



District of Lunenburg's Climate Action

Presenter:

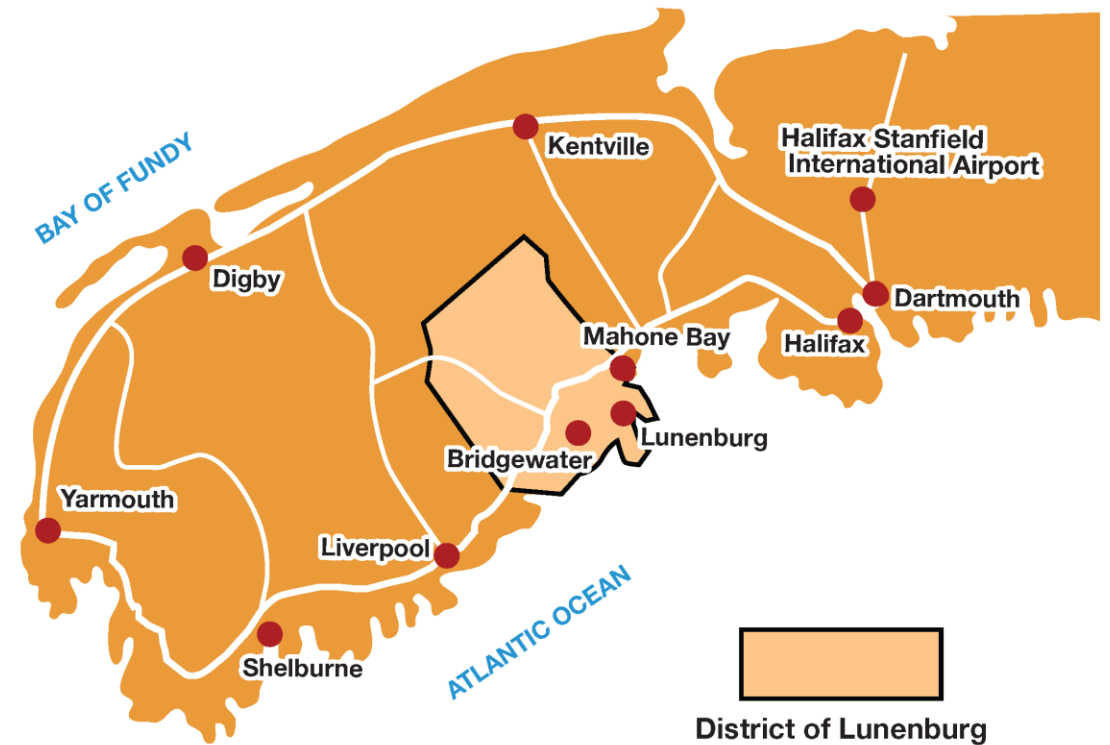
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Introducing Municipality of the District of Lunenburg

- Situated on Nova Scotia's South Shore
- Geographically covers over 1,700 square kilometers
- Surrounds Towns of Bridgewater, Mahone Bay, and Lunenburg
- Population of approximately 25,000, fifth largest in Nova Scotia



Urgency of Climate Action



- Climate emergency declared in 2019
- Local Climate Change Action Plan 2030 adopted in 2022
- 10-year plan for net-zero GHG emissions by 2050
- Divided into two chapters:
 - **Community Climate Action Plan:**
Reducing GHG emissions within MODL
 - **Corporate Climate Action Plan:**
Reducing GHG emissions controlled by MODL operations

LOCAL CLIMATE CHANGE ACTION PLAN 2030



Community Climate Action Plan

Community Emission Reduction Targets:

- Achieve 30% reduction below 2019 levels by 2030
- Achieve 65% reduction below 2019 levels by 2040
- Achieve net-zero community emissions by 2050

Some of the 27 Key Climate Actions

- Retrofitting existing residential and ICI buildings
- Expanding electric vehicle charging infrastructure
- Enhancing public transit service
- Improving waste management and promoting a circular economy
- Establishing a community solar garden
- Implementing an annual tree planting program
- Managing natural assets and conserving land
- Supporting local food security
- Enhancing emergency preparedness and response capabilities

Retrofit Existing Buildings to Net-Zero



Residential Buildings and GHG Emissions

- Account for 51% of community's GHG emissions (~160kt CO₂e)
- Goal: Retrofit 1,400 homes to net-zero by 2030



Clean Energy Financing Program

- Established in 2016, offering low-interest financing up to \$20,000
- Upgrades include heat pumps, solar panels, insulation and windows
- Annual financing budget increased to \$500k in 2023
- High demand and a waitlist indicate its success



Challenges

- Addressing financing constraints
- Improving data gathering and monitoring efforts
- Incentivizing adoption of sustainable systems
- Building capacity and enhancing user navigation

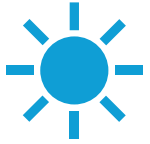


Opportunities

- Savings on utility bills that boost the local economy
- Significant reduction in GHG emissions
- Promotion of living conditions and better health
- Creation of local job opportunities



Community Solar Garden



Community Solar Project

- 7MW solar garden proposal
- Partnership with Alternative Resource Energy Authority (AREA) and other municipalities
- Potential to provide clean electricity to about 1,200 homes
- Offset 6,000 tons of carbon emissions annually
- Estimated \$200,000 annual profit for municipal partners



Challenges

- High upfront costs and difficulty securing financing
- Upgrading infrastructure and ensuring reliable grid integration
- Identifying suitable land and balancing land use priorities
- Gaining community buy-in and educating residents about benefits
- Contingent on Provincial Community Solar Program approval



Opportunities:

- Significant reduction in GHG emissions
- Job creation, lower energy costs, and revenue through PPAs
- Profits can be reinvested into community projects and services
- Provides a model for education and research, scalable for future projects



Municipal Wide Planning Strategy and Land Use By-law



Planning for the Future

- Developing MODL 2040: Municipal-wide planning strategy and land use bylaw
- Introducing coastal regulations to safeguard against flooding and erosion



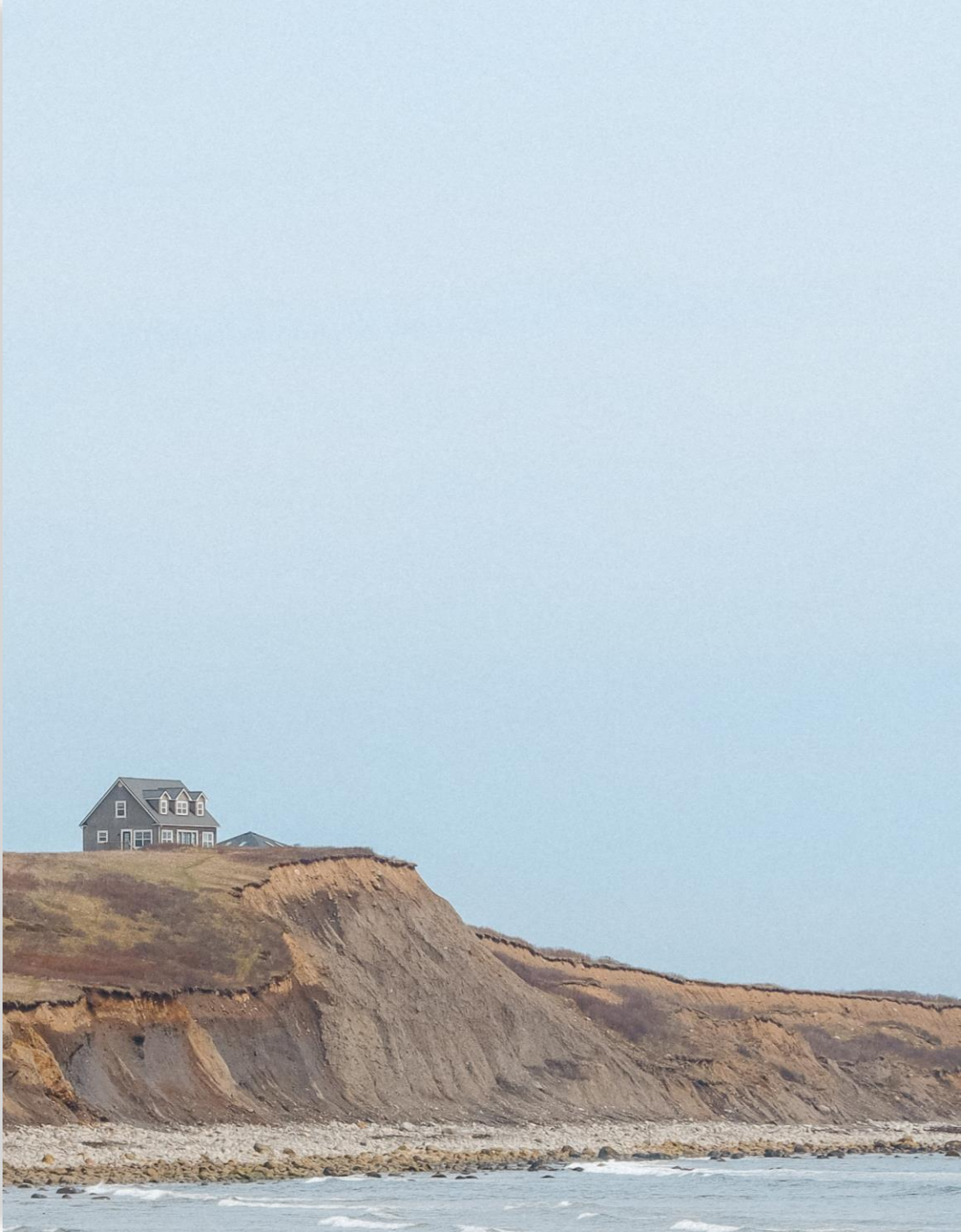
Coastal Protection Regulations

- No new coastal development within 30 meters of the top of a bank
- New residential structures elevated 3.97 meters above sea level
- No development within 30 meters of coastal wetlands
- Maintain a natural vegetation buffer within 15 meters of the bank's top



Significance

- First municipality to pass its own coastal protection regulations, ensuring resilient coastlines
- Aligns with a low-carbon community vision by mitigating emissions and adapting to climate impacts
- Enhances safety against extreme weather events, saving taxpayer money on reconstruction and emergency response



Thank you