FCM FEDERATION OF CANADIAN MUNICIPALITIES FÉDÉRATION CANADIENNE DES MUNICIPALITÉS

Guide for **Municipal Climate Change Staff**

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Canada

About this guide

If you are stepping into a climate change position as a municipal staff member, this guide is for you.

Your municipality may be large or small. You may be familiar with local governance and climate action—or new to both. Your position may be new or well-established. Your title may be Sustainability Coordinator, Climate Change Coordinator, Climate Change and Energy Specialist, Environmental Officer, or something similar. You may be working alone or be part of a team. Your municipality may be well underway in implementing climate-related initiatives or just getting started.

Regardless of your situation, this guide provides practical information to help you "hit the ground running" and work effectively and efficiently. It outlines some of the basics of municipal governance, including the people with whom you'll want to connect and the information you'll need to gather. It also zeros in on common topics and gives you a heads-up on some of the challenges you're likely to face, how to deal with them and how to take advantage of new opportunities.

We asked Federation of Canadian Municipalities (FCM) staff grant recipients for their input and you'll find some of their quotes throughout the guide.

> *"This job is multi-disciplinary. You need technical, communication, negotiation, organization, leadership and business skills. And lots of patience."*

There is a long history of climate action at the municipal order in Canada. We hope this guide helps you benefit from those who have laid the groundwork.

What inspired this guide?

This guide is published by FCM's Municipalities for Climate Innovation Program (MCIP). It is based on research; best practices; and interviews with MCIP participants, FCM climate change staff grant recipients, and municipal staff and stakeholders.

More and more, cities and towns across Canada are recognizing that when it comes to climate change, the cost of inaction far outweighs the cost of acting. Great strides have been made in the past 20 years to lower emissions, adopt sustainable policies and technologies, and increase our overall understanding of climate impacts.

These successes would not have been possible without the leadership and perseverance of municipal staff. Their experiences inspired and informed this guide.

How to use this guide

The guide is divided into sections based on an approximate one-year timeframe. It includes tips, real-world examples, quotes from climate change staff who have useful ideas to help you progress, and a list of resources.

You don't have to read the guide cover to cover. Use the table of contents to jump to the topics that are most relevant to your situation.

Contents

Your first week

Congratulations! You have been hired to guide your community through the twists and turns of municipal climate action. You have joined a growing network of municipal governments around the globe that are working to make their communities healthier, more equitable and more resilient in the face of climate impacts.

Understanding your role

Local governments in Canada emerged as early climate leaders and have been a strong and united voice in national and international climate change discussions for decades. They recognize that they have control over the energy and emissions associated with their core services and facilities, and they know that taking action to adapt to climate change will increase the community's long-term resiliency. They also have the power to convene local stakeholders to take collective action in areas not under the municipality's direct control.

While progress has been made, often other pressures and priorities make it challenging to allocate sufficient resources to climate action. The ideal is to embed a climate lens into decision making at all levels. Many municipalities are working toward this, and you will likely be part of that change whether your efforts are geared toward mitigation, adaptation or both. These key climate action concepts can be summed up as follows:

- **Mitigation** measures reduce or eliminate point-source greenhouse gas (GHG) emissions. Examples include switching gas or diesel-powered vehicles to electric or hybrid models, and capturing landfill gas for reuse as electricity or heat.
- **Adaptation** measures reduce the negative impacts of climate change and take advantage of new opportunities. Actions can be reactive or proactive. After a flood, a community might immediately install protective berms, and later amend land-use policies or bylaws to limit future uses in vulnerable areas, such as floodplains.

Low carbon resilience (LCR) is the strategic integration of climate change adaptation and emissions reductions. Taking measures that integrate the two climate action streams enhances the effectiveness of both strategies. It avoids risks and generates economic, ecological and social benefits. An example of LCR is the use of green infrastructure to reduce urban heat, absorb stormwater and reduce GHG emissions, as referenced in the ***Low Carbon Resilience: Best Practices for Professionals Final Report*** (2018).

While these climate action concepts may be clear to you, others may not have the same understanding so be prepared to spend some time educating others.

Case in point: The communications team at Huron County in Ontario created this graphic to educate municipal staff, council and the public about the differences and overlap between mitigation and adaptation actions.

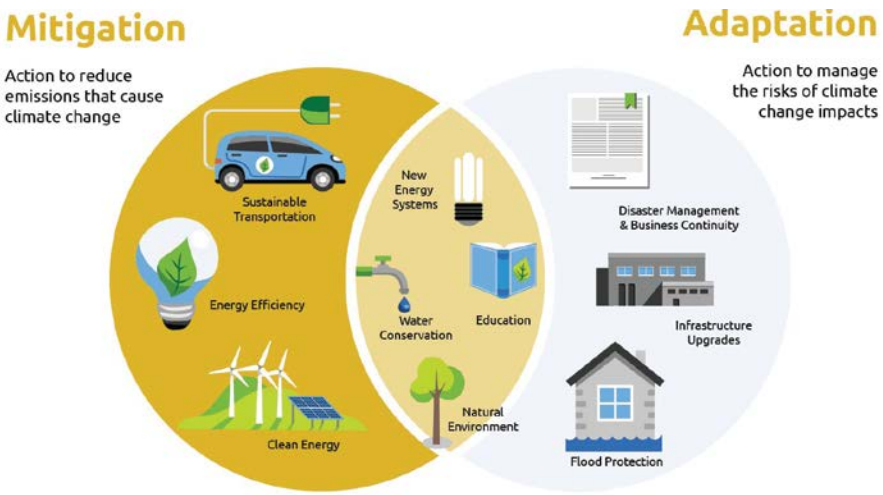


Image source: County of Huron, Ontario.

To help you start to settle in, you may wish to seek out the following information:

- Your specific job description, role and expected tasks
- The overall structure of the municipality, including departments and standing, advisory and ad hoc committees
- Where your work fits or intersects with what others are doing
- The official plan, master plans, bylaws, and policies you must follow or can use in your work
- Community task forces, committees and partnerships related to your role

> *"The small size of the municipality helped make my introductory period smooth, and it was so helpful when other staff reached out to me or set up introductory meetings."*

It will take time to orient yourself to your new role. The more you know about how your position fits with others, the more prepared you will be to navigate new working relationships and proactively address potential barriers.

Asking lots of questions will help you find your feet quicker. Here are a few to get you started in understanding your local government and community when it comes to climate action.

MUNICIPAL GOVERNMENT	COMMUNITY ORGANIZATIONS
• How do decisions get made? • What is the chain of command? • How are things presented and passed at committee or council? • What are our current climate action projects? What has already been done? • Have we made commitments to voluntary climate action programs, such as FCM and ICLEI Canada's ***Partners for Climate Protection (PCP) program*** or the ***Global Covenant of Mayors for Climate & Energy***? • Who are the champions for climate action in other departments, or on council? • Do we have an understanding of the climate risks we're facing? Have we assessed local climate projections? • How are we considering diversity, equity and inclusion in our decision making? • What networks do we use for information and support? • Where do we store data? Who is responsible for data? • How do we measure progress? Do we have a framework for performance and accountability? • How do we communicate and engage with the public? • Are we using any of FCM's climate-related ***funding programs***?	• What skills and expertise does the community and region have that can be leveraged? • Which organizations are credible, active or influential in the community (e.g., faith groups, non-governmental organizations [NGOs], community associations)? • What skills or expertise does the business community have? • Which major employers could be allies or are influential in their sector? • What groups are not reflected in the municipality's decision making? Whose voices aren't being heard (e.g., youth, Indigenous peoples, seniors)? Which groups are under-represented?

> **TIP:** Start early to build your network and contact lists, especially if your team doesn't have the specialized knowledge you need for certain projects. Internally, get to know the champions in your municipal government, maybe a facilities manager or a wastewater treatment supervisor. And consider looking for a mentor who might be interested in guiding you along the way. Externally, identify groups or community leaders with whom you could partner with on mutually beneficial goals.

Understanding municipal government basics

If you are new to municipal government, it may take time to learn its structure and decision-making systems. Start by getting to know roles and responsibilities, and the services offered. Talk to your colleagues and read the website to get a feel for the municipality's structure and key demographic, economic and other factors, including climate action policies or current projects.

The provinces and territories mandate the services provided by municipal governments and, at times, they can overturn municipal decisions. Many do not require municipal governments to produce climate action plans and the level of support for such plans varies across the country.

While the specifics vary, here is a general overview of the municipal policy-making process.

1. Municipal staff develop and review proposals, bylaws, policies, and plans and proposals, including budgets.
2. Municipal staff, sometimes with other experts, discuss the issue at a standing committee. Depending on the topic, a public consultation may be held.
3. Municipal staff prepare a report, with recommendations, for council or other senior leaders. Public consultation may also occur at this stage.
4. A detailed and costed proposal is put before council for discussion and often a vote. Council may send the proposal back for revision, in which case staff negotiate the final details.
5. The project, bylaw or policy is implemented.

Depending where you are, different terms will be used for similar positions or municipal functions. Just as an Alberta Member of the Legislative Assembly is equivalent to an Ontario Member of Provincial Parliament, a town clerk in one municipality may be the chief administrative officer (CAO) in another.

Most municipalities share common management and service areas, such as roads, facilities and other public works, finance, waste and water management, and transportation. Some may have permanent departments for each of these or they may be combined (e.g., planning with environment). There may also be ad hoc committees to deal with issues as they arise. The smaller the municipality, the smaller the organizational structure, and some services may be delivered by other organizations or orders of government.

The head of the elected council, often called the mayor, has no more voting power than the individual councillors but can influence council and municipal decision making. Unlike federal or provincial governments, municipal councils are not structured according to political parties or affiliations, although there are a few exceptions such as the City of Vancouver and the City of Montreal where there are local party structures. And, although not a department, the office of the CAO also plays a role in leading the strategic priorities of the municipality.

Exploring municipal climate action measures

This table outlines typical areas where municipal governments can implement mitigation and adaption measures, and influence GHG emissions. These vary from municipality to municipality, and from province to province, so be sure to research the measures underway in your specific location.

DEPARTMENT	EXAMPLES OF MEASURES
Transportation	• Alternative transportation and local transit infrastructure • Purchases of electric vehicles and municipal and/or community charging infrastructure • Car sharing • Fuel efficiency fleet management • Traffic discouragement (e.g., congestion charges)
Facilities	• Energy efficiency upgrades and monitoring • Financial tools for deep retrofits • Fuel switching • Higher energy requirements for new builds (e.g., net zero) • Backflow valves • Sump pumps • Backup generation • Grade
Public works Infrastructure	• Risk and asset management • Street lighting • Design infrastructure for future climate conditions • Stormwater conveyance • Green infrastructure
Planning Land use	• Long-term, big picture planning • Risk and asset management • Designation or regeneration of protected areas (e.g., wetlands, urban and rural forests) • Stormwater ponds • Housing density levels • Transit-oriented growth • Incentives to exceed building code requirements

DEPARTMENT	EXAMPLES OF MEASURES
Economic development	• Local investment • Green procurement • Green innovation centres
Waste management	• Landfill gas capture • Waste diversion (e.g., recycling and compost) • Public education to reduce waste
Food Agriculture	• Local food councils • Community and pollinator gardens • Food recovery or rescue programs
Emergency response	• Plan for climate impacts such as wildfires and floods (e.g., evacuations)
Finance	• Procurement policies • Financial disclosure of climate risks • Reserve fund • Insurance

Setting appropriate goals

Ask your supervisor what success looks like in your role after three months, six months, and one year. How can you start planning to get there? Having a good understanding of the amount of time key actions may take will help.

How much time do key climate actions take?

Timelines are dependent on many factors, including the size of your community, available data, and the preferred approach to community engagement. Here are some average times for the following activities:

- Conducting a corporate and community greenhouse gas inventory > average 3 months
- Conducting a community climate vulnerability assessment > average 3 months
- Developing and adopting an emissions reduction target > average 3 months
- Developing a community action plan > minimum 6 months
- Forming a community task force > average 3 to 6 months

Climate action initiatives can include a variety of activities, multiple departments, and internal and external stakeholders. If you find you are getting overwhelmed, come back to your goals and the activities over which you have control and influence to determine the best use of your time.

Also, keep notes about your accomplishments and achievements as you go along. When it comes time to tally your contributions and celebrate successes, you'll be ready.

Finding the right people and information

Establishing a regular flow of information from a range of sources will help you spot trends, threats and opportunities. When you know where to look, you save time and effort. The best projects are based on information from credible and trusted sources, have a clear business case and budget, and anticipate probable or potential issues.

This table shows departments or staff roles, and the type of support or resources they might offer. Some of these departments may not exist in your municipality. They may also go by a different name, or they may be under provincial, territorial or another jurisdiction.

DEPARTMENT OR STAFF ROLE	TYPE OF SUPPORT OR RESOURCES
Ad hoc or volunteer advisory committees	• Historical data • Guidance and oversight
Administration: CAO, town clerk, administrators	• Senior level support, feedback and oversight • Promoting materials and events
Agriculture	• Training and educational programs
Communications and marketing	• Developing and promoting materials and events • Crafting compelling stories and resources
Corporate services	• High-level senior support and program coordination
Council and mayor	• Senior support (approvals, leadership, oversight) • Public outreach • Funding approval • Mainstreaming through policy
Engineering Public works (includes facilities and buildings management staff)	• Technical expertise • Data collection and analysis • Feedback and ideas on strategies and programs to reduce emissions • Building access and mechanical support • Infrastructure risk management
Environmental services	• Data collection • Strategies and programs to reduce emissions • Adaptation coordination

DEPARTMENT OR STAFF ROLE	TYPE OF SUPPORT OR RESOURCES
Finance Economic development Treasury (includes procurement)	• Financial expertise and information (e.g., asset management, capital plans) • Access to billing systems for energy data extraction • Contract and purchasing • Request for Proposals (RFP) support
Fleet Transit and transportation Roads	• Data collection • Technical expertise • Strategies and programs to reduce emissions
Forestry	• Technical expertise
Human resources	• Administrative support
Infrastructure (see also Engineering)	• Technical expertise
Interdepartmental or steering committees	• Oversight, project management, senior support • Interdepartmental communication and information sharing • Risk assessment and analysis • Liaison with senior managers
Parks & recreation Culture Libraries	• Historical data
Planning	• Orientation and expertise (e.g., population projections, future development, urban canopy, greenspace preservation)
Public health	• Data and research
Technical, including IT departments	• Geographic information systems staff • Mapping, data and analysis • Systems and software • Training
Waste and water	• Organics and other diversion program reviews • Stormwater and water treatment expertise • Technical input into flood plans

Your first month

As the days go by, you are likely developing a clearer understanding of your role and what you need to do. This section presents more detailed information on how you might go about reaching your objectives.

Bringing a climate action lens to decision making

Does your municipal government have measures to ensure that climate considerations are a regular part of the decision-making process?

Using a climate lens to assess a project's climate change resilience and GHG emissions impact is more common since it became a funding requirement under the Government of Canada's Investing in Canada Infrastructure Program. However, many municipal decisions can benefit from a low-effort application.

Take tree trimming, for instance. A healthy tree is better able to withstand water stress and severe winds, thus enabling it to continue to provide urban cooling. When climate considerations are embedded into municipal planning and decision making, the staff person drawing up an urban canopy maintenance budget will be better equipped to make the connection to climate change impact, and show how their job helps solve climate challenges.

Case in point: To embed that all-important climate lens, the city of Windsor, Ontario created a ***guidance document*** to help all municipal staff address climate change risks in their projects and activities.

Incorporating climate considerations into decision making is easier when the underlying structures and processes that support climate action are in place. If you are unsure about your municipality's current level of readiness to achieve emissions reductions and adapt to climate change, consult FCM's maturity scales on ***climate adaptation*** and GHG ***emissions reduction***.

For example, the Climate Adaptation Maturity Scale is a self-assessment tool that is intended to measure a municipality's progress on climate adaptation and identify areas for improvement across three competencies. To complete the self-assessment, you will need to consult a variety of resources, as shown below.

COMPETENCY	SUPPORTING DOCUMENTS AND INFORMATION
Policy	• Council resolution • Adaption policies or plans • Adaption studies • Asset management plans or approved master plans that demonstrate the governance and supporting policy around climate change issues
Human resources and governance	• Changes related to the municipal organizational chart, or the staff roles and responsibilities • Reports on awareness campaigns (e.g. for staff, council or residents) • Commitment of staff or specific council members to climate change issues • Annual resolution from council supporting the climate adaption steering committee • Annual report from the steering committee • Proof of participation in or support for climate adaption projects led by community stakeholders (e.g. schools, school boards, watershed organizations, not-for-profit organizations, etc.)
Technical and risk management capacity	• Any resources created or used internally to deal with climate issues (e.g. tools, data, spreadsheets, guides, websites, maps, etc.) • Documented initiatives that were implemented to deal with climate change risks, including processes, maintenance practices, projects, etc. • List of consultants and experts hired/consulted • Information on data used by the municipality (e.g. origins, collection practices, etc.) and quality control practices • Information on established levels of service • Documentation related to overall climate risk management practices

Go to selected resources

Understanding the role of senior management

Senior managers, councillors and other municipal leaders juggle many roles and responsibilities. Their support and enthusiasm for climate action may wax and wane depending on political cycles. At the same time, they play an important role in making sure other municipal staff are aware of your responsibilities and know how they can support you. Senior leaders also are crucial to creating a supportive policy environment for climate action and ensuring staff have appropriate tools and resources.

> *"A statement from the senior municipal leaders on how people are expected to be involved in climate action projects, and their expectations of their colleagues, showed the value of the climate action work and set the tone for everyone in the office."*

Here are some examples of the ways senior leaders are helping to champion the vision of a more climate resilient community, bridge gaps and get the conversations started or re-started.

Case in point: The council in the municipal district of Brazeau County, Alberta set climate action directions and expectations for all staff. A previous study laid the groundwork for developing the action plan and setting targets, and tasks and responsibilities were well defined from the outset. Several early meetings got stakeholders on the same page and helped them, as a group, set up projects with timelines and responsibilities.

Case in point: In Vancouver, British Columbia, the city's deputy manager assigned goals from each area of the Green City Plan to a specific manager who was accountable for achieving them. All managers sat on the steering committee, with staff carrying out tasks to reach the targets. Prior to that, responsibility for climate action had seen lower-level staff members going to senior managers to try to get support for initiatives.

Case in point: In its climate adaptation planning process, the city of Selkirk, Manitoba assessed the impact of climate hazards on each of its municipal service areas. Effective service delivery often requires coordination between multiple departments. Assigning responsibility for implementing adaptation action to relevant service areas encouraged collaboration among the managers of the involved departments.

Go to selected resources

Working with data and technical systems

You need robust data from many sources to make the case for climate action, and you will likely spend a lot of time doing research. Remember to present your data clearly and honestly, and always report and explain gaps or limitations.

Data to track corporate and community energy use and GHG emissions are usually collected through billing records, energy or building software, metering, traffic counts, or surveys. If you haven't been trained to use your municipality's data collection system, don't spend hours trying to figure it out. Ask for help!

> *"It took the first few months of a two-year contract for me to get to know the energy and GHG inventories and the data sources I could look at. I'd hate for someone to spend the same amount of time looking for processes or people."*

You will need quantitative data to complete energy and GHG emission inventories and analyses. Tracking and monitoring energy use across the municipality helps you spot gaps, trends, and opportunities, and helps you plan strategic climate actions. Tracking data related to climate risks and vulnerabilities helps you form a local plan to adapt to climate changes. If you're stuck, check with your supervisor and key staff to see if they have the information you need or know where you can find it.

If your municipality doesn't have a data collection system (you might want to check with different departments, just to be sure), there are lots of potential data sources, including:

- ***Planning documents and municipal records***
    - Official plans and master plans, capital project lists, climate action or energy plans
    - Policy, master planning and bylaw handbooks
    - Energy and GHG inventories
    - Electricity sources and GHG coefficients by province/territory (e.g., hydro, coal, diesel/propane, nuclear)
    - Municipal billing data for building utility usage (e.g., heating, cooling, water, electricity)
    - Insurance claims
    - Work orders
    - Climate change modelling or risk data
    - Condition of grey and green infrastructure assets (e.g., roads, bridges, buildings, water lines, wetlands)
- ***People and institutions***
    - Community groups and NGOs, including residents who may provide neighbourhood, historical or contextual information that you won't find elsewhere
    - Post-secondary institutions that have databases and research capacity, even if they're outside your immediate jurisdiction
    - Colleagues in other municipalities who may be able to direct you to energy coaches or non-energy related resources
    - Your internal and external contact network

You could also look for specific initiatives, such as:

- Has your public works department conducted sewer vulnerability mapping? This will show areas at risk of surcharging during heavy rain events.
- Has social services and planning mapped concentrations of at-risk populations?
- Has a municipal tree inventory been completed? Under-treed areas are likely to be most vulnerable to the urban heat island effect.

The ***Canadian Centre for Climate Services'*** Help Desk can help you understand the climate data you need to conduct a community-wide risk assessment.

> *"We need data for our municipal assets, including buildings, landfill, vehicles and natural assets such as parks. Each municipality tracks data in different ways and it's important to be familiar with these processes."*

Even if the current system works reasonably well, consider future trends that could impact its usefulness. Does it have all the features your municipality needs today plus those that may be needed tomorrow? New data software and analysis tools come on the market regularly as needs change and expand. Check with other municipalities, especially those of similar size and characteristics, to see what they are using.

> *"Once the process to collect and prepare the corporate energy and GHG inventories was established, we transferred responsibility for it to the town's asset management department. This will let future managers track a wide range of data and facilities over time."*

> **TIP:** You can't manage what you can't measure. However, it's also important to know when you have enough data to plan your climate actions. For example, it won't make much of a difference if transportation accounts for 40% or 43% of emissions. If you have a small municipal asset portfolio, free tools like ENERGY STAR or HOT2000 might provide most of what you need. Similarly for a climate risk analysis, start at a high level to identify your most likely risk and hazard areas. You can then do a deeper analysis on those that appear most urgent.

Especially if you have limited or no local data, you may be tempted to rely on regional, provincial/territorial or national numbers. While these can help with comparisons, they don't show the whole picture, and projects based on incorrect or incomplete data may lead to unrealistic expectations, a loss of trust due to inaccuracies and potential failure.

> *"Transportation is the most incomplete data set for our community report because we only have on-road transportation data. We need waterborne and air travel data too and it will take trial and error to establish a reliable system."*

Which data tools are best?

There is no single answer. The best data tools are the ones that meet your needs.

Free software may not include the analysis tools you need, or cover the building types in your municipality. Municipalities may use a combination of systems, such as the Partners for Climate Protection tool for energy, GHG inventories for all sources and Portfolio Manager to compare buildings. To understand climate impacts and adaptations, municipalities often refer to ***ICLEI's Building Adaptive and Resilient Communities (BARC) toolkit*** (membership required) and resources from the ***Canadian Centre for Climate Services.***

It can be time consuming to move data from one system to another and you may have to enter data multiple times. If you are using spreadsheets, save documents as generic data files (.CSV) to make it easier to upload to other systems.

Municipal influence on energy use in buildings

Energy use in municipal buildings and facilities is typically the largest or second largest source of corporate emissions. However, these buildings also have some of the greatest GHG reduction opportunities.

Think of all the facilities in your municipality's portfolio. Are they all operating efficiently? Which are the highest energy users? When are the energy-intense components due to reach the end of their useful lifespan?

The benefits of energy efficient buildings are well established. This table lists some of the highest-impact actions.

MEASURE	BENEFITS
Lighting retrofits of streets, traffic lights, buildings and other facilities	• Offers one of the highest return on investment (ROI) of any individual retrofit measure. Typical savings are 30% of previous energy use, with associated GHG reductions depending on the fuel source. Better lighting can also address health and safety and help prevent crime.
Energy management and building automation systems, energy audits, metering	• Provides current observations and conditions of municipal assets and a system to track future usage. Data can inform future building issues or retrofit needs.
Envelope improvements to walls, windows and roofs	• Greater building mass and insulation is a major component in reaching net zero.
Heating, ventilation and air conditioning (HVAC) upgrades or replacements	• Heat recovery ventilators, heat exchangers and solar thermal installations can all be part of new and existing HVAC systems.

While individual measures will produce cost and emissions savings and other benefits, research from the Pembina Institute, ***Deep Emissions Reduction in the Existing Building Stock*** and The Atmospheric Fund's ***The Case for Deep Retrofits*** suggests that measures done one at a time do not provide the range of benefits produced by more comprehensive measures.

TIP: In many Canadian communities, the local arena is a hub of social activity, but arenas are often the worst offenders in terms of energy use and GHG emissions because of their high energy needs and long operating hours. In some communities the local arena may be the single largest source of corporate emissions. If your community needs to retrofit or replace an arena, consider adding higher building standards, such as net zero, to reduce future costs and possibly qualify your municipality for additional funding.

Case in point: The town of Black Diamond, Alberta retrofitted the Oilfields Regional Arena to have solar panels generate electricity (in 2017 they sold almost one-quarter of the electricity produced back to the grid), with an energy management system controlling all system operations. Other features include a low-emissivity ceiling, water-efficient fixtures, extra exterior wall insulation and a lighting retrofit. The savings are reinvested in a green reserve fund to finance other projects.

TIP: Municipal governments may lack the ability to enforce higher building codes and standards, but they can influence the sector in other ways. For example, some have partnered with real estate agents and associations to raise public awareness of how energy efficient homes have a greater resale value and send market signals to local builders. Agents can also provide prospective buyers with information such as average utility bill savings compared to less efficient homes.

Case in point: The town of Halton Hills, Ontario uses a points-based standards system for developers who are applying to build low—, mid— and high-rise residential and non-residential buildings. Each green initiative has a corresponding point attached, and a minimum number is required for developments to be approved.

Go to selected resources

Learning from previous programs

Research previous programs your municipality has undertaken. These can be a good source of ideas, learnings and baseline information, and may be a good starting place to develop new programs or reach new audiences.

Case in point: Rather than offer partial rebates on studded bike tires to the entire community as it had done before, the town of Canmore, Alberta reframed the program to focus more on equity. Working with a local NGO, the town funded the purchase of biking equipment for selected low-income residents so they could bike all winter. Participants were selected, trained and mentored to be ambassadors for all-season cycling.

Sometimes, climate action projects are piloted, but are then shelved if they don't produce the desired results or aren't well supported. Take a second look—the project may have been sound but perhaps the timing or approach was wrong.

Building your confidence

Especially if you are new to the field, you may find it difficult to follow your instincts or be confident when interacting with others when it comes to climate action. If so, you might consider conducting regular post-mortems. These after-the-fact reviews and evaluations are a great way to learn from mistakes and build your confidence in what went right. They are usually part of formal evaluation processes, but they can also be applied to other situations such as meetings, grant proposals or events. Try to do them as soon as possible afterward so you can follow up on action items. You may wish to assess:

- What went well and how can those successes be encouraged, supported or replicated?
- What didn't go well and how can those issues be addressed?
- What key lessons were learned?

You can do this with colleagues but also as an individual exercise. You may be surprised how quickly your personal knowledge library grows.

> *"I've worked with all three orders of government, the science and research side, and internationally, and I've made a lot of mistakes. But it taught me how to talk more effectively with different stakeholders. That experience only comes with time."*

Managing projects, time and money

Ask any of your colleagues what they could use more of and you'll get one of two answers: money or time. Or both. Try to identify systems and processes that can make projects and tasks easier to do and share, and easier for others to replicate.

> *We couldn't implement the full community energy plan during my contract but the background information we gathered will be useful when the time comes. I knew I wasn't going to be able to address all the priorities but I kept an eye on resources and opportunities so someone down the road could pick up where I left off."*

> *I included inventory methodology information and recommendations for future work in corporate and community reports, to help us move forward in a changing context."*

File and time management are underrated skills. Having good documentation—even point-form notes or a handwritten log—and making that information available to others keeps corporate and community history up to date, offers lessons learned for current and future staff, and helps new staff get their bearings. It saves time in the long run, too.

> *I keep a folder of all relevant guides and reports, and another of training resources. Anyone who may work in my position or a related one in the future won't have to start from scratch."*

The Plan-Do-Check-Act cycle is often used in building energy management measures but the principles can be applied to any project. Or systems like power mapping can visually map the organizations and people you need to reach and help create strategies to which they'll respond.

> *"Smaller municipalities may rush or skip the planning stage, but taking the time to find the co-benefits and co-efficiencies of projects, and what local skills and resources are available, pays off."*

All projects need a budget, whether they are being financed by the municipality or by outside grants or loans. You will need a basic understanding of the municipal project budgeting process and a good idea of costs.

If you haven't done budgets before, check with another municipality for sample budgets for similar projects, or reach out to your networks. You can also seek advice from the finance staff who have experience with budgets, risk management and financial analysis.

> *"One of our councillors told me we have to keep budgeting for environmental work because the climate is changing whether people want to acknowledge it or not."*

Go to selected resources

Producing documents

You will need to produce many types of documents, including memos, council and committee reports, and project evaluations. Your municipality likely has examples and templates you can follow, or look for policy or bylaw handbooks for guidance on how to structure your document.

> *"We do a lot of policy writing and we have an outside energy coach who is a policy expert, so that's been wonderful!"*

Case in point: Climate change coordinators in the municipality of Chatham-Kent, Ontario created several how-to documents, including one on how to use the energy benchmarking system that includes the steps to take and screenshots of the software.

Requests for proposals/qualifications

A request for proposal (RFP) is an announcement by the municipality that it is looking to outsource goods or services and is requesting bids from contractors. Ask your supervisor or an administrator whether your municipality has RFP guidelines or keeps a list of qualified contractors by product or service. If not, ask for their suggestions.

Consult previous RFPs for guidance on how to structure these documents or talk to other municipal staff who already know the process.

Some municipalities also issue a Request for Qualifications to narrow the list of contractors that will receive the RFP, and/or to estimate costs and obtain additional details.

RFPs generally specify the project details, including how and why the project came about, and a detailed budget. Be sure to put key information front and centre, or you may receive bids that don't fit your needs and then waste time reviewing them. You could also potentially damage relationships with contractors if they feel their time has been wasted.

> **TIP:** Ask staff or colleagues in other municipalities what they have learned about the RFP process, particularly in terms of specific questions to ask contractors.

Go to selected resources

Climate change presentations

See if your municipality has a generic climate change presentation template that you can customize for different projects or stakeholders. Aside from regular reports and memos to senior staff and council, consider other types of presentations you're likely to make in your position, and what resources you can bring to bear.

Go to selected resources

Growing professionally

If your employer has a professional development budget, use it! Depending on your experience and job priorities, you may wish to build your knowledge and skills in areas such as:

- Communications and/or media training, particularly related to climate change
- Grant writing
- Asset management
- Subject matter training or development (e.g., green building workshops, renewable energy webinars)

Check around for free sources of information and education on topics of interest. The COVID-19 pandemic has made more resources available through online/virtual webinars and conferences. Also, you may decide to invest your own money for professional development. If so, and especially if you are a contractor, you may be able to deduct a portion of conference or course fees from your income taxes.

> *"The seminars I've taken, either free or at a cost to me, have been helpful for my personal knowledge in the field. And the materials and lessons learned can all be applied to our Community Energy and Emissions Plan."*

> **TIP:** Set Google Alerts to track online trends, topics, training opportunities and projects. And sign up for ***FCM Connect*** to get the latest news about FCM's sustainability, climate change and asset management initiatives, and professional development opportunities.

Beyond your first month

Your first month has likely been focused on becoming oriented to and getting comfortable in your new environment. Ideally you have forged new relationships and even found a mentor to help you feel part of the municipal organization and learn about climate action projects and progress to date.

Now you may be thinking about the priorities and decision factors that guide your council, senior leaders and community. Some will be financial. Others may address environmental protection interests, community economic development or community-wide interests. Your council will seek guidance from you to inform its decisions on where and how to invest in climate action, after weighing the relevant factors.

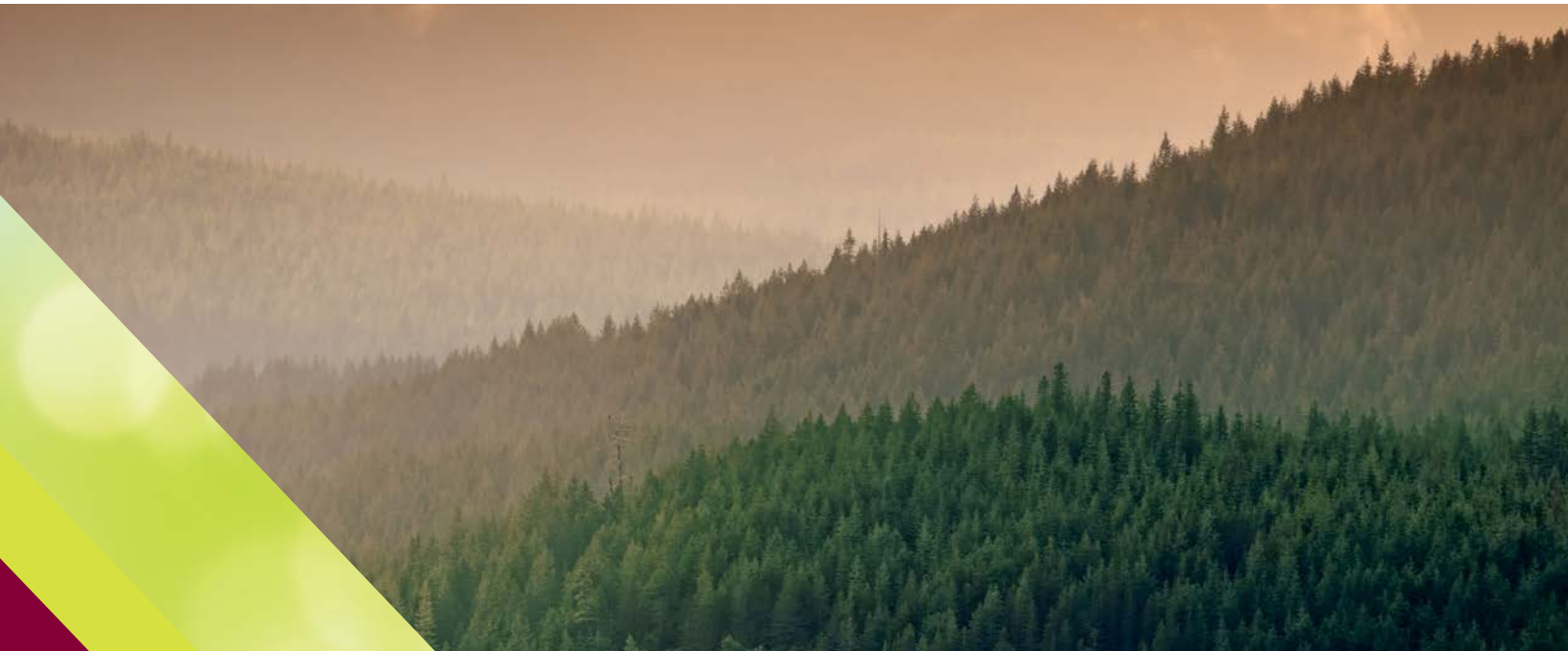
Creating a business case for projects

The value case for municipal climate action has likely already been made in your community, through a council resolution to join the FCM-ICLEI PCP program, Global Covenant of Mayors resolution or a council Climate Emergency Resolution. These initiatives show your council's commitment to climate action and give you access to structures and resources to guide your efforts.

A clear and concise business case gives decision makers who don't always have your in-depth knowledge information about a new project or proposal. Factors to consider when preparing your business case include:

- Budget, including all project costs, financing and estimated ROI or payback period
- Connections to municipal climate action plans and other municipal goals
- Details on similar projects, to show replicability
- Detailed and quantifiable financial, social and environmental benefits
- Non-monetary benefits
- Legal, jurisdictional or liability issues
- Resources needed to complete the project
- Timelines, tasks and responsibilities

> *"Always focus on demonstrating the relevance of climate goals across departments and in changing contexts, such as the pandemic."*



> *"Our analyses showed the links among energy, emissions and expenditures, as well as the co-benefit of unlocking provincial and federal funding and creating local jobs. Council and staff are now more receptive to climate action projects."*

Considering the following questions may help you develop and present your business case:

- *What's the bottom line?* Include only the most pertinent information such as costs, savings, GHG reductions, operation and maintenance costs and savings, health and social impacts and avoided damages.
- *What's in it for them?* Use terms and information that decision makers understand. You will probably wish to customize the business case for different audiences, such as the public or a particular community sector.
- *What could go wrong?* Nothing kills a business case faster than overselling the benefits or including misleading information. Use quantifiable results and be honest about potential negative consequences or challenges.
- *How can you get the time you need?* It may be difficult to get the in-person meeting you need with a busy senior staff person. Make it easier for them to say yes by developing a 30 to 60 second elevator speech to get the pertinent-to-them facts across, and focus the meeting by only having key people in attendance. End by stating what needs to happen next.

> *"Be sensitive to fiscal realities. In many cases, your goals are similar to those of other stakeholders and you just have to find the common ground."*

> **TIP:** Before you send it out, have at least one other staff person read the business case, even if they're not directly connected to the project. A second set of eyes will help catch errors.

Go to selected resources

Building relationships with internal and external allies

Cooperation goes a long way to creating meaningful action. Establishing good relationships with all staff and stakeholders makes your job easier. There are a number of allies with whom you'll want to be on good terms.

> *"Getting buy-in isn't just about the project's relevance to climate change action plan priorities or environmental health. We also need to demonstrate a commitment to community well-being, enhancing the town's profile, saving money, and stimulating a green and circular economy."*

Municipal stakeholders

Municipal staff play key roles in climate action in terms of leadership, authority and expertise. Key staff include:

- Supervisors, managers or department heads
- In-house allies, regardless of department or position
- Council, or individual councillors

Internal stakeholders can put pressure where it's needed and help you navigate the processes that impact your work.

> *"It helps when people aren't proprietary over solutions. Avoid working in silos and seek input for opportunities to avoid reinventing the wheel and maximize the impact with fewer resources."*

Other stakeholders

Other key stakeholders who can support your work will vary depending on your municipality. Common supporters include:

- Colleges and universities, and schools and school boards
- Local, provincial or national municipal associations, and local businesses and trade associations
- Regulatory bodies
- Indigenous peoples and associations
- NGOs and community groups
- Communities of practice or other networks
- Mentors, advisors and consultants
- Print and digital media, including community newspapers that may cover minority or less visible communities

> *Trust is key. Who do your stakeholders trust? Who do the First Nations communities trust and have experience with? Have a good middle person who your audience trusts and respects. Relationships don't just happen—they must be earned."*

These stakeholders can provide services and support that the municipality may not be able to provide on its own, such as research, advocacy or raising awareness that can be community-wide or in a specific segment of the community. Having credible allies in these groups can help you gain wider support for climate actions.

Case in point: The Northwest Territories Association of Communities organized a climate change forum in 2018 that brought together 166 attendees from across the NWT and beyond. Attendees included community representatives; Indigenous, territorial and federal governments and organizations; NGOs; technical experts; researchers; funders; and students. The interactive forum led to a climate strategy and action plan; several resolutions; more dialogue among governments, communities and climate partners; and a wave of new projects.

> *I worked with another climate change coordinator in the region to convene the other townships and First Nations to discuss their action plans. I'm also part of QUEST's Community Energy Planning and Implementation Network, and am connected to several other community organizations and networks."*

More municipalities are relying on outside expertise so it's worth getting to know the go-to consultants and the internal requirements for open competitions for procurement of services, such as for RFPs.

Now that more virtual services are available you may be able to expand your access to expertise from a distance. In rural or remote communities, consulting expertise can be harder to access and there may be greater challenges in building trust or relationships with the community.

Culture and tradition can also play a more prominent role in rural and remote communities. Familiarize yourself with the traditions, norms and cultures in the community and understand how these integrate with the municipal services. This is critical to building lasting relationships.

> *Make sure citizens are partners and not test subjects. Be respectful. They are trusting you with their community."*

Go to selected resources

Steering committees

Steering committees can help build the relationships that guide the creation of climate action plans and projects. A successful committee works with as many of the major sectors and segments of the community as possible and is realistic about the municipality's and the community's strengths and capacity. Some municipalities may have different steering committees for corporate and community actions.

Depending on your community, a steering committee may not be your best option. Interested and motivated staff and residents may already be stretched too thin, or your municipality may operate less formally. In those cases, work with established staff, committees and community resources to move climate goals forward.

> *"Establishing more committees can be tiresome for staff and not always productive. Instead, I learned what I need to know from each department and ask for when I need it."*

Whether it's formal or informal, working collaboratively builds relationships and keeps climate action on the table.

> *"I organized a steering committee and it was a good learning experience, but decision making here is typically done informally. It's unlikely that First Nations stakeholders will join unless it is done in a nation-to-nation context that takes their priorities and values into account."*

PROS: STEERING COMMITTEE	CONS: STEERING COMMITTEE
• Gives you a mandate and provides accountability for plans and actions • Provides a space for many voices and perspectives, including discussion on links with other municipal plans • Gives projects more credibility • Is most productive when membership is well balanced and represents the general community	• Can be time consuming and requires human resources to train and/or orient members • Hard to justify the expense of a full-time position to steward the group in a small municipality • Needs the right members and the right processes to avoid decision paralysis • Needs councillor or senior staff support to maintain focus

Communicating with others about climate action

Depending on your projects and the overall climate action strategy, you'll be communicating with many people, all of whom have their own interests and motivations. And most won't have your level of knowledge or interest in climate action so you need to figure out which messages and approaches work best with which people.

Certain terms that are common in climate change action circles may not be the best to use with some audiences. In some areas, terms like "climate change" or "adaptation" may mean nothing to your audience, or, worse, they may elicit a negative response.

Be careful not to talk down to audiences that are already knowledgeable about climate change, or to those who aren't experts.

Keep a record of common private sector, municipal, regional and provincial terms and phrases related to your work and use terms, language, and concepts that your audiences understand.

At some point, you will experience pushback on actions or plans. Learning to tailor your argument to highlight the benefits will help overcome objections. Consider how you can:

- *Change the conversation*. Think like your audience and find the words and messages that will resonate with them. Where are they already investing money, time or interest, and are there climate-related benefits connected to those goals?
- *Change the messenger*. Find a councillor, senior staff member or other champion who has more authority than you and who has earned the respect of your audience, and ask them to make the case.

> **TIP:** If your municipality has communications and/or marketing staff, work with them to get the right messages to the right audiences.

What's in it for them?

Find out as much about the other person's point of view as possible. What are their priorities and needs, and can any part of those be addressed through climate action? If they're a fellow municipal staff member, are there places where their job intersects with your work? Are there councillors who have shown an interest or supported similar community projects? Are there capital projects in the works where adding a climate lens would strengthen the value of the decision?

Give your stakeholders the information they need to understand and support your project, but don't overload them. The general public, some sectors and other municipal staff may only need to know some of the actions you're taking and the impact they will have.

> **TIP:** People often tell you how they like to be treated without saying a word. Sending a four-page email to a person who consistently replies with one or two sentences may not be appreciated. Likewise, if you are working with someone who always texts or telephones, then text or call them rather than emailing. Showing you're trying to respect how others operate can lead to more trust and cooperation.

Ask the right questions

Identifying a problem and possible solutions is the first step to a productive conversation. Especially when people are initially skeptical or even hostile to suggestions, asking the right questions may help them recognize how the issue impacts them.

> *"I was thrown in the deep end but was lucky to have a general manager who helped me at the beginning. I also asked administrative staff specific questions so I got specific answers or was directed to the right people and I wasn't seen as wasting people's time. Don't ask vague questions. And get phone numbers!"*

Here are some questions that may stimulate effective conversations about climate action.

IF YOU'RE SPEAKING WITH OTHER MUNICIPAL STAFF...	IF YOU'RE SPEAKING WITH RESIDENTS OR COMMUNITY MEMBERS...
• What are we spending on building energy per square foot/metre compared to last year, five years ago, ten years ago? • What are we spending on vehicle fuels annually? • Have we gained or lost value on our engineered and natural assets? • Have we seen changes that could be climate-induced, such as more intense storms, wildfires, or a rise in pests (mountain pine beetle, emerald ash borer) or vector borne diseases (Lyme)? • Are we paying more for insurance? • When are major uses of energy reaching the end of their useful lifespan? • What assets have previously been impacted by severe climate events? How did the service respond? Were assets damaged? • When were flood maps last updated? • Are climate risks being factored into decision making today?	• Have you experienced property or other damage from climate-induced weather events such as extreme storms, floods or wildfires? • Have you seen changes to natural areas, tree cover or canopy, or wildlife? • Are you paying more for property insurance? • Do you have concerns about how the environment might impact your family's health and wellness? • If you grew up in this area, what are weather events like now compared to when you were a child? • What natural elements in our community would you like to see preserved for future generations?

> *"We need more emphasis on building networks between communities and creating institutions, especially in the North. Indigenous traditional and scientific knowledge can be transferred and further developed. You can address reconciliation along with climate action."*

TIP: Get to know your target audiences through the demographic information (e.g., population, age, housing types) available in many municipal databases, or check Statistics Canada's census data and analysis products. Organizational websites and related trade associations are also good avenues to understand your audiences.

Frame the conversation

Even before you get to your specific message, it's important to decide how you are going to frame it to engage your audience and accomplish your goals.

> *"We talk about climate change in the context of waste diversion. Our landfill is running out of time and that's an operational risk. But waste diversion is also the right thing to do, even if we had a hundred years left. Push the solutions to address the risk but in a way that's helpful."*

Community energy planning is a common approach to frame climate action, using the language of energy efficiency, demand management and local renewable energy generation. This often fits with community economic development by highlighting local employment and investment opportunities that arise from retrofit projects or clean technology industries.

Similarly, climate adaptation can be framed using a risk reduction, emergency prevention or resilience approach, stressing how reducing risk avoids financial loss while creating potential employment through, for example, retrofits that reduce flooding or storm damage.

Go to selected resources

Reporting progress to council and the public

By now, you will be familiar with council's preferences as to how it likes to receive reports and recommendations from staff, and how often. You likely have a similar understanding of what your community partners and the public expect. With that knowledge in hand, you are set to report regularly to these audiences to maintain their interest and participation in, and support for, climate action.

Reporting results may mean anything from a simple memo to council to a glossy public progress report. The approach will depend on the audience, the progress made, local norms or traditions and the key messages. Of course, you want to profile success, but it's important to also identify challenges that council or the community should have on their radar. Connect with your peers in other municipalities or in climate action networks who may have advice to offer as to the best approach for certain issues. They may also have examples of materials they use in their communities.

Taking care of yourself

Many people in the field identify mental health as a key area where climate change staff often require extra support.

In addition to the stresses that come with any new job, especially if you've relocated or are working for more than one municipality, "climate anxiety" is real. You may find you're experiencing stress and even grief in response to the effects of climate change, and this can take a toll.

> *"Many climate staff have high ideals but can sometimes get frustrated with what seems like a slow pace, forgetting that progress has been made. Temper your ideals, be realistic and focus on the positive things that are happening."*

Local governments are making progress, but it is still a challenge to keep climate action a priority, especially if you're facing a lack of political will. You may feel that your work is not valued or understood.

If you're feeling isolated or unsupported, don't go it alone. Join—or create—a social network where you can talk about these issues honestly and from different perspectives. Have regular calls with colleagues and peers to seek feedback and share ideas on how to manage common feelings. This can make a difference in how you feel every day and have a positive impact on your work.

> *"Many of us are working alone or are isolated in other ways and we are starved for deeper connections with folks who understand this work and its challenges."*

A year of progress

As you reach the end of your first year, take time to reflect on the progress you have made toward your initial goals. Tell others, including senior managers, councillors, other municipal staff and the public about the results and what you learned.

Celebrating success

Share stories of successful actions or programs and celebrate the champions. Focusing on the positives will inspire you and others, sustain project momentum and create goodwill for future projects. Talk about your successes and lessons learned in communications such as newsletters, business cases or council reports.

> *One of the best ways to stop reinventing the wheel is to share what's being done. When we work on a project we try to showcase it. Sharing a story is one of the most efficient ways to make sure information doesn't get lost."*

> *Good facilities managers often don't often talk about improvements in terms of energy efficiency or good stewardship, they just do these as a matter of course. Management recognizes this and we celebrate it. If no one ever asks them, you'll never know."*

Go to selected resources

Tracking your contributions

Track your contributions over time to show the value of your position and its importance to climate action.

- **Financial savings:** Your work may have been used to obtain funding, explore partnerships, increase the value of capital projects or create other efficiencies. Or maybe your climate projects or community initiatives have stimulated local job creation or business development.

> *Identify short—, medium— or long-term economic development and infrastructure projects and ways to add value using an adaptation or mitigation lens to leverage additional funding."*

- **That all-important climate lens:** You may have provided expertise so others could apply a climate lens to their projects, helping to avoid future climate-related costs, reduce GHGs or build climate-resilient infrastructure.

> *"We're a small municipality and don't have a lot of resources, so the climate change coordinator was part of our team and brought practical knowledge and concepts that we applied to our capital planning. All of those projects have a climate lens now."*

- **Partnerships:** You may have helped establish or advance a range of relationships across the community, some of which may have led to practical projects and measurable outcomes. You may also have worked with multiple municipal governments to coordinate actions across regions, such as standardized data collection and acquisition, or green procurement.

> *"I worked to build credibility with councillors, local businesses and committee members. When it comes time to make decisions they trust me to show the value of what we are doing."*

- **Breathing room:** You have provided added capacity and so have likely reduced the burden on other staff who may have had climate action added to their responsibilities.

Reflecting on your contributions will help you articulate the impact of your role to your supervisor or council. This may be useful come municipal budget time!

Finally, be proud of the role you are playing in your community. Residents rely on their municipal governments for the services and facilities they need every day. Being part of making your municipality more resilient to climate-related changes ahead could be the most rewarding work you will ever do.

Selected resources

While this guide is not exhaustive, we hope it has given you an overview of what to expect during your first year as a municipal climate change staff member. We invite you to review this list of selected resources for more information on the topics in the guide—and we've also included a list of additional resources at the end that shows many organizations and projects that may be helpful to you.

Bringing a climate action lens to decision making

Climate Lens Guidance Document, City of Windsor. ***https://cleanairpartnership.org/cac/wp-content/uploads/2021/03/Windsor-Climate-Lens-guidance-document.pdf***

Climate Adaptation Maturity Scale and *Maturity Scale for Municipal GHG Emissions Reduction:* Part of FCM's series of maturity scales.

https://fcm.ca/en/resources/mcip/tool-greenhouse-gas-emissions-reduction-maturity-scale and ***https://fcm.ca/en/resources/mcip/tool-climate-adaptation-maturity-scale***

Climate Adaptation Competency Framework (CACF): Professional skillsets and behaviours required for the Canadian workforce to respond to climate change opportunities and challenges.

- *CACF Framework:* ***https://adaptationlearningnetwork.com/climate-adaptation-competency-framework***
- *CACF Webinar:* ***https://www.youtube.com/watch?v=O1JuAWLDhaQ&feature=youtu.be***

Understanding the role of senior management

The Climate Caucus Councillor's Handbook: Information by local elected leaders for local elected leaders.
https://docs.google.com/document/d/1pUJC4HSbhXJGIMC7npDxj1Ox0DCyQeduZrHty_dNB8I/edit?disco=AAAAGqynfbA&usp_dm=true

Municipal influence on energy use in buildings

Data sets and sources

Canada Mortgage and Housing Corporation: Federal housing datasets, tools, guidance, and case studies.
https://www.cmhc-schl.gc.ca/

Canadian Centre for Climate Services: Federal datasets, tools, and guidance.
https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services.html

*Climate Atlas of Canada (*formerly the *Prairie Climate Atlas):* Local historical and current climate data.
https://climateatlas.ca/

Statistics Canada, Data Products (Census 2016).
https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm

Statistics Canada, Analytical Products (Census 2016).
https://www12.statcan.gc.ca/census-recensement/2016/as-sa/index-eng.cfm

Funding for retrofit projects

Green Municipal Fund: Funding for capital projects such as retrofits of municipal facilities.
https://fcm.ca/en/funding/capital-project-retrofit-municipal-facilities

FCM's Community Building Retrofit: Grants and low-interest loans to municipal governments to optimize the performance of their facilities (e.g., indoor ice rinks, sports arenas, swimming pools, community/recreation centres, arts and culture facilities, libraries) and maximize GHG reductions and energy cost savings.
https://fcm.ca/communitybuildingsretrofit

Guides and case studies

Go Green Framework: Ideas and suggestions to help arena operators lower the carbon footprint.
https://arena-guide.com/go-green-measures/go-green-framework/

GMF Municipal Energy Roadmap: Solutions to achieve significant GHG emissions reductions in municipal and community buildings.
https://fcm.ca/en/resources/gmf/gmfs-municipal-energy-roadmap

Major Energy Retrofit Guidelines: Best practice series from Natural Resources Canada, grouped by building sector.
https://www.nrcan.gc.ca/retrofitting/20707

MCIP's *green development standards for growing communities.*
https://fcm.ca/en/resources/mcip/case-study-green-development-standards-growing-communities

Inventories

Partners for Climate Protection Protocol: Supports municipal practitioners working through the first PCP milestone on inventorying GHG emissions.
https://www.pcp-ppc.ca/resources/partners-for-climate-protection-protocol

Global Covenant of Mayors Canada Companion Guide: Leverages resources available through national programs such as Partners for Climate Protection (PCP) and Building Adaptive and Resilient Communities (BARC) to enable Canadian municipalities to accelerate the scale and scope of their climate change actions.
https://globalcovenant-canada.org/global-covenant-of-mayors-canada-companion-guide/

Tools and software

PCP Milestone Tool: Helps local governments quantify, monitor and manage GHG emissions generated at the local level.
https://pcptool.ca/

ENERGY STAR® Portfolio Manager: Tracks and monitors building energy use and compares buildings with similar characteristics.
https://www.nrcan.gc.ca/energy/efficiency/buildings/energy-benchmarking/3693 and ***https://www.nrcan.gc.ca/energy-efficiency/energy-star-canada/about-energy-star-canada/energy-star-announcements/energy-star-portfolio-manager-specific-building-types/3743***

HOT2000: Energy simulation tool for low-rise residential buildings, developed to support the EnerGuide Rating System, ENERGY STAR for new homes, and R-2000 residential energy efficiency initiatives.
https://www.nrcan.gc.ca/energy-efficiency/energy-efficiency-homes/professional-opportunities/tools-industry-professionals/20596

RETScreen: Energy management software for energy efficiency, renewable energy and cogeneration feasibility and energy performance analysis.
https://www.nrcan.gc.ca/maps-tools-publications/tools/data-analysis-software-modelling/retscreen/7465

Energy Poverty and Equity Explorer Tool: Supports a shift in program delivery to better respond to the needs of low and moderate income households and others.
https://energypoverty.ca/

Managing projects, time and money

Plan-Do-Check-Act cycle.
https://asq.org/quality-resources/pdca-cycle

Power mapping basics.
https://trainings.350.org/resource/power-mapping-activity/

Getting More Done: Strategies to Increase Scholarly Productivity. Journal of Graduate Medical Education.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4763375/

Producing documents

Requests for proposals/qualifications

Why RFPs often suck—and 8 ways to make them better. John Lewis, Municipal World.
https://www.municipalworld.com/feature-story/why-rfps-often-suck-and-8-ways-to-make-them-better/

Request for Proposal Template: Guidance for Engaging Consultants in the Development of Milestones 1-3. ***https://www.pcp-ppc.ca/resources/request-for-proposal-rfp-template-guidance-for-engaging-consultants-in-the-development-of-milestones-1-3*** or find out how to join here: ***https://www.pcp-ppc.ca/join***

Requests for proposals in the NWT: Your guide to RFPs in your community! Templates and checklists for RFPs in the Northwest Territories.
https://rfp.toolkitnwtac.com/

Climate change presentations

Slide Share: Customizable climate change PowerPoint presentations. Create an account or log in using a LinkedIn account.
https://www.slideshare.net/pacorz/climate-change-powerpoint

Climate Change Connection: Educational material such as presentations, signage and workshops, with climate change solutions grouped by sector (e.g., agriculture, transportation) with checklists and key messages.
https://climatechangeconnection.org/

Talking it Through: The Municipal Climate Services Collaborative has developed a customizable template for communicating local climate issues in your community.
https://fcm.ca/en/resources/mcip/talking-it-through-guide-local-government-staff-climate-adaptation

Creating a business case for projects

The 5 keys to a green municipal project business case: FCM webinar profiling three green project business cases, with tips to break down project elements.
https://fcm.ca/en/resources/gmf/webinar-recording-the-5-keys-green-municipal-project-business-case

Business Case for Climate Action: Toolkit from BC Climate Action based on six elements—Leadership, economic performance, asset management, defense against climate change, economic and social development, and resilience.
https://www.toolkit.bc.ca/business-case-climate-action

Guidance on how to build a business case for climate change adaptation: Lessons from coastal Australia: Key steps in building a business case for climate action.
https://coastadapt.com.au/how-develop-business-case

The definitive guide to achieving your municipal climate action plan: Tips from the Municipal Climate Change Action Centre to create business plans.
https://mccac.ca/2020/08/04/the-definitive-guide-to-achieving-your-municipal-climate-action-plan/

Building relationships with internal and external allies

FCM's Community Economic Development Initiative: Helps neighbouring municipalities and First Nations develop partnerships for mutual economic development and promote reconciliation and collaboration.
https://fcm.ca/en/programs/community-economic-development-initiative

Youth Infiltration Manual: Practical knowledge and tools for youth on how to take on climate action at the local level.
https://www.youthclimatelab.org/infiltration-manual

Communicating with others about climate action

Statistics Canada: Credible data and analysis on demographic and other community information
https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm and ***https://www12.statcan.gc.ca/census-recensement/2016/as-sa/index-eng.cfm***

Talking it through: A discussion guide for local government staff onclimate adaptation: Helps municipal staff talk to decision-makers and elected officials about adapting to climate impacts. Includes a customizable presentation template.
https://fcm.ca/en/resources/mcip/talking-it-through-guide-local-government-staff-climate-adaptation

An Overview of Community-Based Social Marketing: Designed to change unwanted behaviours to more desirable ones. It emphasizes direct personal contact and identifies target audiences and barriers and how to overcome them.
https://www.nrcan.gc.ca/energy/efficiency/communities-infrastructure/transportation/municipal-communities/4401

Celebrating success

Alberta Narratives Project: Messages, scripts and narratives to communicate with different sectors (e.g., agriculture, rural, environmental) and audiences.
https://albertanarrativesproject.ca/

Climate Outreach: Practical, evidence-based reports and guides for different community sectors.
https://climateoutreach.org/reports/

Additional resources

Arctic Institute: A global network of researchers who provide rigorous, qualitative and comprehensive research to develop solutions for challenges and injustices in the circumpolar north. Includes articles, maps and reports.
https://www.thearcticinstitute.org/countries/canada/

Canada's official greenhouse gas inventory: Annual inventories submitted as part of the United Nations Framework Convention on Climate Change, with emission estimates dating to 1990.
https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/inventory.html

Clean Air Partnership: A municipal climate lens tool and other resources including transportation and air quality projects, and assistance with networking and knowledge transfer.
https://www.cleanairpartnership.org/

Climate Risk Institute: Training and other services related to climate change risk assessment, adaptation planning, policy evaluation and resiliency.
https://climateriskinstitute.ca/

Community Energy Association: Research and planning services, and coaching and turnkey solutions. CEA experts work as energy coaches with MCIP communities of practice in BC.
https://www.communityenergy.ca/

Energy Efficiency Canada: Free, weekly webinars with project managers, utility representatives, municipal staff and others; energy efficiency training opportunities.
https://www.efficiencycanada.org/

FCM Municipal Youth Engagement Handbook: Resources, strategies and tools for municipal officials and staff to use to engage young Canadians as future municipal leaders and workers.
https://fcm.ca/en/news-media/news-release/engaging-the-next-generation-local-leaders

FCM climate resilience video series.
Video series: Climate resilience and asset management

Hudson Bay Consortium: A collaboration among communities, rights holders, Indigenous organizations and all orders of government to share knowledge, coordinate research and monitoring, and integrate regional stewardship with Indigenous knowledge.
https://hudsonbayconsortium.com/

Consortium sur la climatologie régionale et l'adaptation aux changements climatiques. Élaborer un plan d'adaptation aux changements climatiques, guide destiné au milieu municipal québécois (French only).
https://www.environnement.gouv.qc.ca/programmes/climat-municipalites2/Plan-adaptation.pdf

Partners for Climate Protection: Free technical assistance and tools to address GHG reductions, including developing inventories, setting targets, identifying actions, and monitoring progress. Municipalities participating in the Global Covenant of Mayors can now report their commitments to both initiatives concurrently through the PCP tool. The Building Adaptive and Resilient Communities (BARC) tool through ICLEI Canada also has free access for independent analysis.
https://www.pcp-ppc.ca

Pembina Institute: Research, analysis and recommendations to inform energy-related policies and practices.
https://www.pembina.org/

QUEST Canada: Research and best practices, along with work with government, utility, private sector leaders and local authorities to implement solutions.
https://questcanada.org/

Tools of Change: Community-based social marketing principles, case studies, tools and best practices.
https://toolsofchange.com/en/home/

The Atmospheric Fund: Scaling up low carbon solutions; research and pilot project evaluations of deep energy retrofits, heat pumps, emissions quantifications, and retrofits of older medium— and high—rise buildings.
https://taf.ca/

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