

Present:

A. Schulze - Chair
B. Burnside
B. Campbell
C. Dragomir
M. Harcourt
K. Keshvani
J. Purewal
G. Sahota
G. Sangha
B. Stewart
Councillor Bose

Regrets:**Agricultural Advisory Committee
Representative:**

S. VanKeulen

Staff Present:

C. Baron, Drainage and Environmental
Manager
L. Anderson, Legislative Services

Guest Observer

Deb Jack, Surrey Environmental Partners

A. ADOPTION OF MINUTES

It was

Moved by C. Dragomir
Seconded by Councillor Bose
That the minutes of the Environmental
Advisory Committee meeting held on June 22, 2011, be adopted.
Carried

B. DELEGATIONS**1. Jeff Arason, Utilities Manager**

Jeff Arason, Manager, Utilities, Engineering Department, provided a presentation "Surrey City Energy - Introduction to the City's District Energy Initiatives" (copy attached as Appendix A). Comments were as follows:

- Many different forms can be used to generate thermal energy.
- To learn more, staff recently visited Denmark and Sweden, where district energy has been common for 50 years.
- Lunds Energi Group AB, owned by various communities around them, operate a series of sources which include biomass, geo exchange, natural gas boilers, bio oil boilers and electric boilers.
- Biomass is basically wood chopped, wood pellets, wood pucks, wood waste, fed into a hopper large combustion system and is recognized as being carbon neutral.
- Something new was learned with every community visited, highlighting the power of district energy.

- When district energy was started in the 1960's oil was used, then moved in to coal and waste heat, then in Sweden they began to introduce carbon taxes and then they switched from coal to biomass (some imported from Canada). CO₂ emissions dropped when they switched from oil/coal to biomass.
- The recycling stream is much lower than in BC. They didn't have curb side pickup, the expectation of the community was to take to a drop off site, which weren't utilized very much. There were a lot of plastics and residue in the landfill.
- As far as Canada goes, there are 83 district operating systems. In Metro Vancouver there are two municipal systems (City of Vancouver - False Creek and North Vancouver), Calgary has Enmax, wholly owned by the city, Montreal has a private system and Toronto has Enwave which the city owns a significant portion of.
- There is also a farm in Abbotsford that is partnered that is using a bio digester that is feeding gas into the FortisBC distribution system.
- Toronto uses the lake and obtains chilled water from the lake, does the heat exchange and returns slightly warmed water back. Generally commercial have more of a cooling load, whereas residential is mostly heating. The False Creek energy centre extracts heat from untreated sewage (18 or 19 degrees) and then extracts about 8 or 9 degrees out of it, then uses a mechanical process (heat pump) to raise the temperature to 75 or 80 degrees and pump to buildings in False Creek.
- Waste heat is efficient and inexpensive.
- Distance is not a big driver, but demand for it is.
- When you look at your typical multi use building, heat is usually provided by baseboards, the majority provided through natural gas, etc. Through a district energy, it is 1/6 the electricity that BC Hydro needs to provide.
- Significant growth is planned for city centre, as such a study was started in November 2009 that looked at the viability of district energy for city centre. Based on the density projections it was determined that district energy is viable for the city and there are advantages that make a good business case. The viability of biomass really proves that in the long run it will be cheaper than the current rate today.
- There is still some natural gas use with biomass as boilers are used to make up the heating shortfall on cold days.
- With respect to electricity, rather than draw on the grid, we could feed into the grid.
- Geexchange really services itself well when you have a client base that is heating and cooling, extracting and recharging the earth with heat.
- Many of the district utility services in Canada and Sweden are heating only. Where it works well with the new City Hall and future developments is that there will be a need for heating and cooling. Geexchange is more expensive than biomass, but provides both.
- At present there is enough to service the new City Hall and Library, and will have enough for 400,000 square feet. We don't want to get in a situation of building too large a facility before it is needed. The first challenge will be to get those buildings hydronically ready.
- In addition to the City Centre study, another study was just initiated for King George Boulevard to look at (and work with) all of the development interest in

the area for the buildings that are not ready yet, in getting them hydronically ready.

- What we are looking at in Surrey centre is a competitive market place, however there are cost concerns.
- As for North Vancouver or False Creek, development there is mandated to build hydronic.
- It should be noted that there is no tax payer money involved in this. Those who benefit from the utility pay for the utility.
- In the short term, natural gas helps with the viability (until large enough) because of the cost of constructing large renewable thermal energy plants.
- The first project is the new City Hall, fall 2013. Right now the new library will stand alone, serviced by natural gas, but will be able to move over to the geothermal for the heating in time.
- The new Jim Pattison Outpatient Centre is also a standalone system.
- As long as the municipal boundaries are not crossed, we are not subject to the BC Utilities Commission.

Committee comments:

- There is always going to be resistance to move from rates that are low now to the new technology. You always have to look at the higher density to capitalize because the pay back takes longer.
- Metro Vancouver just had the solid waste management approved and makes provisions for waste to energy programs. The advantage of waste to energy where the facilities are close to the load and supply of the waste is that there is a lot of energy efficiency in collecting the garbage and taking two blocks down the street. What you are saying is that it is not overly difficult to move from underground from one primary energy source to another one, but you have to have the load. For example, Surrey Memorial Hospital and the Canada Revenue Centre, both of which already have hydronic heating, it would just be a matter of bypassing the stand alone boiler systems.
- It is safe to say that current electricity charges are only going to increase, not decrease.

C. OUTSTANDING BUSINESS

1. Community Gardens in Surrey

Re: Discussion at June 22, 2011 meeting.

This item was tabled to the September meeting.

D. NEW BUSINESS

1. Loss of Trees in Surrey

It was suggested that Surrey may be losing trees overall at a greater rate than anywhere else. In response, it was noted that Steve Whitton, Manager, Trees &

Landscape, produced a report with respect to the loss of trees (especially compared to other urban centres), the goals of canopy cover and what other municipalities have chosen. It was suggested that S. Whitton provide a presentation of his report at the September EAC meeting.

2. Waste Collection RFP

With respect to the Committee's concerns with the accountability of the responsible disposition of recycled waste, and the argument of that information being proprietary information, the Committee was advised that the RFP for the next contract has been issued and addresses those concerns.

E. ITEMS REFERRED BY COUNCIL

1. Corporate Report R119 – Community Energy & Emissions Plan Update and Launch of the EnergyShift Brand

File: 0512-02 Res.: R11-1121

It was Moved by Councillor Bose
Seconded by B. Stewart
That Corporate Report R119 – Community Energy & Emissions Plan Update and Launch of the EnergyShift Brand, be received.
Carried

The Committee expressed concern with not having the opportunity to provide feedback prior to the report going to Council. It was noted that the Community Energy & Emissions Plan is not completed and that there will public consultations.

It was Moved by S. VanKeulen
Seconded by B. Campbell
That the Environmental Advisory Committee invite Peter Russell, Sustainability Manager, to the September meeting to provide a review of the Terms of Reference for the Community Energy & Emissions Plan.
Carried

F. CORRESPONDENCE

G. INFORMATION ITEMS

1. City Awards Program - 2011 Green City Award

The Committee was advised the deadline for nominations is September 9, 2011, and that there have not been any nominations received to date.

2. Development Advisory Committee (DAC) Update

The scheduled DAC meeting of June 23, 2011, was cancelled.

H. OTHER BUSINESS

1. Committee Recommendation to Council

Regular Council Public Hearing – June 27, 2011

Corporate Report Ro74 – Illegal Dumping Abatement Strategy
Res No. R11-1126

Copy provided for information.

2. Committee Delegation Request to Council

File No. 6520-20 GH; 0550-20-10

A copy of the various newspaper articles pertaining to the Committee's delegation request to Council on May 30th were circulated as information.

Councillor Bose advised the Committee of the Notice of Motion he put forth at the July 25, 2011 Regular Council Public Hearing meeting (see item H.1 of this Agenda) regarding a property acquisition program being put to referendum with the intent of looking to all other options to strengthen the ecological management areas. The idea was to acquire land to keep in its natural state; to protect the ecologically sensitive lands. The motion was defeated with a further motion, referring the Property Acquisition Program Notice of Motion to staff to address specific questions raised and to provide further detail relative to what can be achieved with the EMS plan, was carried.

D. Jack, Surrey Environmental Partners, was permitted to comment as follows:

- The EMS does show hubs, sites and corridors (corridors are hypothetical at this point). They are accepting the mapping, but what is yet to be done and will flush out the terrestrial mapping of sites, hubs and corridors, is the biodiversity study. In addition to (and along with) that is going to be a whole section that was in the draft EMS but not the final report, and has been left to be included in the biodiversity study, is a whole list of instruments and tools to provide the important land masses. We have to deal with issues on a city basis. We cannot depend on environmental richness from somewhere else, we have to provide it here. The NCPs they are supposed to consider the EMS of the entire city as a whole in order to identify where the connections need to be made.

The Committee commented further:

- It seems that there is not a formalized plan/pattern or a holistic approach of where these areas are and how they can connect.
- With regard to the Grandview Heights NCP4, we would like the CAC to be using the EMS as the lens by which they are making their decisions.
- It should be noted that the NCP process is a vast improvement of where it was 10 years ago and has evolved somewhat beneficially environmentally.

- Frankly we are too slow in considering redevelopment. For example, the 104 corridor has no density at all, and with talks of light rail, the only way to get achieve a goal of light rail is with densities. There are whole chunks of Surrey that could benefit from redevelopment and increased densities. At some point we have to move towards urbanization and redevelopment for a lot of the areas that are right for re-development, the benefits are enormous.

It was Moved by B. Stewart
Seconded by S. VanKeulen
That the Environmental Advisory Committee
invite Don Luymes, Manager, Community Planning Division, to the October EAC
meeting to provide an update of the status of Grandview Heights NCP#4 and how
the EMS interacts with Grandview Heights NCP#4.

Carried

3. EAC 2011 Priority Items and Work Plan

The 2011 Priority Items & Work Plan was provided for review and update, if necessary. No changes were made.

I. NEXT MEETING

The next meeting of the Environmental Advisory Committee will be held on September 28, 2011 at 6:30 p.m., at the Surrey Nature Centre. Location to be confirmed prior to meeting.

J. ADJOURNMENT

It was Moved by G. Sahota
Seconded by K. Keshvani
That the Environmental Advisory Committee
meeting do now adjourn.

Carried

The Environmental Committee adjourned at 9:24 p.m.

Jane Sullivan, City Clerk

Al Schulze, Chair
Surrey Environmental Advisory Committee