Cities as Green Leaders™:

A White Paper by Edmonton's Youth

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Overview

On May 15th, 2013 over 200 students from six high schools across the city of Edmonton came together to collaborate through the use of technology in a Virtual Town Hall to discuss how the city can manage its growing carbon footprint. The Virtual Town Hall, called an "archetype of grassroots democracy" by Senator Grant Mitchell, was the culmination of over a month of online teamwork, 1500 hours of student collaboration, over 100 hours of teacher facilitation, and a passion by Edmonton's youth to engage in the municipal climate change debate and have their voices heard. The event was part of a larger initiative called "Cities As Green Leaders"1, whose principal goal is to help young people gain an understanding and appreciation for their city's strategic environmental plan in order to take action for the environment in their communities.

In the month prior to the Virtual Town Hall, student leaders from each school, systematically chosen to represent Edmonton's diverse geographic and demographic population, met on a weekly basis to exchange ideas, listen to experts, and create a common framework upon which their fellow students would be able to identify issues with Edmonton's carbon emissions and recommend a series of initiatives to mitigate them. Concurrently, the students were trained on how to use an arsenal of Web 2.0 tools (Youtube, Twitter, Cell Phone voting, Google Docs, H.323 Video Conference, discussion boards, blogs, etc.) to collaborate, build consensus, and create community regardless of time or location.

Equipped with this knowledge and empowered through 21st century technology, the student leaders facilitated a full day virtual town hall. Students identified existing city priorities, taken from Edmonton's strategic environmental plan (The Way We Green; a component of the city's overall business plan, The Way Ahead), that align with those brought forward by the youth. In the morning, they led 200 of their peers through a dialogue with local and international experts. In the afternoon, the students worked in breakout groups to address three critical questions:

1. What do you feel are the key contributing factors to the city of Edmonton's carbon footprint?
2. Which initiatives do you believe the city of Edmonton should implement in order to help address the key factors?
3. How can the city of Edmonton engage its populace to make this happen? How can we, as Edmonton's youth, engage in action with the city to support such initiatives?

The data collected in response to these questions was synthesized into a survey which was in turn made available to be voted upon by the 6000+ students in the six represented schools.

This document, Cities as Green Leaders (Edmonton): A White Paper by a City's Youth, written by a committee of students, is the direct result of that process. The evolution of the document involved equipping leaders with knowledge and technology, having those leaders facilitate a larger conversation among their peers, taking the data generated to their community at large for feedback and direction, and then synthesizing the results in the student white paper. It represents the voice of thousands of youth, educated in the complexity of cities and climate change, unified through the power of 21st century technology, and sharing a passion to contribute to the dialogue taking place on the future of Edmonton and climate change.

[1] *Developed by Link Communications*

Interpreted Question #1:

How can the city of Edmonton reduce Edmonton's carbon footprint through transportation?

The youth of Edmonton have come together to identify and recommend ways to reduce Edmonton's carbon footprint through the improvement of the city's transportation network. The youth recommend that the municipal government adopt the following strategies:

1. Accelerate the expansion of the Light Rail Transit (LRT) as proposed in the goals of The Way We Move in order to combat rising greenhouse gas (GHG) emissions.
2. Prioritize the creation of a transportation system with bus routes planned to effectively connect neighbourhoods.
3. When planning new neighborhoods or updating existing neighborhoods, redefine transit centers as neighborhood hubs, so that they are integrated into neighborhood life and activities, becoming more appealing to a broader population.

The Way We Green in section 6.5.1 expresses the need to pursue an expansion of the LRT to all sectors of the city. This is a high priority to the youth. The expansion of the LRT will support integration of higher density development with LRT stations. They feel this expansion is vital in reducing GHG emissions by private transportation as well as improving public perception and increasing usage of the LRT. With the LRT being available in all sectors of the city, citizens will have a reliable and more effective way to move, reducing the need for the use of private transportation.

They believe the city should continue to work towards designing an effective, accessible and efficient transportation network as a significant component to the solutions for combating climate change. Buses and the LRT help reduce GHG emissions by encouraging the reduction in single occupant vehicle use (The Way We Green 6.5.6). The current bus system can be improved to encourage more people to use it. Many of the bus routes are inefficient and often take the bus users from large hubs like malls, to smaller hubs, then to their destination (often school, work, or home) rather than going from a large hub straight to their destination. Compact urban development would make it easier to design more effective transit.

Citizens perceive single use bus terminals as uncomfortable, unsafe, and uninviting. They also limit opportunities for additional revenue streams such as leasing income and business taxes. Adding shops and services such as small convenience stores, entertainment spots, or cafés also serves to improve the public perception and allow residents who do not use public transit to support the system. Including more bicycle racks at the transit centers will allow for more convenient access in neighborhoods. With the increased density and activity of the terminals, safety concerns would be reduced, encouraging the public to develop a more positive attitude towards public transportation.

Interpreted Question #2:

How can the city of Edmonton use its building stock and infrastructure to reduce our carbon footprint?

The youth of Edmonton have come together to identify and recommend ways to reduce Edmonton's carbon footprint through the improved use of its building stock and infrastructure. The youth recommend that the municipal government adopt the following strategies:

1. Reduce the consumption of energy sources used in buildings and move towards the development of more sustainable energy supplies.
2. Provide incentives and means for citizens to access greener infrastructure and improvements to existing facilities.
3. Design neighborhoods and industrial locations to provide complementing services within neighborhoods, such as transportation, commerce, and education. These can then be utilized to their full potential by local users and in turn reduce wasted emissions from urban expansion.

Most of the energy used in Edmonton (67%) is consumed in buildings and infrastructure (The Way We Green, Appendix C, p.72). Energy consumption could be reduced in industrial, commercial and residential buildings through using solar panels and possibly wind power as sources of energy. By investing in green infrastructure, buildings would be able to produce and consume their own energy.

Citizens should be encouraged to take part in installing green infrastructure in their personal homes and in other existing facilities, through economic incentives and education (The Way We Green section 6.3.6 to section 6.3.9.) The youth consider this to be a high priority need. It is crucial to enhance green infrastructure in Edmonton because of the significant contribution buildings make to Edmonton's carbon footprint.

The youth of Edmonton would like to see action in regards to transitioning residential buildings' and industrial buildings' energy use from carbon based energy to alternatives such as solar and wind power.

Many commercial, residential and industrial facilities are not energy efficient as a result of neighbourhood and building design. By redesigning neighborhoods and effectively designing new neighbourhoods so that facilities are easily accessible for community members, the city will reduce its overall environmental impact. This will help create an accessible, efficient, and compact urban environment. As a result, GHG emissions will be reduced.

Interpreted Question #3:

How can Edmonton take actions to improve green energy production and consumption to reduce greenhouse gases?

The youth of Edmonton have come together to identify and recommend ways to reduce our carbon footprint by improving green energy consumption and production. The youth recommend that the municipal government implement these strategies:

1. Transition from a heavy reliance on high carbon fossil fuels such as coal to cleaner alternative forms of energy.
2. Provide incentives for users and producers of renewable energy in order to increase demand for these energy sources.
3. Provide a means to address a lack of access and availability of renewable energy to the general public.

The Way We Green clearly outlines a transition from fossil fuels to renewable energy sources in objectives 6.4.2 and 6.4.3 as well as corresponding transition strategies that are best for Edmonton. The youth of Edmonton would like to see these transition strategies implemented city-wide with greater urgency. By further supporting the development and consumption of alternate energy sources, a healthy demand for green energy within Edmonton can be created.

Alternative renewable energy sources can be made more attractive with the use of strategic subsidies or incentives for reducing the reliance on coal and oil that can increase the favorability of renewable energy such as solar and wind power. Increased availability and diversity of subsidies and incentives at both the user and producer levels will accelerate the transition process to using renewable energy.

The youth of Edmonton feel strongly about the use of coal as the predominant energy source. They understand that the province has great influence on the source of energy for cities. The youth of Edmonton comprehend that the city is a significant customer of EPCOR. Over time, the dependency on coal can decrease urgent pressure of the city towards EPCOR and other energy corporations to adapt a new energy plan. They request that the city initiate immediate engagement with EPCOR to transition to renewable energy.

Interpreted Question #4:

How can the city of Edmonton engage the populace to make this happen? How can Edmonton's youth engage in action with the city?

The youth of Edmonton have come together to recommend ways to reduce Edmonton's carbon footprint through the city's improved engagement with its communities. The youth recommend that the municipal government adopt the following strategies:

1. Enrich school curriculums and programs to align with city initiatives such as The Way We Green within the context of the school neighbourhoods.
2. Encourage student-led green programs that engage the community to address unique neighbourhood issues and opportunities.
3. Educate youth on their political power and voice in addition to the resources existing and necessary to empower them.

In order to attain the pre-existing goals in The Way We Green, the youth feel that change can begin in the school environment. The city can work in partnership with the two major school boards to develop classroom activities and learning resources that connect student learning with green initiatives in their individual neighbourhoods and in the city as a whole . This permits the application of knowledge learned in school to a neighbourhood environment. If these resources are not co-created, they will be not be effectively integrated into the schools.

The city can also create programs within key neighbourhood locations in order to expose green solutions to other citizens. This allows citizens to actively engage in solutions to green issues such as climate change. These programs would be built to ensure active involvement of citizens within their community and help the citizens become engaged in the solution through opportunities provided by the program.

Actively involving youth in discussion with city councillors will allow for more transparency as well as youth involvement in our communities and society. A healthy relationship between youth and city councillors can allow much quicker implementation of strategies to address crucial issues such as climate change. Creating online communities with tools such as social media will give the youth a greater voice in policies and practices that affect us at a community scale.

Conclusion

A Personal Note from the Youth

This document reflects the students' opinions of and overall goals for the city of Edmonton to achieve. On behalf of the participating students, we want to be active participants in securing our futures. We want this document to be carefully considered.

We know that Edmonton's Environmental Plan is a high level document, but in a time when some councillors are moving into a municipal election, talking about low taxes for voter appeal, it is also just as important to address and reduce Edmonton's carbon footprint as fast as possible -- 2050 is comfortable because it is so far off.

We, the youth of Edmonton, are a tremendous resource. We want to support the city in taking difficult, complex steps to become low carbon and resilient. We know how to use social media and organize in this political era. Please use us; let us in. We can help you and we will be a powerful ally.

WHITE PAPER – STUDENT WRITING COMMITTEE

Jasper Place: Joyce Chiang,Louis St. Laurent: Amy Mallon, John Johnson, Peter Johnson
Queen Elizabeth: Osama Javid, Vanessa Traub, Zeynep Ozdemir,

2013 JOINT SCIENTIFIC CONGRESS (SASKATOON) – STUDENT DELEGATION

Louis St. Laurent: Amy Mallon, Grade 11 student
Queen Elizabeth: Osama Javid, Grade 10 student

KEY NOTE SPEAKERS – VIRTUAL TOWN HALL

Heather Wheeliker, City of Edmonton, Program Manager, Office of the Environment
Ian Moore, University of Alberta, Alberta Climate Dialogue (ABCD), Energy Transition Dialogues Coordinator
Graham Thomson, Edmonton Journal, Senior Columnist
Dr. Geoff Strong, Atmospheric Scientist

MENTORS

Alicia Baier, M.Sc., University of Alberta, Secondary Education Student
David Dodge, Green Energy Futures
David Kahane, PhD., University of Alberta, Alberta Climate Dialogue (ABCD), Project Director
Don Iveson, Councillor - Ward 10, City of Edmonton
Geoff Strong, PhD., Cities As Green Leaders, Lead Scientist
Heather Wheeliker, City of Edmonton, Program Manager, Office of the Environment
Josh Classen, CTV Edmonton, Chief Meteorologist
Laura-Belle Robinson, Cities As Green Leaders, Community Specialist
Michael Hamm, Frame 30
Sheryel Raymes, Cities As Green Leaders, LINK Communications
Victor Dorian, Cities As Green Leaders, Scientist

PARTICIPATING HIGH SCHOOLS:

School	Lead Teacher	Principal	Trustee (Ward)	City Councillor (Ward)
ECSD				
Holy Trinity	Kevin Myskiw	Catherine Nissen	Laura Thibert (77)	Kerry Diotte (11)
Louis St. Laurent	Zsolt Zombor	Tim Cusack	Marilyn Bergstra (76)	Don Iveson (10)
Oscar Romero	Anna Gomez	David Warawa	Debbie Engle (74)	Karen Liebovici (5)
EPSB				
Amiskwaciy Academy	Laurie Sorensen	Fred Hines	Dave Colburn (D)	Kim Krushell (2)
Jasper Place	Dustin Bajer	Jean Stiles	Christopher Spencer (C)	Linda Sloan (1)
Queen Elizabeth	Terry Godwaldt	Don Blackwell	Cheryl Johner (A)	Tony Caterina (7)

ECSD - EDMONTON CATHOLIC SCHOOL DISTRICT
EPSB - EDMONTON PUBLIC SCHOOL BOARD