

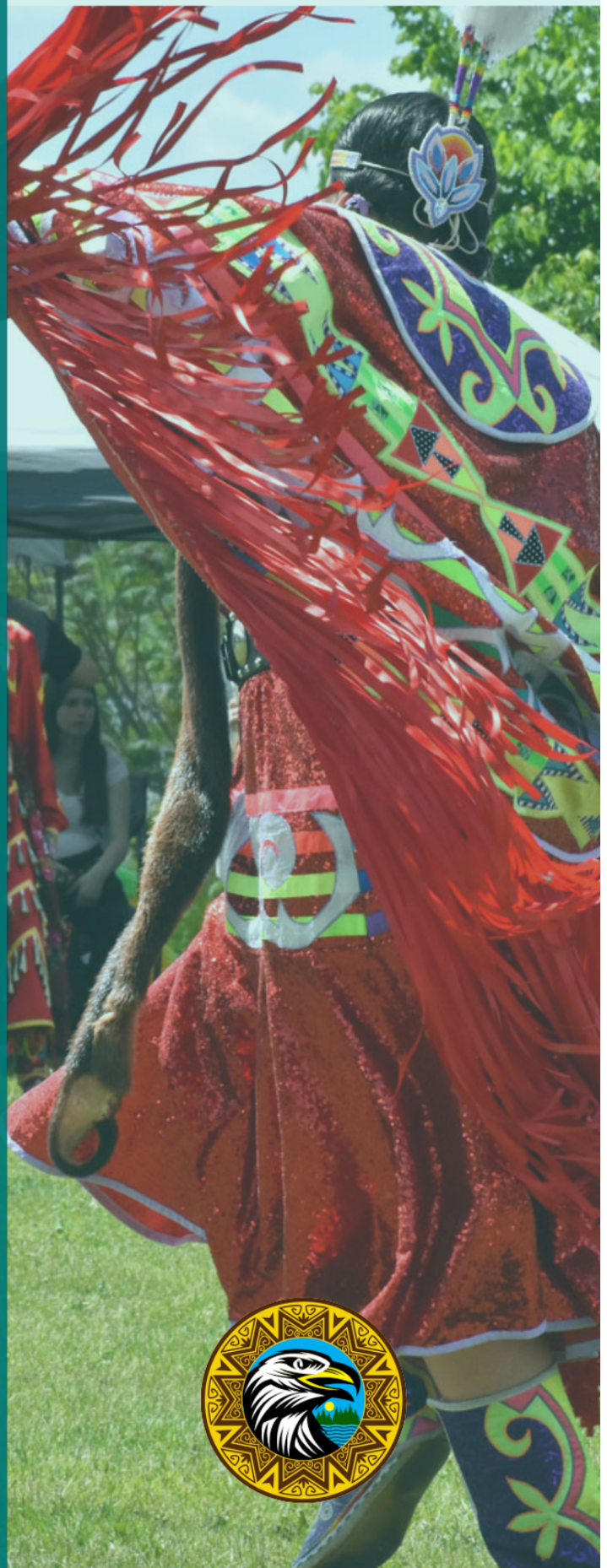


Recommendations Report for St. Mary's First Nation Community GHG and Energy Action Plan Implementation and Monitoring

Submitted to:
St. Mary's First Nation

Submitted by:

QUEST 



Acknowledgments

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About QUEST Canada

QUEST Canada is a national non-profit that supports communities in Canada on their pathway to net-zero. Since 2007, we've been facilitating connections, empowering community champions and influencing decision-makers to implement efficient and integrated energy systems that best meet community needs and maximize local opportunities. We develop tools and resources, convene stakeholders and rights holders and advise decision-makers — all with the goal of encouraging and enabling communities to contribute to Canada's net-zero goals. Visit us at www.questcanada.org.

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1.0 Executive Summary

1.1 Background

St. Mary's First Nation and QUEST Canada engaged community members, staff, and stakeholders in two workshops to help identify measures to reduce greenhouse gas (GHG) emissions and develop a strategy for implementing measures to reduce energy consumption, generate clean energy, and achieve local environmental and economic benefits.

The community context was considered during the completion and selection of measures, the preferred governance structure, community engagement strategy, key performance indicator framework, and the prioritization and implementation of actions. The workshops and resulting reports can inform the creation of a community energy and emissions plan (CEEP) which aims to reduce GHG emissions and support the local economy, create jobs, improve energy efficiency, and keep energy dollars local.

Participants identified some key community values, that should be considered during the development and implementation of the community energy and emissions plan:

- Clean air, water, and soil
- Improving energy efficiency and addressing energy poverty
- Generating clean energy
- Improved transportation options
- Economic development
- Improved health indicators
- Food security
- Protect forests and reforestation. Trees protect areas where the community hunts, fishes, and gathers.

Participants also indicated that the community needs to ensure the following:

- To think of and consider the lifecycle cost and environmental impacts of each type of technology
- To leave a legacy for future generations with long-term goals of 700 years
- To reduce GHG emissions, and have good stewardship
- To balance western science with traditional knowledge

1.2 What this Report Covers

St. Mary's First Nation, in partnership with QUEST Canada, hosted a community energy and emissions plan implementation workshop on February 22, 2023. The workshop engaged community members and staff to help establish a governance framework for implementing a CEEP and to strengthen collaboration for building awareness, and measuring impact.

The workshop included an overview of the results of the [community energy and emissions plan development workshop](#) held in May 2022. Afterwards, QUEST Canada shared recommended strategies for governance, implementation, communications and stakeholder engagement, as well as data gathering and monitoring progress. Through table-top discussions, community staff and local stakeholders helped to inform, compare and select the strategies presented below. This report contains a

summary of the workshop, and selected preferred strategies, which have been highlighted below in the 'Key Recommendations / Outcomes' section.

1.3 Who Participated in the Workshops

QUEST Canada facilitated two workshops in St. Mary's First Nation which involved community staff, council members, members from the community, NB Power, Liberty, and QUEST Canada. The first workshop was held in May 2022, and focused on identifying measures for a community energy and emissions plan. The second workshop was held in February 2023, and focused on reviewing results of the first workshop as well as developing an implementation strategy and community engagement strategy.

See Annex 7 for a list of workshop participants from the February 22, 2023 workshop.

1.4 Key Recommendations / Outcomes

1.4.1 Governance

(See Section 2 for details from the workshop)

Participants expressed support for an existing staff member (Brett Collins, Energy Coordinator) to coordinate the implementation of community energy and GHG emissions reduction measures, community engagement activities, and data collection. However, a single staff member may have limited time and ability to advance all the measures. In the future, with additional funding, it might be possible to hire a second staff member to assist with the implementation of selected measures. It is also possible to hire students on a part-time basis to help with specific projects. The staff responsible for implementing community energy and GHG emissions reduction activities can also make recommendations to Council.

Participants indicated there is a need to **maximize limited resources**, and that such a position needs ongoing funding. This can include funding from the NB Environmental Trust Fund, Indigenous Services (e.g. project funding), Natural Resources Canada, local energy utilities (e.g. NB Power), and cost sharing between sister communities (e.g. through the Tribal Council). St. Mary's First Nation could also assign or hire an additional full-time staff person using the savings from efficiency actions to help cover costs. Possible funding options are included in Annex 4.

It was suggested that St. Mary's First Nation could work with the Tribal Council to develop a Memorandum of Understanding (MOU) with sister communities on the division of responsibilities and costs to advance community energy and GHG reduction activities.

Participants also recommended **establishing a Staff Committee** (to meet monthly), with representation from Council. A template for **Terms of Reference** for the committee is included in Annex 1. In brief, the committee would focus on community-led actions to reduce GHG emissions, including the implementation, review and analysis of relevant studies, pilots, projects, policies, and funding proposals, as well as the collection of data for measuring key performance indicators. The committee would include community staff, representation from Council, and other community members as needed. During the workshop, participants identified staff responsible for the following files, to be included on the

committee: Land Management, Housing, Community Planning, Social Development, Natural Resources Protection, Infrastructure, Economic Development, Youth, and Energy.

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

1.4.2 Data / Key Performance Indicators

(See Section 3 for details from the workshop)

Participants recommended updating the GHG inventory every few years. The data required is described in Section 3. This would be led by the Energy Coordinator, with support of committee members, and key data providers (e.g. utilities).

Participants selected the following **tools and methods** to be used:

- Meetings of Internal Committees (annual reporting)
- GHG inventory spreadsheet
- Surveys and challenges
- Requests for information from partners

Participants also identified and selected **Key Performance Indicators** across several categories that should be collected annually in order to measure the impact and benefits of implementing the community energy and emissions plan. See Section 3 for a full list of KPIs and data sources. Some of the KPIs include:

- Total energy usage (residential, commercial, institutional, transport) for all fuels
- Amount spent on energy versus saved through efficiency programs
- Analysis of where energy spending goes
- Local success stories
- Number of homes using clotheslines
- Water metering / conservation data
- Number of homes installing heat pumps
- Change in amount of green space
- Number of kilometers of multi-use trails or bike trails created
- Amount of protected forest and land
- Annual average daily flow of traffic
- Number of fuel efficient or electric vehicles purchased
- Ridership on public transportation
- Quantity of waste recovered, diverted, or recycled
- Air quality studies (provincial)
- Total economic savings from energy efficiency measures
- Number of jobs created in sectors related to energy efficiency and clean energy
- Decision Trust (a survey among band members about whether decision-makers have the best interest of the community in mind when pursuing community energy initiatives)
- Amount of GHG emissions reduced (change in total year over year)

1.4.3 Community Engagement and Communication Strategy

(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 Energy Coordinator, with support of committee members, and communications staff.

The preferred methods for **public communication** include the following actions:

- Annual Progress Report
- Monthly and annual contests with prizes for energy efficiency
- Engaging schools and youth groups, through recycled art workshops, food growing, and nature walks
- Door to door visits to provide energy conservation education
- Attend cultural and special events with an information booth
- Create and share fact sheets (fun facts shared online and delivered in person during Royalty distribution)
- Webpage with static information and fun facts (see sample content in Annex 6)
- Social Media (Facebook, Instagram, TikTok) to promote successes (see sample content in Annex 6)

The preferred methods for **stakeholder engagement** include:

- Email list-serve and teleconference with stakeholders, as needed
- One-on-one meetings and door to door visits, as needed
- Workshops and focus groups, as needed
- Networking events and open houses
- Webinars
- Consider a declaration (which would need to be led by Chief and Council), which could then be signed by local businesses

1.4.4 CEEP Action Strategies

(See Section 5 for details from the workshop)

QUEST Canada prepared a list of potential actions. For each action, workshop participants determined a priority, cost level, the lead contact who will be held responsible, partner actions, and a preliminary strategy for implementation, identifying whether a study, funding, or supporting policy is necessary. See Section 5, for all prioritized actions.

In summary, the following items were the selected **high priority actions**:

- Continue to consult with community members and traditional knowledge keepers.
- Develop a public education strategy to build awareness of the benefits of energy efficiency, renewable energy, active transportation, anti-idling, recycling, LED lighting, and water conservation. This can include regular newsletter items, information sharing at community events, door-to-door education, community challenges, and more.
- Encourage energy efficiency for residential and band owned buildings, as well as some commercial centres. Promote energy efficiency incentives (commercial and residential), from NB Power, for on reserve and off reserve members.
- Encourage clean energy conversion (e.g. mini-splits for residential, geothermal for community buildings, and capturing waste heat for re-use in commercial buildings).

- Undertake a Community Retrofit Program to improve residential energy efficiency using the Greener Homes Grant obtained by St. Mary's First Nation.
- Install EV charging stations (at Band Hall, Retail Centre, etc.) and consider acquiring a community bus for local transportation.
- Explore solar PV for public buildings (e.g. Community Centres, Grocery Store, Band Hall).
- Increase recycling and waste management in the community.
- Administer monthly and annual prizes for energy efficiency, based on size of households.
- Share energy costs and savings with the community, detailing how the savings could be used by the community - for example, to afford a new sports complex.

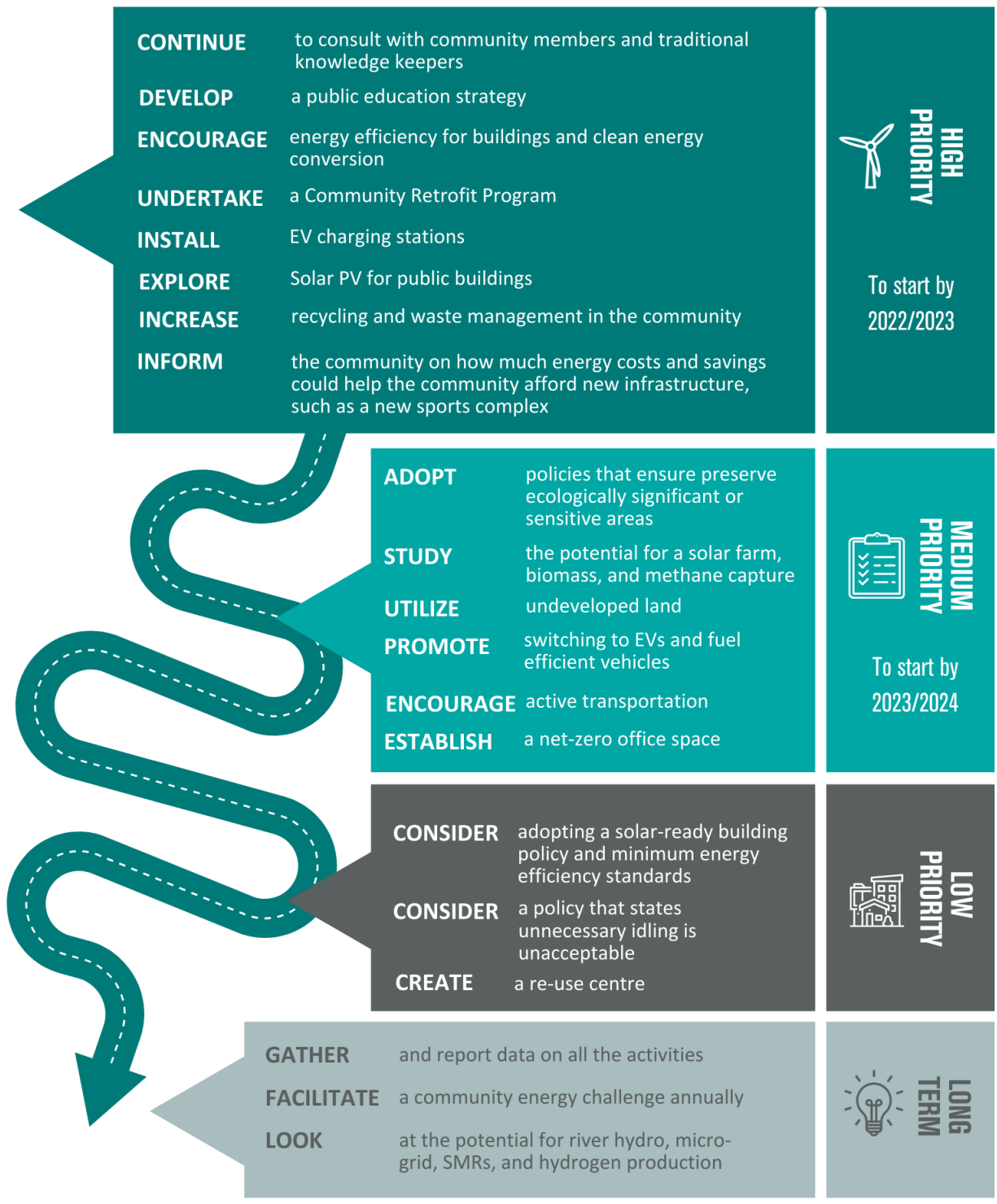
Participants recommended to **study and/or pilot measures first** and **access funding** for implementing the actions as well as to support community engagement and communications activities.

Participants identified the following **policies** that may be needed to support CEEP actions, and would need approval of Council:

- Adopt policies that ensure buildings and energy developments preserve ecologically significant or sensitive areas, watersheds, forests, etc.
- Adopt policy or guidance to restrict vehicle idling in specific zones in the community, such as near schools.
- Adopt the National Energy Code for Buildings, minimum energy performance standards, and requirements to make new buildings solar-ready or net-zero-ready.
- Consider Land Use or Zoning amendments to encourage mixed use development, promote energy efficiency, and enable clean energy production (e.g. rooftop solar PV).

Based on the selection and prioritization of actions, the following graph illustrates a possible roadmap for implementation (see next page for Figure 1).

Figure 1: Preliminary Roadmap for Implementation



1.5 Potential Next Steps

- Council to review and approve governance structure recommendations and next steps.
- Examine potential for hiring additional staff, engaging students, and/or establishing an MOU through the Tribal Council to support GHG reduction activities among sister communities (e.g. public education, anti-idling, energy efficiency, etc.).
- Obtain funding for Energy Coordinator position, additional staff, committee work, advancing energy and GHG emissions reduction measures, and community engagement.
- Form an internal staff committee and appoint Co-Chairs. See sample Terms of Reference in Annex 1. The committee would be responsible for coordination, advancing actions, reporting on progress, applying for funding, and supporting community outreach.
- A budget can then be developed based on annual priorities and studies. Include requests into annual budgets and prepare funding proposals, 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, when needed. Analyze outcomes, develop full-scale community-side projects or capital projects, based on financial and technical feasibility.
- Conduct community engagement activities, as outlined in this report.
- Bring related policy decisions to council, as recommended by the Energy Coordinator and staff committee. Policy decisions rest with the Council.
- Align with programs offered by NB Power, federal and/or provincial governments whenever possible. These programs provide incentives for successful implementation of CEEP related actions, including energy efficiency, clean energy conversion, renewable energy, transportation, public education, and other related initiatives.
- Ensure collection of data for Key Performance Indicators (KPIs) annually. Request stakeholders to provide data for measuring KPIs on an annual basis. See Section 3 for more details on collection methods and selected KPIs.
- Report successes, impacts, and benefits to the community through an annual report card. Conduct further outreach throughout the year, as needed.

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 CEEP remains top-of-mind for elected officials, staff and community stakeholders. New governance models provide a platform for political, 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 CEEP.

It was necessary to incorporate the community context into the development of a governance structure for the implementation of St. Mary's First Nation's CEEP. **Included below are the key governance options presented during the workshop**, including options for governance oversight and coordination, community engagement, as well as data and monitoring key performance indicators. **Following the list of options discussed is a summary of the discussion and options selected by participants during the workshop/webinar on February 22, 2023.**

2.2 Oversight and Coordination

The following options were discussed during the first tabletop session on February 22, 2023:

- **Option 1:** St. Mary's First Nation can **assign an existing staff member** (e.g. Energy Coordinator) to oversee *corporate* energy actions, as well as ensure that the *community* is leading by example by engaging stakeholders, 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 implementation of all the measures in a community energy and emissions plan.
- **Option 2:** St. Mary's First Nation can **assign an additional existing staff member** or **hire a new staff member** to assist with *community* energy actions, engaging stakeholders, gathering data, reporting progress, ensuring good communications, and finding ways to ensure that energy and emissions are considered in all decisions. Embedding the CEEP into job descriptions helps establish a continued focus on implementation and mitigates risk of implementation being overlooked.
- **Option 3: Regional/cost-shared resource:** Collaborate with sister communities (e.g. through Tribal Council) to establish a shared staff person or shared activities.
- **Option 4: Engage part-time student:** Use funding from the NB Environmental Trust Fund or core funds to advance studies, surveys, and projects within the community on an annual basis or as needed.

Participants discussed the merits as well as the pros and cons of each option above. Discussion points and the resulting recommendation are detailed below.

Discussion Notes:	Decision:
<p>Option 1: Currently an existing staff (Energy Coordinator) is responsible for all energy and GHG reduction activities. However, his time and capacity is limited</p> <p>Option 2: Would be good to get 1 to 3 more staff to assist with implementing measures, however this would require additional funding.</p> <p>Option 3: It is possible to discuss with Tribal Council, but would require an MOU that outlines shared responsibilities and costs. It can be difficult due to differences among the sister communities (e.g. in terms of size and capacity).</p> <p>Option 4: it is a good idea to engage students whenever possible.</p>	<p>Participants identified the following preferences:</p> <ul style="list-style-type: none"> ● Assign the Energy Coordinator to implement the community energy and emissions plan. ● Look at hiring additional staff to assist with CEEP implementation, if funding can be obtained. ● Engage students as needed, on projects. ● Discuss with the Tribal Council the possibility of working with sister communities, on an MOU. This would build additional capacity.

2.3 Committee Structure

A committee would oversee the community-wide implementation of the CEEP, identify issue-based short term actions, enable coordination and communication, support data gathering, and monitor and report on progress.

Participants discussed whether CEEP objectives can be accomplished within existing committee structures or if a new committee should be introduced, and whether the committee should address both climate mitigation and adaptation or be done by separate committees. Committee structure options have been detailed below. Following these options is a summary of the discussion and options selected by participants during the workshop held on February 22, 2023.

2.3.1 Internal Committee(s)

CEEPs 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 levels. Embedding the CEEP into job descriptions helps create an environment of ongoing focus on implementation and mitigates inaction. An internal committee should enact a Terms of Reference that states objectives, roles, responsibilities and key performance indicators (that need to be reported on).

- **Option 1: Create task force, council committee, or assign responsibilities to an existing committee:**
Consider creating a committee of Council, a task force, or assigning responsibilities to an existing committee to oversee CEEP implementation. A council-level committee or task force can be responsible for policy and structural decisions, and participants can act as community leaders for

the CEEP. Council members on the committee could act as a liaison between the committee and council by advocating for council adoption of recommendations, policies or bylaws, and 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 St. Mary's First Nation's Council.

- **Option 2: Establish a staff committee:**
Consider establishing a staff committee, including staff involved in the implementation of cross-sectoral actions in the CEEP and/or liaising with the appropriate community stakeholders to manage implementation. These staff members should be responsible for gathering data, monitoring key performance indicators (KPIs), and providing technical support for the implementation of actions in the CEEP (including analysis, feasibility studies, data, stakeholder support, etc.) The committee can include meetings of department managers/leads and/or inter-departmental staff meetings. The committee would be chaired by the lead coordinator/oversight person.
- **Option 3: Assign responsibilities to a pre-existing committee.**

Participants discussed the merits as well as the pros and cons of each option above. Discussion points and the resulting recommendation are detailed below:

Discussion Notes:	Decision:
<p>After a short discussion on the options presented above, participants determined it would be advantageous to establish a staff level committee to oversee the implementation of the community energy and emissions plan and measures.</p>	<p>Participants recommended establishing a staff committee (to meet monthly), with representation from Council. In brief, the committee would focus on community-led actions to reduce GHG emissions, including studies, pilots, projects, policies, and funding proposals. They would also focus on collecting data for measuring key performance indicators. It would involve community staff, representation from Council, and other community members as needed.</p> <p>Participants indicated that the committee should focus on both mitigation and adaptation initiatives, but may need to form sub-committees, working groups or clear agendas with optional components.</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 that states objectives, roles, responsibilities, and key performance indicators to report on etc. The options discussed during the first tabletop session on February 22, 2023 are detailed below:

- **Option 1: Create a community-wide stakeholder committee or advisory group** to maintain ongoing support for CEEP implementation activities, with participation from energy utilities, the real estate sector (e.g. developers, builders), local non-profits, school boards, academic

institutions, large energy users, fuel suppliers, chamber of commerce, and others. The committee could have informal participation of council members or staff. The committee should meet on an ongoing basis, scheduling annual, bi-annual, or quarterly meetings that are open to the public. Partner organizations could commit annually to actions from a list of options, provide progress reports, contribute to Key Performance Indicators, integrate community communications, as well as collaborate on innovative projects.

- **Option 2: Assign responsibilities to an existing non-profit or establish an external non-profit** that could be co-funded by utility, the province, and neighbouring communities, seeking additional funds for advancing key measures in the CEEP. It can also provide an interface between St. Mary’s First Nation and external stakeholders, ensuring the sustainability of CEEP implementation over the long term. Could report to a non-profit governance committee.

Participants discussed the merits as well as the pros and cons of each option above. Discussion points and the resulting recommendation are detailed below:

Discussion Notes:	Decision:
After a brief discussion, participants agreed it was not advantageous to have an external committee. However, key community members and local stakeholders could be invited to internal staff committee meetings as needed.	Participants recommended not establishing an external committee.

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 CEEP. The options discussed during the first tabletop session on February 22, 2023 are detailed below:

- **Option 1:** Communications Department (note: limited resources)
- **Option 2:** Communications Department with support of CEEP Coordinator or committee
- **Option 3:** CEEP Coordinator, with support of committee and communications staff
- **Option 4:** Collaborating with nearby communities two establish a shared staff person and communications budget
- **Option 5:** Collaborating with community partners to conduct outreach
- **Option 6:** External body (e.g. if a non-profit was created/mandated)

Participants discussed options for where the online information will be shared. Options are detailed below:

- Share online information on the St. Mary’s First Nation website
- Share online information on a regional microsite

Responsibilities could include the design of messaging and material; preparing annual public updates; maintaining the webpage; sharing content to social media; promoting partner activities, offerings, and

successes; and publishing news releases and fact sheets with energy efficiency tips and calls to action. See the Communication and Awareness Strategy in Section 4 for more details.

Participants discussed the merits as well as the pros and cons of each option above. Discussion points and the resulting recommendation are detailed below:

Discussion Notes:	Decision:
<p>Option 1: Participants indicated that the communications staff person works for Chief and Council, but often takes requests from other staff. Therefore, they would have limited capacity to lead community outreach and engagement efforts.</p> <p>Option 2: Does not have a communications department.</p> <p>Option 3: Participants agreed it would be best if the Energy Coordinator, with support of committee members, took the lead on community outreach and engagement. From time to time, it may involve support from the communications staff person working for Chief and Council.</p> <p>Option 4: Would require an MOU with sister communities, via Tribal Council.</p> <p>Option 5: Was determined that in time community partners could contribute to raising awareness.</p> <p>Option 6: Not considered.</p>	<p>Participants recommended that community engagement and outreach activities be led by the Energy Coordinator, with support of committee members, and communications staff, as needed.</p> <p>Participants agreed to create a static webpage with information about community energy initiatives.</p>

2.5 Data Governance

In addition to identifying a lead coordinator and committee structure, the community needed to determine who would be 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 a terms of reference for the stakeholder committee. The options discussed during the first tabletop session on February 22, 2023 are detailed below:

- **Option 1:** Designated staff lead / coordinator
- **Option 2:** Internal committee
- **Option 3:** External committee and stakeholders
- **Option 4:** External body (e.g. if a non-profit was created/mandated)
- **Option 5:** cCombination of the above, with support of communications (data requests)

Participants discussed the merits as well as the pros and cons of each option above. Discussion points and the resulting recommendation is detailed below:

Discussion Notes:	Decision:
A short discussion was held on the options presented. It was decided the CEEP Coordinator (Energy Coordinator) should be responsible for collecting data, with support of the committee.	Participants identified the CEEP Coordinator as being responsible for data collection and reporting, with the support of committee members.

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 CEEP is monitored on an annual basis, successes can be celebrated which can in turn help build further support for implementation. The data can also provide frequent feedback loops to identify strengths and weaknesses as well as possible course corrections, if applicable.

St. Mary's First Nation needs to adopt a strategy for collecting data in order to monitor progress, and measure key performance indicators.

3.2 Key Tools

The following tool options were discussed during the workshop and are listed below:

- **Meetings of the committee, reports from stakeholders and department heads.**
- **Connecting with a national network** to access information resources, and ask questions of peers.
- **Conduct surveys** for community side actions (e.g. to determine how many households participate in vehicle anti-idling, clothesline use, efficiency, heat conversion, purchasing EVs). Student work can include data collection such as vehicle anti-idling surveys at schools.
- **Request data and information from partners** (i.e. aggregate energy use data, uptake in efficiency programs).
- **Create a data dictionary and registry of sources.** Invite community partners to commit to updating St. Mary's First Nation's data dictionary and registry of sources on an annual basis. This could be done via email, survey method, mail (CD-rom) or via a webpage with simple reporting form and the ability to upload files.
- **A dashboard** is used to display progress within key activity categories, plus a description of the status for each individual activity.

The current Energy Coordinator and other staff members reviewed the options presented, and selected the following decisions:

Decision:

- Hold meetings of the committee to gather information and prepare an annual report
- Update the GHG inventory spreadsheet every few years
- Conduct surveys and community challenges
- Request data from partners (e.g. utilities)

3.3 Key Data

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 St. Mary's First Nation **baseline inventory** (or at least the inventories should be adjusted to be consistent with each other). The GHG inventory can be compiled using the same spreadsheet as the baseline inventory. 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, and in the terms of reference of the staff committee.

Electricity and Natural Gas: For 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 and businesses took advantage of efficiency programs and what the resulting total energy/GHG reductions are. Local stakeholders can also report on energy and 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 community using population 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 by using the total tonnage of waste landfilled and information on waste composition. The total amount of landfilled waste can be provided by the community's waste manager/waste department or regional waste commission. Waste composition data can be obtained through waste surveys, or else default values can be used. Default values are listed in the [PCP Protocol](#).

- **Transportation emissions** data are a bit more challenging to gather, but there are a few ways to calculate it. Estimate annual GHG emissions based on the total kilometers traveled 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 kilometers traveled within the

community can be calculated using traffic counts and transportation modeling done by St. Mary's First Nation, or by estimating the number of vehicles in the community and the average distance traveled per vehicle. The latter sources can come from the provincial ministry of transportation and/or Statistics Canada.

- **Estimate GHG emissions** based on the amount of fuel sold at fueling stations within the community. Data on fuel sold within the community boundary can be obtained from fuel dispensing facilities or distributors. Fuel data must be broken down by vehicle class (e.g. light-duty, heavy duty, 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 your community but then burned outside the community, and/or fuel could be purchased elsewhere but burned within the community.

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

3.3.2 Monitoring Progress on CEEP Implementation:

Consider providing a formal opportunity (annually) for the CEEP Coordinator and community stakeholders to share measurable progress. For example, hold a year-end committee session and release a request for information. Progress reports and results can be presented in the form of ongoing Key Performance Indicators (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 CEEP.

With this data in hand, St. Mary's First Nation and its energy utilities can show elected officials, stakeholders, and community members the strengths of their community energy leadership and emissions reductions, and areas where ambition needs to be increased.

3.3.3 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.

Transportation emissions can be modeled based on flow rates, percentage of trucks versus cars, vehicle kilometers travelled, and related emissions ratings. This data can be integrated using St. Mary's First Nation's GIS/mapping software, and could be published 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 CEEP. 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. If possible, identify energy intensity by land use type, or building type or by hectare or m².
- Maps should include key roads and/or buildings to help viewers orient themselves, and 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.

3.4 Key Performance Indicators

CEEPs have the potential to lead to significant economic, health, social, resilience, and environmental benefits. It is important to select key performance indicators to measure and report on the implementation progress of your CEEP, including GHG emissions reductions. Consider obtaining data for energy, GHG emissions and other key performance indicators (KPIs) for an **annual report card**. Indicators should be measurable (i.e. data is available), should require a reasonable effort to track, and should be cost-effective to track. Many of the indicators will already be reported on (corporately), but are more challenging to track for the community. St. Mary's First Nation will require community partners to assist in reporting achievements as well as reductions in energy and GHG emissions.

There are a few key performance indicators that should be used (measured annually), as St. Mary's First Nation implements their community energy and emissions plan. Create a report card with these KPIs (across sectors: residential, commercial, industrial, transportation, etc.). These indicators can be collected by the band, with data from local utilities for community-wide energy use, as well as community partner data. These 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 tonnes of GHGs, three-year average and year to year
- MW of clean energy produced, three-year average and year to year
- Number of partners or stakeholders engaged
- Number of actions achieved in the CEEP
- 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 CEEP. These can include success stories, annual progress reports, and data from community partners. Indicators relate to the following items:

- Environmental benefits (GHGs)
- 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 listed below. This could include showing people what the economic savings are, and could be included in the communications and outreach strategy. Below are examples of KPIs that relate to actions in St. Mary's First Nation's CEEP. **The current Energy Coordinator and other staff members reviewed the options presented, and selected the following KPIs:**

CEEP Action Types	Key Performance Indicators	YES / NO
Energy Efficiency: For example: Residential and commercial efficiency retrofits, clean energy conversion (heating), LEDs	Identify amount of money spent on energy versus saved through efficiency programs (community side).	Yes
	Analysis of where energy spending goes (e.g. local, provincial, abroad).	Yes
	Total savings associated with energy efficiency and conservation measures / change in energy use (total and per capita), three year average and year to year. Will also need to include building age.	No
	Energy use (aggregated by sector) and per capita.	No
	GJ (energy) and GHG reductions for each action.	No
	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
	Residential, commercial, and industrial success stories.	Yes
Water Conservation For example: Clothesline program	Total water use (total and per capita) and percentage change, three year average and year to year	No
	Water metering/peak demand reduction (number of participants).	Yes
	Clothesline program (number of participants and reduction in loads)	Yes
Distributed Energy Resources For example: Rooftop solar, community solar farm or wind farm, clean	Spending on local distributed energy resources (e.g. solar PV, solar heating, CHP, etc.).	No
	GJ or MW of clean energy produced.	No
	Number of households/businesses engaged (e.g. clean energy conversion for heating).	Yes

energy Conversion (heating), and district heat	Number of households installing heat-pumps (could be based on number of upgrades to electricity entrance)	Yes
	Residential, commercial, and industrial success stories.	Yes
	Annual load of district heat subscribers, seasonal load requirements, and estimated GHG reduction/offset.	Maybe
Land Use For example: Green space, green energy zones, redeveloped brownfields	Development footprint: change in the area (km squared) of developable land and area zoned as non-buildable, or green space, or green energy zone, three year average and year to year. Use density measure instead.	Yes - amount of green space; amount of bike trails, amount of protected forest/land
Transportation For example: Anti-idling and fuel efficient 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 St. Mary's First Nation and visiting the community.	Yes
	Number of vehicle kilometers/trips reduced.	No
	Number of EVs purchased/registered in St. Mary's First Nation. This can be tracked through provincial statistics, and by offering discounts at dealers for home charging units.	Yes
	Number of fuel efficient vehicles purchased/registered in St. Mary's First Nation, replacing older vehicles. This can be tracked through provincial statistics, or offering a discount at dealers.	Yes
	Ridership on public transportation and transit ridership per capita.	Yes
	Kilometers of bicycle lanes constructed or dedicated, and number of users cycling for utilitarian purposes.	Yes
	Pedestrian counts.	No
	Need more benchmarks for transportation anti-idling.	No
Waste For example: organic waste diversion	Quantity of waste recovered, diverted, or recycled; tonnes of organic solid waste diverted from landfill.	Yes

Air Quality	Baseline studies on air quality, number of days with poor air quality.	Yes (based on provincial data)
	Ground level ozone criteria hours exceeding 50 ppb.	
	Annual average sulphur dioxide concentration.	
	Annual average nitrogen dioxide concentration.	
	Annual average inhalable particulate matter concentration.	
	Hospitalization rate for respiratory illness per 100,000 people and associated health care costs.	No
Economy	Total savings associated with energy efficiency and conservation measures and change in energy use (total and per capita), three year average and year to year.	Yes
	Unemployment rate and percentage change.	No
	Number of jobs created in sectors related to energy efficiency, clean energy, clean technologies, etc.	Yes
	Number of businesses with environmental certification (e.g. LEED, CBIP).	No
	Real median income (reveals whether purchasing power is increasing or decreasing relative to inflation).	No
	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
	Decision-input: surveyed satisfaction among residents with opportunities to provide input to community decision-making (percentage).	No
	Surveyed satisfaction rate: e.g. with active transport improvements, community energy projects, etc.	No
Other Actions / Other Notes	Measuring increase in value of residential property based on energy efficient updates.	n/a
	Could also focus on less KPIs.	

3.5 Quality Control Measures

When collecting and integrating data for updating the GHG inventory, CEEP 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 Band for monitoring purposes.
- Check a sample of 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, ensure the following:

- 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 CEEP, 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 CEEP Coordinator, with support of the committee and communications staff. Funding may need to be secured for certain communications related initiatives.

4.2 Public Engagement and Communications

There are several channels St. Mary's First Nation can use to educate, inform, and engage community members. Consider an approach of going **to** the community with engagement. **Participants discussed the merits as well as the pros and cons of the following methods. They identified priorities, frequency of communications, etc. Discussion points and the resulting recommendation are detailed below:**

Method	Description	Priority	Frequency
Webpage hosted by St. Mary's First Nation	Content should include visual depiction and simple explanation of GHG emissions in the community, the GHG emissions reduction target, high level objectives and measures within the CEEP, links to programs/incentives, policies, tips and guidance, contact information, and annual achievements. See Annex 6 for sample content.	Yes / Medium	Annual

Social Media	Share content on Facebook, Instagram, TikTok. Content could include CEEP details progress on actions/impacts, highlights of success stories, calls to action, and contests. See Annex 6 for sample content. Social media should link to fact sheets, success stories, progress reports, and to the webpage.	Yes / Medium to High	Monthly
Media	Newspaper, Radio, TV	No	N/A
Bill Inserts	Content should encourage residents and businesses to improve efficiency, promote programs/incentives, share facts, etc. Could be done online (e.g. webpage pop-up) instead of paper insert.	No	N/A
Open Houses	Content should focus on updating the public on CEEP progress and opportunities to participate.	No	N/A
Fact Sheets	Showing fun facts, progress achieved/impact, tips/guidance, which can be downloaded from the website, or distributed during Royalty distribution.	Yes / Low to Medium	Annually
Online Dashboard	To 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.	No	N/A
Cultural and Special Events	Hold networking events and attend festivals with a table display or speaker. Also join other community events.	Yes / Medium	Ad Hoc / Ongoing
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 (e.g. reducing GHGs and energy costs), highlights of success stories, partner achievements, areas of need, and opportunities.	Yes / High	Annually
Contests	Promote seasonal opportunities/contests to reduce energy use, increase active transport and transit ridership, etc. Could include contests between homeowners for energy savings. Community recognition could be made for good GHG reductions.	Yes / High	Monthly and Annually
Engage Schools /	Promote awareness and early actions with the help of community partners. Can partner with school board, schools,	Yes / High	Every Season

Youth Groups	and other stakeholder groups. Go to their events. Kids can help change grandparents' views. Hold recycled art workshops, food growing, nature walks, etc.		
Partner Actions / Notes	It shouldn't just be St. Mary's First Nation promoting awareness. Local stakeholders need to support with raising awareness. Need good calls to action. Need to communicate benefits/value proposition for different audiences. Limited resources, may need some funding (e.g. NB ETF). Other: Door-to-door visits.	Maybe	As Needed

4.3 Stakeholder Engagement

Participants discussed the merits as well as the pros and cons of the following approaches, determining priority and frequency. Discussion points and the resulting recommendation are detailed below:

Approach	Description	Priority & Frequency
Ongoing Teleconference and Email Correspondence	Engage and inform stakeholders through regular updates (e.g. email listserve) including calls to action, meeting announcements, celebrating successes, requests for information, and discussion threads related to CEEP implementation. Also use webpage and social media.	Medium priority, as needed / Led by coordinator
Stakeholder Committee	Purpose: Provide updates, monitor and report on implementation, identify opportunities, integrate initiatives, gain commitments, etc. (see Governance section).	No / N/A
One on One Meetings	Purpose: Identify CEEP objectives, stakeholder objectives, find alignment, pursue collaborative opportunities, and gain commitments. Early on, host, meeting amongst St. Mary's First Nation, utilities, and other key stakeholders.	Medium priority, as needed
Workshops and Focus Groups	Obtain targeted feedback on concepts and approaches to implementing CEEP measures. Can be done in person, by teleconference or online (Survey Monkey). This builds ownership and a feedback loop.	Medium priority, as needed
Attend Stakeholder Meetings	St. Mary's First Nation participates in meetings hosted by stakeholders to present information about CEEP and obtain support (e.g. associations).	N/A

Networking Events and Charrettes	Host networking events for stakeholders and community members to engage in dialogue for implementing new actions.	Medium priority, as needed
Open Houses	Highlight CEEP measures, impacts, and opportunities for participation.	Medium priority, as needed
Ambassador Program	Recognize business leaders and encourage local stakeholders to be leaders for advancing CEEP measures and communicating benefits.	No / N/A
Declaration	Invite partners to sign a declaration to generate awareness. Enable new partners to join each year. Do annual awards.	Would need to be led by Chief and Council
Other	Webinars.	As needed

4.3.1 Why and How to Engage Key Stakeholders

All stakeholders should be engaged in the committees and 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. St. Mary's First Nation's CEEP is a platform to achieve energy and GHG reductions while facilitating economic growth and can directly help achieve provincial goals.</p> <p>Health care costs represent a large, and increasing portion of provincial budgets and community energy and emissions planning can help to reduce these costs.</p> <p>Provincial government oversees policies and programs that may impact or be impacted by community energy and emissions planning. They may also have technical expertise needed for CEEP implementation. They may also have 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, environment 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 CEEP implementation. The business models of energy distributors are evolving. The CEEP aims to reduce overall energy consumption</p>	<p>Reach out to executive leaders, energy efficiency staff or energy planning staff, with an invitation for a one-on-one meeting /</p>

	<p>and GHG emissions and as a result can act as a direct pathway to allow energy distributors to expand conservation efforts in the community.</p> <p>The CEEP also calls for distributed energy resources, electric vehicle charging, etc. Energy distributors can support CEEP 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>St. Mary's First Nation 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>recurring in-person meeting to align on projects, needs, data availability, and engage on the 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 and emissions planning contact person.</p>
<p>Non-Government Organizations (NGOs), Non-Profits, and Associations</p>	<p>NGOs can help implement CEEP 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 measurable impacts of CEEP implementation, as well as communicate the need for CEEP support with the provincial government.</p>	<p>Engage with Executives and staff, one on one meetings to determine partnership potential, and involve in committee. Support and promote local initiatives and community co-benefits/impact. 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 are increasing concerns from 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>Can make commitments to implement projects that align with the CEEP, such as community retrofit or</p>	<p>Reach out (e.g. via 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 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>

	<p>energy efficiency projects, distributed energy resources in building projects, and projects that encourage integrated land use and transportation.</p> <p>The implementation of demonstration projects.</p>	<p>developers to incorporate cost effective and contextually appropriate technologies into developments.</p> <p>Engage in discussion about updating building codes, policies, or bylaws; new developments; harnessing distributed energy resources, efficiency programs, and district heat.</p>
Local Business	<p>Businesses have unique opportunities to improve efficiency, integrate waste energy and renewable energy sources. Businesses can take advantage of efficiency programs to reduce energy costs, and incorporate distributed energy measures (e.g. rooftop solar), can engage employees and 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. Businesses may also offer energy services, incentives, or technologies that can help the community achieve CEEP targets, and contribute to economic growth.</p>	<p>Reach out 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, or to take action.</p> <p>Identify opportunities to collaborate. Recognize business leadership through a green award or ambassador program.</p>
Academia	<p>Schools have opportunities to reduce peak demand, improve energy efficiency, fuel switch, integrate small scale renewable resources, and engage students through curriculum and extra-curricular activities.</p> <p>Community College and Universities provide opportunities to engage faculty/students in research, studies, engineering projects, etc. related to implementing the CEEP.</p>	<p>Engage Dean and Faculty, with an invitation for a one-on-one meeting, and engage them in the committee.</p> <p>Invite Faculty and students to participate in contests, studies, pilots, or projects related to implementing the CEEP.</p>
Neighboring Municipalities	<p>St. Mary's First Nation commuter-shed includes the City of Fredericton which also has a CEEP, and are pursuing similar initiatives. In some cases, it makes sense to partner on CEEP measures (e.g. promoting anti-idling, active and public transportation improvements, doing community retrofit programs, procuring charging stations, etc.). This can help to minimize cost and eliminate risk of duplication, while</p>	<p>Engage the CEEP Coordinator in the neighbouring municipality with an invitation for a teleconference and to participate on the committee.</p> <p>Explore the potential to share a human resource.</p>

	ensuring citizens and businesses have equal and consistent access to programs, incentives, and opportunities to participate, not to mention consistent messaging in the region.	
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5.0 CEEP Actions - Implementation Strategies

Participants reviewed all the action strategies provided by QUEST Canada, and assigned the following personnel and items for each one: a lead, priority, timeframe, cost, and whether it needs a study, funding, or supporting policy. All CEEP action strategies are included as a separate [spreadsheet](#).

In summary, the high priority actions are detailed below:

- Continue to consult with community members and traditional knowledge keepers.
- Develop a public education strategy to build awareness of the benefits of energy efficiency, renewable energy, active transportation, anti-idling, recycling, LED lighting, and water conservation. This can include regular newsletter items, attendance at community events, door-to-door canvassing, community challenges, and more.
- Encourage energy efficiency for residential and band owned buildings, as well as some commercial centres. Promote energy efficiency incentives (commercial and residential), from NB Power, for on reserve and off reserve members.
- Encourage clean energy conversion (e.g. mini-splits for residential, geothermal for community buildings, and capturing waste heat for re-use in commercial buildings).
- Undertake a Community Retrofit Program to improve residential energy efficiency.
- Install EV charging stations (e.g. Band Hall, Retail Centre, etc.) and consider acquiring a community bus for local transportation.
- Explore solar PV for public buildings (e.g. community centres, grocery store, band hall)
- Increase recycling and waste management in the community.
- Facilitate monthly and annual prizes for energy efficiency, based on size of households.
- Inform the community on how much energy costs / savings could help the community afford infrastructure such as a new sports complex.

Identified medium priority actions are detailed below:

- Adopt policies that ensure building and energy developments preserve ecologically significant or sensitive areas including watersheds and forests.
- Study the potential for a solar farm, biomass, and methane capture at proposed new farm site.
- With regards to land use, densify existing land (in the south) that is currently underdeveloped. Utilize undeveloped land (in the north) for new residential development, while protecting forested land. There is also the need for green space development, such as planting trees and shrubs. And finally, there is interest for an off-grid site north of the community for traditional and healing practices.
- Promote switching to EVs and fuel efficient vehicles (depending on incentives).
- Encourage active transportation and install bike parking.
- Establish a net-zero office space.

The low priority actions are detailed below:

- Consider adopting a solar-ready building policy and minimum energy efficiency standards for new buildings.
- Consider a policy that states unnecessary idling is unacceptable (e.g. near the school). Such a policy would need approval by Council.
- Create a re-use centre (e.g. for recycling of furniture).

Other actions, with no priority assigned, are detailed below:

- Gather and report data about all the activities.
- Facilitate a community energy challenge annually.
- Look at the potential for river hydro, a micro-grid, SMRs, and hydrogen production (to generate revenues).

Utilities (e.g. NB Power) already offer programs and incentives. There is a need to align CEEP actions with utility programs, plans, and incentives that may become available. It was noted there is a huge opportunity for energy efficiency in St. Mary's First Nation, and a Greener Homes Grant was obtained to retrofit all homes on the St. Mary's Reserve.

So many travel from surrounding communities which creates a need for a regional focus on transportation. There is a need to improve active transportation, including to encourage active transportation and cycling connections. Finally, St. Mary's First Nation could consider introducing an anti-idling bylaw in specific zones (e.g. school zone, commercial centre, etc.).

Participants recommended to **study and/or pilot specific measures first** and **access funding** (e.g. via NB Environmental Trust Fund) for implementing the actions as well as to support community engagement and communications activities.

Participants identified the following **policies** that may be needed to support CEEP actions, and would need approval of Council:

- Adopt policies that ensure building and energy developments preserve ecologically significant or sensitive areas, including watersheds, forests, etc.
- Policy or guidance to restrict idling in specific zones in the community, such as near the school.
- Adopt the National Energy Code for Buildings, minimum energy performance standards and requirements to make new buildings solar-ready, or net-zero-ready.
- Consider land use or zoning amendments to encourage mixed use development, promote energy efficiency, and enable clean energy production (e.g. rooftop solar PV).

6.0 Conclusion

QUEST Canada appreciates the opportunity to work with St. Mary's First Nation on this project and engage community members in developing recommendations for CEEP implementation, community engagement and key performance indicators to measure impact.

This report summarizes the proposed recommendations and feedback received during the workshop on February 22, 2023. It also provides useful information and templates that can be used to advance CEEP

actions, communicate with the public, engage stakeholders, and report on key performance indicators, on an ongoing basis.

As a next step, St. Mary's First Nation can explore adding staff capacity and establishing a committee to help with the implementation of the CEEP.

7.0 ANNEXES

ANNEX 1 - Template Terms of Reference for Internal Committee

Internal/Staff Committee Terms of Reference

Co-Chairs: to be determined

Objective: The objective of the CEEP Staff Committee is to bring together community staff (across departments) to ensure the advancement of the Community Energy and Emissions Plan.

Scope and issues to be addressed: The Staff Committee will be responsible for the following items:

- Stay current on energy-related matters pertaining to community energy and emissions planning and climate change impacts/science and adaptation measures
- Exchange knowledge, identify and address issues, and facilitate the advancement of actions in the CEEP, and Climate Change Adaptation Plan / Resilience
- Support community outreach and communications efforts
- Make recommendations for Council to consider
- Develop funding applications
- Address issues brought up by the membership as they arise
- Gather data to help report on CEEP progress and GHG reductions, and 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 commitments will also vary, but generally involves the following:

- Monthly teleconferences or meetings with minutes compiled
- Sub-committees (e.g. mitigation versus adaptation, or action/policy specific)
- Consultations as needed (e.g. Elders, traditional knowledge keepers, community members, youth, fund providers)
- Assist with policy recommendations and new project/funding applications

Participation: This committee would involve community staff, council representation, representatives of local organizations, youth, and others as determined by the committee. The Committee Chair will report to Council.

Objectives: Priorities identified by the working group include:

1. Advance priority actions as part of implementation of community energy and emissions plans, and the climate change adaptation and resilience plans
2. Support internal activities such as planning and policy efforts, and communications
3. Launch studies and pilots, where needed
4. Gather and report data/KPIs
5. Other business (e.g. announcements, new funding, etc., as may arise)

Meeting Schedule in 2023: Suggested Monthly

ANNEX 2 - Skills Needed

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 governance processes
- Policy and program development
- Energy literacy, sustainability practices
- Quantitative data analyses (spreadsheet software)
- Mapping (geographical information system software)
- Business case development, feasibility/financial analysis

Possible 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 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)

ANNEX 3 - Embed CEEP into other Plans, Policies, and Processes

Although CEEP measures are focused on community-side energy and GHG emissions reduction, St. Mary's First Nation has a critical role to ensure a supportive environment. Successful implementation of the CEEP requires embedding measures within strategic plans, policies, processes, and decisions. The lead coordinator and committee are best positioned (with support of Council) to ensure the CEEP is embedded into the following items, laws and actions:

- Updates of Plans
- Council Strategic Plans
- Other 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
- Budget

This can be accomplished through regular meetings of the 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 [CEEP Primer](#) for more details on each of these options for embedding the CEEP.

ANNEX 4 - Funding for CEEP Actions

It will be important for the lead coordinator, as well as committee members, to identify and pursue funding in order to implement specific measures in the CEEP. Partners may fund their own efforts, and below are some potential strategies to secure additional funding for CEEP measures.

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

- 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 should be updated on an annual basis
- Funding can be used to conduct studies, pilots, and projects

Strategies to Secure Financial Resources

Sources	Description
Budget	Create budget item/fund for CEP measures
Internal Financing Sources	<ul style="list-style-type: none"> ● Local Improvement Charges ● User fees (on water, power and natural gas distribution system, waste) ● Green bonds
Local Incentives and Rebates	<ul style="list-style-type: none"> ● Development Cost Charge reductions ● Local Improvement Charge financing (LIC) or Property Assessed Clean Energy (PACE) programs ● Local economic incentives for investing in energy efficiency for households and businesses, and new developments (e.g. faster permitting for developments meeting certain efficiency criteria)
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 from different sources ● Reinvest efficiency savings into low cost CEEP measures, community engagement, etc.
Institutional Grants and External Sources of Funding	<p>Scan and submit funding applications to the following institutions:</p> <ul style="list-style-type: none"> ● Federal agencies and governments: <ul style="list-style-type: none"> ○ Indigenous Services Canada ○ Natural Resources Canada ○ Environment and Climate Change Canada ○ Infrastructure Canada ● FCM programs, including: <ul style="list-style-type: none"> ○ Green Municipal Fund

-
- Provincial programs and agencies
 - [NB Environmental Trust Fund](#)
-

**Leverage
Private
Investments**

- Engage private sector to partner and financially support actions that improve community-side efficiency, clean energy or transport modes
-

**Economies
of Scale and
Synergies at
the Local
Level**

- Leverage existing initiatives or project by expanding/adapting their scope and collaborating with other departments (thinking beyond silos)
 - Take a regional approach and collaborate with neighbouring communities
 - When a measure involves several communities, consider cost-sharing (e.g. procurement)
-

ANNEX 5 - Methods for Measuring the Economic Impact of a CEEP

There are significant economic benefits from improving energy efficiency across the St. Mary's First Nation, and implementing the full range of measures identified in the CEEP. It will be important to quantify the economic impact of CEEP 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 assessing the economic, environmental, and social benefits of CEEPs, and for increasing knowledge of 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 CEEP 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 CEEP progress, 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. amount of funds spent on energy compared to funds 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 the asset.
Marginal Abatement Cost Curve	Compare GHG emission reduction options according to 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 CEEP, considering how expenditures recirculate through local businesses, households, and governments.
Cost Benefits	Screen and prioritize measures, programs, or portfolios to identify if benefits over time exceed initial costs, and to identify a portfolio of measures that maximize the economic, environmental, and social benefits from CEEP implementation.

ANNEX 6 - Sample Webpage and Social Media Content

<p>Webpage</p>	<p>Content should include a visual depiction and simple explanation of the following items:</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 target (total tons of CO2) ● A short list of objectives and measures identified within the CEEP ● Annual achievements: actions taken, impacts (e.g. energy/GHG reduced, energy costs reduced, energy dollars staying in community) ● 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
<p>Social Media</p>	<p>Use the St. Mary's First Nation's Facebook and Instagram accounts for the purpose of promoting CEEP progress. Content should include the following:</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 CEEP, benefits to the community, and update on progress made on actions/impacts ● Tips and guidance for improving energy efficiency at home and for business, as well as any incentives. Promote anti-idling, clothesline program, 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

St. Mary's First Nation CEEP Implementation Workshop

February 22, 2023

Name	Organization
Sally Brooks	Director of Housing and New Construction
Julia Frances	Land Management Director & Policy
Brett Collins	Energy Coordinator
Martin Paul	Project Manager
Mike Porter	NB Power
Tim Plant	Resource Development Coordinator and Protection of Treaty Rights
Kirsten Paul	Director Social Development
Omar Farag	QUEST Canada
Eddie Oldfield	QUEST Canada