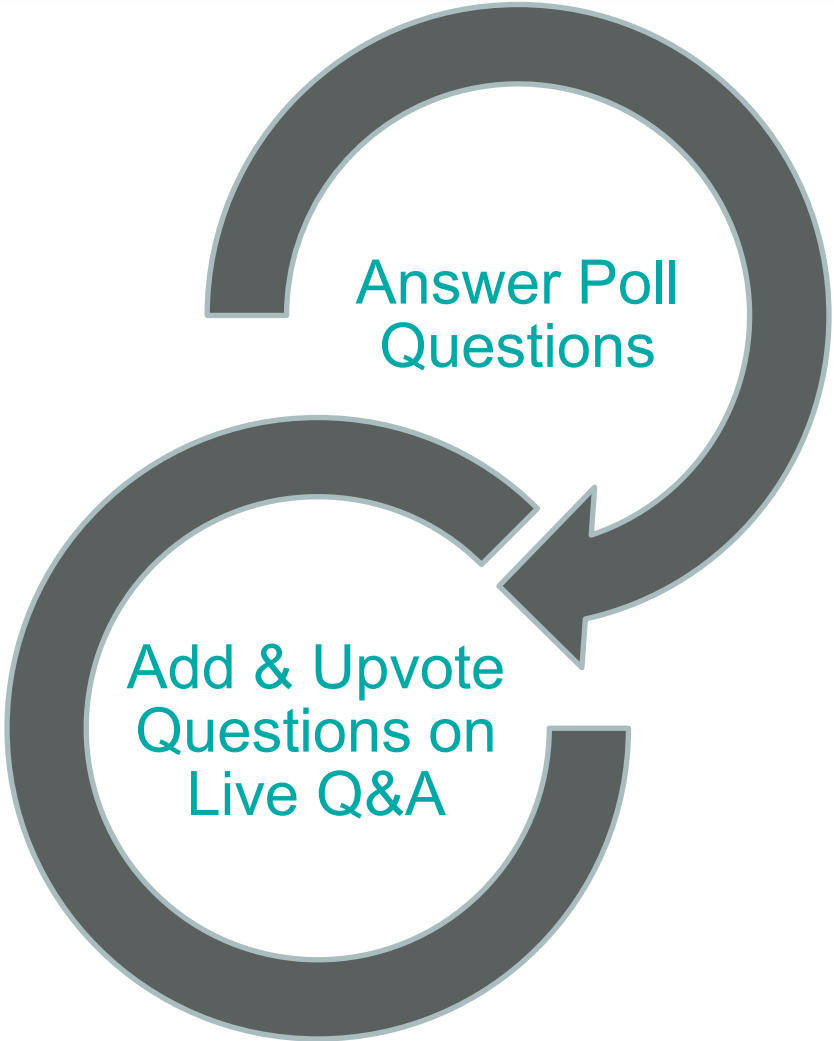


While you wait... join us!



#3896334



Net-Zero Communities
Accelerator Program

Net-Zero Communities Accelerator Program

- *Barriers and Opportunities for Local Action*

Date: June, 2024

ABOUT QUEST CANADA [↗](#)

We are a national Charity that supports communities on their pathway to net-zero. We develop tools and resources, convene stakeholders and advise decision-makers—all with the goal of enabling communities to contribute to Canada's net-zero goals.

Learn more: www.questcanada.org

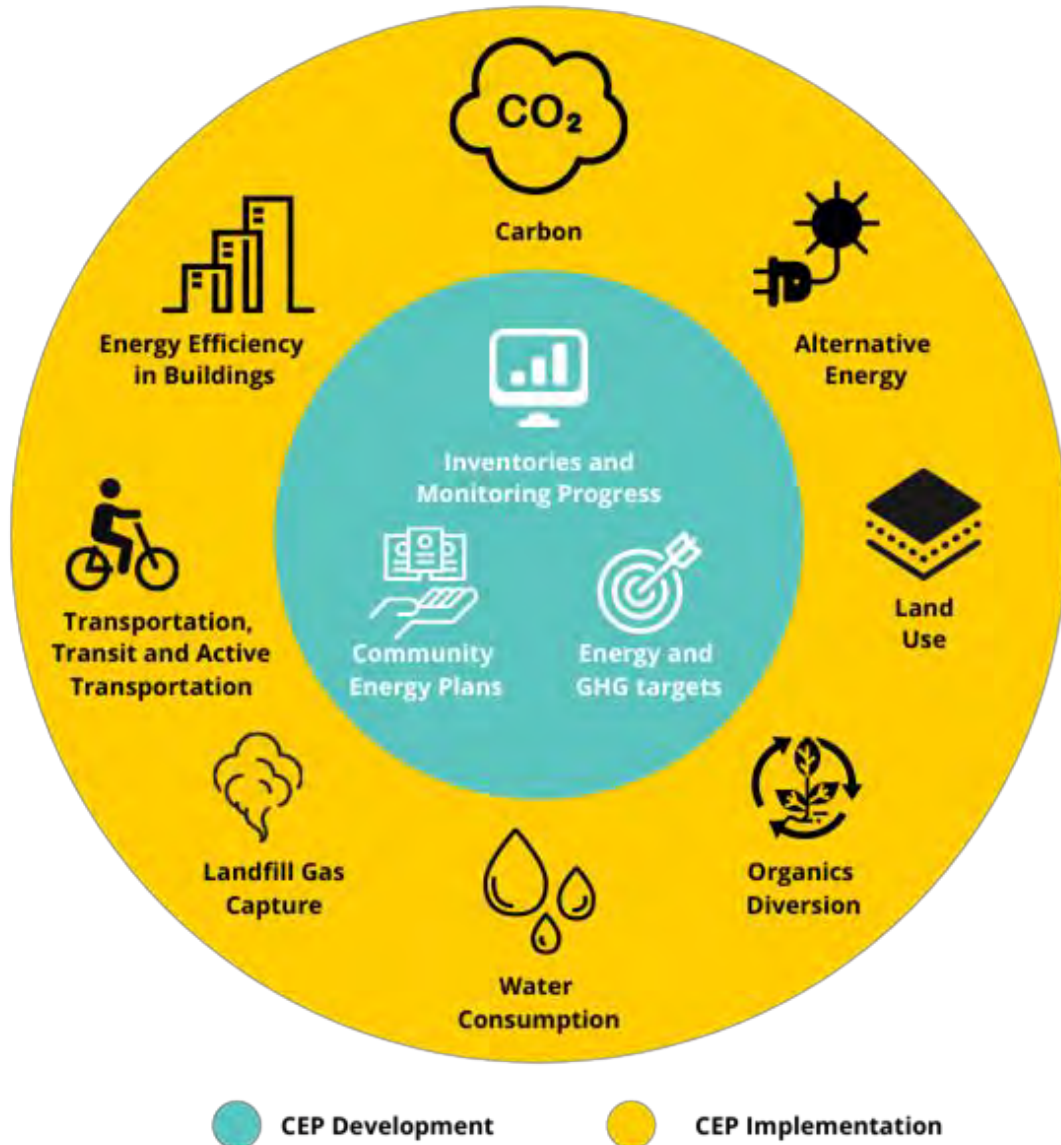


WHY COMMUNITIES MATTER IN TRANSITION TO NET-ZERO

Rationale

- + Communities are responsible for >50% of energy use and Greenhouse Gas (GHG) Emissions in Canada, but consistently rank lack of capacity and funding as their biggest barriers to action.
- + Business-as-usual scenarios forecast that the amount of energy consumed at the community level could increase by 75% above 2006 levels by 2050.
- + As Canada builds back from Covid, there is a need to ensure that critical foundations are in place at the local level to harness economic development opportunities and meet Canada's net-zero GHG emissions by 2050 target.
- + Communities influence or direct over 60% of infrastructure spending in Canada





COMMUNITY ENERGY PLANNING IN CANADA

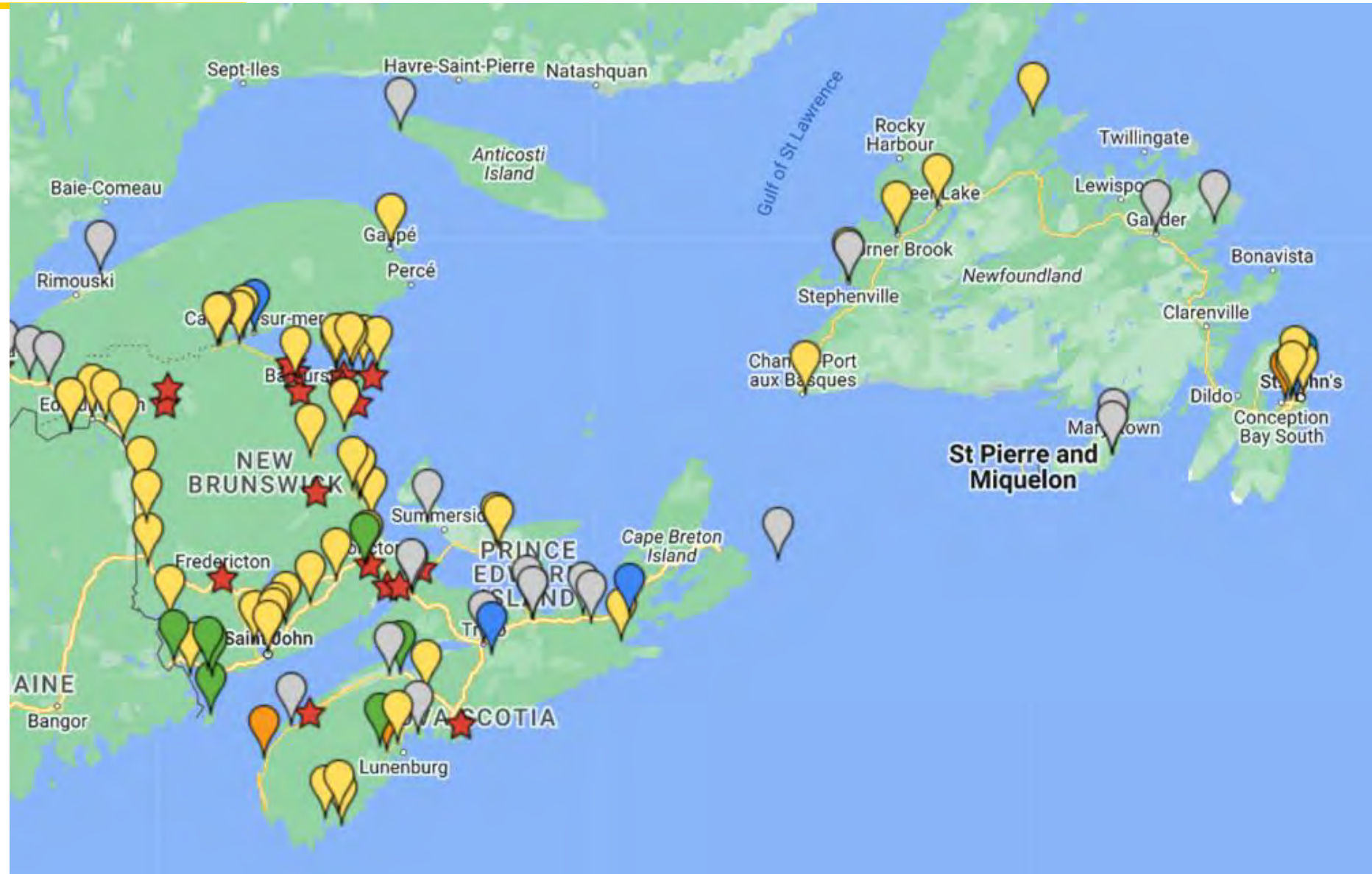


- + Over **500 communities** across Canada are engaged in community energy planning
- + A Community Energy and Emissions Plan (CEEP) is a tool that defines **community priorities** around energy with a view to improving energy efficiency, reducing GHG emissions, driving economic development and improving community health and resilience.
- + **CEEPs typically contain:**
 - + Energy and emissions inventory & maps
 - + Energy and emissions reduction targets
 - + **Broad scope of actions**

HOW IS ATLANTIC CANADA DOING?

Milestones

-  0 Joined
-  1 GHG Inventory
-  2 Targets
-  3 CEEP
-  4 Strategy / Progress
-  5 Measure



Maybe a few months out of date

NET ZERO COMMUNITIES ACCELERATOR PROGRAM

Goal: Equip diverse communities with the tools and knowledge to develop and implement community energy and emissions plans, and understand the economic benefits of implementation.

- + Pilot Timeline: September 2020 - March 2023 = 14 communities
- + Extended to March 2024 = 9 new communities
- + Expanded to include 15 communities across the Prairies, starting in 2023
- + **Now expanding across Atlantic Canada (2024 to 2026): 15+ new communities**

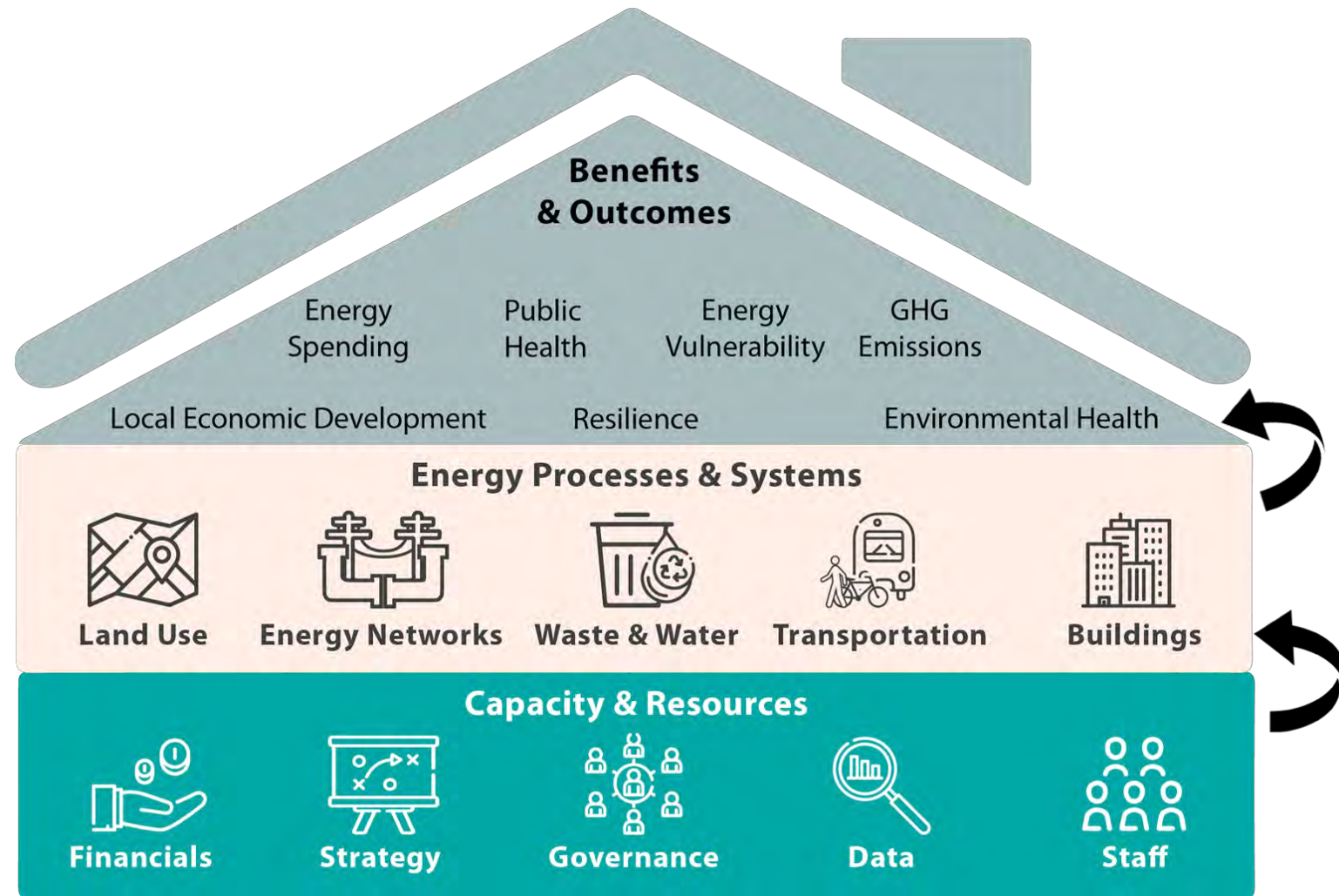
Pilot Project Funders:



IDENTIFYING STRENGTHS, AREAS OF IMPROVEMENT, AND PROGRESS

The **Smart Energy Communities Benchmark** measures where a community stands relative to Canadian best practices on ten indicators that, taken together, constitute the core characteristics of a Smart Energy Community.

smartenergycommunities.ca



CEEP DEVELOPMENT AND IMPLEMENTATION WORKSHOPS

These workshops help communities to make decisions, specifically on:

- + CEEP measures and implementation strategies
- + Governance structure and coordination
- + Communications and stakeholder engagement
- + Data collection and Key Performance Indicators
- + Fostering buy-in and collaboration

Each community receives a report and works to advance their CEEP. The Reports can be used to obtain Milestones 3 and 4 in the [Federation of Canadian Municipalities-ICLEI Partners for Climate Protection Program](#)



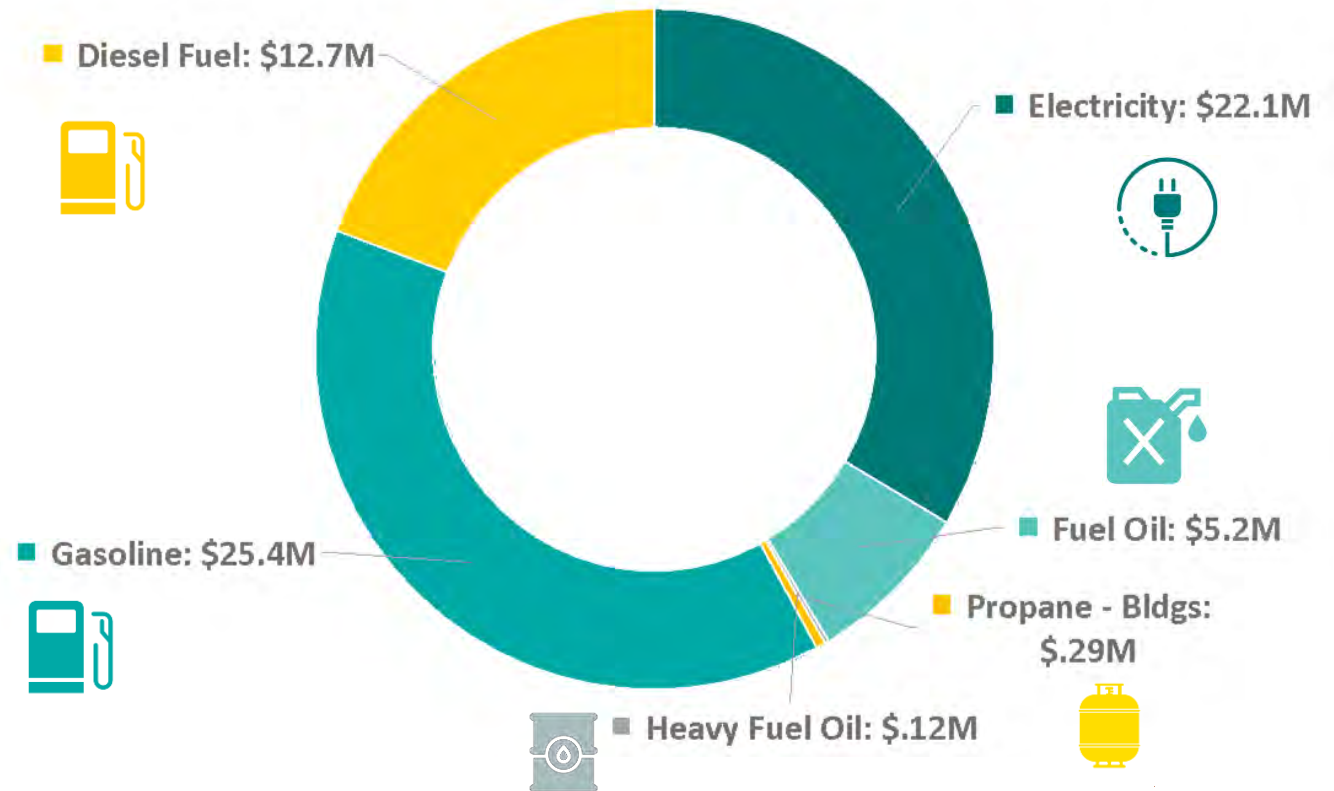
KEEPING ENERGY DOLLARS LOCAL: ECONOMIC IMPACT ASSESSMENT OF CEEPS

Total Energy Expenditures: **\$65.8M***

Approximately
 $\$65.8 \times 80\% = \52.6
Leaves the Community

Every 1% reduction in energy use keeps approximately \$.5M in the local economy. Town of Quispamsis is targeting an 8% reduction by 2025 and 16% by 2035, which could keep \$10M local annually once fully implemented. This includes carbon tax avoidance.

Quispamsis - Community-Wide Energy Expenditures (2021 \$\$'s)



* Based on GHG Inventory from 2018 Quispamsis's Community GHG & Energy Action Plan

KEY BARRIERS / CHALLENGES

- + Capacity
- + Staffing / Skilled Expertise
- + Navigating funding opportunities
- + Complexity around certain projects (e.g. district heat)
- + Municipal Act / limits on authority
- + Competing priorities
- + Limited budgets
- + Municipal reform and amalgamations

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Which of these barriers have impacted you the most in your work? (select up to 3)

① Start presenting to display the poll results on this slide.

KEY OPPORTUNITIES

- + Develop a Community Energy and Emissions Plan, and set targets
- + Develop governance structure, embed roles/responsibilities
- + Establish internal oversight committee and a stakeholder advisory committee
- + Update Municipal Plans, Land Use Plans, Policies, Bylaws (with green lens)
- + Augment procurement and permitting processes (with green lens)
- + Access funding through Green Municipal Fund, INFC, CIB, etc
- + Explore partnerships to advance specific projects (e.g. efficiency financing, community energy systems, transportation solutions, etc)
- + Advocate for provincial policies (e.g. around financing and clean energy)

THANK YOU!



Olumide Fatoki

Director of Operations
ofatoki@questcanada.org

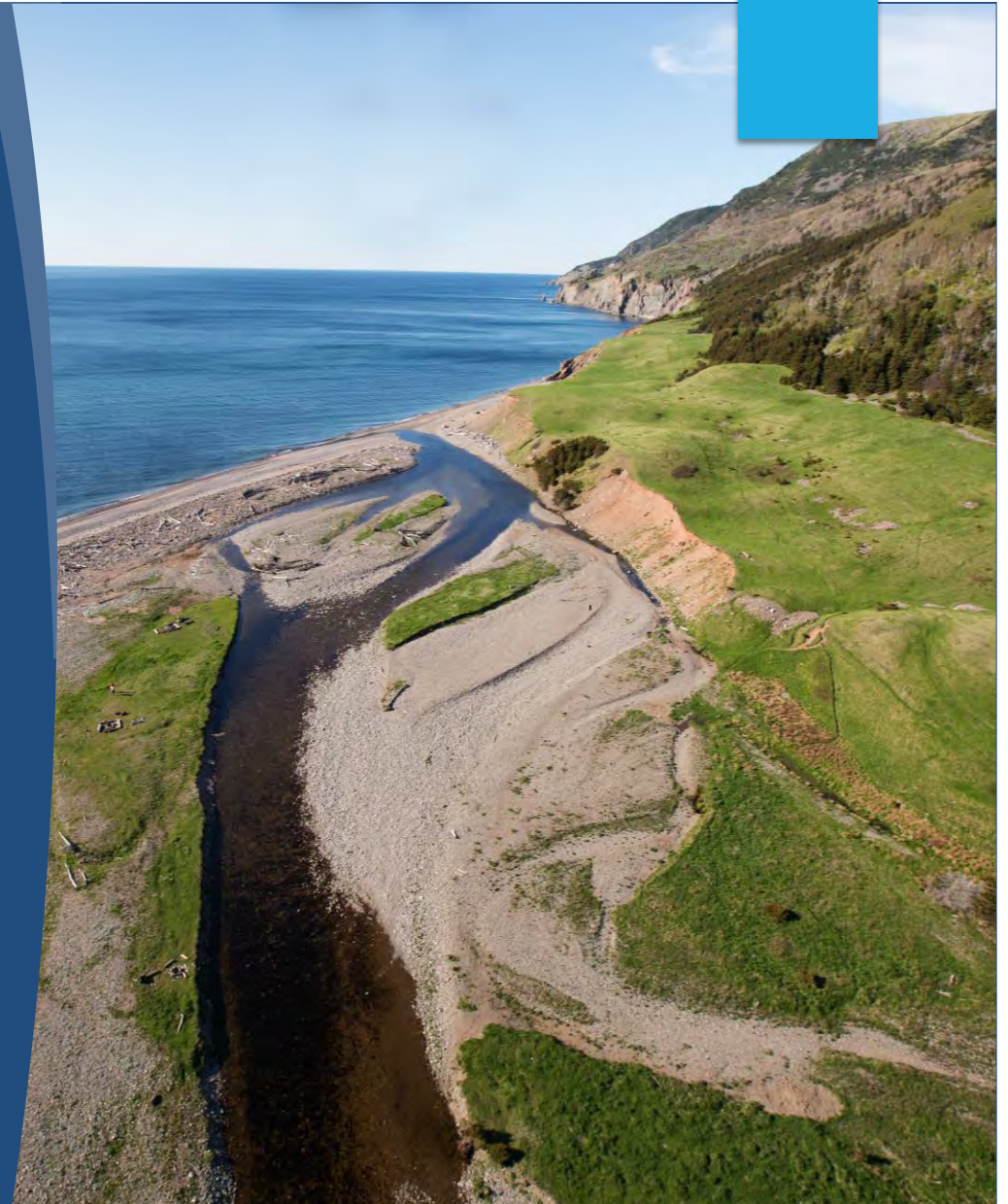


Eddie Oldfield

Senior Lead, Projects
eoldfield@questcanada.org

Introduction

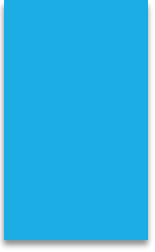
- ▶ Environmental Goals and Climate Change Reduction Act (EGCCRA)
 - ▶ The Act includes commitments to release a provincial climate risk assessment and a climate change plan
- ▶ In December 2022, the climate change risk assessment and climate change plan were released
- ▶ In February 2024, the Coastal Protection Action Plan was released



Environmental Goals and Climate Change Reduction Act (EGCCRA)

- ▶ **First piece of legislation** Government brought forward
- ▶ Legislates **6 principles** and **28 goals** which advance climate action and sustainable prosperity in Nova Scotia
- ▶ 28 legislated goals cover a diversity of **topics including:**
 - ✓ Climate action
 - ✓ Land protection
 - ✓ Food & aquaculture
 - ✓ Clean air and water
 - ✓ Circular economy
 - ✓ Education, training & youth
 - ✓ Diversity, equity & inclusion
 - ✓ Supporting business & procurement
 - ✓ Environmental assessment

Acting on Climate Change



- 1. Addressing the source of the problem**
 - ▶ Reducing greenhouse gas emissions that cause climate change

- 2. Reduce risks and take advantage of opportunities**
 - ▶ Addressing the impacts we see now
 - ▶ Preparing for future changes

Our Team

- ▶ **Climate Plan and Strategic Action Team:**

- E.g., Climate Plan, SCCF

- ▶ **Mitigation Team:**

- E.g., Output-based pricing

- ▶ **Adaptation Team:**

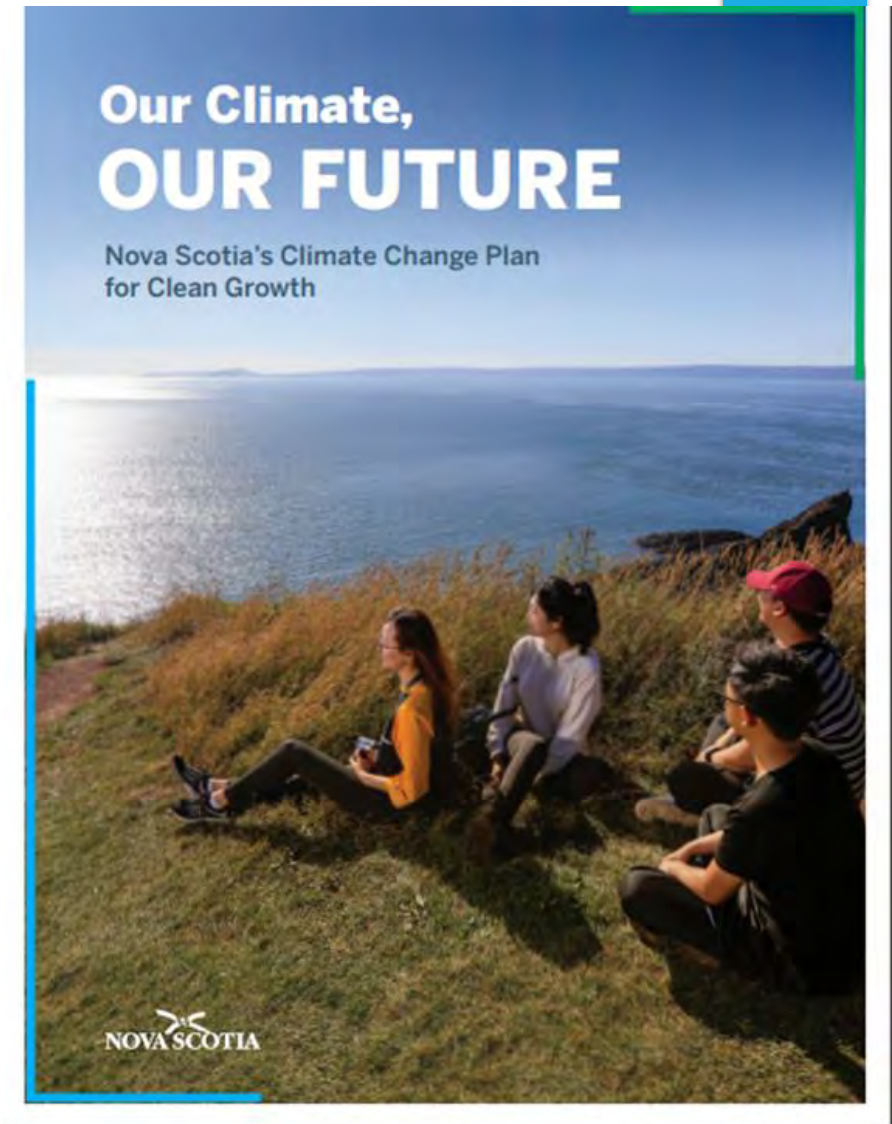
- E.g., Departmental Adaptation Strategies

& CLIMAtlantic (shared role):

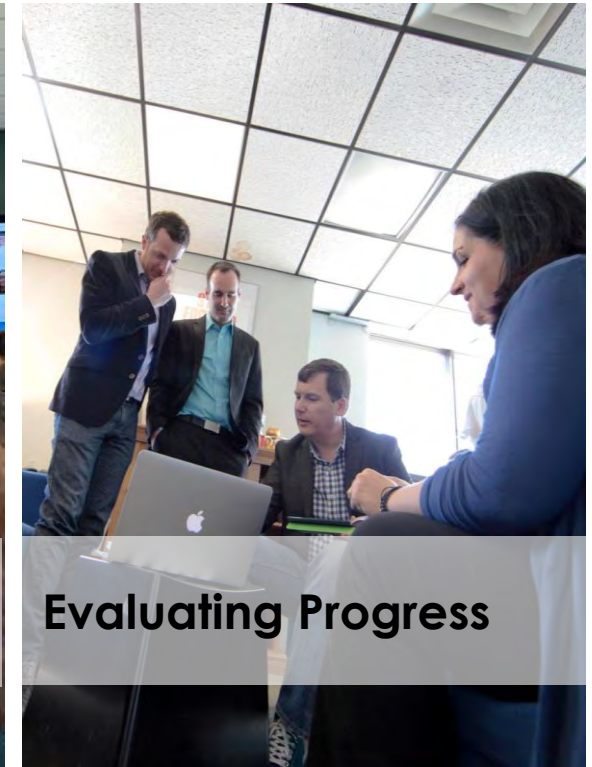
- Climate data and other resources focused on our region

Acting on Climate Change - Nova Scotia's Climate Change Plan

- ▶ The climate plan is a collaborative effort towards our vision of sustainable prosperity
 - ▶ 68 actions being delivered across many government departments



Climate Change Plan: Action Areas



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**Which Climate Change Plan
action area most closely
aligns with your work?**

① Start presenting to display the poll results on this slide.

Funding Navigator

- ▶ Climate Plan Action 56: *“Create a new funding navigator at the Department of Environment and Climate Change to connect Nova Scotians to climate change funding opportunities”*
- ▶ **Year 1 (last year):** Research, relationship building, preliminary internal and external engagement, ‘soft launch’ with word-of-mouth-based referrals
- ▶ **Year 2: (this year):** Developing a set of options for government consideration that will outline what a proactive and strategic funding support program could look like
- ▶ *Key Question: what tools and resources can the Funding Navigator deliver to meaningfully support Nova Scotians in accessing federal and provincial funding for their priorities?*

Year 1 Objectives

- ▶ Build relationships with key stakeholders who may wish to access the services offered by the Funding Navigator, and outline what the position can offer to the community.
- ▶ Understand what application process(es) look like from the perspective of community organizations, businesses, and individuals, with respect to accessing climate-related funding.
- ▶ Create linkages between Funding Navigator and administrators of provincial funding programs to create enabling conditions for mutual support and maximize impact for applicants.



Thank-you

Contact

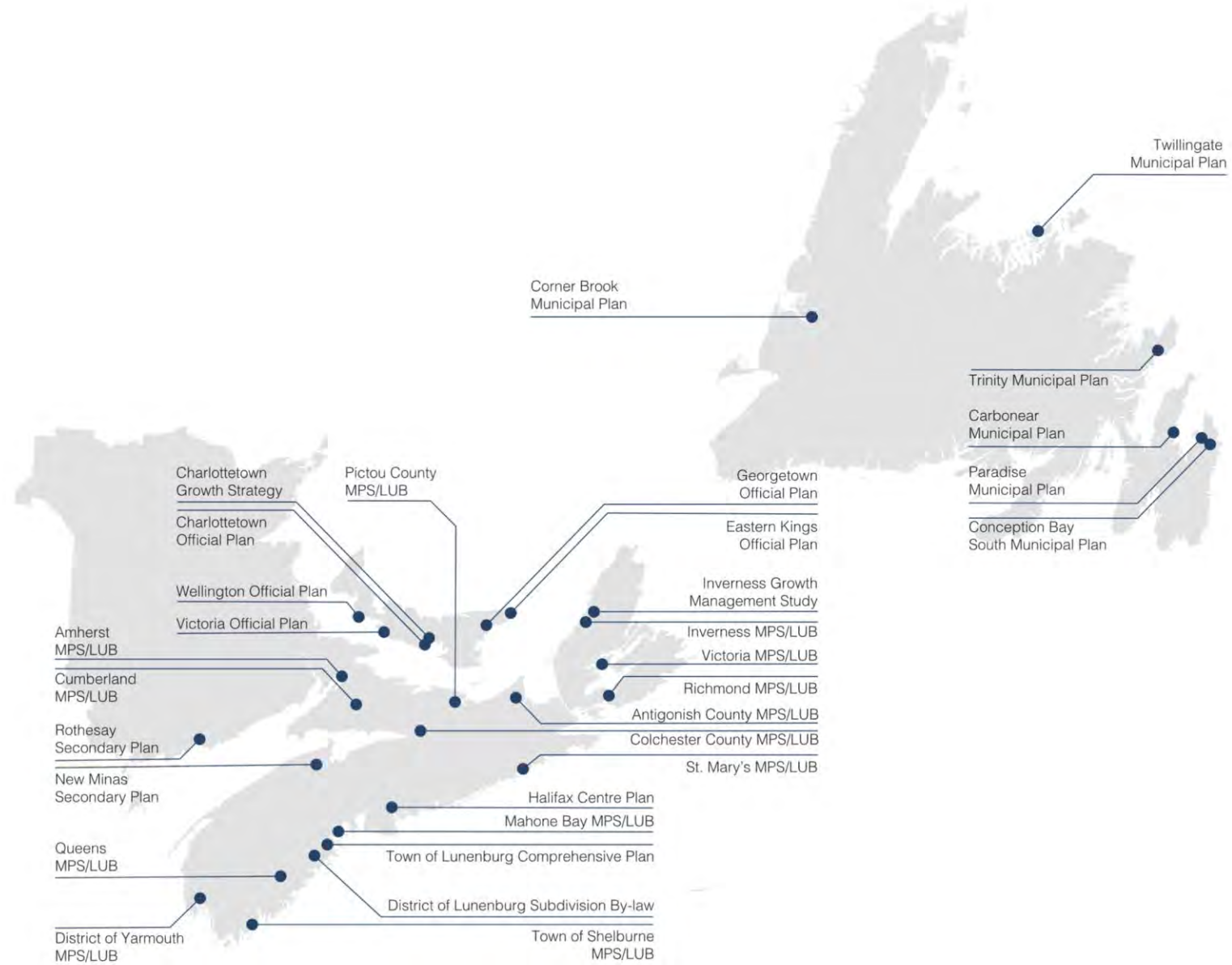
Email: clare.arsenault@novascotia.ca

Questions?



Clean, silent power for film, events, construction and more.







Stratford Waterfront Core Area Plan



Pictou Waterfront Plan



Project Lunenburg Comprehensive Community Plan



Rothesay Secondary Plan



Jan 2020

Peninsula South Complete Streets Project

BICYCLE WAYFINDING GUIDE



Jan 2018

Bicycle Wayfinding System and Guidebook



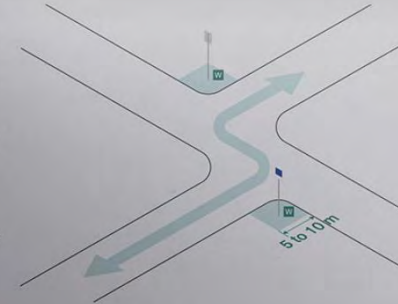
2.6 Waymarker (CONTINUED)

WAYFINDING SIGN TYPES

2.6.2 Placement

Turn fingerboard signs should be located as close as possible to the turning point. Normally, they are located on the approach side of the turn but may be located on the opposite side where this makes directional or positional sense.

It is important that turn fingerboard are located so that they easily seen and obvious to a cyclist. Signs should not be too far from the designated bike route, nor should they be close to other non-bike related corridors, lanes, or paths that could be confused with the bike route.



2.6.3 Waymarker Sign Examples

Below are typical waymarker wayfinding sign layouts and common variations that can accommodate unique circumstances or additional information.



W1.1 Typical on-road waymarker sign

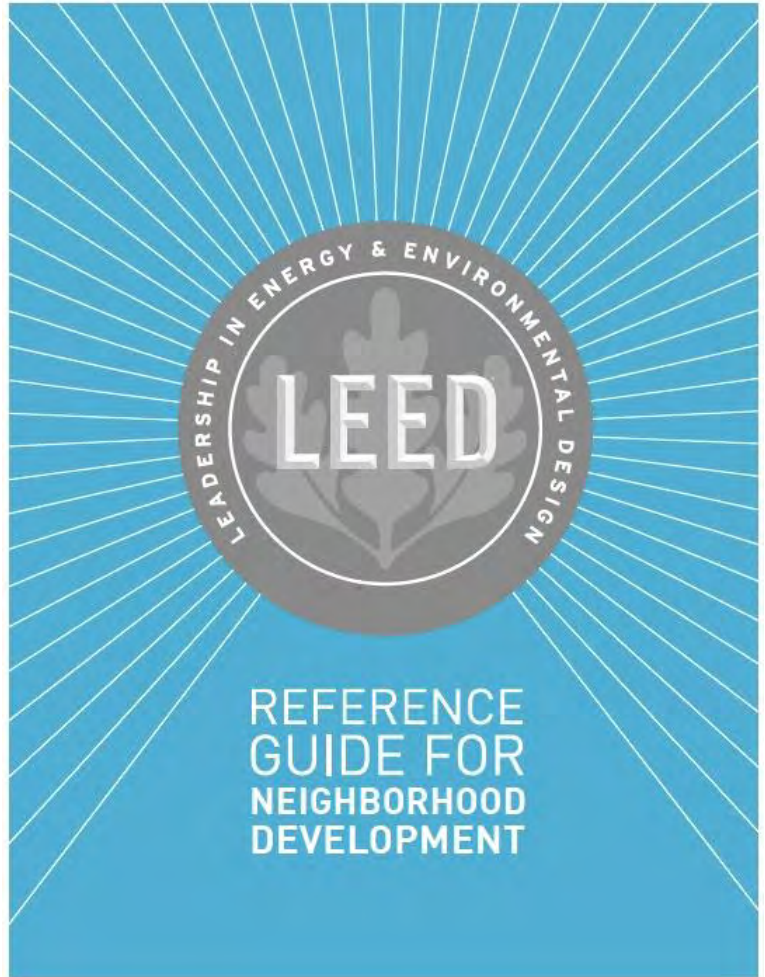
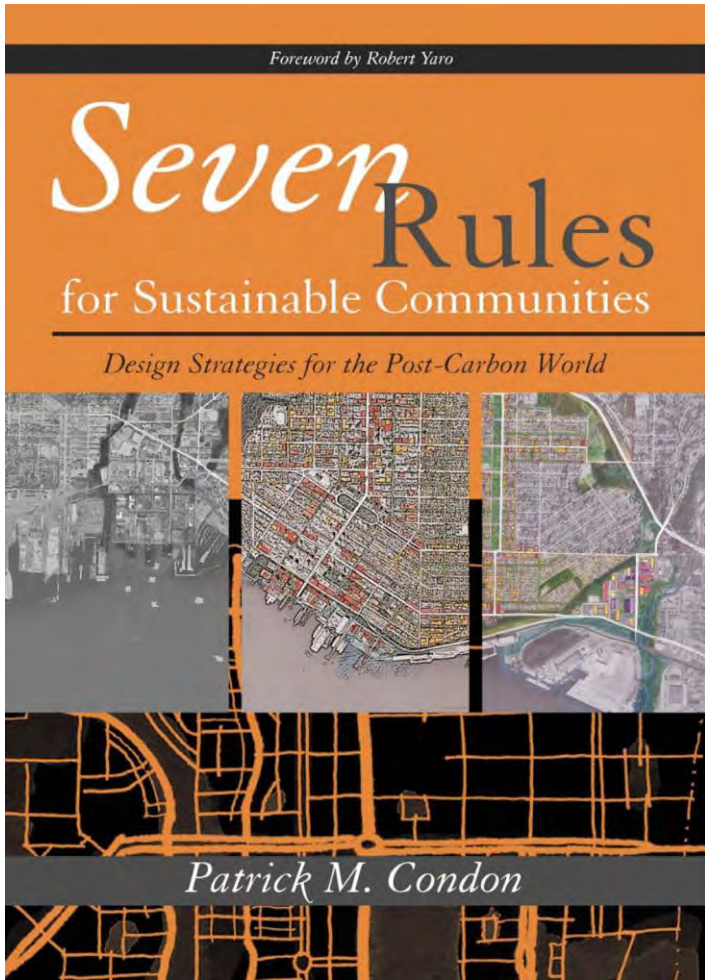
W1.2 Typical off-road waymarker sign

W1.3 Typical off-road waymarker sign with logo

W1.3 Waymarker for Blue Route

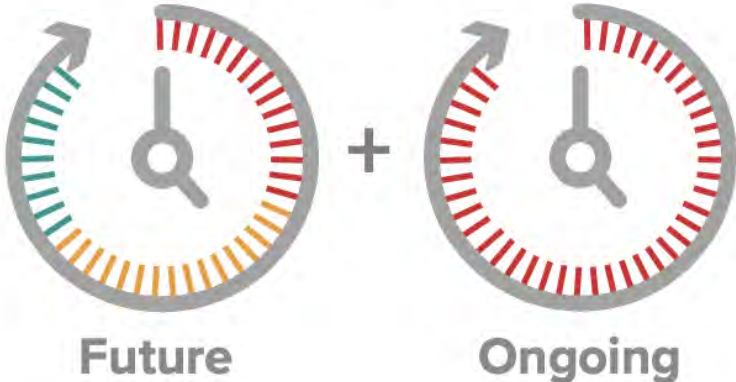


Stratford Community Campus Plan



IMPLEMENTATION

Timing (now, next, future)



Star Power Atlantic Inc.

Distributor and rental house for e-Generators

- Introduce clean, silent power for film, events, construction and more
- Bring the made-in-Canada products of a global leader in clean, sustainable mobile power solutions to Atlantic Canada
- Make our clients' operation carbon-neutral
- The electric revolution is happening



Why e-Generators?

- Climate Emergency
- Global energy transition/GHG reduction
- Growing consumer awareness of role of Cleantech as a logical solution
- Initiatives and buy-in of Cleantech from industry groups, corporations, and government



Why e-Generators?

- Novel/innovative solution to pain points of diesel/gas generators
- Carbon offsetting
- Quiet and clean
- Ideal for film industry and multiple, diverse industries
- Atlantic Canada is on the cusp of its energy transition



Why e-Generators?

- Global events —> the “new normal” of high fuel prices
- Cost savings
- Makes sense!
- Greening strategies

Politics

Higher oil and gas prices may be permanent: former Bank of Canada governor



Stephen Poloz says economy may need to adjust to costlier fuel even when other prices come down



Richard Raycraft · CBC News · Posted: Jun 22, 2022 6:55 PM ET | Last Updated: June 23

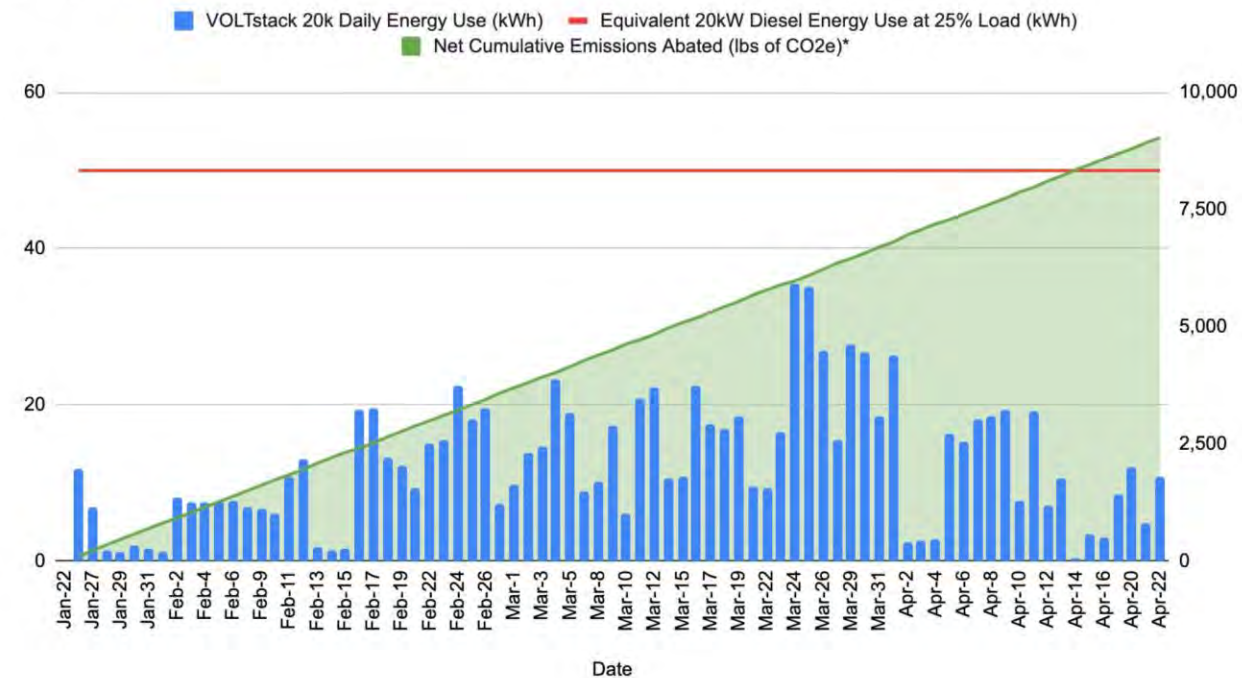


Then-Bank of Canada Governor Stephen Poloz listens to a question at a press conference on Parliament Hill in Ottawa, on Wednesday, March 18, 2020. In an interview with CBC's Power & Politics, Poloz said higher oil and gas prices may be here to stay. (Justin Tang/The Canadian Press)

Case Study

- Diesel generators produce power all day, idling at 25% or 50%
- VOLTstacks only provide power when needed
- During a 3 month rental*, the VOLTstack saved ~9,000 lbs of CO2 emissions, or 10,300 driving miles

Large Production GHG & Energy Comparison



Cost

| Unit | Rental Rate (\$/wk) | Fuel Costs (\$/wk) | Total (\$/wk) |
|-------------------------|---------------------|--------------------|---------------|
| VOLTstack 5kW | \$725 | \$0 | \$725 |
| Equivalent: 7kW Gas | \$350 | \$167 | \$517 |
| VOLTstack 20kW | \$2,375 | \$0 | \$2,375 |
| Equivalent: 50kW Diesel | \$750 | \$924 | \$1,674 |

Additional generator costs, on a case-by-case basis

- Higher permitting fees (larger set footprint) (\$500-\$1,000/week)
- Fire marshal required (\$600/day)
- Extra time to set up and take down (\$500-\$1,000/set up)
- Extra labor to manage unit (\$600/day)
- Loss of clean energy incentives (Vancouver is up to \$500/day)

Non-monetary costs

- Detrimental externalities
 - GHG emissions
 - Noise pollution
- Heavily regulated usage
- Safety issues (more cabling, fumes, fire hazards)

Why Now?



In Nova Scotia, 30% of power comes from renewables.

The share of renewables is expected to grow to 40% by the end of 2022.

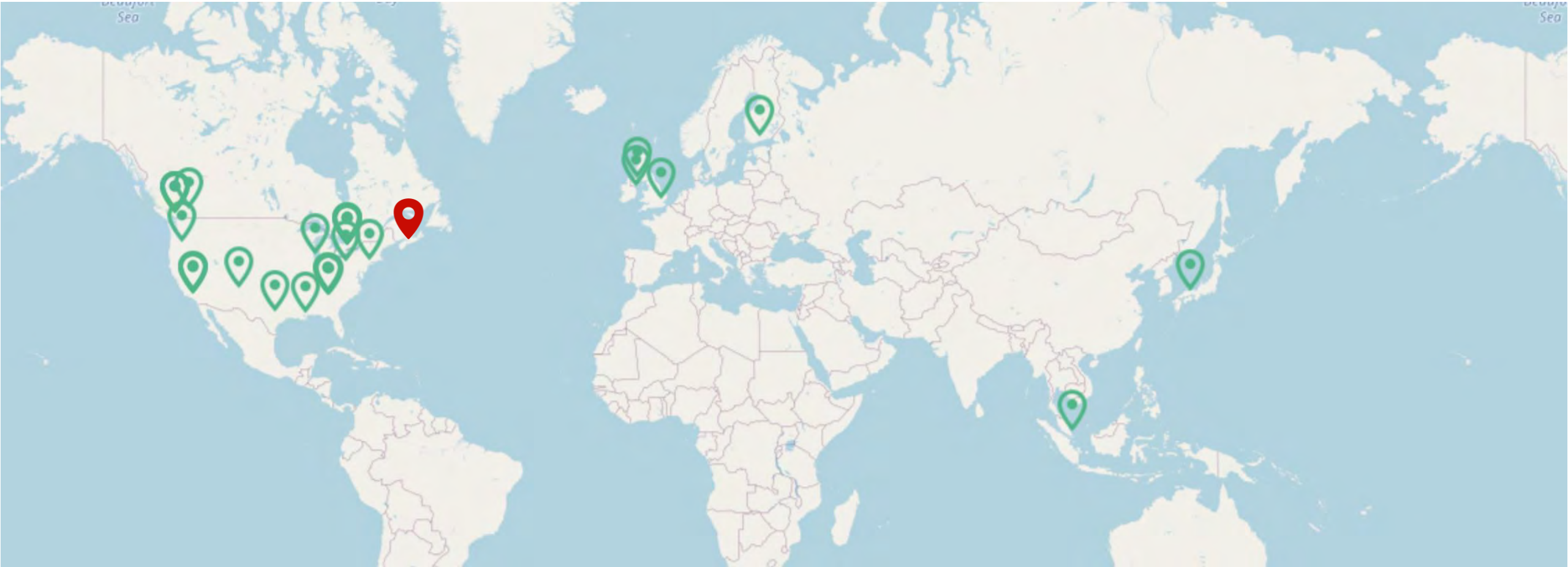
By 2030, the Province has committed to having renewable energy power 80% of its electricity grid.

The Products

- Voltstack 5k - (5.6kWh)
- Voltstack All-Terrain
- Voltstack 30k (80kWh)
- Sunstacks
- Neuron OS



Global Use



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How familiar are you with e-generators as a strategy to reduce emissions from community events?

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Washington Black (Disney/Hulu Series)



From (MGM Series)

EPIX ORIGINAL SERIES FROM EXECUTIVE PRODUCERS OF *LOST*



 star power
ATLANTIC

Dartmouth Open Streets



Popsicle Run



Chester Builders



Bluenose Marathon



Music Across the Water



What a magical night



@scotiafestival
powered by the

Music Across the Water



Music Across the Water



chamber music at its best.

Scotia Festival of Music

902.429.9467
SCOTIAFESTIVAL.COM

Music Across the Water



Dalhousie University Free Lab



JUNOS Halifax



Lunenburg Folk Festival



Film Production



Grand Parade Halifax



Open Streets Halifax



Halifax Common



Nocturne Halifax



Sullivans Crossing



Buskers Festival



East Coast Music Awards



Lunenburg Doc Festival



Halifax Wanderers



W



Sleepy Bear Productions



Halifax Mural Festival



Downtown Dartmouth Ice Festival Ice



Subway Sydney Backup Power (Hurricane Fiona)



Agricola Open Streets Festival Ice



Heartland Tour



Mahone Bay Reindeer Fun Run Fun Run



School Carnival



007



How?

- People
- Policies
- Procurement



People

- Sustainable Production Program Managers (NBCUniversal, 22 Minutes, etc.)
- Environment & Climate Change Teams
- Non-profits

**NO MUSIC ON A
DEAD PLANET**



Incentives, Policies and By-laws

- Clean Energy Incentives
- Film By-Laws
- Special Event Policies



**REEL
GREEN™**
AT CREATIVE BC

**Clean
Energy**

Generator Parking Locations

Submit generator parking locations to help identify future clean power priority areas.

Generator data includes 2019/20 reporting from City of Vancouver and production submissions starting October 2020. Clean power includes electric batteries and grid power tie-ins.

Submit generator information

FILTERS

| | | | |
|--------------------------|-------------------------------------|--|------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Generators | 5929 |
| ▼ | <input checked="" type="checkbox"/> | Clean Power | 456 |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> Electric battery | 189 |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> Tie-in | 267 |

Incentives, Policies and By-laws

Clean Energy Incentive (City of Vancouver)

Provides a 50 percent reduction in the daily permit fee when a film company can demonstrate a reduction in their use of diesel generators.

Incentives, Policies and By-laws

Film By-Laws (City of Vancouver)

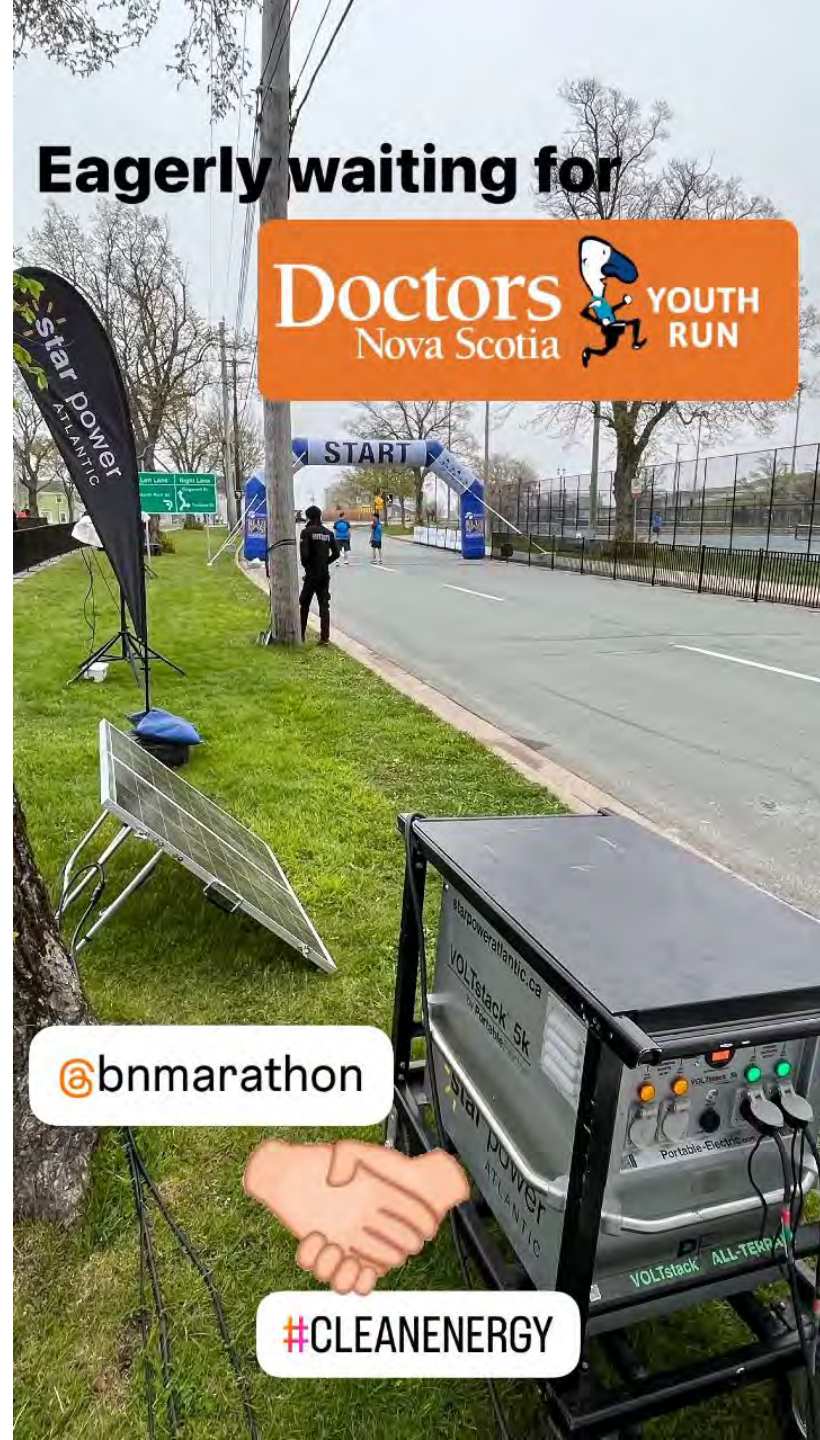
Make the approval of certain types of high impact film activity, such as late night filming in residential areas, which is a major area of citizen complaints, conditional on enhanced requirements to reduce or eliminate generator use.

Sustainable Procurement

- Federal
- Provincial
- Municipal
- Institutions

Certifications

Blue Nose



Star Power Atlantic Inc.

Halifax / Mahone Bay



info@starpoweratlantic.ca

1-902-414-9866

Capacity

5.6kWh

Continuous Output

4.8kW

Peak Power (5 sec)

5.8kW

Pure Sine Wave Output Voltage

120VAC

Lifecycle (80% capacity)

4,000

Charge Time

2 hours



Capacity

80kWh

Continuous Output

27kW

Peak Power (5 sec)

34kW

Three Phase, Pure Sine Wave Output Voltage

120/208VAC

Lifecycle (80% capacity)

4,000

Charge Time

3.5 hours

DCFC (SAE Combo/CHAdeMO)

1 x 25kW Level 3

SAE J1772

2 x EVSE Level 2



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Audience Q&A Session

① Start presenting to display the audience questions on this slide.