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## **Regional Municipality of Durham**

### **MINUTES**

#### **DURHAM REGION ROUNDTABLE ON CLIMATE CHANGE**

**June 8, 2018**

A regular meeting of the Durham Region Roundtable on Climate Change was held on Friday, June 8, 2018 in Boardroom LL-C, Regional Municipality of Durham Headquarters, 605 Rossland Road East, Whitby at 1:00 PM.

Present: Regional Chair O'Connor  
G.H. Cubitt, Chief Administrative Officer  
R. Gauder, Citizen Member, Chair  
Councillor Ashe, Finance & Administration Committee  
Councillor Ballinger, Works Committee  
C. Desbiens, Citizen Member  
Councillor Glead, Health and Social Services Committee  
T. Hall, Citizen Member  
D. Hoornweg, Citizen Member  
J. Kinniburgh, Citizen Member  
H. Manns, Citizen Member  
C. Mee, Citizen Member  
Councillor Mitchell, Planning & Economic Development Committee  
B. Neil, Citizen Member  
M. Vroegh, Citizen Member, Vice-Chair left the meeting at 2:33 PM

Absent: R. Plaza, Citizen Member  
K. Shadwick, Citizen Member  
J. Solly, Citizen Member  
Z. Vonkalckreuth, Citizen Member

#### **Staff**

Present: B. Bridgeman, Commissioner of Planning and Economic Development  
A. Gibson, Director of Corporate Policy and Strategic Initiatives  
D. Hoge, Program Coordinator, Climate Change  
B. Kelly, Manager of Sustainability, Office of the CAO  
S. Penak, Committee Clerk, Corporate Services – Legislative Services

**1. Adoption of Minutes**

Moved by Councillor Ballinger, Seconded by T. Hall,  
That the minutes of the regular Durham Region Roundtable on  
Climate Change meeting held on May 11, 2018, be adopted.  
CARRIED

**2. Declarations of Interest**

There were no declarations of interest.

Moved by Councillor Gleed, Seconded by J. Kinniburgh,  
That the rules of procedure be suspended in order to add a  
presentation by H. Mann's titled "Soil Organic Carbon in Climate  
Adaptation" to the Agenda before Section 5: Other Business.  
CARRIED on a 2/3rds Vote

**3. Durham Community Energy Plan – Status Report**

A) Brian Kelly, Manager of Sustainability, Region of Durham re: Durham  
Community Energy Plan – Status Report

B. Kelly provided a presentation titled: "Durham Community Energy Plan  
(DCEP) – Status Report". A copy of the presentation was provided to the  
Committee prior to the meeting.

Highlights from the presentation included:

- DCEP – A Reminder
- DCEP Process
- Consultants
- Stakeholders: Elements of the Vision
- Infographic, Baseline Energy Data
- Modelling the Durham Energy System – City InSight Model
- Population Projections
- Projected Households
- Projected Employment in Business as Usual (BAU)
- Energy Scenarios
- Impact of Climate Change on Energy for Heating and Cooling
- Energy Assumptions in the Three Scenarios
- Reduce – Improve – Switch
- Energy Consumption by Scenario
- Greenhouse Gas (GHG) Emissions by Scenario
- GHG Emissions
- Total Energy Expenditures by Scenario
- Household Energy Expenditures
- Total Energy and Capital Expenditures

- Energy Investments and Savings by Decade
- Employment Impacts of Low Carbon Scenario
- Durham Energy 2015
- Durham Business as Planned (BAP) 2050
- Durham Low Carbon Pathway (LCP) 2050
- Implementation Programs – Small in number; mighty in impact
- Next Steps on Consultation
- The Bottom Line
- My Questions for You

B. Kelly informed the Committee that stage 3 of the Durham Community Energy Plan (DCEP) has been completed and stage 4 is about to begin. He advised that the focus of this presentation was around the three energy scenarios and program development.

B. Kelly advised that the three energy scenarios that were constructed are based on the standard assumption that population will almost double over the projection period to 2050. The three scenarios are: Business as Usual (BAU); Business as Planned (BAP); and Low Carbon Pathway (LCP).

B. Kelly advised that the best way to implement the Low Carbon Pathway scenario would be to produce a small number of programs. The consultants came up with 6 programs in total. B. Kelly highlighted Program #1: Durham Green Standard – Enhanced energy performance for new buildings; and Program #5: Education and Outreach Program – Engaging the Community.

B. Kelly informed the Committee that the bottom line is the LCP which would reduce energy consumption (-51% from BAU) ; greatly reduce GHG emissions (-70% from BAU) ; lower total energy expenditures (\$23 billion over the period from 2018 to 2050); lower household energy expenditures(from \$5,800 /a in 2016 to \$2,600 /a in 2050); stimulate the Durham economy; improve local air quality; and produce more jobs in Durham (210,000 person years over the period 2018 to 2050).

B. Kelly responded to questions of the Committee regarding energy from a cost per unit perspective; what is included in the full cost of owning and operating an electric vehicle versus a gas-powered vehicle and its variability; ways of helping the public better understand the Energy Plan; the economic benefits that residents would receive by going down the “green path”; and which implementation program Durham is succeeding the most in.

#### 4. **Durham Community Climate Adaptation Plan – Status Report**

A) **Brian Kelly, Manager of Sustainability, Region of Durham re: Durham Community Climate Adaptation Plan – Status Report**

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B. Kelly provided a presentation titled: “Durham Community Climate Adaptation Plan – Status Report”. A copy of the presentation was provided to the Committee prior to the meeting.

Highlights from the presentation included:

- Background
- Process to Date
- Programs for Approval and Funding in 2018/2019
- 1. Climate Resilience Standard for New Homes – flagship program
  - Durham Region Climate Resilience Standard for New Houses
  - Characteristics of Standards
  - Basement Flood Protection
  - Wind Protection
  - Heat Protection
  - Implementing the Standard
  - Next Steps in Durham
- 2. Storm Water Management Fee and Credit Program
- 3. Natural Environment Collaborative
- 4. Maximum Temperature Regulation in Apartments
- 5. Roads Vulnerability Mapping
- Requirements for Success
- Issues with Implementation

B. Kelly advised that \$100,000 in seed funding was secured for 2017/2018, and that there are 5 programs/initiatives that are ready to move forward to the design or implementation phase. This will require a high degree of unity among the municipalities to implement successfully. B. Kelly clarified that the Storm Water Management Fee and Credit Program will be used to raise revenues for municipal storm water management programs.

B. Kelly advised that most of the new house climate resiliency standards are prescriptive standards and the items are available at local building supply stores. The measures are also within the control of the builder and the trades. He also advised that insurance rates would decrease if residents upgraded their homes to a “resilient home”.

B. Kelly stated that the requirements for success on all these programs include jurisdictional dedication; institutional memory; inter-agency collaboration; healthy peer pressure; unity/solidarity; the long view; and funding.

B. Kelly responded to questions of the Committee regarding what kind of responses have been received from municipalities; the possibility of an overarching sustainability guideline for new homes; additional programs that have already been implemented; challenges that arise when retrofitting a home; more rigorous home inspections to help protect the homebuyer; and who is responsible for sending out the weather warnings.

D. Hoornweg advised the Committee that the University of Ontario Institute of Technology (UOIT) submitted a proposal to Intact Insurance that would establish a “resilience score”, similar to a “walk score”, that would be used to help households understand how to better retrofit their homes.

## 5. **Soil organic carbon in climate adaptation**

A) Hida Manns, Durham Region Roundtable on Climate Change Member, re: Soil organic carbon in climate adaptation

H. Manns provided a PowerPoint presentation titled: “Soil organic carbon in climate adaptation”.

Highlights from the presentation included:

- Soils in climate
- An old lesson, but one forgotten
- Ganaraska Watershed Reforestation
- Landscape Hydrology
- Aggregate formation
- Soil as a living organism
- Soil organic matter molecule
- Soil moisture
- Soil pores
- Wetting soils
- Tile drains in long-term soil
- Correlation of soil variables
- Hypothesized feedback
- Remote sending of carbon
- Soil Triangle
- Agriculture and Soil Organic Carbon (SOC)
- Ways to improve soil carbon
- Organic No-Till crop rotations

H. Manns informed the Committee that soils are not separate from hydrology and that trees maintain water for streams and reduce the variability in the water flow. H. Manns advised that soil organic matter is a balance of carbon input from photosynthesis; soil respiration; and is a constant dynamic process of decomposition. She also advised that tile drains would be an asset to farmers because they would improve: plant growth; carbon input; pore structure and depth; and water holding capacity.

H. Manns advised there are ways to improve soil carbon such as reducing tillage; rotating crops; and creating a diversity of crops alternating in time or space.

**6. Other Business**

There was no other business to be heard.

**7. Date of Next Meeting**

The next regular meeting of the Durham Region Roundtable on Climate Change will be held on Friday, September 14, 2018 starting at 1:00 PM in Room LL-C, Regional Headquarters Building, 605 Rossland Road East, Whitby.

**8. Adjournment**

Moved by Councillor Glead, Seconded by D. Hoornweg,  
That the meeting be adjourned.

CARRIED

The meeting adjourned at 2:53 PM.

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R. Gauder, Chair, Durham Region  
Roundtable on Climate Change

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S. Penak, Committee Clerk