



QUEST



**SMART ENERGY
COMMUNITIES**
BENCHMARK
2021



TOWN OF QUISPAMIS



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Your Environmental Trust Fund at Work



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Town of Quispamsis, New Brunswick

Introduction:

This Smart Energy Community Benchmark Report was prepared by QUEST for the Town of Quispamsis, as part of a project funded by the NB Environmental Trust Fund. This document identifies local strengths and potential areas of improvement, and can be used to update your scoring year after year.

Key Recommendations / Identified Priorities:

The following items were identified during a review webinar, where the initial benchmark results were presented to municipal staff, and priorities were identified.

Governance

1. Consider a regional approach in collaboration with neighboring communities. Establish a multi-sectoral entity of community leaders (community leadership team or committee) around a common agenda to promote and facilitate community energy goals/implementation, and foster partnerships. Invite community leadership team members to actively participate, and implement actions within their own organizations to promote Smart Energy Community goals/implementation. Hold regular / quarterly meetings with the leadership team.
2. Update staff roles/responsibilities (within current capacity) to address actions in the municipal and Community Energy Plan. This could include as part of job descriptions, operational/strategic plans, or the Official Community Plan.

Staff

3. Increase internal staff capacity with FCM or NB ETF funding, or by partnering with an external organization/staffing resource, or by accessing an embedded energy manager (if available through the utility). Consider establishing a regional energy coordinator in partnership with neighboring communities in the region.
4. Increase access to training on energy efficiency / community energy initiatives, for more municipal staff.
Note: building inspector conducts training (energy efficiency) for other inspectors in NB.

Data

5. Developed detailed implementation strategy of actions in the CEP, and select key performance indicators. Collect data on an annual basis.
Additional actions could include:
6. Ensure transparency about GHG inventory methodology and results, make it public. Improve the GHG inventory over time, with a higher level of detail, such as organization by building typology, transportation type, waste streams, and other uses as applicable (such as agriculture, land use change, or industrial processes).
7. Expand mapping of renewable energy opportunities, and consider additional layers such as a climate hazard map layer, Municipal and/or utility infrastructure and asset management planning layers.
8. Consider developing an energy model, which incorporates scenarios for both supply and demand of energy.
Note: a recommendation to utilities is to standardize their data exchange process

Financial

9. Consider reinvesting savings from energy efficiency projects into a revolving fund for Town operations including further efficiency measures. Consider additional financial vehicles such as operating budget allocations, long term budget, or energy performance contracts. Align with Asset Management Plan (10 years)
10. Create a transparent and publicly available assessment of financing mechanisms (to offer or to take advantage of)
11. Continue to access funding from upper-levels of government or the FCM, or utility incentives, to advance energy efficiency or active transportation measures.
12. Consider establishing more than 1 financial lever to support densification, for example: property tax adjustments, deferrals (increment financing) or assistance, development charges adjustments or deferrals, density bonusing. It was noted that there may be no need for this, as the market is already driving this locally. Note: stay informed of new opportunities, including community efficiency financing programs.

Strategy

13. Schedule review of progress on community energy initiatives (e.g. quarterly)
14. Establish a schedule for renewal of community energy initiatives and the broader community energy plan or strategy (e.g. no later than target year of 2025).
15. Conduct/Obtain economic impact assessment of Community Energy Plan / initiatives, in order to provide Council and the community with the value proposition for pursuing key initiatives. Furthermore, conduct assessment of specific community energy initiatives (technical/financial) where needed. Determine which community energy initiatives are attainable (costed/financially viable), assign them a timeline for completion.
16. Provide an annual update and conduct regular public engagement and education initiatives, and outreach to new participants. This includes the public, developers, and other key stakeholders. Also consider providing weekly or monthly tips for energy efficiency, active transportation, waste reduction, etc.
17. Develop a strategy which clearly defines who in the community needs to be involved, when and what actions they need to undertake for implementation.
18. Consider how community energy initiatives can address socioeconomic considerations (such as social housing or energy poverty).

Land Use

19. Adopt energy efficiency performance standards for existing and/or new corporate buildings and for new developments. Implement policies or processes that support neighbourhood-level energy performance in new developments.
20. Ensure energy supply options are listed as permitted land uses in the community's zoning bylaws where applicable (ideally informed by energy mapping).
21. Consider whether the use of local energy supply options or energy efficiency are promoted through the use of the following:
 - Community Improvement Plans
 - Site Plan Control or Plans of Subdivision requirements
 - Expedited processing for development permits (including Development Permit Systems)
 - By-law or policy to permit right-of-ways for district energy infrastructure
22. Consider natural assets / new infrastructure, for improved stormwater management
Other measures may include:
 22. Ensure compact, mixed use and transit-oriented developments are promoted through the use of at least one of the following:
 - Community Improvement Plans (including infill of existing neighborhoods, for brownfield or greyfield

redevelopment, etc)

- Secondary suite bylaws

23. Mitigate urban heat island effects through initiatives such as:

- Cool roofs or pavement policies

- Education programs of urban heat island effects

- Urban heat island effect-specific goal (temp., permeable surfaces, green space)

Energy Networks

24. Develop public engagement and education activities collaboratively with other stakeholders (e.g. utilities).

25. Continue to implement and track peak shaving measures and share results with relevant stakeholders, lessons learned identified and documented.

26. Study feasibility for a solar array

27. Share results of EV charging projects with the community, with lessons learned identified and documented. Expand EV charging network as needed.

Water and Waste

28. Develop public engagement and educational activities collaboratively between multiple stakeholders.

29. Ensure landfill diversion programs are in place for reducing landfill waste including:

- Garbage bag collection tags/limits or tipping fee

- Plastic bag bans (proposed bylaw)

- Re-use or community swap days

- Compost Bin Discount Program

30. Integrate and report savings (from water conservation, stormwater management, and waste diversion) into the community energy planning process.

31. Implement a program to promote potable or non-potable water reuse. Promote Rain Barrels through a discount program.

Transportation

32. Develop public engagement and educational activities collaboratively between multiple stakeholders.

33. Consider implementing Anti-Idling bylaw or policy or awareness program for the community at large / zones within the community. Consider amenities such as warming/charging shelters.

34. Consider establishing alternative car-transportation programs to reduce single-occupancy vehicle travel, including:

- Carsharing programs

- Carpooling programs/lots

35. Support transportation demand management, active transportation and alternative fuel vehicles at some/all facilities, such as:

- expand Bike lanes, bike racks

- Public tire pumps

- Carpooling incentives

- Transit Subsidies

- maintain support for remote work / telework

Buildings

36. Consider energy performance incentives, stretch codes, or fee reimbursements for new buildings, as part of the permitting process, and encourage benchmarking and public disclosure of energy performance by private sector building owner/operators. Promote construction of net-zero ready buildings. Track the number of privately owned/operated buildings who achieve high energy performance, and/or who use local/renewable heat and electricity.

37. Develop public engagement and educational activities collaboratively between multiple stakeholders.

38. Adopt benchmarking, labelling and disclosure system for corporate-owned facilities.

On the next few pages you will find the results of the scoring and notes compiled.

1.1 Governance

Community Score: 7.5 / 11.5 (65%)

1.1.1. A community energy leadership team to co-govern community energy initiatives

Scoring: Checklist

A multi-sectoral entity of community leaders (**community leadership team**) is formed around a common agenda to promote and facilitate community energy goals/implementation, and foster partnerships. [1 point]

The community leadership team members **actively participate, and implement actions** within their own organizations to promote SEC goals/implementation. [1 point]

Regular meetings between the leadership team occur. [0.5 point] ½

An organization and/or individual acts as **secretariat** for the leadership team, and lead and coordinate community engagement. [1 point] ✓

NOTES:

The Town's Climate Change Committee consists of two Council Members and 8 staff members from various departments. The Climate Change Committee does not have a formal Terms of Reference however does oversee the climate change initiatives and provides input/recommendations to Council on climate change issues. The Committee has done community initiatives, and has been part of the UMN Climate Change and Energy Initiative, resulting in adoption of a Corporate and Community Energy & Emissions Reduction Plan. Municipal Plan talks about forming a multi-sector group, to address CC, planning, EE, to help move the town forward. To be completed next year. Active Transportation has a committee of staff and community stakeholders.

1.1.2a. Cross-departmental coordination within the local government

Scoring: Checklist

Regular meetings occur, with relevant departments, **within the local government**. [1 point] ✓

A **clear mandate exists** for all relevant departments such as through an Official Community Plan and/or Strategic Plan. [2 points]

NOTES:

The Town's Climate Change Committee consists of two Council Members and 8 staff members from various departments, to oversee climate change initiatives (corporate and community).

1.1.2b. Strategic alignment within the local electric utility

Scoring: Checklist

Meetings between relevant departments occur **within the electric utility on a project-to-project basis** as they relate to community energy initiatives. [1 point] ✓

Participation in, and support for, community energy initiatives is seen as a **strategic priority within the electric utility**. [2 points] ✓✓

NOTES: (next page)

NB Power’s community energy initiatives come in many forms: adding public EV charging networks to a community, helping municipalities to make their buildings and operations more energy efficient by participating in energy efficiency programs, as well as opportunities for renewable generation through competitive programs such as the Community Energy Program, LORESS and Embedded Generation. Some of these programs and services are offered on an ongoing, regular basis while others are offered as needed. Departments involved in offering these products, services and programs include but are not limited to: Customer Energy Solutions, Energy Smart NB, Strategic Planning, Operations, and many more! NB Power is in the process of developing a Community Energy Strategy. This will include an overview of the products, services, and programs available to municipalities, and how NB Power can better meet the needs of municipal customers.

1.1.2c. Strategic alignment within the local natural gas utility

Scoring: Checklist

Meetings between relevant departments occur within the natural gas utility on a project-to-project basis as they relate to community energy initiatives.	[1 point]	N/A
Participation in, and support for, community energy initiatives is seen as a strategic priority within the natural gas utility .	[2 points]	N/A

NOTES:

1.1.3. Knowledge sharing with other communities

Scoring: Scale

Representative(s) from the community leadership team has presented in events or led/facilitated knowledge sharing groups that involves members from outside of the community.	[2 points]	↑
Representative(s) from the community leadership team has attended or participated in events or knowledge sharing groups that involves members from outside of the community.	[1 point]	

NOTES:


Town representatives participate on the QUEST NB-PEI Municipal Working Group, to share knowledge, learn about tools, resources, and best practices. Also at Development Officers Association - AGM. Rep. for NB for Canadian Commission on Building Energy Use. And to other neighboring communities.

1.2 Staff

Community Score: 10 / 18 (56%)

1.2.1a. Local government staff resources tasked with managing community energy initiatives

Scoring: Scale

The local government has equal to or greater than 3 FTE staff tasked with applying an energy lens to community initiatives and overseeing specific community and corporate energy initiatives.	[3 points]	
The local government has 1-2 FTE staff tasked with applying an energy lens to community initiatives and overseeing specific community and corporate energy initiatives.	[2 points]	
The local government has greater than 0.25, but less than 1 FTE staff tasked with applying an energy lens to community initiatives and overseeing specific community energy initiatives.	[1 point]	

NOTES:

Directors and Managers - e.g. Director of Engineering and Public Works, Building Facilities Manager, etc, are aware of the town's CEP, when doing different projects they look at the energy component for energy savings or GHG reductions. While there is no dedicated FTE, several staff share responsibilities as part of their duties.

1.2.1b. Community energy staff position support

Scoring: Scale


There is an embedded community energy manager program or cost-sharing agreement for staff person(s) with split-accountability dedicated to working on community energy initiatives.	[2 points]
There is an external staffing resource within the community to support the coordination of community energy initiatives.	[1 point]

NOTES:

No, but NB Power stated it is currently working with QUEST to develop a program of this nature.

1.2.1c. Electric utility has staff resources tasked with supporting and engaging with community energy

Scoring: Scale

The electric utility has a dedicated single point of contact engaging directly with the municipality or other community leaders.	[3 points]	
The electric utility has equal to or greater than 1 FTE staff tasked with supporting and engaging with community energy initiatives.	[2 points]	
The electric utility has greater than 0.25, but less than 1 FTE staff tasked with supporting and engaging with community energy initiatives.	[1 point]	

NOTES: (next page)

NB Power has a full-time Community Energy Specialist, who helps connect municipalities to relevant products/services and programs available through NBP to support their initiatives. In general, Municipalities have the support of their Account Manager for general advice, account inquiries or access to historical energy consumption, as well as walk-through of buildings. Several NB Power Energy Advisors and program support staff help municipalities to participate in Energy Efficiency programs, and help align their initiatives with NB Power services and incentives, including low carbon economy funding. Product Managers work with municipalities on everything from LED street lighting to public EV charging stations. Mayors and Council have a line to NB Power via our Director of Government Relations to discuss strategic initiatives at a more senior level. NB Power is developing a community engagement strategy to better service customers, and their unique needs. Looking at sub-classes (rates) for different types of customers, including for municipalities. This would affect the access/services for municipalities (for energy efficiency). Utility also has an opportunity to augment on team response to municipal needs.

1.2.1d. Natural gas utility staff resources tasked with supporting and engaging with community energy

Scoring: Scale

The natural gas utility has a dedicated single point of contact engaging directly with the municipality or other community leaders.	[3 points]	N/A
The natural gas utility has equal to or greater than 1 FTE staff tasked with supporting and engaging with community energy initiatives.	[2 points]	N/A
The natural gas utility has greater than 0.25, but less than 1 FTE staff tasked with supporting and engaging with community energy initiatives.	[1 point]	N/A

NOTES:

1.2.2a. Local government support for community energy management staff education

Scoring: Scale

Staff involved in community energy initiatives participate in more than 4 educational or training sessions per staff personnel per year relating to aspects of community energy initiatives.	[3 points]	
Staff involved in community energy initiatives participate in, on average, 1 to 4 educational or training sessions per staff personnel per year relating to aspects of community energy initiatives.	[2 points]	↑
Staff involved in community energy initiatives participate in, on average, 1 educational or training sessions per staff personnel per year relating to aspects of community energy initiatives.	[1 point]	

NOTES:

According to Town, staff participate in 1 and 4 educational or training opportunities every year. On Page 68 of the Municipal Plan, it is stated it is a policy of Council to encourage the provision of post secondary and continuing education as well as general training and retraining programs in order to maximize employment opportunities for all residents.

1.2.2b. Building inspector staff education

Scoring: Checklist

The local government has a **process for educating building inspectors** on energy efficiency policies to ensure effective enforcement. [2 points] ✓✓

NOTES:

Building inspector was an energy advisor previously, and is part of the New Brunswick Building Officials Association, and they do training. Specific to energy efficiency, they take a 3 day course on Energy Code.... One day seminars every so often, and annual general meeting.

1.2.2c. Electric utility support for staff education related to community energy

Scoring: Scale

Staff involved in community energy initiatives participate in **more than 4** educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [3 points]

Staff involved in community energy initiatives participate in, on average, **1 to 4** educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [2 points] ↑

Staff involved in community energy initiatives participate in, on average, **1** educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [1 point]

NOTES:

NB Power offers a variety of workshops every year, including the Energy Efficiency conference which contains modules available to both employees and attendees from other organizations to better understand Community Energy Plans and other areas of interest to municipalities. Energy Advisors within NB Power are continually expanding their expertise through memberships in organizations such as the Green Building Council, the Smart Energy Consumer Collaborative, the Association of Energy Engineers, and much more! Many of our Energy Advisors are Engineers and/or Certified Energy Managers which requires ongoing training to maintain certifications. Staff attend training on technology specific integrations (e.g. arena technologies, solar technologies etc). Employees in these areas are continually expanding their knowledge and skills to better support customers – such as municipalities – to implement their energy management and energy reduction projects. Community Energy Specialist also participates in community-based workshops on community energy planning.

1.2.2d. Natural gas utility supports for staff education related to community energy

Scoring: Scale

Staff involved in community energy initiatives participate in **more than 4** educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [3 points] N/A

Staff involved in community energy initiatives participate in, on average, **1 to 4** educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [2 points] N/A

Staff involved in community energy initiatives participate in, on average, **1** educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [1 point] N/A

NOTES:

1.2.3. Succession planning for staff roles managing and supporting community energy initiatives

Scoring: Checklist

There is a program or strategy in place to facilitate succession of local government staff managing community energy initiatives.	[1 point]	N/A
There is a program or strategy in place to facilitate succession of electric utility staff supporting and engaging with community energy initiatives.	[1 point]	
There is a program or strategy in place to facilitate succession of natural gas utility staff supporting and engaging with community energy initiatives.	[1 point]	N/A

NOTES:

Staff are involved on climate change committee, which ensures continuity. Succession planning is ad-hoc.

1.3 Data

Community Score: 17.5 / 24.5 (71%)

1.3.1a. Electric utility commitment to sharing data

Scoring: Scale

A standardized process is in place for requesting and sharing data, including appropriate contact persons, application and release documents, and estimated timelines.	[3 points]	
A standardized format for community energy data has been established for sharing data.	[2 points]	
Requests for data and information are addressed in an ad-hoc fashion.	[1 point]	↑

NOTES:

NB Power Customer Service Infrastructure Team is able to provide municipalities with their historical corporate energy profiles, as well as aggregate level data at the community level for residential and commercial customer classes within their municipality. Provided that the data requirements are clearly defined, it typically takes ~3-4 weeks from the date of request to generate the reports.

1.3.1b. Natural gas utility commitment to sharing data

Scoring: Scale

A standardized process is in place for requesting and sharing data, including appropriate contact persons, application and release documents, and estimated timelines.	[3 points]	N/A
A standardized format for community energy data has been established for sharing data.	[2 points]	N/A
Requests for data and information are addressed in an ad-hoc fashion.	[1 point]	N/A

NOTES:

1.3.2a. Community energy inventory and reporting

Scoring: Checklist

A basic community energy or GHG inventory has been completed that includes energy use or emissions from residential, institutional, commercial, industrial, transportation, and solid waste sectors.	[1 point]	✓
The community inventory includes a high level of detail , such as organization by building typology, transportation type, waste streams, and other uses as applicable (such as agriculture, land use change, or industrial processes). This may also include organization by energy spending.	[1 point]	
A community energy or GHG target has been established and approved .	[1 point]	✓
Realistic evidence-based (as opposed to aspirational), sector-specific community targets have been established and approved .	[1 point]	✓
A timeline for inventory renewal is clear .	[1 point]	✓
Inventory methodology and results are transparent and publicly available , such as through methodology documents, inventory reports and/or lessons learned documented.	[1 point]	✓

NOTES:

The Town of Quispamsis' Community GHG and Energy Action Plan, was adopted in 2018. It includes the community energy and GHG emissions inventory for all sectors (residential, institutional, commercial, transportation, and solid waste) on pages 14-22. The Plan includes a target for reducing emissions by 8% by 2025 and 16% by 2035, on Page 25. On pages 29 to 42, the Plan identifies sector specific measures and targets. Implicit in the plan is to renew the inventory in 2025 (at the very least), to determine if the 2025 targets are met.

1.3.2b. Local government corporate energy inventory and reporting

Scoring: Checklist

A basic corporate energy or GHG inventory has been completed that includes energy use or emissions from corporate owned buildings, street lighting, water and wastewater treatment, municipal fleet, and corporate and/or community solid waste.	[1 point]	✓
A corporate energy or GHG target has been established and approved .	[1 point]	✓
Realistic, evidence-based (as opposed to aspirational) corporate target(s) have been established and approved .	[1 point]	✓
A timeline for inventory renewal is clear .	[1 point]	✓
Inventory methodology and results are transparent and publicly available , such as through methodology documents, inventory reports and/or lessons learned documented.	[1 point]	✓

NOTES:

The Town of Quispamsis' Corporate GHG and Energy Action Plan, was adopted in 2018. It includes the corporate energy and GHG emissions inventory summary for all sectors (buildings, vehicle fleet, streetlights, water and sewage, and waste) on pages 10-14. The Plan includes a target for reducing emissions by 12% by 2025, on Page 17. On pages 16-36, the Plan identifies sector specific measures and targets. Implicit in the plan is to renew the inventory in 2025 (at the very least), to determine if the 2025 targets are met.

1.3.2c. Electric utility corporate inventory and reporting

Scoring: Checklist

Corporate energy or sustainability inventory/report has been completed that includes energy use or GHG emissions from utility operations.	[1 point]	✓
The corporate inventory/report includes a high level of detail , such as organization by community boundaries or facilities, and/or other aspects of environmental management (such as water and waste).	[1 point]	
Corporate energy or sustainability targets have been established.	[1 point]	✓
Timeline for inventory/report renewal is clear.	[1 point]	✓
Report methodology are transparent and publicly available , and/or are aligned with existing reporting initiatives such as Global Reporting Initiative (GRI), Canadian Electricity Association (CEA) Sustainable Electricity Program, Carbon Disclosure Program (CDP), etc.	[1 point]	

NOTES:

NB Power reports on its emissions annually, not by facility. NB Power has a goal to maintain a minimum of 40% of electricity generation from renewable energy sources, and a minimum of 75% of generation from non-emitting sources. In 2019-20, NB Power achieved 44% of generation from renewables, with 80% of it's generation coming from non-emitting sources. More info: https://www.nbpower.com/media/1489943/2019-20_annual_report_en.pdf The IRP mentions our sustainability goals, a profile of energy generation by type, and overall GHG emissions, as well as the Energy Smart Plan for NB: <https://www.nbpower.com/media/772015/nb-power-2017-irp-public-english.pdf>

1.3.2d. Natural gas utility corporate inventory and reporting

Scoring: Checklist

Corporate energy or sustainability inventory/report has been completed that includes energy use or GHG emissions from utility operations.	[1 point]	N/A
The corporate inventory/report includes a high level of detail , such as organization by community boundaries or facilities, and/or other aspects of environmental management (such as water and waste).	[1 point]	N/A
Corporate energy or sustainability targets have been established.	[1 point]	N/A
Timeline for inventory/report renewal is clear.	[1 point]	N/A
Report methodology are transparent and publicly available , and/or are aligned with existing reporting initiatives such as Global Reporting Initiative (GRI), Canadian Electricity Association (CEA) Sustainable Electricity Program, Carbon Disclosure Program (CDP), etc.	[1 point]	N/A

NOTES:

1.3.3. Climate hazard assessments

Scoring: Checklist

The community has an assessment of climate-related hazards and risks that exist, and are predicted into the future, within the community. This includes Traditional Ecological Knowledge and/or scientific information related to climate change.	[1 point]	✓
The community has ongoing environmental monitoring programs in place to report on climate hazards.	[0.5 point]	½
The community has identified opportunities and actions to adapt and improve resilience to climate risks , such as through a climate resilience plan or strategy.	[0.5 point]	½

NOTES:

On Page 52 of the Municipal Plan it states it is a policy of Council to undertake the development of a Climate Change Adaptation Plan to assist in the identification of land uses and infrastructure that are climate adaptation priorities (i.e. highly vulnerable with a high degree of risk). For example, Two sides of the Town's borders are rivers - the Kennebecasis River and the Hammond River, both of which are prone to flooding during the spring freshet. Properties along the Kennebecasis River experienced flooding during the 2018 and 2019 spring freshets. For the spring freshet, town monitors water levels, because of susceptibility to 1-100 year floods.

The Town is working with ACAP SJ to develop an adaptation plan, and the Province is planning to require adaptation plans. On Page 53 of the Municipal Plan, it states that it is a proposal of Council, that when considering approval of long-term capital and infrastructure investments, above a financial threshold as determined by the Council, that priority climate change impacts have been considered and incorporated into site placement, design standards, and operation and maintenance plans of the infrastructure. The town will also consider working with community organizations to conduct outreach and education about anticipated climate change impacts, climate adaptation priorities, and the actions necessary to improve the community's capacity to adapt to climate change.

On pages 30 to 37 of the Town's Asset Management Plan (2019), it identifies climate change and extreme weather events that threaten the community's assets, including extreme rainfall, fluvial flooding, extreme temperatures, ice / freezing rainstorms, heavy snowfall, high winds, and forest fire. It also identifies the likelihood and severity of these events to impact municipal assets/infrastructure and states that mitigation measures need to be developed in the future.

1.3.4. Energy mapping

Scoring: Checklist

Community undertakes an energy mapping exercise to identify local energy priorities and opportunities.	[1 point]	✓
A climate hazard map layer has been integrated into the energy mapping process.	[0.5 point]	
Municipal and/or utility infrastructure and asset management planning has been integrated into the energy mapping process.	[0.5 point]	
A community-informed map layer of social acceptance for community energy initiatives has been integrated into the energy mapping process.	[0.5 point]	½

NOTES:

The Town participated in a table-top mapping exercise when developing their CEP. This included steps to identify local energy priorities and opportunities. No technical energy mapping has been conducted on energy end use, however as part of QUEST's AIRE project for the SJ Region, renewable energy resource accessibility and social acceptance mapping was conducted for the region. This could be improved with a more local focus.

1.3.5 Energy scenario modelling

Scoring: Checklist

An energy model has been completed , which incorporates scenarios for both supply and demand of energy.	[1 point]	
Energy modelling includes multi-stakeholder considerations such as major energy users and suppliers, energy distribution infrastructure constraints, and/or how costs and benefits are distributed throughout the community.	[0.5 point]	N/A
Assumptions and methodologies in energy modelling are transparent and readily accessible.	[0.5 point]	N/A
Outputs from energy modelling are presented in a digestible way , such as through infographics or one-pagers.	[0.5 point]	N/A

1.4 Financials

Community Score: 18 / 25 (72%)

1.4.1. Assessment of financial mechanisms and funding

Scoring: Checklist

A transparent and publicly available assessment of financing mechanisms (to offer or to take advantage of) has been completed.	[1 point]
Assessment of financial mechanisms includes considerations of a variety of ownership models .	[1 point]
Assessments of financial mechanisms includes considerations of social equity , such as access by financially underserved populations.	[1 point]

NOTES: (not conducted yet)

1.4.2. Financial mechanisms for local government corporate energy initiatives

Scoring: Scale

The local government is committed to funding corporate energy initiatives through financial vehicles such as operating budget allocation, revolving funds, or energy performance contracts.	[3 points]	
The local government has funded corporate energy initiatives through ad-hoc capital budget allocation(s) .	[2 points]	↑
The local government has funded corporate energy initiatives through grants from upper-levels of government or utility incentives .	[1 point]	

NOTES:

The town uses grants whenever possible from upper levels of government. The town allocates funding in the Capital budgets for various projects e.g. Green buildings such as QPlex, Kennebecasis Public Library, electric vehicles (fleet), lagoon upgrades, Wetlands sewage treatment plant, and active transportation. Recent allocations have gone to trail improvements / connectivity, building repairs and improvements, energy audits and monitoring, replacing fleet vehicles with electric vehicles and more fuel efficient vehicles.

1.4.3. Fees to address automobile congestion

Scoring: Checklist

The local government implements parking charges .	[1 point]	N/A
The local government (or regional government) implements road tolls/congestion charges .	[1 point]	N/A

NOTES:

There is not a lot of congestions - on Route 119 arterial and at Campbell Drive - Hampton Road intersections during rush hours. Looking at implementing roundabouts. No parking charges. Bulk of community is residential.

1.4.4. Funding for active transportation infrastructure

Scoring: Scale

The local government is committed to funding active transportation infrastructure through operating budget allocation.	[3 points]	⬆
The local government funds active transportation infrastructure through ad-hoc capital budget allocation(s) .	[2 points]	
The local government funds active transportation infrastructure through grants from upper-levels of government or utility incentives .	[1 point]	

NOTES:

The Town continues to expand its Active Transportation network with the goal of connecting neighborhoods to key destinations as part of its annual budget process. The town uses grants whenever possible from upper levels of government. The Town recently took advantage of Federal funding to pave a 2 km portion of trail so that persons with a disability are able to experience the health benefits of trail use and nature. When paving roads, and where appropriate, we incorporate sufficient road width for pedestrian lanes to give pedestrians more space and comfort while walking on streets without sidewalks. When subdividing lands, the Town will acquire Land for Public Purposes from the developer to expand the trail network. the Town's Active Transportation Plan has been an important part of establishing the town's priorities with respect to the Town's Active Transportation infrastructure. The town allocates funding in the Capital budgets for various projects e.g. active transportation, trails, and road upgrades. Recent allocations have gone to trail improvements / connectivity.

1.4.5. Financial levers for densification

Scoring: Scale

The local government has aligned or incorporated more than 1 financial lever to support densification.	[2 points]	
The local government has aligned or incorporated at least 1 financial lever to support densification.	[1 point]	⬆

NOTES:

New Community Planning Act provides for this, but town will act on this in 2021-2022. Municipal Plan identified policies/objectives focused on densification. Council has authority to waive fees - as a financial lever, to encourage efficiency.

1.4.6a. Incentives for energy initiatives in new buildings

Scoring: Checklist

Incentives exist for energy initiatives in new single family residential units.	[1 point]	✓
Incentives exist for energy initiatives in new multi-unit residential, commercial, and/or mixed-use buildings.	[1 point]	✓

NOTES:

NB Power offers an incentive program for new homes built with electricity that are designed to use at least 50% less energy than code. <https://www.saveenergynb.ca/en/save-energy/residential/new-home-energy-savings-program/> There are also incentives for new commercial, but not specifically multi-unit residential

1.4.6b. Retrofit program for existing single family residential building stock

Scoring: Checklist

Community program exists to help homeowners conduct energy audits or evaluate feasibility of energy efficiency retrofits of existing single family residential units.	[1 point]	✓
Incentives exist for energy efficiency retrofits of existing single family residential units.	[1 point for simple retrofit or 2 points for deep retrofit]	✓✓
Repayment mechanisms exist for energy efficiency retrofits of existing single family residential units.	[1 point]	
Community retrofit programs (audits, simple and deep energy retrofits) are delivered in a streamlined system to support building owners and tenants with retrofit programs, including financial incentives, technical support and behaviour modification.	[1 point]	✓

NOTES:

All homeowners and commercial class buildings in New Brunswick are eligible to participate in efficiency programs. Energy audit based program. <https://www.saveenergynb.ca/en/save-energy/residential/total-home-energy-savings-program/>

1.4.6c. Retrofit program for existing multi-unit residential building stock

Scoring: Checklist

Community program exists to help homeowners conduct energy audits or evaluate feasibility of energy efficiency retrofits of existing multi-unit residential buildings.	[1 point]	N/A
Incentives exist for energy efficiency retrofits of existing multi-unit residential buildings.	[1 point for simple retrofit or 2 points for deep retrofit]	N/A
Repayment mechanisms exist for energy efficiency retrofits of existing multi-unit residential buildings.	[1 point]	N/A
Community retrofit programs (audits, simple and deep energy retrofits) are delivered in a streamlined system to support building owners and tenants with retrofit programs, including financial incentives, technical support and behaviour modification.	[1 point]	N/A

NOTES:

While all homeowners and businesses qualify for NB Power efficiency programs and incentives, where the gaps exist is for multi-unit residential. Anything over 4 stories is considered commercial, not multi-residential. There is currently no energy evaluation tool for multi-residential buildings in Canada. Hot 2000, Retscreen, can be used to calculate energy/emissions, but come at a cost. Province has not yet adopted National Energy Code for Buildings. The majority of the Town's housing stock has been single family residential, however, in the Municipal Plan, a policy of Council is to encourage more Multiple Residential rezonings in recent years, and have two large apartment buildings now under construction and another proposed 100 unit project before Council for rezoning currently, so the trend is moving more and more towards the Multiple Residential clustered type development as the market seems to be dictating a need, with many either looking to downsize, or people not wanting the maintenance associated with larger properties.

1.4.6d. Retrofit program for existing commercial / mixed-use building stock		
Scoring: Checklist		
Community program exists to help homeowners conduct energy audits or evaluate feasibility of energy efficiency retrofits of existing commercial and mixed-use buildings.	[1 point]	✓
Incentives exist for energy efficiency retrofits of existing commercial and mixed-use buildings.	[1 point for simple retrofit or 2 points for deep retrofit]	✓✓
Repayment mechanisms exist for energy efficiency retrofits of commercial and mixed-use buildings.	[1 point]	N/A
Community retrofit programs (audits, simple and deep energy retrofits) are delivered in a streamlined system to support building owners and tenants with retrofit programs, including financial incentives, technical support and behaviour modification.	[1 point]	✓

NOTES:

All commercial class buildings in New Brunswick are eligible to participate in efficiency programs. Energy audit based program. <https://www.saveenergynb.ca/en/save-energy/commercial>

1.4.7. Energy programs targeting energy poverty and/or low-income households		
Scoring: Scale		
Energy poverty and/or low income household programs are in place .	[2 points]	↑
Energy poverty and/or low income household programs are being piloted .	[1 point]	

NOTES: Next Page

On page 14 of the Municipal Plan, the Town's Sustainability Goals include a goal to ensure there is a choice of dwelling types for citizens of all ages, incomes, and physical abilities, dispersed throughout the Town. On Page 21, it states it is a policy of Council to enable more diversity in housing types, through amending the Zoning By-law to permit a range of housing options other than Single-Dwelling Units with appropriate standards including height, enhanced open space, setbacks etc. There is a low-income energy efficiency program funded by Government of NB and administered by NB Power, to do what is economically feasible to be done on low-income housing (insulation, upgrades) at no cost to participants. Focuses on upgrades most likely to result in energy savings and achieve a realistic payback: insulation, some HVAC or ventilation, direct install of low-cost items such as LED bulbs, water efficient showerheads, etc. <https://www.saveenergynb.ca/en/save-energy/residential/low-income-energy-savings-program/> A separate program exists through NB housing for social development, to make improvements/fixes to key aspects. People can contact NB Power directly or through Social Development. Approx 1000 people on wait list. There is a 2 year wait (due to demand, and budget limit). Program not currently advertised. No local energy poverty program.

1.5 Strategy

Community Score: 9 / 17 (53%)

1.5.1. Community engagement for visioning, goal-setting, and prioritization

Scoring: Checklist

A stakeholder engagement framework has been documented, which may include: Who stakeholder groups are (and individual contacts within them), Why they are important and/or what issues are important to the stakeholder group; and, How key stakeholders are engaged (engagement methods).	[1 point]	✓
Organizations within the community have been engaged , with engagement(s) documented in meeting minutes and/or a list of participants.	[1 point]	✓
The general public been engaged , with lessons learned documented.	[1 point]	✓
A schedule has been established for updating/conducting regular public engagement and education initiatives, and outreach to new participants.	[1 point]	

NOTES:

The Town of Quispamsis engaged various community stakeholders and the public, in development of their Climate Change Action Plan (corporate and community). In addition, on Page 10 of the Municipal Plan (which includes policies around community energy and efficiency) it states the Plan was developed based on feedback from citizens, public survey, open house, town council, planning advisory committee, municipal staff, and other stakeholders such as developers, builders, business owners, real estate agents, schools, interested citizens etc. which the town can reach out to anytime. Active Transportation group has identified key stakeholders. However, the CC Committee does not have a schedule for engaging stakeholders on a regular basis.

1.5.2. Community-wide economic analyses

Scoring: Checklist

An **economic analysis** that covers a wide diversity of community energy initiatives has been completed for the community within the past three years.

This may include one or more of the following considerations or tools:

- Financial feasibility [1 point]
- Levelized unit energy cost
- Marginal abatement cost curve
- Community socio-economic benefits
- Cost benefit analysis

NOTES:

No community-wide economic analysis completed to date. However, when the QUEST SEC Accelerator Program is launched, an economic analysis can be undertaken in 2021.

1.5.3. A plan or strategy to manage community energy initiatives and transition

Scoring: Checklist

- | | | |
|---|-----------|---|
| A community energy plan or strategy has been adopted by council . | [1 point] | ✓ |
| There are clearly defined benefits and advantages , and risks associated with inaction, from community energy initiatives. | [1 point] | ✓ |
| A plan or strategy clearly defines who in the community need to be involved , when and what actions they need to undertake for implementation. | [1 point] | |

NOTES:

The Community GHG and Energy Action Plan was adopted by Council in 2018. Benefits are outlined on Page 4 "The Plan is great tool to face community transformation challenges encountered in New Brunswick: Climate change impacts, population growth or decline, development growth and economic transformation. Those challenges push municipalities and communities to examine ways to reduce its cost of services while continuing to maintain and enhance the quality of life. And how energy is used, and the cost of that energy to residents as well as to the municipality, is an important factor. Smart solutions also reduce environmental impacts associated with the consumption of energy. A good strategy and planning can enhance prosperity by making the municipality more economically competitive. Enhancing access to energy efficiency, conservation and demand management opportunities can also have a positive effect on the local retail and service industry. Businesses that increase the energy efficiency of their facilities and operations can improve their competitiveness in the marketplace."

1.5.4. A holistic and integrated approach to community energy

Scoring: Checklist

- | | | |
|--|-----------|---|
| Community energy initiatives address land use, transportation, and waste and water . | [1 point] | ✓ |
| Community energy initiatives consider socioeconomic considerations (such as social housing or poverty). | [1 point] | |

NOTES:

The Community GHG and Energy Action Plan includes actions for all sectors.

1.5.5. SMART community energy initiatives

Scoring: Checklist

Specific community energy initiatives have been identified .	[1 point]	✓
Community energy initiatives have quantitative or qualitative measures associated with their implementation and success.	[1 point]	✓
Community energy initiatives are considered attainable (costed/financially viable).	[1 point]	
Community energy initiatives are clearly aligned with community priorities/objectives.	[1 point]	✓
Community energy initiatives are assigned timelines (short, medium, or long-term) for action and completion.	[1 point]	

NOTES:

The Community GHG and Energy Action Plan includes actions for all sectors. These actions have quantitative measures (e.g. GHG emissions reduction), which align with community priorities.

1.5.6. Establishment of community energy planning as an ongoing process

Scoring: Checklist

There is an established schedule for review of progress on community energy initiatives.	[1 point]	
There is an established schedule for renewal of community energy initiatives and the broader community energy plan or strategy.	[1 point]	

NOTES:

The Community GHG and Energy Action Plan has a timeline of 2025 and stretch targets for 2035. The CEP could be reviewed and renewed in 2025, but this has not been formalized.

2.1 Land Use

Community Score: 12.5 / 22.5 (56%)

2.1.1. Public engagement and education on energy and land use

Scoring: Checklist

Members of the public are informed of initiatives and educated on land use-energy impacts through basic methods, such as: - Website updates, Newsletters, Print materials (such as brochures, fact sheets, information packages), Social media updates, Webinar or conference calls, Open houses	[0.5 point]	½
Members of the public are engaged on land use-energy impacts through innovative methods, such as: - Highly creative or interactive web-based reporting, open houses or participation at community events - Advanced social media/networking, Embedded videos - Innovative stakeholder feedback mechanisms and interactive workshops - Tables/participation at community events and School promotion	[1 point]	✓

NOTES:

The Town does public education and engagement, through website, social media, open houses, sessions in schools, public consultations / presentations / hearings, open Council meetings, bylaws, and green initiatives at town events.

2.1.2. Compact, mixed use, transit-oriented development policies

Scoring: Checklist

Compact, mixed use and **transit-oriented development** is encouraged in the community's Official Community Plan (and Secondary Plans where applicable). [1 point]



The community's zoning bylaw identifies built up areas for **intensification**, with consideration to transit nodes and corridors, zoned for mixed-uses and with increased height and density, as well as settlement area boundaries for undeveloped areas to be protected if applicable. [1 point]



Compact, mixed use and transit-oriented developments are **promoted** through the use of at least one of the following:
 - Community Improvement Plans (for brownfield or greyfield redevelopment, and/or infill) [1 point]
 - Secondary suite bylaws
 - Reducing/eliminating Parking minimums

NOTES:

On page 14 of the Municipal Plan, the Town's Sustainability Goals include a goal to promote sustainable land management by promoting compact development, mixed use development, and limiting suburban sprawl. On Page 19, it states a policy of Council is to enable a compact development pattern which optimizes municipal services and transportation through appropriate development standards and regulations that will maintain the existing mix of suburban and rural residential lifestyles and characteristics. On Page 21, it states it is a policy of Council to develop an Incentives By-law to encourage and support residential intensification through subdivision development as a means to control sprawl development. On Page 24, it states a policy of Council is to ensure that development is sustainable and environmentally sound by: Concentrating new growth in areas that are adequately serviced; directing new development and infilling in areas contiguous to existing built-up areas; directing higher density and more compact forms of development in areas that can be supported by the existing servicing systems. On Page 27, it states a policy of Council is to encourage infilling and consolidation and growth of residential subdivisions where infrastructure and community facilities exist; to encourage a mix of dwelling types and styles; and to encourage higher density residential development, including dwellings per surface area and multiple units in one building, in acceptable locations. On Page 70, it states it is a policy of Council to continue to work with local developers to make available land for affordable residential development, including municipal plan policies for mixed and multigenerational housing. This is reflected in the Zoning Bylaw, which is compatible with the Municipal Plan and Future Land Use Map.

2.1.3. Energy efficiency and performance in planning policies and processes for new developments

Scoring: Checklist

The local government has policies or processes that support **building-level energy performance** in new developments. [4 points; 1 point per]



The local government has policies or processes that support **neighbourhood-level energy performance** in new developments. [4 points; 1 point per]

NOTES: (next page)

The Town requires strict compliance with energy efficiency requirements contained in the National Building Code of Canada. The Town requires all efficiency components, building components, mechanical systems, etc, to be identified as part of permit process. These are checked on final inspection. The Town has NB's first net zero home, and the builder found it easy to work with Town. NB Power provides additional incentives. The Town is also a member of the FCM-ICLEI Partners for Climate Protection Program and as such encourages energy efficient design practices for new construction and renovation of existing buildings (P. 17, Development Schem Bylaw for Millennium Drive). From a subdivision perspective, the Town requires developers to consider drainage, green space/vegetation, climate risk assessment, no increase of storm-water, etc, and mitigation of GHG emissions, as part of the subdivision and development process.

2.1.4. Embedding of local energy supply options into land-use plans, policies, tools and processes

Scoring: Checklist

Development of local and/or renewable energy options and energy efficiency are mentioned and encouraged in the community's Official Community Plan (and Secondary Plans where applicable).	[1 point]	✓
Energy supply options are listed as permitted land uses in the community's zoning bylaws where applicable (ideally informed by energy mapping).	[1 point]	
The use of local energy supply options or energy efficiency are promoted through the use of the following: Community Improvement Plans Site Plan Control or Plans of Subdivision requirements Expedited processing for development permits (including Development Permit Systems) By-law or policy to permit right-of-ways for district energy infrastructure	[2 points; 1 point per]	

NOTES:

On Page 16 of the Municipal Plan, one of the Town's Sustainability Goals is: to Encourage economically and environmentally appropriate incorporation of renewable energy to diversify the energy supply to municipal infrastructure and operations and to residential, commercial, industrial, and institutional sectors within the Town. Section 5.6 of the Municipal Plan is focused on Renewable Energy. There are Policies and Proposals of Council on this planning item. There is a plan for solar panels at the lagoon in the future.

On Page 52 of the Municipal Plan, it is a proposal of Council to Ensure new municipal buildings and retrofits are designed and built to minimize the carbon footprint of the municipality by reducing energy use and optimizing the use of renewable energy.


On Page 55 of the Municipal Plan, it is a policy of Council to 1) undertake the development of Renewable Energy Framework to provide guidance around the management of renewable energy technologies in the Town and understand how to encourage and support the uptake of renewable energy in the community; 2) Utilize the Framework to develop an action plan and policies toward incorporating renewable energy technologies within the Town's corporate operations as well as within the wider community, and 3) to collaborate with NB Power and other provincial authorities and organizations to develop and implement renewable energy policies within the Town that support and encourage household-scale renewable installations.

There was no specific mention of renewable energy uses in the Zoning or Subdivision bylaws, or any height exceptions for solar or wind installations.

On a policy level, the Town made allowances for siting of photovoltaics, case by case.

2.1.5. Preservation of natural lands in land use practices

Scoring: Scale

Preservation of natural assets is enhanced through at least one of: **conservation easements, land acquisition, and/or incentives.** [3 points] 

Natural assets are identified and preserved through the **community's zoning bylaw, and Site Plan Control and Plans of Subdivision** where applicable. [2 points]

Natural assets, such as ecologically significant or sensitive areas, watersheds and/or permafrost, are **identified for preservation** in the community's Official Plan. [1 point]

NOTES:

On page 14 and 15 of the Municipal Plan, the Town's Sustainability Goals include goals:

- Develop a framework for sustainable development and management of parks, open spaces...
- Promote development that supports a sustainable community that is sensitive to the natural environment...
- to Respect and encourage the protection and enhancement of the natural environment and other distinctive features of the landscape to support a healthy ecosystem...
- to develop an interconnected system of natural areas and features with public access...
- to protect and manage the quality and supply of surface water resources...

In addition, on Page 23 and 24 of the Municipal Plan, it states that it is a policy of Council to ensure that all subdivision of land will be accompanied by 10% of the area subdivided being dedicated for public use; and to prohibit development when a site is marshy, subject to flooding, excessively steep or unsuitable or development because of soil conditions or topography; and to discourage development in physically unsuitable or environmentally sensitive areas. On Page 25, it states it is a policy of Council to Preserve and enhance river banks, beaches, watercourses, wetlands and important habitat for flora and fauna; to require that activity in Environmentally Sensitive Areas be subject to the requirements of applicable provincial regulations; and to require that activity in or near wetlands and watercourses be subject to the provisions of the Wetland and Watercourse Alteration Program. The Zoning Bylaw includes designations for Parks, Open Space, and Conservation Area. Open Space area protects municipal owned properties that remain undeveloped and provide protection, are a part of stormwater management infrastructure, provide a natural habitat for wildlife, or are augmented with trails providing linkage to other recreational and park facilities.

In addition, on Page 29, it states that Medium Density developments will be subject to several conditions, including the provision of a minimum of 30% of greenspace and adequate landscaped buffering. On Page 38, it states that Industrial Development will not be located in areas that will negatively affect land, air or water. On pages 46 to 49, it states it is a policy of Council to Preserve and enhance the natural and built environment for future generations; Work with organizations such as the Nature Trust of New Brunswick, Bird Studies Canada and Canada Wildlife Services to identify unique and sensitive natural areas which need to be protected, enhanced and conserved; and to refer all proposed development in Environmentally Significant Areas to the appropriate provincial authorities for comment. The Nature Trust of New Brunswick has designated two sites within the Town as Environmentally significant. The two sites are described in the provincial database and are in the vicinity of the former covered bridge area on the Hammond River as well as the Palmer Brook Road along Route 100 in the vicinity of Stock Farm Road - both sites contain examples of rare plants. The Plan also states it is a policy of Council to continue with the implementation of Watershed and Well field Protection Plans in accordance with Provincial regulations to ensure protection of the Town's groundwater and surface water resources. Finally, it states it is a policy to require provision of buffer areas (green belt areas, strips of trees or shrubs) around commercial or industrial uses, parking lots, or other unpleasant grounds or buildings.

The town does land acquisitions to protect natural spaces on a case by case basis.

2.1.6. Programs to expand and enhance green space, and mitigate urban heat island effect

Scoring: Checklist

The local government and/or other community organization(s) promote the **expansion and enhancement of green space** through initiatives such as:

- Expanding parkland
- Promoting of green roofs
- Creating urban gardens or vegetation into streetscaping
- Creating urban farming
- Shade tree-planting or expanding urban forest (in coordination with utility)

[2 points; 1 point per]

✓✓

The local government and/or other community organization(s) **mitigate urban heat island effects** through initiatives such as:

- Cool roofs or pavement policies
- Education programs of urban heat island effects
- Urban heat island effect-specific goal (temp., permeable surfaces, green space)

[1 point]

*Any of the initiatives listed to expand/enhanced green space

NOTES:

On page 14 and 15 of the Municipal Plan, the Town's Sustainability Goals include goals:

- Develop a framework for sustainable development and management of parks, open spaces...
- Promote development that supports a sustainable community that is sensitive to the natural environment...
- to Respect and encourage the protection and enhancement of the natural environment and other distinctive features of the landscape to support a healthy ecosystem...
- to develop an interconnected system of natural areas and features with public access...
- to protect and manage the quality and supply of surface water resources...

On page 48 of the Municipal Plan, it states it is a policy of Council to protect and preserve existing trees and shrubs and promote a tree planting program along public roads and streets; and to require developers to maintain as many of the existing large trees on a building lot as possible.

The Zoning Bylaw includes designations for Parks, Open Space, and Conservation Area. Open Space area protects municipal owned properties that remain undeveloped and provide protection, are a part of stormwater management infrastructure, provide a natural habitat for wildlife, or are augmented with trails providing linkage to othper recreational and park facilities.

In addition, on Page 29, it states that Medium Density developments will be subject to several conditions, including the provision of a minimum of 30% of greenspace and adequate landscaped buffering.

The Municipal Plan states it is a policy to require provision of buffer areas (green belt areas, strips of trees or shrubs) around commercial or industrial uses, parking lots, or other unpleasant grounds or buildings.

On Page 71 of the Municipal Plan it states it is a policy of Council to support community gardens and other initiatives that promote locally grown food.

Green roofs are rare, but can be used as part of stormwater mitigation.

2.2 Energy Networks

Community Score: 16.5 / 22 (75%)

2.2.1. Public engagement and education on energy delivery systems

Scoring: Checklist

Members of the public are **informed of initiatives** and educated on energy networks through basic methods, such as:

- Website updates
- Newsletters
- Print materials (such as brochures, fact sheets, information packages)
- Social media updates
- Webinar or conference calls
- Open houses

[0.5 point]

½

Members of the public are **engaged on energy networks** through innovative methods, such as:

- Highly creative or interactive web-based reporting
- Highly creative or interactive open houses or participation at community events
- Advanced social media/networking
- Embedded videos
- Innovative stakeholder feedback mechanisms
- Interactive workshops
- Tables/participation at community events
- School promotion

[1 point]

✓

Public engagement and educational activities are **developed/delivered collaboratively** between multiple stakeholders.

[0.5 point]

NOTES:

The Town does public education and engagement, through open houses, sessions in schools, public consultations / presentations / hearings, and green initiatives at town events. Information about NB Power's plan to modernize the grid can be found on our website, as well as information on how to understand your bill, an outage map where you can lookup by phone number or account and see if there are any outages reported in your area and their status, and also information and research and development projects currently happening in NB related to DERs and Smart Grid. NB Power is also often out in the community attending trade shows, home shows and community events where we discuss issues of importance to our customers and provide them with access to resources. Reference materials: www.nbpower.com; <https://www.nbpower.com/Open/Outages.aspx>; <https://www.nbpower.com/en/smart-grid/>; <https://www.nbpower.com/en/accounts-billing/>; <https://www.nbpower.com/en/smart-grid/shediac-smart-energy-community-project/>

2.2.2a. Electrical load management

Scoring: Scale

Peak shaving results are shared to relevant stakeholders, lessons learned identified and documented.	[3 points]	
Peak shaving measure in place and being tracked.	[2 points]	↑
Peak shaving measures considered in planning processes.	[1 point]	

NOTES:

The Town monitors what happens on waste water pumping and treatment. The Town is looking at installing a solar array at lagoon in the future. At this stage the Town is monitoring, and looking for ways to manage. Peak demand management and reduction is being pursued at the Roberts Lane/Gondola Point Wastewater Pumping Station upgrade project; the replacement of the Longwood Pumping Station. There is also engineered wetland at Wildwood Park to reduce demand on water treatment. NB Power offers programs to support demand management to municipal staff. It's up to the municipality to identify what type of 'peaking'. Energy Advisor can assist to identify peak shaving measures. NB Power has developed the Energy Smart Plan for NB, as outlined in the Integrated Resources Plan. The ESNB plan has 3 pillars: Smart Grid, Smart Habits and Smart Solutions with targets to reduce both overall energy consumption as well as peak demand. The targets for energy and peak reduction and how they will be achieved are outlined in the Demand Side Management Plan: https://www.nbpower.com/media/1489275/dsm_plan-2019-2021-en.pdf

2.2.2b. Natural gas load management

Scoring: Scale

Peak shaving results are shared to relevant stakeholders, lessons learned identified and documented.	[3 points]	N/A
Peak shaving measure in place and being tracked.	[2 points]	N/A
Peak shaving measures considered in planning processes.	[1 point]	N/A

NOTES:

2.2.3a. Climate risk management in electric utility asset management and operations

Scoring: Scale

Actions to address risks and/or avoid or mitigate impacts are shared to relevant stakeholders within the community, lessons learned identified and documented.	[4 points]	↑
Actions have been implemented to address risks and/or avoid or mitigate impacts.	[3 points]	
Actions have been identified that can be taken to address risks and avoid or mitigate impacts.	[2 points]	
Risks have been identified in asset management plans, resilience plans, or risk assessments. This should include slow on-set risks, such as permafrost thawing or sea level rise, and rapid onset such as flooding, extreme heat and forest fires.	[1 point]	

NOTES: (next page)

NB Power is continually monitoring and upgrading infrastructure to be more resistant to climate change. For example, in 2018 NB Power launched a \$92M capitol project to reinforce poles to better withstand severe ice storms (as experienced in 2017). Updated policies have also been put in place for vegetation management, as well as “build back better” standards for much of the infrastructure. NB Power has also partnered with IBM’s the Weather Company to better predict outage severity and grid impacts in advance of major weather events so that we can react proactively ahead of a storm. NB Power has participated in numerous Resilience Planning workshops and provincial exercises, and public presentations, on the impacts on climate change on their infrastructure and the actions they are taking to adapt.

2.2.3b. Climate risk management in natural gas utility asset management and operations

Scoring: Scale

Actions to address risks and/or avoid or mitigate impacts are shared to relevant stakeholders within the community, lessons learned identified and documented.	[4 points]	N/A
Actions have been implemented to address risks and/or avoid or mitigate impacts.	[3 points]	N/A
Actions have been identified that can be taken to address risks and avoid or mitigate impacts.	[2 points]	N/A
Risks have been identified in asset management plans, resilience plans, or risk assessments. This should include slow on-set risks, such as permafrost thawing or sea level rise, and rapid onset such as flooding, extreme heat and forest fires.	[1 point]	N/A

NOTES:

2.2.4. Natural gas infrastructure is used for electric storage

Scoring: Scale

A power-to-gas project has been developed .	[2 points]	N/A
An assessment/study of power-to-gas opportunities has been completed within the past three years.	[1 point]	N/A

NOTES:

2.2.5. Thermal grids that utilize local and/or renewable thermal energy resources

Scoring: Scale

There is a plan or project in place to integrate local/renewable thermal sources, thermal energy storage, and/or lower temperature distribution piping into thermal grids.	[3 points]	
A thermal grid(s) are established .	[2 points]	↑
A feasibility assessment/study for thermal grids has been completed within the past 3 years. This may include heat/cooling load densities [demand], available thermal energy sources [supply]), and economic feasibilities.	[1 point]	

NOTES:

QPlex - waste heat from chillers/compressors, and using it for heating the water for the pool. There is also a heat sink.

2.2.6. Infrastructure to support alternative fuel vehicles

Scoring: Checklist

An assessment/study of alternative fuel opportunities (based on location, CEP, impact to electric and/or gas grids, costs, etc.) has been completed in the past 3	[2 points; 1 per fuel assessed]	
Alternative fuel infrastructure project(s) have been developed in the community.	[1 point]	✓
Utility(ies) have (and follow) plans/processes/programs in place to integrate alternative fuelling infrastructure into their grid(s)	[1 point]	✓
Results of projects have been shared across community , with lessons learned identified and documented.	[1 point]	

NOTES:

On Page 51 of the Municipal Plan, it states it is a policy of Council to continue to support, promote and develop transportation options, within the financial capacity of the Town, which reduce carbon gas emissions such as expanding public transit routes and facilities, and providing access to charging systems for electric cars. In 2018, Quispamsis counted 12 public N2 charging stations in its territory. The Town is implementing an electric vehicle charging station downtown this year (2020). Local Hotel will also be adding EV charging stations next year. NB Power implemented the e-charge network to increase EV charging across the Province and provincial highways, every 65 kms. It The e-charge program offers municipalities the opportunity to expand EV charging in their community by participating in our Community Champion program: <https://echargenetwork.com/become-a-champion>

2.2.7. Smart grid technologies used in electricity distribution infrastructure

Scoring: Checklist

The electric utility has plans/processes/programs in place , within the community, to integrate and promote:	[2 points; 1 point per]	✓✓
Grid level smart technologies		
Home level smart technologies		
When integrating smart grid technologies, the electric utility considers :		
Cybersecurity considerations in plan or implementation of projects	[3 points; 1 point per]	✓✓
Data sharing policy		✓
Partnerships with builder/real estate developer		

NOTES:

Application for installation of smart meters currently in front of the EUB. <https://www.nbpower.com/en/smart-grid/smart-meters/>; As part of Smart Grid Atlantic, a \$92M project with funding from the Federal Government, NB Power is also in the process of building 3x Smart Energy Communities in NB: a First Nations microgrid community, a net-zero new homes project using nano-grid technology, and a 500 home retrofit project deploying a variety of energy technologies hooked to an Energy Services Platform to manage the variety of DERs to be deployed. NB Power cannot, for obvious reasons, publish their cybersecurity plans :) Considerations include ongoing training of all employees and a cybersecurity department under our CTO: <https://www.nbpower.com/en/about-us/careers/cybersecurity/> As a GNB entity, all customer data is protected under RTIPA: <http://laws.gnb.ca/en/ShowTdm/cs/R-10.6//>. NB Power is also piloting a net-zero new homes program and a retrofit program with local builders and contractors that will test a variety of technologies, including cybersecurity equipment.

2.3 Waste & Water

Community Score: 12.5 / 16.5 (76%)

2.3.1a. Public engagement and education on water and wastewater conservation, and its relationship with

Scoring: Checklist

Members of the public are **informed** of initiatives and **educated on water/wastewater conservation** through basic methods, such as:

- Website updates
- Newsletters
- Print materials (such as brochures, fact sheets, information packages)
- Social media updates
- Webinar or conference calls
- Open houses

[0.5 point]

½

Members of the public are **engaged on water/wastewater conservation** through innovative methods, such as:

- Highly creative or interactive web-based reporting
- Highly creative or interactive open houses or participation at community events
- Advanced social media/networking
- Embedded videos
- Innovative stakeholder feedback mechanisms
- Interactive workshops
- Tables/participation at community events
- School promotion

[1 point]

✓

Public engagement and educational activities are **developed/delivered collaboratively** between multiple stakeholders.

[0.5 point]

NOTES:

The Town does public education and engagement, through open houses, sessions in schools, public consultations / presentations / hearings, and green initiatives at town events. On page 47-48 of the Municipal Plan, it is stated that a policy and proposal of Council is to undertake a public education program encouraging residents to conserve water and to limit its use, especially during dry periods when wells are likely to be lowered, and to encourage restraint regarding the use of water during dry seasons, including activities such as watering lawns, washing cars, and filling swimming pools.

2.3.1b. Public engagement and education on waste management, and its relationship with energy

Scoring: Checklist

Members of the public are informed of initiatives and educated on waste management through basic methods, such as: - Website updates, Newsletters, Print materials (such as brochures, fact sheets, information packages), Social media updates, Webinar or conference calls, Open houses	[0.5 point]	½
Members of the public are engaged on waste management through innovative methods, such as: - Highly creative or interactive web-based reporting, open houses or participation at community events - Advanced social media/networking, Embedded videos - Innovative stakeholder feedback mechanisms and Interactive workshops - Tables/participation at community events, School promotion	[1 point]	✓
Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.	[0.5 point]	

NOTES:

The Town does public education and engagement, through open houses, sessions in schools, public consultations / presentations / hearings, and green initiatives at town events. Could do more to educate on the relationship between waste and energy.

2.3.2. Energy recovery from waste

Scoring: Checklist

The production of electrical, thermal, or chemical energy products from landfill waste materials such as: - Incineration - Gasification - Depolymerization	[1 point, 0.5 point for feasibility]	N/A
The production of electrical, thermal, or chemical energy products from organic waste materials such as: - Incineration - Gasification - Depolymerization - Anaerobic digestion - Pyrolysis - Fermentation	[2 points, 0.5 point for feasibility]	N/A
The production of electrical, thermal, or chemical energy products from wastewater materials such as: - Gasification - Anaerobic digestion - Fermentation	[1 point, 0.5 point for feasibility]	N/A

NOTES:

Check with Mark McLeod, Fundy Service Commission -
mmacleod@fundyrecycles.com 738-1214 or 1213

2.3.3. Waste reduction

Scoring: Checklist

<p>Landfill diversion programs run by the local government or other community organization(s) are in place for reducing landfill waste including:</p> <ul style="list-style-type: none"> - Garbage bag collection tags/limits or tipping fee - Plastic bag bans - Re-use or community swap days 	<p>[2 points; 1 point per program]</p>	✓
<p>Landfill diversion programs are in place for hazardous/special waste .</p>	<p>[0.5 point]</p>	½
<p>Programs run by the local government or other community organization(s) are in place for improving non-residential waste diversion such as:</p> <ul style="list-style-type: none"> - Recognition for high performers - Expanding recycling or organic waste programs to include eligible ICI or CRD waste 	<p>[2 points; 1 point per program]</p>	✓
<p>Programs run by the local government or other community organization(s) are in place for collecting and recycling:</p> <ul style="list-style-type: none"> - Glass - Paper - Plastics - Metals - Electronic waste - Textiles 	<p>[3 points; 0.5 point per material]</p>	✓✓
<p>Integration and reporting into community energy planning process.</p>	<p>[0.5 point]</p>	

NOTES:

Solid Waste collection and reduction is the responsibility of Fundy Regional Service Commission / Fundy Solid Waste Commission. The Town pays for collection contract which includes residential garbage, compost pickup, and curbside recycling. The Solid Waste Collection and Disposal Bylaw, on Page 14, identifies organics eligible for collection, and on Page 16 identifies eligible recyclable waste. The town is also promoting Extended Producer Responsibility for Packaging and Paper, and is in the process of adopting a by-law to ban single use plastic bags. On Page 15 of the Municipal Plan, a Sustainability Goal includes promoting and encouraging waste reduction in all sectors of life within the Town and provide systems for local waste reduction, recycling, and reuse, in concert with the regional Fundy Solid Waste Commission. On Page 52 of the Municipal Plan, it states it is a proposal of Council to undertake a waste audit of all municipal operations and develop a strategy for waste reduction targets to reduce municipal waste by 2025. On page 59, it states it is a policy of Council to ensure adequate waste (solid, liquid, hazardous) management procedures (storage, collection, transportation and disposal), in concert with the Fundy Region Solid Waste Commission. And on Page 60, it is states a proposal of Council is to ensure the provision of solid waste collection and encourage efforts to reduce, reuse or recycle appropriate components of the waste stream in accordance with existing programs, and to promote and provide ongoing support for the municipal curbside pick-up garbage and recycling service in accordance with the financial capacity of the Town. On pages 70-71, it is stated that a policy of Council is to support and expand recycling programs and initiatives through its own initiatives and by local organizations and government departments; and to continue to work cooperatively with other municipalities in the region to develop improved solid waste management practices. On page 42 of the Community GHG and Energy Action Plan, The Town intends to promote and establish a " domestic composting culture "with the population through actions such as training, composting, etc. This project involves the distribution of 650 domestic composters as soon as possible.

2.3.4. Water and wastewater programs

Scoring: Checklist

The community has water infrastructure initiatives , such as:		
- Leak detection and repair	[1.5 points; 0.5 point per]	✓
- Water meters/water-use monitoring		
- Pressure reducing valves		
- Efficiency upgrades to wastewater treatment equipment		
The community has retrofit programs to conserve water , such as targeting:		
- Toilet dams	[1.5 points; 0.5 point per]	✓½
- Low-flow showerheads		
- Faucet aerators or washers		
- Rainwater collection		
The community has a program in place to promote potable or non-potable water reuse .	[0.5 point]	
Integration and reporting into community energy planning process.	[0.5 point]	

NOTES:

Only a small component of residents are on the municipal water system (2 systems), which is slowly expanding. The majority of households are on private wells. On page 58 of the Municipal Plan, it states it is proposal of Council to continue to evaluate options for provision of a municipal water system on a phased basis and in accordance with the Five-Year Capital program and funding available from other levels of government, to expand current water systems. On page 47-48 of the Municipal Plan, it is stated that a policy and proposal of Council is to undertake a public education program encouraging residents to conserve water and to limit its use, especially during dry periods when wells are likely to be lowered, and to encourage restraint regarding the use of water during dry seasons, including activities such as watering lawns, washing cars, and filling swimming pools. On page 36 of the town's Corporate GHG and Energy Action Plan, it includes measures to improve water conservation and energy efficiency of water and sewage systems.

2.3.5. Low impact development and resilient storm water management

Scoring: Checklist

The community has programs to manage stormwater and reduce peak flow , such as:		
- Stormwater retention ponds/tanks	[2 points; 1 point per, 0.5 point for pilot]	✓✓
- Bioswales		
- Rain gardens		
- Permeable pavement		
Storm water management initiative(s) consider future climate risks .	[0.5 point]	½
Integration and reporting into community energy planning process.	[0.5 point]	

NOTES: (next page)

The Town has Drainage Plans and Capital 2020 Projects include storm sewer work. The Open Space designation in the Zoning by-law protects conservation areas and areas that act as a natural stormwater management buffer. It is policy of Council to use Open Space land use designation for municipal owned properties that provide protection to the natural environment, or are part of stormwater management infrastructure (P. 43 of the Municipal Plan). On Page 44 of the Municipal Plan, it is a proposal of Council to undertake and implement an Open Space Management Strategy Plan. On page 48 of the Municipal Plan, it states it is a proposal of Council that all new development will be encouraged to utilize stormwater management practices that focus on ground water recharge such as open channel flows, retention basins, bio-swales, rain gardens, and minimizing the use of impervious surfaces. On Page 52-53, the Plan states it is a policy of Council to: through development regulations, prohibit new structures within environmental sensitive area, flood risk areas, and significant natural drainage areas; to consider the potential impacts of climate change and requirements for climate change adaptation in the development of any major new infrastructure projects particularly those situated along or in close proximity to the coast or flood prone areas; to undertake the development and implementation of a Watershed and Stormwater Management Plan. To date, the Town has required new developments within the Town to submit engineered stormwater management plans to ensure stormwater drainage from developments are managed in a safe and efficient manner and maintaining a Net Zero balance between pre and post development flows - While this initiative has resulted in a decrease in the stormwater related incidences, the Net Zero requirement is not part of a policy of the Town and to become fully enforceable needs to be part of a regulatory article (i.e. a plan, policy or by-law). On Page 82-83, it is a proposal of Council to identify and protect the natural environmentally sensitive areas, the significant drainage areas and the natural assets of the Town by delineating such features and areas on the Future Land Use Map, the Zoning Map, and any Watershed or Stormwater Management maps, as well as restricting levels of development that can occur within these areas.

It is also a proposal of Council to undertake the development of a Municipal Watershed Mapping and Stormwater Management Program that will identify the key natural drainage areas and basins across the municipality as well as identify the predictive storm flows at a 1-100 year plus 20% to identify areas within the Municipality that are prone to flooding, and to undertake the development of policies that assist in development of a set of standards and constraints within the Zoning and Subdivision By-laws to mitigate risk and address the issues as they relate to development that may impact environmentally sensitive areas and critical drainage paths; reduce environmental impacts and risks to public safety from flooding; and encourage and promote open channel flows. On Page 59, it states it is a proposal of Council to maintain and improve stormwater management systems in accordance with the Town's financial capacity. On Page 15 of the Development Scheme Bylaw for Millennium Drive requires new developments surface water run-off to be minimized and detained on-site if possible. Detention ponds or swales shall be sculpted in a natural free form shape. If it is not possible to detain water on-site, downstream improvements to the channel may be required of the developer to prevent flooding caused by their project. The natural state of watercourses, swales, flood ways, or rights-of-way shall be maintained as nearly as possible. The design period is the 50-year storm. On P. 9 of the Sewerage Utility By-law, it states: "backwater valves are to be installed on building drains, inside foundation walls on all new building construction regardless of elevation. new subdivision bylaw and standards - in 2021, will encourage these types of measures. Also, the Town is working with UNB to identify drainage / wet areas mapping, important for stormwater management, and to develop Overlay zoning, for additional regulations/requirements for development in certain areas.

2.4 Transportation

Community Score: 21.5 / 25.5 (84%)

2.4.1. Public engagement and education on mobility networks

Scoring: Checklist

Members of the public are **informed** of initiatives **and educated on mobility networks** through basic methods, such as:

- Website updates
- Newsletters
- Print materials (such as brochures, fact sheets, information packages)
- Social media updates
- Webinar or conference calls
- Open houses

[0.5 point]

½

Members of the public are **engaged on mobility networks** through innovative methods, such as:

- Highly creative or interactive web-based reporting
- Highly creative or interactive open houses or participation at community events
- Advanced social media/networking
- Embedded videos
- Innovative stakeholder feedback mechanisms
- Interactive workshops
- Tables/participation at community events
- School promotion

[1 point]

✓

Public engagement and educational activities are **developed/delivered collaboratively between multiple stakeholders**.

[0.5 point]

NOTES:

The Town does public education and engagement, through open houses, sessions in schools, public consultations / presentations / hearings, and green initiatives at town events. On Page 86 of the Municipal Plan, it is stated that it is a proposal of Council to develop a Master Transportation Plan, which includes a Transportation Demand Management Strategy, which includes ... Education related to and awareness of transportation policies and strategies.

2.4.2. Active transportation integrated into a Transportation Master Plan

Scoring: Checklist

Transportation Master Plan **includes active transportation** or there is an Active Transportation Master Plan.

[1 point]

✓

Community has **mapped its active transportation network** and its relation to other mobility options.

[1 point]

✓

NOTES: (next page)

The Town of Quispamsis developed an Active Transportation Plan in 2011. The Town's Active Transportation Plan has been an important part of establishing the town's priorities with respect to the Town's Active Transportation infrastructure. On Page 15 of the Municipal Plan, the Town's Sustainability Goals includes goals to:

- Develop and maintain a safe and efficient transportation system in the Town that provides for all modes of travel...
- Develop an interconnected trail system, including bicycle trails where appropriate, that runs throughout the Town, links with regional trail systems, and allows individual opportunities for alternative modes of transportation and recreation
- Focus on developing and improving the physical connections between key destinations and focal area in the Town including the downtown core, commercial areas, educational institutions, open spaces and river access points.

On Page 51, it states it is a policy of Council to integrate Active Transportation planning concepts and principles into the Town's transportation and road network as a means of 1) addressing climate change 2) building a more sustainable community 3) reducing reliance on fossil fuel, and 4) improve public health through the use of alternative transportation modes including walking, running, bicycling etc. On page 57, it is an objective of the Town to update and implement its five-year Capital Program regarding the ongoing maintenance and improvement of the transportation network. In addition, When paving roads, and where appropriate, the Town incorporates sufficient road width for pedestrian lanes to give pedestrians more space and comfort while walking on streets without sidewalks.

On Page 43 of the Municipal Plan, it states that the majority of Open Space land use designations in the Town is linear in nature and is augmented with soft or hard surfaced trails for walking or bicycling and wayfinding signage as the primary focus to provide linkage between recreational facilities or key destination points. On page 44, it states it is a policy of Council to identify ways in which Open Space lands can be become a linked network. When subdividing lands, the Town will acquire Land for Public Purposes from the developer to expand the trail network.

On page 61-62, the Municipal Plan states it is an objective of the town to Provide and maintain a safe and efficient transportation network for vehicles, bicycles, and pedestrians; to provide and maintain the existing transportation infrastructure to acceptable standards for right-of-way, surface conditions, drainage, traffic flow and safety considerations. It states it is a policy of Council to provide for the safe movement of pedestrians and bicycles. It is a proposal of council to maintain and update the 25 year plan for upgrading of transportation network, including sidewalks, cul-de sacs, pedestrian walkways, crosswalks and traffic calming requirements; and to incorporate active transportation planning and principles into ongoing upgrades and resurfacing of the municipal road infrastructure. On page 71, it states it is a policy of Council to continue to develop and support alternative, safe and efficient pedestrian and cycling transportation systems.

It is a proposal of Council (P. 78) to review the Millennium Drive Development Scheme By-law and the 2011 Active Transportation Plan in conjunction with the development of a Gateway Enhancement Plan with the objective of creating a streetscape that...fosters safe and walkable corridors for the residents of the area and patrons to the business community.

It is a proposal of Council (P. 85) to undertake the development and implementation of a Master Transportation Plan comprised of, but not limited to, the following components: a Pedestrian Plan (sidewalk priorities, pedestrian priority areas, greenways and trails, connectivity); a Bicycle Plan (enhanced network, facilities, support strategies), a street network plan, a transit strategy, and a transportation demand management strategy. It is also a proposal of Council to undertake a review of the Active Transportation Plan and incorporate the objectives, goals and principles into the Master Transportation Plan.

2.4.3. Transportation Demand Management

Scoring: Checklist

The community has basic infrastructure to **support active transportation**, including:

- Pedestrian-friendly sidewalks (expansion, streetscaping, shade tree planting)
- Bike parking facilities or bike racks
- Multi-use trails
- Public bike tire pumps
- Bike share programs
- Bike lanes (painted bike lanes, cycle tracks [spatial or physical separation], “shared roadways”/sharrows, contraflow bike lanes)

[4 points; 1 point per for implementation, 0.5 point per for assessment]

✓✓
✓✓

For small communities this may also include sidewalks in right-of-way planning and slow speed limits.

The community has **alternative car-transportation programs** to reduce single-occupancy vehicle travel, including:

- Carsharing programs
- Carpooling programs/lots
- Ride Sharing programs

[1 point; 1 point per for implementation, 0.5 point per for assessment]

The community has **public transit options** available, including:

- Buses*
- Bus rapid transit*
- Street rail**
- Light rail**
- Subway**

[3 points; 1 point per]

✓

*may only be appropriate to mid-large communities

**may only be appropriate to large communities

Available public transit systems make **efforts towards continuous improvement** such as increasing:

- Frequency of routes
- Accessibility (e.g. kneeling buses)
- Service to low-income housing
- Interconnectedness ('last mile' / multimodal integration e.g. bike parking, regional transit connection)

[1 point; 0.5 points per]


½

NOTES: (next page)

Town is making improvements for traffic calming and does ongoing road repairs and upgrades as part of Capital Projects. On Page 51 of the Municipal Plan, it states it is a policy of Council to continue to support, promote and develop transportation options,... such as expanding public transit routes and facilities. The Municipal Plan contains a number of policies/proposals and related Zoning bylaw, to encourage trail connectivity, active transportation infrastructure, etc. (See Active Transportation above). On Page 61 of the Municipal Plan, it states it is an objective of the town to provide and maintain the existing transportation infrastructure to acceptable standards for right-of-way, surface conditions, traffic flow and safety considerations, and to support the provision and safe operation of air, water, bus and rail transport systems to support residents and businesses. On Page 62 it states it is a proposal of Council to continue to support the regional transit system within the financial capacity of the Town and explore opportunities to expand the service within the Town. On Page 65 of the Municipal Plan, it states it is a proposal of Council that Home Based Businesses will be permitted as a Discretionary Use within residential areas (which could encourage telecommuting). On Page 85-86 it states it is a proposal of Council to undertake the development and implementation of a Master Transportation Plan comprised of but not limited to:...a Pedestrian Plan, a Bicycle Plan, a Street Network Plan, a Transit Strategy, and a Transportation Demand Strategy.

2.4.4. Alternative energy sources of public transit systems

Scoring: Scale


A procurement policy for alternative fuel transit fleet vehicles has been adopted .	[3 points]	
An alternative fuel transit fleet vehicle pilot project has been developed .	[2 points]	
Scoping (opportunities identified, feasibility assessments) for alternative fuels in public transit systems has been completed .	[1 point]	

NOTES:

The Town shares the COMEX Park & Ride services of City of Saint John, and related costs. NB Power has been involved in workshops with Saint John Energy related to e-buses. NB Power also worked with the City of Moncton to develop their Smart Cities proposal to create an e-bus system for the downtown core. In summary, NB Power has completed a scoping of opportunity/feasibility assessment

2.4.5. Anti-idling policies

Scoring: Checklist

A policy has been adopted and is enforced , or a program exists to encourage an alternative to idling (ex. block heaters, solar heating).	[0.5 point]	
--	-------------	---

NOTES:

An anti-idling policy was adopted by Council in 2009, for municipal vehicles only. It does not include a program of block heaters, but trucks have automatic timers. Page 36 of the Community GHG and Energy Action Plan has targets to encourage anti-idling in the community at large.

2.4.6a. Local government leadership by example in transportation demand management among staff

Scoring: Checklist

Support for transportation demand management and alternative fuel vehicles at

the workplace exists, such as:

- Bike racks or secure storage facilities
- Public tire pumps
- Showers and changing facilities
- Transit subsidies
- Carpooling
- Flexible work scheduling/remote working options
- Electric vehicle charging stations for employee or public use

[3 points; 1 point per]

✓✓
✓

NOTES:

At Town Hall, Q Plex, and other municipal facilities

2.4.6b. Public sector organization leadership by example in transportation demand management

Scoring: Scale

Support for transportation demand management and alternative fuel vehicles at the workplace **exists in all public sector organizations.**

[3 points]

N/A

Support for transportation demand management and alternative fuel vehicles at the workplace **exists in some public sector organizations.**

[2 points]

↑

Support for transportation demand management and alternative fuel vehicles at the workplace **exists in one public sector organization.**

[1 point]

N/A

NOTES:

Public buildings, such as government offices, schools, hospitals, provide amenities for active transportation (e.g. bike racks) and connectivity to trails, whenever possible - i.e. depending on municipal zoning, land use, proximity to AT infrastructure. During COVID-19, many government employees also worked remotely. There are EV charging stations at a few government facilities across the Province. In the future, additional amenities and support for active transportation and transportation demand management may be considered.

2.4.7a. Local government leadership by example with corporate-owned fleet greening

Scoring: Scale

A green procurement policy for fleet has been **adopted.**

[3 points]

↑

A green fleet vehicle pilot project has been **developed.**

[2 points]

A **feasibility study** for green fleet vehicles has been **completed** within the past 3 years.

[1 point]

NOTES:

In 2017, Quispamsis added a Chevrolet Volt to its fleet. On Page 50 of the Municipal Plan, it states the Town is investing in long term sustainability, including through purchasing several hybrid vehicles and an electric car as a forward step to, over time, converting a significant amount of the Town fleet to climate friendly vehicles.

2.4.7b. Electric utility is leading by example with corporate-owned alternative fuel fleet vehicles

Scoring: Scale

Alternative fuel fleet vehicles are seen as a strategic priority .	[3 points]	↑
An alternative fuel vehicle pilot project has been developed .	[2 points]	
A feasibility study for alternative fuel vehicles has been completed within the past 3 years.	[1 point]	

NOTES:

NB Power has 65 electric vehicles and hybrid vehicles on it's fleet, and is seen as a strategic priority.

2.4.7c. Natural gas utility is leading by example with corporate-owned alternative fuel fleet vehicles

Scoring: Scale

Alternative fuel fleet vehicles are seen as a strategic priority .	[3 points]	N/A
An alternative fuel vehicle pilot project has been developed .	[2 points]	N/A
A feasibility study for alternative fuel vehicles has been completed within the past 3 years.	[1 point]	N/A

NOTES:

2.5 Buildings

Community Score: 16 / 19 (84%)

2.5.1a. Public engagement and education on energy in single family residential buildings

Scoring: Checklist

Members of the public are informed of initiatives and educated on single family home energy use through basic methods, such as:		½
- Website updates		
- Newsletters		
- Print materials (such as brochures, fact sheets, information packages)	[0.5 point]	
- Social media updates		
- Webinar or conference calls		
- Open houses		
Members of the public are engaged on single family home energy use through innovative methods, such as:		✓
- Highly creative or interactive web-based reporting		
- Highly creative or interactive open houses or participation at community events		
- Advanced social media/networking		
- Embedded videos	[1 point]	
- Innovative stakeholder feedback mechanisms		
- Interactive workshops		
- Tables/participation at community events		
- School promotion		
Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.	[0.5 point]	½

NOTES: (next page)

The Town does public education and engagement, through open houses, sessions in schools, public consultations / presentations / hearings, and green initiatives at town events. On Page 52 of the Municipal Plan, it states it is a proposal of Council to provide updates to the public on measures being used by the Municipality to reduce its carbon footprint on an ongoing basis as a means of information and education.

Town does public education on energy efficiency in collaboration with / using information from NRCan (energy efficiency), NRC of Canada (building codes)

NB Power also uses basic methods of information (website, social media, etc. to engage and educate the public on single family residential building energy uses, and practices to improve home energy performance: <https://www.nbpower.com/homeenergyreport> NB Power also partners with other stakeholders, for example: with the Gaia Project to bring hands-on experiential learning opportunities to students. Such as the Energy Engineers program to teach grades 3-5 the basics of electricity generation, the Energy Detectives Program to teach the basics of an energy audit and how you can identify simple and low cost ways to save energy in your school and at home, and the Electrify your Ride program where students can get hands-on and under the hood of an EV! Also an intro to Smart Grid and how electrification of transportation and other sectors means we need to move to a smarter way of managing electricity. <https://thegaiproject.ca/en/programs/>

2.5.1b. Public engagement and education on energy in other buildings

Scoring: Checklist

Members of the public are **informed** of initiatives and **educated** on **multi-unit residential, commercial, or other building energy use** through basic methods, such as:

- Website updates
- Newsletters [0.5 point] ½
- Print materials (such as brochures, fact sheets, information packages)
- Social media updates
- Webinar or conference calls
- Open houses

Members of the public are **engaged on multi-unit residential, commercial, or other building energy use** through innovative methods, such as:

- Highly creative or interactive web-based reporting
- Highly creative or interactive open houses or participation at community events
- Advanced social media/networking
- Embedded videos [1 point] ✓
- Innovative stakeholder feedback mechanisms
- Interactive workshops
- Tables/participation at community events
- School promotion

Public engagement and educational activities are **developed/delivered collaboratively** between multiple stakeholders. [0.5 point] ½

NOTES: (next page)

The Town does public education and engagement, through open houses, sessions in schools, public consultations / presentations / hearings, and green initiatives at town events. On Page 52 of the Municipal Plan, it states it is a proposal of Council to provide updates to the public on measures being used by the Municipality to reduce its carbon footprint on an ongoing basis as a means of information and education.

Town does public education on energy efficiency in collaboration with / using information from NRCan (energy efficiency), NRC of Canada (building codes)

NB Power also uses basic methods of information (website, social media, etc. to engage and educate the public on building energy uses, and practices to improve energy performance. NB Power offers advice and incentives on how to make buildings more energy efficient. NB Power also has an Energy Management Service Provider Network customers can access to receive a subsidized energy audit. [Saveenergynb.com](http://saveenergynb.com)

NB Power offers an annual energy efficiency conference which brings together a variety of stakeholders and customers to discuss, educate, engage and inform our partners and interested attendees on all things energy efficient. We also offer ongoing workshops in partnership with CIET and other organizations. NB Power also regularly attends conferences, such as the Smart Energy Event in Nova Scotia, or our own Energy Innovations Forum, as a presenter or as participant in a variety of panel discussions related to the industry. Interested parties can also register on our website to be notified when new workshops or courses will be offered by NB Power and its partners: <https://www.nbpower.com/en/save-energy/events-and-training/>

2.5.2a. Local government leadership by example in corporate-owned facilities

Scoring: Checklist

Corporate process is in place to improve energy efficiency, including through energy standards/certifications and a schedule for regular recommissioning, in existing corporate facilities .	[0.5 point]	½
Corporate process is in place to improve energy efficiency, including through energy standards or certifications, in new corporate facilities .	[0.5 point]	½
A process is in place to procure local/renewable heat/electricity for corporate facilities.	[0.5 point]	½
A process exists to use a benchmarking, labelling and disclosure system for corporate-owned facilities .	[0.5 point]	

NOTES: (next page)

On Page 19 of the Municipal Plan, it states a policy of Council is: to continue to expand and maintain efficient and cost-effective services and amenities to serve citizens and attract newcomers to the town.

On Page 50, the Municipal Plan states the Town is investing in long term sustainability, including for: Building retrofits and expansions using LEED Gold and Green Globe building designs. On Page 51, it states it is an objective of the Town to continue to reduce the Town's carbon footprint and resultant GHG emissions. On Page 52, it states it is a proposal of Council to ensure new municipal buildings and retrofits are designed and built to minimize the carbon footprint of the municipality by reducing energy use and optimizing the use of renewable energy.

On Page 90, it states it is a proposal of Council to undertake the development and implementation of an Asset Management Program.... and to manage the assets in a sustainable manner.

On page 29 of the town's Corporate GHG and Energy Action Plan, it includes measures to improve the efficiency of municipal buildings with a target of 15% reduction in energy use.

2.5.2b. Electric utility leadership by example in owned facilities

Scoring: Checklist

The electric utility has developed a new high performance utility-owned facility, or retrofitted an existing facility, that demonstrates leadership in energy efficiency and/or the use of local/renewable energy sources.	[0.5 point]	½
The electric utility uses a benchmarking, labelling and disclosure system for all owned facilities .	[0.5 point]	
Energy performance of utility-owned facilities is seen as a strategic priority for the electric utility.	[1 point]	✓

NOTES:

NB Power has a fulltime Energy Manager who works with Facilities Management and Station Services to identify and implement energy savings opportunities.

2.5.2c. Natural gas utility leadership by example in owned facilities

Scoring: Checklist

The natural gas utility has developed a new high performance utility-owned facility, or retrofitted an existing facility, that demonstrates leadership in energy efficiency and/or the use of local/renewable energy sources.	[0.5 point]	N/A
The natural gas utility uses a benchmarking, labelling and disclosure system for all owned facilities .	[0.5 point]	N/A
Energy performance of utility-owned facilities is seen as a strategic priority for the natural gas utility.	[1 point]	N/A

NOTES:

2.5.2d. Public sector organization leadership by example in local facilities

Scoring: Checklist

<p>Energy efficiency retrofits of existing buildings, including certification of previously uncertified buildings, have been demonstrated in at least 1 public sector organization in the past 3 years.</p>	<p>[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]</p>	<p>✓</p>
<p>High performance of new buildings has been demonstrated in at least 1 public sector organization building constructed in the past 10 years.</p>	<p>[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]</p>	<p>½</p>
<p>Use of local/renewable heat/electricity has been demonstrated in at least 1 public sector organization in the past 3 years.</p>	<p>[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]</p>	<p>½</p>
<p>Benchmarking and public disclosure of performance of buildings has been demonstrated in at least 1 public sector organization.</p>	<p>[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]</p>	<p>✓</p>

NOTES:

Quispamsis Q-Plex was built to LEED standards. The new francophone school was built to 1997 National Energy Code for buildings. Anglophone schools have undertaken energy efficiency improvements. The Town issued permits for small solar panel arrays. Many of the High Schools in NB have undergone energy efficiency retrofits. Some have installed solar PV arrays, and 15 schools have converted from oil to biomass pellets / boiler system using sustainable waste biomass. There are approximately 740 government owned buildings in N.B. - they target the most intense energy users for energy efficiency improvements and solar PV or biomass pellets where feasible, other buildings are undergoing efficiency audits, others are focused on maintenance only. All new buildings built by Government/ DTI are built according to the Provincial Green Building Policy, to LEED 2009 or Green Globes standards, which includes high energy performance, measurement, and active transportation.

2.5.2e. Community-wide private sector leadership in incorporating energy efficiency and distributed energy

Scoring: Checklist

Energy efficiency retrofits of existing buildings , including certification of previously uncertified buildings, have been demonstrated by at least 1 private sector building owner/operator in the past 3 years.	[2 points; 1 point for one, 2 points for multiple]	✓✓
High performance of new buildings has been demonstrated by at least 1 private sector developer building constructed in the past 10 years.	[2 points; 1 point for one, 2 points for multiple]	✓✓
Use of local/renewable heat/electricity has been demonstrated in at least 1 privately owned/operated or developed building in the past 3 years.	[2 points; 1 point for one, 2 points for multiple]	✓✓
Benchmarking and public disclosure of performance has been demonstrated by at least 1 private sector building owner/operator .	[2 points; 1 point for one, 2 points for multiple]	

NOTES:

On page 97 of the Municipal Plan, it is an objective of the town to adopt a Building By-Law which is compatible with the Municipal Plan, and prescribes standards for design and construction of buildings. New dental office being built as net-zero ready. PV going onto another building. Small isolated projects, but not being managed by the town - it's more organic.

QUEST

