



CAMPUS CARBON MANAGEMENT INITIATIVE

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Findings Report:

Accelerating Climate Action in Ontario Colleges

Campus Carbon Management Initiative,
Centre for Climate Change Management at Mohawk

Report Published
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Executive Summary

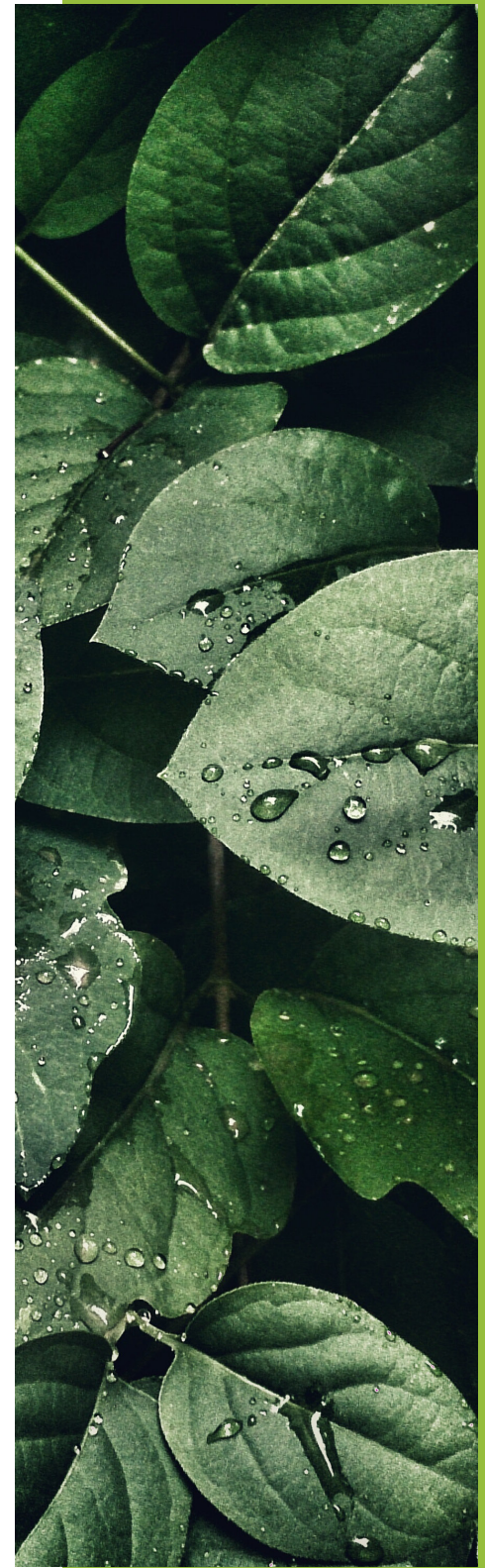
In taking action to improve their environmental performance, Ontario's colleges also benefit from opportunities for utility savings, energy efficiencies, and emissions mitigation. By demonstrating a genuine commitment to reducing their environmental footprint, they can reduce institutional risk, incorporate new technologies into student experiential learning opportunities, and help to create future-ready graduates who will be better prepared to thrive in a low carbon economy. For these reasons and many more, this project was created to help Ontario colleges accelerate climate action.

The Campus Carbon Management Initiative (CCMI), or *Accelerating Climate Action in Ontario Colleges*, is one of three programs led by the Centre for Climate Change Management (CCCM) at Mohawk College.

The CCMI project is divided into three phases: Outreach (Phase 1), Opportunities (Phase 2), and Implementation (Phase 3). This Findings report summarizes Phase 1 of the multi-stakeholder initiative. The purpose of this report is to capture the motivators, barriers, and necessary resources derived from colleges through the outreach phase as they relate to reducing energy consumption and greenhouse gas (GHG) mitigation throughout Ontario Colleges. The outreach phase was comprised of college stakeholder interviews, primarily with Ontario college staff responsible for energy and emissions initiatives and reporting, as well as overall college sustainability.

Informed by stakeholder engagement, this findings report identifies a set of common motivators and barriers as well as recommendations and applicable actions that will serve to support colleges in reducing energy and emissions.

Finally, the report addresses how the outreach phase will form the basis of subsequent project phases; the development of a free online digital toolkit to act as a resource hub for all Ontario colleges, and the creation of an online, self-paced 10-hour course on climate change to address the educational gap surrounding climate change.





1.0 Introduction

The Campus Carbon Management Initiative is one of three programs offered under the umbrella of the Centre for Climate Change Management at Mohawk. The CCCM is a collaboration between Mohawk College, the Cities of Hamilton and Burlington, and Sustainable Hamilton Burlington, to drive regional action on climate change. The Bay Area Climate Change Office at the CCCM was created to develop and implement a regional climate action plan. The Industry Partnerships Office is a partnership with Sustainable Hamilton Burlington to support local business and industry to reduce greenhouse gas emissions.

Focused on the colleges of applied arts and technology sector in Ontario, the CCMI has been working to develop, prototype, and test, in collaboration with Ontario Colleges, a scalable online resource and communications based toolkit to support and accelerate the ability of Ontario Colleges to reduce energy consumption and GHG emissions. To accomplish this, the CCMI project is divided into 3 phases:

- 1. Outreach:** Identify the major motivators, barriers, and resources Ontario colleges need in order to accelerate their ability to reduce energy consumption and emissions through an intensive engagement program with relevant college stakeholders. This report is the summation of those findings.
- 2. Opportunities:** Analyze outreach research results to understand and develop the resources colleges require to support their energy and emission mitigation goals. Develop a comprehensive, user-friendly online platform to house these resources and make them available to all 24 Ontario Colleges at no cost. This phase will also include energy and carbon accounting software for baseline and ongoing measuring. The project is currently in this phase.
- 3. Implementation:** Develop supplementary 10-hour, self-paced, online course available for Ontario colleges to enhance their climate change knowledge. Launch toolkit and course to all colleges.

By providing Ontario Colleges with a centralized hub for resources specific to energy conservation and emissions reduction, colleges will have access to shared resources that will assist with tracking, reporting, and learning.



2.0 Phase One Methodology

This Findings Report is the summary of Phase 1 of the CCMI multi-stakeholder project, *Accelerating Climate Action in Ontario Colleges*. The purpose of this report is to explore the motivators, barriers, and resources related to accelerating energy conservation and emissions reduction in Ontario Colleges. These findings will form the foundation of pilot project development and online toolkit content.

To understand current motivators, barriers and relevant resources applicable for Ontario Colleges, Mohawk College undertook an intensive 3-month Outreach process that included in-person and phone interviews 35-90 minutes in length with relevant college stakeholders. These interviews were informed by a specific set of questions to gather comparable qualitative data across interviewees while also providing flexibility for informal discussions. Interview participants represented 21 of Ontario's 24 Colleges, 2 Ontario Universities, a small number of students, national and international post-secondary focused non-profits, building councils, college advocacy organizations, and energy suppliers.

"Interview participants
represented 21 of
Ontario's 24 Colleges"





3.0 Results

Across Ontario Colleges, there is a wide variation in progress around energy efficiency and GHG reductions, including variances in necessary supports and strategies to achieve these efficiencies. Developing, implementing, and monitoring of projects that address energy inefficiencies and emissions mitigation fall primarily on the facilities department and sustainability offices. As of mid - 2018 approximately 50% of Ontario colleges employ sustainability staff with the primary role of improving college environmental sustainability, and only a handful employ staff specifically for energy management. Typically, sustainability offices and energy managers fall under the jurisdiction and responsibility of facilities management and they are primarily the stakeholders that advocate for efficiency improvements.

The majority of Ontario Colleges identify energy and emission mitigation as a high priority, though there appear to be barriers that significantly hinder action. The sections below describe persistent, sector wide motivators and barriers, and form the basis of project next steps that aim to alleviate barriers and turn passion into action.

“...approximately
50% of Ontario
colleges employ
sustainability staff”



3.1 Motivators

3.1.1 Funding

Dedicated, consistent funding for energy efficiencies and greenhouse gas mitigation was identified as the greatest contributor to energy and climate action throughout Ontario Colleges: without it, colleges recognise progress may slow or stall altogether. Lack of funds for energy conservation and GHG mitigation projects, regardless of payback period, may mean projects cannot progress. This is especially prevalent in systemically underfunded colleges where operational budgets are limited and inflexible.

Availability of funds designated specifically for energy conservation and emissions mitigation may capture the interest of college senior leadership. Leaders may be motivated by opportunities to pursue efficiency improvements to their College, even if such improvements were not formerly a high priority.

Though funding is an important foundational accelerator of Ontario college climate action, it is by no means the sole motivator. The importance of a passionate and knowledgeable team, paired with senior leadership support cannot be understated.



3.1.2 Operational Improvements

It is widely accepted by facilities and sustainability staff that reducing energy consumption and GHG output creates short and long-term operational efficiencies. Efforts towards shrinking total energy needs often lead to reduced equipment sizing upon replacement that provides upfront cost savings, reduced long-term energy consumption and therefore financial savings, in addition to reduced GHG output. Combined energy and emissions conservation efforts are key components in growing a college's physical footprint without significant increase in utility costs and environmental impact.

"The importance of a passionate and knowledgeable team, paired with senior leadership support cannot be understated."

Front line facility and sustainability staff recognize energy and financial savings as important steps in creating resilience in the face of potential utility pricing changes, future planning challenges, and risk associated with a changing regulatory environment. Additionally, actively choosing energy efficient equipment and infrastructure with typically longer lifespans leads to reduced maintenance and even greater savings.

Many projects aimed at reducing energy consumption lead to long-term financial savings, and tackling “low hanging fruit” energy inefficiencies are critical for creating a financial case for larger projects. It is worth noting that there comes a point, with availability of current technology, where these reductions may not be financially feasible with current operational funding. From an emissions reduction perspective after ‘low hanging fruit’ projects are completed, the next logical step would be a migration to equipment electrification. This presents a problem due to the dichotomy of low natural gas prices that come with a high carbon output vs Ontario’s electricity grid. This prevalent underlying issue ensures few colleges are able to pursue large-scale emissions reductions in a financially sustainable manner.

“...government interest provides support for Ontario college staff advocating for energy and climate action.”



3.1.3 Government

Interviewees identify both Provincial and Federal government support as motivators for pursuing energy and climate action. Federal support may influence Provincial interests, therefore shaping the priorities of Ontario college senior leadership. Additionally, government interest provides support for Ontario college staff advocating for energy and climate action. With this being said, interviewees perceive direct provincial support as a greater influence and stronger bargaining chip.

Additionally, Ontario colleges have an easier time gaining senior leadership support when governments mandate or place a target on environmental improvements. A strong government focus including conservation and mitigation targets solidifies provincial interests that directly influence colleges. When coupled with a shift in funding evaluation metrics (payback to consumption reductions), quantifiable, long-term progress can be made.

3.1.4 College Leadership

Ontario colleges continue to strive for ways to set themselves apart and be viewed as leaders within the sector. As it pertains to energy and emissions, there are two main college groups striving to demonstrate leadership:

- 1. Senior Leadership:** Certain colleges identify environmental performance as an area in which they excel and desire to be a sector leader. Senior leadership may be interested in potential cost savings that energy reduction can provide that also benefit the reputation of the college and serve as a unique, forward thinking perspective to students.
- 2. Facilities (including Sustainability):** Those under the umbrella of facilities management identify innovative technologies, ideas, and processes as a point of pride and leadership throughout Ontario colleges. Colleges that are able to take advantage of new technological solutions view themselves, and want to be viewed, as leaders and mentor other colleges who are in the process of new improvements. Colleges who are leaders in the area of facilities management and sustainability want to share their learnings and experiences with others in order to reduce redundancies, timelines, and workloads of others in order for the sector to move forward as a unit and support one another.



3.1.5 Sense of Responsibility

Though not always the most compelling argument from a business perspective, the vast majority of interviewees put a personal high priority on reducing energy consumption and GHG emissions, as it's viewed as the "right thing to do". This sense of responsibility or moral imperative is particularly significant for three reasons:

1. The age demographic Ontario colleges serve. A high percentage of students using college services will be the ones who understand the effects of climate change, the importance of sustainability, and be impacted by inaction. Additionally, students may prioritize colleges and job opportunities that demonstrate a high commitment to sustainability.
2. Colleges are finding that programs or individual courses that focus on environmental improvements or sustainability continue to increase in popularity. In order for offerings to have credibility, the schools must lead by example.
3. Colleges strive to be identified as leaders within their community and at the forefront of progress, especially when their community prioritizes energy and emissions mitigation.

"Ontario colleges continue to look for ways to enhance the student experience."



3.1.6 The Student Experience

Ontario colleges continue to look for ways to enhance the student experience. Sustainability and environmental program offerings, often combined with experiential learning opportunities are great ways of achieving this. Interviewees understand that in order to offer credible programs they must also "walk the talk". Incorporating student learning and hands-on, applicable educational opportunities when tackling energy and emissions conservation measures significantly increase support from all college stakeholders.

Interviewees also recognise an increased interest from students and college communities in general around sustainability, energy, and climate action. Facilities and sustainability staff are increasingly interested in a quantifiable correlation between prioritizing environmental performance and an increase in enrollment and/or overall college reputation.

3.2 Barriers

The following section highlights key barriers identified through the Outreach process. Recommendations and Actions are provided in chart form to serve as a starting point for addressing each obstacle.

3.2.1 Funding

Though funding was acknowledged as a significant accelerator for Ontario college energy and emissions action, there are areas of improvement that if addressed could lead to greater impacts, enhanced project quality, as well as reduced staff work load and stress.

- 1. Consistency:** Impactful, long-term energy and emissions performance improvements require consistent availability of funds, including dependable, and realistic timelines.
- 2. Eligibility:** A wide breadth of eligible projects is necessary to accommodate the unique needs of each college. Strict project specifications may disqualify the most impactful projects that may also address critical deferred maintenance and/or asset renewal that otherwise would not be addressed due to budget constraints. Individual projects will be more successful, relevant, and impactful if colleges are able to choose and justify their work vs conforming to strict project guidelines. Additionally, interviewees identified the option or ability to “stack” projects to build off previous momentum and success as an appealing and realistic option to accelerate progress.

- 3. Project Timelines:** Timelines that extend past the one-year mark can anticipate significantly greater outcomes in terms of project quality, cost savings, and staff workload. Accelerating project timelines in order to meet short project turnaround times can negatively influence quality as certain considerations may be overlooked or missed completely, including post-project monitoring (a critical component for ensuring continued project success). Inundation of funding on a short timescale can also significantly increase costs (by over double) due to a short construction season combined with accelerated timelines and increased demand for specific contractors such as geothermal, solar work etc. Additionally, extending submission timelines would allow a more comprehensive proposal development and reduced workload, as priorities do not need to be shifted heavily towards proposal completion.



- 4. **Metrics:** Specific to GHG reductions, proposal evaluation solely based on cost per tonne of CO2 reduced as a metric is perceived as a punishment to Ontario colleges that proactively strive for improved efficiency and carbon output. Upon completion of 'low hanging fruit', subsequent projects are typically less appealing from a financial perspective; these will then favour institutions who have been unable or uninterested in GHG mitigation.
- 5. **Proposal Turnaround:** In order for the most impactful energy and emissions reductions projects to be addressed, adequate timing is necessary to allow colleges to develop thoughtful projects that utilize funding in the most efficient manner.
- 6. **Percentage of Total Work Funded:** Systemically underfunded colleges that arguably benefit the most from financial savings of energy and emission projects may be at a disadvantage if funding does not cover 100% of project costs. In many instances, funding opportunities offering 50% of total costs disqualify colleges that are unable to source matching funds from a tight operating budget.

Of note, it is important to understand that though funding can significantly accelerate energy and emissions reduction measures, a broader mindset shift is essential to ensure long term and comprehensive continuation of conservation efforts. Senior leadership must visibly incorporate these goals into strategic plans along with approved targets. Large-scale and ongoing conservation efforts must be a College-wide priority that is supported by all College stakeholders. Interviewees generally hold energy and emissions conservation as high priorities, but they feel this may not be true for college decision makers.

Recommendation	Action
Sustainable Funding	<ul style="list-style-type: none">• Identify and compile a list of non-government based funding opportunities.• Explore partnership possibilities and pilot projects with local utilities or businesses.• Incorporate sustainable funding opportunities via a small non-ancillary student fee.
Proactive Projects	<ul style="list-style-type: none">• Develop a library of projects that can be referenced if funding becomes available.• Identify estimated energy, emissions, and estimated cost savings of proposed projects.



3.2.2 Capacity

Facilities and sustainability staff, the primary support and implementation teams for delivering energy and emissions projects, continue to face a growing scope of responsibility as interest in environmental awareness surrounding climate change and desire for utility cost reductions become larger priorities from College stakeholders. Most colleges demonstrate a high interest in increasing their capacity in one or more of the following areas:

- 1. Data:** More granular energy consumption and GHG emission data is crucial to accurately target areas of improvement and guide project development, which can be greatly assisted by energy and emissions accounting software. Without sufficient data colleges cannot, with certainty, identify the most impactful projects that balance energy and emission reductions, cost savings, and future planning. Additionally, increasing the availability of detailed and quantitative information serves as a resource for senior leadership decision making.
- 2. Education and Research:** The widening breadth of job responsibilities means that in order for staff to do their job as effectively as possible, continuing education is necessary. Education and the ability to prioritize and make time for research to ensure the best use of public funds is an interest of interviewees as they will create the greatest impact for the lowest upfront and lifecycle costs.
- 3. Staffing:** Ontario colleges are doing their best to improve efficiencies with available resources and capacity. Added staffing would support current employees to reduce their wide scope of responsibility while adding value by prioritizing energy and emissions initiatives.



Recommendation	Action
Understanding Your Data Needs	<ul style="list-style-type: none"> • Identify priority areas where additional data would be beneficial in supporting energy and emissions reductions. • Work with co-op students or relevant courses to identify how the college can gather and use relevant data to support efficiency work. • Reach out to other post-secondary institutions to understand the types of data they gather and advantages offered from collection. • Develop a survey to be administered by email for incoming students to take surrounding energy, emissions, and sustainability literacy and interests. Leverage this information to drive gathering additional data.
Equipment Improvements	<ul style="list-style-type: none"> • Identify infrastructure constraints that could impede large-scale reduction progress. • Research and identify international best practices and efficiency efforts. • Work with co-op students or relevant programs/courses to identify innovative solutions to reducing infrastructure constraints.
Educational Opportunities	<ul style="list-style-type: none"> • Partner with students in applicable courses to deliver basic energy conservation and emissions accounting training for relevant college staff.
Growing the Team	<ul style="list-style-type: none"> • Develop and present an argument for incorporating sustainability or energy management staff. Reach out to other colleges with these roles for support.



3.2.3 Communication

The ability to communicate the importance and relevance of conservation efforts with various college stakeholders was identified as one of the primary barriers in achieving wider acceptance of energy and emissions reduction initiatives. Interviewees would like to see communication improve with the following stakeholders:

- 1. **Senior Leadership:** College leaders have a wide scope of responsibility and multiple competing priorities. Some interviewees have struggled to ‘get a seat at the table’ concerning environmental and conservation efforts and ensuring leadership establishes targets and time to dedicate to these improvements.
- 2. **Students:** Interviewees named students as the largest and most influential college stakeholder group. All college services surround student wants, needs, and interests. Communicating with students and increasing engagement, hands on learning, and the importance of conservation efforts is perceived to significantly improve the ability of Facilities and Sustainability to gain buy-in from leaders while also enhancing the student experience and awareness.
- 3. **Other Ontario Colleges:** Interviewees demonstrate a high interest in communicating more frequently to learn from and share experiences with one another with the purpose of improving time management and reducing duplication of efforts.

Recommendation	Action
Learning from Leaders	<ul style="list-style-type: none">• Identify Senior Leader sustainability champion(s).• Meet with Senior Leader sustainability champion(s) to understand their interest in pursuing energy related efficiencies.• Open a dialogue with senior leadership to understand their priorities and what is required for energy and emissions to become a higher priority.
Sustainability Literacy	<ul style="list-style-type: none">• Develop a survey to be administered by email for incoming students to take surrounding energy, emissions, and sustainability literacy and interests. Present findings to senior management.
Mentorship Program	<ul style="list-style-type: none">• Identify particular weaknesses you would like to see your college improve upon. Reach out to another college to guide you through their process.



3.2.4 Senior Leadership

Colleges that have made the greatest progress toward GHG emissions reduction and environmental sustainability are those with senior leadership teams that have embedded these priorities in college strategic plans, and not focused exclusively on financial considerations. In these organizations the entire leadership team fully supports these priorities.



Recommendation	Action
College Vision	<ul style="list-style-type: none">• Prepare a case for incorporating energy and/or emissions goals into the college’s strategic plan.• Develop a survey to be administered by email for incoming students to take surrounding energy, emissions, and sustainability literacy and interests. Harness survey results to drive leadership interests and priorities.
Financial Incentives for Improved Efficiencies	<ul style="list-style-type: none">• Create a list of the projects that have generated cost savings for the college as they relate to energy and emissions reductions.• Create a policy that links energy consumption or emissions reductions to College President’s salary.
Communicating with Senior Management	<ul style="list-style-type: none">• Speak with senior leadership to understand their priorities, relevant terminology, and what is necessary for energy and emissions to become a higher interest.
Including Leaders in the Process	<ul style="list-style-type: none">• Work with senior leadership to set a college wide energy consumption or emissions output target that is approved and supported by leadership.

3.2.5 Operations

From an operational standpoint, Ontario colleges need to be equipped with relevant tools and resources that provide accurate, up to date information to help understand opportunities for energy and cost efficiencies. An accurate depiction of the opportunity costs versus business as usual when researching energy efficiencies or GHG reductions will help further financially quantify how improvements can support lower costs while turning energy and GHGs into a more tangible and relatable metric in the eyes of senior leadership. Additionally, ensuring short and long term benefits are included is a point of interest.

Ontario colleges continue to struggle with aging infrastructure. With all direct energy and emissions tied to building heating and cooling this presents a persistent issue. In many instances, little or no budget is allotted for energy and emissions mitigation measures, amplifying the issue and further increasing utility costs as enrollment numbers and physical space grows.

Procurement constraints were also identified as an issue impeding maximizing conservation efforts while also stretching available funds. The ability to lift certain procurement constraints would open up available technologies and innovative solutions allowing for longer term, more efficient use of funds with increased improvements.

Finally, Ontario is currently lacking a system that punishes polluters or incentivises GHG mitigation efforts. Current incentives primarily focus on electricity conservation, a high cost/low polluting activity when compared to natural gas combustion for heating. This contrast all but removes incentives for organizations to pursue GHG reductions as output currently poses little direct financial risk and creates difficulties for colleges looking to actively pursue emission mitigation efforts. This lack of incentives is amplified in Northern Colleges that have a longer, colder heating season. Additionally, many of the Northern colleges are identified those that are consistency underfunded.

Recommendation	Action
Harnessing technology	<ul style="list-style-type: none">• Research or reach out to other colleges or tech programs to identify online resources that can support quantitative emissions and energy reductions that include a dollar amount.
Ask for support	<ul style="list-style-type: none">• Reach out to colleges to identify those that have completed similar projects in order to improve process learning.
Working with Finance	<ul style="list-style-type: none">• Collaborate with the finance department to understand, from a financial perspective, how energy and emissions reductions can be translated into cost savings.
Data Monitoring	<ul style="list-style-type: none">• Generate a month-by-month breakdown of all utilities consumption and pricing.• Utilize carbon accounting tool to create a month-by-month emissions breakdown of your college.• Generate a Scope 3 emissions inventory for your college.

3.2.6 Government

Many Ontario Colleges recognise shifting government priorities as a point of frustration, having likened the instability to “trying to hit a moving target”. Colleges may struggle to adapt to changing priorities, only to have them shifted once again. This constant struggle to appease ever-changing priorities can cause staff frustration and certain work to be deemed irrelevant that leads to lost time and money.



Recommendation	Action
Take a Proactive Approach	<ul style="list-style-type: none">• Work with your team to identify the emissions and/or energy related projects the college would like to complete over the next 3-5 years.• Align energy and emissions efficiencies with college goals.
Collective College Voice	<ul style="list-style-type: none">• Speak to other colleges to understand their sustainability priorities, goals, and progress.

3.2.7 New Responsibility

Energy and emissions reduction measures are a relatively new undertaking within Ontario colleges; generally, these responsibilities fall to facilities and sustainability departments. Unfortunately, many colleges are unable to employ sustainability or energy-specific positions and current staff may lack the knowledge and time to dedicate to this new responsibility of energy efficiencies and climate action.

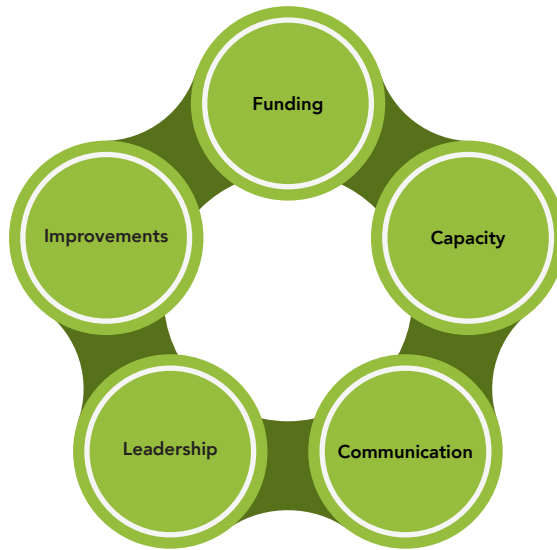
Assigning responsibility for energy and emissions reductions may be a difficult task. Sustainability staff identify their obligations as student engagement, awareness, and improving the student experience as well as supporting facilities, and not necessarily energy and emissions managers. Conversely, including emissions reductions as a facilities department responsibility may be difficult if the department does not have goals inherently built in or the staff expertise on hand. Facilities staff are generally interested in building more energy and emissions responsibility into their roles and advocate heavily for a cultural shift to facilitate positive progress associated with environmental performance improvements but are in need of the proper support and resources to move from being reactive to proactive.

“Energy and emissions reduction measures are a relatively new undertaking within Ontario colleges”

Recommendation	Action
Role Identification	<ul style="list-style-type: none">• Understand the scope of responsibility of relevant departments and staff pertaining to energy and emissions mitigation.• Outline how Facilities and/or Sustainability Departments will collaborate to progress towards goals.
Continued Learning	<ul style="list-style-type: none">• Invite students in applicable programs to create and present on climate change and energy conservation efforts to Facilities and Sustainability staff.

3.2.6 Barrier Review

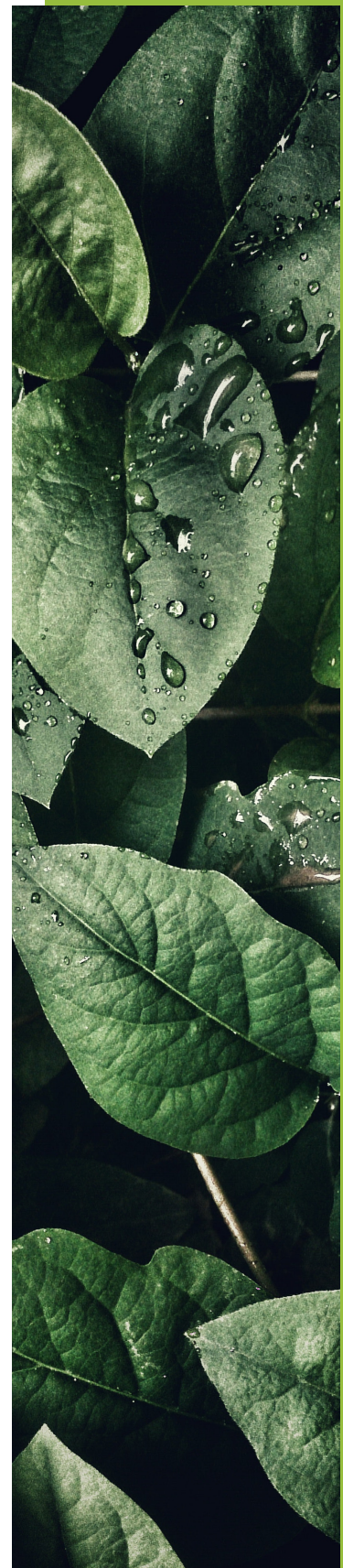
Many Ontario Colleges recognise shifting government priorities as a point of frustration, having likened the instability to “trying to hit a moving target”. Colleges may struggle to adapt to changing priorities, only to have them shifted once again. This constant struggle to appease ever-changing priorities can cause staff frustration and certain work to be deemed irrelevant that leads to lost time and money.



As a result of the Outreach phase, Ontario colleges identified five main barriers regarding action on energy conservation and GHG mitigation (above). Generally, the following process occurs to generate continuous sustainability improvements and funding;

- Initial **funding** is granted from either an institutions operational budget, government, or 3rd party.
- Funding is typically used to increase **capacity** in some manner, such as the hiring of an energy manager, or sustainability coordinator.
- A main component of increased capacity includes identifying completed projects, working with facilities to understand associated cost and energy savings, and **communicating** with college stakeholders.
- This information serves as a case for senior **leadership** to tackle improvements and reap identified benefits.
- Initial **improvements** should focus on “low hanging fruit” with a quick payback period in order to sustainably fund future projects and staff.

Many colleges may face several of the above barriers, though typically one barrier predominates or acts as a tipping point where alleviating it results in substantial progress for buy-in and support. Each college must be able to identify their unique tipping point, understand, and harness relevant opportunities in order to see success.





4.0 Report Summary

4.1.1 Outreach

Ontario college staff who participated in outreach interviews were predominantly those responsible for energy and/or emissions reduction and/or college sustainability. These individuals were able to accurately and comprehensively speak to their college's unique motivators, barriers, and identify resources that would aid in alleviating obstacles in order to accelerate energy and emission improvements. The following points summarize overall key outreach findings;

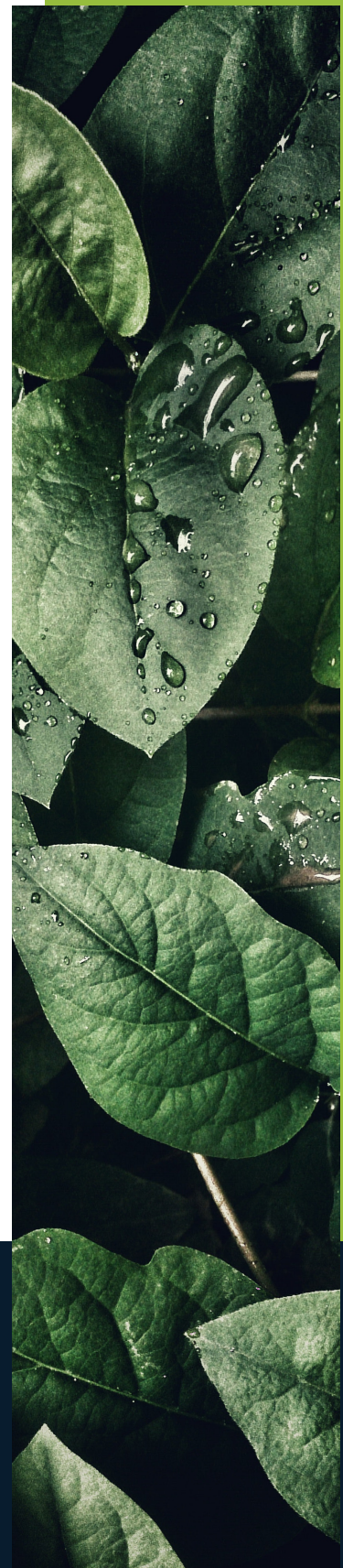
- Interviewees recognize that focusing on a single motivator or eliminating the greatest barrier may fast-track efficiencies and emissions reductions but will not create the systemic and cultural change required to produce significant, long term, quantitative environmental improvements and financial savings.
- Though addressing individual barriers is a substantial step in the right direction to creating transformational energy and emission reductions, a systems thinking approach involving all college stakeholders, over time, will be needed to lead to deep reductions.
- Facilities and sustainability staff may be those who develop and implement projects, but a college-wide effort is necessary to advocate for continued improvement and long-term integration.
- Furthermore, when evaluating project payback and total efficiencies, a portfolio approach must be taken in order to identify the whole picture of savings and improvements.
- A narrow focus that evaluates only individual projects and does not take into account the impacts of all work as a whole may inaccurately under or over report cost savings and environmental performance progress.

The interest and personal priority interviewees place on energy and emissions reduction remains high, though this may not translate into action due to the characterized barriers. One surprising observation identified during the outreach phase was the expansive gap that separates the leaders in energy and emissions mitigation from those struggling to make progress. Interviewees were generally aware of the existence and magnitude of the divide and its potential to create difficulties for colleges in connecting to and understanding the concerns of other institutions.

Ontario colleges possess a breadth of unique characteristics that influence emissions and energy reductions, such as; geography, size, infrastructure age, college growth, program offerings and enrollment, annual funding, staffing capability, formal targets and support, as well as senior leadership interest. Despite the variety of college characteristics, the majority of motivators and barriers remain similar, hinting at fundamental drivers and barriers that transcend the unique features and academic offerings of colleges.

In many instances, interviewees believe the current college funding model will be unable to support varying utility consumption and costs in a sustainable manner. Furthermore, meeting GHG reduction targets, though a high priority for many Ontario college staff, is anticipated to be exceptionally challenging without continued supports that address identified barriers.

“Ontario colleges possess a breadth of unique characteristics that influence emissions and energy reductions”





5.0 Next Steps

This Findings report is the culmination of the first phase of the CCMI. The motivators, barriers, and actions identified will serve as the basis for subsequent project phases.

5.1 Toolkit Development

The second phase of the CCMI involves the development of a free, online toolkit accessible by all Ontario colleges. The observations and helpful strategies documented in this report will inform much of the toolkit. Toolkit content and resources will be driven by feedback, motivators, and drivers identified in Phase 1 and act to:

Accelerate energy and emissions reductions in Ontario colleges.

Collaborate to creating a common approach towards tracking, reducing, and emissions reporting.

Support college progress towards environmental performance improvements and financial savings.

Based on Phase 1 feedback, the toolkit is proposed to be comprised of the following components:

- 1. Glossary of terms:** Colleges struggle to speak and use common language, this creates confusion. A library of terms was identified as a high interest in order to create a base level of communication and knowledge.
- 2. Greenhouse Gas Inventory Framework:** Currently, no framework exists outlining the inclusions and exclusions of a GHG inventory throughout post-secondary institutions; this makes benchmarking and understanding total sector emissions difficult. The framework would include inclusions and exclusions for reporting (with rationale), sample emails, college contacts, as well as reporting units.
- 3. Process Learnings:** The Outreach process made it abundantly clear that colleges are exceptionally interested in learning from one another as well as sharing their own learnings. Process content will include a standard template outlining details and lessons learned from energy and emission reduction projects that will be housed in a single location and be easily updated.

4. **Energy and Emissions Opportunity Costs:** Quantifying the transition away from business as usual to pursue energy and emissions mitigation is crucial to gain stakeholder buy in and identify the highest cost saving projects. The toolkit will contain strategies for quantifying and communicating opportunity costs versus business as usual.
5. **Communication Support:** Intended to support Sustainability and Facilities teams at improving and expanding their communication with senior leadership the toolkit will include strategies successfully employed in various colleges to improve this line of communication.
6. **Centralized GHG Reporting:** The toolkit will also contain information on how to navigate and report emissions through SIMAP, a GHG reporting tool developed by the University of New Hampshire. SIMAP was developed specifically for the post-secondary sector and is available at a significantly reduced cost versus other available emissions software.

5.2 Course Development

Phase 1 interviewees place high interest on continual learning and education to properly communicate with students, staff and senior leadership the impacts and case for pursuing energy and emissions mitigation. In response to this, the CCMI will develop a 10-hour, online, self-paced course aimed at providing basic climate education with an Ontario lens.

