



UNIVERSITY OF
CALGARY

Sustainable Offices

Energy and Emissions Badge Checklist



Sustainable Offices Energy and Emissions Badge Checklist

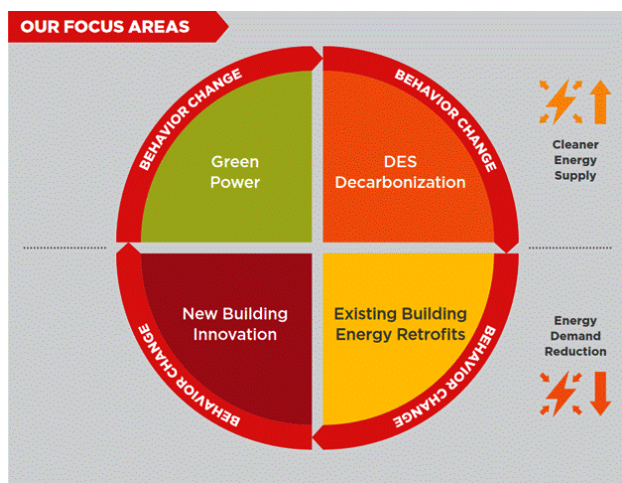
**"The University of Calgary aims to be one of the most energy efficient campuses in Canada."
-Institutional Sustainability Strategy (2016), Administration and Operations Framework, p19.**

The energy used to operate our campus buildings generates approximately 99% of the University of Calgary's scope 1 and 2 greenhouse gas (GHG) emissions.

By taking daily action to minimize how much energy we use in our workplaces, we can all help to reduce the volume of emissions produced on our campus and to slow the progress of climate change.

As a post-secondary leader in sustainability located in a province with deep roots in the energy industry, the University of Calgary has an important role to play in Canada's efforts to meet our national emissions reduction targets. To this end, our 2019 Climate Action Plan (CAP) commits us to achieving a 50% reduction in GHG emissions from 2008 levels by 2030 and net carbon neutrality by 2050.

To reduce our GHG emissions, we will procure cleaner electricity, incorporate on-campus renewable energy sources, retrofit existing campus buildings and develop ultra energy-efficient and net-zero carbon new construction. Our CAP also recognizes the importance of collective action and behavioral change and the need to mobilize the support of all 40,000 members of the UCalgary campus community.



The Sustainable Offices Energy and Emissions Badge Checklist outlines 7 ways your workplace can take action to support the University of Calgary's efforts to reduce our energy demand and to help achieve net carbon neutrality by 2050. To learn more about UCalgary's commitment to deep decarbonization and climate leadership, please consult the University of Calgary's Climate Action Plan (2019).

Need more information?

For more information, tools and supporting resources, consult the [Sustainable Offices website](#). If you have any questions or comments about the Sustainable Offices program, please contact sustain@ucalgary.ca.

How to use this Checklist

- Lead your colleagues to complete all required action items on the Energy and Emissions Badge Checklist over a period of at least three months. There is a section on the completion form to enter the start and end date.
- Use the checklist to keep track of your successes and new habits as you go, checking off all action items that you have completed.
- **To learn more about how and why to achieve each action item listed in the Checklist, click the icon in the "How/Why?" column. Use the supporting documents in the appendix as needed.**
- To earn the Energy and Emissions Badge, complete all six required action items.
- To earn a gold Energy and Emissions Badge, complete the six required items and the exemplary action item.
- When you are ready to submit your form, please collect brief testimonials from three different members of your office to illustrate the impact of your efforts on your office. Use the testimonials page in this PDF document or attach a separate word document to your final email to sustain@ucalgary.ca
- A representative from the Office of Sustainability will review your checklist within one week. When it is approved, you will be sent a confirmation email with the virtual badge, and your physical Health, Wellbeing and Community badge decal will be made available for pickup at the Sustainability Resource Centre.

Certification levels



Energy and Emissions Badge:
All Required actions



Gold Energy and Emissions Badge: All
Required and Exemplary actions

Sustainable Offices Energy and Emissions Badge Checklist

Required action items

Complete these seven action items to earn an Energy and Emissions Badge.

1. We learn more about energy efficiency and its relationship to climate action.

Why/How?

- In the past six months, at least 70% of the people in our office have completed one of the following:
 - Watched one of the following recommended videos and engaged in a discussion about energy and or the climate crisis:
 - Katharine Hayhoe, "Oh Canada" 10 minutes
 - Alberta Narratives Project, "Reflections From Collaborators" 3 minutes
 - CBC's The National, "The battery that could make mass solar and wind power viable" 5 minutes
 - Listened to a presentation about UCalgary's Climate Action Plan led by a representative of the Office of Sustainability;
 - Attended one of the following **campus events** focused on sustainability, energy transition and or climate action:
 - Institutional Sustainability Strategy Progress Report
 - Sustainability Speaker Series
 - Mackimmie Lunch and Learn Series



2. We engage our colleagues in initiatives to reduce our energy consumption and take daily climate action.

Why/How?

- In the past six months, we have planned and executed at least one office- wide education or outreach initiative focused on reducing our energy consumption and or taking climate action.
- We have submitted a photo or testimonial documenting our event or initiative to the Office of Sustainability



3. We purchase and share energy-efficient appliances to limit our office's plug load.

Why/How?

- We purchase ENERGY STAR certified appliances whenever possible.
- Our office has used the **Office Appliances Inventory** to determine which personal appliances we could eliminate to reduce the total number of appliances plugged in our office.
- We have shared the Most Wanted Appliances **Sustainability Moment** with our entire office.
- We have eliminated at least 50% of the personal appliances identified in our Office Appliances Inventory from regular use in our office.
- We have removed all space heaters from regular use in our office.



4. We follow best practices when operating our shared appliances to maximize their energy efficiency.

Why/How?

- We have checked to make sure our refrigerator door seals tightly
- We have checked to make sure that our office refrigerator is set between 1.7 and 3.3 degrees celcius (35-31 degrees fahrenheit) and that our freezer is set at -1 degrees celcius (0 degrees fahrenheit)
- We clean out our refrigerator and freezer once a month to permit airflow.
- If we have a dishwasher, we only run it when it is full.
- We switch appliances such as coffee machines off when they are not in active use.



5. We track our office's temperature and report persistent issues to Facilities.

Why/How?

- We have shared the "Choosing Our Comfort Champion" Sustainability Moment with our entire office.
- We have designated one Comfort Champion per work area in our office to act as a single point of contact for temperature concerns arising in their work area.
- When we notice temperature fluctuations, we report our concerns to our Comfort Champion.
- If our office experiences ongoing temperature fluctuations, our Comfort Champion has met with our facility manager to discuss when and how to use the temperature controls available within our workspace.
- Our Comfort Champion uses the ARCHIBUS tool to report persistent temperature issues to Facilities and to make repair requests.



6. We do not idle our cars.

Why/How?

- We have shared the "Idling Myths" Sustainability Moment with our entire office.
- Our office members who own cars have committed not to idle for more than one minute while driving.



Exemplary action items

Complete these two additional action items to earn a gold Energy and Emissions Badge.

7. We commute sustainably. | Exemplary action item

Why/How?

- We have shared the "Sustainable Commuting" Sustainability Moment with our entire office.
- On average, at least 50% of our office commutes to work at least once a week using active transit, public transit, carpool or electric car for some or all of their journey to campus.
- Whenever possible, we use teleconferencing technology to limit long-distance travel within our office.



Testimonies

Collect brief testimonials from three different members of your office to illustrate the impact of your efforts. The testimonies should include an explanation of the specific initiatives, events, or informal activities your office enacted within the course of the badge, and how working through it impacted the person.

Testimony 1

Testimony 2

Testimony 3

Energy and Emissions Badge Completion Form

Instructions

After your office has completed all of the required items in the Energy and Emissions Badge Checklist, please fill out the Completion Form below. Email your completed Checklist .pdf to the Sustainability Resource Centre at sustain@ucalgary.ca. We look forward to celebrating your office for its sustainability leadership!

Sustainable Office details

Name of department or office:

Name of faculty or business unit:

Location of office:

Number of Sustainable Office participants: Staff
 Faculty
 Students

Has any of the above information changed since you submitted your Sustainable Offices Registration Form? If so, please explain briefly below.

Lead program contact details

Name:

Role, department office, faculty business unit:

Email and telephone number:

Date badge was started:

My signature below confirms that, to the best of my knowledge, all action items marked as Complete in this form have been practiced by at least 75 per cent of the people on our team in our office for at least three months.

Lead program contact signature:

Date badge was completed:

Appendix

1. We learn more about energy efficiency and its relationship to climate action.

Why?

As Albertans, we are in a unique position to help build a more sustainable energy system. Although many of the changes required to limit warming and adapt to our changing climate must be supported through changes to infrastructure and policy, over 70% of the emissions reductions needed to mitigate climate change ultimately depend upon the daily decisions we make about how to manage our homes, workplaces and lifestyles.

Learning as much as we can about the links between the energy we consume, the greenhouse gas emissions we produce and our overall impact on the climate is an important first step towards being part of the solution. Doing so as an office will help to make sure that your entire team has the information they need to take meaningful action together.

How?

You know your team best. Before you begin this action item, consider the most effective way to unpack complex issues like these with your office members. For example, smaller teams that know each other well may prefer to watch an educational video and hold a brief discussion afterwards, while larger teams may benefit more from attending a campus event like the Sustainability Speaker Series or a MacKimmie Lunch and Learn.

Supporting Resources:

[Energy and Climate Discussion Starters](#)

[Video: Katherine Hayhoe "Oh Canada"](#)

[Video: Alberta Narratives Project "Reflections From Collaborators" \(3 minutes\)](#)

[Video: CBC's The National "The battery that could make mass solar and wind power viable" \(5 minutes\)](#)

[Office of Sustainability Events Calendar](#)

2. We engage our colleagues in initiatives to reduce our energy consumption and take daily climate action.

Why?

Working together to plan, execute and participate in an office-wide education or outreach initiative focused on reducing your energy use or greenhouse gas emissions will help your office become more energy efficient while building awareness, enthusiasm and a sense of community.

Supporting Resources:

[UCalgary's Sustainable Events checklist](#)
[Office of Sustainability Events Calendar](#)

How?

To mark this action item as complete, plan and execute one of the following energy- or emissions-reducing initiatives in your workplace with at least 70% of the office participating.

- Challenging your coworkers to a month of Meatless Mondays
- Planning and certifying your office's first Sustainable Event;
- Attending an energy-or climate-focused event on campus as a group;
- Organizing a group bike ride or ridesharing week;
- Plan your own!

3. We follow best practices when operating our shared appliances to maximize their energy efficiency.

Why?

From making our morning coffee to keeping our lunches cold in the fridge, our office kitchenettes are an important part of our workday rituals. This makes our kitchens an important site to reduce our workplace energy use.

Simple preventative measures are usually enough to keep our kitchen appliances operating efficiently. Checking to make sure that our refrigerator is operating within an appropriate temperature range and that its doors seal tightly keeps energy from being wasted. Similarly, cleaning the fridge out regularly to permit airflow means that the motor won't have to work as hard – and even better, you won't have to find last month's leftovers on the bottom shelf.

Lastly, getting in the habit of turning off the coffee machine when it is not brewing and only running the dishwasher when it is full will prevent energy being wasted through inefficient appliance use.

How?

Follow Natural Resources Canada's instructions for checking the seals on your refrigerator door. If your refrigerator does not pass the test, replace the seals.

Create a schedule to ensure that your refrigerator is cleaned out at least once per month.

Work with your colleagues to develop shared norms around efficient appliance use. Discuss these norms in a team meeting if appropriate – or, if reminder signs would be helpful, consider posting some in a visible spot in your office kitchen.

Supporting Resources:

[Natural Resources Canada, Refrigerators](#)

4. We purchase and share energy-efficient appliances to limit our office's plug load.

Why?

The term **plug load** refers to the energy used by electronic devices that are plugged

into a building's electrical system: the more devices you plug in, the higher your plug load.

As buildings become more energy-efficient overall, the impact of individual choices about what we plug in becomes proportionally higher. For example, while plug load may make up approximately 25% of a conventional

office building's total energy consumption, but in an energy-efficient office building, plug load may account for more than 50% of the total energy consumed.

Purchasing and sharing a limited number of ENERGY STAR appliances will reduce your

office's overall plug load, energy consumption and **IT** footprint.

Supporting Resources:

[UCalgary's Most Wanted Appliances and Plug Load](#) Natural Resources Canada,

[ENERGY STAR™ Appliances for Residential Use](#) Natural Resources Canada,

[ENERGY STAR™ Office Equipment Office Appliance Inventory Tool](#)

How?

First, use the Office Appliances Inventory tool to assess how many of the personal appliances listed in the table are regular plugged in your workspace.

Then, use the "UCalgary's Most Wanted Appliances and Plug load" Sustainability Moment to initiate a conversation about personal appliance use with your colleagues. Discussion questions are included in this resources to help you coordinate a plan for short- and long- term device reduction and sharing.

When you must purchase a new appliance, purchase an ENERGY STAR certified appliance whenever possible. ENERGY STAR certifies most kitchen appliances (including large-batch coffee makers, dishwashers and refrigerators), imaging devices (photocopiers and printers) and electronics (computers and monitors).

To mark this item as complete, please ensure that you have removed at least 50% of the personal appliances identified in your Inventory.

In emergency situations requiring a space heater, contact the Facilities Customer Care Line. Energy-efficient radiant space heaters are available for purchase from Facilities.

5. We track our office's temperature and report persistent issues to facilities.

Why?

When our workplaces are consistently too hot or too cold, it can indicate that something isn't working right and that energy is being wasted. Monitoring and reporting persistent temperature concerns allows Facilities to assess whether heating and cooling systems need repair, offering a more permanent solution to temperature issues and saving energy at the same time.

Supporting Resources:

[Choosing Our Comfort Champion Sustainability Moment](#)

How?

Designate one Comfort Champion per work area to monitor and report persistent temperature fluctuations within the office to their Facility Manager. Ensure that all office members know who their conform champion is and how to report temperature fluctuations to this person.

Thermal comfort is very personal. If there are persistent hot and cold spots around your office, swapping seats with a more heat- or cold-tolerant coworker is one way to keep everyone comfortable without using additional energy.

6. We do not idle our cars.

Why?

Whenever you idle your vehicle for longer than 10 seconds, you use more fuel and produce more carbon dioxide than you would if you had turned the engine off and restarted. Natural Resources Canada recommends idling for no longer than 60 seconds as a guideline for balancing the costs of convenience and engine maintenance against increased fuel use and air pollution.

To save fuel, improve air quality and reduce our greenhouse gas emissions, the University of Calgary has been designated an idle-free campus. By committing to turn off your car while you wait or run short errands, you will save fuel and money while reducing air pollution in our campus community and at home

How?

Share the "Idling Myths" Sustainability Moment" at your next team meeting to kickstart an office-wide discussion about the impacts of idling your car's engine. This may be an especially timely conversation in the winter months, when Canadians idle by about 0% more on average. Follow up your discussion of idling by circulating "Turn the Key, Be Idle-Free" pledge cards.

To mark this item as complete, ensure that 70% of your colleagues have participated in the "Idling Myths" Sustainability Moment" and discussion.

Supporting Resources:

[Natural Resources Canada, Idling: Frequently Asked Questions](#)

["Idling Myths" Sustainability Moment"](#)

"Turn the Key, Be Idle-Free" pledge cards are available for pickup at the Sustainability Resource Centre (SB 101)

7. We commute sustainably. | Exemplary Action

Why?

You don't have to make drastic changes to your routine to start making your commute more sustainable. Start small and do what you can: every day that a member of your team travels to work on foot, by bike, on public transit, or in a carpool, you take one more single-occupant vehicle (and its greenhouse gas emissions) off the road. Combining multiple forms of transportation – also known as multi-modal commuting – is a great way to make your commute more sustainable while maintaining flexibility.

Supporting Resources :

[Sustainable Commuting Sample Survey questions and Email Template](#)

["Sustainable Commuting" Sustainability Moment](#)

How?

As of 2016, more than 50% of UCalgary employees surveyed walked, biked, took public transit, or carpooled as their primary means of transportation to campus. Talk to your colleagues about how they get to and from work: this goal may be closer than you think.

To gather more data about your colleagues' commuting habits and attitudes, use the Sustainable Commuting Sample Survey Questions and Email Template resource to design and share a brief (1-3 questions) survey with your colleagues. To mark this item as complete, at least 50% of your office members must indicate in your survey that, on average, they commute to work at least once a week using active transit, public transit, carpool or electric car for some or all of their journey to campus.



Offices Appliances Inventory

When you reduce the total number of appliances and devices in regular use in your workplace, you can help reduce your office's overall energy consumption, limit unnecessary greenhouse gas (GHG) emissions and save money. Use this inventory to identify which appliances are essential and which appliances you could afford to reduce. Then, as a group, set goals and develop a plan for overall office appliance reduction.

Instructions

- 1) Use the **Office Appliances Inventory Table** to count how many of the energy-intensive appliances and devices it lists are in regular use within your office space(s), including break rooms and kitchenettes.
 - * Please note: this table identifies unusually energy-intensive items (i.e. space heaters) or personal items that could be consolidated and shared (i.e. desktop printers). It does not target low-energy use items (i.e. phone chargers) or appliances crucial to an office's functioning (i.e. computers, shared microwaves, etc.).
- 2) As a group, discuss how many of these appliances could be permanently removed. Consider:
 - * For space heaters:
 - Have we informed Facilities Customer Care/ARCHIBUS of this temperature issue?
 - Is this an emergency situation where a space heater is absolutely required?
 - If so, have we contacted Facilities Customer Care to ensure that we are using the most energy-efficient model possible?
 - * For personal printers or kitchen appliances housed at employee workstations:
 - Is there a viable alternative available to use if this device were to be removed (i.e. a shared printer in the print room, a communal refrigerator in the kitchenette)?
 - If not, how could we ensure that a single shared device is available for all to use?
- 3) As a group, discuss how many of these appliances could be replaced with more energy-efficient models. Consider:
 - * Is this appliance near the end of its useful life, or is it reasonable to continue using it for now?
 - * Are there ENERGY STAR™-certified versions of this appliance available for purchase?
 - * Do we have the budget to replace these appliance(s)?
 - * If our budget is limited, which appliances would we prioritize replacing first and why?
- 4) As a group, set short- and long-term goals to reduce your total appliance count, aiming to eliminate or replace at least 50% of the total number of appliances identified in the table as being "in regular use." Consider which appliances would be easiest to remove or replace first and how you will build consensus regarding their removal.

- 5) Take action, tracking your progress as you go. If you need more support, please contact the Sustainability Resource Centre at sustain@ucalgary.ca.

When you have removed 50% of the appliances you identified in the table from regular use, you may mark the corresponding action items under Energy and Emissions action item 3, “We purchase and share energy-efficient appliances to limit our office’s plug load,” as complete.

Office Appliances Inventory Table*

Location	Type of appliance	Number in regular use?	How many could be removed?	How many could be replaced with a more energy-efficient model?
Work area 1	Space heaters			
	Personal desktop printers			
	Personal fridges, microwaves or toaster ovens			
Work area 2 *If it does not make sense to divide your office into multiple work areas, please disregard these rows.*	Space heaters			
	Personal desktop printers			
	Personal fridges, microwaves or toaster ovens			
Work area 3	Space heaters			
	Personal desktop printers			
	Personal fridges, microwaves or toaster ovens			
Break room or kitchenette	“Extra” appliances: <ul style="list-style-type: none"> - Do you have more than one appliance that serves the same function (i.e. a toaster <i>and</i> a toaster oven; a drip <i>and</i> a pod coffeemaker?) 			
	Obsolete appliances: <ul style="list-style-type: none"> - Are any appliances nearing the end of their useful life? - Could any appliances be replaced with a more energy-efficient model? 			
TOTAL NUMBERS				

- * For more information about which appliances this table targets and why, see the “Most Wanted Appliances” Sustainability Moment about plug load and energy consumption, available through the [Sustainable Offices SharePoint site](#).