



A meeting of the Energy & Environment Advisory Committee was held on May 6, 2021 at 4:00 p.m., electronically.

**Members Present:** Anna Stratton – Vice-Chair Presiding, Councillor Jo-Dee Burbach, Mike Jorna, Sammie Orr, Geoff Krauter, Anita Jacobsen, Vanni Azzano, Emily Skelding, Councillor Bonnie Henderson, Mike Sullivan, \*Craig Merkley

**Staff Present:** Tatiana Dafoe – City Clerk, \*Chris Bantock – Deputy Clerk, Kate Simpson – Waste Reduction Coordinator, \*Johnny Bowes – Manager of Environmental Service, Casey Riehl– Recording Secretary

**Also Present:** \*Scott Knapman, CEO – Festival Hydro

**Regrets:** Emily Chandler

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## MINUTES

### 1.0 Call to Order

Anna Stratton - Vice-Chair, called the meeting to order at 4:00 p.m.

### 2.0 Disclosure of Pecuniary Interest and the General Nature Thereof.

None declared.

### 3.0 Adoption of the Previous Minutes

Motion by Councillor Jo-Dee Burbach, seconded by Mike Jorna

**THAT the minutes from the Energy & Environment Advisory Committee meeting dated April 1, 2020 be adopted as printed. Carried**

### 4.0 Delegate: Johnny Bowes – Manager of Environmental Services, City of Stratford Geothermal Well Alternatives in Stratford

Johnny Bowes, Manager of Environmental Services, discussed with the Committee various

geothermal options that cities can use. He suggested that a representative from the Ontario Geothermal Association attend a future E&E meeting to discuss topics such as the history of geothermal technology, current/future trends and the future state of geothermal initiatives.

Mike Jorna had previously raised the questions about the possibility of ground source heating options being installed during construction projects. Mr. Jorna explained that with ground heat being an excellent option to move away from carbon and also the space required to use geothermal, heat exchange systems located below the road allowance would be a solution. This could be put in when roads were created for new subdivisions, as well as during road construction projects. He inquired if geothermal could be installed, in similar fashion to the drilling being completed by Wightmans, at a level that would serve as a source of heat for homes.

Mr. Bowes explained that there is currently a pilot project being undertaken by a developer in the City of Markham. Essentially, they have constructed a 331 home subdivision with their entire heating and cooling systems fed from a communal geothermal system.

Mr. Bowes noted that there are significant costs to installing geothermal infrastructure as a new utility in existing subdivisions during road reconstruction. It would require a utility provider to be onboard to install the new infrastructure during the road construction process and take on the financial responsibility with the hope that over time residents would connect to the system. This is not an issue for a developer with construction in a new subdivision, all the homes are built at the same time and it is profitable from the start for the developer and the utility provider.

Another issue Stratford would need to take into account is that they are a ground water sourced community, with six well head protection areas surrounding the water sources. Mr. Bowes stated that in 2022 staff hope to include funds in the budget for the purpose of retaining a consultant to complete a study on the potential impact of vertical geothermal wells and their relation to the vulnerability of the ground water aquifers. This would fall under their ground water study that they complete. There are also horizontal geothermal systems available, which only require a depth of approximately 10 ft. Space is required for this, so rural properties are ideal and, in a city setting, large parking lots can utilize this type of well and do not compromise the aquifer.

\*Craig Merkley now present at the meeting at 4:12 p.m.

Mike Jorna stated that in order for Stratford to meet a net zero commitment in the next 30 years, the older part of the city will need to be addressed. He stated the horizontal systems may be a good solution for this. Stratford could be on the forefront by investigating this option and possibly make use of a government grant to help with funding for such a pilot project. He also inquired about closed loops with the vertical systems. Mr. Bowes stated that the main concern with a closed loop vertical system is causing a transport pathway. By drilling down to a certain level, you can possibly interrupt the underground flow.

Councillor Burbach inquired if the Rotary Complex parking lot would be an ideal location for a horizontal geothermal system, as it will be undergoing a reconstruction review. Mr. Bowes concurred that this could potentially be a good location and will reach out to Community Services to discuss this option.

Sammie Orr inquired if there are any emission or environmental factors involved with geothermal. Mr. Bowes stated that geothermal systems for a home require electricity for the heat pump and it is a 5:1 improvement versus fossil fuel. He advised he would provide additional statistics for the committee.

## **5.0 Delegate:** Scott Knapman – CEO, Festival Hydro – Green Initiatives

Scott Knapman, referring to a PowerPoint presentation, provided an overview and background on green initiatives undertaken by Festival Hydro and their affiliate Rhyzome. Festival Hydro participates in the Green Button program, which allows customers to view their meter data and see their consumption and decide where they can make reductions to help conserve energy. Festival Hydro also hosts one of the largest lithium battery storage facilities which currently helps balance the system, with a maximum of 8.8 megawatts capacity. In the future it could be used for load shifting.

Festival Hydro was active in delivering the Conservation and Demand Management Program from 2015-19 and helped reduce consumption by 40.6 GW hours. Some additional green initiatives that Festival Hydro is working towards is encouraging residents to use paperless billing, providing tips on how to conserve energy and reduce consumption, offering a net-metering system for renewable energy. They are currently undergoing an extensive study of their grid to make sure it can accommodate the growth in electrical vehicle charging stations and withstand the load on the system at certain peak times. Festival Hydro also sponsored the successful 2021 Tree Power event.

Mike Sullivan inquired if Festival Hydro has begun planning for the massive change in demand for electricity as homeowners switch from using fossil fuel. Mr. Knapman explained that they are continuously assessing their grid and the load demands and what they will need to upgrade and maintain it. The continuously follow studies so they can be fully prepared for upgrades and changes.

Emily Skelding inquired if many businesses are taking advantage of programs available. Mr. Knapman noted that when they were managing the programs in the past, there was a very good uptake. Now that they do not manage the programs, they have less insight into what programs customers are utilizing. Festival Hydro is always receptive to supporting business customers that want to work towards reducing their energy costs and consumption.

Councillor Henderson inquired if hydro lines are buried in areas where work is being completed. Mr. Knapman stated that all new developments have wires located underground and in the downtown area where it is more densely populated. Otherwise, in most cases above-ground lines are replaced again with above-ground lines, as it is a costly undertaking to bury them and keep rates down.

Councillor Burbach inquired if a geothermal system was installed in a new subdivision, would it interfere at all with other underground utilities. Mr. Knapman stated that the geothermal would be located lower in the ground than the hydro, cable and gas. Councillor Burbach also inquired if Mr. Knapman knew of any Federal funding programs for greening opportunities that may be offered in the future. Mr. Knapman stated that there are some upcoming announcements that will be encouraging for commercial uses, as well as residential.

Sammie Orr inquired if Festival Hydro has a plan for the future on how they are going to increase their renewables or if they have any plans to ask the Provincial Government for change. Mr. Knapman stated that they work very closely with the Ontario Energy Board and Ministry of Energy to continually look at initiatives and policy changes that can help the Province and Festival Hydro. They also continue to work closely with customers to try and conserve. The transportation sector is an area that they are monitoring closely with electric vehicles and transit options.

\*Johnny Bowes, Manager of Environmental Services, departed the meeting at 4:42 p.m.

Mike Jorna inquired if a hydrogen energy initiative is an option that Festival Hydro has investigated. Mr. Knapman stated that hydrogen energy takes a lot of power to produce

and is not very attractive from an energy perspective. It makes more sense to have a renewable energy source available for this to work, such as hooking up to a wind farm. There is a small system currently being used in the City of Markham.

Anna Stratton inquired if solar energy is a viable option right now for residents, without any incentives currently available. Mr. Knapman stated that it certainly is viable and the technology, performance and efficiency of solar panels is always improving. You do need to have a backup for night time, such as Festival Hydro or a battery storage. Economically, it is a challenge, with a long pay back period. He also suggested thermal solar for heating as another option. A good option is to use both.

\*Scott Knapman departed the meeting at 4:58 p.m.

## **6.0 Updates from Carbon Reduction & Ecological Working Groups**

### Ecological Update

Craig Merkley reported that the shoreline work is complete, with a coat of wood chips on the new area. They will plant vegetation, including service berry trees, wildflowers and native grasses along the shore starting next week. He has received a lot of positive and appreciative feedback from landowners whose properties are along the shoreline in that area. He also reported that they have been successful in receiving grant funding from TD Friends of the Environment. This funding will assist with additional planting and upgrading the steps and decking on the south side of the lake.

Vanni Azzano reported that 200 native trees and shrubs have been planted at the dog park where the ash trees had been taken down.

### Carbon Reduction Update

Anna Stratton reported that the Youth Speaks Out Webinar held in April was a success. Information on the webinar was posted on the City's website. The next webinar is being held on May 26, 2021 with Eric Miller from York University, Environment & Urban Change Department. A panel of E&E members will consolidate the questions for the webinar. Councillor Burbach, Geoff Krauter and Emily Skelding have volunteered to sit on the panel. Mike Sullivan will be the host/moderator for this event.

## **7.0 Business Arising from Previous Minutes**

### **(a) 2021 Budget Allocation Discussion**

The Committee discussed upcoming expenses related to the webinars.

Motion by Geoff Krauter, seconded by Mike Sullivan

**THAT the Energy & Environment Advisory Committee spends up to a maximum of \$500.00 on expenses related to the 2021 E&E webinars.  
Carried**

**(b) Update on Anti-Idling By-law – Councillor Burbach/Chris Bantock**

Chris Bantock, Deputy Clerk, prepared and circulated a report recommending changes to the City's Anti-Idling By-law. The report is intended to be considered at the May 26, 2021 Infrastructure, Transportation and Safety Sub-committee meeting. The two revisions to the by-law that are outlined in the report are:

1. Reduce consecutive minutes of idling time from five minutes to one minute, and
2. removal of the temperature exception.

New signs will be ordered for no-idling designated zones in the downtown core and school zones, should the by-law be amended, as well as updating all existing signage. Moving forward, education will be key to get this message out. Mr. Bantock will work with the City's Communications Lead to inform members of the public of the environmental impact of idling. There are anti-idling stickers available and once the lockdown is over, they will be made available throughout City buildings at various counters for people to pick up.

Sammie Orr inquired if provisions will be included to reduce idling of two-stroke engines. Councillor Burbach reported that she completed research to determine if other municipalities had these provisions in their by-law. An example could not be found. She suggested that she could raise the issue when the anti-idling by-law comes to Council for discussion. Chris Bantock explained that staff's decision to not include two-stroke engines in the by-law was that this by-law is specifically a vehicular idling by-law. The revisions addressed were both related to vehicles. He stated that enforcement of two-stroke engine idling would be complicated and the City does not have the resources to enforce it. Councillor Burbach suggested looking at a separate two-stroke anti-idling by-law, separate from the vehicular one, in the future.

Mike Jorna suggested bumper stickers would also be a good option. They could be placed on City vehicles. Members agreed that this would be a good educational piece that the Committee could produce and distribute.

Sammie Orr inquired if residents could be made aware that enforcement of the two-stroke engines could happen, if that would be enough of a deterrent. Anna Stratton stated that the Communications Lead would be working on getting information out regarding idling. Chris Bantock stated that E&E could prepare some draft wording for posts to send to Mike Beitz. Craig Merkley suggested a fact sheet regarding idling could be included with residents' tax bills.

\*Chris Bantock departed the meeting at 5:26 p.m.

**(c) Update on Energy Efficient Building Requirements – Mike Sullivan**

Mike Sullivan noted that the staff report has gone to Sub-committee and it outlined the legalities of what can and cannot be asked of developers. The suggestion was made to offer a subsidy to developers/builders. Mr. Sullivan stated that Stratford will need to appeal to the Provincial and Federal Government for changes to the guidelines that allow Stratford to ask developers to follow certain rules. This review has been deferred to the 2022 budget.

Geoff Krauter inquired about the City of Whitby standards that were discussed at the Sub-committee meeting. Councillor Burbach explained that it is a 4-tiered voluntary system, that over time each tier builds on the one before and gradually becomes a required green development standard. She noted that Stratford is quite small and does not have the in-house staff required to write a report regarding green development standards. Deferring the report to 2022 would allow a consultant to be hired and research what system could work in Stratford.

Mike Sullivan stated that there is Federal funding coming available in the next few years. He suggested that staff should write to ministries to request possible funding.

**(d) Re-Usable Container Program for Stratford – Sammie Orr**

Sammie Orr reported that three restaurants so far have signed on to use the re-usable containers. They are continuing to try and encourage more restaurants to sign on, as well as other options with companies who offer cups or non-plastic containers. The working group is also looking into options for the al fresco dining initiative and adding receptacles to collect the containers. They are planning on doing some presentations to Council, Rotary, etc., to get the word out about this program. They plan to do a media release in the next few weeks.

**(e) Campaign to Reduce Food Waste – Kate Simpson**

Kate Simpson updated the Committee that the Canadian Federation of University Women has produced an educational document regarding food waste. Drawing attention to the issue of possibly purchasing too much food or different ways to use up leftovers.

**8.0 New Business**

**(a) Blue Communities Project – Mike Sullivan**

Mike Sullivan provided information on the Blue Communities Project, a program for municipalities to adopt three points. Water and sanitation are human rights, the phase-out of bottled water in municipal facilities and events and ensure that municipalities are promoting publicly financed owned and operated water and waste-water services. Councillor Henderson reported that on December 14, 2015 the City of Stratford became a Blue Dot Community, which was an initiative of the David Suzuki Foundation. It is very similar to the Blue Communities Project. Anna Stratton suggested adding the Blue Dot information to the City's climate change page. Councillor Henderson will forward the Blue Dot information to Committee members.

**(b) Climate Change Coordinator – Emily Skelding**

Emily Skelding inquired what the status is of fulfilling the Climate Change Coordinator position. Members were advised the Municipality of North Perth is overseeing the recruitment process.

**9.0 Upcoming Events**

- May 26, 2021 – Webinar (Shifting to Neutral)
- June 8, 2021 – Webinar (Invasive Species Control)

**10.0 Date of Next Meeting – June 3, 2021 – 4:00 p.m., electronically.**

**11.0 ADJOURNMENT**

Motion by Mike Jorna, seconded by Sammie Orr

**THAT the May 6, 2021 Energy & Environment Advisory Committee meeting adjourn. Carried**

Meeting Start Time 4:00 P.M.

Meeting End Time: 5:50 P.M.