



The Regional Municipality of Durham Report

To: Finance and Administration Committee
From: Sandra Austin, Director of Corporate Policy and Strategic Initiatives
Report: 2019-A-18
Date: April 9, 2019

Subject:

Approval in Principle of the Durham Community Energy Plan (DCEP)

Recommendations:

That the Finance and Administration Committee recommend to Durham Regional Council:

- A) That report #2019-A-18 be endorsed to approve in principle the DCEP and that it be referred to local municipal councils and local energy utilities for their review and approval in principle;
 - B) That staff be directed to incorporate the relevant elements of the DCEP related to land-use planning into the new Regional Official Plan through Envision Durham – Municipal Comprehensive Review process; and
 - C) That staff be authorized to further develop the details of the six programs recommended in the DCEP and bring them forward for individual approval to proceed with implementation.
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Report:

1. Purpose

The purpose of this report is to seek Council's approval in principle of the Durham Community Energy Plan (attached).

2. Background

2.1 On May 26, 2016 Joint Committee approved, through Report #2016-J-15, the funding and launch of the Durham Community Energy Plan, based on a successful

application for \$90,000 from the provincial Municipal Energy Plan (MEP) Program. The Provincial funds were matched by \$90,000 from the Region, the eight local municipalities and the local electrical utilities. Regional Council subsequently approved the project to produce a Durham Community Energy Plan on June 8, 2016.

2.2 On Friday March 15th, 2019 the Durham Region Roundtable on Climate Change approved in principle the DCEP, and recommended to the Finance and Administration Committee and Regional Council:

- A) That the DCEP be approved in principle and that it be referred to local municipal councils and local energy utilities for their review and approval in principle;
- B) That staff be directed to incorporate the relevant elements of the DCEP related to land-use planning into the new Regional Official Plan through Envision Durham – Municipal Comprehensive Review process; and
- C) That staff be authorized to further develop the details of the six programs recommended in the DCEP and bring them forward for individual approval to proceed with implementation.

3. Community Energy Plans in General

3.1 A CEP is a comprehensive long-term plan that serves to define community priorities around energy. It aims to improve energy efficiency, reduce energy use and greenhouse gas emissions, and foster green energy solutions at the local level, while planning ahead for future growth and development, energy generation, delivery and use in a community. A CEP helps municipalities to:

- Assess community energy use and greenhouse gas emissions;
- Identify opportunities to conserve, improve energy efficiency and reduce greenhouse gas emissions;
- Consider the impact of future growth and options for local clean energy generation; and
- Support local economic development leading to more sustainable communities.

3.2 A CEP considers long-term energy generation, consumption, infrastructure, economic growth, and land-use planning. It encompasses a community's residential, commercial and industrial sectors, as well as institutional and transportation energy use.

3.3 Benefits of developing a CEP can include:

- Identifying and addressing potential energy supply limitations;

- Articulation of a community energy vision in which others may invest;
- More stable business operations through energy cost reductions;
- Retention of energy dollars within the community;
- Reduction in air pollution and greenhouse gas emissions;
- Improved resident health through improved air quality and increased active transportation;
- Fostering local sustainable energy solutions in the community;
- A more sustainable urban form;
- Increased energy security and resilience; and
- Fostering local economic development and job creation.

3.4 Over the past five years, an increasing number of municipalities across Ontario and Canada have undertaken the development of CEPs. Early adopters in Ontario include Guelph, Burlington, East Gwillimbury, London and Markham.

Currently CEPs are completed or underway in Toronto, Kingston, Vaughan, Newmarket, Richmond Hill, Chatham-Kent, Sault Ste. Marie, Wawa, Temiskaming Shores, Woodstock, Halton Hills, Hamilton, Ottawa, Sudbury, Thunder Bay and Oakville. About two years ago, the Regional Municipality of Waterloo and Niagara Region launched CEPs in conjunction with their local municipalities and utilities.

4. The Durham Community Energy Plan Process

4.1 The development of the DCEP followed the three-stage process required by the provincial MEP Program. An additional fourth stage was also proposed, which will focus on presenting the DCEP to all partner agencies and other appropriate organizations and advancing the implementation process. The four stages are described below:

- **Stage 1: Stakeholder Engagement** – Building awareness of current energy production and use, outline a vision and energy objectives, identify energy projects and local energy champions, and secure local interest and involvement in the development of the DCEP.
- **Stage 2: Baseline Energy Study and Energy Infographics** – Identification of how and where energy is currently used within the community and analysis of opportunities for energy management and production.
- **Stage 3: Community Energy Plan Development** –Plausible local energy

futures were evaluated in the form of scenarios that were modelled and analyzed, leading to the selection of a preferred scenario. The Plan was then created including program and policy recommendations for community energy production and use, the proposed Plan highlights a number of anticipated economic, employment, environmental and social co-benefits.

- **Stage 4: Implementation Plan** – Integration of relevant DCEP policies and programs into Regional and municipal strategic plans, official plans, land use planning processes, climate plans and other development mechanisms, as appropriate.

The process to produce the DCEP was overseen by a Steering Committee composed of representatives from the 13 project partner organizations. The Steering Committee met 14 times between June 2016 and September 2018.

4.2 Stakeholder engagement sessions were held early in the process:

- September 20, 2016 - 44 participants
- February 28, 2017 - 63 participants

These sessions resulted in identification of a vision, key messages, goals and objectives for DCEP ([see the report here](#)).

Following the completion of the draft DCEP, 36 stakeholders attended a feedback session on November 22, 2018 that resulted in a [summary report](#). General public feedback on the draft DCEP was solicited through an online questionnaire. Responses were compiled in a [summary report](#).

4.3 Baseline energy data for 2015 was collected and provided to stakeholders, and utilized in the development of a Regional energy model. The data were made available in a [report](#) and in the form of an energy infographic.

4.4 The development of the Community Energy Plan involved the creation of three scenarios for Durham's energy future:

- **Business as Usual (BAU):** Current patterns of energy consumption extrapolated out until 2050, while accounting for population increases, federal fuel efficiency standards and the impacts of climate change on heating and cooling buildings.
- **Business as Planned (BAP):** Includes the assumptions in the BAU, plus projected increases in provincial building codes, a slight increase in building retrofits in the residential and commercial sectors, increased adoption of building-scale solar photovoltaic (PV) systems, an increase in electric vehicle use, and a modest increase in local large-scale solar and wind energy generation.

- **Low Carbon Pathway (LCP):** The Low Carbon Pathway is a composite of 24 ambitious actions designed to achieve Durham Region's GHG emission targets. These include new building efficiency standards, extensive building retrofit programs, installation of heat pumps, photovoltaic and wind generation, energy storage, electrification of personal, commercial and transit vehicles, land-use planning and industrial efficiencies.

These three scenarios were modelled for Durham Region and then analysed for a variety of outcomes such as energy consumption, costs, emissions, economic and employment implications. The Steering Committee selected the Low Carbon Pathway as the preferred scenario.

- 4.5 The Plan development stage resulted in two documents presenting the details of the Plan; [Part 1: The Plan](#) and [Part 2: The Technical Paper](#), and the creation of a summary document which is provided as Attachment 1 to this report and is available [here](#).

5. Financial Implications

- 5.1 The total cost of the process to produce the DCEP over three years has been \$238,000, of which \$148,000 has been provided by governments and energy utilities in Durham region.
- 5.2 The provincial Ministry of Energy's original contribution to this project was \$90,000, of which \$22,500 is outstanding pending Regional Council's approval (at least in principle) of the DCEP by April 26, 2019, per the Region's agreement with the Ministry.
- 5.3 Beyond financing the development of DCEP, its implementation is projected to bring significant economic and financial benefits to Durham Region, its residents and businesses. See the estimated investment, economic development and employment benefits outlined in the summary document in Attachment 1.

6. Next Steps

- 6.1 Following approval in principle by Regional Council, next steps in the process include:
- Referral to local municipal councils and energy utilities for review and approval in principle; and
 - Development of implementation plans for the proposed programs in the DCEP and individual program approval by Regional Council, local municipal councils and local energy utilities.

7. Conclusion

The process to produce a Durham Community Energy Plan has resulted in a future

energy path for the Region which is bold, timely and results in economic, employment, environmental and social benefits.

The recommendation regarding the new Regional Official Plan has been endorsed by the Region's Planning and Economic Development Department.

Respectfully submitted,

Sandra Austin
Director of Corporate Policy and
Strategic Initiatives

Recommended for Presentation to Committee

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