

DECISION/DIRECTION NOTE

Title: Community Energy Transition Economic Analysis

Date Prepared: September 24, 2019

Report To: Special Meeting of Council

Councillor and Role: Councillor Ian Froude, Public Works & Sustainability

Ward: Ward 4

Decision/Direction Required:

To seek approval to develop a Community Energy Transition Analysis to inform the economics of St. John's energy transition to a low-carbon future, as a part of the Resilient St. John's Climate Plan.

Discussion – Background and Current Status:

The City of St. John's strives to be sustainable today and for future generations. This is a vision expressed in the City of St. John's Strategic Plan. Through various commitments, the City of St. John's Council has re-enforced its ongoing commitment to act and reduce the greenhouse gas (GHG) emissions, while preparing the City to deal with the challenges and capitalize on opportunities that climate change is presenting.

Climate change continues to be the biggest challenge of our generation. While we are still grappling with the economic impacts of COVID-19, it is important that we continue to identify, and quantify the economic impacts and opportunities of climate change to ensure a long-term recovery and capitalize on the opportunity cost of an energy transition. The "Resilient St. John's" Climate Plan supports the City and the community as a whole to reduce the emission of greenhouse gases (GHGs), stabilize energy costs by supporting energy efficiency, and preparing the City to address the challenges and opportunities presented by the impacts from climate change and the energy transition.

The City of St. John's has completed key foundational steps since Council declared a Climate Emergency, including the development of a planning framework, an energy use (and cost) baseline for the City and the whole Community, the formation of an Inter-Departmental Working Group, and the launch of a Community Multi-Stakeholder Sustainability Team (MSST) (Kicked-off on September 3, 2020). The City continues to follow the Planning Framework and is working towards the development of the Resilient St. John's Plan by Summer 2021

Due to the impacts of COVID19 and other economic uncertainties, it is important that the Resilient St. John's Climate Plan completes a comprehensive economic analysis of a Business as Usual (BAU) and of the planned scenario to a Low-Carbon community. This project would develop a comprehensive present and future spatial model (maps) capable of estimating residential, non-residential, and transportation emissions, energy use and costs in our community, as well as the potential for job creation. This would provide the City with the ability

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to develop a better understanding through annual projections (by sector, energy type, land use type, and neighbourhood) of the energy costs and associated greenhouse gas emission sources from our community. More specifically, this project would provide a view of how year-over-year the economics of an energy transition would manifest in our Community.

The proposed project and its information is a power tool used by municipalities across Canada to support them through the energy transition, by ensuring decision makers have an understanding of the best potential timing of interventions, as well as the economic and job creation opportunities in their specific community. This information supports Councils in making decisions by informing:

- The economics to determine the best strategies to eliminate GHG emissions from Communities.
- Land use impacts on emissions to determine which type of policies need to be considered to achieve GHG emission reduction targets.
- The direct and indirect quantity of GHGs reduced (e.g., active or public transportation's impact on household costs) from each planned action/strategy.
- Estimating number of jobs projected to be created by a GHG emission reduction actions/strategies.
- Impact of policies and actions on household energy bills (stationary and transportation energy costs).

More specifically, this analysis would enable the MSST and the St. John's City Council to obtain the following information to support the development and implementation of the Resilient St. John's Climate plan, and to inform decision making:

- Energy use, emissions, and costs/savings associated with stationary (e.g., heating and cooling) energy use in our community at the neighbourhood scale (buildings).
- Energy use, emissions, and costs/savings from transportation in our community, as well as neighbourhood scale impacts from changes in mode share (transit, personal vehicles, and active transportation).
- Energy, emissions, and cost flow analysis.
- Total cost of community action to get to a Net-Zero scenario by 2050, as well as the Opportunity Cost (cost incurred by not enjoying the benefit associated with the best alternative choice).
- Identification of potential best timing for our Community to adopt existing low-carbon technologies by sector and neighbourhood.
- Estimates of job creation for each planned strategy/action.
- New construction costs and opportunities in our Community.

This work would be initiated in 2020, and completed in the Summer of 2021 along with the Resilient St. John's Plan.

Key Considerations/Implications:

1. Budget/Financial Implications: This scope of work is estimated to cost \$80,000 from the Sustainability Budget.
2. Partners or Other Stakeholders: The Environmental and Sustainability Expert panel will be part of the project through the project's steering committee. The Multi-Stakeholder Sustainability Team will be engaged through the workshops planned as part of the Resilient St. John's Climate Planning Framework.
3. Alignment with Strategic Directions/Adopted Plans:
 - a. A Sustainable City
 - b. A Connected City
 - c. An Effective City
 - d. Declaration of Climate Emergency
 - e. Global Covenant of Mayors for Climate and Energy
4. Legal or Policy Implications: N/A
5. Privacy Implications: N/A
6. Engagement and Communications Considerations: Engagement for this analysis will be aligned with the Engagement Plan for the Resilient St. John's Climate Plan.
7. Human Resource Implications: N/A
8. Procurement Implications: The project will be procured by the City following the Procurement Act.
9. Information Technology Implications: N/A
10. Other Implications: N/A

Recommendation:

That Council supports the development of a Community Energy Transition Model to inform the economic perspectives of the Resilient St. John's Climate Plan.

Prepared by: Edmundo Fausto

Approved by:

Report Approval Details

Document Title:	Resilient St. John's - Community Energy Transition Economic Analysis.docx
Attachments:	
Final Approval Date:	Sep 24, 2020

This report and all of its attachments were approved and signed as outlined below:

Brian Head - Sep 24, 2020 - 4:12 PM

Lynnann Winsor - Sep 24, 2020 - 4:43 PM