QUEST

SMART ENERGY COMMUNITIES BENCHMARK 2021

TOWN OF WOODSTOCK

Your Environmental Trust Fund at Work

New Nouveau Brunswick

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Town of Woodstock, New Brunswick

Introduction:

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

Key Recommendations / Identified Priorities:

Governance

1. 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.

Staff

3. Hire a building inspector, ensure training on energy efficiency.
4. 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.
5. Increase access to training on energy efficiency / community energy initiatives, for more municipal staff.
6. Ensure succession plan for staff with roles related to the Community Energy Plan.

Data

7. Developed detailed implementation strategy of actions in the CEP, and key performance indicators. Collect data on annual basis.
8. Ensure transparency about GHG inventory methodology and results, make it public.

Financial

9. Consider reinvesting savings from energy efficiency projects (e.g. AYR Motor Centre) into a revolving fund for Town operations including further efficiency measures. Consider additional financial vehicles such as operating budget allocations, or energy performance contracts.
10. Consider financial levers for encouraging densification (where appropriate)
11. Create a transparent and publicly available assessment of financing mechanisms (to offer or to take advantage of)
12. Access funding from upper-levels of government or the FCM, or utility incentives, to advance energy efficiency or active transportation measures.

Strategy

13. 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.
14. 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.
15. Conduct assessment of specific community energy initiatives (technical/financial) where needed.
16. Schedule review of progress on community energy initiatives, on a quarterly basis.
17. Establish schedule for renewal of community energy initiatives and the broader community energy plan or strategy (e.g. no later than target year of 2025).

Land Use

18. Engage the public on land use-energy impacts 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+A3
- Innovative stakeholder feedback mechanisms
- Interactive workshops
- Tables/participation at community events
- School promotion

19. Ensure renewable energy options and energy efficiency are mentioned and encouraged in the community's Official Community Plan (and Secondary Plans where applicable). Adopt energy efficiency performance standards for existing and/or new corporate buildings.
20. Ensure energy supply options are listed as permitted land uses in the community's zoning bylaws where applicable (ideally informed by energy mapping).
Note: There are 65 acres of municipal land for environmental education, active transportation etc.

Energy Networks

21. Engage the public 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

22. Develop public engagement and educational activities collaboratively between multiple stakeholders.
23. Expand peak shaving measures (e.g. recreational facilities, water treatment and pumping stations) and share results with relevant stakeholders, lessons learned identified and documented.
24. Conduct an assessment/study of alternative fuel or EV charging opportunities (based on location, CEP, impact to electric and/or gas grids, costs, etc.). Ensure EV charging for municipal fleet, and look at opportunities for funding from Green Municipal Fund.
25. If feasible, develop alternative fuel or EV infrastructure project(s) in the community
26. Results of projects have been shared across community, with lessons learned identified and documented.

Water and Waste

27. Engage the public on water/wastewater conservation and on waste management 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

28. Develop public engagement and educational activities collaboratively between multiple stakeholders.
29. Ensure programs are in place for improving non-residential waste diversion such as:
- Recognition for high performers
- Expanding recycling or organic waste programs to include eligible ICI or CRD waste
- Consider implementing a plastic bag ban

30. Integrate and report savings (from water conservation, and waste diversion) into the community energy planning process. This can include savings resulting from improving pumping stations to 3phase / variable speed, leak detection and repair, etc.
31. Implement a program to promote potable or non-potable water reuse.

Transportation

32. Engage the public 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

33. Develop public engagement and educational activities collaboratively between multiple stakeholders.
34. Consider implementing Anti-Idling bylaw for the community / zones.
35. Support transportation demand management, active transportation and alternative fuel vehicles at some/all facilities, such as:
- Bike lanes
- Bike share program
- Public tire pumps
- Carpooling incentives

- Electric vehicle charging stations for employee/student or public use

36. Conduct a feasibility study for alternative fuel vehicles, and develop a green fleet vehicle pilot project or procurement policy.

Buildings

37. Engage the public on energy use / energy efficiency in single family homes, multi-unit residential, commercial, or other buildings, 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

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

39. Establish a corporate process to improve energy efficiency, including through energy standards/certifications and a schedule for regular recommissioning, in existing corporate facilities.

40. Establish a process to procure local/renewable heat/electricity for corporate facilities.

41. Adopt a process use a benchmarking, labelling and disclosure system for corporate-owned facilities.

42. Consider energy performance requirements for new buildings, as part of the permitting process, and encourage benchmarking and public disclosure of energy performance by private sector building owner/operators.

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

1.1 Governance

Community Score: 9 / 11.5 (78%)

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

NOTES:

The CAO acts as a lead coordinator for climate change and energy related initiatives. A local non-profit group is engaged, interested in local renewable energy opportunities. Ad-hoc meetings occur with community groups. Interest to consider a committee.

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:

Meets every Tuesday morning with Department Heads. Corporate actions are implemented as part of Operations - upgrades to lighting, variable speed pumps, etc. looking for efficiency improvements. AYR Motor Center is being retrofit. Audits. Display board showing reduction of energy consumption and associated costs/GHG emissions. Municipal Plan identifies community priorities; process, policy, and by-laws are aligned. Shared responsibility / Goal.

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:

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:

The CAO or CAO assistant attends the QUEST NB-PEI Municipal Working Group, for knowledge sharing and learning best practices, resources, and tools. Town staff and councillors participate in UMNB, Federal meetings, conferences (except during COVID).

1.2 Staff

Community Score: 7 / 17 (41%)

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]	N/A
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:

CAO and staff as needed (combined), make up around 1 FTE.

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:

While none currently, this could change in 2021.

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: see 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:

While staff do not regularly participate in training about community energy, they do have meetings with contractors to discuss opportunities.

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:

NBBOA courses (not certain on energy efficiency). Building inspector attends workshops. New building inspector recently hired [1 point added]

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:

No formal succession plan for municipal staff. The approach is to do Training/Onboarding of internal staff or hiring externally.

1.3 Data

Community Score: 15 / 23 (65%)

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's Community Energy Plan / Climate Change Action Plan, was completed in 2018-19. It includes a GHG inventory, sector specific actions, a GHG reduction target approved in Council, and an overall timeline for implementation.

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's Community Energy Plan / The Town's Corporate Energy Plan / Climate Change Action Plan, was completed in 2018-19. It includes a GHG inventory, actions, a GHG reduction target approved in Council, and an overall timeline for implementation.

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:

The Municipal Plan states (P.3) nine key community priorities, including: to Develop a framework for adapting to the effects of Climate Change by preparing for increased extreme weather events and addressing development within flood prone areas. This includes provisions in the Zoning by-law. The Municipal Plan states (P.22) that the Province of New Brunswick requires municipalities to prepare for the impacts of Cliamte Change through adaptation plans and mitigation strategies. The Town has undertaken significant preparation in this respect, having completed infrastructure vulnerability assessments, flood risk assessments, and adaptation plans. On P.23, it states that Council shall consider the recommendations of their Climate Change Adaptation Plan when processing applications for development and in the issuance of any municipal permits; and that Council shall provide for a minimum building elevation through the Zoning By-law and in doing so ensure the most accurate flood and watercourse data are considered. Community Disaster Committee and Planning Advisory Committee, have roles. The Town also monitors water levels for flooding, and weather data.

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]	N/A
Municipal and/or utility **infrastructure and asset management planning has been integrated** into the energy mapping process.	[0.5 point]	N/A
A community-informed map layer of **social acceptance for community energy initiatives has been integrated** into the energy mapping process.	[0.5 point]	N/A

NOTES:

The Town of Woodstock engaged in a table-top mapping exercise as part of developing its Community Energy Plan / Action Plan. No technical energy mapping (of energy end use or renewables) has been done to date.

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**
NOTES:		

1.4 Financials

Community Score: 19 / 24 (79%)

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 identified

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:		

Through the Capital Budget, AYR Motor Centre is being retrofit, Lift stations upgrades, road upgrades + AT, etc. Transportation Plan in the works. Also relies on grants from upper levels of government, and utility incentives.

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:

No congestion.

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:

AT infrastructure is through the operating budget, and grants.

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]	**N/A**

NOTES:

New Zoning By-law encourages density, e.g. garden suites, basement apartments, central mixed-use (commercial/residential). These might qualify for waiving of permit fees or grant. Also promoting infilling around existing infrastructure.

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.

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

Total could increase, if repayment mechanism was established (e.g. PACE or on bill financing); currently N/A

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:

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 seperate 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: 11 / 17 (65%)

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 new Municipal Plan was developed with stakeholder and public engagement between November 2019 and January 2020, including through online surveys, social media, public open houses, and focus groups with developers and the business community. An analysis of the feedback collected led to the identification of nine key community priorities and the town's vision. Several of the priorities align well with the objectives of the Community Energy Plan. For example, mixed use development, infill and densification, active transportation, land preservation where needed, climate change, etc. (P. 3 of Municipal Plan). Stakeholders were also engaged two workshops, during development of their Community Energy Plan / Action Plan.

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

NOTES:

Not yet, but could be done by 2021, once QUEST launches new Accelerator Program.

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 Energy and Emissions Reduction Plan was adopted by Council, and included targets and sector specific actions. Benefits include being better prepared for climate change and energy cost savings. Management Group is responsible. Town has a priority list for actions, and who is responsible.

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]	

The Community Energy and Emissions Reduction Plan includes sector specific actions, including improving energy efficiency of buildings, addressing active transportation, waste reduction, etc.

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:

Specific initiatives are identified in the Community Energy and Emissions Reduction Plan, and have quantitative targets to measure success, and a timeline / prioritization. These initiatives align well with the Town's priorities as stated in the Municipal Plan (P. 3)

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:

No current schedule for review or renewal. Could be when the Plan matures (2025)

2.1 Land Use

Community Score: 8.5 / 10.5 (81%)

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 - 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]	

NOTES:

The Town engages the public for land use planning, but not explicitly energy impacts.

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) - Secondary suite bylaws - Reducing/eliminating Parking minimums	[1 point]	✓

NOTES:

The Municipal Plan states (P. 3) nine key community priorities, including: to create a inclusive approach to housing, increased variety of housing types and affordable housing; and to protect active agricultural lands and encourage the sustainable expansion of the agricultural industry. The Town's Future Land Use Map provides a framework for how the Town will evolve over the next ten years. The Town's goal is to encourage a pattern of land use which will growth the Town in an orderly, efficient, responsible and equitable manner. As per P.5, this includes concentrating new growth in areas that are adequately serviced, encouraging infill development in established neighborhoods, discouraging development in unsuitable areas. It also states that Council shall provide for a mix of residential housing types and densities in the Residential land use designation and provisions in the Zoning By-Law. On P.6, it states that Council shall actively encourage alternative subdivision designs which will seek to create sustainable communities. These will include design elements like openspace, conservation design, cluster design, fused grid, and other designs that focus on conservation of the natural environment and a more efficient use of land. It also states that Council shall provide for a mix of uses including residential, commercial, institutional as well as any other uses determined to be supportive of a vibrant Town core through appropriate provisions in the Zoning By-law. As part of Municipal Plan, strategy for downtown core (infill). On P.7. it states the Town will encourage the infiilling of appropriate areas of Connell Road with large scale commercial development. The Commercial and Industrial Zones shall provide for a mix of land uses. On P.12 it states a goal of the Town is to support the redevelopment and revitalization of the Downtown as the vibrant, mixed-use hub of the Town and Carleton County. It also states that Council shall explore targeted economic development efforst, a Development Incentive Program (for beautification, infilling, mixed use). On P.14 it states an objective of the town is to encourage a mix of housing types within new developments, encouraging increasingly dense housing types in appropriate areas, infill development in serviced areas, while protecting and enhancing the character of existing neighborhoods. It also states that Councill shall encourage the construction of affordable, high-quality housing at a mix of densities in areas with adequate connections to amenities such as health services, retail, schools, recreational areas, and active transportation networks.

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

NOTES:

According to the Municipal Plan (P.14), there are limited tools available at the municipal level to incentivize the construction of affordable housing. While buildings must comform with Building Codes, High energy efficiency performance of buildings is not specifically encouraged in the Municipal Plan or Zoning by-law. Currently looking at possibility of providing a grant related to energy efficiency, for commercial sector. Incentives are being considered, may be decided by end of 2020.

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]	N/A

NOTES:

Renewable Energy options are not specifically mentioned in the Municipal Plan (however energy efficiency is). In addition, while renewable energy supply options are not listed as permitted land uses in the Zoning By-Law, the Zoning By-Law states on P.8, the Council may (within any Zone), designate land to be used for the location or erection at any installation for the supply of electricity, telecommunication, etc. The Zoning By-Law also states (P. 13) that solar collectors may be permitted to project not more than .9 m from the main wall.

1 point total (0.5 points respectively) were added for the inclusion of energy efficiency and, while not specifically encouraged or listed, the provision in the Zoning By-Law that Council can designate land for energy installations, is a start.

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]	N/A
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:

The Municipal Plan includes policy for land preservation, and is supported by the Zoning By-Law and Future Land Use Map. On P.3 the Plan states the nine key community priorities, including to protect active agricultural lands and encourage the sustainable expansion of the agricultural industry; and addressing development in flood-prone areas. On P.5 it states Council shall encourage general growth and development that is cost effective, compatible with existing development, and incorporates sound environmental planning principles by: concentraing new growth in areas that are already adequately serviced; encouraging infill development, discouraging development in physically unsuitable or environmentally sensitive areas. On P. 9, it states that Council shall create the Agricultural and Resource Lands designation on the Future Land Use Map, and in doing so protect active and productive farmland and minimize encroachment of incompatible land uses (i.e. residential, commercial). On P. 10, it states that Council shall create the Environmental Protection Land Use designation on the Future Land Use Map with the intent of protecting environmental sensitive and significant lands throughout the Town, including along river banks, flood plains, wetlands, and riparian areas. On P. 21, it states that Council shall, when acquiring lands for Public Purposes through the subdivision process, endeavour to acquire lands that lie within 30 meters of a watercourse or wetland. The Zoning By-law states (P. 8) that no building or structure may be placed on any site if it is deemend to be marshy, subject to flooding, excessively steep, or otherwise unsuitable by virtue of its soil or topography. On P.30, it states that no development shall be permitted within 30 m of a watercourse or water body without the issuance of a Watercourse Alteration Permit, and no building shall be located within 10 m of a watercourse or water body, except for example a wharf. On P. 54, it states that no development shall be undertaken nor shall any land, building or structure be used within the Rural or Green Belt zone, for any purpose other than: agricultural use, stable, recreational use, or farm dwelling. On P.55 it states that Open Space Zone can be used for protection of environmentally sensitive areas, buffer along watercourses, etc. The Subdivision By-law states on P. 3, that as a condition of approval of a subdivision plan, land in the amount of eight percent of the area of the proposed subdivision, exclusive of streets, is to be set aside as Land for Public Purposes.

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) *Any of the initiatives listed to expand/enhanced green space	[1 point]	N/A

NOTES:

The Municipal Plan states (P. 13) that Council shall explore reinvestment in greenery along Main Street, specifically trees, to increase the provision of shade and improve the look and feel of the streetscape. Trees shall be of an Indigenous species that can thrive in the Town's environment. On P. 20, it states a goal of the Town is to provide a full range of parks, open space, and recreational facilities. There are at least 3 community gardens

2.2 Energy Networks

Community Score: 12.5 / 17 (74%)

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:

Information about NB Power's plan to modernize the grid can be found on their 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:

Peak monitoring and peak shaving measures are in place at AYR Motor Centre. 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:

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]	N/A
A **thermal grid(s) are established**.	[2 points]	N/A
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]	**N/A**
NOTES:		

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 years.	[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:		

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: Grid level smart technologies Home level smart technologies	[2 points; 1 point per]	✓✓
When integrating smart grid technologies, the **electric utility considers**: Cybersecurity considerations in plan or implementation of projects Data sharing policy Partnerships with builder/real estate developer	[3 points; 1 point per]	✓✓ ✓

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: 10.5 / 18.5 (57%)

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 has water metering in place, encourages conservation. Could do more to educate about the energy impact.

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 - 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]	**½**

NOTES:

According to the Municipal Plan (P.20), Council shall support the Western Valley Regional Service Commission's reduction and diversion initiatives through public awareness campaigns to increase participation rates in recycling and other initiatives to decrease the Town's volume of solid waste.

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 or - 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:		

2.3.3. Waste reduction		
Scoring: Checklist		
Landfill diversion programs run by the local government or other community organization(s) **are in place for reducing landfill** waste including: - Garbage bag collection tags/limits or tipping fee - Plastic bag bans - Re-use or community swap days	[2 points; 1 point per program]	✓✓
Landfill diversion programs are in place for hazardous/special waste.	[0.5 point]	½
Programs run by the local government or other community organization(s) **are in place for improving non-residential waste diversion** such as: - Recognition for high performers - Expanding recycling or organic waste programs to include eligible ICI or CRD waste	[2 points; 1 point per program]	
Programs run by the local government or other community organization(s) **are in place for collecting and recycling**: - Glass, - Paper, - Plastics, - Metals, - Electronic waste, - Textiles	[3 points; 0.5 point per material]	✓✓
Integration and reporting into community energy planning process.	[0.5 point]	
NOTES:		

The Town contracts solid waste collection. According to the Municipal Plan (P.20), Council shall continue its support of an representation on the Western Valley Regional Service Commission to represent the needs of the Town and ensure adequate service is maintained. Council shall support the Western Valley Regional Service Commission's reduction and diversion initiatives through public awareness campaigns to increase participation rates in recycling and other initiatives to decrease the Town's volume of solid waste. There is a limit of 2 bags per household, and a ban on plastic bags for spring and fall pick-ups.

2.3.4. Water and wastewater programs

Scoring: Checklist

The community has **water infrastructure initiatives**, such as: - Leak detection and repair, - Water meters/water-use monitoring, - Pressure reducing valves, - Efficiency upgrades to wastewater treatment equipment	[1.5 points; 0.5 point per]	✓
The community has **retrofit programs to conserve water**, such as targeting: - Toilet dams, - Low-flow showerheads, - Faucet aerators or washers, - Rainwater collection	[1.5 points; 0.5 point per]	✓
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:

Town has water meters in place. Is looking at doing upgrades to lagoon, and when replacing equipment looking for more efficient technology. NB Power promotes low flow showerheads and faucet aerators.

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, - Bioswales, - Rain gardens, - Permeable pavement	[2 points; 1 point per, 0.5 point for pilot]	✓✓
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:

The Municipal Plan states (P. 10) that the Town will limit the encroachment of development in areas prone to flooding, including river banks, flood plains, wetlands, etc. On P.18 the Municipal Plan states that the Town will provide storm sewer system upgrades in conjunction with roadway upgrades and other capital works projects. On P. 19, the Municipal Plan states that Council shall continue the program of separating combined storm and sanitary sewer systems; minimize runoff from new development and snow storage facilities; use appropriate techniques such as retention and detention ponds and grassed swales; etc. On P.22-23, the Municipal Plan states that Council shall provide for a minimum building elevation for new development through the Zoning By-law and in doing so ensure the most accurate flood and watercourse data are considered. The Zoning By-Law states (P. 8) that Council may (within any Zone) designate land to be used for the location or installation of sanitary and storm drainage. It also states that no building or structure may be placed on any site where it would otherwise be permitted in the Zoning Bylaw, if the Planning Advisory Committee determines the site is marshy, subject to flooding, excessively steep or otherwise unsuitable. On P. 13, it states that where lots to be developed are significantly below adjacent roadway elevation, that measures are in place for the control and management of surface water, that vegetation is preserved, and foundation wall not less than .5m above the crown of the street / access point. The lot-grading plan for new developments shall provide a means of directing surface drainage to an acceptable storm sewer system or dispersal point, and away from building dwellings. According to the Subdivision By-law, Storm Sewers and catch basins shall be installed pursuant to all structure locations as approved by the Town's Consulting Engineers. All storm water management activities consider future climate risk.

2.4 Transportation

Community Score: 16 / 21.5 (74%)

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, 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:

Some public engagement on active transportation, but could be improved. Could also educate about the energy impact of transportation options.

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:

The Municipal Plan states (P. 3) nine key community priorities, including: to Develop a well-connected and well-maintained transportation network that includes all modes of transportation (e.g. pedestrians, cyclists, and motorized vehicles). On P.4 it states an objective of the town is to encourage new residential development to be connected to the existing pedestrian and any future active transportation networks. On P.5 it states that Council shall review any applications received for residential subdivisions for compliance with subdivision by-law, and encourage the provision of trails, sidewalks, or walkways to promote active transportation and provide well-connected neighborhoods; and roadway design that limits vehicle speeds and consider accessibility of all residents, including cyclsts, pedestrians, and those with mobility challenges. On P. 8-9, it states that the Town will provide a full range of parks, trails, recreational facilities, open space, and natural areas to serve the community and region, and to encourage healthy and active residents. On P. 11 it states Council shall encourage new or redeveloped institutional developments to be connected to existing trails, amenities, and active transportation networks. On P. 17, it states it is an objective of the Town to inventory the Town's pedestrian trails, paths, and sidewalks, explore opportunities for increased active transportation, and understanding traffic flows and impacts. It also states that Council shall, through provisions of the Subdivision By-law, encourage developers to provide for pedestrian and active transportation connections into the established transportation network. On P.21, it states Council shall explore enhancing pedestrian and active transportation connection to the AYR Motor Centre. IT also states that Council shall develop standardized guidelines for the implementation of Lands for Public Purposes provisions that give regard to: Integrating with or providing connection to existing parkland, trail systems, or amenitites. The Zoning By-law states that Open Space zones have permitted use of pathways. The subdivision By-law states that new subdivisions should provide 8% of land for public use, including for walkways and connectivity to AT trails/routes. New development provides AT plans, but the Town does not have a fully mapped AT transportation network.

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) For small communities this may also include sidewalks in right-of-way planning and slow speed limits.	[4 points; 1 point per for implementation, 0.5 point per for assessment]	✓✓ ✓
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** *may only be appropriate to mid-large communities **may only be appropriate to large communities	[3 points; 1 point per]	**N/A**
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]	**N/A**

NOTES:

The Town has pedestrian friendly sidewalks, bike parking, and multi-use trails. Bike lanes are being assessed (in-progress). Carpooling programs exist at NBCC, and can be done ad-hoc in the community. There is no transit.

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

NOTES:

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]	**½**

NOTES:

There is an old Anti-Idling Policy but it is only for municipal staff, not 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:

Some municipal facilities have bike racks, including the AYR Motor Centre which also has showers and changing facilities. The Town also supports remote working, during COVID 19.

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**, such as: - Bike racks or secure storage facilities - Public tire pumps - Showers and changing facilities - Transit subsidies - Carpooling - Flexible work/study scheduling or remote working/study options - Electric vehicle charging stations for employee/student or public use	[3 points]	
Support for transportation demand management and alternative fuel vehicles at the workplace **exists in some public sector organizations**, such as: - Bike racks or secure storage facilities, Public tire pumps, Showers and changing facilities, Transit subsidies, Carpooling, Flexible work/study scheduling or remote working/study options, Electric vehicle charging stations for employee/student or public use	[2 points]	⇑
Support for transportation demand management and alternative fuel vehicles at the workplace **exists in one public sector organization**, such as: - Bike racks or secure storage facilities, Public tire pumps, Showers and changing facilities, Transit subsidies, Carpooling, Flexible work/study scheduling or remote working/study options, Electric vehicle charging stations for employee/student or public use	[1 point]	

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:

There is only two vehicles that town staff use. One is new. Cost is a consideration.

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: 10 / 21.5 (47%)

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: - 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 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 - 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:		

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://thegaiaproject.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 - 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 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 - 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]	½

NOTES:

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 and Energy Management Service Provider Network customers can access to receive a subsidized energy audit. 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]	
Corporate process is in place to improve energy efficiency, including through energy standards or certifications, in **new corporate facilities**.	[0.5 point]	**N/A**
A process is in place to **procure** local/renewable heat/electricity for corporate facilities.	[0.5 point]	
A **process exists** to use a benchmarking, labelling and disclosure system for **corporate-owned facilities**.	[0.5 point]	
NOTES:		
Town has adopted the 2005 Building Code.		

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		
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.	[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]	✓
High performance of **new buildings** has been **demonstrated in at least 1 public sector organization** building constructed in the past 10 years.	[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]	½
Use of local/renewable heat/electricity has been demonstrated in at least 1 public sector organization in the past 3 years.	[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]	½
Benchmarking and public disclosure of performance of buildings has been **demonstrated in at least 1 public sector organization**.	[1.5 points; 0.5 points for one, 1 point for some, 1.5 points for all]	✓

NOTES:

Many of the High Schools have undergone energy efficiency retrofits, including Woodstock High. Some have installed solar PV arrays (net-metered), 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, 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:

Town has adopted the 2005 Building Code.

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