



## Energy Partnership Workshop #6

Date & Time: Tuesday, July 24, 2017, 8:00am – 10:00am

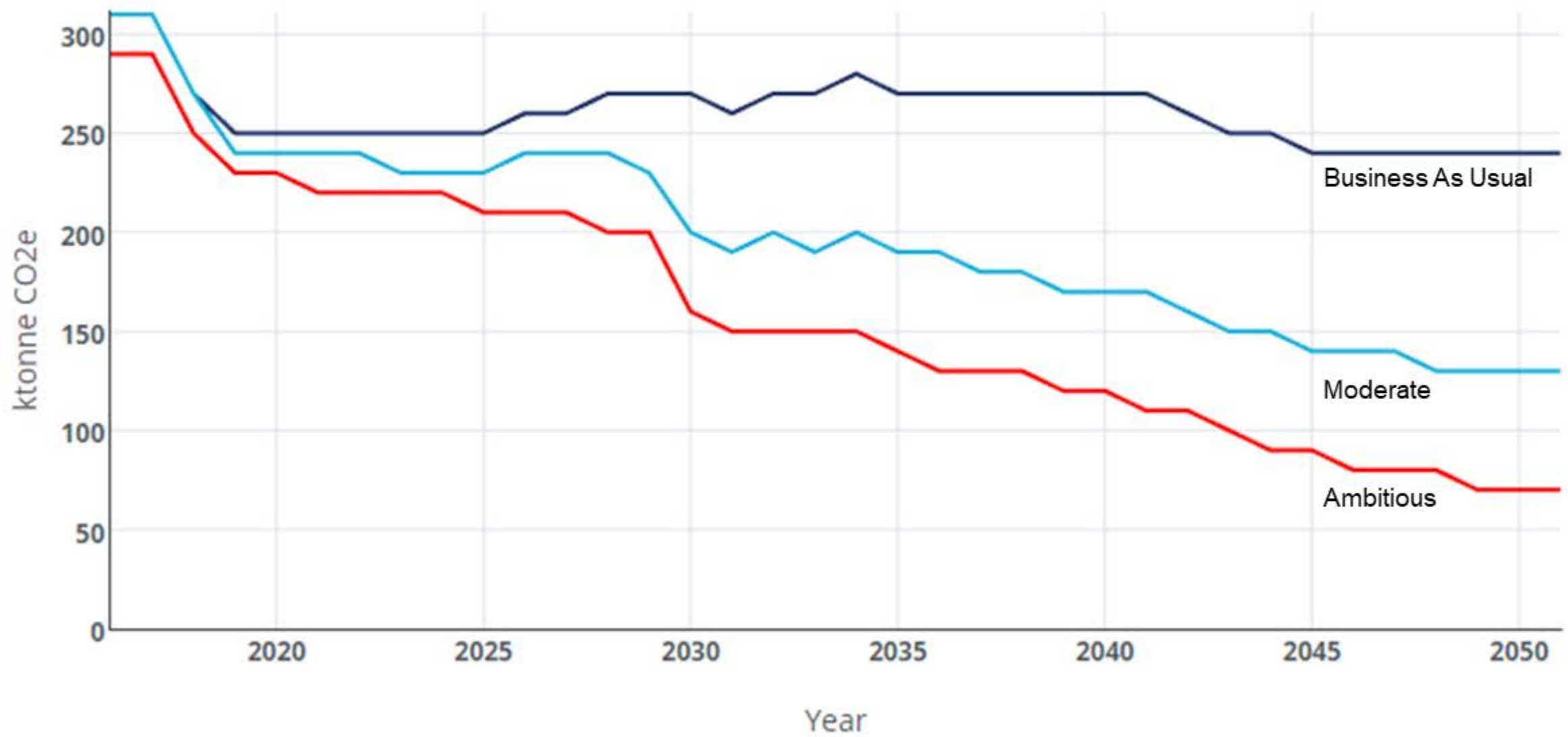
Location: Nova Scotia Community College (NSCC) Lunenburg Campus, 75 High Street, Bridgewater. Room C112.

<u>Agenda</u>	<u>Item</u>	<u>Facilitator</u>
8:00 AM	1. Welcome to Members & Topic Introduction <i>Presentation</i>	Leon de Vreede (Town of Bridgewater)
8:05AM	<b>2. Energy Economics Part 2: Community Energy Investment Plan for Bridgewater</b> <b><i>Keynote Presentation</i></b>	Yuill Herbert (Sustainability Solutions Group)
8:40AM	3. Local Clean Energy Investment & Participation Opportunities for Businesses & Organizations <i>Discussion</i>	Leon de Vreede / Yuill Herbert
9:30AM	4. Networking break <i>Light refreshments served</i>	
9:40AM	5. Living Energy Laboratory Project Update <i>Presentation</i>	Craig Dedels (Town of Bridgewater)
9:55AM	6. Discovery Fair Event Update & Opportunities to Participate <i>Presentation</i>	Bernice Theriault (Bluenose Coastal Action Foundation)
10:00AM	7. Wrap-up and Next Steps	Leon de Vreede

- Notes / Reminders:
- The workshop is open to any Bridgewater and area business, organization, or community group to attend.
  - Each participating organization may send up to 3 people to attend.
  - Registration before the workshop is appreciated, but not mandatory – please come even if you have not yet registered.
  - Light refreshments will be served.

# Bridgewater Low Carbon Scenarios

Projected Yearly Emissions



**Table 1: Sustainable Energy Strategies and Milestones for Bridgewater, NS – DRAFT July 24 2017**

Category		Strategies	Milestones	Responsibility
<b>New building codes and standards</b>	<b>BC</b>	Set net zero standards for new residential buildings; Set passivehouse standards for new multi-unit residential, commercial buildings	100% of new builds meet standards by 2030	Town of Bridgewater (by working with higher levels of government)
<b>Retrofit existing buildings</b>	<b>BR</b>	Retrofit homes, multi-unit residential, commercial, industrial buildings, and Town facilities; Promote industrial efficiency	Achieve thermal/electrical savings of 50% by 2050; Scale up retrofits exponentially beginning in 2020 so all building stock pre-2016 is retrofit by 2020; Increase industrial efficiency by 50% by 2050	Residents, Local Businesses & Organizations, Town of Bridgewater
<b>Building-scale renewable energy generation</b>	<b>BE</b>	Install heat pumps for residential, commercial buildings; Install solar PV, solar heating/hot water for residential, commercial buildings; Prioritize net metering	Scale up air source heat pumps to 50% of buildings, ground source heat pumps to 35% by 2050; Scale up solar PV to 80% by 2050; Scale up solar heating/hot water to 50% by 2050; Net metering on all existing buildings by 2030	Residents, Local Businesses & Organizations, Town of Bridgewater
<b>Community-scale renewable energy generation</b>	<b>CE</b>	Invest in solar PV; Develop district energy system; Prioritize energy storage; Explore run of river hydro, wind, biogas opportunities	Install a total of 8 MW solar PV by 2050; Use 50% sustainable biomass and 50% geothermal/river water heat pump for district energy; 5 kW battery banks in 50% of buildings by 2050	Residents, Local Businesses & Organizations, Town of Bridgewater
<b>Public transit improvements</b>	<b>PT</b>	Expand and electrify transit system	Target 2% of inbound and outbound external trips for transit service by 2020, scaling to 10% by 2050; Replace diesel bus with electric bus	Town of Bridgewater, other local governments & partners
<b>Active transportation improvements</b>	<b>AT</b>	Increase/improve cycling and walking infrastructure	Promote walking and cycling; Continuously improve AT infrastructure; Introduce a bike share program	Town of Bridgewater, other local governments & partners
<b>Electrification of vehicles</b>	<b>EV</b>	Electrify municipal fleet; Electrify personal vehicles; Electrify commercial vehicles	Fleet is 100% electric by 2030; Only electric vehicles sold after 2030	Residents, Local Businesses & Organizations, Town of Bridgewater
<b>Land use change</b>	<b>LU</b>	Target future commercial and residential development downtown	Emphasize walkability, as outlined in Downtown & Waterfront Master Plan	Town of Bridgewater

**Table 2A: Clean Energy Actions for Bridgewater Residents – DRAFT July 24 2017**

Action	Description	Applicable Categories						Sources of Assistance
		BR	BE	CE	PT	AT	EV	
<b>1. Invest in home energy retrofits and upgrades</b>	Residents can upgrade their homes with cost-effective clean energy technologies (improved insulation, heat pumps, solar technologies, water conservation measures, etc.). Residents can also practice low-cost energy conservation habits, such as reducing their use of dryers. Renters can encourage their landlords to make energy upgrades to their properties and take advantage of incentive programs.	✓	✓					Local & provincial incentive programs (HomeWarming, Clean Energy Financing, Efficiency Nova Scotia rebates, Nova Scotia Power on-bill financing, etc.). Local businesses and organizations offer energy upgrade products, services, and support.
<b>2. Invest in a local clean energy projects</b>	Residents can take advantage of local investment programs that will be started by the Town of Bridgewater and the Energy Partners			✓				Local energy development corporation, local investment opportunities
<b>3. Use clean local transportation</b>	Residents can take public transit, use active means of transportation (walking, cycling, wheeling), utilize transportation sharing services, and invest in electric vehicles.				✓	✓	✓	Town of Bridgewater public transportation service, Town of Bridgewater active transportation program. Local businesses and organizations offer clean transportation products, services, and support.

**Leadership Action:** Residents can continue learning about the benefits and practical applications of clean energy solutions, and support community-wide clean energy initiatives.

**Table 2B: Clean Energy Actions for Bridgewater Businesses & Organizations – DRAFT July 24 2017**

Action	Description	Applicable Categories						Sources of Assistance
		BR	BE	CE	PT	AT	EV	
<b>1. Invest in building retrofits and upgrades</b>	Businesses & organizations can upgrade their facilities with cost-effective clean energy technologies (improved insulation, heat pumps, solar technologies, water conservation measures, etc.). They can also practice low-cost energy conservation habits, such as optimizing the scheduling of building systems and developing their own energy management programs. Commercial tenants can encourage their landlords to make energy upgrades to their properties and take advantage of incentive programs.	✓	✓					Local & provincial incentive programs (Efficiency Nova Scotia rebates, Nova Scotia Power on-bill financing, etc.). Local businesses and organizations offer energy upgrade products, services, and support.
<b>2. Invest in a local clean energy projects</b>	Businesses and organizations can take advantage of local investment programs that will be started by the Town of Bridgewater and the Energy Partners. They can also participate as project development partners and contractors.			✓				Local energy development corporation, local investment opportunities
<b>3. Transform local transportation</b>	Businesses and organizations can support the public transportation system, use active means of transportation (walking, cycling, wheeling), and invest in electric vehicles and low-carbon shipping.				✓	✓	✓	Town of Bridgewater public transportation service, Town of Bridgewater active transportation program. Local businesses and organizations offer clean transportation products, services, and support.
<b>4. Invest in energy-related skills and training</b>	Educate and increase training for staff in current energy technologies and best practices, assign staff to energy management activities, and participate in local clean energy opportunities.	✓	✓	✓				NSCC, government skills enhancement programs (e.g. WIPSI)

**Leadership Action:** Businesses and organizations can make public commitments to prioritize clean energy, achieve specific energy and GHG emissions reduction milestones, and participate in Energy Leadership Actions.

**Table 2C: Clean Energy Actions for the Town of Bridgewater – DRAFT July 24 2017**

<b>MUNICIPAL OPERATIONS</b>
1. Invest in ongoing energy improvements for facilities and operations
2. Invest in the electrification of the municipal light-duty vehicle fleet
3. Explore biogas opportunities to fuel the municipal heavy-duty vehicle fleet
4. Invest in staff capacity to implement clean energy actions
5. Develop a revolving loan fund
<b>COMMUNITY INFRASTRUCTURE &amp; SERVICES</b>
6. Install community EV infrastructure
7. Expand and electrify community transit system
8. Continue developing active transportation networks and initiatives
9. Expand Property Assessed Clean Energy Financing programs
<b>PLANNING &amp; REGULATIONS</b>
10. Establish stretch codes and incentives to support low carbon buildings
11. Bolster regulations and incentives to develop downtown
12. Enable clean district energy systems
<b>COMMUNITY-SCALE ENERGY DEVELOPMENT</b>
13. Dedicate municipal land for community-scale energy development
14. Explore community-scale solar, wind, and hydro energy investment potential

**Leadership Action:** Commit to Energy Leadership Actions, and support other municipalities in community energy planning efforts.

**Table 2D: Energy Leadership Actions for the Town of Bridgewater and the Bridgewater Energy Partners**

Action	Description	Milestones
<p><b>1. Invest in staff capacity to implement the CEIP</b></p>	<p>Develop a minimum of 1 dedicated full-time position to implement this Plan and support the community's transition to a clean energy economy.</p>	<p>Staff position developed and staff hired in 2018-19 fiscal year. The position will be hosted by the Town of Bridgewater. Following the development of the local energy development corporation, the position could transition to that organization if appropriate.</p>
<p><b>2. Continue and expand the Energy Partnership</b></p>	<p>Formalize and continue to develop the Energy Partnership and transfer stewardship of the implementation and monitoring of this Plan to this group, which will include the Town of Bridgewater.</p>	<p>Energy Partnership renewed and expanded in 2018-19 fiscal year.</p>
<p><b>3. Establish a local energy development organization or group of organizations</b></p>	<p>Research, plan, and set up one or more community-owned and managed energy development entities capable of developing community-scale energy projects including, but not limited, to district energy systems, solar and wind generation systems, bulk purchasing and maintenance, and energy retrofit financing and incentive programs. Should have the ability to aggregate local and external investments and funding and apply them to local initiatives. May involve co-operative ownership structures.</p>	<p>Research corporate structures and suitable uses in 2018-19 fiscal year. Incorporation of one or more organizations by 2019-20 fiscal year.</p>
<p><b>4. Continue and expand the Living Energy Laboratory</b></p>	<p>Work with community partners to make a seed grant program permanently available for community leadership in energy innovation. Issue periodic calls for proposals, and continue to share learnings and outcomes with the community.</p>	<p>Living Energy Laboratory renewed and refunded by 2018-19 fiscal year.</p>
<p><b>5. Monitor and track the community's progress in implementing this Plan</b></p>	<p>Maintain a dedicated website and social media platform that communicates the community's activities related to the clean energy transition.</p>	<p>Communication tools implemented by end of 2017-18 fiscal year. Website updated at least annually, and social media channels remain active on a frequent basis.</p>

# Energy Investment Opportunities for Local Businesses & Organizations – Partner Questionnaire

*Energy Partnership Workshop July 25, 2017*

**1. Based on what you've heard today, what local investment opportunities (whether within your operations or in the broader community) would your business or organization consider making? (check all that may apply)**

- Building retrofits and upgrades
- Local clean energy projects
- Transforming local transportation
- Energy-related skills and training
- Other \_\_\_\_\_

What additional information do you need to make these decisions?

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**2. What leadership actions would your business or organization consider making to support the community's transition to clean energy? (check all that may apply)**

- Make public commitments to prioritize clean energy
- Continue participating in the Energy Partnership
- Setting up a local energy development organization
- Continue supporting the Living Energy Laboratory
- Helping to monitor the community's clean energy progress
- Other \_\_\_\_\_

What additional information do you need to make these decisions?

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Name \_\_\_\_\_

Organization \_\_\_\_\_