

## **KEAF Climate Change Working Group**

Minutes of meeting held December 22, 2011, John Counter Room, City Hall

Members Present: Councilor Sandy Berg, Tom Carpenter, Ian Dubin, Robert Foster, Janis Grant, Councilor Jeff Scott

Visitor: Christianne Wilhelmson

The meeting was held to discuss the following motion, which was approved at the regular meeting of Kingston City Council held on December 6<sup>th</sup>, 2011:

WHEREAS the Corporation of the City of Kingston embraces novel ideas for conservation and management of resources and assets and is a place where history and innovation thrive, and

WHEREAS three companies are looking at our community to build solar panel arrays on rural land, and

WHEREAS the City of Kingston is a stakeholder and will be consulted on solar panel array applications which are made to the Ministry of the Environment before construction proceeds,

THEREFORE BE IT RESOLVED THAT Staff be requested to review the solar panel array application review process in consideration of agricultural policies and best practices, woodland impacts and tree compensation policies and that Staff make recommendations back to Council establishing a clear methodology to review such applications, at its earliest convenience, and

THAT the Rural Advisory Committee be requested to meet with affected residents and make recommendations back to Council on aspects of landscaping and setbacks at its earliest convenience, and

THAT the Kingston Environmental Advisory Forum (KEAF) be requested to review environmental concerns and make recommendations back to Council (EITP) at its earliest convenience.

Three companies are currently considering building solar panel arrays within Kingston's boundaries on rural land north of the city. As yet, little is known about these proposals but it is thought that they will resemble the First Light Project, which has been built at Stone Mills, Ontario by Skypower. (photos circulated). They are:

1. SunEdison is planning 2 projects in Kingston, one near Elginberg at Unity /Cordukes Roads using a transformer on Gardiner's Road and another on Westbrook Road. The Elginberg property is primarily limestone plane with some woods at one end while the Westbrook property has more woodland.

2. Samsung has optioned 8,000 acres in Kingston and Loyalist Township. They plan to build a class 3 solar facility known as the Sol-Luce Kingston Solar PV Energy Project with a nameplate capacity of 100 MW covering 325 hectares. To date, the exact location of the panels within the 8,000 acres is not known.
3. Skypower has staked land behind farms in the Unity Road area. Very little is known about their activities but it is believed that they plan a solar panel array covering between 100 and 200 acres.

It is noteworthy that both SunEdison and Skypower have taken contracts with farmers within the 8,000 acres staked by Samsung.

The following list of environmental issues was presented by Councilor Scott:

- 1) The effect of storm water runoff
- 2) The effect on the quality and quantity of well water
- 3) Removal of tree cover and the natural cooling it provides
- 4) Worries about the creation of heat sinks
- 5) Noise from transformers
- 6) Chemicals and herbicides
- 7) Ground covers (gravel/grass/wildflowers)
- 8) When is woodland too significant to lose
- 9) Effects on nesting and grazing
- 10) Disruption of wildlife movements
- 11) Truck traffic during construction
- 12) Rehabilitation of the land after the project is no longer in use
- 13) Effect on species at risk
- 14) Habitat destruction to adjacent lands during the construction period

Ian Dubin presented a list of issues the committee could consider using a state of the art Environmental Assessment from Brookhaven Lab, USA

**Discussion:**

Mr. Scott informed the group that a meeting will be held with local residents in early February to discuss setback distances and adequate buffering between property lines and panels. Traditionally, residents use lilac or honeysuckle as hedgerows. Other plants may be considered but height restrictions to prevent shade on the panels will apply.

The City's Site Alteration and Tree Compensation bylaws will apply to the projects. Contractors must produce a tree inventory listing # of species and # of trees for the city arborist who will decide on suitable compensation for the area.

There is a problem with storm water run-off at the SunEdison property near Elginberg. The land is flat with thin soil over limestone. It is classified as class 7 farmland and possibly has some Alvar habitat.

**Concerns from residents and others:**

1. Loss of habitat for the endangered Loggerhead Shrike, which breeds in the area. Issues include the acreage required for breeding habitat and whether environmental assessments are adequate i.e. they should, at a minimum, cover 4 seasons.
2. Effect on well water since it depends on surface run off
3. Stripping away topsoil and replacing it with gravel
4. Drilling post holes that potentially could break through to the aquifer
5. Noise from transformers
6. Use of herbicides to prevent shading of panels
7. Use of detergents to clean panels
8. Loss of hedgerows, field oaks, maple woodlots
9. Destruction of view
10. Effect on nesting and grazing of wild species
11. Disruption to wild life movement by chain link fences
12. Death of water fowl who land on panels mistaking them for water (loons)
13. Destruction of road beds caused by truck traffic during construction
14. Environmental destruction caused during construction to adjacent areas
15. Is there a decommissioning plan to rehabilitate the land once the project is abandoned?
16. Why is right-of-way area along power corridors not considered for construction of solar panels?

**Concerns for KEAF:**

1. Exactly where will projects be built and on what type of habitat?
2. What is the timeline – start time and construction duration time (season of year)
3. What is meant in Regulation 359/09 by “significant”
4. Once projects are approved, why is basic information removed from websites by contractors
5. REA (Renewable Energy Approval) process is not clear and transparent
6. The Environmental Assessment process appears to be weak
7. The Green Energy Act appears to ignore Municipalities’ concerns for large scale renewable energy projects
8. What is the definition of a “natural heritage” resource

**Next Steps:**

1. Set up an information hub, which can be accessed by group members.
2. All group members to start preparing questions to be addressed by KEAF
3. Obtain terms of reference for Environmental Assessment prepared for approval of Elginberg SunEdison project. Obtain a copy of the assessment.
4. Ask Peter Herbert for briefing on work done by CRCA on other solar projects
5. Tom Carpenter will obtain information on criteria for environmental assessments
6. Invite Brian Kaye to next meeting to discuss environmental assessment and approval process.

Minutes prepared by Janis Grant

## **KEAF Climate Change Working Group**

Minutes of meeting held January 16, 2012, 5:30 pm, John Counter Room, City Hall

Present: Councillor Sandy Berg, Tom Carpenter, Ian Dubin, Robert Foster, Janis Grant, Peter Herbert, Brian Kaye

Regrets: Aaron Ball, Darko Matovic

### **Approval of Agenda**

Moved by Councillor Berg, seconded by Mr. Carpenter that agenda be approved. Carried.

### **Review of Minutes of meeting held December 22, 2011**

The following corrections were made:

Pg. 1, # 1; SunEdison is planning 2 projects in Kingston, one near Elginberg at Unity /Cordukes Road and another on Westbrook Road. Both will use a transformer located on Gardiner's Road.

Pg. 2, #2; Samsung has optioned over 800 acres of land within an 8,000 acres study area in Kingston and Loyalist Township.

Moved by Councillor Berg, seconded by Mr. Carpenter that minutes as amended be approved. Carried.

### **Business Arising from Minutes**

- a) **Digital information hub for KEAF members.** A website has been established at PDWorks.com where committee members can post articles of interest. David Carnegie will brief members at the next regular KEAF meeting.
  
- b) **Copy of example application for a solar array prepared by Axio Power.** Councillor Berg e-mailed this to members of the CCWG on December 30.
  
- c) **Criteria for environmental assessments under the Green Energy Act.** Mr. Kaye was helpful in explaining that Regulation 359/09, which pertains to environmental assessments under the Green Energy Act, is enacted as regulation under the Environmental Protection Act. Objections against any proposal may be addressed to the Ministry of the Environment and form part of the public record. The Minister has the power to accept, ignore or ask for clarification of an application. Mr. Kaye provided a copy of a "Checklist for Requirements Under Reg. 359/09" which is available on the Ontario government website.

Mr. Dubin expressed concern about the definition of "significant" as used in Reg. 359/09 and pointed out that a number of overseas jurisdictions have moved away

from the concept. It is more useful to consider whether the impacts of a project will 'meet established standards and criteria'.

- d) **Briefing on work done by CRCA on other solar projects.** Peter Herbert described a solar power project he has worked on under O. Reg. 148/06 made under the Conservation Authorities Act. He explained that the CRCA became involved because of the number of water courses crossing the property whose diversion could have negative effects on either a nearby subdivision or farmer's fields.

During discussion it was learned that prior to passage of the Green Energy Act, planning authority came from local municipalities who approved projects and issued permits under authority of municipal planning byelaws, The Green Energy Act has removed the ability of municipalities to influence development through bylaws. Third parties can appeal developments under the Green Energy Act to MOE. There is an appeal provision through the environmental review tribunal and also through judicial review. Success under both is difficult.

### **Correspondence**

- a) Email from Jeff Scott re. observations of SunEdison Elginberg site
- b) Email from Sandy Berg re. GHG Report

### **New Business**

- a) **Development of process “to review environmental concerns and make recommendations back to EITP”.** It was agreed that CCWG would refine the list of environmental questions prepared at the December 22 meeting. The questions will be passed on to EITP with a recommendation that responsibility for answering them should rest with the project proponent.
- b) **Review of questions to formulate a list of environmental concerns.** Following a brief review of the questions, Mr. Dubin volunteered to refine the list and bring them back to group members as soon as possible.

During discussion, concern was expressed that Kingston may give the impression that it is opposed to renewable energy projects. There was general embracing of solar projects because of the need for clean energy but concerns remain. Of particular importance is the effect on purity of well water. Councillor Berg asked if well water should be regularly tested post construction

- c) **Next steps.** Following acceptance of the edited list by CCWG members, a motion will be prepared for KEAF's approval to send to EITP.
- d) **Community Greenhouse Gas Emission Inventory (2006 – 2009).** Ms Grant indicated that the inventory has now been published on the city's website. Group members should read the document preparatory to formulating an Action Plan.

## **Other Business**

Councillor Berg informed that at the EITP meeting held December 13, a motion was passed asking KEAF and the CCWG to look at climate change with the hope of informing Council on trends and defining 'normal' weather patterns.

Ultimately the City hopes to learn if there is a new normal weather pattern and if the city needs to alter infrastructure (ie build bigger sewer pipes etc.) as a result. This project may offer an opportunity to utilize students to do basic research.

## **Adjournment**

Moved by Councillor Berg, seconded by Mr. Dubin that meeting be adjourned.  
Carried.

Minutes prepared by Janis Grant.

## **KEAF Climate Change Working Group**

Draft resolution for discussion at KEAF Meeting 23 January 2012

WHEREAS three companies are planning to build solar panel arrays on rural land within Kingston, and

WHEREAS the City of Kingston is a stakeholder and will be consulted on solar panel array applications which are made to the Ministry of the Environment before construction proceeds, and

WHEREAS the Kingston Environmental Advisory Forum (KEAF) has been requested to review environmental concerns and make recommendations back to Council (EITP) at its earliest convenience.

WHEREAS advice has been received from Councillor Scott with respect to specific concerns raised at the Rural Advisory Committee and by concerned residents.

THEREFORE BE IT RESOLVED THAT the Proponents of the projects in preparing their applications for approval of a Renewable Energy Project as required under the Environmental Protection Act and Ontario Regulation 359/09 be required to ensure that their submissions include a fully comprehensive review of all environmental issues generally relevant to solar panel arrays and in particular address the specific concerns raised by the Rural Advisory Committee and by concerned residents as considered relevant by KEAF and set out below.

In preparing the applications required under O Reg 359/09 the Proponents attention is drawn to the following general and specific concerns:

### **General Summary of Potential Environmental Concerns for Industrial Scale Solar Photovoltaic Arrays**

#### Ecological Resources

- Construction Effects on Vegetation
- Construction Effects on Threatened, Endangered, and Special Concern Species
- Operation Effects on Threatened, Endangered, and Special Concern Species
- Construction Effects on Migratory Birds
- Operation Effects on Migratory Birds
- Construction Effects on Mammals
- Operation Effects on Mammals
- Construction Effects on Reptiles and Amphibians
- Operation Effects on Reptiles and Amphibians
- Construction Effects on Sensitive Vegetation
- Operation Effects on Sensitive Vegetation

#### Water Resources

- Construction effects on Surface and Groundwater resources
- Operation effects on Surface and Groundwater resources

#### Land Use, Demography, Environmental Justice

- Operational effects on local land uses and demography

Use of Brownfield sites  
Environmental Justice  
Socioeconomic Factors  
    Construction  
    Operation  
Transportation  
    Construction  
    Operation  
Cultural Resources  
    Construction  
    Operation.  
Air Quality  
    Construction  
    Operation  
Climate  
    Construction  
    Operation  
Visual Quality.  
    Operation  
Noise  
    Construction  
    Operation  
Industrial Safety and Occupational Health  
    Construction  
    Operation  
Use of Brownfields  
Radiological Characteristics  
    Construction  
    Operation  
Use of Brownfields  
Natural Hazards  
    Operation  
Intentional Destructive Acts  
    Construction  
    Operation  
Electric and Magnetic Fields (EMF)  
Waste Management and Pollution Prevention  
    Construction  
    Operation  
Commitment of Resources  
    Construction  
    Operation  
Decommissioning and Restoration  
Cumulative Impacts with relevant neighbouring projects

## **Specific Potential Environmental Concerns for Industrial Scale Solar Photovoltaic Arrays in Kingston**

- 1) The effect of construction and operation of the project on storm water runoff and including but not limited to the impacts thereof on surface water resources.
- 2) The effect of construction and operation of the project on the quality and quantity of groundwater resources and including but not limited to impacts from post hole drilling on groundwater aquifers and on well water in the surrounding properties
- 3) Microclimatological effects due to removal of tree cover and the natural cooling it provides and including but not limited to the potential creation of local heat sinks together with any wider regional implications.
- 4) Noise impacts from construction and operation including but not limited to impacts from transformers.
- 5) Construction and operational impacts related to any use of chemicals or herbicides including but not limited to detergents and cleaning chemicals and any herbicides used to prevent vegetation shading of panels
- 6) Plans for permanent ground cover within the project footprint (gravel/grass/wildflowers)
- 7) Traffic impacts during construction and operation including but not limited to impacts from construction trucks and damage to roads
- 8) Air quality impacts during construction and operation including but not limited to plans for construction and operational dust control
- 9) Details of setback distances and adequate buffering between neighbouring property lines and panel installations.
- 10) Ecological concerns including cumulative impacts and in particular:
  - a. Assessment of existing habitats within the project footprint including a minimum four season ecological assessment of significant woodlands, effects on nesting and grazing, potential disruption of wildlife movements including but not limited to impacts on threatened, endangered and species at risk
  - b. Potential habitat destruction to adjacent lands during the construction period
  - c. Potential loss of habitat for the endangered Loggerhead Shrike which is known to breed in the area, including consideration of adequate acreage required for breeding habitat
  - d. Potential impacts on Alvar habitat.
  - e. Impacts due to potential loss of hedgerows including lilac or honeysuckle, and potential loss of field oaks and maple woodlots
  - f. Potential impacts on migratory bird species including but not limited to impacts on water fowl who land on panels mistaking them for water
- 11) Loss of amenity for neighbouring properties including landscape impacts and destruction of views
- 12) An Arborist's report including detailed tree inventories listing species and numbers for consideration of compensatory plantings by the City of Kingston arborist in accordance with the requirements of the Tree Byelaw.
- 13) Details of decommissioning plans to rehabilitate the land when the project is abandoned?
- 14) Details of consultation plans for local residents
- 15) Details of follow-up environmental monitoring and audit programmes