspaces are not in use.
Standby power modes can help save energy between uses but many appliances continue to draw power even when not in use and should be unplugged.
- ✓ Installing low-flow water fixtures.
- ✓ Planting trees outside your office.
- ✓ Making use of natural light when possible.

Once you've gone through the do-it-yourself business energy audit, you should have a pretty good idea of how efficiently your workspace is running and what areas could be improved.

Make a plan to start saving energy and money by asking yourself a few questions:

- | | |
|---|---|
| <input type="checkbox"/> How much money do you spend on energy each month? | <input type="checkbox"/> What is your budget for making energy efficiency improvements? |
| <input type="checkbox"/> Where are your greatest energy losses and how can you fix them? | <input type="checkbox"/> Considering the cost of improvements and potential savings over time, which areas of energy waste should you prioritise? |
| <input type="checkbox"/> Can you do the job yourself or do you need professional support? | <input type="checkbox"/> Can you reduce waste by donating or reselling any working appliances you are choosing to upgrade? |