



NEW BRUNSWICK SMART ENERGY COMMUNITIES ACCELERATOR PROGRAM

Recommendations Report for
the Town of Quispamsis' Community GHG
and Energy Action Plan Implementation and Monitoring
March 2022



Acknowledgments

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1.0 Executive Summary

1.1 Background

The Town of Quispamsis developed a corporate and community GHG inventory, as well as a corporate energy plan, community climate change plan, and a Community Energy Plan (CEP). Council adopted these in 2018, enabling the Town of Quispamsis to achieve the first three milestones of the Federation of Canadian Municipalities (FCM) and ICLEI's Partners for Climate Protection Program.

The CEP identifies ways to reduce GHG emissions, and ways to support the local economy, increase competitiveness, create jobs, improve energy efficiency, and keep energy dollars local. The CEP contains 12 projects whose potential reductions are estimated at 10,804 tons of CO² equivalent by 2025 (or an eight percent reduction in community GHG emissions below 2015 levels). Further targets include a 16 percent reduction in the community by 2035. The CEP includes improving energy efficiency and fuel switching (clean heat conversion) in the residential and commercial building stock, energy conservation (e.g. through a clothesline program), promoting fuel efficient driving and anti-idling efforts, encouraging uptake of electric vehicles and charging stations, and LED lighting programs.

As per the economic impact assessment conducted by QUEST Canada — detailed in a separate report — the full implementation of the proposed energy saving measures in your CEP can result in over \$10 million in annual savings, a carbon savings of \$1.35 million (assuming \$50 per ton), and it can divert up to \$280 million over 25 years into the local economy (at today's prices) once the CEP is fully implemented. A good plan will also attract private sector investment into the community. Details of the assessment methodology and assumptions are available [on our website](#).

QUEST Canada engaged municipal staff, councillors, and community stakeholders to help develop a governance strategy for implementing community-side actions to achieve local environmental and economic benefits. For the CEP to be effectively implemented, the community context needs to be incorporated into the development of a governance structure, communications and stakeholder engagement strategy, key performance indicator (KPI) framework, and the prioritization and implementation of actions within the plan. This report summarizes recommendations and workshop results, and can be used to help inform the Town of Quispamsis' submission to the FCM for Milestone 4.

1.2 What this Report Covers

The Town of Quispamsis, in partnership with QUEST Canada, hosted CEP Implementation workshops on Nov. 23 and Dec. 1, 2021. The workshops engaged local stakeholders and municipal staff to help establish a governance framework for implementing the CEP, and fostered strengthened collaboration between community partners for implementation, building awareness, and contributing to key performance indicators.

The workshop included an overview of the CEP as well as results of the Smart Energy Community Benchmark assessment conducted earlier in the year. QUEST Canada then shared recommended strategies for governance, implementation, communications and stakeholder engagement, data gathering and monitoring progress in the KPIs. Through four group exercises, participants helped inform,

compare and select strategies presented below. This report contains a summary of the workshop and table-top discussions, and preferred strategies are highlighted directly below in ‘Key Recommendations / Outcomes.’

1.3 Who Participated in the Workshop?

Representatives came from the Town of Quispamsis, the planning advisory committee, NB Climate Change Secretariat, and QUEST Canada. Further stakeholders were engaged as part of the original CEP development process.

See Annex 7 for a list of workshop participants.

1.4 Key Recommendations / Outcomes

1.4.1 Governance

(See Section 2 for details from the workshop)

Participants expressed support for **designating an existing staff member** as a part-time CEP coordinator. However, as the level of effort requires a full-time position, the town should examine the feasibility of assigning another existing staff member to support the CEP coordinator — or to take on the role of CEP coordinator full-time (which would require backfilling the position they occupied). Another option would be to **consider hiring a new part-time or full-time staff member**.

Participants indicated there is a need to **maximize limited resources**, and that such a position might need funding. This can include cost sharing between member municipalities and local energy utilities (e.g. NB Power), and applying for funding from the NB Environmental Trust Fund and/or the FCM (e.g. staff grant, project funding). Possible funding options are included in Annex 4.

Further, the actions in the Town of Quispamsis’ CEP are similar to the actions in the CEPs of neighbouring communities (though they differ in size). This means that many of the Town of Quispamsis’ CEP actions (e.g. anti-idling campaigns, residential and commercial energy efficiency retrofits, clean energy conversions, and promoting an EV network) can be achieved more cost-effectively using a regional approach. Public outreach or communications activities can also be delivered with more consistency across the region.

Therefore, participants indicated the Town of Quispamsis could work with neighboring communities and a partner organization — like the regional service commission — **to advance specific projects** and/or to **establish a regional coordinator position**. The regional coordinator would be responsible for supporting the advancement of CEP actions, engaging stakeholders, gathering data for key performance indicators, performing communications activities, and developing funding proposals. A sample job description, skills, and credentials needed are included in Annex 2. Creating a regional coordinator position requires developing a budget proposal for 2023 (which would be a shared cost); an accountability framework for the member municipalities; and the finalization of a work plan (which can be informed by this report).

Participants also recommended assigning CEP implementation to the **climate change committee**, (with quarterly meetings), and to **establish a municipal plan committee and/or stakeholder advisory committee**. A template for **terms of reference** for the committees are included in Annex 1. Participants

indicated that each committee should **deal with both climate mitigation and adaptation initiatives**, but may need to form sub-working groups or clear agendas with optional components.

In brief, the climate change committee would focus on actions led by the municipality (which can support both corporate and community-side GHG reduction initiatives). These can include bringing forward studies, pilots, projects, policies, and funding proposals; and collecting data for measuring key performance indicators. It would involve municipal staff and representation on council (if possible). The municipal plan committee or stakeholder advisory committee would focus on community-side actions, and involve a diverse range of stakeholders.

1.4.2 Data / Key Performance Indicators

(See Section 3 for details from the workshop)

Participants recommended updating the community GHG inventory using the PCP Milestone Tool no later than 2025 (or annually once a CEP Coordinator is established), as well as updating the SEC Benchmark Tool and keeping tabs on the progress of the CEP annually. They also recommended updating energy maps to support planning and education by 2023. The data required is described in Section 3. This would be led by the CEP coordinator. Participants discussed and prioritized the **tools/methods** to be used, including:

1. Create a data registry with annual updates.
2. Request data from partners annually.
3. Update the SEC Benchmark Tool annually.
4. Update the community GHG inventory using the PCP Milestone tool, no later than 2025.
5. Set up an online dashboard, and update it annually.
6. Conduct community challenges with students.
7. Refer to the PCP Hub as needed.
8. Provide updates and review progress in committees.

Participants also identified/selected **key performance indicators** across several categories that should be collected annually (if possible) in order to measure the impact and benefits of implementing the Community Energy Plan. See Section 3 for a full list of KPIs and data sources. Some of the most important KPIs include:

- Total energy usage (residential, commercial, institutional, transport) for all fuels
- Amount spent on energy compared to the amount saved through efficiency programs
- Amount of GHG emissions reduced, and total change year over year
- Number of households/businesses benefitting from efficiency incentives
- Number of households/businesses installing heat pumps, EPA certified woodstoves, or generating clean energy (e.g. rooftop solar PV)
- Total MW of clean energy produced (e.g. solar PV at the lagoon)
- Total water use and number of households switching to low-flow fixtures
- Number of EVs purchased and chargers installed
- Ridership on public transit
- Kilometres of multi-use trails and bicycle lanes constructed
- Solid waste diverted or recycled
- Performing baseline studies on air quality
- Number of jobs created in related sectors

- Local success stories
- And several others

1.4.3 Communication

(See Section 4 for details from the workshop)

Participants selected and prioritized methods for communicating with the public and for engaging stakeholders in the community. These activities would be led by the CEP coordinator, with support from municipal communications staff and input from the committees. If a regional resource is established, some communications efforts could be undertaken at a regional level.

Some of the top methods for **public communication** include:

- Town webpage — see sample content in Annex
- Social media accounts — see sample content in Annex
- Bill inserts (e.g. tips/fact sheets) and downloadable PDFs online
- Online dashboard with maps and/or storyboards
- Annual progress reports (which go to council and are made public)
- Engaging schools and youth groups

Some of the top methods for **stakeholder engagement** include:

- Establish a municipal plan committee which is to meet bi-annually.
- Create an ambassador program to recognize local leadership in reducing GHG emissions.
- Conduct community challenges, invite partners/ambassadors to join declarations and put on awards.
- Conduct teleconferences and workshops as needed for specific developments or projects.

1.4.4 CEP Action Strategies

(See Section 5 for details from the workshop)

QUEST Canada prepared a list of strategies for implementing each of the CEP actions. For each action, participants determined a priority, cost, lead responsible, partner actions, and a preliminary strategy for implementation. They also identified if it needs a study, funding, or supporting policy. See Section 5 for a full list of prioritized actions, and see the [Action Planning Spreadsheet](#) for details.

In summary, the **higher priority actions** are (to start in 2022):

- Encourage energy efficiency (in residential and commercial areas). This includes promoting incentives, updating building bylaws, mandating energy performance standards, and leveraging the development permit process to encourage and track energy efficiency ratings and to obtain measurable data.
- Update zoning bylaw provisions for energy efficiency, clean energy, and active transportation.
- Conduct a pilot solar PV array at the lagoon — and expand this in the future.
- Undertake a land-based mapping assessment for future siting of renewable energy (wind and solar).
- Begin public education to encourage water conservation, energy efficiency, active transportation, fuel-efficient driving, anti-idling, and converting to more efficient or hybrid/electric vehicles

- Consider a community efficiency financing program starting in 2023–24.

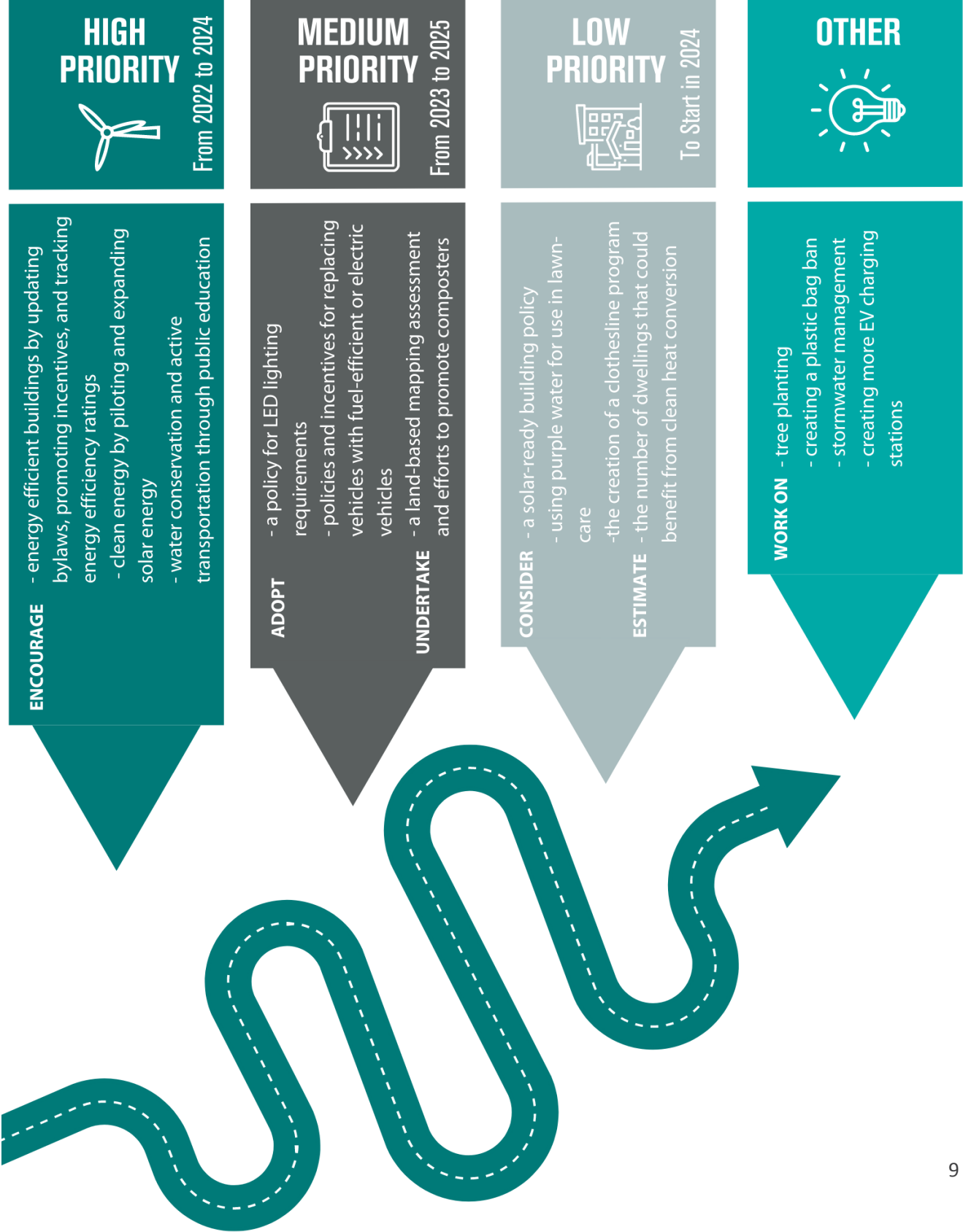
Participants recommended to **study and/or pilot certain measures first** and then **access funding** (e.g. via the FCM Green Municipal Fund, NB Environmental Trust Fund, etc.) for implementing the actions and to support stakeholder engagement and communications activities.

Participants identified the following **policies** that may be needed to support CEP actions:

- Mandate that any new incentives (e.g. discounts, fee adjustments, etc.) need to be approved by town council.
- Adopt the National Energy Code for Buildings and update building bylaws with minimum energy performance standards for commercial buildings and with requirements to make new buildings solar-ready, to use LEDs, to ensure electrical connection can handle EV charging demand, and to get energy performance ratings upon the sale of properties.
- Consider zoning bylaw provisions to encourage densification, enable clean energy production, and expand active transportation networks.
- Consider internal policy for replacing municipal vehicles with fuel efficient or electric vehicles.
- Extend the corporate anti-idling policy to commercial fleets, and/or specific zones in the community.
- Determine what (if any) bylaw adjustments may be needed to promote uptake of clothesline use or clothesline program adoption.
- It is recommended that the climate change committee review and present policy options to council. There are many other ways to embed the CEP in municipal processes, policies, and plan reviews. See Annex 3 for details on how to embed the CEP.

Based on the selection and prioritization of CEP actions, the below graphic illustrates a possible roadmap for implementation.

Figure 2: Preliminary Roadmap for Implementation



1.5 Potential Next Steps

- Council is to review and approve governance structure recommendations and other next steps.
- To start, designate an existing staff member as a part-time CEP coordinator. However — as the level of effort requires a full-time position — examine the feasibility of assigning another existing staff member to support the CEP coordinator or to take on the role full-time (which would require backfilling the position they occupied). Consider hiring a new part-time or full-time staff member. See list of preferred skills sets, in the Annex.
- Provide a directive to the climate change committee to coordinate on the implementation of the CEP, and establish a municipal plan committee or stakeholder advisory committee. See sample terms of reference in the Annex. These committees could be responsible for coordinating, helping advance CEP actions/projects, reporting on KPIs, applying for funding, supporting community outreach, and making recommendations to council. Schedule quarterly meetings in 2022.
- Work with neighboring municipalities to determine which projects to advance — and whether a shared resource could be hosted at the regional service commission — to support CEP implementation and regional efforts (e.g. public education, community energy challenges, anti-idling campaigns, energy efficiency programs, clean energy generation, etc.). See sample job description in the Annex.
- Obtain funding (e.g. through NB ETF, FCM GMF, NB Power) for hiring the coordinator position, convening committees, advancing CEP actions, and performing communications/public education.
- A budget can be developed based on annual priorities/studies. Include requests into annual budgets and prepare funding proposals (e.g. to NB ETF or FCM GMF), where needed. Some actions require no capital investments, only small amounts of labor time (e.g. communications support), or outsourcing (e.g. design, marketing, studies, etc.).
- Launch studies or pilots according to the implementation timeline. Analyze outcomes, develop full-scale community or capital projects — based on financial/technical feasibility — where needed. Each of the action strategies for each CEP action identifies whether a study or pilot is needed.
- Bring related policy decisions to council, as recommended by municipal staff (e.g. the CEP coordinator), as proposed by the climate change committee or the municipal plan committee (once established) or as identified within each action strategy within the CEP. Policy decisions rest with council.
- Align with programs offered by NB Power, FCM, and federal and/or provincial governments, whenever possible. These programs provide incentives for successful implementation of actions related to the CEP, including: energy efficiency, clean energy conversion, renewable energy, transportation, public education, among others.
- Create a data registry, and ensure the collection of data for KPIs annually. Request stakeholders provide data for measuring KPIs on an annual basis. See Section 3 for more details on collection methods and selected KPIs.

- Report to the FCM for PCP Milestone 4 — include the schedule of implementation, results of early actions, descriptions of stakeholder engagement, etc.
- Report to the FCM for PCP Milestone 5 once most actions in the CEP are implemented, GHG reduction targets are achieved, and GHG inventories (corporate and community) are updated.
- Report successes, impacts, and benefits to the community through an annual report card. Conduct further outreach throughout the year as needed and in alignment with CEP actions.

2.0 Governance

2.1 Introduction

Communities that have introduced new governance models to oversee and implement their plans have consistently proven that doing so will ensure that the CEP remains top-of-mind for elected officials, local government staff, and community stakeholders. New governance models provide a platform for politicians, staff, and community stakeholders to convene regularly. In some cases, they provide the legal framework needed to implement projects. This can ensure that a process is in place to monitor and report regularly on the implementation of the CEP.

The community context needed to be incorporated into the development of a governance structure for the implementation of the Town of Quispamsis' CEP, as well as the CEPs of neighboring municipalities. **Below are presented key governance options**, including for oversight and coordination, stakeholder engagement and communications, and data/monitoring key performance indicators. **Following this is a summary of the discussion and options selected by participants during the workshop/webinar on Nov. 23, 2021.**

2.2 Oversight and Coordination

The options discussed during the first tabletop session on Nov. 23, 2021, include:

- A. **Option 1:** The Town of Quispamsis can **assign an existing staff member** to oversee *corporate* energy actions. The staff member would also ensure that the *community* is leading by example by engaging stakeholders and the coordinating taskforce, gathering data, reporting progress, ensuring good communication, and finding ways to ensure that energy and emissions are considered in all decisions. However, it may be challenging for one person to manage implementing both the corporate and community energy plans, along with other priorities and duties.
- B. **Option 2:** The Town of Quispamsis can **assign the tasks to another existing staff member** or **hire a new staff member** to oversee *community* energy actions. This role would also involve engaging stakeholders and the coordinating taskforce, gathering data, reporting progress, ensuring good communication, and finding ways to ensure that energy and emissions are considered in all decisions. Embedding the CEP into job descriptions helps to keep a focus on implementation and makes sure it does not get overlooked. A staff person that sits at a management level is often well-suited to oversee CEP development and implementation. The manager position remains

equally as close to senior management and council as it does to staff and stakeholders working to implement the plan on the ground.

- C. **Option 3: Create a regional/cost-shared resource:** collaborate with nearby communities — such as the City of Saint John, the Town of Rothesay, etc. — and the regional service commission to explore the possibilities of hiring a shared staffer. This could also be partly funded by the FCM. A sample job description and skills and credentials needed are included in Annex 2.
- D. **Option 4: Engage student or part-time worker:** use funding from the NB Environmental Trust Fund, FCM Green Municipal Fund, or municipal budget to advance studies, surveys, and projects within the CEP on an annual basis or as needed.

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
<p>Participants reviewed the four options presented and discussed the pros and cons to each, prior to making a decision.</p> <p>Participants favoured assigning an existing staff member as the CEP coordinator. They would already have knowledge of the community and how the organization works. However, existing staff already have heavy workloads/competing priorities. If the CEP coordinator can only work on the required tasks part-time, they would need support from other staff. If a staff member were assigned as full-time CEP coordinator, their original position would need to be backfilled.</p> <p>Participants indicated that a second option would be to hire a dedicated new resource with the right skill sets and knowledge. However, there would be a need to budget to create the position. Or the town would need to find funding and an office space.</p>	<p>Decision 1: Assign to an existing staff member, and backfill their original position. Possibly assign a supporting staff member.</p> <p>Decision 2: Hire a new staff member with funding.</p> <p>Decision 3: Explore the possibility for regional collaboration and/or regional CEP coordinator.</p>

2.3 Committee Structure

Based on QUEST Canada’s research, it is recommended to have separate internal and external community-wide governance committees. A committee would oversee the community-wide implementation of the CEP, identify issue-based short-term actions, enable coordination and communication, support data gathering, and monitor and report on progress.

Participants discussed whether CEP objectives can be accomplished within existing committee structures or if a new structure should be introduced. They also discussed whether the committees should address both climate mitigation and adaptation or if these should be done by separate committees. Options for committee structure are presented below. Following this is a summary of the discussion and options selected by participants during the workshops on Nov. 23, 2021.

2.3.1 Internal Committee(s)

CEPs cross many departmental boundaries, and consequently require early and ongoing inter-departmental coordination and collaboration. Engagement should take place at the senior management and junior/intermediate staff level. Embedding the CEP into job descriptions helps keep a focus on implementation and makes sure it does not get overlooked. An internal committee should have a terms of reference stating objectives, roles, responsibilities, and key performance indicators on which to report.

- A. **Option 1: Create a task force, council committee, or assign the tasks to an existing committee:**
Consider creating a committee on council, mayor’s task force, or assigning the tasks to an existing committee. The group would oversee CEP implementation. A council committee or task force can be responsible for policy and structural decisions. Participants can act as community leaders for the CEP. Council members on the committee could act as a liaison between the committee and council by advocating for the adoption of recommendations, policies, or bylaws. They would also ensure adequate staffing and other resources are available. Community stakeholders may be on the committee, and staff would attend meetings as a resource. Minutes would be reported to the Town of Quispamsis council.

- B. **Option 2: And/or, establish a staff committee:**
Consider establishing a staff committee, including staff involved in the implementation of cross-sectoral actions in the CEP and/or liaising with the appropriate community stakeholders to manage implementation. These staff members should be responsible for gathering data, monitoring KPIs, and providing technical support for the implementation of actions in the CEP including analysis, feasibility studies, data, stakeholder support, etc. It can include meetings between department managers/leads and/or interdepartmental staff meetings. The committee would be chaired by the lead coordinator/oversight person.

- C. **Option 3: Assign to an existing committee, for example: the climate change committee**

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
Participants reviewed the three options presented, and discussed the pros and cons of each prior to making a decision.	Decision 1: Assign the CEP to the existing climate change committee, refresh the mandate/terms of reference, involve members of the planning advisory committee. Meet quarterly at a minimum.

Discussion Notes:	Decision:
<p>Participants indicated that a council-level committee would operate on a volunteer basis to enable the integration of committee work with the town. However, there may not be an in-depth understanding of the challenges and solutions. It would require irregular meeting times, and would still require staff support.</p> <p>Participants felt that a new staff-level committee would ensure a broad organizational view, and engage various other staff. However, this could require more time from staff, and it would need to include council representation.</p> <p>Finally, participants felt it would be best to assign the tasks to the existing climate change committee, which is already familiar and knowledgeable on the subject — and it involves municipal staff and council members. There might be a need to involve members of the planning advisory committee. And there would be a need to refresh the committee mandate/terms of reference. The only potential pitfall is that the CEP may get lost in other committee priorities.</p>	<p>Participants indicated the committee should address both climate change mitigation and adaptation.</p> <p>Next Steps: Update the terms of reference/mandate and schedule quarterly meetings in 2022.</p>

2.3.2 External Stakeholder Advisory Committee

Below are some options for an external committee. An external committee should have a terms of reference stating objectives, roles, responsibilities, and key performance indicators to report on, among other requirements. The options discussed during the first tabletop session on Nov. 23, 2021, include:

- A. **Option 1: create a community-wide stakeholder committee or advisory group**, or assign tasks to an existing stakeholder committee (e.g. the municipal plan committee) to maintain ongoing support for CEP implementation activities — with participation from local energy utilities, the real estate sector (e.g. developers, builders), local businesses, non-profits, school boards, academic institutions, large energy users, fuel suppliers, the chamber of commerce, and others. The committee could involve the informal participation of municipal staff. The committee should meet on an ongoing basis — annual, bi-annual, or quarterly meetings (open to the public). Partner organizations could commit annually to actions from a list of options, provide progress reports, contribute to KPIs, integrate with municipal communications, as well as collaborate on innovative projects. This strategy was used by the [Oakville Energy Task Force](#). **Stakeholder meeting frequency:** quarterly or bi-annually **TBD**

- B. **Option 2: assign tasks to an existing non-profit or establish an external non-profit** — this could perhaps be co-funded by utilities, the province, and neighbouring municipalities. It could also seek additional funds for advancing key measures in the CEP. It can also provide an interface between the city and external stakeholders, ensure sustainability of CEP implementation over the long term, and report to a non-profit governance committee. This strategy was used by [Our Energy Guelph](#), and [Sustainable Waterloo Region](#).

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
<p>Participants reviewed the options presented and discussed the pros and cons of each prior to making a decision.</p> <p>Participants indicated that the town could establish the municipal plan committee. The committee could involve various stakeholders (e.g. businesses, developers, industry leaders, etc.), and it would help with community buy-in. The committee would need a proper terms of reference. The committee could feed into the climate change committee. Any decisions would need to come before council.</p> <p>It was noted that it may be difficult to find ‘qualified’ people locally, and there may be a need to look at regional resources. It was noted that it could evolve over time.</p>	<p>Decision 1: In order to have stakeholder participation and input, workshop participants indicated a preference to establish the municipal plan committee with a terms of reference.</p> <p>Participants indicated the committee would address both climate change mitigation and adaptation. The committee could feed outputs to the climate change committee and to council.</p> <p>Next steps: Establish the municipal plan committee with a terms of reference. Elect a chair at the inaugural meeting. Schedule meetings in 2022.</p>

2.4 Communications Governance

In addition to identifying a lead coordinator and committee structure, the community should determine who is responsible for effective communications related to the CEP. The options discussed during the first tabletop session on Nov. 23, 2021, include:

- A. **Option 1:** Communications department (note: limited resources, would need funding)
- B. **Option 2:** Communications department with support from the coordinator or committee
- C. **Option 3:** Coordinator or committee with support from the communications department
- D. **Option 4:** Collaborating with nearby communities about the possibility of establishing a shared staff person and communications budget
- E. **Option 5:** Collaborating with community partners to conduct outreach
- F. **Option 6:** External body (e.g. if a non-profit was created/mandated)

A related decision is where the webpage/online information will be housed:

- A. The town website
- B. A new webpage (regional microsite linked by each municipal webpage)

Responsibilities could include: designing messaging/material; preparing annual public updates; maintaining the webpage, dashboard, and social media accounts; promoting partner activities, offerings, and successes; and drafting news releases or bill inserts, with energy efficiency tips and calls to action. See: Communication and Awareness Strategy, Section 3.

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
<p>Participants reviewed the options presented prior to making a decision.</p> <p>No specific pros or cons were identified, however participants quickly came to consensus on their preferred options.</p>	<p>Most preferred: Option 3 and 4: The CEP coordinator would be responsible to coordinate communications activities with support from communications staff and in collaboration with neighboring communities.</p> <p>As an alternative: Option 2 and 4: Communications staff would be responsible for coordinating communications activities with support from the CEP coordinator and in collaboration with neighboring communities.</p> <p>Where should a webpage/dashboard be housed? The town’s website.</p>

2.5 Data Governance

In addition to identifying a lead coordinator and committee structure, the community should determine who is responsible for effective data gathering and monitoring. The process of gathering data and monitoring KPIs should be embedded into the work plans of key staff, and in the terms of reference of the stakeholder committee. The options discussed during the first tabletop session on Nov. 23 include:

- A. **Option 1:** Designated staff lead/coordinator
- B. **Option 2:** Internal committee (staff committee, or committee in council)
- C. **Option 3:** External committee and stakeholders
- D. **Option 4:** External body (e.g. if a non-profit was created/mandated)
- E. **Option 5:** A combination of the above, with support of the communications department (for things like data requests, etc.)

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
<p>Participants reviewed the options presented and discussed the pros and cons of each prior to making a decision.</p> <p>No specific pros or cons were identified, however participants quickly came to consensus on their preferred options.</p>	<p>Preferred Option:</p> <p>The CEP coordinator would be responsible for coordinating data collection and reporting. This could include building a data registry, making requests for data from municipal departments as well as external stakeholders (e.g. energy utilities), and updating the SEC Benchmark and the community GHG inventory.</p>

3.0 Data and Key Performance Indicators

3.1 Introduction

Monitoring and reporting on implementation can build ongoing support among elected officials, staff and community stakeholders. Precise, measurable, and defensible data — when presented on an ongoing basis — can increase the overall confidence and support of senior decision makers. When the CEP is monitored on an annual basis, successes can be celebrated. This can, in turn, help build further support for the implementation process. The data can also provide frequent feedback loops to identify strengths and weaknesses — as well as possible course corrections, if applicable.

The Town of Quispamsis needs to adopt a strategy for collecting data in order to monitor progress, measure key performance indicators, and report on energy and GHG reductions as part of the FCM-ICLEI Partners for Climate Protection Program. The options discussed during the third tabletop session on Dec. 1, 2021, for tools that can be used, data sources, and key performance indicators, include:

3.2 Key Tools

The options for tools discussed during the workshop, are listed below:

- A. **Look at the committee meetings, and reports from stakeholders and department heads.**
CEP reporting is coordinated annually by the designated CEP coordinator, and presented to town council.
- B. Use the [PCP Milestone Tool](#) to create and update corporate and community GHG Inventories. It can also be used for reporting outcomes of the CEP measures to the FCM.
- C. Use QUEST Canada’s [Smart Energy Communities Benchmark](#) to measure your progress across all CEP actions and advance implementation.
- D. Use the [PCP Hub](#) for connecting with the national PCP network, accessing information resources, and asking questions of your peers.

- E. **Conduct surveys** for actions at the community level: e.g. to determine how many households participate in anti-idling, clothesline programs, efficiency, heat conversion, purchasing EVs, etc. can also get involved: e.g. putting on anti-idling surveys at school.
- F. **Request data/information from partners**, i.e. aggregate energy use data and uptake in efficiency programs.
- G. **Create a data dictionary and registry of sources.** Invite community partners to commit to updating the Town of Quispamsis on an annual basis. This could be done via email, survey method, mail (CD-rom), or via the webpage, using a simple reporting form and the ability to upload files.
- H. **Use a dashboard** to display progress within key activity categories. It should include a description of the status for each individual activity.

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
<p>Participants reviewed the options presented and discussed the pros and cons of each prior to making a decision.</p> <p>Option 1: Participants indicated that the committees would be a good place to share information, learn from others, keep up to date on what various departments are doing, and keep open dialogue with community members. However, it was noted that staff have many committee meetings already (which can take time away from their work), and it would still take someone (e.g. the CEP coordinator) to lead the work of data collection and reporting. Relying on the committee alone could result in data missing.</p> <p>Option 2: Participants indicated that it was important to use the PCP Milestone tool for updating their GHG inventories and to achieve PCP Milestones 4 and 5. The tool is free and is the format used by the FCM. It has the potential to provide a snapshot of progress in reducing community GHGs every time it is updated, and can be used to communicate with stakeholders and community members. However, the use of the tool would require human resources to input the data.</p> <p>Option 3: Participants indicated that the SEC Benchmark is familiar to everyone (having recently been benchmarked), is very detailed, and has the necessary information to pull from. They noted it was important to use this tool to ensure the town continues to adapt and improve its actions in respect to climate change — and it highlights where other efficiencies can be achieved so continuous</p>	<p>Participants prioritized the use of tools as follows:</p> <ol style="list-style-type: none"> 9. Create a data registry with annual updates. 10. Request data from partners annually. 11. Update the SEC Benchmark annually. 12. Update the community GHG inventory using the PCP Milestone tool — no later than 2025. 13. Set up an online dashboard, and update it annually. 14. Conduct community challenges with students. 15. Refer to the PCP Hub as needed. 16. Provide updates and review progress in committees.

Discussion Notes:**Decision:**

improvement is possible. However, the benchmark is very detailed, which means it would require some human resources to update the benchmark information each year. QUEST Canada will re-benchmark the town in 2022, but the tool can be used by the town each year thereafter.

Option 4: Participants indicated the PCP Hub has a large pool of resources that could be used as a reference source. The PCP Hub can help keep town staff in the loop on new resources and information, as well as enable good connection with like-minded communities across Canada. The only concern was the latency and applicability of information within the PCP Hub.

Option 5: Participants indicated that surveys and community challenges are good for community engagement, and make it easy for the public to participate. They also create awareness and could be a good tasks for a summer student position. However, it was noted that it can be difficult to capture accurate information, data collection from the public can be challenging, and compiling data can be labour-intensive/tedious.

Option 6: Participants indicated that — as part of updating the SEC Benchmark and GHG inventories — data would need to be collected annually from municipal departments and external stakeholders. This would require making requests for data from partners (e.g. local developers) and energy providers (e.g. NB Power). To strengthen this process, participants noted it may be necessary to create data agreements.

Option 7: Participants indicated that a data registry would be a good way to keep track of data sources and frequency. It is essentially a glossary of where the information comes from, and will help everyone. It could be in a database format, making it easier for data to be shared, and it could link directly to other pieces of software and make report generation easier. However, it was noted this would take some technical skills, would need to be kept up to date to be effective, and would require pulling data from community members. Nevertheless, participants indicated it was an important starting point.

Option 8: Participants indicated that the Town of Quispamsis has software (e.g. ESRI ArcGIS) that can be used to create an online

Discussion Notes:	Decision:
<p>dashboard/visual representation of data, which would be fairly easy to create and maintain. It would be an efficient way to track and communicate progress to inform stakeholders and community members. The data could be presented in real-time in the future. However, it was noted there is a cost associated with the software, and it would require some human resources to keep the data current.</p>	

3.3 Key Data

The community should determine whether to obtain data for GHG Inventories, as well as CEP implementation progress, and energy mapping. Participants discussed each of the following options:

3.3.1 For Updating GHG Inventories

A consistent methodology is particularly important for primary indicators — such as energy use and GHG emissions — as a range of methodologies can be used to create an emissions inventory. Inventories should be consistent with the methodology used for the Town of Quispamsis’ baseline GHG inventory (2018). The GHG inventory can be compiled using the same spreadsheet as the baseline inventory, or using the [PCP Milestone Tool](#). If rigorous data is difficult to obtain, try developing assumptions. Be explicit about any assumptions made in the monitoring and reporting process. The process of gathering data and monitoring KPIs should be embedded into the work plans of key staff (e.g. the designated CEP coordinator, other department leads) and in the terms of reference for the committees (to share data).

Electricity and natural gas: For municipal, residential, and commercial emissions (and energy costs), the best sources are utility consumption data for electricity and natural gas. This data can be requested by contacting your account manager with each utility. You may also want to request information on how many households/businesses took advantage of efficiency programs and what the resulting total energy/GHG reductions are. Local stakeholders can also report on energy/GHG emissions reduction, e.g. from improving efficiency, integrating clean energy, etc.

Propane and heating fuels: Consumption estimates for propane and heating fuels are nearly impossible to get from the distributor, although it's worth asking. If it's not available, you can use per capita or per household estimates and scale it down to your municipality using population data or number of households. [NRCan's National Energy Use Database](#) is a good source. You can also ask the Canadian Oil Heat Association (COHA) for input.

Waste emissions: For waste emissions, you can use the methane commitment model using the total tonnage of waste landfilled and information on waste composition. This is option four in the PCP tool for calculating waste emissions. The total amount of landfilled waste can of course be provided by the municipality's waste manager/waste department or the regional waste commission. Waste composition data can be obtained through waste surveys — or default values can be used. Default values are listed in the [PCP Protocol](#).

- A. **Transportation emissions** are a bit more challenging, but there are a few ways to calculate it. Estimate annual GHG emissions based on the total kilometres travelled by vehicles within the community, taking into account vehicle fuel efficiency for each vehicle class. This is the most accurate and recommended approach. Total vehicle kilometres travelled within the community can be calculated using traffic counts and transportation modeling done by the Town of Quispamsis, or by estimating the number of vehicles in the community and the average distance travelled per vehicle. The latter sources can come from the provincial ministry of transportation and/or Statistics Canada.
- B. Estimate GHG emissions based on the amount of fuel sold at fueling stations within the community. Data on fuel sold within the municipal boundary can be obtained from fuel dispensing facilities or distributors. [Kent Group](#) can provide this data for a fee. Fuel data must be broken down by vehicle class (e.g. light or heavy duty vehicles, etc.) and fuel type (e.g. gasoline, diesel). If fuel sale data is not available according to vehicle class, it can be estimated based on total fuel sales and vehicle registration data for each vehicle class. If data is only available at the regional scale, it can be scaled down using scaling factors such as registration or licensing data. Fuel data is more inaccurate though, since fuel could be purchased in the municipality but then burned outside the municipality, and/or fuel could be purchased elsewhere but burned within the municipality.

Resulting GHG emissions reductions from individual actions in the CEP can be measured in different ways. See KPIs listed below (section 3.4).

3.3.2 For Monitoring Progress on CEP Implementation

Consider providing a formal opportunity (annually) for the CEP coordinator and community stakeholders to share measurable progress. For example, hold a year-end stakeholder committee session and release a request for information. Progress reports and results can be presented in the form of ongoing KPIs (such as the number of energy efficiency retrofits and/or the amount of kilowatt hours and gigajoules reduced), or secondary performance indicators. Or they can be presented in the form of anecdotes (such as short case studies highlighting successes, new programs or actions). Meaningful engagement such as this can unlock other opportunities and strengthen the value of the CEP.

QUEST Canada's [Smart Energy Communities Benchmark](#) is a tool that the Town of Quispamsis can use to check its progress on community energy planning. The tool allows communities to assess their energy processes, policies, programs, and projects and gives it an accessible visual snapshot of its progress — compared to Canadian best practices. The benchmark is made up of 10 indicators and a scoring framework designed to measure and track the progress of a community's smart energy journey. The indicators describe the key components of a smart energy community. The first five identify the local capacity and resources that need to be in place, and the second five describe the effective management and integration of infrastructure to use, move, and source energy as efficiently as possible. With this data in hand, the Town of Quispamsis and its energy utilities can show elected officials, stakeholders, and citizens the strengths of their community energy leadership. It can also show emissions reductions and areas where ambition needs to be increased. The tool assists communities in reaching their goals and contains resources to assist communities in increasing their scores over time.

QUEST Canada enabled the Town of Quispamsis to undertake the SEC Benchmark in 2020–21. QUEST Canada will re-benchmark the community in 2022, and the town will retain access to the SEC Benchmark for tracking progress and continuous improvement.

3.3.3 for Energy Mapping

An energy map illustrates spatial information about energy end use in a community over time. It can visually identify opportunities for reducing energy use (e.g. targeting energy efficiency programs), opportunities for shifting modes of transportation (e.g. transit projects), potential sources of energy (e.g. solar, biomass), and opportunities for distributed energy resources (e.g. district energy systems). A map can illustrate energy end use or energy intensity, related GHG emissions, renewable resource potential (wind, solar, biomass), and potential reductions from implementing measures.

For municipal, residential and commercial emissions (related to energy use), the best sources are utility consumption data for electricity and natural gas, which can be tied to the building stock. Transportation emissions can be modelled based on flow rates, percentage of trucks vs. cars, vehicle kms travelled, and related emissions ratings. The Town of Quispamsis also has access to energy technical mapping assessment (focused on grid scale solar PV and wind), district heat mapping, and solar rooftop analysis, as well as transportation and land use maps. This data can be integrated using the Town of Quispamsis GIS/mapping software, and could be published online with appropriate constraints to protect privacy (e.g. aggregating energy usage).

Consider the following when developing an energy map:

- Before developing an energy map, consider the overall objectives of your CEP. Use the energy map as a strategic tool to illustrate opportunities to achieve those objectives.
- Many energy data providers may not provide parcel-level information due to privacy constraints. However parcel-level data is often not needed to illustrate energy opportunities in your community. Consider developing a map at a postal code scale. If possible, identify energy intensity by land use or building type, or by hectare or squared metres.
- Maps should include key roads and/or buildings to help viewers orient themselves. They should also include labels for key identifiers.
- Consider developing a variety of maps to illustrate energy use in buildings and transportation.
- Energy maps can be presented to stakeholders and the public for planning and education.

Participants discussed the merits, and pros and cons of each option above. Discussion points and the resulting recommendation are as follows:

Discussion Notes:	Decision:
Participants reviewed the options presented, and discussed the pros and cons of each, prior to making a decision.	<p>Participants prioritized the options as follows:</p> <ol style="list-style-type: none"> 1. Collect data annually. 2. Update the SEC benchmark annually.

Discussion Notes:	Decision:
<p>Participants indicated it was important to update the GHG inventories by 2025, or annually, once a CEP coordinator is established — this could be supported with the help of a student.</p> <p>Participants indicated it was important to update the SEC Benchmark annually. (QUEST Canada will do it in 2022).</p> <p>Participants indicated data collection should be done annually in order to update the GHG inventories and SEC Benchmark. This would be done by the CEP coordinator once established, but would be coordinated by the town clerk in the interim.</p> <p>Participants indicated support for creating energy maps/visuals, showing energy end use, as well as renewable energy potential. This would be coordinated by the CEP coordinator with support of a GIS analyst. The target delivery would be in early 2023.</p>	<ol style="list-style-type: none"> 3. Update the GHG inventories by 2025, or annually, once a CEP coordinator is established. 4. Create energy maps and visuals by early 2023.

3.4 Key Performance Indicators

CEPs have the potential to lead to significant economic, health, social, climate resilience, and environmental benefits. It is important to select key performance indicators to measure and report on the progress made in implementing your CEP and reducing GHG emissions. Consider obtaining data for energy, GHG emissions and other KPIs for an **annual report card**. Indicators should be measurable (i.e. data is available), should require a reasonably low effort to track, and should be cost-effective to track. Many of the indicators will already be reported on (corporately), but they can be more challenging to track for the community — thus there is a need for community partners to assist in reporting achievements, reductions in energy use, and GHG emissions.

There are a few key performance indicators that should be used (measured annually), as Quispamsis implements its own corporate and community energy plans. These indicators can be collected by the municipality, with data from local utilities for community-wide energy use, as well as community partner data. The data can be used to create a report card of KPIs (across sectors: residential, commercial, industrial, transportation, etc). The indicators can include:

- Amount spent on energy (corporate, and community side), annually
- Amount saved through efficiency measures (corporate, and community side)
- Amount of GHGs (CO² equivalent) reduced (corporate, and community side)

- Change in total ton of GHGs, three-year average and year over year
- MW of clean energy produced, three-year average and year over year
- Number of partners or stakeholders engaged
- Number of actions achieved in the CEP
- Other local co-benefits (e.g. improved air quality, more active population, etc.)

There are also key performance indicators for each of the actions identified in the Community Energy Plan. These can include success stories, annual progress reports, and data from community partners. Indicators relate to:

- Environmental benefits (GHG reductions)
- Economic development and financial benefits
- Land use and development
- Transportation
- Waste reduction
- Distributed energy resources
- Water conservation
- Others

Participants recommended creating an **annual report card** with the KPIs, which are listed below. This could include showing people what the cost savings are, and could be included in communications and outreach strategy. Below are examples of KPIs that relate to actions in the Town of Quispamsis’ CEP.

Participants discussed the merits, and pros and cons of each KPI. Discussion points and the resulting recommendation are as follows:

CEP Action Types	Key Performance Indicators	Yes/No	Data Sources
Energy efficiency For example: residential and commercial efficiency retrofits, clean energy conversion (heating), LEDs	Identify the amount of money spent on energy, vs. saved through efficiency programs (community side).	yes	Energy utilities/providers, local partners (e.g. success stories)
	Analyze where energy spending goes (e.g. local, provincial, abroad).	no	
	Calculate total savings associated with energy efficiency and conservation measures/change in energy use (total and per capita), three-year average and year to year. Building age is also required.	yes	Energy utilities/providers

CEP Action Types	Key Performance Indicators	Yes/No	Data Sources
	Determine energy use (aggregated by sector and per capita).	yes	Energy utilities/providers
	Determine GJ (energy) and GHG reductions for each action.	yes	Calculated
	Identify the number of households/businesses engaged (e.g. LED lighting, efficiency retrofits, clothesline). Number of rebates given (e.g. LEDs) for measures that qualify for incentives from NB Power.	yes	Energy utilities/providers
	Find residential, commercial, and industrial success stories.	yes	Local partners
	Roll out a clothesline program, and determine the number of participants and reductions in loads.	yes	Harder/lower priority, via surveys/incentives
Water conservation For example: clothesline program	Calculate water use — total and per capita — and percentage change (three-year average and year over year).	yes	Town
	Water metering/peak demand reduction (number of participants)	yes	Water meters
	Switch to low-flow fixtures.	yes	Local incentive program, surveys, local suppliers
	Extrapolate for households on wells, based on water metering	yes	Extrapolate
	Provincial data on groundwater	yes	Province
Distributed energy resources	Spending on local distributed energy resources (e.g. solar PV, solar heating, CHP, etc.)	no	

CEP Action Types	Key Performance Indicators	Yes/No	Data Sources
For example: rooftop solar, community solar farm or wind farm, clean energy conversion (heating), and district heat	GJ or MW of clean energy produced — e.g. solar PV at the lagoon	yes, once operational	Town
	Number of households/businesses engaged (e.g. clean energy conversion — for heating).	yes	Permit process, Insurance companies, NB Power (recipients of incentives)
	Number of households installing heat-pumps — could be based on the number of upgrades to electricity entrance	yes	Permit process, NB Power (recipients of incentives)
	Residential, commercial, and industrial success stories	yes	Local partners
	Annual Load of district heat subscribers, seasonal load requirements, estimated GHG reduction/offset	no	
Land use For example: green space, green energy zones, redeveloped brownfields	Development footprint: change in the area (km ²) of developable land and area zoned as non-buildable, or green space, or green energy zone, three-year average and year over year — use density measure instead	no	
Transportation For example: Anti-idling and fuel efficiency driving initiative; encouraging uptake in fuel-efficient, compact, or electric vehicles; active transportation initiatives	Number of vehicle owners not idling/reduced idling time	no	
	Annual average daily flow of traffic (vehicles/day); number of vehicles from outside coming into the Town of Quispamsis	no	
	Number of vehicle kms/trips reduced	no	

CEP Action Types	Key Performance Indicators	Yes/No	Data Sources
	Number of EVs purchased/registered in the Town of Quispamsis. This can be tracked through provincial statistics, and by offering discounts at dealers for home charging units	yes	Can track electrical permits and discounts offered at dealerships, as well as through vehicle registrations with the province
	Number of fuel-efficient vehicles purchased/registered/replacing older vehicles in the Town of Quispamsis. This can be tracked through provincial statistics, or by offering a discount at dealers	yes	Can track discounts offered at dealerships, as well as through vehicle registrations with the province
	Ridership on public transportation/transit ridership per capita	yes	COMEX
	kilometres of bicycle lanes/multi-use trails constructed, number of users cycling or walking for utilitarian and recreational purposes	yes	Town
	Pedestrian counts	no	
	Information from dealerships on vehicle performance	yes	Dealerships
	Car pooling counts/registry/incentives	yes	Town (if a registry is created)
Waste E.g. organic waste diversion	Quantity of waste recovered, diverted, or recycled; tons of organic solid waste diverted from the landfill	yes	Regional waste commission
	Producer responsibility (paper, cardboard) to pay for waste. Track through REcycleNB	yes	RecycleNB
Air quality	Baseline studies on air quality, number of days with poor air quality	yes	Province

CEP Action Types	Key Performance Indicators	Yes/No	Data Sources
	Ground-level ozone criteria hours exceeding 50 ppb.	no	
	Annual average sulphur dioxide concentration.	no	
	Annual average nitrogen dioxide concentration.	no	
	Annual average inhalable particulate matter concentration.	no	
	Hospitalization rate for respiratory illness per 100,000 people, and associated health care costs.	no	
	Number of houses heated with wood (EPA certified stove) and using a sustainable wood source — check with insurance companies	yes	Insurance companies
Economy	Total savings associated with energy efficiency and conservation measures/change in energy use (total and per capita), three-year average and year to year	yes	Energy utilities/providers
	Unemployment rate/percentage change.	no	
	Number of jobs created in sectors related to energy efficiency, clean energy, clean technologies, etc.	yes	Survey
	Number of businesses with environmental certification (e.g. LEED, CBIP).	no	
	Real median income information which reveals whether purchasing power is increasing or decreasing relative to inflation	no	

CEP Action Types	Key Performance Indicators	Yes/No	Data Sources
	Property values (change).	no	
Satisfaction	Decision trust: surveyed feeling among residents that local decision-makers have the best interest of the community in mind most or all of the time (percentage and change).	yes	Part of town survey
	Decision input: surveyed satisfaction among residents with opportunities to provide input to community decision-making (as a percentage)	yes	Part of town survey
	Surveyed satisfaction rate: e.g. with active transport improvements, community energy projects, etc.	yes	Part of town survey
Other actions/notes	N/a		

3.5 Quality Control Measures

When collecting and integrating data for updating the GHG inventory, CEP implementation progress, or energy mapping, consider the following measures to ensure quality control:

- Create a data dictionary and registry of sources (metadata). Have partners commit to provide annual updates to the city for monitoring purposes.
- Check a sample of the input data for errors. Clarify data questions with providers.
- Check that the assumptions for methods, data, etc., are documented.

If using internal Spreadsheet software to track data:

- Identify spreadsheet modifications that could provide additional controls or checks on quality.
- Ensure that adequate version control procedures for electronic files have been implemented.
- Check where emission units, conversion factors, etc. are properly labeled.
- Check that conversion factors are correct (e.g. kWh to GJ, CO² coefficients).
- Check the data processing steps (equations) in the spreadsheets.

4.0 Communications and Engagement

4.1 Introduction

To ensure the successful implementation of the CEP, a communication strategy needs to be developed to best inform and inspire the public, engage stakeholders, promote programs and incentives, catalyze action, and communicate results and benefits to the community. Below are some options to be considered as part of a communication strategy.

Participants recommended the communications strategy be coordinated and implemented by the designated CEP coordinator with support from municipal communications staff, and — when possible — in collaboration with neighboring communities/the regional coordinator. This will ensure the town can take charge of informing and engaging Quispamsis residents, while also coordinating with neighboring municipalities on aligning messaging and doing outreach in the region. In addition, the Town of Quispamsis' communications staff could be involved in the climate change committee and possibly the municipal plan committee. Funding may need to be secured for certain communications related initiatives.

4.2 Public Engagement and Communications

There are several channels the Town of Quispamsis can use to educate, inform, and engage the public. Consider an approach of going to the community with engagement. **Participants discussed the merits, and pros and cons of the following methods. Discussion points and the resulting recommendation are as follows:**

				Priority	High	Medium	Low
Priority	Method	Description	Frequency				
High	Webpage hosted by the Town of Quispamsis	Content should include visual depiction and simple explanation of the GHG emissions in the community, the GHG emissions reduction target, high-level objectives and measures within the CEP, links to programs/incentives, policies, tips and guidance, contact information, and annual achievements. See Annex 6 for sample content.	Ongoing, easy to do				
High	Social media	Use Facebook, Twitter, LinkedIn, Instagram. Content should include CEP details progress on actions/impacts, highlights from success stories, calls to action, and information about contests. See Annex 6 for sample content.	Ongoing				

Priority	Method	Description	Frequency
		Social media should link to fact sheets, success stories, and progress reports. And it should link back to the webpage.	
Low	Media	Engage with media in newspapers, radio, and TV — radio helps promote items like our Take the Bus for Free campaign.	As needed
High	Bill inserts	Content should encourage residents and businesses to improve efficiency, promote programs/incentives, share facts, etc. This could be done online (e.g. pop-up) as a PDF attachment, or on paper for those on towners water and sewer.	Monthly or quarterly
Low	Open houses	Create content focusing on updating the public on CEP progress and any opportunities to participate.	Project-specific
Low	Fact sheets	Show progress achieved/impacts of CEP measures, tips/guidance, etc. Use as bill inserts, or use social media and the website instead.	Action-specific, could go on websites
Medium to High	Online dashboard	Display progress within key activity categories plus a description of the status for each individual activity. It is a good visual tool for media, the public, and investors.	Ongoing
Medium	Events	Hold networking events and award galas, and attend markets, festivals, provincial holidays/events, with a table display or speaker. Also join other community events.	As needed
High	Annual progress report	An annual progress report should be sent to elected officials, staff and community stakeholders. It should also be made publicly available. An annual report can be used to communicate successes at council, staff and stakeholder meetings, as well as public events. If possible, develop visually compelling materials to communicate implementation progress, impacts	Report annually to council and publish on the website — also make it part of the

Priority	Method	Description	Frequency
		(e.g. reducing GHGs and energy costs), highlights from success stories, partner achievements, areas of need, and opportunities. This also holds us accountable.	budget presentation
Low to Medium	Contests	<p>Promote seasonal opportunities/contests to reduce energy use, increase active transport and transit ridership, etc.</p> <p>Create contests between homeowners for energy savings, or create contests between the residents of the municipalities.</p> <p>Community recognition could be made for strong GHG reductions (e.g. the Star Program).</p>	Annually
High	Engage schools/youth groups	Promote awareness and early actions with help from the community partners. The town can partner with the school board, schools, and other stakeholder groups. Go to their events. Kids can help change their grandparents' views.	Do presentations and activities every year
Medium	Partner actions/notes	<p>It shouldn't just be the Town of Woodstock promoting awareness. Neighbouring municipalities, and local stakeholders need to support awareness raising efforts.</p> <p>Need good calls to action. Need to communicate benefits/value propositions for different audiences.</p>	Valley Solid Waste has a dedicated communications officer in relation to impact waste management
N/a	Other	For example, create a webpage for a rooftop solar pre-feasibility assessment using Google.	Nothing identified
Low	Partner actions/notes	It shouldn't just be the Town of Quispamsis promoting awareness. Neighbouring municipalities, and local stakeholders need to help raise awareness.	Ad-hoc

Priority	Method	Description	Frequency
		Need good calls to action. Need to communicate benefits/value propositions for different audiences.	

4.3 Stakeholder Engagement

All capacity holders and key stakeholders should be engaged in the external committee/municipal plan committee, and be invited to register (annually) for newsfeed/updates. **Participants discussed the merits, and pros and cons of the following approaches. Discussion points and the resulting recommendation are as follows:**

			Priority
			High Medium Low
Priority	Method	Description	Frequency
Medium	Ongoing teleconference and email	Engage and inform stakeholders through regular updates (e.g. email listserv) including through calls to action, meeting announcements, celebrating successes, requests for information, and discussion threads related to CEP implementation. Also use webpage and social media.	Based on specific developments or developers
Medium	Stakeholder committee	Provide updates, monitor and report on implementation, identify opportunities, integrate initiatives, obtain commitments, etc. (see Governance section).	Municipal plan committee, bi-annually
Low	One-on-one meetings	Identify CEP objectives, stakeholder objectives — where there is alignment — pursue collaborative opportunities, work to establish commitments. Set up meetings amongst the Town of Quispamsis, utilities, and other key stakeholders. Over time, this will happen at the committee level.	As needed
Low to Medium	Workshops and focus groups	Obtain targeted feedback on concepts and approaches to implementing CEP measures. This	As needed for specific projects or

Priority	Method	Description	Frequency
		can be done in person, by teleconference or online through services like Survey Monkey (this also builds ownership and feedback loop).	developments
Low	Attend stakeholder meetings	Participate in meetings hosted by stakeholders to present information about the CEP and obtain support (e.g. from associations).	E.g. regional meetings
Low	Networking events and charrettes	Host networking events for stakeholders; host charrettes to engage in dialogue for implementing new actions. Perform optional exercises if there is a need.	Not possible during Covid
Low	Open houses	Highlight CEP measures, impacts, and opportunities for participation.	Project-specific
Medium to High	Ambassador program	Recognize business leaders and encourage local stakeholders to be leaders in advancing CEP measures. Also work to communicate benefits.	Could recognize individuals/businesses who are driving change
Low to Medium	Declaration	Invite partners to sign a declaration to generate awareness, enable new partners to join each year; put on annual awards.	Dovetails with ambassador program
Medium	Other	More interactive engagements — e.g. interactive planning webpage.	

4.3.1 Why and How to Engage Key Stakeholders

All stakeholders should be engaged in the committees and should be invited to register (annually) for newsfeed/updates. **Below we present why and how to engage key stakeholders:**

Stakeholder Type	Why Engage This Stakeholder?	How to Engage
Provincial government	<p>The provincial government and respective agencies are placing a growing emphasis on energy and emissions. The Town of Quispamsis' CEP is a platform to achieve energy and GHG reductions while facilitating economic growth, and it can directly help achieve provincial goals.</p> <p>Health care costs represent a large and growing portion of provincial budgets and community energy planning can help to reduce these costs.</p> <p>The provincial government oversees policies and programs that may impact or be impacted by community energy planning. They may also have technical expertise needed for CEP implementation. They may also have some energy end use data and key performance indicator data needed to monitor implementation progress and report on outcomes.</p>	<p>Engage manager-level staff in ministries including but not limited to energy, land use/municipal affairs, and environmental and economic development.</p> <p>Ensure ongoing engagement with the manager and/or appointed staff person.</p> <p>Reach out to any contacts you may have in the provincial government and their respective agencies with a mandate related to community energy in order to establish the appropriate liaison/points of contact.</p>
Energy utilities	<p>Electricity, natural gas and thermal energy distributors are critical partners for CEP implementation. The business models of energy distributors are evolving. The CEP aims to reduce overall energy consumption and GHG emissions and, as a result, can act as a direct pathway to allow energy distributors to expand DSM/CDM efforts in the community.</p> <p>The CEP also calls for distributed energy resources, electric vehicle charging, etc. Energy distributors can support CEP actions that reduce community-wide energy use during peak demand, provide technical expertise in managing infrastructure and experience delivering programs and projects. They may also provide aggregated energy end use data to develop energy inventories, and if applicable, energy maps, and to measure reductions.</p>	<p>Reach out to executive leaders, DSM/CDM staff or energy planning staff, with an invitation for a one-on-one meeting/recurring in-person meeting to align on projects, needs, data availability, and engage on a stakeholder committee.</p> <p>Energy distributors often have strong relationships with facilities departments. This may be a good entry point for communication if your utilities do not yet have a community energy planning contact person.</p>

Stakeholder Type	Why Engage This Stakeholder?	How to Engage
	<p>The Town of Quispamsis has access to development data that may not be available to energy distributors, but could provide insights with respect to future land use and energy needs.</p>	
<p>NGOs and associations</p>	<p>NGOs can help implement CEP measures and engage with community stakeholders and the public to advance the implementation of actions.</p> <p>NGOs may be well positioned to measure and communicate the measurable impacts of CEP implementation, as well as communicate the need for CEP support with the provincial government.</p>	<p>Engage with executives and staff through one-on-one meetings to determine partnership potential, and get involved in the stakeholder committee.</p> <p>Support and promote local initiatives and help promote community co-benefits/impacts. Participate in local events.</p>
<p>Real estate (e.g. developers, homebuilders, building owners and operators, architecture firms, real estate agents)</p>	<p>There is a growing mismatch between the high demand for energy efficiency buildings and homes and the supply. Similarly, there is a growing demand for compact, mixed-use neighbourhoods and communities. There is an untapped opportunity for developers and homebuilders to grow sales by enhancing the level of energy efficiency within new and existing building stocks.</p> <p>There is an increasing concern among building owners and operators about the growing cost of energy as a proportion of overall building operating costs. Developers that own buildings will experience a reduction in the cost per square foot of operating a building in the long-term by incorporating energy efficiency and distributed energy measures.</p> <p>Make commitments to implement projects that align with the CEP, such as community retrofit or energy efficiency projects, distributed energy resources in building projects, and projects that encourage integrated land use and transportation.</p>	<p>Reach out (e.g. via the chamber of commerce, real estate association, etc.) to request expressions of interest.</p> <p>Consider reaching out to executives and senior/junior staff, including those with an engineering, architecture and/or planning designation. Hold one-on-one meetings, and engage in a regional committee.</p> <p>Provide non-prescriptive, performance-based requirements and/or incentives for building efficiency, distributed energy resources, and integrated land use and transportation to enable</p>

Stakeholder Type	Why Engage This Stakeholder?	How to Engage
	<p>Implement demonstration projects.</p>	<p>developers to incorporate cost-effective and contextually appropriate technologies into developments</p> <p>Engage in discussions about updating building codes, policies, or bylaws, new developments, harnessing distributed energy resources, efficiency programs, and district heat, etc.</p>
<p>Local business and industry</p>	<p>There are increasing concerns from building owners and operators about the growing cost of energy as a proportion of overall building operating costs.</p> <p>Businesses have unique opportunities to reduce peak demand, improve efficiency, and integrate waste energy and renewable energy sources. Businesses can take advantage of efficiency programs to reduce energy costs, and incorporate energy distributed energy measures (e.g. rooftop solar), and can engage employees/promote conservation and fuel efficiency.</p> <p>They may also be able to provide incentives at points of purchase, and help promote to the public.</p> <p>Businesses may also offer energy services, incentives, or technologies that can help the community achieve CEP targets, and contribute to economic growth.</p> <p>Industry may have opportunities for process improvements and peak demand reduction.</p>	<p>Reach out (e.g. via the chamber of commerce) to request expressions of interest, or to identify businesses with an interest in community energy and efficiency.</p> <p>Engage business executives or staff, with an invitation for a one-on-one meeting to align on projects, and engage with them on the stakeholder committee.</p> <p>Identify opportunities to collaborate. Recognize business leadership through a digital button, green award, or ambassador program.</p>
<p>Academia</p>	<p>Schools have opportunities to reduce peak demand, improve energy efficiency, switch fuels, integrate small- scale renewable resources, and engage students through curriculum.</p>	<p>Engage the dean and faculty with an invitation to a one-on-one meeting, and</p>

Stakeholder Type	Why Engage This Stakeholder?	How to Engage
	<p>Community colleges and universities provide opportunities to engage faculty/students in research, studies, engineering projects, and other efforts related to implementing the CEP.</p>	<p>engage with them on the stakeholder committee.</p> <p>Invite faculty and students to participate in studies, pilots, or projects related to implementing the CEP.</p>
<p>Neighbouring municipalities</p>	<p>The Town of Quispamsis commuter-shed includes the Greater Saint John Area, the Town of Rothesay, the City of Saint John, and Grand-Bay Westfield. All these communities have CEPs and are pursuing similar initiatives. In some cases, it makes sense to partner on CEP measures (e.g. promoting anti-idling programs, implementing active and public transportation improvements, doing community retrofit programs, procuring charging stations etc.).</p> <p>This can help to minimize cost and eliminate the risk of duplication while ensuring citizens and businesses have equal and consistent access to programs, incentives, and opportunities to participate. It also establishes consistent messaging in the region.</p>	<p>Engage the CAO, town clerk, or CEP coordinator, in each neighboring municipality with an invitation for a teleconference, and to participate on the stakeholder committee.</p> <p>Explore the potential to share a human resource.</p>

5.0 CEP Actions — Implementation Strategies

Note: All CEP Action Strategies are included as a separate [spreadsheet](#). Participants reviewed all the action strategies provided by QUEST Canada, and assigned for each one a lead, priority, timeframe, cost, and whether it needs a study, funding, or supporting policy. Participants also identified preferred strategies and partner actions.

In summary, the high priority actions are (to start by 2022):

- Encourage energy efficiency (residential and commercial), including promoting incentives, adopting the National Energy Code for Buildings, updating building bylaw, mandating energy performance, leveraging the development permit process to encourage and track energy efficiency ratings / to obtain data to measure
- Update land use and zoning bylaw provisions for energy efficiency, clean energy, and active transportation (ongoing from 2022–24)

- Conduct pilot of solar PV array at the lagoon. Expand in the future
- Public education to encourage water conservation, energy efficiency, active transportation, fuel efficient driving, anti-idling, and converting to more fuel efficient or hybrid/electric vehicles. See section 4.2 for the list of selected communication and engagement methods

The medium priority actions are:

- Consider providing new incentives (e.g. discounts on energy efficient fixtures, electric vehicle home charging units, permit fee adjustments, etc.) starting in 2022.
- Adopt, as part of a building bylaw, requirement for LED lighting in commercial buildings in 2022.
- Adopt policy for replacing municipal vehicles with more fuel efficient/electric vehicles in 2022–23.
- Undertake a land-based mapping assessment for future siting of renewable energy systems (e.g. wind farm, solar PV farm) in 2022–23.
- Conduct community challenges starting in 2023.
- Consider an anti-idling policy for the community, for commercial vehicles, and for specific locations/zones, in 2023.
- Expand the solar PV array at the lagoon in 2023–24, based on results of the pilot.
- Consider a community efficiency financing program starting in 2023–24, using funding from the FCM.
- Look into potential heat recovery from wastewater (e.g. using SharcBite technology, in 2023–25)
- Look into brownfields as potential sites for renewable energy generation with funding from the FCM.
- Update zoning bylaw as needed, with respect to stormwater management and to protect sensitive areas and watersheds.
- Promote composters each year.

The low priority actions are:

- Estimating the number of dwellings that could benefit from a clean heat conversion (i.e. switching from oil to another heating source)
- Considering a solar-ready building policy and/or green energy zoning
- Undertaking studies to determine the technical and financial feasibility of a specific system based on the renewable energy mapping assessment which will identify suitable sites for wind and solar PV systems — this includes identifying ROI and GHG reductions. Based on the results, look into piloting a system
- Looking into using purple water (outflow of wastewater treatment) for use in lawn-care
- Promoting clothesline programs

Other actions, with no priority assigned:

- Tree planting
- Plastic bag ban
- Stormwater management
- EV charging stations

Utilities (e.g. NB Power) already offer programs/incentives, and are currently piloting smart grid measures (e.g. storage, renewables, smart metering). It will be important to align local actions with utility programs and incentives that may become available.

It was noted there is a huge opportunity for reducing GHG emissions through measures to address transportation. Many residents travel to and from surrounding communities — thus, there is a need to focus on regional solutions.

6.0 Conclusion

QUEST Canada appreciates the opportunity to work with the Town of Quispamsis on this project, and engage local stakeholders in developing recommendations for CEP governance, implementation, communications, and key performance indicators.

This report summarizes the proposed recommendations and feedback received during the workshop on Nov. 23 and Dec. 1, 2021. It also provides useful information and templates that can be used to advance the CEP actions, communicate with the public, engage stakeholders, and report on key performance indicators on an ongoing basis.

As a next step, the Town of Quispamsis should consider establishing a full time CEP coordinator, assign CEP oversight to the climate change committee, and establish the municipal plan committee to ensure stakeholders are engaged and provide support for implementing the Community Energy Plan. In addition, the Town of Quispamsis should engage with neighbouring municipalities to explore the potential for regional collaboration.

7.0 Annexes

ANNEX 1 — Template Terms of Reference for Internal and External Committees

Internal/Staff Committee Terms of Reference

(can assign to the climate change committee)

Co-chairs: TBD

Objective: The objective of the CEP Staff Committee is to bring together municipal professionals (across Departments) to ensure advancement of the Community Energy Plan. This committee would involve municipal staff, council representation, representatives of neighboring communities, Regional Services / partners. The Committee Chair will interact with the Committee Members, the Regional Coordinator (if established), the External Advisory Committee / Municipal Plan Committee, and reports to Council.

Scope and issues to be addressed — the staff committee will:

- Stay current on urban and rural energy-related matters pertaining to community energy planning,

climate change impacts/science, and adaptation measures — specifically in a municipal context.

- Exchange knowledge, identify and address issues, and facilitate the advancement of actions in the Community Energy Plan, and climate change adaptation and resilience plan.
- Support community outreach and communications efforts (e.g. via municipal communications staff).
- Provide support for stakeholders, make policy recommendations, and develop funding applications.
- Address issues brought up by the membership, as they arise.
- Gather data to help report on CEP progress and GHG reductions, as well as climate change adaptation.

Expectations: This committee recognises that roles and responsibilities will vary depending on the nature of the project or topic being discussed. Time commitment will also vary, but it generally involves:

- Quarterly or monthly teleconferences or meetings; minutes compiled.
- Work with sub-committees (e.g. mitigation vs. adaptation, action/policy specific, etc.).
- Perform consultations as needed (e.g. community stakeholders, fund providers, etc.).
- Assist with policy recommendations, new projects, and funding applications.

Participation: Led by the chair, the staff committee will have representation from : Departments TBD; as well as representation from ... TBD.

Objectives — priorities identified by the working group include:

1. Advance priority actions as part of the implementation of the CEP, and emission reduction, climate change adaptation, and climate change resilience plans.
2. Support internal activities such as planning, policy and communications effort.
3. Launch studies and pilots where needed.
4. Gather and report data and KPIs.
5. Attend to other business — e.g. announcements, new funding, etc. — as it arises.

Meeting Schedule in 2022: suggested minimum quarterly, and as needed

Municipal Plan Committee / CEP Stakeholder Advisory Committee Terms of Reference

Co-chairs: TBD — elect the chair at inaugural meeting

Objective: The objective of the municipal plan committee/CEP stakeholder committee is to bring together community stakeholders to ensure the advancement of the Community Energy Plan.

Scope and issues to be addressed — the committee will:

- Stay current on urban and rural matters pertaining to the Community Energy Planning; and climate change impacts, science, and adaptation measures — specifically in a municipal context.

- Exchange knowledge, identify and address issues, and facilitate the advancement of actions in the Community Energy Plan, and climate change adaptation and resilience plans.
- Act as a central resource for information gathering and sharing and knowledge exchange.
- Gather data to help report on CEP progress and GHG reductions, as well as climate change adaptation (KPIs).
- Support community outreach and communications activities.
- Make recommendations for programs, projects, policies, etc.
- Collaborate on funding proposals/partnerships to deliver actions.
- Launch studies and pilots where needed.

Expectations — this committee recognises that roles and responsibilities will vary depending on the nature of the project or topic being discussed. Time commitment will also vary, but they generally involve:

- Attend quarterly teleconferences or meetings; minutes compiled
- Work with sub-committees (e.g. mitigation vs. adaptation, action/policy specific, etc.)
- Perform consultations as needed (community stakeholders, fund providers, etc.)
- Assist with policy recommendations, new projects, and funding applications

Participation — the committee will have representation from a diverse set of organizations that are interested in engaging in activities related to the Community Energy Plan. This may include:

- Energy utilities (e.g. NB Power, Liberty Utilities, etc.)
- Energy service and tech Providers
- Real estate developers
- Non-profit organizations (e.g. the regional services commission)
- NB Department of Environment, the local government, and the NB Department of Energy and Natural Resources
- Academic institutions: NBCC, UNB

Objectives — priorities identified by the working group include:

1. Share/discuss strategies for advancing actions as part of the implementation of the CEP, along with emissions reduction, climate change adaptation, and climate change resiliency plans.
2. Gather and report data and KPIs.
3. Engage in peer-to-peer exchange.
4. Attend to other business — e.g. announcements, new funding, partnership development, etc. — as it arises.

Meeting/call schedule: Suggested quarterly, or bi-annually.

ANNEX 2 — Skills Needed and Job Description Template

Skills and Credentials a Dedicated Staff Person Could Have:

Knowledge and Skills of the Designated Staff Person

- Communications, stakeholder and community engagement
- Project management and facilitation
- Leadership, change management, strategic planning
- Familiarity with local government processes and legislation
- Policy and program development
- Energy literacy, knowledge of sustainability practices
- Quantitative data analyses (spreadsheet software)
- Mapping (geographical information system software)
- Business case development, feasibility/financial analysis

Academic Credentials and Certifications

- Degree in planning, public policy, engineering, sustainability, environmental science, resource management, business, and/or communications
- Registered Professional Engineer or Planner, member of the Canadian Institute of Planners
- Certified Community Energy Manager (CCEM) or Certified Energy Manager (CEM)
- Registered Engineering Technologist
- LEED Professional Accreditation (LEED AP)
- Project Management Professional (PMP)

Sample Job Description, *Based on Region of Waterloo, Ont.*

Full Time Temporary (three-year contract)

The Community Energy Program Manager (CEPM) is responsible for implementation of the Community Energy Investment Strategy (CEIS) for the Waterloo Region, a collaborative undertaking by the region, area municipalities, and local electric and natural gas utilities.

The ideal candidate will provide leadership and coordination for the program, and serve as a champion for community energy investment projects. Specific roles include business plan and budget development, partnership facilitation, stakeholder engagement, promotions and awareness-raising (campaign and event organization), project initiation and support, grant application coordination, program monitoring, and progress reporting.

Key Responsibilities

Program Management — Develop annual work plans, with prioritized actions and budget implications, for approval by the governance committee. Work with partners and stakeholders to implement tasks as needed. Monitor, evaluate progress, and provide update reports.

Support Projects — Promote, develop, and assess (from a technical and business perspective) project plans and proposals for key community energy initiatives involving multiple stakeholders. Coordinate discussions, and assist with solidifying commitments and securing resources.

Report/Advise — Prepare and deliver briefing materials, data reports, and presentations for governance committee approvals. Provide strategic advice and recommendations on issues involving multiple levels of consideration, impacts, and stakeholders.

Build Relationships — Establish and maintain relationships with key stakeholders and project partners, including all levels of government, the private sector, not-for-profit groups, and industry organizations. Support the development and negotiation of agreements with federal, provincial, municipal, private, and non-government organizations.

Community Engagement and Support — Raise energy awareness through targeted outreach, education, and by providing technical and business expertise. Work proactively with partners and stakeholders to advance community energy goals, and to coordinate communication efforts.

Research — Conduct research and studies (e.g. industry sector trends, development strategies, funding sources and programs). Synthesize information to support and inform CEIS. Determine/recommend the best course of action in response to challenges and issues.

Desired Credentials (related knowledge, skills, and abilities)

- Minimum undergraduate degree in a relevant field (e.g. engineering, environment science/studies, business administration); graduate degree in same or the Certified Energy Manager (CEM) qualification is considered an asset
- 5–8 years of relevant work experience
- Combined technical (energy or engineering background) and business skill sets
- Understanding of and familiarity with:
 - Systems design thinking
 - All aspects of energy (electricity, natural gas, transportation fuels, etc.) and greenhouse gas emissions
 - Community energy planning and energy management principles
 - The opportunities and challenges associated with distributed generation and renewable energy implementation
 - Facility energy efficiency projects and audits impacting energy/fuel consumption
 - Energy conservation and demand side management principles, programs and incentives
- Successful track record of program management/implementation and partnership development, including experience leading initiatives with multiple stakeholders and competing interests
- Demonstrated ability to facilitate multi-stakeholder committees/discussions towards progressive action
- Proven expertise in developing innovative ways of engaging, influencing, and working with the community
- Effective written and verbal communication skills, particularly in terms of presenting and reporting to decision-makers

- Applied research and data analysis skills using qualitative and quantitative methodologies to create and evaluate briefing materials, performance metrics, and project recommendations
- Familiarity with municipal processes (e.g. planning and development approvals) along with good business and political acuity
- Ability to exercise discretion and confidentiality regarding strategic directions, initiatives, and stakeholder interests
- Strong organizational skills, attention to detail, and the ability to work independently with minimal supervision
- Time management skills to manage multiple tasks, and to determine and achieve mandated deadlines amid shifting priorities and competing demands

Work Environment

The Community Energy Program Manager reports directly to the CEIS Governance Committee, with day-to-day oversight by Grand River Energy (GRE), a joint venture company owned by the local electric utilities created to enable the local development of distributed energy resource technologies. Work takes place within an office environment located in Kitchener, Ontario, with occasional travel for partner/stakeholder meetings and site visits.

Compensation/Benefits

Compensation is commensurate with education and experience, and includes a competitive benefits package. The position is initially for a three year term and has the potential to be extended subject to funding availability and upon review/evaluation of the CEPM meeting the identified work plan goals and objectives.

Application Process

Interested and qualified applicants are invited to submit their resume including work experience, education and references to:

Applications must be received by : _____

We sincerely thank all applicants for their interest in this position; however, only those selected for an interview will be contacted. If you are selected to participate in the recruitment process for the position to which you have applied and require a disability-related accommodation, please communicate this upon notification of the interview process.

ANNEX 3 — Embed in Municipal Plans, Policies, and Processes

Although CEP measures are focused on community-side energy and GHG emission reductions, the Town of Quispamsis has a critical role to ensure a supportive environment. The successful implementation of the CEP requires embedding measures within other municipal plans, policies, processes, and decisions. The lead coordinator and internal committee are best positioned to ensure the CEP is embedded into:

- Plan updates

- Council strategic plans
- Official plans and regulations
- Secondary plans/plan amendments
- Community improvement plans
- Zoning and building code by-laws
- Site plan control
- Height and density bonusing
- Plan of subdivision
- Development permits
- Development cost charges
- Parking charges
- Budget

This can be accomplished through regular meetings of an internal committee or by coordinating inter-departmentally (on a case-by-case basis, or as part of a plan review), through ongoing processes (e.g. through permitting), as well as through council decisions (e.g. new policies/bylaws, budget decisions).

This can be accomplished through regular meetings of an internal committee or by coordinating inter-departmentally (on a case-by-case basis, or as part of plan review), through ongoing processes (e.g. through permitting), as well as through council decisions (e.g. new policies/bylaws, budget decisions). See QUEST Canada's [CEP Primer](#) for more details on each of these options for embedding the CEP.

ANNEX 4 — Funding for CEP Actions

It will be important for the lead coordinator, as well as internal and external committees, to identify and pursue funding in order to implement specific measures in the CEP. Partners may fund their own efforts. Below are some potential strategies to secure additional funding for CEP measures.

A good practice is to develop an annual budget for prioritized measures, considering the following over the expected life of the CEP:

- Not all actions need to be implemented immediately.
- Distinguish which actions will be implemented year over year.
- Determine potential partners, resources, and additional sources of funding for each measure.
- An implementation budget should be developed for every year of the action plan, and it should be updated on an annual basis.
- Funding (e.g. from FCM) can be used to conduct studies, pilots, projects, etc.

Strategies to secure financial resources

Sources:	Description:
Budget	Create budget item/fund for CEP measures
Internal financing sources	<ul style="list-style-type: none"> ● Property taxes, tax levies ● Tax increment financing, local improvement charges ● User fees (on water, power, natural gas distribution systems, waste, etc.) ● Development cost charges (DCCs) ● Green bonds
Local incentives and rebates	<ul style="list-style-type: none"> ● Development cost charge reductions. ● Develop Local Improvement Charge financing (LIC) or Property Assessed Clean Energy (PACE) programs. ● Create fee rebates/credits (on water and energy bills, etc) and local economic incentives for investing in energy efficiency for households, businesses, and new developments (e.g. tax holidays for businesses, faster permitting for developments meeting certain efficiency criteria, etc.)
New accounting/ decision-making tools	<ul style="list-style-type: none"> ● Consider a natural asset management approach — full cost accounting and valuation of natural assets ● Estimate benefits from green infrastructure ● Combine funding with gas tax revenue ● Reinvest efficiency savings into low cost CEP measures, community engagement, etc.
Institutional grants and external sources of funding	<p>Scan and submit funding applications to:</p> <ul style="list-style-type: none"> ● Federal agencies and governments <ul style="list-style-type: none"> ○ Natural Resources Canada ○ Environment and Climate Change (ECC) ○ Infrastructure Canada programs ● FCM programs, including <ul style="list-style-type: none"> ○ Green Municipal Fund ○ Municipalities for Climate Innovation Program

Sources:	Description:
	<ul style="list-style-type: none"> ○ Municipal Asset Management Program ● Provincial programs and agencies (e.g. NB Environmental Trust Fund)
Loans	<ul style="list-style-type: none"> ● FCM low-interest loan (GMF) ● Municipal green bonds
Leverage private investments	<ul style="list-style-type: none"> ● Engage the private sector to partner with and financially support actions that improve community-side efficiency, clean energy, or green transport modes. ● Ensure the local chamber of commerce — or other groups — support efforts of small enterprises to improve energy efficiency.
Economy of scales and synergies at the local level	<ul style="list-style-type: none"> ● Leverage existing initiatives or projects by expanding/adapting their scope and collaborating with other departments (thinking beyond silos). ● Take a regional approach — collaborate with neighbouring municipalities. ● Share costs when a measure involves several communities.

FCM and ICLEI published a toolkit called [On the Money: Financing Tools for Local Climate Action](#), that explains how your municipality can leverage private and community investors to help you take action on climate change in your community. This toolkit includes tips on how to harness people power through group purchasing and community owned renewable power, break capital barriers with local improvements and energy performance contracts, and create a funding cycle with green revolving funds and green bonds.

The two following handbooks provide helpful, on-the-ground solutions to secure funding for energy resilient infrastructure that may be relevant to your community:

- [Bridgewater Financing Mechanism Scoping Study](#) (2019)
- [Community Energy Investment Strategy for Waterloo Region](#) (2018)

ANNEX 5 — Methods for measuring the economic impact of CEP

There are significant economic benefits from improving energy efficiency across the Town of Quispamsis, and implementing the full range of measures identified in the CEP. It will be important to quantify the economic impact of CEP measures to gain support from senior decision-makers and elected officials as well as the community at large (public, businesses, energy stakeholders, service providers, etc.).

Different methods of economic analysis serve different purposes and provide different information. All are relevant to assess the economic, environmental, and social benefits of CEPs, and to increase knowledge about the full economic impacts of these investments.

A thoughtful balance needs to be struck between informed decision-making and analysis paralysis. The economic analysis to support a CEP should only go as deep as is needed. This analysis can be undertaken by either the lead coordinator or committee, and could accompany annual updates on the CEP’s progress. It could also accompany making requests for funding or new policies/bylaws; engaging partners to advance key measures; and demonstrating economic, environmental, and social benefits in the community.

Method:	Purpose:
Community energy cost	Discuss total community energy use in a metric everyone understands, in order to generate different conversations with elected officials and stakeholders (e.g. money spent on energy and money leaving the community).
Financial feasibility	Screen and prioritize measures, programs, or portfolios to identify if and when the investment will break even.
Levelized unit energy cost	Compare the per kWh or per GJ costs of different energy generating technologies across the expected lifetime of an asset.
Marginal abatement cost curve	Compare GHG emission reduction options to see which will cost the least or deliver the most financial savings, and according to their potential impact on GHG reductions.
Community socio-economic benefits	Inform the decision-making process, and stakeholders, on the total value to the local community and economy of a CEP, considering how expenditures recirculate through local businesses, households, and governments.
Cost benefits	Screen and prioritize measures, programs, and/or portfolios to identify if its benefits exceed initial costs over time, and to identify a portfolio of measures that maximizes the economic, environmental, and social benefits from CEP implementation.

ANNEX 6 — Sample Webpage and Social Media Content

Webpage	<p>Content should include visual depiction and simple explanation of:</p> <ul style="list-style-type: none">● Energy spending, energy use and GHG emissions in the community, as a pie chart (e.g. tons of CO2 by sector)● The GHG emissions reduction targets (total tons of CO2)● A short list of objectives and measures identified within the CEP● Annual achievements: actions taken, impacts (e.g. energy/GHG reduced, energy costs reduced, energy dollars staying in the community, etc.)● Easy button/link to get engaged, or subscribe to updates● Hyperlinks to documents, programs/incentives, policies, news, and contests● Downloadable tips and guidance for improving energy efficiency at home and for business, as well as any incentives● Description of governance structure: e.g. lead coordinator, committee and its members● Contact information.● Testimonials.
Social media	<p>Use the Town of Quispamsis' Facebook, Twitter, LinkedIn, and/or Instagram accounts, or create a new social account to promote CEP progress. Content should include:</p> <ul style="list-style-type: none">● Did you know? E.g. community spends X on energy, emits X GHGs?● Describe specific measures identified in the CEP, benefits to the community, and update on progress on actions/impacts.● Tips and guidance for improving energy efficiency at home and for business, as well as any incentives. Promote anti-idling and clothesline programs, etc.● Share highlights of success stories.● Release calls to action.

- Promote local contests.
- Respond to requests for information.

ANNEX 7 — List of Participants

List of Participants Town of Quispamsis CEP Implementation Workshop Nov. 23 and Dec. 1, 2021

Name	Organization
Mary Schryer — Deputy Mayor	Town of Quispamsis
Cathy Snow — Town Clerk	Town of Quispamsis
Trevor Murray — Bylaw Enforcement and Building Energy Efficiency Expert	Town of Quispamsis
Barry Brown — Facilities manager	Town of Quispamsis
Violet Brown — Engineering Department	Town of Quispamsis
Marc Gosselin — PAC Member	Quispamsis Planning Advisory Committee
Mark Morrison — Engineering Manager	Town of Quispamsis
Jennifer Jarvis — Planning Technologist	Town of Quispamsis
Darin Lamont — Chairman of the PAC	Quispamsis Planning Advisory Committee
Susan Atkinson — Director	Climate Change Secretariat, NB Department of Environment
Dwight Coburn — Planning Officer	Town of Quispamsis
Steve Cross — Utility Superintendent	Town of Quispamsis
Chris — Arena Operations Manager	Town of Quispamsis

Name	Organization
Eddie Oldfield — Senior Lead, Projects & Advisory Services	QUEST Canada
Anna Volc — Lead, Stakeholder Relations	QUEST Canada