



QUEST



**SMART ENERGY
COMMUNITIES
BENCHMARK**
October 2021



Village of Perth-Andover, New Brunswick



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Village of Perth-Andover, New Brunswick

Introduction

This Benchmark Report was prepared by QUEST for the Village of Perth-Andover, as part of the New Brunswick Smart Energy Community Accelerator program. This document identifies local strengths and potential opportunities and can be used to update your scoring year after year.

The Village of Perth-Andover was formed in 1967 from the amalgamation of the two former communities of Perth, located on the east side of the Saint John River, and Andover, located on the west side of the River. The Village is a service centre for its surrounding rural areas of the Parishes of Perth and Andover in a portion of southern Victoria County. The largest industry in the Village is in health which employs 145 people, followed by retail (75 people), manufacturing (60 people), construction (50 people), public administration (55 people), while education, as well as accommodations and food, have 35 people.

Key Recommendations / Identified Priorities:

GOVERNANCE

1. Village: Ensure the **community leadership** team members actively participate, and implement actions within their own organizations to promote SEC goals/implementation.

STAFF

1. Village: Establish more than 1 FTE staff within the local government, tasked with applying an energy lens to community initiatives and **overseeing specific community energy initiatives**.
2. Village: Develop an external **staffing resource within the community** to support the coordination of community energy initiatives.
3. Utility: Establish more than 1 FTE **staff within the electric utility**, tasked with supporting and engaging with community energy initiatives.
4. Utility & Village: Encourage municipal staff and electric utility staff involved in community energy initiatives to participate in, on average, 1 to 4 **educational or training session(s)** per staff personnel per year relating to aspects of community energy initiatives.

DATA

1. Utility: Define a **standardized process** for requesting and sharing data (currently ad-hoc, case-by-case), including appropriate contact persons, application and release documents and estimated timelines.
2. Village: Develop a detailed **strategy** to implement actions in the plan and KPIs.
3. Utility: Establish and approve a **corporate energy or GHG target**.
4. Village: Consider undertaking **energy modelling of future scenarios**, including for efficiency potential, renewable energy potential, energy poverty, infrastructure constraints, social acceptance, distribution of costs and benefits, climate risks, etc., and publish the map/model outputs.
5. Village: **Enhance transparency** around methodologies for community and corporate GHG inventories

FINANCIALS

1. Village: Create a **transparent and publicly available** assessment of financing mechanisms (to offer or to take advantage of).
2. Village: Conduct an assessment of financial mechanisms that consider a **variety of ownership models**.
3. Village: Conduct assessments of financial mechanisms that **consider social equity**, such as access by financially underserved populations.
4. Village: Ensure the local government funds **active transportation infrastructure** through grants from upper levels of government or utility incentives.
5. Village: Develop repayment mechanisms for **energy efficiency retrofits** of existing single-family residential units as well as existing commercial and mixed-use buildings.

STRATEGY

1. All partners: Incorporate broader **socioeconomic considerations** into goals and actions: ie. social housing, poverty reduction.
2. Village: Ensure attainable community energy initiatives are considered (cost/financially viable).
3. Village: Develop a plan or strategy that clearly defines who in the community needs to be involved, when, and what actions they need to undertake for implementation.
4. Village: Undertake an **economic impact assessment** of CEP
5. Village: **Establish a schedule** for renewal of CEP

LAND USE

1. Village: Ensure members of the public are **informed of initiatives and educated** on land use-energy impacts through basic methods, such as: Website updates, newsletters, social media updates, etc.
2. Village: Ensure members of the public are engaged on land use-energy impacts through innovative methods, such as: Interactive workshops, school promotion, highly creative or interactive web-based reporting, etc.

ENERGY NETWORK

1. Village: Ensure members of the public are informed of initiatives and educated on energy networks through basic methods, such as: Website updates, newsletters, social media updates, etc.
2. Village: Ensure members of the public are engaged on energy networks through innovative methods, such as: Interactive workshops, school promotion, highly creative or interactive web-based reporting, etc.
3. Utility: Develop and deliver public engagement and educational activities **collaboratively** amongst multiple stakeholders.
4. Utility: When integrating smart grid technologies, ensure the electric utility considers: Cybersecurity considerations in plan or implementation of projects, Data sharing policy, and Partnerships with builder/real estate developer

WATER AND WASTE

1. Village: Ensure members of the public are **informed of initiatives** and educated on water/wastewater conservation through basic methods, such as: Website updates, newsletters, social media updates, etc.
2. Village: Ensure members of the public are engaged on water/wastewater conservation through innovative methods, such as: Interactive workshops, school promotion, highly creative or interactive web-based reporting, etc.
3. Village: Develop and deliver public engagement and educational activities **collaboratively** between multiple stakeholders.
4. Village/RSC: Develop **landfill diversion programs** run by the local government or other community organization(s) to reduce landfill waste. These can include: Garbage bag collection tags/limits or tipping fee, Plastic bag bans, Re-use or community swap days
5. Village/RSC: Develop programs run by the local government or other community organization(s) to **improve non-residential waste diversion**, such as: Recognition for high performers, Expanding recycling or organic waste programs to include eligible ICI or CRD waste
6. Village: Ensure **integration and reporting** are implemented into the community energy planning process.
7. Identify electrical, thermal, or chemical energy products that could be produced from organic and landfill waste materials by: Gasification, Anaerobic digestion, Fermentation

TRANSPORTATION

1. Village: Ensure members of the public are informed of initiatives and educated on mobility networks through basic methods, such as: Website updates, newsletters, social media updates, etc.
2. Village: Ensure members of the public are engaged on mobility networks through innovative methods, such as: Interactive workshops, school promotion, highly creative or interactive web-based reporting, etc.
3. Village: Ensure the community has **alternative car-transportation programs** to reduce single-occupancy vehicle travel, including: Carsharing programs, Carpooling programs/lots, Ride Sharing programs
4. Village: Consider enforcing the established anti-idling policy

BUILDINGS

1. Village: Ensure members of the public are engaged on single family home energy through innovative methods, such as: Interactive workshops, school promotion, highly creative or interactive web-based reporting, etc.
2. Village: Develop and deliver public engagement and educational activities collaboratively amongst multiple stakeholders.
3. Village: Ensure members of the public are **engaged** on multi-unit residential, commercial, or other building energy use through innovative methods, such as: Interactive workshops, school promotion, highly creative or interactive web-based reporting, etc.
4. Village: Ensure a process is in place to procure local/renewable heat/electricity for corporate facilities.
5. Village: Develop a process to use a benchmarking, labelling and disclosure system for corporate-owned facilities.

Governance

10.5 / 11.5 (91%)

1.1.1. A community energy leadership team to co-govern community energy initiatives	
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 leads and coordinates community engagement. [1 point]	✓

NOTES:

As a small community, we have one Council committee meeting a month, which touches on this. The Board of the Power and Light Commission meets quarterly, with other stakeholders involved.

1.1.2a. Cross-departmental coordination within the local government	
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 or Strategic Plan. [2 points]	✓

NOTES:

Strategic Plan outlines what departments are responsible for which tasks (e.g. Public Works is responsible for installing EV chargers).

1.1.2b. Strategic alignment within the local electric utility	
<i>Checklist</i>	
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:

The Village of Perth-Andover is the only Village in the Province with its own electric power utility, the Perth-Andover Light Commission. The system provides a high-quality, efficient system at very low rates. Although the utility is completely independent of NB Power, emergency or backup power can be sourced from NB Power's 69 kV and 138 v lines near the Village limits. The utility also helps implement community energy initiatives.

1.1.2c. Strategic alignment within the natural gas utility	
<i>Checklist</i>	
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:

Perth-Andover does not rely on natural gas.

1.1.3. Knowledge sharing with other communities

<i>Scale</i>	
Representative(s) from the community leadership team has attended or participated in events or knowledge sharing groups that involve members from outside of the community. [1 point]	✓
Representative(s) from the community leadership team have presented in events or led/facilitated knowledge sharing groups that involve members from outside of the community. [2 points]	✓

NOTES:

The CAO regularly attends QUEST's NB-PEI Municipal Working Group, to share knowledge with other communities. Share knowledge with other municipalities, via the NB SEC Accelerator Program; and share information and collaborate with the other local energy utilities (Saint John, Edmundston).

Staff

6 / 15 (40%)

1.2.1a. Local government staff resources tasked with managing community energy initiatives	
Scale	
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]	✓
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 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 for communities with population <10 000]	N/A

NOTES:

Based on Survey response, is a part of the responsibilities of 4 FTE staff.

1.2.1b. Community energy staff position support	
Scale	
There is an external staffing resource within the community to support the coordination of community energy initiatives. [1 point]	
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]	

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

<i>Scale</i>	
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]	✓
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 a dedicated single point of contact engaging directly with the municipality or other community leaders. [3 points]	✓

NOTES:

Has the same staff as the municipality (part of the responsibility of 4 FTE staff).

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

<i>Scale</i>	
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
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 a dedicated single point of contact engaging directly with the municipality or other community leaders. [3 points]	N/A

NOTES:

Perth-Andover does not rely on natural gas.

1.2.3a. Local government support for community energy management staff education

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

1.2.3b. Building inspector staff education

<i>Checklist</i>	
The local government has a process for educating building inspectors on energy efficiency policies to ensure effective enforcement. [2 points] [N/A for northern communities and/or with population <10 000]	N/A

NOTES:

The building inspector is contracted out.

1.2.3c. Electric utility support for staff education related to community energy

<i>Scale</i>	
Staff involved in community energy initiatives participate in, on average, 1 educational or training session per staff personnel per year relating to aspects of community energy initiatives. [1 point]	

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

1.2.3d. Natural gas utility supports for staff education related to community energy	
<i>Scale</i>	
Staff involved in community energy initiatives participate in, on average, 1 educational or training session per staff personnel per year relating to aspects of community energy initiatives. [1 point]	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 more than 4 educational or training sessions per staff personnel per year relating to aspects of community energy initiatives. [3 points]	N/A

NOTES:

Perth-Andover does not rely on natural gas.

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

Checklist

There is a program or strategy in place to facilitate succession of local government staff managing community energy initiatives. [1 point]	✓
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 for communities not connected to natural gas grid]	N/A

NOTES:

Succession planning by sharing knowledge with other staff. Train internally first, and then have a public competition.

Data

14 / 23 (61%)

1.3.1a. Electric utility commitment to sharing data	
Scale	
Requests for data and information are addressed in an ad-hoc fashion. [1 point]	✓
A standardized format for community energy data has been established for sharing data. [2 points]	
A standardized process is in place for requesting and sharing data, including appropriate contact persons, application and release documents and estimated timelines. [3 points]	

NOTES:

The utility can share aggregate consumption data (demand, peaks), upon request. Also reports to Stats Canada annually.

1.3.1b. Natural gas utility commitment to sharing data	
Scale	
Requests for data and information are addressed in an ad-hoc fashion. [1 point]	N/A
A standardized format for community energy data has been established for sharing data. [2 points]	N/A
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

NOTES:

Perth-Andover does not rely on natural gas.

1.3.2a. Community energy inventory and reporting

<i>Checklist</i>	
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 Village of Perth-Andover completed a community-wide GHG inventory and energy action plan in 2018. The vision of the Plan is to achieve a low carbon and smart energy community in an economically viable way: Reducing its carbon footprint by increasing energy conservation, using energy efficiently through new development and retrofits, transportation planning, producing renewable or clean energy, helping to improve local energy security. The target that was adopted is: 17% reduction of GHG emissions by 2025 and 34% by 2035. The timeline for review/renewal is 2025.

1.3.2b. Local government corporate energy inventory and reporting

<i>Checklist</i>	
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 Village of Perth-Andover completed a corporate GHG inventory and energy action plan in 2018. Perth-Andover wishes to be a net-zero community. And to reach the net-zero target for its corporate GHG emissions, the Action Plan proposes offset programs included in the community GHG and energy planning. Perth-Andover owns its Electric Light Commission and purchases power from the Tinker Dam. The resulting GHG emission coefficient for the electricity used and consumed on the territory is quite low. With this interesting environmental advantage, Perth-Andover has decided to adopt a corporate target of 50% reductions in GHG emissions for 2025 according to the reference year 2015 and is planning a 100% reduction in corporate GHG emissions for 2035. The timeline for review/renewal is 2025.

1.3.2c. Electric utility corporate inventory and reporting

<i>Checklist</i>	
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]	
The timeline for inventory/report renewal is clear.	
[1 point]	
Report methodologies 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:

Provides a report/inventory to Stats Canada and Council annually. The utility owns EV chargers, streetlights, substations, poles and wires. Purchases power from Algonquin Power.

1.3.2d. Natural gas utility corporate inventory and reporting	
<i>Checklist</i>	
Corporate energy or sustainability inventory/report has been completed that includes energy use or GHG emissions from utility operations.	N/A
[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).	N/A
[1 point]	
Corporate energy or sustainability targets have been established.	N/A
[1 point]	

The timeline for inventory/report renewal is clear. [1 point]	N/A
Report methodologies are transparent and publicly available, and/or are aligned with existing reporting initiatives such as Global Reporting Initiative (GRI), International Petroleum Industry Environmental Conservation Association (IPIECA), Carbon Disclosure Program (CDP) etc. [1 point]	N/A

NOTES:

Perth-Andover does not rely on natural gas.

1.3.3. Climate hazard assessments	
<i>Checklist</i>	
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]	✓
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]	✓

NOTES:

The Village of Perth-Andover has reviewed the NB Climate Change Secretariat's summary of Predicted Impacts of Climate Change in New Brunswick. They have also studied future flood risk in Perth-Andover from the Saint John River. While the village has prepared corporate and community action plans to reduce GHG emissions, it recognizes that the impacts of climate change are unavoidable.

Therefore, as part of the Municipal Plan, policies have been presented that will enable Council

to consider adaptation measures to deal with climate change impacts in the future. This includes policies/land use plans to mitigate the risks of flooding from the Saint John River, for example, a minimum design elevation of 83.2 m for future development of roads and land uses, and no new development in the floodplain. All policies for flood protection are on (p. 53-54) of the Municipal Plan. Since most of the Village's forested lands are in the Rural designation and on private property, it shall be a policy of Council to encourage good forestry management practices to prevent loss through disease or forest fires, which will become increasingly important as the Village experiences more threats of pests or diseases and a higher potential for forest fires, with more extreme heat days expected (p. 105 Municipal Plan). Council will continually review and update climate change data as it becomes available through Environment Canada or other sources. It is a policy of Council (p. 111) of the Municipal Plan to monitor trends in annual and seasonal precipitation to determine measures that may be required to enhance water supply and to monitor freeze/thaw cycles and frost penetration levels to determine if construction practices relating to the depth of water lines and laterals or insulation measures may be required.

It is also a policy of Council to consider the impacts of climate change such as infiltration, overloading and damage to the sanitary sewage treatment and collection system, as a result of increased precipitation and freeze/thaw cycles. It is also a policy of Council to work with the Province to undertake a Vulnerability Assessment and Adaptation Plan as outlined by the Climate Change Secretariat (p. 55) of the Municipal Plan.

On (p. 119-120) of the Municipal Plan, it states that it is a policy of Council to consider the initiative of a full or modified Climate Change Report Card or a Climate Change Adaptation Plan, which would contain elements of the following:

1. To become educated about climate changes and the impacts expected to occur in this region related to changes in heat/temperature, precipitation/flooding, storm events (winds), nature (pests, diseases, fires).
2. To identify the various elements likely to be impacted in the community (land uses, buildings, facilities, infrastructure, economic, social, cultural aspects, recreation and the environment).
3. To determine how vulnerable each element is to the impacts listed based on exposure and probability of occurrence.
4. To develop specific actions or plans that could be implemented to mitigate or adapt to climate change impacts.
5. To analyze the costs/benefits of possible implementation measures and the resource capabilities of the community.
6. To set priorities.
7. To assign responsibility along with a timeline to a department, government or agency, to undertake the priority measures identified.

8. To continually update the Report Card / Adaptation Plan as new climate change information, new impacts or new resources are identified over time to monitor and track initiatives and successes in dealing with climate change.
9. To continually update education efforts, technical manuals, Zoning, Building Bylaws, Emergency Response Plans, and partnerships and funding opportunities, based on the results of the Report Card.

1.3.4. Energy mapping	
<i>Checklist</i>	
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 if energy map has not been completed and/or for communities with population <10 000]	N/A
Municipal and/or utility infrastructure and asset management planning has been integrated into the energy mapping process. [0.5 point] [N/A if energy map has not been completed and/or for communities with population <10 000]	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 if energy map has not been completed and/or for communities with population <10 000]	N/A

NOTES:

The Village of Perth Andover benefitted from a table-top mapping exercise to help inform their Community Energy Plan.

1.3.5 Energy scenario modelling

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 if energy model has not been completed and/or for communities with population <10 000]

N/A

Assumptions and methodologies in energy modelling are transparent and readily accessible.

[0.5 point] [N/A if energy model has not been completed and/or for communities with population <10 000]

N/A

Outputs from energy modelling are presented in a digestible way, such as through infographics or one-pagers.

[0.5 point] [N/A if energy model has not been completed and/or for communities with population <10 000]

N/A

Financials

18 / 23 (78%)

1.4.1. Assessment of financial mechanisms and funding	
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 include considerations of social equity, such as access by financially underserved populations. [1 point]	

NOTES:

Mainly self funding. Only promotes incentives offered through Énergie NB Power.

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

NOTES:

Mainly self funding, through ad hoc Capital Budget, and long term budget allocations (Reserve Fund).
Did receive NRCAN funding for EV Chargers.

1.4.3. Fees to address automobile congestion	
<i>Checklist</i>	
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 for communities with population <10 000]	N/A

NOTES:

Too small for auto congestion.

1.4.4. Funding for active transportation infrastructure	
<i>Scale</i>	
The local government funds active transportation infrastructure through grants from upper-levels of government or utility incentives. [1 point]	
The local government funds active transportation infrastructure through ad-hoc capital budget allocation(s). [2 point]	
The local government is committed to funding active transportation infrastructure through operating budget allocation. [3 point]	✓

NOTES:

Mainly self funding. Uses operating budget for trails and sidewalks, and accesses some funding from other levels of government.

1.4.5. Financial levers for densification

<i>Scale</i>	
The local government has aligned or incorporated at least 1 financial lever to support densification. [1 point] [N/A for communities with population <10 000 and/or growth <0% annual change]	N/A
The local government has aligned or incorporated more than 1 financial lever to support densification [2 points] [N/A for communities with population <10 000 and/or growth <0% annual change]	N/A

NOTES:

Has been considered by the Council, but has not adopted any financial levers.

1.4.6a. Incentives for energy initiatives in new buildings

<i>Checklist</i>	
Incentives exist for energy initiatives in new single family residential units. [1 point] [N/A for communities with population <10 000 and/or growth <0% annual change]	✓
Incentives exist for energy initiatives in new multi-unit residential, commercial, and/or mixed-use buildings. [1 point] [N/A for communities with population <10 000 and/or growth <0% annual change and/or no significant multi-unit residential or commercial / mixed-use building stock]	✓

NOTES:

Énergie 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 buildings, but not specifically multi-unit residential.

The village offers building incentives based on an increase of assessment of \$100,000. The financial incentive is based over 4 years (developers receive a rebate on property tax and water and sewer charges).

1.4.6b. Retrofit program for existing single family residential building stock	
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 and 2 points for deep energy 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 energy audit-based efficiency programs:

<https://www.saveenergynb.ca/en/save-energy/residential/total-home-energy-savings-program/>

Building incentives are available if a retrofit increases value by over \$100,000.

1.4.6c. Retrofit program for existing multi-unit residential building stock	
Checklist	
Community program exists to help building owners and operators conduct energy audits or evaluate the feasibility of energy efficiency retrofits for existing multi-unit residential buildings. [1 point] [N/A for communities with no significant multi-unit residential building stock]	N/A
Incentives exist for energy efficiency retrofits of existing multi-unit residential buildings. [1 point for simple retrofit and 2 points for deep energy retrofit] [N/A for communities with no significant multi-unit residential building stock]	N/A
Repayment mechanisms exist for energy efficiency retrofits of existing multi-unit residential buildings.	N/A

[1 point] [N/A for communities with no significant multi-unit residential building stock]	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 for communities with no significant multi-unit residential building stock]	

NOTES:

While all homeowners and businesses qualify for Énergie NB Power efficiency programs and incentives, gaps exist for multi-unit residential programming. Anything over 4 stories is considered commercial, not multi-unit residential. There is currently no energy evaluation tool for multi-unit residential buildings in Canada. Hot2000 and RetScreen can be used to calculate energy/emissions, but they come at a cost. The Province has not yet adopted the National Energy Code for Buildings.

1.4.6d. Retrofit program for existing commercial / mixed-use building stock	
<i>Checklist</i>	
Community program exists to help building owners and operators conduct energy audits or evaluate the feasibility of energy efficiency retrofits for existing commercial and mixed-use buildings.	✓
[1 point] [N/A for communities with no significant commercial / mixed-use building stock]	
Incentives exist for simple energy efficiency retrofits of existing commercial and mixed-use buildings.	✓✓
[1 point for simple retrofit and 2 points for deep energy retrofit] [N/A for communities with no significant commercial / mixed-use building stock]	
Repayment mechanisms exist for energy efficiency retrofits of existing commercial and mixed-use buildings.	
[1 point] [N/A for communities with no significant commercial / mixed-use building stock]	
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 for communities with no significant commercial / mixed-use building stock]	

NOTES:

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

Building incentives are available if a retrofit increases value by over \$100,000.

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

NOTES:

There is a low-income energy efficiency program funded by the 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 the waitlist. There is a 2 year wait (due to demand, and budget limit). The program is not currently advertised. There is no local energy poverty program.

Strategy

7 / 16 (44%)

1.5.1. Community engagement for visioning, goal-setting and prioritization	
Checklist	
<p>A stakeholder engagement framework has been documented, which may include:</p> <ul style="list-style-type: none"> - 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). <p>[1 point] [N/A for communities with population <10 000]</p>	N/A
<p>Organizations within the community have been engaged, with engagement(s) documented in meeting minutes and/or a list of participants.</p> <p>[1 point]</p>	
<p>The general public has been engaged, with lessons learned documented.</p> <p>[1 point]</p>	✓
<p>A schedule has been established for updating/conducting regular public engagement and education initiatives, and outreach to new participants.</p> <p>[1 point]</p>	

NOTES:

On P.116 of the Municipal Plan, it states that it is a policy of Council to take advantage of every opportunity to involve the public in the planning or decision-making process with respect to the future development of the community. The participation of citizens in Plan implementation is invaluable and can result in the following: a) providing residents with opportunities to effectively participate in planning for their own future and the future of the community, b) relieving apprehension by assisting to convert the unknown into the known, and c) creating a forum for mutual education so that citizens and the Council can learn from listening to each other.

1.5.2. Community-wide economic analyses

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:

Being undertaken as part of the NB Smart Energy Community Accelerator, later in 2021.

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

Checklist

A community energy plan or strategy has been adopted by the 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 needs to be involved, when and what actions they need to undertake for implementation.

[1 point]

NOTES:

Perth-Andover adopted both corporate and community strategies (energy action plans) to mitigate or reduce GHG emissions. The community strategy includes measures that residents and businesses can undertake such as converting to LED lighting, converting from oil to electricity, heat pump program, idle-free policy, fuel efficient driving, electric and more compact vehicles, and domestic composting. An implementation strategy for the Energy Plan will be developed as part of the NB Smart Energy Community Accelerator Program.

1.5.4. A holistic and integrated approach to community energy

<i>Checklist</i>	
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]	

1.5.5. SMART community energy initiatives

<i>Checklist</i>	
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 (cost/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:

Within the Community Energy Plan, specific measures are included such as converting to LED lighting, converting from oil to electricity, heat pump program, idle-free policy, fuel efficient driving, electric and more compact vehicles, and domestic composting. These are aligned with the vision of the Municipal Plan. Timelines will be tackled during the CEP Implementation workshop as part of the NB SEC Accelerator Program.

1.5.6. Establishment of community energy planning as an ongoing process

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:

Village staff review progress annually. Also as part of Strategic Planning (every 4 years).

Land Use

10 / 17.5 (57.%)

2.1.1. Public engagement and education on energy and land use

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
- Webinars or conference calls
- Open houses

[0.5 point]

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]

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

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

N/A

[1 point] [N/A for communities with population <10 000 and/or growth <0% annual change]

NOTES:

Almost 70% of the land in Perth-Andover is Rural or Agricultural. The Village's urban fabric is almost entirely encircled by a rural environment. Because of the importance of retaining good agricultural lands for future food production, the Municipal Plan states that these areas should be protected from encroachment from inappropriate urban uses.

On (p. .70) of the Municipal Plan, it states a Goal of the Village is to promote a pattern of growth and land use that will encourage orderly, efficient, and equitable development within the community while incorporating the principles of sustainable development and climate change management. This includes objectives such as: to enable sustainable land use development by encouraging smart growth principles such as mixed land use, mixed density, well-designed compact neighbourhoods, consolidation and infilling, as well as conservation and protection of the natural environment.

On (p. .71), it states a policy of Council is to encourage general growth and development that is cost effective, compatible, and environmentally sound, by concentrating new growth in areas that are adequately services and properly planned; and by encouraging development in areas which would be contiguous to, or infilling between, existing built-up areas.

On (p. .72), it states it is a policy of Council in consideration or approving various land use development to encourage development that: reduces greenhouse gas emissions by providing more compact, dense, and connected development to minimize land consumption and decrease travel times.

On (p. .73), it states that future neighbourhood design should strive to achieve well-designed compact neighbourhoods with mixed density uses, by encouraging infilling and growth of residential subdivisions in areas of the Village that already have water and sewer services; and by encouraging forms of higher density housing in acceptable locations; and by encouraging a mix of housing types that meet the diverse needs of residents.

On (p. .77), it states it is a policy of Council to encourage residential developments that are more compact, dense, and connected by trails and pathways to maximize active transportation. As part of the Zoning Bylaw, (p. 37) outlines permitted uses of the Rural Residential Zone, to prevent encroachment. Also, Highway Commercial (HC) Zone Development may include a bus or other public transportation

terminal.

2.1.3. Energy efficiency and performance in planning policies and processes for new developments	
<i>Checklist</i>	
<p>The local government has policies or processes that support building-level energy performance in new developments.</p> <p>[4 points; 1 point per] [N/A for communities with population <10 000 and/or growth <0% annual change]</p>	✓✓
<p>The local government has policies or processes that support neighbourhood-level energy performance in new developments.</p> <p>[4 points; 1 point per] [N/A for communities with population <10 000 and/or growth <0% annual change]</p>	✓

NOTES:

On (p. 77) of the Municipal Plan, it states that it is a policy of Council to encourage developers to consider more energy-efficient subdivision layouts that accomodate features such as east-west streets to promote active and passive solar gain, as well as landscaping that provides shade in the summer and wind protection during the winter to reduce cooling and heating costs. The Village may consider trying building incentives to encourage energy conservation, but has not yet done so.

On (p. 95) of the Municipal Plan, it states that it is a policy of Council, when considering or approving public or institutional buildings, to encourage energy-efficient requirements such as LEED building design.

On (p. 113) of the Municipal Plan, it states that it is a policy of Council to encourage residents and developers to consider more energy-efficient designs of homes, sites and subdivisions, including more energy-efficient materials, heating/cooling systems and appliances, lot layout to take advantage of sun exposure, etc.

2.1.4. Embedding of local energy supply options into land-use plans, policies, tools and processes
<i>Scale</i>

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)	✓
[2 points]	
The use of local energy supply options or energy efficiency are promoted through the use of at least one 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	N/A
[3 points] [N/A for communities with population <10 000]	
The use of local energy supply options or energy efficiency are promoted through the use of more than one 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	N/A
[4 points] [N/A for communities with population <10 000]	

NOTES:

On (p. 77) of the Municipal Plan, it states that is a policy of Council to encourage developers to consider more energy-efficient subdivision layouts that accommodate features such as east-west streets to promote active and passive solar gain, as well as landscaping that provides shade in the summer and wind protection during the winter to reduce cooling and heating costs.

On (p. 101), it states that any applications (with the exception of Residential use) to use alternate energy sources such as geothermal or wind power would only be permitted as an amendment to the Zoning By-Law.

As part of the Zoning Bylaw, (p. 19) 3.1.15 HEIGHT REGULATIONS:

"The height regulations of this Plan shall not apply to windmills or solar collectors attached to the principle structures except where specifically regulated."

As part of the NB SEC Accelerator Program, Perth-Andover is undertaking a land based renewable energy mapping assessment.

2.1.5. Preservation of natural lands in land use practices	
Scale	
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]	✓
Natural assets are identified and preserved through the community's zoning bylaw, and Site Plan Control and Plans of Subdivision where applicable [2 points]	✓
Preservation of natural assets is enhanced through at least one of: conservation easements, land acquisition, and/or incentives [3 points] [N/A for communities with population <10 000]	N/A

NOTES:

After the flood in 2012 along the Saint John River, measures were taken to relocate or demolish buildings or implement flood proofing measures. The Official/Municipal Plan includes restrictions for building in flood prone areas. Similarly, boggy areas with swamps, bogs, or heavy organic soils are also to be avoided for development. Provincial regulations limit development near watercourses and wetlands and require setbacks (p. 22 Municipal Plan).

Municipal Plan policies are provided such as designating land to protect the natural environment and enhance the built environment within the Village. It is a policy of Council to protect and enhance its natural environment, and the flora and fauna it supports, through ensuring the protection of:
Waterways, through such measures as acquisition, public dedication of land, zoning, and retention of trees and vegetation in the corridor to protect aquatic habitat; Forest lands, through encouraging good forest management practices to preserve the resource and minimize damage/loss due to storm events, fires, disease and insects; Agricultural lands with good potential to produce food; Surface and ground water resources through enforcement of watershed and wellfield regulations as well as conservation measures; Trees and vegetation in the urban environment. (p. 56 Municipal Plan).

Further policies for preservation include: Preserving wetlands, marshes, stream valley slopes and other environmentally sensitive areas; ensuring all wellfields that exist or may be developed are protected by the Wellfield Protection Program; protecting and preserving existing trees and shrubs, and instituting a tree planting program; maintaining and landscaping public buildings and lands; encouraging

maintenance and enhancement of commercial and industrial areas; requiring provision of buffer areas around commercial and industrial uses, public parking lots and buildings; and enforcing the dangerous or unsightly premises bylaw. On (p. 73) of the Municipal Plan, it states that residential neighbourhoods should preserve natural forests and vegetation where possible and to blend natural features with the built form of new development.

On (p. 103), it states the Village permits agricultural, passive recreation, and resource activities to be carried on with minimal impact on existing uses and the environment, including by protecting and preserving lands currently being used as farms, cropland, orchards or the keeping of animals. It also states that in the areas designated as Rural, no developments will be permitted except those associated with forestry, agriculture, or resource use, and limited residential uses (subject to conditions in the Zoning Bylaw). According to the Zoning Bylaw, (p. 19) 3.1.16 DEVELOPMENT NEAR A WATERCOURSE OR WETLAND: "No development shall be permitted within 15 metres (50feet) of a watercourse or waterbody, notwithstanding this, the New Brunswick Regulation 90-80, Wetland and Watercourse Alteration Regulation-Clean Water Act; the New Brunswick Regulation 90-136 under the Clean Water Act apply throughout the Village."

2.1.6. Programs to expand and enhance green space, and mitigate urban heat island effect	
<i>Checklist</i>	
<p>Checklist up to a maximum for initiatives (plans, policies, programs) by the local government or other community organization(s) that target:</p> <ul style="list-style-type: none"> -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) <p>[2 points; 1 point per]</p>	✓✓
<p>Checklist up to a maximum for the local government or other community organizations(s):</p> <ul style="list-style-type: none"> -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/enhance green space <p>[1 point] [N/A for northern communities and/or with population <10 000]</p>	N/A

NOTES:

There is a community garden located east of the Andover Elementary School. It is a policy of Council to protect trees and vegetation in parks, green spaces, and street rights-of-way (in addition to those along waterway corridors) to provide shaded areas for temperature and humidity control to offer refuge and relief during extreme heat events. (p. 56 Municipal Plan).

It is also a policy to institute a tree planting program along street rights-of-way and in parks and open spaces. On P.72 of the Municipal Plan, it states it is a policy of Council when considering new development to encourage development that: minimizes tree clearing and encourages retention and planting to provide more shade to control temperatures and humidity levels.

On (p. 76) it states it is a policy of Council that developers of residential subdivisions will dedicate to the municipality eight percent of the land subdivided for public use / green space. On (p. 97), it states that an objective is to provide and protect open spaces for the enjoyment of all residents, to promote health and wellness and to provide shaded areas as a means of heat refuge. As part of the Zoning Bylaw, For Industrial Zones: "The required landscaped area shall be grassed and trees and/or shrubs shall be planted at a minimum rate of one (1) tree or shrub for each 14 square metres (150 square feet) of the minimum landscaped area. Where possible existing trees/shrubs shall be maintained."

Energy Networks

8 / 17 (47%)

2.2.1. Public engagement and education on energy delivery systems	
Checklist	
<p>Members of the public are informed of initiatives and educated on energy networks through basic methods, such as:</p> <ul style="list-style-type: none"> -Website updates -Newsletters -Print materials (such as brochures, fact sheets, information packages) -Social media updates -Webinars or conference calls -Open houses <p>[0.5 point]</p>	
<p>Members of the public are engaged on energy networks through innovative methods, such as:</p> <ul style="list-style-type: none"> - 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 <p>[1 point]</p>	
<p>Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.</p> <p>[0.5 point]</p>	

2.2.2a. Electrical load management	
Scale	
<p>Peak shaving measures considered in planning processes</p> <p>[1 point]</p>	✓

Peak shaving measure in place and being tracked [2 points]	
Peak shaving results are shared to relevant stakeholders, lessons learned identified and documented [3 points]	

NOTES:

In the past the Perth-Andover has, but there has been nothing recently.

2.2.2b. Natural gas load management	
<i>Scale</i>	
Peak shaving measures considered in planning processes [1 point]	N/A
Peak shaving measure in place and being tracked [2 points]	N/A
Peak shaving results are shared to relevant stakeholders, lessons learned identified and documented [3 points]	N/A

NOTES:

Perth-Andover does not rely on natural gas.

2.2.3a. Climate risk management in electric utility asset management and operations	
<i>Scale</i>	
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]	
Actions have been identified that can be taken to address risks and avoid or mitigate impacts. [2 points]	✓

Action has been implemented to address risks and/or avoid or mitigate impacts [3 points]	✓
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]	

NOTES:

Power is provided through the Village's own utility with potential backup from Énergie NB Power. The maintenance of utility systems will be more critical in the future with projected climate change impacts. It is an objective of the Council to maintain and upgrade utilities to provide power services to the Village, especially in light of projected climate change impacts (p. 110), Municipal Plan). Electrical services are critical in their own right as well as to the functioning of other infrastructure and services that operate and depend on power.

Extreme cold, heat and storms (ice, wind, etc) can all impact power requirements during all seasons. With respect to these climate change considerations, it shall be a policy of Council (P.113, Municipal Plan) to consider: ensuring its own utility undertakes and cooperates with Énergie NB Power in the maintenance of trees near power lines; encouraging residents and developers to consider more energy-efficient design of homes, sites, and subdivisions; and to encourage residents to have backup methods of obtaining energy, especially for emergency events, such as solar or wind power, gas-powered generators, back-up wood stoves.

2.2.3b. Climate risk management in natural gas utility asset management and operations	
<i>Scale</i>	
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
Actions have been identified that can be taken to address risks and avoid or mitigate impacts. [2 points]	N/A
Action has been implemented to address risks and/or avoid or mitigate impacts [3 points]	N/A

Actions to address risks and/or avoid or mitigate impacts are shared to relevant stakeholders within the community, lessons learned identified and documented	N/A
[4 points]	

NOTES:

Perth-Andover does not rely on natural gas.

2.2.4. Natural gas infrastructure is used for electric storage	
<i>Scale</i>	
An assessment/study of power-to-gas opportunities has been completed within the past three years.	N/A
[1 point]	
A power-to-gas project has been developed.	N/A
[2 points]	

NOTES:

Perth-Andover does not rely on natural gas.

2.2.5. Thermal grids that utilize local and/or renewable thermal energy resources	
<i>Scale</i>	
A feasibility assessment/study for thermal grids has been completed within the past three years. This may include heat/cooling load densities [demand], available thermal energy sources [supply]), and economic feasibility.	N/A
[1 point]	
A thermal grid(s) are established.	✓
[2 points] [N/A if infeasible]	
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.	N/A
[3 points] [N/A if infeasible]	

NOTES:

Too small, not enough concentrated demand or stable heat source.

2.2.6. Infrastructure to support alternative fuel vehicles

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 three years. [Max 2 points] [N/A for communities with population <10 000]	N/A
Alternative fuel infrastructure project(s) have been developed in the community. [1 point] [N/A if infeasible]	✓
Utility(ies) have (and follow) plans/processes/programs in place to integrate alternative fuelling infrastructure into their grid(s) [1 point] [N/A if infeasible]	N/A
Results of projects have been shared across communities, with lessons learned identified and documented. [1 point] [N/A if infeasible]	N/A

NOTES:

Recently received funding from Natural Resources Canada to implement EV chargers in the community.

2.2.7. Smart grid technologies used in electricity distribution infrastructure

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:

All meters in homes and businesses are Smart Meters and have been for several years already.

Waste & Water

7 / 23 (30%)

2.3.1a. Public engagement and education on water and wastewater conservation, and its relationship with energy	
<i>Checklist</i>	
<p>Members of the public are informed of initiatives and educated on water/wastewater conservation through basic methods, such as:</p> <ul style="list-style-type: none"> -Website updates -Newsletters -Print materials (such as brochures, fact sheets, information packages) -Social media updates -Webinars or conference calls -Open houses <p>[0.5 point]</p>	
<p>Members of the public are engaged on water/wastewater conservation through innovative methods, such as:</p> <ul style="list-style-type: none"> - 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 <p>[1 point]</p>	
<p>Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.</p> <p>[0.5 point]</p>	

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

<i>Checklist</i>	
<p>Members of the public are informed of initiatives and educated on waste management through basic methods, such as:</p> <ul style="list-style-type: none"> -Website updates -Newsletters -Print materials (such as brochures, fact sheets, information packages) -Social media updates -Webinars or conference calls -Open houses <p>[0.5 point]</p>	
<p>Members of the public are engaged on waste management through innovative methods, such as:</p> <ul style="list-style-type: none"> - 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 <p>[1 point]</p>	
<p>Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.</p> <p>[0.5 point]</p>	

NOTES:

2.3.2. Energy recovery from waste

<i>Checklist</i>	
<p>The production of electrical, thermal, or chemical energy products from landfill waste materials such as:</p> <ul style="list-style-type: none"> -Incineration -Gasification -Depolymerization 	

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

2.3.3. Waste reduction	
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 -Composting [Max of 2; 1 point per program]	
Landfill diversion programs are in place for hazardous/special waste [0.5 point]	✓
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 [Max of 2; 1 point per program] [N/A for communities with no significant commercial /	

mixed-use building stock]	
<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:

It is a policy of Council to continue to provide input into future planning and decisions regarding waste collection and disposal, which is managed by the Regional Service Commission. It is a policy of Council to continue to undertake solid waste management practices such as waste collection, disposal, and recycling, as well as to support composting and other waste reduction programs.

2.3.4. Water and wastewater programs	
<i>Checklist</i>	
<p>The community has water infrastructure initiatives, such as:</p> <ul style="list-style-type: none"> -Leak detection and repair -Water meters/Water-use monitoring -Pressure reducing valves -Efficiency upgrades to wastewater treatment equipment <p>[1.5 points; 0.5 point per] [N/A for communities with no centralized water systems]</p>	✓ ½
<p>The community has retrofit programs to conserve water, such as targeting:</p> <ul style="list-style-type: none"> -Toilet dams -Low-flow showerheads -Faucet aerators or washers -Rainwater collection <p>[1.5 points, 0.5 point per]</p>	✓ ½

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:

The Village has water meters, hires a company to do leak detection, and makes improvements to wastewater infrastructure (more efficient pumps), also monitors residuals (Chlorine) in wastewater using SCADA. The Village in the past has distributed water conservation items.

2.3.5. Low impact development and resilient storm water management	
<i>Checklist</i>	
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]	✓
Storm water management initiative(s) consider future climate risks. [0.5 point]	✓
Integration and reporting into community energy planning process [0.5 point]	

NOTES:

Municipal services include storm sewer/drainage. The piped storm sewer system in the Village serves a very limited area and has not yet been mapped, however, it is a policy of Council to have a current map of the existing storm drainage system completed as soon as possible (P.112 Municipal Plan). The system outfalls to the river and to several small receiving streams. Beyond these areas storm drainage is handled by roadside ditches. This has not been a problem to date except when the new TransCanada Highway was built, which caused some temporary drainage problems. One of the issues is occasional flooding in specific low-lying areas which causes problems with infiltration affecting water quality during certain periods. The areas lying closer to the river have the same flooding problems on the West and East sides of the river. One of the objectives of Council (P.110, Municipal Plan) is to extend and upgrade the storm drainage system as streets are upgraded or as municipal water and sewer systems

are provided. It is also a policy of Council to develop a long-term master plan for the Village's storm management system.

Approximately 82 homes were affected by the 2012 flood of the Saint John River. A total of 29 homes were severely damaged and were purchased by the Province and demolished. After the 2012 flood, 60 homes and 15 apartment units were relocated or bought out. Another 20 homes remained in the same location but undertook flood proofing measures. As part of the Municipal Plan, policies have been presented that will enable Council to consider adaptation measures to deal with climate change impacts in the future. This includes policies/land use plans to mitigate the risks of flooding from the Saint John River, for example, a minimum design elevation of 83.2 m for future development of roads and land uses, and no new development in the floodplain. One remaining concern is how the civic centre, schools, and recreation/sports facilities could be impacted by future flooding events, and relocation to higher ground seems to be the only long-term solution. On P. 76, the Municipal Plan states that in recognition of the historic flooding of the Saint John River and the predicted increases related to climate change, it shall be a policy of Council to limit any residential and other building construction to the areas above the 83.2 m design flood elevation. On P. 107, it states it is a policy of Council to work with the business community and the Province to redevelop or relocate business areas affected by flooding.

All Flood protection policies are on P. 53-54 of the Municipal Plan. Furthermore, on P. 72, it states that it is a policy of Council when considering new development to encourage development that: maximizes green spaces and minimizes hard surfaced, non-porous materials in parking lots to decrease storm runoff and increase infiltration to replenish groundwater - this would be most critical in areas that are subject to flash flooding from sudden rainfall event; and that avoids locating uses in flood-prone or low-lying drainage areas as shown on the Generalized Future Land Use Plan, which can endanger human life and properties and interfere with storm water flow and exacerbate flooding. On P. 88, it states that it is a policy of Council, when considering Commercial development applications, to encourage the provision of measures that would minimize rapid storm runoff in areas subject to flooding or drainage issues, such as permeable paving materials, storage on roofs, in parking lots, attenuation ponds, or underground storage tanks, so that runoff can be temporarily contained and allowed to be released after the peak of storm runoff has passed. On P.112, it is a policy of Council to consider monitoring areas of flooding and drainage problem locations; consider a policy of zero increase in storm runoff, storm attenuation ponds, or other on-site measures; develop or update municipal construction specifications to require developers to provide larger pipe sizes, catch basins, etc; and to consider a requirement for porous paving materials for parking lots.

Transportation

10.5 / 18.5 (57.%)

2.4.1. Public engagement and education on mobility networks	
Checklist	
<p>Members of the public are informed of initiatives and educated on mobility networks through basic methods, such as:</p> <ul style="list-style-type: none"> -Website updates -Newsletters -Print materials (such as brochures, fact sheets, information packages) -Social media updates -Webinars or conference calls -Open houses <p>[0.5 point]</p>	
<p>Members of the public are engaged on mobility networks through innovative methods, such as:</p> <ul style="list-style-type: none"> - 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 <p>[1 point]</p>	
<p>Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.</p> <p>[0.5 point]</p>	

2.4.2. Active transportation integrated into a Transportation Master Plan	
Checklist	
<p>Transportation Master Plan includes active transportation or there is an Active Transportation Master Plan.</p>	✓

[1 point]

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



[1 point]

NOTES:

In the Municipal Plan, (p. 4), the Vision includes: "The Village should move towards the provision of a safe, convenient, and connected traffic and trail/bikeway network to promote walkability." The active transportation network is mapped on P.66 of the Municipal Plan. Trails have been developed along the river and abandoned rail lines that parallel the river. Perth-Andover is the meeting place for three trail systems: The Trans-Canada Trail, the Appalachian Trail, and the NB Trail System. Most trails in the village have been paved and are used for walking, cycling, cross-country skiing and snowmobiling. The trails are well used by walkers, largely seniors and some families. Future park development and trails are planned as linkages between different areas of the village, and between the different trail systems. It is proposed that some of the rail lines on the Perth Side of the Saint John River between the downtown and Birchwood Road area be converted into park, with walking path, bicycle path, or both. According to P.62 of the Municipal Plan, a goal of the municipality is to provide a safe, convenient and efficient, internal and external multi-purpose transportation system in the Village for all users; and objectives include: to provide for the active transportation modes (pedestrians, cyclists) along and across arterial and collector streets, between existing and future subdivisions, and from subdivisions to existing and future trails and pathways.

On (p. 65-67) of the Municipal Plan, it states: In the interests of promoting active transportation, convenient and safe community connectivity, and reduction of greenhouse gases, as well as a healthy lifestyle, it shall be a policy of Council to consider the following measures as opportunities arise. This includes Sidewalks (e.g. during construction of new streets or water and sewer systems, as well as during upgrading of local streets), with priority given to those streets on which community facilities such as schools, churches, recreation areas, and shopping facilities are located; it also includes pathways, as subdivisions develop and expand, pathways for pedestrians and bicycles will be provided between subdivisions and to adjacent trail systems; and it also includes crosswalks at major intersections. On P. 73, it states that residential development should support more active transportation (walking, cycling) through well-connected neighbourhoods; and that it should include a pathway network to connect residential development to other nodes of activity.

On (p. 76), it states that new subdivisions should support safe, healthy living and active transportation by ensuring the provision of pathways ... for safe movements of pedestrians and cyclists. On (p. 99), it states that trails incorporated into the overall pathway network are recommended to have a minimum travel width of 2 m within a 5 m right-of-way, and that multi-use trails should have a 3 m travel width. On P. 100, it states that the Village will endeavour to obtain pathways and trails as part of public dedication when new subdivisions are approved.

2.4.3. Transportation demand management

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
- Bike lanes (painted bike lanes, cycle tracks [spatial or physical separation], “shared roadways”/sharrows, contraflow bike lanes)
- Bike share programs
- Public Bike tire pumps
- Multi-use trails

✓✓✓

[4 points; 1 point per]

For small communities this may also include: sidewalks, 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**

N/A

*may only be appropriate to mid-large communities

**may only be appropriate to large communities

[1 point for communities >10 000] [1 point for 3 options for communities >100 000]

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 point per] [N/A for communities with no public transit system]	

NOTES:

In the Village of Perth-Andover, there is no transit. Approximately 425 people travel as drivers with a car, truck, or van; 35 travel as a passenger; 25 walk to employment. It is unknown how many people bike. Of the 425 commuters, a large proportion (350) travel for less than 15 minutes. According to P.65 of the Municipal Plan, it is a policy of Council to adopt a program of traffic calming on residential streets - options for consideration include stop signs, traffic islands, indented curbs, raised crosswalks, and reducing speeds to 30 / 40 kph. On (p. 76) of the Municipal Plan, it states that new subdivisions should ensure the traffic capacity of adjacent streets is sufficient to accommodate the forecasted traffic generated by the new development. The village has trails, sidewalks, bike lanes, bike parking, and a bike rental program.

2.4.4. Alternative energy sources of public transit systems	
<i>Scale</i>	
Scoping (opportunities identified, feasibility assessments) for alternative fuels in public transit systems has been completed [1 point]	N/A
An alternative fuel transit fleet vehicle pilot project has been developed. [2 points]	N/A
A procurement policy for alternative fuel transit fleet vehicles has been adopted. [3 points]	N/A

2.4.5. Anti-idling policies	
<i>Checklist</i>	
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 established 20 years ago, but not enforced.

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

<i>Checklist</i>	
<p>Support for transportation demand management and alternative fuel vehicles at the workplace exists, such as:</p> <ul style="list-style-type: none"> -Bike racks or secure storage facilities -Public tire pumps -Showers and changing facilities -Transit subsidies -Carpooling -Flexible work scheduling/remote working options -EV charging stations for employee or public use <p>[3 points; 1 point per]</p>	<p>✓ ✓ ✓</p>

NOTES:

Workplaces include bike racks, flexible work / remote work, and EV charging is being installed.

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

<i>Scale</i>	
<p>Support for transportation demand management and alternative fuel vehicles at the workplace exists in one public sector organization, such as:</p> <ul style="list-style-type: none"> -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 -EV charging stations for employee/student or public use <p>[1 point]</p>	

<p>Support for transportation demand management and alternative fuel vehicles at the workplace exists in some public sector organizations, such as:</p> <ul style="list-style-type: none"> -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 -EV charging stations for employee/student or public use <p>[2 points]</p>	✓
<p>Support for transportation demand management and alternative fuel vehicles at the workplace exists in all public sector organizations, such as:</p> <ul style="list-style-type: none"> -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 -EV charging stations for employee/student or public use <p>[3 points]</p>	

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	
<i>Scale</i>	
<p>A feasibility study for green fleet vehicles has been completed within the past 3 years.</p> <p>[1 point]</p>	
<p>A green fleet vehicle pilot project has been developed.</p> <p>[2 points] [N/A if infeasible]</p>	

A green procurement policy for the fleet has been adopted.	
[3 points] [N/A if infeasible]	

NOTES:

Not yet - the village looked at converting Zamboni and Garbage Truck to electric, but not feasible yet. Will look at this when replacing other vehicles.

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

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

NOTES:

No vehicles/uses municipally-owned vehicles.

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

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

NOTES:

Perth-Andover does not rely on natural gas.

Buildings

7 / 14 (50%)

2.5.1a. Public engagement and education on energy in single family residential buildings	
Checklist	
<p>Members of the public are informed of initiatives and educated on single family home energy use through basic methods, such as:</p> <ul style="list-style-type: none"> -Website updates -Newsletters -Print materials (such as brochures, fact sheets, information packages) -Social media updates -Webinars or conference calls -Open houses <p>[0.5 point]</p>	✓
<p>Members of the public are engaged on single family home energy use through innovative methods, such as:</p> <ul style="list-style-type: none"> - 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 <p>[1 point]</p>	
<p>Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.</p> <p>[0.5 point]</p>	

NOTES:

Regular energy saving tips on monthly bills & website links. Énergie 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.saveenergynb.ca/en/save-energy/residential/total-home-energy-savings-program/>

Énergie NB Power also partners with other stakeholders, for example, with the Gaia Project to bring hands-on experiential learning opportunities to students, 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	
<i>Checklist</i>	
<p>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:</p> <ul style="list-style-type: none"> -Website updates -Newsletters -Print materials (such as brochures, fact sheets, information packages) -Social media updates -Webinars or conference calls -Open houses <p>[0.5 point]</p>	✓
<p>Members of the public are engaged on multi-unit residential, commercial, or other building energy use through innovative methods, such as:</p> <ul style="list-style-type: none"> - 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 <p>[1 point]</p>	
<p>Public engagement and educational activities are developed/delivered collaboratively between multiple stakeholders.</p> <p>[0.5 point]</p>	

NOTES:

Regular energy saving tips on monthly bills & website links.

Énergie NB Power 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. They offer advice and incentives on how to make buildings more energy-efficient. They also have an Energy Management Service Provider Network customers can access to receive a subsidized energy audit.

<https://www.saveenergynb.ca/en/save-energy/>

Énergie NB Power offers an annual energy efficiency conference that brings together a variety of stakeholders and customers to discuss, educate, engage and inform our partners and interested attendees on all things energy efficient. They also offer ongoing workshops in partnership with CIET and other organizations. Staff from Énergie NB Power regularly attend conferences, such as the Smart Energy Event in Nova Scotia, or their own Energy Innovations Forum, as a presenter or as a participant in a variety of panel discussions related to the industry. Interested parties can also register on their website to be notified when new workshops or courses will be offered by the utility 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	
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 for small or no-growth communities]	✓
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:

This is done through continuous improvement. Currently applying for funding to implement an energy

management system in all buildings. It is a policy of Council that all new corporate facilities aim for LEED standards.

2.5.2b. Electric utility leadership by example in owned facilities	
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]	✓
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:

There have been some renovations / energy efficiency improvements on headquarters or Village Hall, and the utility has implemented LED streetlights.

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

Perth-Andover does not rely on natural gas.

2.5.2d. Public sector organization leadership by example in local facilities	
Checklist	
Energy efficiency retrofits of existing buildings, including certification of previously uncertified buildings, have been demonstrated in at least one public sector organization in the past three years. [1.5 points; 0.5 point for one, 1 point for some, 1.5 points for all]	✓
High performance of new buildings has been demonstrated in at least one public sector organization building constructed in the past ten years. [1.5 points; 0.5 point for one, 1 point for some, 1.5 points for all]	✓
Use of local/renewable heat/electricity has been demonstrated in at least one public sector organization in the past three years. [1.5 points; 0.5 point 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 one public sector organization. [1.5 points; 0.5 point for one, 1 point for some, 1.5 points for all]	✓

NOTES:

Many of the high schools in NB have undergone energy efficiency retrofits. Some have installed solar PV arrays (the largest net-metered array is on FHS), and 15 schools have converted from oil to biomass pellets/boiler systems using sustainable waste biomass.

There are approximately 740 government owned buildings in NB. The province targets 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 the province are built according to the Provincial Green Building Policy, to LEED 2009 or Green Globes standards, which include high energy performance, measurement, and active transportation.

2.5.2e. Community-wide private sector leadership in incorporating energy efficiency and distributed energy resources, and energy labelling or standards into buildings

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

QUEST

