

PCP MILESTONE 3



DEVELOP A LOCAL ACTION PLAN



PARTNERS FOR **CLIMATE PROTECTION**

PCP Milestone 3: Develop a local action plan

Local action planning is the process of creating a strategic document that specifically outlines how the municipality will achieve the greenhouse gas (GHG) emissions reduction targets set in Milestone 2. The resulting document is the third milestone in the Partners for Climate Protection (PCP) program.

There are four key elements which are required for Milestone 3 and which PCP members must demonstrate before Milestone recognition can be issued:

1. Description of activities that will be taken to achieve target reductions;
2. Stakeholder engagement;
3. Description of cost and/or funding sources; and
4. Description of where the overarching responsibilities for the plan are contained.

1. Description of activities that will be taken to achieve target reductions

The local action plan (LAP) outlines a range of activities, or ‘measures,’ that will be taken to reduce corporate or community GHG emissions and meet the target set out in milestone 2. These activities may include broad goals and objectives; however, these broad types of commitments should be based on specific and targeted measures wherever possible. A LAP that only contains general commitments, such as “reduce energy consumption in buildings,” will not prove very effective. A successful LAP must describe in sufficient detail the ways in which these types of general objectives will be achieved. For example, a commitment to “reduce energy consumption in buildings” should be accompanied by specific measures that will be undertaken at the facility level. Such targeted initiatives could include retrofitting inefficient lighting in city buildings or energy conservation and awareness campaigns geared toward staff (see **Exhibit 1** below).

Exhibit 1: Examples of corporate strategies to reduce emissions

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|---|
| 1.1 Adopt a municipal green building standard based on energy efficiency, greenhouse gas emissions and other sustainability metrics that requires all new buildings to be built to a net-zero or net zero ready standard. |
| 1.2 Conduct energy audits of all existing municipal facilities and implement energy efficiency upgrades |
| 1.3 Explore and implement renewable energy and energy recovery opportunities at municipal facilities. |
| 1.4 Provide staff training on energy efficiency awareness and energy management for building operation. |
| 1.5 Purchase electric vehicles when retiring combustion engine fleet vehicles and equipment where possible. |

Once specific measures have been identified, the LAP should describe how each measure will contribute toward the GHG reduction targets adopted in Milestone Two. Wherever possible, the LAP should include a description of the measure, its energy and GHG reduction, anticipated costs and funding sources, and other implementation considerations. Where detailed quantification is not possible, GHG reduction and cost estimates can be expressed as relative characterizations such as high, low or medium. However, these characterizations should be accompanied by expected ranges of values i.e. low cost: \$0 – 100,000, medium cost \$100,000 to \$500,000 and high cost: \$500,000.

Exhibit 2: Strategies with quantitative measurement

Municipal fleet electrification

Measure: Replace gasoline vehicles with electric vehicles or other low-emission vehicles on a rolling basis as existing vehicles are retired.

Replace frontline emergency vehicles with plug-in hybrid vehicles.

Install EV charging stations at municipal parking lots.

Energy and GHG reduction potential: 90% of gasoline cars, 90% of light-duty trucks, and 60% of off-road vehicles are to be replaced with EVs by 2050. At a rate of 25% of gasoline cars, 15% of gasoline and diesel trucks replaced by EVs every 5 years and 15% of heavy-duty trucks replaced by electric vehicles every 5 years beginning in 2030, GHG emissions will be reduced by 900 tCO₂e per year and energy consumption will be reduced by 9,400 GJ per year by 2050*.

Anticipated cost: Based on average prices for electric cars and expected prices for, electric vans, and light- and heavy-duty electric trucks, the total cost of converting the municipal fleet consisting of 63 vehicles to electric at the above rates by 2050 is estimated to be \$8.8 million. At the above target rates of gasoline to electric vehicle conversion the cost by 2030 is estimated at \$3.9 million. The majority of municipal fleet consists of light- and heavy-duty trucks. As electric light-duty and heavy-duty trucks are just entering the market prices are expected to fall considerably over the coming years, along with electric cars due to competition between manufacturers. Annual fuel costs are expected to be reduced by \$40,000 by 2030 and \$100,000 by 2050. Reductions in annual operational costs may also help to offset capital costs. The cost of installing EV charging stations is estimated at \$5,000 per level 2 charger.

Implementation considerations: Procurement for electric vehicles and equipment should be considered when older vehicles and equipment are retired. The cost of electric vehicles is currently greater than that of fuel-combustion vehicles however prices are expected to continue to drop as more vehicles become available on the market. Light and heavy-duty electric trucks are currently not readily available on the market but are expected to become available in the near future. Timelines for replacing gasoline and diesel trucks should be adjusted accordingly as more information becomes available. The municipality should consider bulk purchasing agreements with neighbouring municipalities and take advantage of available government grants and financial incentives.

Implement a deep energy efficiency retrofit program for all corporate-owned housing

Measure: Conduct energy audits and deep energy retrofits for 100% of corporate owned housing to achieve an Energy Star rating of 85+ by 2040.

Energy and GHG reduction potential: A deep energy retrofit for corporate-owned housing can create energy savings of 40 to 80%. Baseline energy consumption from all corporate buildings is 2,000 tCO₂e. Assuming the average retrofit will produce energy savings of 50%, the municipality will reduce emissions by 1,000 tCO₂e per year when all retrofits have been completed by 2040.

Anticipated cost: The cost for a deep energy retrofit in a multi-unit residential building is estimated at \$10,000 to \$60,000 per unit with a 6+ year payback period.

Implementation considerations: The municipality will stagger retrofits improvements at a rate of one or two facilities per year; this will allow the Town to capitalize on efficiencies and lessons learned. Retrofits can be coordinated with other capital improvements to reduce disruption to tenants. Co-benefits of energy retrofits include better indoor air quality, indoor comfort, and reduction in energy poverty.

Qualitative measures, such as awareness raising or public engagement campaigns, can be difficult to quantify in terms of GHG reductions. In these cases, it is sufficient to describe the planned measure, who is responsible for implementing the action, foreseeable costs, and its potential outcome.

2. Stakeholder engagement

Developing a GHG reduction plan, whether for corporate operations or the community at large, requires input from key stakeholders. A corporate LAP should describe how

key municipal staff and other relevant stakeholders participated in the development of the plan. Similarly, the community LAP should explain how the public (residents, local businesses, community organizations, etc.) contributed to the formation of the plan. This description may take the form of a list of key meetings, the dates these were held, who attended and a summary of outcomes. If the municipality distributed surveys, conducted interviews or created a public website, this information can also be included in the description of stakeholder participation. See **Examples 1 and 2** below for how community engagement strategies can be documented

Example 1: Community engagement for Aurora's community energy plan

"The public has been engaged throughout the plan's development. In the summer of 2019, the public was invited to share what was important to them about energy and emissions at the Aurora farmer's market.

In the summer of 2020, an online survey was available through the town's engagement website, which invited residents to tell us their priorities for action on climate change and energy efficiency.

Finally, members of the public were invited to participate in a "virtual open house" during the fall of 2020. This self-guided experience included a slide show, a pre-recorded presentation, and opportunities for feedback. Participants were asked their opinion of the proposed strategies and suggestions to support the implementation of the CEP. In addition to receiving input from members of the general public, a class of Grade 8 students at Lester B. Pearson Public School viewed the open house video and completed the survey with their teacher. At each touchpoint, feedback from the public was reviewed by the project team and considered within the plan as appropriate."

Example 2: Community engagement in a small rural municipality

Goals

The public consultation program is intended to engage the community and municipal Council and staff to provide feed back and suggestions for the future of Mulmur's energy management

and climate change mitigation. We hope this study will inspire those who would like to achieve the general goals noted above and most importantly global efforts to prevent climate change. The CEP four volume report and executive summary identifies things that each resident and business property owner in Mulmur can do to make a difference.

Intended outcome

Four main outcomes are intended from these public consultations:

- 1. Insight into Mulmur's residential and business owners' views on energy conservation and climate change.*
- 2. Gain an understanding from the community on how the Township of Mulmur should tackle these issues on behalf of its residents.*
- 3. Form a task force to facilitate the reports suggested solutions and keep up momentum to encourage engagement on energy reduction and GHG emissions reduction in Mulmur.*
- 4. Finally – encourage the community to take action.*

Consultation engagement efforts and results

Stakeholder outreach and Mulmur meetings

Mulmur has made efforts to identify a stakeholders' group of potential community leaders who might help the municipality champion the CEP. From those identified it is hoped they will help guide CEP progress. Local champions are needed to help understand local challenges for business and residents when making decisions on energy conservation.

A list was created by Burnside comprising of local business, Council members and local government agencies. A total of 22 recipients were contacted on June 1, 2019 with a response rate of 9 percent (two respondents). A typical stakeholder invitation letter can be found in [Appendix A](#).

The stakeholders' outreach efforts were undertaken by Mulmur staff (See Section 2.2 and 2.3 of Meeting Minutes No. 2, provided in [Appendix B](#)). It was decided that the Mulmur would contact the stakeholders list via email. The invitation was extended twice to the listed stakeholders.

Several meetings were held with Mulmur staff to provide status updates and obtain direction from the Township. Those meeting minutes can also be found in [Appendix B](#).

As of October 16, 2019, only three contacted stakeholders had replied with interest in participating in Mulmur's CEP.

Stakeholders who initially indicated an interest in participating:

- Nottawasaga Valley Conservation Authority (NVCA);
- Dufferin County Museum; and
- Dufferin County – Climate Change representative.

Following these invitations, other individuals have volunteered and now several people have confirmed their interest in the task group. Mulmur has also formally identified a Council member, Shirley Boxem who will Chair the task group committee. The CEP committee will need to establish its terms of reference and focus going forward.

Newsletter and notices issued

A newsletter was created by Burnside and provided with the tax notices issues to all Mulmur property owners. The newsletter was issued in late July 2019. A copy of the newsletter issued can be found in [Appendix C](#). It included a notice of the online social survey and the upcoming public open house along with background information of the CEP study.

The newsletter was also provided to three local newspapers. The Creemore Echo, Shelburne Free Press and Alliston Herald.

Social survey

As part of the CEP study Burnside conducted an online social survey to better understand community opinions on CEP related topics. The survey would provide an opportunity to obtain feed back from Mulmur's residents who participated.

The Survey consisted of 16 questions with the main topic on energy conservation. Other topics consisted of climate change, energy reduction solutions, methods for educational outreach regarding the CEP. Postal code confirmation was requested to confirm Mulmur residency and general location.

The survey was available for online use shortly after the CEP newsletter was released as part of Mulmur's tax notice. The CEP flyer contained a link to access the survey and an email address to forward any question, comments or concerns.

Initially there was a poor response to the Social Survey since it was difficult for residents to find on the Mulmur website. The CEP link was subsequently moved to the front page of the website for easier access. As a result, the opportunity to respond to the survey was extended and more responses were received. The survey was available from August 2, 2019 to October 13, 2019. A total of 24 people responded to the survey. This represents about 1% of the total population. The survey provides insight into the views of those who participated. [Appendix D](#) contains the analyzed responses from the social survey.

Public open house

Mulmur's Economic Development Committee meeting took place on September 28, 2019. It was held at the Mulmur Townhall in Terra Nova. Burnside attended to provide information on Mulmur's CEP, receive feedback and record questions and comments.

Preparation for the open house

In order to create interest in the event Burnside contacted a well-known personality who could help create interest in homes designed to include energy conservation and renewable energy.

Also, automotive manufactures, Volkswagen (VW), and General Motors (GM) were also contacted to see if there would be an interest in attending the event and bringing an electric vehicle (EV).

None of the above parties replied to our request.

The Plug'n Drive Electric Vehicle Discovery Centre was contacted and were interested but unfortunately had a previous engagement on the same day so could not attend.

Burnside will continue facilitate public interest for the next public open house and in the CEP. Other preparations and notices issued are discussed below.

Presentation materials provided

Fourteen display boards and a PowerPoint presentation were created by Burnside. The display boards provided results from the CEP study available to that date. The boards encouraged community members to get engaged. These display boards were placed around the meeting room, allowing the attendees to browse the displays at their own speed as they walked around the room. The display boards are shown in [Appendix E](#).

The PowerPoint presentation was played on a loop for people to watch as they walked around the displays. The presentation focused on climate change facts in the form of charts and graphs. A few chairs were placed in front of the viewing screen to allow people to sit and follow the PowerPoint slides. The slides are shown in [Appendix E](#).

3. Description of costs and/or funding sources

The measures proposed should discuss costs, qualitatively or quantitatively, and funding sources for each measure. Where detailed quantification is not possible, GHG reduction and cost estimates can be expressed as relative characterizations such as high, low or medium. However, these characterizations should be accompanied by expected ranges of values i.e. low cost: \$0 – 100,000, medium cost \$100,000 to \$500,000 and high cost: \$500,000.

Possible funding sources include gas tax money, departmental budgets, federal grants/programs, Green Municipal Fund (GMF) funding, etc. It is not likely that the entire climate action plan will be funded by a single budget holder. Rather, many organizations across the community will have a role to play in funding the implementation of the plan and reaching the GHG reduction targets will be a multi-

year, multi-budget process. In order for any plan to achieve its objectives appropriate and sustained funding is needed. See **Examples 3 and 4** below for how costs and funding for each action can be described.

Example 3: Describing cost

Action: Achieve net-zero municipal operations through installation of solar panels on municipal facilities.

Anticipated cost: It is estimated that 3,000 PV modules will need to be installed across nine municipal facilities to offset municipal operation electricity use. The capital cost is estimated at \$2.8 million. The annual energy savings payback will be approximately \$130,000 resulting in a simple payback period of 16 years.

Example 4: Describing funding

Action: Community-wide energy retrofit program

Possible funding sources:

- The [Green Municipal Fund](#) provides funding or loans for the construction or renovations of energy efficient buildings, buildings that incorporate renewable energy, as well as design of community energy efficiency financing programs.

4. Description of where the overarching responsibilities for the plan are contained

To ensure the targets are met, an individual or group of people (e.g. department or task force) should be accountable for the implementation of the plan. The LAP should therefore describe where the overarching responsibilities for the plan are contained. Exhibit 2 shows how this requirement can be displayed in table format, outlining the lead and partner(s) for each measure.

Exhibit 3: Strategy table

| Strategy | Activities | Lead | Partner(s) | Term |
|--|--|-------------------------|---|-------------------------|
| Promote anti-idling campaign | <ul style="list-style-type: none">• Place signs at strategic community sites• Offer 'Idle-Free' workshops to residents and novice drivers | Transportation Planning | <ul style="list-style-type: none">•Driving schools•Health Centre | Immediate |
| Reduce energy consumption from public lighting | <ul style="list-style-type: none">• Replace 500 mercury vapour streetlights with light emitting diode (LED) technology. | Energy Services | <ul style="list-style-type: none">• Electric utility | To be completed by 2022 |

5. Other considerations

A good local action plan will most likely reference several external documents, as in order to estimate the anticipated costs or potential GHG reduction associated with a particular measure, most municipalities will need to conduct external research.

Municipal staff may consult local utility providers or the manufacturers of certain environmental products or services. Information can also be obtained via government websites and a range of publications or studies. It is therefore important that the LAP reference external and supporting documents in a clear and transparent manner. This type of information can generally be communicated via footnotes or in separate appendices.

6. Submission instructions

Milestones 3 submissions can be submitted through the PCP Tool or all necessary documents and reports for PCP compliance can be sent by email to: pcp@fcm.ca. After technical review for PCP compliance by ICLEI Canada, a formal milestone recognition letter will be issued by FCM. If submitted through the PCP Tool, the corresponding PCP Medallion

will be awarded as well. Any technical questions regarding compliance with PCP requirements can be directed to: info@iclecanada.ca.

7. Examples of local climate change action plans

- [Prince George 2020 Climate Change Mitigation Plan](#) (Corporate and community GHG inventory, emissions reduction targets and LAP):
- [Dufferin Climate Action Plan 2021](#) (Corporate and community GHG inventory, emissions reduction targets and LAP):