



Town of
East Gwillimbury

DEVELOPMENT & LEGAL SERVICES REPORT P2009-17

To: Committee of the Whole Council

Date: March 23, 2009

Subject: Community Energy Plan Status Report and Preliminary Terms of Reference respecting District Energy

Origin: Development & Legal Services, Planning Branch

RECOMMENDATIONS

1. **THAT** Development & Legal Services, Planning Branch Report P2009-17, dated March 23, 2009, regarding the Community Energy Plan Status Report and Preliminary Terms of Reference respecting District Energy, be received;
2. **THAT** Council authorize staff to host a workshop and consultation session with representatives of Council-appointed Committees and the local community on April 2, 2009;
3. **THAT** Council support the general direction of the Community Energy Plan and direct staff to explore the establishment of a district energy system;
4. **THAT** Council authorize the retention of RCS Consulting and Garforth International to prepare preliminary Terms of Reference for a Request for Proposals (RFP) for District Energy at an upset cost of \$3,500 funded from non-tax sources;
5. **THAT** staff be directed to report back on the design of the RFP prior to issuance, including a proposed structure for any municipal utility that might be established to construct and operate any district energy system;
6. **THAT** the development industry be consulted during preparation of the proposed RFP;
7. **THAT** the Minister of the Environment of Baden-Württemberg be invited to visit East Gwillimbury along with her staff and senior officials from Ontario and Canadian Federal Agencies in May 2009;
8. **THAT** this report be forwarded to the Ministry of the Energy and Infrastructure, the Minister of Municipal Affairs and Housing and the Regional Municipality of York.

PURPOSE

The purpose of this report is to provide Council with a status report on the Town's Community Energy Plan (CEP) and outline some of the preliminary directions coming out of the CEP process, in particular preliminary work respecting District Energy.

BACKGROUND

As part of the Town's Official Plan Review and Update, staff identified the CEP process as an opportunity to bring energy into the growth management process as a consideration of development planning. Energy production and transmission has been at the forefront of Council's consideration of growth planning since the introduction of the draft Provincial Growth Plan in 2004 and has been demonstrated with Council's leading edge policy work in green building standards.

In August 2008, Garforth International was retained to undertake and complete a CEP for the Town. On November 14, 2008, Peter Garforth gave an introductory presentation to Council outlining the project workplan and initial working targets for the CEP.

The proposed Ontario Green Energy Act, released in February 2009, is calling for significant improvements in conservation, renewable and clean energy projects, community energy services structures and more green employment for the Province of Ontario. These goals within the proposed legislation will be clearly supported by the Town's CEP.

DISCUSSION AND ANALYSIS

On December 19, 2008, an initial meeting was held with key representatives from the local development community to begin discussions regarding the Town's CEP. A more detailed workshop was held on March 5, 2009 and was attended by approximately 40 individuals, including representatives from the Regional Municipality of York, Town staff, a number of Developer Groups, and Enbridge Gas Distribution. The workshop began with presentations from Peter Garforth and Paolo Baragetti, from Enbridge, and included a series of break-out sessions. Feedback received from attendees has been positive and developers are anxious to know what development standards and initiatives will be recommended and approved by the Town through the CEP process.

Status of the Community Energy Plan Process

Since the fall of 2008, the CEP consulting team has been collecting data, including property, transportation, gas, electricity and water data, and reviewing local policies, building and development codes and growth management work. The CEP team continues

to analyze and model the data collected and will present the findings of such analysis in the draft CEP document in addition to recommendations as to how to achieve the Town's targets. A draft CEP is expected to be presented to Council in April with final adoption by Council in May 2009. Briefing notes respecting the CEP are attached as attachment 1.

The Town's consultants indicate that the only realistic way for the Town to achieve an objective of reducing greenhouse gas emissions from approximately 16 tonnes per capita to 6 tonnes per capita by 2031 (and ultimately 4 tonnes per capita by 2051) is through a district energy program.

The development of a district energy network covering much of the Town's urban area would supply space heating and domestic hot water to residential areas, with the possible addition of steam, compressed air and chilling to employment areas. These networks would provide an efficient and economic way to distribute heat from a variety of existing and new energy sources.

District Energy

Town staff recommend that initial steps be taken to determine feasibility and a framework to implement district energy within the Town, such that over a reasonable period of time a unified, municipal multi-utility would be created.

While there will be many components within the final CEP, there is some urgency to initiate the district energy process at this point, because developer groups are preparing for site development within the next 12 - 18 months. If district energy is to proceed, it must be incorporated into the development planning now.

The process would be initiated by engaging the Town and developer groups in preparing preliminary Term of Reference for a Request for Proposals (RFP) respecting district energy.

A district energy initiative must address four themes:

1. The corporation and ownership structure that would be the utility that would construct, own and operate the system.
2. Constructing, financing and operating the network - This would be done by a Town/Utility, or in partnership with the Town/Utility.
3. Education, marketing, image, branding - the Town/Utility partnering with the developers/builders to differentiate East Gwillimbury as a desirable place to live

and work arising from its commitment to energy efficiency and environmental stewardship.

4. Economic Development – opportunity to create a business or technology cluster that is attracted to this initiative and efficiencies of this model of service delivery. As well, East Gwillimbury would be the North American foothold for (presumably) a growth industry. For instance, we might ask a manufacturer of district energy components (pipes, instruments, valves, equipment, meters, etc.) to set up in East Gwillimbury as a condition of contract.

The model proposed is that District Energy is a utility installed at the cost of the Utility, not the developer. There is an early estimate of a cost savings of \$4,000 - \$7,000 per dwelling unit to a developer.

It is proposed that the Town retain RCS Consulting to prepare preliminary Terms of Reference for an RFP process in conjunction with Garforth International at an upset cost of \$3,500 funded from non-tax sources. RCS Consulting assisted the Town during the Ontario Power Authority process, and Garforth International is completing the Town's Community Energy Plan. It is the intent that their proposal be circulated under separate cover.

Utility

If the Town decides to establish a district energy utility, it will be necessary to incorporate a utility under the proposed Green Energy Act, the Municipal Act, or possibly under the Electricity Act.

It is proposed that staff report back prior to issuing an RFP; at the same time staff will report on the structure of any proposed Utility corporation and a method to select experienced Board members.

Developer Groups

It is essential that the development community be involved throughout this process. Staff and the Town's consultants will work with the development community throughout the RFP process, initially requesting input into the design of the RFP.

Supporting International Ties

The German Government is fostering best practice sharing between the USA, Canada and Germany to accelerate both Europe's and North America's progress towards climate change mitigation. The Minister of the Environment of Baden-Württemberg will be

visiting Ontario on May 25th and 26th. It is recommended that the Minister be invited to visit East Gwillimbury along with her staff and senior officials from Ontario and Canadian Federal Agencies. This will provide a high visibility opportunity for East Gwillimbury within the Province, and an opportunity to open up various cooperation discussions with Baden-Württemberg, including potential commercial investments in the Town.

NEED FOR PUBLIC AND STAKEHOLDER CONSULTATION

In addition to consultation with the development community, the CEP workplan includes workshops with the local community and as such, Town staff recommend that Council authorize staff to host a workshop with representatives of the Council-appointed Committees on April 2, 2009.

FINANCIAL IMPLICATIONS

Fifty percent (50%) of the project costs associated with establishing a Community Energy Plan have been supported by funding through FCM's Green Municipal Fund, while the other fifty percent (50%) of the funding will be sourced through future Development Charges as growth related costs.

The cost to prepare preliminary Terms of Reference for an RFP specific to district energy is estimated to be \$3,500, to be funded from non-tax sources.

ALIGNMENT TO STRATEGIC PLAN

This report is aligned with the first Strategic Pillar of the Strategic Plan, to Protect and Enhance the Environment. It specifically refers to promoting responsible environmental stewardship and innovative energy practices.

ATTACHMENTS

Appendix 1 – Briefing Notes on the Community Energy Plan

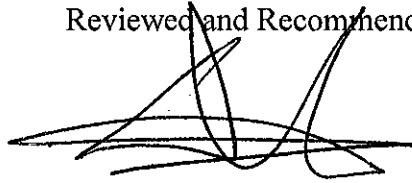
This Report has been reviewed by the senior management team.

Prepared by:



Robin Skinner, BES
Environmental Planner

Reviewed and Recommended by:



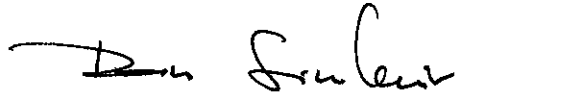
Dan Stone, MCIP, RPP
Manager of Policy Planning

Reviewed and Recommended by:



Don Sinclair, General Manager
Development & Legal Services

Approved for Submission:



Thomas R. Webster
Chief Administrative Officer

ATTACHMENT 1

Purpose of a CEP

- Reduce greenhouse gas emissions to levels sustainable by the planet's ecosystem
- Maximize energy efficiency of homes, buildings, transportation and industry
- Maximize the use of clean, renewable heat and electricity sources

Benefits

- Maximum efficiency in energy use results in:
 - lower cost per household in perpetuity
 - greater competitiveness for business and industry on a worldwide basis
- Reduction in GHG's results in:
 - Benefit to environment
 - Enables Town to monetize carbon credits
- Together the two purposes solidify EG's brand as an environmental leader

Methodology

- Set a target
 - Establish per capita emissions that are sustainable in perpetuity
 - Based on science, the target is 6 tonnes/capita by 2031 and 4 tonnes/capita by 2051
 - Assume current emissions = 16 tonnes/capita
- Set ways to meet the target
 - In the local climate, at least half of all energy needed in home and buildings is for heating underlining the need to rethink the way heat is created and distributed.
 - The only way to meet the target is district energy. The other methods contribute.
 - The Town already requires efficiency levels about 20% higher than current Ontario code. The CEP will call for a further 1.0% per year improvement from 2012 onwards. To ensure compliance regularly updated Energy Performance Labels for all homes and buildings will be recommended whenever a building is sold or rented.
 - Attract employment investment with innovative energy services and offer flexible multi-utility services for commercial and industrial investors
 - Minimize vehicle use and reduce commuting by providing opportunities for local employment and promoting transit and alternative forms of transportation (walking, cycling)

CEP Status

- Reviewed Town's draft OP and proposed growth forecasts and densities
- Identified five scale projects where specific energy requirements will be put in place (University, Queensville Town Centre, South Hwy 404 Employment Area, GO Station, Passive Village – possibly HL)
- Completed energy supply and demand modeling and greenhouse gas modelling for homes, buildings, industry and transportation
- Conducted the first informal briefing for developers (Dec 19 08)